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Additional comments /  
Commentaires supplémentaires:

Various pagings.

Sessional paper No. 10C, Dominion Fishery Commission ... starts at page 3.

In Sessional paper No. 10C, Dominion Fishery Commission ... page 239 is  
incorrectly numbered page 339.

In Sessional paper No. 10C\*, Report of the Dominion Fishery Commission ...  
1893 Part II, page iv is incorrectly numbered page v.

# SESSIONAL PAPERS

*ADDENDUM TO VOLUME 7.*

THIRD SESSION OF THE SEVENTH PARLIAMENT

OF THE

DOMINION OF CANADA

SESSION 1893



OTTAWA

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VOLUME XXVI.

REVIEW OF THE REPORT

OF THE

DOMINION FISHERIES COMMISSION

ON THE

FISHERIES IN THE PROVINCE OF ONTARIO

1893-94

Ontario Fishery Commission.



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Ontario Fishery Commission.

REVIEW OF THE REPORT  
OF THE  
DOMINION FISHERY COMMISSION  
ON THE  
FISHERIES OF THE PROVINCE OF ONTARIO.  
1893-94.

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As directed by the Minister of Marine and Fisheries, the following review is submitted on the work of the Dominion Fisheries Commission, appointed to inquire into and report upon the fisheries in the Great Lakes and other waters in the province of Ontario:—

The investigations of the Commission were made during certain periods in the years 1892 and 1893, as will be seen by a reference to the General Report, comprising Parts I. and II., in one volume. See Report.

The more particular scope of the Commission was to obtain information and testimony direct from the practical fishermen and others interested in the fisheries of Ontario, more especially regarding the spawning periods of the more important kinds of fishes which inhabited the waters of the Great Lakes, and to obtain information in relation to gill-nets and other modes of fishing, together with such other matters connected with the fisheries generally, as might be offered during the investigation.

Upon the completion of the work of the Commission, draft regulations were to be drawn up embodying the conclusions and recommendations come to by the Commission.

This has been done by submitting to the department a full report, with a series of regulations relating to "close seasons" for the more important commercial fishes of the lakes. These regulations will be found on page xxx., Part II. of the General Report.

These draft regulations for "close seasons" were framed and recommended by the Commission, after a minute summation and full consideration of the sworn testimony of many practical fishermen, and from information also given by other persons who had been close observers of the habits of fish and fish life in the principal fishing areas in many of the districts of Ontario, comprising Lakes Ontario, Erie, Huron, Superior, St. Clair and Simcoe; including also some of the larger bays and rivers, such as Georgian Bay, Long Point Bay, Bay of Quinté and the Toronto and Hamilton Bays, and Detroit River.

An epitome of the testimony taken regarding the spawning seasons of fishes, is numerically given, from which the Commission founded its recommendations for these close seasons. This abstract will be found in detail on pages vi. vii., and viii., in the General Report, Part II., Division 2. In addition a synopsis of the evidence in detail is given, relating to the spawning times of fishes, from which the epitome was framed, giving the testimony of upwards of one hundred witnesses, with references to their names, and pages in the General Report, all of which will be found on pages xviii. to xxv., Division 4, Part II. of Report.

The "Epitome" and "Synopsis" referred to herewith having been eliminated from the General Report, to give more ready comprehensions of the subjects in their review—than with the necessarily more lengthened perusal of the whole report.

Appended hereto will be found a review of the several subjects treated upon in the General Report, in a condensed form, commencing with the subject of close seasons, with a summary of the evidence relating thereto.

#### CLOSE SEASONS RECOMMENDED.

The following code of regulations was recommended for adoption based upon the evidence obtained from the fishermen examined, as shown in the following epitome, and in the full minutes of evidence appended in this report:—

##### STURGEON.

Between the 15th of May and the 15th of July, both days inclusive.

##### HERRING, WHITEFISH, CISCOES.

Between the 1st November and 30th November, both days inclusive.

##### SALMON-TROUT.

Between the 15th of October and the 30th of November, both days inclusive.

##### PICKEREL (DORÉ.)

Between the 1st of April and the 31st of May, both days inclusive.

##### BLACK BASS.

Between the 10th day of May and the 30th day of June, both days inclusive.

NOTE.—This close season for bass is already established.

##### SPECKLED-TROUT.

Between the 15th day of September and the 31st day of March, both days inclusive.

##### MASKINONGÉ AND PIKE.

Between the 1st day of April and the 15th day of June, both days inclusive.

##### MUDCATS, BULLPOUTS, CATFISH.

Between the 1st day of May and the 31st day of August, both days inclusive.

#### ABRIDGMENT OF EVIDENCE RELATING TO CLOSE SEASONS.

##### CLOSE SEASONS—EVIDENCE OF.

Based upon the general evidence contained in Parts I. and II. of the report certain close seasons for the several descriptions of fish were recommended as being well adapted for their protection at their spawning times. The conclusions were come to from the epitome of the evidence herewith, which gives numerical data in relation to the amount of evidence given in each case, as to the periods in which each of the species of fish named were engaged in their spawning operations.

This epitome of the evidence regarding the periods in which the several kinds of fishes deposit their eggs, is here given to substantiate the suggestions which were offered for the adoption of certain close seasons, as asked for in the letter of instructions of 29th September, 1892.

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## *Close Season for Sturgeon.*

Of the eleven witnesses who gave testimony with regard to sturgeon spawning, there were:—

4	gave the period between the 15th June and 15th July.
3	do to be in June alone.
3	do do July do
1	do do May do

The Order in Council of 5th May, 1891, which was suspended for the time, established the close season for sturgeon between the 15th May and 15th July.

If it be considered advisable to re-establish this Order in Council it would be correct for covering the spawning time of sturgeon.

If on the other hand any change be considered necessary, then an Order in Council might be framed for the close season of sturgeon between the 1st of May and 15th of July.

## *Close Season for Herring.*

Of the fifty witnesses who gave testimony with regard to the periods in which herrings spawn, the times are as follows:—

42	gave the period for the month of November only.
4	do November and December.
1	do November and January.
1	do November and February.
1	do October and November.
1	do during winter.

The Order in Council of 22nd September, 1891, which was suspended for the time, established the close season for herrings between the 15th of October and 30th of November. The date of the 15th of October was then fixed to correspond with the close season for salmon-trout and whitefish established by Order in Council of 29th of September, 1891, it being considered advisable that the same period, 15th of October to 30th November, should take in these three descriptions of the salmonoid family, whose characters and habits were very similar; more especially as the one could not be fished for without taking some of the others.

The herring are becoming a very valuable fish for domestic uses and commerce, and are therefore entitled to receive thorough protection at their spawning time, else their final extermination will sooner or later be reached in like manner as experience has shown the same result in other cases.

The protection of the herring family will be found to be more far-reaching in its beneficial results than the mere application of such protection for the maintenance of the herring itself for domestic and commercial uses. The herring is the staple food for the sustenance of many other and larger kinds of fishes, which, if cut off or lessened, will materially affect the growth and condition of the salmon-trout, pickerel and other voracious species which invariably frequent the same waters as the herring.

Under such circumstances it was recommended that the close season for herring should be established to cover its breeding time, which is so conclusively shown to be during the whole month of November by the evidence referred to, as well as by former recommendations from officials in the department.

## *Close Season for Whitefish.*

Of the 104 witnesses who were examined and gave testimony in relation to the spawning times of whitefish, taken in the waters of Lake Erie at Port Dover, St. Thomas, Leamington and Detroit River; and of Lake Huron at Sarnia, Goderich, Southampton; and of the Georgian Bay, at Owen Sound, Meaford, Midland; and of Lake Superior and north channel of Lake Huron, at Port Arthur, Thessalon, Gore Bay,

Killarney, Sault Ste. Marie ; and of the Bay of Quinté, at Belleville, Napanee and Hay Bay,

93	gave the spawning time to cover the month of November.		
7	do	do	parts of October and November.
3	do	do	do November and December.
1	do	do	to take place in October only.

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The close season as at present established by Order in Council, for protecting whitefish at the spawning time, is from the 1st to the 30th November, both days inclusive.

It will therefore appear from the mass of evidence given, and from former recommendations, that the month of November has been properly chosen for the close season for whitefish, and should be continued ; with the further recommendation that the month of November should be set aside to include whitefish, herring and ciscoes.

*Close Season for Salmon-Trout.*

There were sixty-five persons who gave evidence as to the spawning times of salmon-trout, they were fishermen and dealers in fish hailing from the following fishing centres on Lakes Huron, Superior, Ontario, Simcoe and the Georgian Bay, namely : At Sarnia, Goderich, Southampton, Owen Sound, Meaford, Collingwood, Midland, Barrie, Hamilton, Toronto, Belleville, Napanee, Port Arthur, Thessalon, Gore Bay, Killarney, and Sault Ste. Marie. Of these sixty-five witnesses, the evidence was that

31	gave the spawning time between 15th and 31st October.		
26	do	do	15th October and 10th November.
7	do	do	for the month of November.
1	do	do	for the month of September.

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The Order in Council of 29th September, 1891, which was suspended for the time, established the close season for salmon-trout between the 15th October and 30th November, both days inclusive.

The close season at present in force for salmon-trout under Consolidated Orders in Council for Ontario of 18th July, 1889, is between the 1st and 30th November, both days inclusive.

This Order in Council is evidently incorrect and useless for the protection of salmon-trout at their spawning time, as is clearly shown by the evidence of the fishermen themselves and by previous recommendations, that the actual spawning time of salmon-trout is almost wholly from the 15th to the 31st of October, and in some cases running on till the 10th of November.

From this it will appear that for many years past, and prior to the Order in Council of 18th July, 1894, there has been no proper close season whatever to cover the spawning time of the salmon-trout, which stands second to none other of the commercial fishes of the great lakes of Ontario ; and the fishermen have been killing this valuable fish indiscriminately at the very time when they were most busily engaged in laying their eggs ; and from this cause may be reasonably attributed the great falling off in the general catch of salmon-trout in localities where they were formerly very numerous.

From the evidence as shown and the views above enunciated, it would appear to be wise to have the Order in Council of 29th September, 1891, now under suspension, re-established, making the close season for salmon-trout between the 15th October and 30th November, both days inclusive, in order that this highly esteemed fish shall receive proper protection during the spawning time.



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## *Close Season for Pickerel.*

Of the thirty-five fishermen who gave testimony in relation to the spawning times of pickerel ("doré") in many of the principal waters of Ontario, the following was the result :

24	gave the spawning time to cover the month of April.		
7	do	do	May.
4	do	do	April and May.
<hr/>			
35			

The present close season for pickerel ("doré"), as established by Order in Council, is between the 15th of April and the 15th of May.

This Order in Council does not take in a sufficiently early period, for pickerel commence their spawning operations, as stated by some of the evidence very correctly, "just as soon as the ice breaks up." In order then to meet this case, the close season should commence for pickerel ("doré") on the 1st April and end on the 15th May.

## *Close Season for Bass.*

The present close season, established May 13th, 1893, for the protection of bass at the spawning times, is between the 10th of May and 30th of June, both days inclusive. This appears to be the proper close time for these fish, and should so remain.

## *Close Season for Mudcats, Bullpouts, Catfish.*

This hitherto somewhat despised fish has of late years come into great demand for the American markets, and the mudcat fisheries have in many localities reached considerable magnitude and commercial importance.

This class of fishes have not hitherto received any consideration or protection during their spawning times. The general opinion given by those fishermen engaged in this description of fishing was, as shown by their evidence, that with the view to a maintenance of the mudcat industry a close season should be established for their protection at their spawning time. The weight of evidence went to show that a close season for mudcats, or mudpouts, or bullheads, commonly called catfish (which are all one and the same fish) should be fixed between the 1st of May and the 31st of August in each year ; as during this period these fish are either nesting, laying their eggs, or guarding their broods of young ; and it was agreed by all fishermen engaged in the mudcat business that these fish at this time were unwholesome and unfit for human food.

It is therefore recommended that the close season for mudcats be established by Order in Council between the 1st May and 31st August, both days inclusive.

## SUMMARY OF ALL EVIDENCE

Given by Witnesses showing the names and pages on which the testimony is given in full, relating to Close Seasons for spawning times of Fishes ; from which the Epitome was drawn, and the Draft regulations for Close Seasons recommended.

NOTE.—*The figures in parentheses denote the pages in Parts I. and II. of the General Report where the full testimony is recorded :*

## SPAWNING SEASONS.

This synopsis of the evidence given by the fishermen and others in relation to the spawning times of fishes is collected from the minutes of proceedings, taken in November and December, 1892, also in October and November, 1893.

## PART I.

## LAKE ERIE—PORT DOVER.

*W. H. Ansley.*—Whitefish, ripe in November; herring, 15th November to 15th December; sturgeon June and July (p. 3, pt. I.)

*Frank Jackson.*—Whitefish, 15th October to 1st December; herring, June and February; bass, between 1st and 15th June (p. 6, pt. I.)

*Captain E. S. Allen.*—Whitefish, 1st to 10th November; herring, later on; bass in June; pickerel in April (p. 11, pt. I.)

*W. F. Tibbits.*—Herring spawn in winter, whitefish end of November. (p. 14, pt. I.)

*David Low.*—Whitefish in November (p. 15, pt. I.)

*James Low.*—Whitefish, 10th to 15th November (p. 16, pt. I.)

## ST. THOMAS.

*C. C. Bates.*—Whitefish and herring in November (p. 17, pt. I.)

*William Cudney.*—Whitefish and herring in November (p. 20, pt. I.)

*A. C. Brown.*—Whitefish, latter part of November; pickerel in April (p. 21, pt. I.)

*W. G. Emery.*—Whitefish and herring spawn in November; blue pickerel in April and May (p. 23, pt. I.)

*Daniel Lang.*—Whitefish, 10th November till 1st December; herring, end November till January; pickerel in April (p. 25, pt. I.)

*William Backhouse.*—Whitefish, end of November; herring the same; blue and yellow pickerel in March and April, according to season; sturgeon spawn chiefly in July and June (p. 26, pt. I.)

*Henry Swan.*—Whitefish latter part of October and in November; herring the same; blue and yellow pickerel in April (p. 28, pt. I.)

*John Ellison.*—Whitefish, 15th to 20th November; herring later, until January; pickerel spawn in April (p. 29, pt. I.)

## LEAMINGTON, ESSEX COAST.

*W. H. Black.*—Whitefish and herring, 15th November; pickerel March or April (p. 32, I.)

*W. D. Bates.*—Whitefish and herring are in the height of spawning 25th November; bass 24th May to 15th June. (p. 34, pt. I.)

*Ira Loop.*—Whitefish, 20th November to 1st December; herring same; sturgeon 20th June to 1st July; bass same. (p. 36, pt. I.)

*Gilbert DeLaurier.*—Whitefish commence 15th November; herring the same; sturgeon early in July; pickerel end of March or early in April. (p. 47, pt. I.)

*William Grubb.*—Whitefish 20th to 30th November; herring the same. (p. 40, pt. I.)

*Philip DeLaurier.*—Bass spawn 20th June through July. (p. 41, pt. I.)

*Henry Hébert.*—Whitefish 18th November or earlier; sturgeon in May. (p. 42, pt. I.)

*Henry Smith.*—Black bass spawn 1st June through July. (p. 45, pt. I.)

*John DeLaurier.*—Whitefish 18th to 26th November and before and after; herring, October and November; black bass 1st June; pickerel in May; sturgeon in June. (p. 47, pt. I.)

## DETROIT RIVER.

*Noah Jolie.*—Whitefish, 15th November; some after, some before; herring later than whitefish; sturgeon, in spring; spawn mostly in June. (p. 51, pt. I.)

*Remi Laframboise.*—Whitefish in November. (p. 54, pt. I.)

*Daniel Meloche.*—Whitefish, 12th to 20th November. (p. 57, pt. I.)

*J. W. Post.*—Whitefish, 20th November. Herring 13th to 17th November, and on to December; pickerel as soon as ice leaves; maskinongé in spring; sturgeon more freely in June and July. (p. 61, pt. I.)

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*John A. Burton.*—Whitefish 1st November ; herring later ; sturgeon latter part of July ; pickerel done by 1st April. (p. 67, pt. I.)

*Joseph Meloche.*—Whitefish commence to run up Detroit River 10th October ; spawn in November ; herring spawn same time as whitefish. (p. 69, pt. I.)

*Joseph Allen.*—Whitefish, 10th November ; some before, greater part after. The bulk from 18th to 20th November ; herring the latter part of November ; sturgeon particularly in June. (p. 71, pt. I.)

*Charles Gauthier.*—Bulk of sturgeon spawn 15th June to 15th July ; whitefish from 1st November ; herring, later. (p. 74, pt. I.)

### LAKE HURON.

#### *Sarnia.*

*Marquis A. Hitchcock.*—Pickerel, 15th April ; herring, ripe in November and December ; sturgeon in July. (p. 80, pt. I.)

*John Lang.*—Salmon-trout in November, ripe latter part of October ; whitefish in November ; herring, October and November, spawned out in November. (p. 85, pt. I.)

### GODERICH.

*John Cragie.*—Whitefish, 10th November ; salmon-trout, 1st November. (p. 89, pt. I.)

*James Clarke.*—Salmon-trout, beginning of November, some earlier ; big trout 15th October ; whitefish in November. (pp. 97 and 123, pt. I.)

*Capt. James Inkster.*—Salmon-trout from September until November ; herring from 15th November until 15th December. (p. 106, pt. I.)

*H. W. Ball.*—Herring, 1st November till December ; pickerel done by 15th May bass done by 15th June ; salmon-trout ripe 27th October ; whitefish ten days later. (p. 113, pt. I.)

*Malcolm McDonald.*—Whitefish, 15th to 20th November ; salmon-trout, earlier. (p. 118, pt. I.)

### SOUTHAMPTON EVIDENCE.

*Donald McCauley.*—Salmon-trout come in to spawn through October, and earlier, and later about 15th October ; and spawn to 8th or 10th November ; whitefish spawn all through November. (p. 128, pt. I.)

*Malcolm McKenzie.*—Whitefish and salmon-trout spawn all through November. (p. 135, pt. I.)

*Daniel McCauley.*—Salmon-trout in November ; whitefish later in November. (p. 143, pt. I.)

*Finlay McLennan.*—Herring in latter part of October and November. (p. 147, pt. I.)

*Dougal McAuley.*—Salmon-trout, 10th November ; whitefish later in November. (p. 152, pt. I.)

### GEORGIAN BAY.

#### *Owen Sound Evidence.*

*Captain Dunn.*—Salmon-trout latter part of October and in November ; whitefish later in November. (p. 161, pt. I.)

*James Telford.*—Whitefish and salmon-trout spawn end of October. (p. 162, pt. I.)

*Robert McKnight.*—Whitefish throughout November. (p. 164, pt. I.)

*John McKenzie.*—Salmon-trout, 15th September to 15th October. (p. 166, pt. I.)

*James Pilgrim.*—Salmon-trout, ripest time 10th November ; whitefish, 20th November to 1st December. (p. 166, pt. I.)

*Gilbert Peter McIntosh.*—Salmon-trout and whitefish spawn 10th November, the hottest time. (p. 172, pt. I.)

- Adam H. Stephen.*—Salmon-trout, 28th October to 5th November ; whitefish, 20th November through December. (p. 176, pt. I.)  
*John Nelson.*—Salmon-trout, first run 1st October to 20th October (p. 178, pt. I.)  
*John McCrae.*—Salmon-trout, 20th to 25th October. (p. 186, pt. I.)  
*Alexander McPhee.*—Speckled-trout, some as early as September. (p. 267, pt. I.)

## BARRIE.

*John Hines.*—Salmon-trout ripest 1st October ; close season for salmon-trout and whitefish should begin 1st October ; brook-trout, 1st September. (p. 276, pt. I.)

## MIDLAND EVIDENCE.

*Albert Hutchins.*—Whitefish, heat of spawning 15th to 20th November, congregate about 20th October ; salmon-trout, end of October. (p. 227, pt. I.)

*Charles W. Phillips.*—Catfish spawn in June ; close season should be 15th May to 1st September ; maskinongé spawn a little later than pike ; bass, 15th June to 15th July ; pickerel in May ; salmon-trout, 1st to 15th November ; whitefish, same time. (p. 229, pt. I.)

*Samuel Fraser.*—Salmon-trout, 15th October to 15th November ; bass in May and June, also maskinongé ; herring largely in November, about the same as whitefish, which spawn later than salmon-trout ; pickerel in April, as soon as the ice breaks up ; mud-pouts in June. (p. 231, pt. I.)

*J. A. Smith.*—Salmon-trout, 15th to 20th October, on into November ; large black trout ripest 10th to 12th October ; pot-guts about the same, but spawn in deeper water, not on the shoals ; whitefish ripest 10th to 12th November ; a little later than salmon-trout and take longer to spawn ; herring in November ; bass in April and May and on into June, they guard their spawning beds and young in June and July ; pike and maskinongé, middle of April to middle of May. (p. 235, pt. I.)

*Frank Bonter.*—Bull-heads in June ; pickerel from 15th to end of April ; pike earlier ; bass in June ; suckers and mullet early in spring up the rivers and streams. (p. 239, pt. I.)

*John Yates.*—The male salmon-trout come on 18th to 20th October, females follow, 25th October, the month of November would only cover ten days of their spawning time ; whitefish, 8th to 9th November, done spawning 15th to 20th, they spawn very quickly ; black bass, 1st to 10th June, and watch their nests for two weeks. (p. 241, pt. I.)

*Captain Whartman.*—Salmon-trout, 20th October to 5th November ; whitefish, 1st to 20th November, ripest 10th to 12th November, with variations of five days, according to locality ; herring spawn later ; pickerel, 20th to 25th April ; pike earlier ; bass in May and June, the bulk 15th June, and then watch their young fry ; mud-pouts in June, they also watch their young. (p. 244, pt. I.)

*William Hodgins.*—Salmon-trout ripest 25th October to 10th November ; whitefish, 10th to 25th November, but both species spawn earlier and later ; pickerel, April and May ; bass, May and June. (p. 247, pt. I.)

*W. W. Church.*—Salmon-trout 20th to 30th October, some later ; whitefish ten days later ; herring, 10th to 20th November ; same dates for Lake Ontario ; pickerel in Lake Ontario from 25th April to 10th May ; bass in June ; pike in April ; maskinongé, 10th May ; catfish in June (p. 250, pt. I.)

*W. Gerow.*—Salmon-trout in Lake Superior come in to spawn 10th September, and on south shore of the Georgian Bay, 19th October ; north shore about the same ; they remain about fifteen days and then leave the shore ; in Lake Superior they have done spawning by 20th October, and in the Georgian Bay about 1st November ; no spawning of any account is done by salmon-trout after 1st November. Whitefish come to the shore to spawn about 1st November in Georgian Bay, and remain ten to fifteen days, some spawn before, some after ; herring spawn in November ; black bass in June ; pickerel between 25th May and 1st June ; catfish in June. (p. 255, pt. I.)

*Joseph Cunningham.*—Whitefish gather on the shoals to spawn in November ; ripest 10th to 15th ; salmon-trout come in latter part of October and through Novem-

## Ontario Fishery Commission.

ber; ripest about 1st November; herring throughout November; black bass in May and June; pickerel in April and May. (p. 257, pt. I.)

*Archibald Campbell.*—Salmon-trout begin to work towards the shore to spawn 25th October, ripest 1st November; best catch 15th November; whitefish come on 10th November; they take less time to spawn than trout, and spawn principally between 15th and 20th November; ripest 10th to 15th, and then leave for deep water; herring spawn in November; pickerel in early spring; bass in May and June. (p. 259, pt. I.)

### LAKE ONTARIO.

#### *Hamilton Evidence, Burlington Bay.*

*Daniel McGwyn.*—Herring spawn 18th to 27th November; ciscoes, 25th December to 15th January; salmon-trout, middle of October to 30th November; whitefish about the same; bass in May and June. (p. 203, pt. I.)

*William Depew.*—Herring spawn from 22nd November to 1st December, perhaps a little longer; ciscoes, latter part of January and in February; whitefish and salmon-trout spawn in November; bass in June; proper season for herring, 15th November to 1st December. (p. 308, pt. I.)

*Jonathan Corey.*—Herring latter part of November. (p. 311, pt. I.)

*Frederick Corey.*—Salmon-trout in October; pickerel, March and April; whitefish, 20th November to 10th December; herring the same; bass, 1st June; ciscoes, December till April; catfish, end of May and in June. (p. 320, pt. I.)

## PART II.

### BAY OF QUINTÉ.

*Daniel Bellknap.*—Says whitefish spawn from 1st to 15 November; bullheads in June and July; bass also spawn in June. (p. 7, pt. II.)

*Peter Weese.*—Whitefish come into the bay and spawn in November; herring spawn about the end of November; pickerel and mudpouts spawn in May; pike and bass spawn in June. (p. 7, pt. II.)

*Wesley Weese.*—Whitefish spawn from 1st to 10th November; herring spawn later; pike as soon as ice leaves; pickerel in May; mudpouts spawn in June. (p. 9, pt. II.)

*Robert McDonald.*—Whitefish spawn freely 1st to 10th November; herring come in after whitefish. (p. 12, pt. II.)

*George McDonald.*—Whitefish spawn 1st to 10th November. (p. 13, pt. II.)

*Samuel Geddes.*—Whitefish spawn 1st to 10th November. (p. 13, pt. II.)

*Nicholas McDonald.*—Whitefish spawn 1st to 10th November; herring, should have no close season. (p. 17, pt. II.)

*David Gerow.*—Whitefish spawn 1st to 10th November; herring spawn after the whitefish; pickerel as soon as ice leaves. (p. 17, pt. II.)

*William Black.*—Whitefish spawn 10th November, some earlier, some later; pickerel spawn in May; bass in June. (p. 22, pt. II.)

*Thomas McDonald.*—Whitefish spawn 1st to 30th November. (p. 26, pt. II.)

*James Pollard.*—Whitefish come into the bay 1st October, and remain till 30th November, when done spawning; herring come to spawn in November. (p. 32, pt. II.)

*Seth Benson.*—Whitefish come up the bay, and leave about 15th November after spawning. (p. 37, pt. II.)

*Nelson Instant.*—Whitefish and salmon-trout should not be caught going to or from their spawning grounds. (p. 40, pt. II.)

*Thos. Howard.*—Whitefish should not be caught in spawning time; the present close season (of November) is right. (p. 32, pt. II.)

*George Lindsay.*—Mudcats spawn in June. (p. 42, pt. II.)

*Thomas Vanorder.*—Whitefish spawn about 15th November, are done about 25th November; salmon-trout the same; pickerel as soon as ice leaves. (p. 45, pt. II.)

*Milo Parks.*—Killing whitefish at spawning times has much to do with their reduced numbers at present time. (p. 48, pt. II.)

## LAKE SUPERIOR.

*Port Arthur.*

*W. C. Dobbie.*—Salmon-trout spawn 15th October to 10th November; whitefish from 25th October to 10th November. (p. 50, pt. II.)

*John Maloney.*—Salmon-trout, 20th September to 30th October; whitefish from 20th October to 20th November. (p. 55, pt. II.)

*Henry Servais.*—Salmon-trout spawn 10th October to 31st October; sturgeon spawn in June; herring in November. (p. 59, pt. II.)

*E. N. Nuttall.*—Salmon-trout spawn 15th to 30th October; whitefish from 20th October to 15th November. (p. 58, pt. II.)

*J. R. Walker.*—Whitefish spawn in November. (p. 73, pt. II.)

## LAKE HURON—NORTH CHANNEL.

*Thessalon.*

*Thomas Strain.*—Whitefish spawn 15th November to 15th December; salmon-trout spawn in October. (p. 77, pt. II.)

*Laurie King.*—No close season wanted. (p. 78, pt. II.)

*James B. Dobbie.*—Whitefish spawn middle of November; some earlier, some later; salmon-trout middle of October. (p. 79, pt. II.)

*John Sullivan.*—Whitefish spawn about 15th November to 25th; salmon-trout from 15th to 30th October. (p. 80, pt. II.)

*David Bellerose.*—Whitefish spawn middle of November; salmon-trout latter part of October. (p. 82, pt. II.)

*Stephen Fourchette.*—Whitefish spawn from 1st to 15th November; salmon-trout from 1st to 30th October. (p. 83, pt. II.)

*Abraham King.*—There should be no close seasons. (p. 85, pt. II.)

*Gore Bay.*

*Wm. W. Holden.*—Whitefish spawn in November; salmon-trout from 5th to 25th November; sometimes in October. (p. 86, pt. II.)

*Angus Matthewman.*—No close season required. (p. 87, part 2.)

*John Lapointe.*—Whitefish always spawn in November; salmon-trout from 15th to 30th October. (p. 89, part II.)

*James Purvis.*—Whitefish spawn from 10th to 28th November; salmon-trout end of October and beginning of November. (p. 90, pt. II.)

*James Noble.*—Whitefish spawn in November; salmon-trout spawn earlier. (p. 92, pt. II.)

*Killarney*

*Thomas Boynton.*—Whitefish spawn 8th to 20th November; salmon-trout from 25th October to 15th November; pickerel from 15th April to 15th May; herring in November; bass spawn in June. (p. 94, pt. II.)

*Ned Fourcheau.*—Whitefish, month of November; salmon-trout spawn earlier. (p. 95, pt. II.)

*James Noble.*—Whitefish spawn in November; salmon-trout from 15th October to 20th November; herring in November. (p. 97, pt. II.)

*Nelson Harman.*—Whitefish spawn from 11th to 25th November should be the whole of November; salmon-trout from 15th October till November; pickerel 15th April. (p. 100, pt. II.)

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*George Larouche.*—Whitefish spawn 17th to 20th November; some earlier, some later; salmon-trout, 15th to 20th October; pickerel from April to June. Herring should be protected. (p. 104, pt. II.)

*Joseph Rocque.*—Whitefish spawn early in November; salmon-trout about a week earlier; pickerel spawn in April; bass spawn in June; herring spawn same as whitefish. (p. 105, pt. II.)

*Adolphus Martin.*—Whitefish spawn about 5th November; salmon-trout about two weeks earlier; pickerel from 25th April to May. (p. 107, pt. II.)

### SAULT STE. MARIE.

*Nelson Couture.*—Whitefish spawn from 1st to 15th November, some earlier, some later; salmon-trout from 20th October to 10th November; pickerel spawn about 15th April to 15th May. (p. 110, pt. II.)

*William Kimball.*—Whitefish spawn 10th to 20th November; some earlier, some later; salmon-trout, 15th to 25th October; some earlier, some later; herring spawn in November. (p. 112, pt. II.)

*Joseph Gauley.*—Whitefish spawn from 5th to 20th December; some spawn 20th to 30th November; salmon-trout and whitefish close season should be from 15th November to 1st January. (p. 114, pt. II.)

*Angus McLeod.*—Salmon-trout spawn 1st to 30th November; whitefish, same. (p. 117, pt. II.)

*James Garratt.*—Whitefish spawn 20th November; some earlier, some later; salmon-trout, somewhat earlier. (p. 118, pt. II.)

*William McLeod.*—Salmon-trout in September and October. (p. 121, pt. II.)

*Thomas H. Rethanay.*—Whitefish spawn end of October and in November; salmon-trout begin to spawn 15th October. (p. 112, pt. II.)

*James Gauley.*—Whitefish begin to spawn 25th November and on till 10th December; salmon-trout, some begin 25th October and end 5th November. (p. 124, pt. II.)

*Michael Neville.*—Whitefish are ripe from 25th November to 20th December; salmon-trout are ripe 25th September. (p. 125, pt. II.)

*Frank Scott.*—Whitefish come to spawn 18th November till 12th December; salmon-trout begin 5th October, and last three weeks. (p. 126, pt. II.)

*James Glanville.*—Whitefish spawn all through November; salmon-trout from 15th to 31st October; pickerel spawn 1st May. (p. 127, pt. II.)

*Peter Calgiosie (Indian).*—Whitefish spawn whole of November; salmon-trout begin 15th October and on till 15th November. (p. 129, pt. II.)

### MESHES OF GILL-NETS.

Another matter referred to the Commission was to inquire into the sizes of the meshes of gill-nets, &c.

On this subject a large amount of testimony was obtained from fishermen and other persons interested. It was found that a diversity of opinion existed amongst fishermen; but where an independent and intelligent disposition was shown by persons who were desirous of maintaining the fisheries and upholding the fishing industry in which they were engaged, it was admitted that the meshes of gill and other nets were too small and had resulted in the destruction of vast numbers of undersized and immature fish. Evidence was given (p. 172, Part I. of Report) that the reducing of the size of the gill-net mesh under the "Fisheries Act" from 5 inches to 4½ and 4 inches, had resulted most disastrously to the salmon-trout and whitefish fisheries in the lakes. By the use of this reduced-sized mesh, the standard of the fish had become lowered in the markets, both as regarding quality and price. In addition to this there was an evident falling off (p. 233, Part I.) in the quantities to be taken from the catch of former years.

The conclusion arrived at by the Commission regarding the mesh of gill-nets was as is shown in the Report, Part II., page xxxi. in division 8—which is repeated here for more ready reference in this Review—as follows :—

“Further evidence had been obtained from practical fishermen and fish dealers relating to  $4\frac{1}{2}$ -inch extension mesh used in gill-nets for capturing white fish and salmon-trout. This evidence may be condensed as follows :—

“Should the present  $4\frac{1}{2}$ -inch mesh be enlarged in size, a number of fishermen will be somewhat affected by it, in consequence of *not being permitted to catch the smaller, under-sized and immature fish* : and on the other hand unless the  $4\frac{1}{2}$ -inch mesh is condemned and the 5-inch mesh re-established as the regular minimum size, *whitefish and salmon-trout will in a few years become extinct, and the public will be deprived of that valuable fish food.*”

The arguments in favour of re-establishing the former 5-inch mesh limit are very strong, if the consideration be in the line of conserving the salmon-trout and whitefish fisheries of the great lakes.

It will be observed that a large number of fishermen, when giving their testimony, stated that, since the lowering of the size of the gill-net mesh to  $4\frac{1}{2}$  from 5 inches, a marked falling off had been experienced in the size of the fish which were put on the market, and it was also held by many that the quantity and quality of the fish had also been lowered—from the fact of such great numbers of small, undersized and immature fish which had been taken in these reduced meshes.

These smaller sized fish being more tender and delicate in their nature than the larger and more matured ones, do not stand the packing and shipping process nearly so well ; the result of which is that the smaller fish have to pass as number 2, with a consequent reduced price in the market.

Not only does the fisherman experience this direct loss in the value of the fish he captures, but he is also by the use of this small mesh, catching and destroying very great numbers of undersized trout, and whitefish which are immature, and therefore non-productive for the maintenance of their species ; whereas by the use of the 5-inch mesh many thousands of these smaller fish would, by getting another year's growth, attain the necessary size, and reach maturity for laying *millions upon millions of eggs*, by which the fisheries would be husbanded in a very much greater degree than can possibly be the case from the use of this  $4\frac{1}{2}$ -inch mesh, which the fishermen themselves say “has brought down the quality, quantity and size of the fish now taken, as compared with former years.”

The following condensed testimony of witnesses, with their names, and pages, is given in support of *re-establishing the 5-inch mesh for gill-nets for trout and whitefish.*

#### SUMMARY OF THE EVIDENCE.

As to the number of fishermen using and recommending the size of meshes in gill-nets is as follows :—

For the  $4\frac{1}{2}$ -inch mesh 48 used or recommended it ; for the  $4\frac{3}{4}$ -inch mesh 22 used or recommended it ; for the 5-inch mesh 34 used or recommended it ; for the  $5\frac{1}{2}$ -inch mesh 18 used or recommended it ; for the 6-inch mesh 17 used or recommended it ; for the 7-inch mesh 3 used or recommended it.

The following were some of the remarks made by some of the substantial fishermen :—

“Now use  $4\frac{1}{2}$ -inch mesh, formerly  $4\frac{3}{4}$ -inch ; 5 to  $5\frac{1}{2}$  for fall fishing.” (p. 96, pt. I.)

“Last two years used  $4\frac{1}{2}$ -inch, before that 5-inch and  $4\frac{3}{4}$ -inch.” (p. 106, pt. I.)

“The 5-inch mesh should be the standard for whitefish and trout.” (p. 163, pt. I.)

“The  $4\frac{1}{2}$ -inch mesh is too small, 5-inch should be adopted—the  $4\frac{1}{2}$ -inch has reduced the quantity and quality of fish, it catches too many small immature fish.” (p. 172, pt. I.)

“Never uses less than  $4\frac{1}{2}$ -inch mesh.”

“There should be a uniform mesh of not less than 5 inches.” (p. 178, pt. I.)

“The reduction of mesh from 5 inches to  $4\frac{1}{2}$  was not beneficial to the fishery because it took fish before they were mature.” (p. 209, pt. I.)



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"Do not like the small mesh, uses 6-inch mesh; the 4 and 4½-inch mesh is injurious to fishermen and fish dealers, and destroys too many small fish before maturity." (p. 227, pt. I.)

"There should not be less than 5-inch mesh, the decline is caused by too small meshes." (p. 230, pt. I.)

"The regulation mesh should not be less than 5-inch; the falling off is caused by too small meshes." (p. 233, pt. I.)

"The size of the mesh for salmon-trout and whitefish should be 5½ to 6 inches." (p. 236, pt. I.)

"The 4½-inch mesh takes too many small fish, should be 5 to 5½." (p. 241, pt. I.)

"Uses 4½ to 6-inch mesh, the 6-inch mesh pays best." (p. 257, pt. I.)

"Uses 4½-inch mesh for small fishing, and 6-inch for fall fishing." (p. 259, pt. I.)

"The 4½-inch mesh is used, but it should be 5-inch, a less size will take immature fish, both trout and whitefish; less than 5 inches takes a great many No. 2 fish, which sells for half the price of No. 1 fish." (p. 261, part I.)

"A 5-inch mesh should be used to keep up the fishing, under that will kill immature fish." (p. 262, pt. I.)

"Quantities of small fish are brought to the market caught with too small meshes in nets." (p. 290, pt. I.)

"The 4½-inch mesh is too small, it catches half grown fish before they are mature; 4¾ or 5-inch is right size mesh." (p. 293, pt. I.)

"The mesh should be nothing less than 5 inches, the 4½-inch meshes catches too small fish to be marketable." (p. 298, pt. I.)

"The mesh is too small, many small fish come from Lake Superior fishermen." (p. 316, part I.)

"The mesh was reduced from 5 inches to 4½ and now takes the smaller fish." (p. 97, pt. II.)

"Fishes a large 5-inch mesh for trout in the fall, and a 4½-inch mesh for smaller fish." (p. 124, pt. II.)

"The fish have fallen off in size; used a 4½-inch mesh formerly, now uses 4¼-inch mesh." (p. 126, pt. II.)

"In former years used 5-inch meshes, since using the 4½-inch mesh, catch more fish but smaller ones; the fish have greatly fallen off." (p. 126, pt. II.)

### CONDENSED EVIDENCE REGARDING SIZE OF MESH IN GILL-NETS.

*H. E. Ansley*, Port Dover.—Says fishes 3¾ and 4-inch mesh herrings. (p. 3, pt. I.)

*W. D. Bates*, Rondeau.—Says uses 3-inch mesh in gill-nets; catch whitefish 1½ pounds, and herring. (p. 34, pt. I.)

*C. W. Gauthier*, Windsor.—Uses 5 to 5½-inch mesh for salmon-trout; 4¾ to 5-inch mesh for whitefish. (p. 74, pt. I.)

#### *Sarnia.*

*John Laing*, Port Huron, uses 4¾ and 5-inch and 5½-inch mesh for trout (p. 85, pt. II.)

#### *Goderich.*

*Capt. John Craigie*, Goderich.—Uses 4½-inch mesh, for whitefish and salmon-trout; 2½-inch mesh for herring; a 1½-inch whitefish mesh go through 4½ mesh. (p. 89, pt. I.)

*James Clark*, Goderich—Uses now 4½-inch mesh, formerly used 5 and 5½-inch mesh in September and October—trout and whitefish. (p. 97, pt. I.)

#### *Gill-nets, Goderich.*

*James Inkster*, Goderich.—Last year or two used 4½-inch mesh before that time used 5 and 4¾ for salmon-trout and whitefish; fish 2 pounds and under will pass through 4¾ mesh; use 2¾, 2⅝ mesh for herring. (p. 106, pt. I.)

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*W. W. Ball*, Goderich.—Says 5 and  $5\frac{1}{2}$  mesh is used for whitefish and trout. (p. 113, pt. I.)

*Malcolm McDonald*, Goderich—Uses  $4\frac{1}{2}$  mesh for salmon-trout and whitefish;  $1\frac{1}{2}$ -inch fish will pass through this. (p. 118, pt. I.)

*Donald McAulay*, Southampton.— $4\frac{1}{2}$  to 5-inch mesh in summer for 2 pound fish;  $5\frac{1}{2}$  to 6-inch mesh in the fall, for 2 pound fish; trout and whitefish. (p. 128, pt. I.)

*Malcolm McKenzie*, Southampton.—Uses  $4\frac{1}{2}$  to 5-inch mesh in summer for 3-inch fish;  $5\frac{1}{2}$  to 6-inch mesh in fall for 7-inch fish; trout and whitefish. (p. 135, pt. I.)

*Daniel McAulay*, Southampton.—Uses  $4\frac{1}{2}$  to 5-inch mesh in summer;  $5\frac{1}{2}$  to 6-inch mesh in fall or larger fish, salmon-trout and whitefish. (p. 143, pt. I.)

*Finlay McLennan*, Southampton.—Uses  $4\frac{1}{2}$  to 5-inch mesh for trout and whitefish. (p. 147, part I.)

*Dougal McAulay*, Southampton.—Uses  $4\frac{1}{2}$ -inch mesh summer fish;  $5\frac{1}{2}$  to 6-inch mesh, fall fish, breeding fish, trout and whitefish. (p. 152, pt. I.)

#### Owen Sound.

*Donald McDonald*, Owen Sound.—Uses  $4\frac{1}{2}$  and  $4\frac{3}{4}$ -inch; summer catch,  $2\frac{1}{4}$  to  $5\frac{1}{2}$ -inch; the fall,  $2\frac{1}{2}$ -inch; trout and whitefish.

*Edward Dunn*, Owen Sound.—5-inch should be standard for whitefish and trout. (p. 161, pt. I.)

*John McKenzie*, Owen Sound.—Uses 5-inch mesh. (p. 166, pt. I.)

#### Meaford.

*James Pilgrim*, Meaford.—Fishes salmon-trout and whitefish. Uses  $4\frac{1}{2}$ -inch mesh in summer; uses  $5\frac{1}{4}$ -inch mesh in fall. A fish  $1\frac{1}{2}$  pounds and under will get through  $4\frac{1}{2}$ -inch mesh. (p. 167, pt. I.)

*G. P. McIntosh*, Meaford.—Fishes for salmon-trout and whitefish. Uses  $4\frac{1}{2}$ -inch mesh for summer fishing;  $5\frac{1}{4}$  to  $5\frac{1}{2}$ -inch mesh for fall. A 5-inch mesh should be adopted all round. A  $4\frac{1}{2}$ -inch mesh means reducing the quality and quantity of fish. (p. 172, pt. I.)

*John Nelson*, Meaford.— $4\frac{1}{2}$ -inch mesh for salmon-trout and whitefish in summer;  $5\frac{1}{2}$  to 5-inch mesh in the fall. (p. 178, pt. I.)

*John McCrae*, Meaford.—Never use less than  $4\frac{3}{4}$ -inch mesh. A two pound fish and under might go through this. A two pound fish would not be mature; trout and whitefish. (p. 186, pt. I.)

*Adam H. Stephen*, Meaford.—5-inch mesh should be the uniform mesh for trout and whitefish. (p. 177, pt. I.)

#### Collingwood.

*George Knight*, Collingwood.—Uses  $4\frac{1}{2}$  to 5-inch mesh, summer, and 5 and  $5\frac{1}{4}$ -inch mesh in autumn; trout and whitefish. (p. 195, pt. I.)

*Norman Saunders*, Collingwood.—A  $4\frac{1}{2}$  and 5-inch mesh is about right. The  $5\frac{1}{2}$ -inch mesh is used at spawning time of trout and whitefish. (p. 292, pt. I.)

*Wm. A. Clark*, Collingwood.— $4\frac{1}{2}$ -inch mesh is now used, formerly it was 5-inch mesh. This reduction was a great mistake, because the  $4\frac{1}{2}$ -inch mesh takes immature and too small fish, carloads of young fish are thrown away. (p. 209, pt. I.)

*Capt. McGregor*, Collingwood.— $4\frac{1}{2}$  to 5-inch mesh are used, some  $5\frac{1}{2}$  inches; trout and whitefish. (p. 221, pt. I.)

#### Midland.

*Albert Hutchins*, Midland.—Uses  $4\frac{1}{4}$  to  $4\frac{3}{4}$ -inch meshes for gill-nets; small mesh nets are injurious to fishermen, they destroy too many small fish. Trout and whitefish. (p. 227, pt. I.)

*Chas. W. Phillips*, Midland.—A 5-inch mesh no less should be used, a smaller mesh will ruin the fishery. (p. 230, pt. I.)

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*Samuel Fraser*, Midland.— $4\frac{1}{2}$  to 5-inch meshes used ; too small meshes cause the falling off in fishing. (p. 231, pt. I.)

*James A. Smith*, Midland.— $5\frac{1}{2}$  to 6-inch should be the right sized mesh for trout and whitefish. (p. 236, pt. I.)

*John Yates*, Midland, fisherman.—Uses  $4\frac{1}{2}$  mesh and take too small fish,  $4\frac{3}{4}$  mesh is a proper size,  $5\frac{1}{2}$  should be used in the fall. (p. 241 pt. I.)

*Capt. S. Whartman*, Midland.—Uses  $4\frac{1}{4}$  to 5-inch in summer,  $5\frac{1}{2}$  to 6 in fall ; big trout and whitefish. (p. 244, pt. I.)

*Wm. J. Hodgins*, Midland.—Uses  $4\frac{1}{2}$  to  $4\frac{3}{4}$ -inch mesh in summer,  $5\frac{1}{2}$  to 6-inch in the fall for big trout and whitefish. (p. 247, pt. I.)

*W. W. Church*, Midland.—Uses  $4\frac{3}{4}$ -inch mesh for trout and whitefish. (p. 250, pt. I.)

*Charles Hill*, Midland.—The mesh used is 6 inches, for trout and whitefish. (p. 254, pt. I.)

*William Gerow*, Midland.—Uses  $4\frac{3}{4}$ -inch mesh, for trout and whitefish ; a 2 pound trout and under will pass through this mesh. (p. 255, pt. I.)

*Joseph Cunningham*, Midland.—Uses  $4\frac{3}{4}$  to 6-inch mesh at same time—the 6-inch mesh pays best—uses the 6-inch mesh in October for big trout and whitefish. (p. 257, pt. I.)

*Archibald Campbell*, Midland.—Uses  $4\frac{3}{4}$ -inch mesh for small fishing, also 6-inch mesh in fall fishing ; mature trout and whitefish. (p. 259, pt. I.)

*Thos. H. Elliott*, Sault St. Marie.— $4\frac{1}{4}$ -inch mesh is used, but the mesh should not be less than 5 inches, for less size will take in mature trout and whitefish ; less than 5-inch mesh will catch No. 2 fish which sell for only half the price of No. 1. (p. 261, pt. I.)

*Wm. Montgomery*, Toronto.—Uses  $2\frac{1}{4}$  and  $2\frac{3}{8}$ -inch mesh for ciscoes, also 3 and 3 inches later on in summer. (p. 281, pt. I.)

*Hector McDonald*, Toronto.—Uses  $2\frac{1}{2}$  and  $2\frac{5}{8}$ -inch meshes in gill-nets for ciscoes and herrings. (p. 286, pt. I.)

*Michael Doyle*, Toronto.—Small meshes have ruined this class of fish for our markets ; whitefish the size of herring are caught and sold—fish unfit for market. (p. 287, pt. I.)

*D. W. Post*, Toronto.— $4\frac{1}{2}$ -inch mesh is too small, it takes half grown ;  $4\frac{7}{8}$  not yet mature, this is for trout and whitefish ; or 5-inch mesh is the right one to be used ; 3 inch mesh should be used for herring and ciscoes. (p. 292, pt. I.)

*Horatio I. Bray*, Toronto.—A 5-inch mesh should be used ;  $4\frac{1}{2}$  is too small, and very small fish which are unsaleable ; 3-inch mesh for herring ; nothing less ; herring and ciscoes are unsaleable ; many are thrown away, being caught with too small meshes they are unmarketable. (p. 297, pt. I.)

### Hamilton.

*Doniel McGuinn*, Hamilton.—5-inch for whitefish ; 7-inch for trout. (p. 30a, pt. I.)

*William Dewey*, Hamilton.—5-inch ; also used 6 and 7 for trout and whitefish. (p. 308, pt. I.)

*Jonathan Carey*, Hamilton.—Uses  $2\frac{3}{8}$  mesh for herring and ciscoes. (p. 312, pt. I.)

*John Davis*, Hamilton, fish-dealer.—Meshes are altogether too small ; all fish are getting down small ; the mesh is too small ;  $\frac{1}{2}$ -lb. trout and whitefish are sent here from the upper lakes. (p. 316, pt. I.)

*Frederick Carey*, Hamilton.—Uses  $5\frac{1}{2}$  and 6-inch mesh for trout and whitefish ;  $2\frac{3}{8}$  for herring and ciscoe ; these fish have fallen off very much. (p. 320, pt. I.)

### Bay of Quinté.

*Thomas Howard*, Belleville.—Uses  $4\frac{1}{2}$  mesh for whitefish. (p. 42, pt. II.)

*James Pollard*, Napanee.—Uses  $4\frac{1}{2}$ -inch mesh for whitefish and pickerel ;  $3\frac{1}{2}$ -inch for herring. (p. 32, pt. II.)

*James Sharpe*, Napanee.—Uses  $3\frac{3}{4}$  and  $4\frac{1}{2}$  mesh for pike and pickerel. (p. 35, pt. I.)

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- Nelson Instant*, Amherst Island.—Use  $4\frac{1}{2}$  mesh for whitefish ; 7-inch for salmon. (p. 40, pt. II.)  
*Thos. Howard*, Bath.—Uses  $4\frac{1}{2}$ -inch mesh for whitefish. (p. 44, pt. II.)  
*Thomas Vanarder*, Napanee.—Uses  $4\frac{1}{2}$  and  $6\frac{1}{2}$ -inch for whitefish and pickerel.

*Port Arthur.*

- W. C. Dobbie*, Port Arthur.—Uses  $4\frac{1}{2}$  to 5-inch mesh for smaller fish ; 5 to 6-inch mesh in the fall for full-grown trout and whitefish. (P. 50, pt. II.)  
*John Maloney*, Port Arthur.—Uses  $4\frac{3}{4}$  mesh for gill-nets, trout and whitefish. (p. 55, pt. II.)  
*Henry Servais*, Port Arthur.—Uses  $4\frac{3}{4}$  mesh ;  $4\frac{1}{2}$  and 5 in December ; 6-inch mesh, fall fishing ; trout and whitefish. (p. 59, pt. II.)  
*J. J. Nutall*, Port Arthur.—Uses  $4\frac{3}{4}$  gill-nets ; trout and whitefish. (p. 68, pt. II.)  
*Thomas Swain*, Thessalon.—Uses  $4\frac{1}{2}$ ,  $4\frac{3}{4}$  mesh for whitefish, trout and pickerel. (p. 77, pt. II.)  
*Laurie King*, Thessalon.—Uses  $4\frac{3}{4}$  and 5-inch mesh ;  $4\frac{1}{2}$  is too small. (p. 77, pt. II.)  
*Stephen Fourchette*, Thessalon.—Uses  $4\frac{1}{2}$   $4\frac{5}{8}$  inch gill-nets ; trout and whitefish. (p. 83, pt. II.)  
*James Noble*, Gore Bay.—Uses  $4\frac{1}{2}$ -inch mesh ; gill-nets ; trout and whitefish. (p. 92, pt. II.)  
*Thomas Boyton*, Killarney.—Uses  $4\frac{1}{2}$ -inch gill-nets in summer ; 5-inch gill-nets in fall ; mature trout and whitefish. (p. 94, pt. II.)  
*James Noble*, Killarney.—A 5-inch mesh is not so profitable ;  $4\frac{1}{2}$ -inch mesh will take more small fish. (p. 97, pt. II.)  
*George Larouche*, Killarney.—Uses  $4\frac{5}{8}$ ,  $4\frac{7}{8}$  and 5-inch in gill-nets ; trout and whitefish. (p. 104, pt. II.)  
*Joseph Rocque*, Killarney.—Uses  $4\frac{1}{2}$ -inch mesh ; if 5-inch mesh, requires two years' notice. (p. 105, pt. II.)  
*Adolphus Martin*, Killarney.—Uses  $4\frac{1}{2}$ -inch mesh ; two years should be granted. (p. 107, pt. II.)  
*Wm. Kimball*, Sault Ste. Marie.—Uses  $4\frac{1}{2}$ -inch mesh ;  $4\frac{3}{4}$ -inch would be fair ; 5-inch mesh a little too big. (p. 112, pt. II.)  
*Joseph Gauley*, Sault Ste. Marie.—Uses  $4\frac{1}{2}$ -inch mesh and nets ; trout and whitefish. (p. 114, pt. II.)  
*Angus McLeod*, Sault Ste. Marie.—Uses  $4\frac{1}{2}$ -inch and  $4\frac{3}{4}$ -inch mesh in his nets ; trout and whitefish. (p. 117, pt. II.)  
*James Garratt*, Sault Ste. Marie.—Used 5-inch mesh in Lake Huron ; fish smaller here ; trout and whitefish. (p. 118, pt. II.)  
*Wm. McLeod*, Sault Ste. Marie.—Uses  $4\frac{3}{4}$ -inch mesh, just as good as  $4\frac{1}{2}$ -inch ; 5-inch mesh a little too large. (p. 121, pt. II.)  
*T. H. Nathanay*, Sault Ste. Marie.—Uses  $4\frac{1}{2}$ -inch mesh ; all right if adhered to. (p. 122, pt. II.)  
*James Gauley*, Sault Ste. Marie.—Uses  $4\frac{1}{2}$  and  $4\frac{3}{4}$ -inch mesh for whitefish and small bass. (p. 124, pt. II.)  
*Michael Neville*, Sault Ste. Marie.—Uses  $4\frac{1}{2}$ -inch mesh ; fish fallen off in size and numbers. (p. 125, pt. II.)  
*Frank Scott*, Sault Ste. Marie.—Used 5-inch mesh formerly ; now use  $4\frac{1}{2}$  inch as it will catch smaller fish ; fish are decreasing. (p. 126, pt. II.)  
*John Sullivan*, Thessalon.—Uses  $4\frac{1}{2}$ -inch mesh in gill-nets. (p. 80, pt. II.)

MESHES FOR POUND-NETS.

No special reference was made in the instructions to the Commission to investigate pound-net matters. The commissioners, however, in making their general inquiries, obtained evidence regarding pound-nets and their meshes.

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It was found that the pound-net mesh in use in Lake Erie was very small indeed, being used in the capture of whitefish, herring and blue pickerel, the two last named fishes are very numerous in that lake, as compared with whitefish; the whitefish by over-fishing at improper times had become so greatly reduced as to have induced the fishermen to use a smaller mesh to catch herring and pickerel, the result of which has been that small and immature whitefish have been largely taken, many of which, according to the evidence, had been *wasted, buried on shore, or otherwise destroyed*, as they were undersized and unmarketable fish.

The difficulty now arises as to which of these fish—the whitefish, or herring and blue pickerel, are to be protected by department regulations as regards size of meshes in the pots of pound-nets.

In former years the whitefish were considered the great staple fish in Lake Erie, as they were the most valuable for all purposes both in the local and American markets.

By the use of these small meshed pound-nets killing such great numbers of small immature fish; and the almost general fishing in November the spawning month for whitefish, these fish once so very numerous in Lake Erie had become so diminished in numbers as to turn the general attention of the fishermen almost wholly to capturing the herring and blue pickerel. This has brought about a common saying with fishermen, and fish dealers that “Lake Erie is not now a whitefish lake, it has become a herring and pickerel lake” and he must therefore reduce the size of his mesh in pound-nets to catch these fish. Whilst the former mesh took the full-sized herring and blue pickerel of  $\frac{3}{4}$  and 1 pound, it also took the young immature whitefish. Thus it will be seen that the combined desires of the fishermen to take whitefish, herring and blue pickerel in the same mesh in the pound-net formerly, has resulted in changing Lake Erie, as the fishermen themselves say, “from a whitefish fishery into a herring and blue pickerel fishery.” And now with the same grasping propensity to take every fish, irrespective of size, these fishermen seek to use a still further reduced mesh in their pound-nets, in order to increase their catch and numbers, by capturing the smaller and immature herring and pickerel. The result of which will be in the end to make Lake Erie *neither a whitefish fishery, nor a herring and blue pickerel fishery*.

Should the authorities, now knowing and sadly experiencing the fate of the whitefish fishery in Lake Erie, allow the avaricious fishermen, with the unpatriotic influences so largely advanced in his favour, to destroy the herring and blue pickerel fisheries in Lake Erie, it will make void for the public generally, a national source of food, by unnecessarily granting privileges to an almost infinitesimally small body of fishermen as compared with the rest of the population, and the result will be for the inhabitants disastrous.

With a close perusal of the appended summary of evidence obtained relating to the meshes in pound-nets in Lake Erie, it will be found, that of the twenty-eight witnesses who gave testimony regarding the meshes of pound-nets. In Lake Erie, eight of them used 3-inch meshes, and sixteen used 2-inch meshes in the pots of the pound-nets:—Of the sixteen using 2-inch meshes, thirteen of them state as follows about the 2-inch mesh:—

1. “Very destructive to small immature fish.” (p. 6 to 8, pt. I.)
2. “Catch some small fish mostly herring, some whitefish.” (p. 26, pt. I.)
3. “Half a pound is the average of fish caught.” (p. 17, pt. I.)
4. “Lifted considerable number of immature fish, *buried half a ton at a time*.” (p. 21, pt. I.)
5. “Have buried not more than *half a ton small fish in a season*.” (p. 21, pt. I.)
6. “Only less than a quarter pound fish can get through.” (p. 29, pt. I.)
7. “Took great number of immature herring and whitefish.” (p. 25, pt. I.)
8. “Catch small whitefish, herring and bass, only *four and five inches long*.” (p. 32, pt. I.)
9. “Catch immature whitefish.” (p. 44, pt. I.)
10. “Has seen small fish thrown away and buried in June and July.” (p. 36, pt. I.)
11. “Has heard repeatedly that large quantities of *small fish are thrown away*.” (p. 38, pt. I.)

12. "Catch small herring and bass, six and seven inches long, they are cast over-board." (p. 68, pt. I.)
13. "Have known *two and three tons of small fish taken out of nets—majority buried.*" (p. 8, pt. I.)

## LAKES HURON AND SUPERIOR.

The following is said in evidence regarding pound-net meshes in Lakes Huron and Superior:—

14. "Uses  $2\frac{3}{4}$ -inch mesh in pots for pickerel, whitefish, trout and herring. This will let half pound whitefish through. One pound salmon-trout may get through." (p. 85, pt. I.)
15. "The 4-inch mesh should be used in pots." (p. 113, pt. I.)
16. "The mesh of pots in pound-nets should be the same as gill-nets." (p. 161, pt. I.)
17. "The  $4\frac{1}{2}$  to  $4\frac{3}{4}$ -inch mesh is the right one in pots of pound-nets." (p. 207, pt. I.)
18. "Should be  $4\frac{1}{2}$ -inch mesh in the pots of pound-nets, the  $2\frac{1}{2}$  to  $2\frac{3}{4}$ -inch mesh will catch a great number of small immature whitefish and salmon-trout." (p. 263, pt. I.)
19. "A 5-inch mesh should be used in pound-nets, it will take the large fish and let "the small ones out." (p. 298, pt. I.)
20. "Uses 4-inch mesh in pots of pound-nets." (p. 77, pt. II.)
21. "Uses 4-inch mesh in pots of pound-nets." (p. 79, pt. II.)
22. "Uses 4-inch mesh in pots of pound-nets." (p. 80, pt. II.)
23. "Uses 4-inch mesh in pots of pound-nets." (p. 82, pt. II.)
24. "Uses 4-inch mesh in pots of pound-nets." (p. 83, pt. II.)
25. "A 4-inch mesh in pots should be used." (p. 92, pt. II.)
26. "The 4-inch mesh in pots of pound-nets is right." (p. 97, pt. II.)
27. "Uses 4-inch mesh in pound-nets." (p. 104, pt. II.)
28. "Uses 4-inch mesh for pots for trout and whitefish." (p. 127, pt. II.)

Regarding the size of meshes in pound-net pots in use in Lakes Huron and Superior the general size admitted to be in use by the fishermen was much larger than in Lake Erie. In summing up the evidence:

The testimony was that 16 used 4-inch mesh.

The testimony was that 3 used  $4\frac{1}{2}$ -inch mesh.

The testimony was that 2 used  $4\frac{3}{4}$ -inch mesh.

Some of the testimony was that the  $4\frac{1}{2}$  or  $4\frac{3}{4}$ -inch mesh was the right size mesh for the pots of pound-nets.

As matters stand at present in the department, there is no Order in Council to regulate pound-nets, or the meshes to be used in them. There was a circular however, issued on January 9th, 1894, stating that the meshes in the pots of pound-nets, shall be from 2 to  $2\frac{1}{2}$  inches "extension measure." This could only take effect from January 1894; whereas all the evidence regarding meshes in pound-nets referred to in these pages is in relation to pound-nets previous to 1894, when the regulation mesh for the pound-net was 4 inches and  $4\frac{1}{2}$  inches.

From the destructive character of the 2 and  $2\frac{1}{2}$ -inch mesh in pound-nets as shown by the testimony of the fishermen using them, it would appear almost imperative for the department to establish by an Order in Council, some proper mesh that would stop the evident destruction of small and immature fish now going on, by the use of the 2 or  $2\frac{1}{2}$ -inch mesh which is permitted by some misconception under the circular of January, 1894.

The testimony abbreviated from the minute in the general report of the Ontario Commission, giving the names and places is hereto appended, in so far as relates to the pound-net question.

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## POUND-NETS.

### CONDENSED EVIDENCE REGARDING SIZE OF MESH IN POUND-NETS.

#### *Lake Erie.*

*Frank Jackson*, Port Dover.—Says the 2-inch mesh in pound-nets has been very destructive to small immature fish, a 3-inch mesh should be the proper size; have seen tons weight of these small fish caught and thrown away. (p. 6, pt. I.)

*James Low*, Port Dover.—Says 3-inch should be the mesh for herring. (p. 16, pt. I.)

*George F. Allan*, Port Dover.—Says a 3-inch mesh for gill-nets for herring." (p. 9, pt. I.)

*Captain J. S. Allan*, Port Dover.—Says a 2-inch mesh in nets for herring. (p. 11, pt. I.)

*Crosby Morgan*, Port Dover.—Says a 2-inch mesh in pound-nets and 3-inch in gill nets. (p. 12, pt. I.)

*W. F. Tibbetts*, Port Dover.—Says use 2-inch mesh in pots—a 3-inch mesh would do very well, it would let out the little fish and keep the big fish in. (p. 14, pt. I.)

*William Backhouse*, Durham.—Says he uses 2-inch mesh in pot of pound-net; catches some small fish, mostly herring, some whitefish. (p. 26, pt. I.)

*H. E. Ansley*, Port Dover.—Fishes 2 and 3-inch mesh in pots of pound-nets. (p. 3, pt. I.)

*William Emery*, Port Burwell.—Says he uses 2-inch mesh in pots—lifted considerable numbers of immature fish—have buried half a ton at a time. (p. 23, pt. I.)

*C. C. Bates*, Clear Creek.—Says he uses 2-inch mesh in pots;  $\frac{1}{2}$ -inch is the average size of fish caught. (p. 17, pt. I.)

*A. C. Brown*, Port Stanley.—Says he used a 2-inch mesh in pots—have buried not more than a  $\frac{1}{2}$ -ton a season of small fish. (p. 21, pt. I.)

*Captain John Ellison*, Port Stanley.—Says he uses 2-inch mesh in pot—only less than  $\frac{1}{2}$ -inch fish will pass through. (p. 29, pt. I.)

*Daniel Lang*, Aldboro'.—Says he uses 2-inch mesh in pots—some years ago took great numbers of immature herring and whitefish. (p. 25, pt. I.)

*W. H. Black*, Kingsville.—Says he uses 2-inch mesh in pots—catches small whitefish, herring, pickerel and bass that is 4 and 5 inches long. (p. 32, pt. I.)

*W. D. Bates*, Rondeau.—Uses 2-inch mesh in pots; catches whitefish  $1\frac{1}{2}$  lbs.; this size is an immature fish; we get no fish under 6 inches in length; under that pass through. (p. 34, p. I.)

*Wm. Grubb*, Pt. Pelée.—Says  $2\frac{1}{2}$ -inch in pots should be the smallest mesh.

*Ira Loup*, Kingsville.—Says use 2-inch mesh in pots; has seen small fish thrown away and buried in June and July. (p. 36, pt. I.)

*Gilbert Delaurier*, Leamington.—Says uses 2 inch in pots; have repeatedly heard that large quantities of small fish being thrown fway as useless. (p. 38, pt. I.)

*John Delaurier*, Windsor.—Size of mesh in pots,  $2\frac{1}{2}$  inches; a  $\frac{1}{4}$ -lb. whitefish and herring may pass through. (p. 46, pt. I.)

*J. W. Post*, Leamington.—Says uses 2-inch mesh in pots and  $2\frac{1}{2}$ .

*John A. Benton*, Kent, County.—Uses 2-inch mesh in pots; catches small herring and bass, 6 or 7 inches long and puts them overboard. (p. 67, pt. I.)

*C. W. Gauthier*, Windsor.—Uses 2 to  $2\frac{1}{2}$ -inch mesh in pots. (p. 74, pt. I.)

*John Laing*, Port Huron.—Catches pickerel, whitefish, trout, herring, sturgeon use  $2\frac{3}{4}$  mesh in pots of pound-nets this mesh will let whitefish of  $\frac{1}{2}$  lb. through; salmon-trout of 1 lb. and under will get through. (p. 85, pt. I.)

*W. W. Ball*, Goderich.—Says a 4-inch mesh should be used in pots. (p. 113, pt. I.)

*Edward Dunn*, Owen Sound.—The mesh of pound-nets should be pretty much the same as gill-nets. (p. 161, pt. I.)

*W. A. Clark*, Collingwood.— $4\frac{1}{2}$  to  $4\frac{3}{4}$  mesh is right for pots of pound nets. (p. 207, pt. I.)

*Thos. H. Elliott*, Sault Ste. Marie.— $2\frac{1}{4}$  to  $3\frac{3}{4}$  mesh are used; should be  $4\frac{1}{4}$  in the pots at least: the present  $2\frac{1}{2}$  to  $3\frac{3}{4}$  will catch a great number of small immature fish. (p. 263, pt. I.)

## Toronto.

*Horatio J. Bray*, Toronto.—5-inch should be used in pound-nets; the large fish would be taken, the smaller would escape. (P. 298, pt. I.)

## Port Arthur.

*John Maloney*, Port Arthur.—Uses 3½-inch mesh in pots in Lake Superior. (p. 55, pt. II.)

*J. J. Nutall*, Port Arthur.—Uses 3¾ and 4-inch in pots. (p. 68, pt. II.)

*Thos. Swain*, Thessalon.—Uses 4-inch mesh in pots of pound-nets. (p. 77, pt. II.)

*Laurie King*, Thessalon.—Four inch mesh in pots is large enough. (p. 78, pt. II.)

*Jas. B. Dobbie*, Thessalon.—Uses 4-inch mesh in pots. (p. 79, pt. II.)

*John Sullivan*, Thessalon.—Uses 4-inch mesh in pots. (p. 80, pt. II.)

*David Bellerose*, Thessalon.—Uses 4-inch mesh in pots of pound-nets. (p. 82, pt. II.)

*Stephen Fouchette*, Thessalon.—Uses 4-inch mesh in pound-nets. (p. 83, pt. II.)

*W. S. Holden*, Gore Bay.—Uses 4-inch mesh in pots (4½ too large. (p. 86, p. II.)

*James Noble*, Gore Bay.—Four-inch in pots in pound-nets should be adopted. (p. 92, pt. II.)

*James Noble*, Killarney.—Four-inch mesh for pots in pound-nets is right. (p. 97, pt. II.)

*George Larouche*, Killarney.—Uses 4-inch mesh in pots. (p. 104, pt. II.)

*Nelson Couture*, Sault Ste. Marie.—Uses 4-inch mesh in pots (a 2-inch trout and whitefish will escape. (p. 110, pt. II.)

*Joseph Gauley*, Sault Ste. Marie.—Uses 4-inch in pots in pound-nets. (p. 114, pt. II.)

*James Glanville*, Sault Ste. Marie.—Uses 4-inch mesh in pots for whitefish and trout. (p. 127, pt. I.)

PROPOSED RESERVATIONS FOR THE NATURAL BREEDING OF FISH, AND FOR ANGLING PURPOSES ALSO.

The Commissioners were called upon also to consider the propriety of reserving grounds for angling and spawning purposes in the Georgian Bay. Their views are submitted as follows:—

Reference being made in the body of the report for the reservation of spawning grounds in certain localities, the following limits for that purpose were suggested:—They are somewhat extensive in their limits, the area will take in the narrower parts of the east and north shores of the Georgian Bay and North Channel, which are studded with countless small islands, forming innumerable small bays and inlets, to which nearly all the various species of fishes indigenous to the waters of the Georgian Bay go for spawning purposes. It may, and no doubt will, be considered by many a somewhat drastic measure, particularly by those who have been continuously using all kinds of fishing engines of an illegal character, and killing fish in season and out of season within these limits. Amongst these numerous groups of islands every facility is afforded for illicit fishing on the most extended scale, and whilst net fishing of any description is permitted under the regulations amongst these islands, it will be almost an impossibility to stop the poaching now so extensively carried on. But if these limits are wholly set apart as a reservation for spawning grounds of fishes of the various kinds which frequent these naturally adapted places for their reproduction, and net fishing prohibited therein, no pretext could be set forth by any one found fishing, or in possession of fish or fishing gear within these limits, that because he had formerly obtained a license to fish in the Georgian Bay waters he might also be entitled to fish in these natural spawning grounds as now proposed to be reserved.

The proposed reserved limits are as follows: Commencing on the shore of Matchedash Bay at the south-eastern extremity of Georgian Bay, thence in a north-westerly line, taking in the easterly shore of the bay with all the islands up to Black Bell Island; thence easterly to Point aux Barille; thence north-westerly in a straight line to the north side of the main Bustard Islands; thence easterly in a straight line to Fox Island; thence in a straight line to Killarney—and from Killarney across Fraser's Bay to Point



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Mary on Cloche Island ; thence following the north shore of Cloche Island to its extreme north-western points ; thence in a straight line to the south-eastern extremity of Aird's Island ; thence following the north shores of Aird's Island and John's Island to the most westerly point of John's Island ; thence in a straight line to Bassett Island ; thence to Sandford Island ; thence to the east end and along the north shore of Hennepin Island to its western point ; thence in a line to the extreme end of Thessalon Point. All the waters, bays, inlets and islands east and north of the above described lines and limits, and reaching to the main land, are hereby recommended to be reserved from any description of fishing whatever, except for angling purposes only with rod and line, or trolling, provided that such means of fishing by angling only, shall not be allowed during the periods which are now or may be hereafter set aside as close seasons for the protection of all or any of the kinds of fish frequenting the waters within these limits proposed to be reserved.

A reservation for Lake Huron to commence at the south end of French Bay below Sable River, on the east shore of Lake Huron thence north in a straight line up the line to Greenough Point, taking in all the waters and Islands between the said line and the mainland.

On this subject very little information could be obtained from the witnesses examined. Suggestions were however given by Captain Dunn and others from which by examining the map or chart of the east and north shores of the Georgian Bay and North Channel thereof, it will be found that the whole of this coast is studded with innumerable islands which form immense numbers of bays, inlets, channels and intricate passages ; all of these are the resort of various kinds of fishes for breeding purposes ; and the feeding grounds also of the young of many of the more important commercial species. These latter kinds when matured roam throughout the water of the Georgian Bay and Lake Huron for feeding purposes when away from their spawning grounds.

The reservation of the limits which have been described will cover a very large area of the breeding grounds of the fish which inhabit the Georgian Bay and North Channel thereof. Within this limit it has been suggested that net fishing of every description, as well as the use of spears or any other fishing gear, except angling with rod and line, shall be wholly prohibited. Within this limit angling shall only be allowed under licenses to be first obtained from the Department of Marine and Fisheries on the payment of a fee for each rod or troll, with a discrimination in the amount of the fee as between the British subject and the foreigner.

### INJURY TO THE FISHERIES FROM THE EXPORTATION OF SAW-LOGS.

The Commissioners in making their investigations learned that much damage resulted to the fisheries and fishermen from the towing of saw-logs. Evidence was therefore taken, and a summary of it is here given.

#### SYNOPSIS OF EVIDENCE GIVEN THEREON.

*James B. Dobie*, of Thessalon, said : There is a serious obstacle to the fisheries here from the rafting of saw-logs across the bay ; another injury is the loading of vessels along the shore with pulp wood for the United States ; they dump the refuse stuff in the water, which pollutes the bottom and drives away the fish and destroys the fishing nets. This is done by American vessels coming here for cargoes of pulp wood ; this is extensively done all along the shores at the mouths of rivers ; this is a general complaint of fishermen as seriously affecting their nets ; the pulp wood is mostly spruce in the rough state. It is shipped to Detroit ; it is also rafted in some cases. (p. 79, pt. II.)

*David Bellerose*, of Thessalon, said : When I fished gill-nets, I lost out of seventy-five nets thirty-nine from bark and fibre which clung to them in such a manner that I had to throw them away. This bark and fibre comes from the pine logs which are towed across the bay ; they are towed in large rafts or booms, and when rolling about in these booms by the action of the water, the bark and fibre is rubbed off and settles upon the nets and ruins them. This stuff also spoils the breeding and feeding grounds of the fish. It

ought to be stopped in the interests of the fishermen. This great loss has only been felt by fishermen since the logs and pulp wood have been taken across the bay to the United States free. If it is continued our fishermen will be ruined. (p. 82, pt. II.)

*Stephen Fouchette*, of Thessalon, said: Have fished for thirty years; the saw-log towing is not injurious here; there was a fishing ground in Massasagua Straits that was actually ruined, it was at one time a first-class ground; I went to fish there this year, but got no fish; the fishing ground was covered with bark which drove the fish away; these logs came from the north shore rivers and are towed to Bay City in the United States. I have seen rafts half a mile long by a quarter mile wide, some eighty acres, principally pine logs; the bark and fibre are rubbed off by the rolling of the logs together when being towed, this falls upon the nets and ruins them, so they cannot be fished again; these rafts are sometimes anchored on the fishing grounds for three and four days, during this time they are constantly rolling together, rubbing off the bark and fibre wood which sinks to the bottom, folding the fishing grounds and making the nets useless. (p. 83, pt. II.)

*Abraham King*, of Thessalon, a fisherman of thirty years, said: A great injury is felt by fishermen and much damage done to the fisheries by the rafting and floating of saw-logs across the bays and lake; I have seen twelve sets of gill-nets destroyed by the bark and other stuff which comes off the great tows of logs going to Bay City, in Michigan, from the Spanish and other rivers on the north channel. The logs are got out on the north shore, floated down the rivers, and then boomed together and towed by steam tugs over to Bay City and other American ports. These tows or booms in some cases will cover a space of five or ten acres and more. These logs keep constantly rolling together by the action of the water which rubs off the bark and fibre and stringy parts, it floats about for a while and then sinks and collects on the nets, tangling them and turning them, the nets cannot be fished or cleaned again, and are thrown away. It should be the duty of the Government to have the export of saw-logs in rafts across the fishing grounds stopped. If the Americans want the logs they should be compelled to take them across our fishing grounds in tugs or steamboats, and not float them in rafts or booms. If this is not done another great injury will fall upon the fisherman and add further to the destruction of the fisheries. (p. 85, pt. II.)

*William W. Holden*, of Gore Bay, fished for ten years, said:—The export and towing of saw logs is becoming most injurious to the fisheries; the fill-net fishermen complain most as their nets are injured by the bark and fibre wood; these logs are towed across the bay in booms by tugs. They travel slowly from one to two miles an hour; these rafts are very large, some three and four millions of feet. (p. 86, pt. II.)

*Angus Matthewman*, of Gore Bay, a fisherman for twenty-five years, said:—There is great injury done to the fisheries and fishermen from the bark, and fibre wood from the saw logs which are towed across the bays; these logs came from Whitefish, Spanish, and Serpent rivers, and are taken to the American side to Bay City, Saginaw and other places; they are towed during the whole season in rafts from ten to fifteen acres each, principally pine logs; when towing these logs roll about and rub off the bark, and the fibre next to the bark, these settle to the bottom, get into the nets and destroy them. It hurts the gill-nets most; whitefish will not stay where this bark and dirty stuff is. It is destructive to the fisheries in every way; the rafts travel slowly from one and a half to two miles an hour, during head winds they have to turn back and take shelter, they are still grinding off the bark all the while; I have experienced this injury at Saginaw Bay, in the United States, and it is the general opinion of fishermen, there as well as here, that this log rafting business will ruin the fisheries completely if it is allowed by the authorities to be continued. (p. 89, pt. II.)

*John Lapointe*, of Spanish River, has fished for twenty-five years, said:—Whitefish and salmon-trout are much scarcer than they were ten years ago; in 1882 I took 100 tons with six nets; 40 tons would be a large catch now, as by the same number of nets; this falling off has been caused in part by too much fishing. The bark from saw-logs has done great harm. (p. 89, pt. II.)

*James Purvis*, of Gore Bay, fished all his life, about twenty-four years, said:—We find the saw-log business very injurious to the fisheries from the bark and soft wood

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which is rubbed off in towing the logs to the American ports: these rafts are very large, covering sometimes ten acres and more; the constant rolling caused by the action of the water, rubs these logs together and grinds off the bark and soft wood which fall to the bottom, when the currents and winds drive this stuff into the nets making them worthless. This is a great evil to the fisheries; this bark from the logs does not work up on the shore. (p. 90, pt. II.)

*James Noble*, of Cook's mills, fisherman and fish dealer, twelve years, said:—This year whitefish are scarcer by reason of the bark and stuff from the saw-log rafts and booms which seem to drive them away. This stuff also effects the nets and prevents their catching fish as well. The meshes get clogged up with this refuse, and fish won't enter them as freely as they otherwise would; it is next to impossible to get this stuff off the meshes of the nets, it is actual ruination to the gill-nets. This stuff comes from the saw-logs when being towed across the bay; the constant rolling together rubs off the bark and fibre and causes the damage to the nets; these rafts are very numerous, the logs come from different rivers on the North Shore, they are put together in large booms and towed by tugs. They go slowly, they are all sizes, they may be a quarter to half a mile in length and nearly the same in width; they are taken to Bay City, United States, this is done since the duty has been taken off logs; it is causing rapid destruction to the fisheries here and is also keeping thousands of men out of employment in working in the mills as they are now nearly all closed up; if this is allowed to continue the whitefish fishery will be destroyed very soon. (p. 92, pt. II.)

*Edward Fourcheau*, of Little Current, fisherman for ten years: Whitefish and salmon-trout have fallen off during my fishing operations; it is caused by the changed state of the water, and from the effects of towing saw logs, and pine refuse from mills; the saw-dust has done a great deal of harm, but laterally saw-logs are doing a very great injury. In towing them across the bay in rafts they roll about from the action of the water and the outer and the inner bark is ground off when it becomes water-soaked and settles to the bottom and catches upon the meshes of the nets, and when the winds blow it is also stirred about and is washed into the nets; this, besides destroying the nets, also drives the fish away; some nets become perfectly useless; a great many have to be thrown away, the corks and leads are the only parts of the net that can be saved; this damage is general in the north channel; these saw-log rafts will take two tugs to tow them, and are so large as to cover fifty and one hundred acres of the surface of the bay; they have to remain some time on account of head winds; all this time the grinding of the bark and soft parts is going on, this stuff gets water soaked it won't float to shore, but sinks and becomes distributed all over the bottom, and is driven into the meshes of the nets; this damage to the fisheries was not felt in former years nor before this saw-log towing took place. The taking off the duty off saw-logs has largely interfered with labour about here, most of the saw-mills are closed up, and the saw-logs are towed over to the United States. If the duty was put again on the logs, more saw-mills would be built here to cut up the logs in our own country; American tugs and labour take saw-log rafts across to the United States. (p. 95, pt. II.)

*James Noble*, of Killarney, engaged in fishing and dealing in fish for seventeen years, said:—If this excessive fishing goes on, and this new calamity from the saw-log business is not stopped the fishing industries in the Georgian Bay and north channel cannot last long; unless some strong measures are brought to bear to protect the fisheries, the formerly great fisheries in this section of the province must be soon done away. The way to remedy these difficulties from the saw-log question is to put an export duty on the logs, this would stop the great outlet of logs from this section into the United States; this would also give employment to thousands of Canadian hands, and open up again the saw mills, which are now shut up; and also stop the great evil to our fisheries which come from the refuse matter off the saw-logs in their transport in rafts to the United States; these rafts cover fifteen and twenty acres, taking two large steam tugs to tow them, they go very slowly, only from one to two miles an hour. The logs are continually grinding together, rubbing off the outside and inside bark, which sinks to the bottom, getting on the nets and destroying both the nets and the feeding and breeding grounds of our bay fisheries. (p. 97, pt. II.)

*Nelson Harman*, of Collingwood, fishing off and on for twenty years, said :—Fishing is greatly injured from the rafting of saw-logs in such great numbers which are now towed across the lake to the United States. This injury is caused by the outside and inside bark ground off the logs which forms a sort of stringy substance which settles upon the nets and clogs up the meshes, making the nets useless. Nothing will clear this stuff off the nets except pushing off the particles with your fingers ; this causes so much expense and time as to make it better to throw the nets away and get new ones ; this rafting is very great, they are towed by tugs, covering 4, 5 and more acres. Their motion in the water works off the outer and inner bark which settles to the bottom, and besides injuring the nets it also destroys the fishing grounds by driving the fish away ; this log difficulty has been noticed by me some years, but only these in small spots caused by the local towing of logs for home work, of some saw-mills, but since the duty has been taken off logs, this evil has grown to great magnitude and threatens the fishing industry most seriously ; the rafts are generally towed by two large tugs, which are owned by Americans. The nets would last about two years before this bark difficulty came up, but now the whole net will only last one year with this stuff. The rafting of these saw-logs across to the United States employs hardly any Canadian hands. The United States dealers bring their men and tugs with them ; if these logs were sawn in our own mills in our own country a large number of Canadian workmen would be employed. As it is, these mills are shut up and this labour to our people is lost ; many of our former mill hands now follow these logs to the United States to work in the mills there.

*George Larouche*, of Little Current, fisherman for seven years, said :—The towing of saw-logs is destructive to the nets and the fishery, but this did not occur in Mudge Bay, it is felt, in the North Channel and in Georgian Bay ; the bark and the rind next to the bark is ground off by the rolling and rubbing of the logs together when towing. This stuff falls to the bottom and catches on the meshes of the nets, it is most injurious ; these rafts cover surface area of as much as ten acres at a time ; since this injury to the fishery by saw-logs has taken place, I do not know where the fish have been driven to, it is certainly a great injury to the fishermen. The rafting of logs did not exist here some time ago, it is only since the duty was taken off logs. (p. 104, pt. II.)

*Joseph Rocque*, a fisherman of 14 years' experience, said :—The present rafting and towing of saw-logs, which eats off the bark and rubbish, has had the tendency to injure and reduce the catch of fish and to destroy the nets ; I have had my nets destroyed by the bark and soft woods inside, which is rubbed off these logs when being towed ; some of these rafts are about three-quarters of a mile long, some of them when boomed will cover 3 or 4 acres. Before this rafting commenced the nets were not injured, but now the nets become useless and are destroyed for fishing purposes ; if this rafting goes on the fisheries will become almost ruined. The feeding as well as the breeding ground of the fish are most seriously injured by this stuff. (p. 105, pt. II.)

*Adolphus Martin*, fishing in Georgian Bay and at Killarney for 6 years, said :—Whitefish and salmon-trout have fallen off at the present to what they were in former years caused by the injury derived from saw-logs being towed over the lake covering the spawning ground with bark, and the small wood next the bark which is ground off by the rolling of the logs together while being towed by American tugs ; these logs come from all parts of the Georgian Bay and are towed to the American side ; the bark and stuff ground off settles on the feeding and breeding grounds of the fish, and collects on the nets ; this drives the fish away and starves them of their feeding places, so that they cannot be caught here as they used to be. I lost seven pieces of net last season with this stuff getting fastened to the meshes and making the nets useless. I lost 300 yards of net, other fishermen lost nets in the same way ; the rafts are quite numerous and very large, sometimes covering five acres square, at other times  $\frac{3}{4}$  to 1 mile long ; they are towed by tugs about 2 miles an hour. They are sometimes delayed by winds and shelter in bay or behind islands ; all this time the rubbing and grinding is going on, and the bark and soft parts setle to the bottom, it won't drift on shore, it gets water soaked and sinks ; this rafting has been going on for past 6 years, but more largely of late ; this was not done much before the duty was taken off saw-logs ; this

## Ontario Fishery Commission.

sending the logs to the United States does great harm to the working people, as the saw-mill owners have shut down, that stopping a great trade here; the Government should take early steps to stop this evil which is doing so much harm to the fisheries and the fishermen, and to the inhabitants generally; this is the general opinion amongst all fishermen and the public on the North Shore. (p. 107, pt. II.)

*Nelson Couture*, of Spanish River, a fisherman for 22 years, said:—Whitefish are more scarce than they were: the water has become dirty and their feeding grounds are injured from the bark and fibre wood ground off the logs that are rafted across the bay; these rafts will cover 10, 15 and 20 acres of water; they are towed about 1 mile an hour, all this time the logs work and rub together grinding off the bark, and sappy wood parts in great quantities which settles to the bottom-spoiling the feeding ground of the fish, and lodging in the meshes of the nets, destroying them. This log rafting has been going on for some 5 years, and is increasing every year very largely, and destroying the nets of a great number of fishermen; these logs come down all the rivers and are rafted and towed across to the United States. (p. 110, pt. II.)

*James Glanville*, of Sault Ste. Marie, fisherman for years, said:—Bark and the soft wood on the logs which has been found to be very plentiful in the water, since the exportation of saw-logs has taken place, is injurious; this stuff rubs off by the motion of the logs while being towed across the bay to the United States. The rafts are very large and great damage is done to the meshes of the nets; it is much more injurious to gill-nets than pound-nets; if these logs are allowed to be towed over our waters this difficulty will increase, and the prospects for the fisheries in the future will not be very encouraging to the fishermen. (p. 127, pt II.)

*P. Sullivan and Sons*, of Spanish Station, write as follows:—In regard to the number of rafts which left here this summer of 1893, there was two hundred and ten million logs came down the Spanish River; out of that there were about 30,000,000 manufactured in this district, and there are still on hand about 20,000,000 rafted up in store-booms, to leave here the first thing in the spring; that leaves 160,000,000 which were rafted and towed to the other side (United States) this season; as near as can be ascertained these logs left here in about 40 or 45 rafts and would cover from 20 to 25 square miles of water.

The above facts have been ascertained respecting the number of logs passing between Spanish River and the Georgian Bay. There are eight different streams and each one is used for the towing of logs; the French River, I am told, passed even more logs than the Spanish, and my opinion is that the bottom of the whole lake from Georgian Bay to Missasagua is teeming with bark; it is 18 miles across to the Manitoulin, and rafts pass in three different directions, so that the bark is spread every way; this bark in the course of time forms into a kind of slime, and fish will not stay on that ground; there were five boats fishing from here four years ago, since then they have left as fish got so scarce, and in a very short time I believe there will be no fish at all.

On September 26 "last, I had 36 pieces of nets utterly destroyed by this bark, each piece of net was 180 yards long (in all 6,480 yards) and was loaded so heavily with bark as to break the web; I had also six other pieces similarly loaded with bark the last week in October. I am sending a sample of net as we took it out in October."

### DEPLETION OF THE FISHERIES IN THE WATERS OF ONTARIO.

The general tendency of the testimony given by the fishermen themselves, and the information obtained from all other sources, clearly and unmistakably goes to show that rapid decline of the better classes of fishes is being experienced in all of the former extensive fisheries in the lakes; and in some localities almost an extermination of the former prosperous commercial traffic in the fishing industries of the country has been already reached. The causes of this decline were so evident and so convincing to the minds of the Commissioners from the investigations made by them that they embodied their views in the concluding paragraphs of their report as follows:—

## CONCLUSION BY COMMISSIONERS.

While various explanations are given from various sources to account for the depletion of the fisheries, your Commissioners can arrive at no other conclusion than that the prime causes for it are (1) Fishing in the spawning seasons, and while fish are congregating for that purpose, going to and returning from the shores, bars, bays, reefs and rivers which are their breeding haunts; (2) The great destruction of immature fish in pound and gill-nets and seines; (3) The waste of great quantities of fish in the use of unlimited lengths of gill-nets; (4) The use of too small meshes in all nets; (5) The great deposits of refuse matter from saw-mills, and from the towage of immense rafts of saw-logs across the fishing grounds into the United States. These causes, each or combined, are in direct violation of nature's laws in not giving to all fish full freedom to replenish the waters at their spawning times, and killing them before reaching maturity for reproductive purposes.

Respectfully submitted,

SAMUEL WILMOT,  
*Chairman of the Commission.*

56 Victoria.

Sessional Papers (No. 10c\*.)

A. 1893

# REPORT

OF THE

# DOMINION FISHERY COMMISSION

ON THE

# FISHERIES OF THE PROVINCE OF ONTARIO

# 1893

# PART I

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Ontario Fishery Commission.

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Ontario Fishery Commission.

REPORT

OF

MR. SAMUEL WILMOT AND MR. EDWARD HARRIS,

Fishery Commissioners

*Appointed by the Dominion Government to inquire into and report upon the description of nets used, the spawning periods of fish, and other matters connected with the Fisheries in the various lakes and other waters in the province of Ontario.*

To the Honourable CHAS. H. TUPPER,  
Minister of Marine and Fisheries,  
Ottawa.

SIR,—Your Commissioners, duly appointed to examine into the particulars connected with the working of the fisheries of the province of Ontario, beg to submit their first report, which will cover the more important fisheries in Lakes Erie, Huron, Simcoe and the Georgian Bay.

The work of the Commission, after taking a large amount of evidence from fishermen, fish-dealers and others, all engaged more or less in the fishing industries of the country, necessarily closed their work temporarily, in December last, with the view, however, of entering into the investigations again during the season of 1893 in order to obtain information in relation to the fisheries connected with the other great lakes and waters of Ontario.

With two or three exceptions all the evidence submitted was taken under oath. Facts in sufficient number were obtained to enable an opinion to be formed of the present condition of the fisheries in several of the great lakes in Ontario.

Experienced fishermen and others having a special knowledge of the subjects upon which they gave evidence, were called as witnesses. They proved to be intelligent and well acquainted with their calling. A full report of the evidence as taken by the stenographers is annexed, and a synopsis of that evidence has been prepared for convenient reference.

1.—INTER-STATE FISHERY CONVENTION.

By permission your Commissioners attended the International Fisheries Conference held at Detroit in the latter part of December, 1892. The opinion of representative Americans, practical and experienced in the fisheries, are submitted, condensed from the report of the proceedings of the conference, comprising six states

of the Union which front upon our great lakes, each claiming water frontage and fisheries.

The resolution approving a close season during the month of November for whitefish, salmon-trout and herring was adopted unanimously by the various state commissioners at this conference.

A strong opinion was expressed that the licensing system of Canada should be adopted in the various state fisheries.

Other resolutions of an important character, tending to preserve the fisheries, were agreed to, all of which will be found in the condensed report of the proceedings.

No sentiment expressed at the conference appeared to meet with a more unanimous approval than, "That the fisheries were held by the States and Canada *in trust for the people* to see that they and their descendants had for all time to come a supply of fish; that the country is not to be deprived of this fish food, from improvident action at the present time."

These states will ask for legislation to confirm the recommendations of the conference. In Canada an order in council is effective. The adoption of the "recommendations" in Canada would be the best evidence of approval of the work of the conference.

It was recognized that Canada had been in the advance in endeavouring to preserve the fisheries of the great lakes.

In difficult cases, no argument is more effective than examples, the impression is more quick and penetrating than that of words; the possibility and advantages of performance are made clear. The example of Canada in the past, in adopting close seasons and wise regulations, has not been without good effect in the United States. The future of the fisheries of the great lakes will always be largely influenced by the adoption of any well considered regulations by the Canadian Government.

## 2.—FISH IN UNIVERSAL DEMAND.

Before commenting upon the evidence the importance to the people of maintaining the fisheries cannot be better expressed than in the words of the eminent physician, Sir Henry Thompson. His lecture, given during the "International Fisheries Exhibition, London, 1883," will be found in the fisheries exhibition literature "Conference."

"For a large and increasing class of the community who are emphatically brain workers fish furnishes an appropriate food. When we reflect that the tendency of civilization here and elsewhere is slowly but surely to develop mental activity and to dispense with laborious handicraft requiring a strong meat diet, this fish food which has hitherto for the most part been an agreeable appendage to the daily table of a few, ought, I think, to be more generally recognized as peculiarly adapted to the wants of a very large, influential and increasing part of our population.

"For the sedentary man, whatever his calling may be in life, whose engagements permit him only to take just what moderate amount of muscular exercise which is in all circumstances essential to health; for a great proportion of women whose habits mostly are not and often cannot be active, the nutritive elements afforded by fish admirably supply an important part of the wants of the body. The moderate

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amount of flesh-forming material present in fish and in a form which entails little labour on the digestive organs—for most persons certainly less than meat—and the facility with which fish may be associated with other elements, place it in the front rank of foods in that mixed dietary which is suitable to those who lead more or less the kind of life referred to.”

That the danger line of destruction of the fisheries of the great lakes is being approached with lesser areas is not generally known to the public. Lake after lake becomes depleted of its best fish, but railway extension opens the other inland waters, limited in number and easily exhausted. The supply of fish is for the present only barely maintained, but at increased cost to the consumer. Whether the lakes and waters already depleted can ever be replenished remains to be proved; the process of destruction and the methods to accomplish it are clear. Should the present very exhaustive methods not be prohibited in all matters, all the better qualities of fish must soon become only a present luxury for the rich, and ere long be exterminated.

Hatcheries can assist nature in replenishing depleted waters, but all artificial efforts will be futile where waste, excessive fishing, and a defiance of all nature's laws have a foothold.

### 3.—THE DEPLETION OF THE LAKE AND OTHER FISHERIES.

In pursuing the following synopsis of the evidence given it will be observed, that the whitefish being the favourite fish with the public, and the fish most easily caught by the fishermen, were the first to be exhausted. Mr. McDonald, who represented the Buffalo wholesale fish dealers at the Detroit conference said: “I think the whitefish are all out of Lake Erie, it is the herring we are all after now.”

The evidence given in relation to Lake Huron and the Georgian Bay shows a rapid advance to a similar condition in those waters. In Lake Huron the whitefish are admitted to be “pretty well caught out,” and at the lower end of the lake both whitefish and trout are at the point of extinction. Where an increase in the catch of salmon-trout is shown it is explained by the mesh being reduced from 5 inches to  $4\frac{1}{2}$ , and in many cases much less to catch the smaller and immature fish, as well as by improved fishing gear, more capital and greater efforts put forth by increased numbers of fishermen. Twenty years ago it is said in evidence that a small schooner would have been required, rather than a small fishing boat, to carry off a fisherman's catch from Squaw Island at the head of the Georgian Bay.

The large salmon-trout (large blacktrout so-called), which come from the deep water of the Georgian Bay to the shores about the 15th to 20th October to spawn, are followed by fishermen handling over 1,000 miles in length of gill-nets. It is possible, under the present plan of fishing the Georgian Bay and contiguous waters, to exterminate those fish in a season. The spawning grounds are in circumscribed space on bars, reefs and shallows, and there the fishermen congregate in the autumn months. This immense length of twine can be laid, making a wall of nets, so as not only to catch, but to prevent the fish which escape from reaching their spawning grounds to reproduce their species. The fish being thus driven from one part of the lake and bay to another, a correct conclusion as to the condition of the fisheries in Lake Huron and the Georgian Bay can only be arrived at by taking those waters as a

whole and not by the returns of a season's fishing from any particular locality. The gill-net fishermen of the Georgian Bay and Lake Huron will in a few years be forced into other occupations. This has already happened to the same industry in Lake Ontario, Lake Erie, Lake Simcoe, and the Detroit River and other waters. The process of exhaustion is entirely similar. It can only be checked by preventing the destruction of the young and immature fish, by having larger meshes in the nets and the strict enforcement of proper close seasons.

Fish are described by naturalists as being of two classes, local and migratory. Both may be quickly exhausted by improper fishing and overfishing: with regard to the species which lead a more or less migratory existence, there cannot be the least doubt, and where man has complete control over the area occupied by each, the same principle of more fish being caught than reproduced would lead to exhaustion likewise. It has been demonstrated that some of the Atlantic fish coming into the Mediterranean to spawn, and caught before and after spawning, have become extinct, although at one time so numerous as to interfere with navigation at the spawning season.

The diminution of any species of fish can usually be traced to the action of man.

In the great lakes fishing is carried on with gill-nets in almost any depth, even in 400, 500 and 600 feet of water with as great safety and less loss of nets than when used nearer the shores and shallows. It is in the deep water in the summer months that the immature fish or summer trout are now largely destroyed by the use of smaller mesh nets, which have been reduced from the former 5-inch extension size to  $4\frac{1}{2}$  and 4 inches, and less.

The fish can be followed to almost every point in the lakes, and with this irregular fishing and overfishing their extermination is only a matter of time.

When any species of fish get much below nature's balance in the waters by such abnormal means, their natural enemies and parasites are usually sufficient to complete their destruction without the aid of man.

The doubtful expressions of several witnesses relating to whitefish: "All left at once," "They just disappeared," "Gone somewhere else," "They have emigrated," may also be made to apply to salmon-trout.

W. H. Church, a fisherman for 40 years, 28 years on Lake Ontario, and 12 years in Georgian Bay, says "more salmon-trout are caught as the whitefish drop off—that is the fish they go for now," is pregnant with warning—he had seen the fisheries of Lake Ontario destroyed, and then moved to the Georgian Bay to fish those waters.

Messrs. Cunningham and Campbell are to the point in giving their evidence, "that fish are not at all as numerous as they were, but there are more nets and more fishermen to make them appear so." The almost complete destruction of the whitefish and salmon-trout fisheries in Lake Ontario, Lake Erie, Lake Simcoe, and whitefish in the Detroit River, and the causes for it are too apparent in the evidence published, to require comment here.

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## BLUE PICKEREL AND VORACIOUS FISHES.

The phenomenal increase, as shown by the catch, of voracious and coarse fish in Lake Erie, may be attributed to exceptional causes, by the somewhat warmer water in that shallow lake, and the weedy nature of many of the bays and shores. This lake at one time abounded in whitefish and salmon-trout. The returns of the Department of Fisheries in 1892, show that not one salmon-trout was caught, while during the last ten years, the pickerel catch, mainly blue pickerel, increased 477 per cent, pike, 413 per cent, and other coarse fish, 223 per cent. Twelve tons of blue pickerel have been lifted in one day in four pound-nets. (See Emery's, Port Burwell, evidence.)

The brook pickerels (*Esox Americanus* and *Esox umbrosus*) are well known. These two small pickerel are very abundant—the former in the coastwise streams, east of the Alleghanies—the latter in the Mississippi basin. Neither reaches the length of much over a foot, and from their voracity they are undesirable inmates of streams and lakes. The average weight of the blue pickerel of Lake Erie is one pound, and it may be a development of one or other of the above-named pickerels. The fry of the young whitefish from the spawning grounds at the west end of Lake Erie and Detroit River are carried by the currents to the deeper waters in the middle and at the east end of the lake. It is there the blue pickerel are to be found. They go in shoals and feed upon the fry of the more marketable fish. Fifty and even sixty small fish have been taken from the stomach of one blue pickerel. This fish is little known west of Point Pelee, is not known in Lake Ontario, nor is this species as developed in Lake Erie known in any of the western lakes. At the Detroit International Fisheries Conference an opinion was expressed that the pickerel was a fish which should be "cleaned out of Lake Erie." The pike and the coarser fish which have also so largely increased in Lake Erie are voracious and destructive to all other kinds of little fish.

In Lake Huron and the Georgian Bay there is evidence of the ravages of the lamprey eel, from their marks being found upon the bodies of the whitefish and other fish when caught. This eel inhabits Lake Ontario in vast numbers. At Kempfenfeldt Bay on Lake Simcoe,—the dog-fish have so increased in numbers that a Barrie fisherman has applied for a dog-fish license—the fish is almost worthless, yet they are saleable in some American cities where penury compels their use as food. In Lake Simcoe whitefish and salmon-trout are so nearly extinct, that complete suspension of net-fishing is advocated in that locality.

The dog-fish is classed as one of the most voracious and worthless fish in our waters—fishermen call them lawyers.

Nature's balance having been disturbed by the greed of man in the various lakes will account in a great measure for these unpleasant phenomena.

## 4.—FISHING IN THE SPAWNING SEASON.

Almost without exception, the fishermen examined expressed the opinion that owing to the loss of nets during November it would be better in the end, and more profitable to the fishermen to take up their nets and stop fishing at the end of October "if all did it." The few that were adverse to the November close season

for all the autumn spawning fishes, based their untenable objections upon the freedom in fishing permitted on the American side of the lakes and in their rivers.

The early settlers upon the shores of our inland waters had neither the boats nor the fishing gear suitable for fishing in deeper waters:—Many fish were then caught in the rivers, creeks, and bays principally during their spawning seasons, in the spring months; and in the autumn, whitefish and trout were taken on the bars and reefs, bays, their regular spawning places in the lakes. Salmon were invariably killed in the rivers and creeks which they entered only for breeding purposes.

Freezing establishments were not known then. Ice was not stored to enable fish to be handled in the summer months; salting, barrelling and fishing in the spawning season became the custom of the country. Fish were then taken in the more circumscribed places where they were more easily caught. In the spring months, the spawning rivers were fished from end to end with seines, dip-nets, rod and line and spears; the destruction was carried on constantly by day and night.

The rivers and streams served as breeding places. The parent fish that escaped destruction, having performed the office of spawning there, returned largely to the lakes—the young remained in the streams until sufficiently grown, when they were carried down by the freshets to the lakes where, in their turn, they became mature and their instinct directed them to return again to the same waters to reproduce their species.

These great natural sources for keeping up the supply of fish in our inland waters have been largely destroyed. The fouling of rivers and creeks by drainage, sawdust and other refuse of mills and manufactories, obstructions in the shape of dams, the shallowing of waters consequent upon the removal of forests and cultivation of the soil, has unfitted many rivers and streams for the propagation of fish.

At the present time the great lakes must be depended upon almost wholly to keep up a supply of fish food for the people. The spawning grounds in the lakes must now be amply protected, as well as all other waters found suitable for the propagation of fish. Commercial or net fishing of any kind should never have been permitted in such waters as the Detroit and other like rivers and streams which were resorted to by fish solely to perform the office of spawning.

## 5.—DESTRUCTION OF YOUNG AND IMMATURE FISH AND WASTEFUL FISHING.

Where the destruction of the fishery is so nearly complete as in Lake Ontario there is no difficulty in obtaining details of wasteful fishing and the destruction of young and immature fish.

In the Georgian Bay and Lake Huron the destruction of salmon-trout and whitefish is now full on, the end is rapidly approaching. Small and immature fish are shipped packed in ice to the city dealers and to the United States; those not fresh enough are salted or converted into oil. The fish that are carried away and spoiled in gill-nets during storms, or decay in the water by fishing a greater length of net than can be properly handled, is described by witnesses as covering "tons weight" and "sufficient to foul the waters."



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Concurrent with the depletion of the fisheries the struggle of the fishermen to live begins, greater length of nets are used than allowed by law, and the nets are not lifted so frequently. When lifted, some of the fish will be fresh, others unfit for use as fresh fish are salted, others still worse are used for oil. The less experienced fishermen become embarrassed, and merchants, supply houses, and capitalists from time to time by giving credit and advances of money become interested in this continuance of waste and destruction, as well as illegitimate fishing. There is evidence that there are merchants who will "start any man fishing." An experienced Huron fisherman says he never heard of a gill-net being refused to any applicant. At the present time there are about 1,345 miles of gill-nets licensed for the Huron, Georgian Bay and Manitoulin waters, five times the combined issue for the whole of the rest of Ontario—but even this estimate is far below the real length of nets proved in evidence to be in use in these waters, for it is known that, where a license is issued for 6,000 yards of gill-net, 16,000 and upwards all actually used; and with a license for 24,000 yards, for a tug, it is run up to 40,000 yards and over.

Any restrictive system and one which would cut at the root of inveterate abuses, sanctioned by constant practice and of old date, however well considered, will invariably meet with an opposition difficult if not impossible to control.

The evidence of Mr. Davis of Hamilton, Messrs. Port, Doyle and Bray of Toronto, large fish-dealers of high personal character as well as the best reputation as merchants, is not only the best evidence, from the nature of their business, but it is clear and conclusive of the present waste and destruction of young and immature fish in Lake Huron and the Georgian Bay and other waters.

### 6.—AMERICANS FISHING IN CANADIAN WATERS.

That the American fishermen trespass in our waters is clear from the evidence. This irregular and illegal fishing is chiefly carried on in Lake Erie, and the lower end of Lake Huron. It is the cause of much discontent and irritation among Canadian fishermen.

Fish in considerable quantities are also purchased direct from Canadian pound and gill-nets fishermen, and taken in tugs direct to American ports without landing or reporting in Canada.

The duty of  $\frac{3}{4}$  of a cent per lb. intended to be levied on Canadian fish entering the United States is easily and generally avoided—the fish being invoiced by the consignors as fish caught with American nets, and a large percentage of the fresh water fish caught in Canadian waters are thus invoiced. Should any considerable portion be classified as American fish, the American statistics published as to the returns of their fisheries are quite misleading; quantities of Canadian caught fish are actually included in these returns.

7.—SYNOPSIS OF THE PROCEEDINGS OF THE INTERNATIONAL FISHERIES CONFERENCE HELD AT DETROIT, MICHIGAN, DECEMBER 20TH AND 21ST, 1892.

*Hershell Whittaker*, Detroit Fish Commission, and chairman of the conference, said:—

"I assure you, gentlemen, that if we go on for just about five or ten years more in this way you can license your grounds for growing celery or fresh water oysters, but you cannot license them for whitefish. The fish will be gone. There will be nothing to lease. The state will have no fishing grounds that there will be any money in. There will be no temptation for a man to rent fishing grounds here at all. The destruction of the small fish is the thing, if it is possible we should overcome that. Our legislative bodies ought not to be apart from each other in the matter of regulations, we ought to be united."

*E. W. Gould*, Commissioner Sea and Shore Fisheries of Maine:—

"When nature establishes a season during which one species ought to be fully protected (while spawning), another of somewhat different habits is in its prime condition, thus wisely ordaining such a condition of affairs as will keep up throughout the entire year the fish food supply of the people, and now the thinking portion of the people are slowly awakening to the fact that the danger line of extinction has been passed in some instances and being rapidly approached in nearly all others. To those who have made a study of fish life and its underlying conditions the answer is a very simple and exceedingly plain one in explaining the great depletion of our fisheries—simply exhaustive fishing and at improper seasons. Men appear in conjunction with the legislatures and sending their most suasive members, giving a glowing account of the immense industry they represent, the large number of men they employ and the large amount of general good that is the result of their operations, and while arranging themselves to ail appearance on the side of intelligent restriction, oppose strenuously any restrictive measures that would be effective.

"The more intelligent fishermen promptly range themselves on the side of protection and preservation, foreseeing that without some means being employed to prevent this wanton destruction the business will not survive itself.

"The Commission of Sea and Shore Fisheries of Maine emphatically advocates protection for all edible fish during their seasons for spawning."

*Dr. Robert Ormsby Sweeny*, sen., Duluth, President Minnesota Game and Fish Commission:—

"I know from the experience of the protection given by the Canadian authorities to whitefish on Lake Superior, that it is most beneficent. The difference between our fishing on the north shore of Lake Superior in our waters and theirs is most marked. When you get within 35 or 30 miles of the Canadian line the fishing is fairly good, and when you cross it it is excellent compared to what it is on our side. The greater bulk of the whitefish are obtained from Port Arthur now on the Canada side, and the fishermen of Lake Superior on the American side are so well satisfied that it is the right thing to do that they have expressed to me their willingness, without any solicitation on our part, that we should join with the Canadians in having the same close season. It is their opinion that a close season for whitefish from November 1st to December 1st will be the salvation of the fishing. If they go on as they have been the fishing will be exterminated. In regard to our fisheries in Lake Superior I think our legislature will pass such a law."

*Hoyt Post*, Detroit, Michigan, Fish Commission:—

"There is no doubt in my mind from the experience I have had with the better class of fishermen and those whose support would be more valuable that they are going to see this matter somewhat in the light we look at it, and they appreciate the necessity for something being done in the way of prevention of destructive fishing."

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*Wm. H. Bowman*, New York, Fish Commissioner:—

"It seems to me, after discussing this matter properly, we can reach a compromise that would be satisfactory and just to all concerned, and we could pass laws in these different states that would be uniform, and that thereafter you will certainly have a much better supply of fish than heretofore."

*A. Booth*, President of the A. Booth Packing Co.:—

"I should very much like to see a more cordial feeling existing between our country and Canada in reference to a uniformity of fish laws, and trust that from your deliberations much good many result."

*John H. Bissell*, formerly Michigan Fish Commissioner:—

"I should like to go over the subject of the regulations of the fisheries by way of licensing. I became satisfied from my examination of the subject that that is one of the things that ought to be kept in view all the time. The time has got to come when the industry of fishing will be licensed."

*C. V. Osborn*, Dayton, Ohio, Fish Commissioner:—

"We will have to come to this upon our lakes, the leasing of the fishing grounds, for only upon leased grounds do we reach that enforcement of observance of law which will make the fishing perpetual. We have the decision in Ohio of some of our best lawyers, showing that this is constitutional and that it is in the power of the state to lease the fishing grounds."

*W. P. Andrews*, Minneapolis, Minn.:—

"It has been the idea of the Minnesota Commission that the time is not far distant when we will have to do as our Canadian friends do and lease the grounds."

*A. G. McDonald*, Detroit, manager of the Buffalo Fish Co.:—

"We have made up our minds that there should be a close season for herrings."

*C. M. Keys*, representing the Sandusky wholesale and retail fish-dealers:—

"I am firmly of the opinion that gill-net fishing as practised now on all the lakes is a great destructive force in fishing. In the Georgian Bay, when they take up those nets the fish are absolutely putrid, dropping from the nets almost as they lift them up. But a small portion of the fish taken are fit for the market, and consumed. The gill-nets are usually out three or four nights, and the fish that run in first are mostly decayed.

"My opinion is that gill-nets are the greatest engine of destruction that we have on the great chain of lakes. The fish are practically given no rest from the beginning of the season to the end. They do not claim that the fish are fit for the market, but they *do go to the market*. The Boards of Health of the various states have investigated the matter, and with one accord they have said that fish thus taken are absolutely *unwholesome as food*. There is not a man who is practically engaged in the business but what will say there isn't one fish out of ten taken in gill-nets that he would eat, especially in summer. I do not expect it will ever be possible to get laws passed which will prevent gill-netting, but if you could get laws past limiting that, it would go a long ways towards the protection of fish.

"I will make this proposition now: That with all the protection the Canadian laws afford, if gill netting is permitted in Georgian Bay, in less than five years fish will be scarcer there than they are in Lake Erie."

## 8.—RESULT OF DELIBERATIONS AT THE DETROIT CONFERENCE.

The special committee submitted the following to the Fisheries Conference:—

DETROIT, December 21st, 1892.

Your committee to whom was referred the question, "Whether or not there should be a close season for whitefish, lake or salmon-trout, and herring," also what means should be taken for their protection, would report:

1st. All small fish and those unfit for food of all kinds when taken in nets should be replaced in the water when taken alive, and that fishermen should not be allowed to take such fish on shore, nor expose them for sale.

2nd. That no string of pound-nets used in the lakes shall extend more than four miles from the shore.

3rd. That one-half of all channels between islands or elsewhere where fish migrate to spawn, shall be kept free from nets of all kinds at all seasons.

4th. That all whitefish taken of less than sixteen inches in length and all salmon-trout less than two pounds in weight, shall be immediately returned to the waters where taken, and shall not be exposed for sale. That all herring less than eight inches in length, and all wall-eyed pike, pickerel or doré less than twelve inches in length, shall be returned to the waters where taken, and shall not be exposed for sale.

5th. That the month of November in each year be made a close season in all the great lakes for whitefish, herring, and salmon or lake trout.

Your committee would further recommend that all penalties fixed for violations of any laws that shall be enacted shall be made to apply not only to those who take fish, but also to all persons who buy, sell, transport, or have the same in possession.

## 9.—SPECKLED TROUT.

Speckled trout breed in Canada, as a rule, in September and October. A close season from 15th September until 1st April is proper for Canada. In the older settlements of the province of Ontario this fish is practically extinct, except where artificially reproduced, and its reproduction has now become a matter of private and commercial enterprise.

To be universally popular, fish culture and fish preservation should be based on food considerations, and not on those of sport.

In some of the provinces and states legislation has been influenced to preserve game for sportsmen and their friends, and not for that numerous class who desire to purchase it for food.

Speckled trout (and in this connection black bass may be included), are claimed as a luxury for the sportsmen the same as game, but they, like all edible fish, are in universal demand, and among all classes.

All fish should be preserved and regulations made with a view to bring them within reach of every consumer.

Speckled trout should only be caught by angling with rod and line.

## 10.—BLACK BASS

Spawn in May and June.

The nesting habits and manner in which these fish protect their young are well known.

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From the end of August until April black bass are in good condition for food, and are in demand, being a favourite table fish with consumers. They bring at the proper season the highest price of any lake or river fish in the market.

A close season during May and June should be established to protect this fish.

### 11.—STURGEON

Spawn in June and July.

It is recommended that all sturgeon caught three feet six inches in length and under be returned uninjured to the water, and that a close season for sturgeon be fixed to include the months of June and July.

### 12.—SALMON-TROUT, WHITEFISH AND HERRING, THEIR SPAWNING TIME.

The evidence clearly indicates that salmon-trout, whitefish and herring combined spawn from 15th October to the end of December. It may be therefore said that the month of November now established as a close season for these fish, somewhat reasonably protects them; better protection would be felt with a close season from 15th or 20th October to 1st December, thus covering the spawning season of the trout more fully, as shown in the evidence.

### 13.—POUND-NETS, GILL-NETS, SEINES — AN OPINION AS TO THE DESTRUCTIVE QUALITIES OF THE VARIOUS NETS USED IN FISHING CAN BE FORMED BY A CAREFUL PERUSAL OF THE EVIDENCE.

The restoration of the fisheries depends upon the enforcement of proper close seasons and regulations preventing overfishing and the taking and marketing of young and immature fish. The use of certain kinds of nets in certain waters, with a proper regulation as to size of mesh, is an important factor for upholding the fisheries.

The fisheries of Lake Ontario were largely destroyed by seines; few, if any, gill-nets were used in that lake until about 1853, nor until seine fishing began to be unprofitable along the shores.

It was the same in Lake Erie, Lake St. Clair and the Detroit and St. Clair Rivers, and at points on Lake Huron.

Gill-nets are now and have been the most destructive engines in use in Lake Huron and the Georgian Bay and other waters.

Deep water pound-net fishing began about 1865 in Lake Erie, and not until all other plans for commercial fishing had began to fail. The chief objections to pound-nets can be remedied by certain limitations, and by compelling the use in the pots of a larger sized mesh in waters frequented by whitefish and salmon-trout. The loss of fish in pound-nets and seines can always be estimated; the waste in gill-nets can never be known.

The following is a synopsis of the evidence, as taken before the Fishery Commission, in November and December, 1892.

#### 14—LAKE ERIE.

*Frank Jackson*, Port Dover, fisherman and foreman, page 6, says:—

Even twenty years ago this lake and bay had whitefish in plenty, caught with gill-nets and seines. They were salted and were a food supply in winter on the farms and in cities, towns and villages. Herrings were valueless then, whitefish were so numerous. It is now played out, caused by overfishing in the spawning season and wasting and catching small fish. "Yes, sir, whitefish have become extinct in these waters; what was once a whitefish and salmon-trout fishery, is now a herring fishery."

The 2-inch extension mesh used in the pots of pound-nets in Lake Erie has hitherto been very destructive to small, immature fish. A 3-inch extension mesh is the proper mesh for Lake Erie. Blue pickerel are most destructive to the fry of all fish, and they now overrun Lake Erie. The average weight of the blue pickerel is about  $1\frac{1}{2}$  pounds, and cannot be caught in anything larger than a 3-inch extension mesh. Has seen tons weight of small immature whitefish caught; the majority were buried. This was common in 1890 and 1891, but in former years the destruction of immature fish was far greater. Has known two or three tons of these small fish taken out of six or seven nets in May and June.

*James Low*, Fisherman, Port Dover, page 16:—Around Long Point and Port Dover is a herring fishery; without the herrings it would not pay to fish it.

*Geo. F. Allen*, Fisherman, Port Dover, page 9:—Get now and then a whitefish about the size of a big herring. Never saw a salmon-trout caught in these waters.

*Capt. J. S. Allen*, Port Dover and Nanticoke, page 11:—Very seldom catches a salmon-trout.

*Crosby Morgan*, Port Dover, page 12:—Fished formerly; now in business. Take the herrings out of the east end of Lake Erie and you might as well stop fishing.

*W. F. Tibbetts*, postmaster, Port Dover, page 14:—Fished formerly. Herrings are the principal fish.

*William Backhouse*, fisherman, Dayham, page 26:—Catch two or three salmon-trout in a season; they are about alone in this lake; it is now a herring and blue pickerel lake.

*H. E. Ansley*, Port Dover, warden of county, page 3:—Enforcement of judicious regulations as to mesh and close seasons might reduce the catch in the meantime, but would be better for the fishermen in the end.

#### (B.)

*W. Emery*, merchant and fisherman, Port Burwell, page 23:—Four or five years ago lifted considerable numbers of small, immature fish; gave some away and buried some; sold some at reduced price; the blue pickerel prey upon small fish; has lifted twelve tons of blue pickerel in one day in four nets; they would pass through a  $3\frac{1}{2}$ -inch mesh.

*C. C. Bates*, fisherman, Clear Creek, page 17:—Have caught whitefish 5 inches in length in my 2-inch extension pots; have never thrown away immature fish from his nets; people buy them at  $\frac{1}{2}$ c. per pound to smoke; blue pickerel are very numerous, but not many yellow; blue pickerel and herring average the same size; sturgeon under 3 feet should be thrown back.

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(C.)

*A. C. Brown*, fisherman, Port Stanley, page 21 :—Catch of blue pickerel large, but not so large as at Port Burwell; occasionally catches immature fish, from 100 to 500 pounds; mostly sold for home consumption; bury perhaps half a ton in a season.

*Capt. John Ellison*, fisherman, Port Stanley, page 29 :—Two-inch extension catches  $\frac{1}{4}$ -pound fish; four years ago we caught a number of small fish, few since; those small fish ran  $\frac{1}{4}$  to  $\frac{1}{2}$  pound; threw them back; small fish in a net are a nuisance; of late years in Lake Erie the fishing business has been assuming a more business-like aspect.

*Daniel Lang*, fisherman, Aldborough, page 25 :—Caught plenty of immature fish, principally herrings, and about four years ago great numbers of young whitefish; never buried any.

*W. H. Black*, Kingsville, fisherman, page 32 :—Catches a salmon-trout once in a while.

*W. D. Bates*, fisherman, Rondeau, page 34 :—Eleven salmon-trout caught in this fishery.

*William Grubb*, light-house keeper, Point Pelée, page 40 :—A great many more blue pickerel caught here than whitefish.

(D.)

*Gilbert de Laurier*, fisherman and fish-dealer, Leamington, page 38 :—Sturgeon under 3 feet 6 inches should be returned to the water; has heard it repeated that great quantities of small fish are wasted.

(E.)

At the International Fisheries Conference held at Detroit, 20th and 21st December, 1893.

*Mr. C. M. Keys*, of Sandusky, Ohio, specially invited to attend the conference to represent the fish dealing interests of Sandusky, said :—The head or west end of Lake Erie is the natural spawning ground for the whitefish. From Pelee Island and the Dummy Light to Vermillion is one continual spawning ground. The only whitefish taken to speak of are those taken on these spawning grounds. The bulk of the whitefish are caught with gill-nets, set upon what is called the "reef." The whitefish are not only caught, but are turned back and prevented from reaching their spawning grounds above. Nature directs them to a certain place, and this they cannot reach. The fish which escape the nets thus fail to reproduce. There is a wall of nets stretching across Lake Erie. This fishing is carried on in November while the fish are ripe for spawning. The heaviest herring fishing is carried on at the same time. The whitefish and herring spawn at the same time.

*Mr. A. G. McDonald*, Detroit, manager of the Buffalo Fish Company, said :—I think the whitefish are all out of Lake Erie, and it is the herrings we are after now. Every net of every description should be out of Lake Erie by the 15th November. I am in favour of a close season. The Canadian close season begins first November.

*Mr. Herschel Whittaker*, of Detroit, Michigan, Fish Commissioner and chairman of the International Conference, said :—Twenty years ago I lived in the State of New York, and whitefish, trout and ciscoes were in plenty. Five or ten years afterwards the commercial fishing of Lake Ontario became extinct practically. It was not pursued for profit any longer by fishermen. This illustrates what fishing without restraint will do. The same thing is occurring in Lake Erie to-day, and

the same thing is true of the fishing in the lower end of Lake Huron. Let me say one thing with reference to a close season. In Canada they have the month of November closed. There is no complaint there from the Canadian fishermen but one, that their neighbours are fishing without restriction across the border, so why should they not do it. I am thankful to see that there is one place on God's footstool where they do enforce a law which seems to be a reasonable and a just law. I wish we might do it here.

(F.) SANDWICH, DETROIT RIVER.

*Noah Jolie*, Sandwich West, Detroit River, a fisherman 40 years, says:—All the fish in the Detroit River were caught during the spawning run. Eighteen years ago the whitefish caught were put in pens; a pen covered half an acre, and 40,000 whitefish in a pen. Sometimes they lost 2,000 fish out of a pen, one year lost one-half, warmer water and sickness killed them, fungoid growth showed on them, they would come to the top, we would sell them along with the others, the very bad ones were buried, some were healthy, some were sick. About the same happened in other fishermen's pens, but the smaller the pen the more the sickness; all these fish came up the river to spawn. Fish became so scarce I gave up 13 or 14 years ago. In those days the Americans caught about as many as we did. November is the only month that will pay to fish for whitefish in Detroit River. All the fishing on both sides was done with seines.

*Rémi Laframboise*, Sandwich West, Detroit River, seine fisherman, page 54, says:—Whitefish come up the river to spawn in November, and that is the principal month for catching them. Herrings spawn end of November. Large numbers of whitefish were caught and put in pens about 100 feet square; a good many died and were thrown out in the river; some were buried, and some converted into oil. I have known 15,000 to 20,000 put in these pens; 2,000 and upwards would die and be converted into oil, *some years more*; they died from disease; got mossy and died; some would look bright, but large numbers would be affected; herrings were put in along with them; one year 300,000 or 400,000 were caught, and one year the pens were so full of herrings that the fish were crowded so close together that they died in great numbers; days were occupied in scooping dead ones out and throwing them into the river. The river was made foul with the quantities of rotten fish; thinks the fishery would not have been destroyed had the fish been allowed to spawn. The young fish would have been carried by the current into Lake Erie through the channels on our side of the river. All the whitefish that came from Lake Erie to spawn were destroyed in Detroit River, and there was nothing to go back, and that accounts for the destruction of the whitefish fisheries.

*Daniel Maloche*, Sandwich West, farmer at present, fished 50 years on Detroit River (page 57) says:—In 1870 we caught most whitefish; they have been decreasing ever since; my average catch was about 30,000; 2½ pounds each. I put these fish in a pen the usual size to keep them for the New York market later on. These fish came up the river to spawn and were caught in November. They would jump out of the river, and we could see them spawning. They are ripest for spawning from 12th to 20th November—then the eggs flow most freely. We would have a few herrings in the pens at the same time. We used to lose fish sometimes by keeping them over; when they died they floated on the surface; some had red spots, some moss; some were buried, some converted into oil, some were taken and sold in Detroit for consumption. I consider the fisheries in the Detroit River worthless now; I would not fish the best ground. It is a great calamity, \$50,000 a year to the Canadian side. Close seasons were never obeyed here and we fished the whole month of November. The fishing began to fail 15 years ago and five years ago fish became so scarce fishermen could not live. All the river fishing was done with seines.

*Joseph Maloche*, Sandwich West, carpenter, had been fishing Detroit River 25 years (page 69), says:—He fished in Detroit River like Daniel Maloche. That the



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pens in which the whitefish and herrings were put were made of plank and were made handy so people could walk around them. The whitefish came up the river to spawn and were principally caught in October and November; we had 80,000 and 90,000 whitefish in a single pen at one time. There were in other pens at the same time 30,000 and 40,000. This was in November, which was their spawning time. Some of these fish were kept until March for the New York market. About 10 per cent died in the pens.

*Joseph Allen*, Sandwich, fisherman 20 years, still fishing (page 71), says:—The most herring are caught in Detroit River in November, their spawning season. They were caught in great numbers seven years ago. As many as 500,000 were caught on west side of Lighting Island on five stations; they were filled with spawn. In 1888 and 1889 we did not catch much more than enough to pay expenses. The Detroit River fisheries began to give out about 13 years ago. Seines were pretty close together then, in some places not room for more. In some places there were seven seines in a mile, that was the thickest. On the American side they were not quite so thick. The seines were the same build on both sides. Thinks fish feeding on each other does not reduce their numbers much—that man makes more difference than fish.

*Charles Gauthier*, fisherman, Windsor (page 74) says:—The spawning time for whitefish in Lake Erie commences about the 13th or 20th November in Detroit River. They begin a little earlier, but the month of November is the only time that whitefish can be caught in Detroit River in sufficient quantities to pay for fishing and has been so for a number of years. For 13 years, from the year 1876 to 1889, the close season for fish in Detroit River was suspended and several Ministers would not enforce it, because it was unreasonable. Whitefish in the Detroit River have decreased so that the largest catch out of two or three seines would be 400 or 500 fish. The whitefish came up the Detroit River to spawn. They were not taken at any other time. Very few were caught before 1st November. The bulk of the fishing was in the middle of November, in the height of the spawning time. I have known the Lake St. Clair fisheries; in 10 or 15 years they have decreased.

### (G.)—ST. CLAIR RIVER.

*Marquis A. Hitchcock*, Sarnia, who fishes a seine at head of River St. Clair, Lake Huron (page 80), says:—In the old days there were three whitefish seines at his point, seining in October and November, and now fishing for whitefish is perfectly done. The fishermen consider there are none to be caught.

There are very few herring caught now at all; some years ago there was a very good catch. They spawn in November. Previous to 1892, we fished until the winter set in. No close season was observed by anybody above or below me. When we catch the first pickerel which come in they are full of spawn. They come here to spawn. They are all yellow pickerel (doré), no blue pickerel. Ten or twelve years ago we had three times the catch and paid \$500 a year for the license—not worth a cent now. The bottom of the fishery has fallen out. We catch them as low as 1 pound, for sale; under that they are not saleable. The sturgeon were ripest in spawning in July. We fished from the middle of May until the middle July. The sturgeon have almost left us.

*John Lang*, of Lake Huron (page 85):—Whitefish were very plentiful in former years, as many as 40 or 50 barrels in a haul—5,000 fish was an ordinary catch. These fish have fallen off very greatly. Sturgeon have fallen off, destroyed by overfishing. Yellow pickerel have fallen off wonderfully during the past four years, destroyed by improper fishing and overfishing. The river or large herrings have fallen off entirely. A smaller kind are now taken. Four years ago, I paid \$160 per day for the catch of one seine during September. I would not pay them anything now, the fishery has so greatly fallen off.

## (H).—GODERICH.

Capt. *John Craigie*, fisherman, Goderich (page 89):—The whitefish are declining in Lake Huron—the herrings are so undersized that it is unprofitable to fish for them; the whitefish are the best fish; the public prefer them—and the fishermen caught them with less trouble than other fish. A Lake Huron gill-net license holder goes wherever he likes in the lake or Georgian Bay. The 8 or 10 boats here are all licensed to fish in the same waters—fishes half way across the lake in 600 feet of water; and at certain seasons of the year we fish along the shore.

*James Clark*, fish dealer, Goderich, (page 97):—In the interests of the fisheries and the fishing industry the close seasons should be sustained—the close season should begin 1st November and kept strictly. Does not believe fish move around much, but keep in families in the same locality.

*Malcolm McDonald*, fisherman, Goderich (page 118):—Whitefish are caught in the Georgian Bay now. They were once plentiful in Lake Huron. To preserve the fisheries for the future we should have close seasons; but it is very discouraging for us to be keeping it and the Americans not—and they fishing in our waters during that time.

*James Clark*, fish dealer and fisherman, Goderich (page 123) says:—In following the fish in their gill-net fishing in Lake Huron and Georgian Bay they use  $4\frac{1}{2}$  mesh, also 5-inch and  $5\frac{1}{2}$ -inch and sometimes  $5\frac{1}{4}$ ; we use  $5\frac{1}{2}$  in the fall, following the larger fish to the shores, these are large dark trout from  $3\frac{1}{2}$  to 10 lbs. The deep water trout are small and light in colour, average  $2\frac{1}{2}$  lbs.; never saw eggs in them which were mature. The dark large trout show their eggs pretty well advanced when caught. They spawn in November, some earlier, some later. We catch these big trout in October and November. I think they come to spawn. The small trout averaging  $2\frac{1}{2}$  lbs. are not caught at that time, they do not come inshore. We catch salmon-trout in Lake Huron and whitefish in Georgian Bay. Herring fishing is of no account in Lake Huron. Never heard of any one applying to fish with gill-nets who has ever been refused. In the interests of the fisheries and fishing industry the close seasons should be sustained. Does not believe it natural for fish to move around much, but keep in families in the same locality.

Capt. *James Inkster*, Goderich, fishermen (page 106) says:—There are a great many fishermen who depend upon the November herring fishing, they scrape along all summer and want to catch herring in the close season; other fishermen work hard all summer and don't feel like continuing on. It is no hardship but a benefit to the fishermen to have a close season and stop fishing in November. I doubt the migration of fish from side to side in the lakes. So long as there is a whitefish or salmon-trout left we don't want to bother with herring. Did not catch enough whitefish last season to pay men's wages.

*H. W. Ball*, fishery overseer, Goderich:—He considers gill-net fishing the most wasteful method of fishing. If a pound-net breaks away all the fish get free, if a gill-net is washed away there may be 10 tons of dead fish in it and they are blown all over the lake, the fish are lost and the lake full of decayed fish, equally destructive to the fisheries as cleaning the fish and throwing the offal into the lake. It is well known that many fisheries have been destroyed by throwing fish offal into the water. Whitefish have almost disappeared on this coast—the apparent increase in salmon-trout is explained by the mesh being reduced from 5 inches to  $4\frac{1}{2}$  and more small fish being caught and by the use of improved fishing gear tugs, and flexibility and make of the twine. Think the department should not discourage pound-net fishing. Has known the proceeds of a gill-net brought to shore and not one half of it marketable. The yellow or bad fish are salted it is not good for the reputation of Canada that we should salt such unwholesome food. There is considerable discontent among the fishermen, the business being now outdone—that is the principal cause. There are too many in the business. There are men with capital

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interested in the fishing business and they will start anybody to go fishing. A close season for herrings in November is absolutely necessary, and also to protect whitefish and trout.

### (I.)—SOUTHAMPTON.

*Donald McCauley*, Southampton, fisherman (page 128):—There is too much fishing, too many men trying to make a living at it; too many gill-nets drive the fish away and prevent them reaching their spawning grounds—fouling the water with offal and dead fish has the same effect. When first started here, 1855, Canada took all our fish. Now there are so many at it that we must send them to the States. There are more fish caught now than this country wants. In stormy weather we find a good many dead fish in our gill-nets, they are not marketable as fresh fish, but there are many that will do for salting that won't do to use fresh. This year being stormy we lost a great many, too far gone for anything, and oil was made of them. There are men all over the lake making a living by making oil from rotten fish. There is a good deal of it made, it brings 30c. per gall. and is sent to the tanneries.

*Malcolm McKenzie*, Southampton, fisherman, (page 135):—People came up from Port Frank a few years ago, 1876, and commenced drawing seines on Sauble Beach, 8 miles north of Southampton. The decline of whitefish hereabouts then began. The whitefish came on the seining grounds thick. It was September, and they were young whitefish; lots of them were left dead in the water and on the beach, not being marketable nor fit for salting, not being over 4 inches long. They used herring seines (inch bar). We used to catch our whitefish off that shore but did not get them afterwards, the fish worked up north. It is advisable to have a close season while the fish are spawning; the Americans should do it also.

*Daniel McCauley*, Southampton, fisherman (page 143): Overfishing is the cause of the decline of the fisheries.

*Finlay McLennan*, fisherman, Southampton (page 147): He uses a seine for herrings,  $1\frac{1}{4}$  bar mesh, and his great catch is in November, in the spawning season. He heard that young immature whitefish were caught at Sauble Beach and walked down just to see. There were plenty of them; some 2 inches long, some four inches and over. There were about 12 seines on the beach, these from one end to the other. It is about 5 miles long. The Indians had two seines, the whites ten seines. The white people who destroyed Sauble Beach with seines came from below Bayfield. Most of our fishermen have gone to the Georgian Bay. Fish have become scarcer here. We do not catch whitefish now.

*Dougal McCauley*, fisherman, Southampton (page 152):—It is seldom we can catch whitefish. They do not catch herrings or anything else on the Sauble Beach now. Two-thirds of the fish that are caught here in the fall of the year are caught by boats that do not take out a license, boats that do not follow fishing steadily. We paid \$50 for two tugs and did not catch one-quarter of the fish that the other boats did that did not pay for license. The license system is good if every body pays it alike.

### (J.)—GEORGIAN BAY.

#### COLLINGWOOD.

*George Knight*, fisherman, Collingwood (page 195):—Whitefish are now scarce all over the Georgian Bay; we get very few indeed. Fifteen or sixteen years ago they were very plentiful. There are four times as many nets in the Georgian Bay as there were 15 or 20 years ago when the whitefish were in plenty. Those fish "have now taken some other course." Their spawning ground was

once on this side of the bay, but they do not come any more. The trout come here to spawn in the end of October and in November.

It is a hard matter to make a living now, the fish are getting so scarce. Thinks it would be better for the fishermen if all took out their nets and stopped fishing by 1st November.

*Norman Sanders*, Collingwood, fisherman (page 202) says:—Left Gilluses Island on the American side of Lake Ontario many years ago, because the fishing was played out. Now fishes from Squaw Island, Cabbage Head, to Christian Islands, down to Collingwood. This is a whitefish bay naturally, but the whitefish have been getting scarcer for about eight years, caused by double the amount of fishing being done. November used to be the best month for whitefish. Law-breakers—men who do not observe the law—used a  $5\frac{1}{2}$ -inch mesh for shore fishing on the shoals in the fall of the year when spawning. The regular fishermen also use this large mesh. Do not think any seine should be used to catch whitefish or salmon-trout unless mesh one-fourth larger than the gill-net mesh, except in Lake Erie.

*William A. Clarke*, fisherman, Collingwood (page 207) says:—I consider the reduction of the gill-net mesh from 5 inches to  $4\frac{1}{2}$  a mistake on the part of the Fishery Department, because it takes the fish before they are matured. Cart loads of young immature fish are now taken at Thessalon Point and Dollar Bay. There is a current there which they frequent for food and it is protected. Has noticed this for two years. In a whole cart load you would not get one over  $\frac{3}{4}$  to  $1\frac{1}{2}$  pounds. Took particular notice of them passing in transit. These immature whitefish as a rule pass on to the American markets. This irregular fishing goes on outside the line across from Spanish River, separating Lake Huron from Georgian Bay. These fish come from the pound-nets around Duck Island and the North Channel. The meshes are so small that they catch a small herring. The 1-inch bar used in the pot of the pound-nets is the cause of the trouble. These pound-nets referred to are put where the young whitefish frequent. Was for two years at Whitefish Point on Lake Superior, one of the largest and best fisheries on the chain of lakes; it is 40 miles above the Sault, in the state of Michigan. Has seen 100,000 whitefish destroyed there in a season. They are carried to a dump and thrown away. You can form an idea from the immature fish shipped of the whole waste and destruction of these small whitefish.

The pound-net fishing would have been all right if the mesh in the pot had been right, the mesh should be  $4\frac{3}{4}$  inches for catching whitefish  $2\frac{3}{4}$  pounds to 3 pounds, and trout about the same. Yellow pike or pickerel are not caught in gill-nets, but are taken in pound-nets easily; they are a voracious fish. There are large quantities caught, and there is a good demand. There is no such fish as a blue pickerel known in these waters. The great quantities of immature whitefish wasted would in a couple of years have become good fish.

Whitefish have fallen off 30 per cent anywhere on the Georgian Bay. Up to 1st June you won't get any whitefish.

Twenty years ago if a man had taken a gang of nets to Squaw Island the same as we use now it would have taken a small schooner to carry the fish away, either summer or fall, but it was in November the whitefish were most abundant. "There ain't any more whitefish on these grounds." The decrease has been caused by over-fishing and fishing in the spawning time. The whitefish are now principally caught from the western islands on the Georgian Bay, along the north shore and up the north passage to Thessalon Point. There are none on the south shore. In the fall they used to be very plentiful. Large quantities of small immature fish are now shipped, principally caught in the North Channel above Little Current. There were never as many caught as the past season, marketed or shipped at Warton and Collingwood. The Dollar Bay and Thessalon fish have to go through the American channel to Detroit. Thinks there should be no difficulty in making a regulation which would prevent the marketing and destruction of small immature fish. All this improper fishing was done openly and the shipment took place in the usual way. A proper sized mesh is the true remedy to prevent this destruction of imma-

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ture fish. The average weight of whitefish now is pretty small. They will average 2 pounds, formerly they were 2½. Some obey the law and some do not, it is a one-sided affair.

### (K.)—MEAFORD.

*John McCrae*, Meaford, fisherman (page 186):—A 2 pound whitefish is not a mature fish. Overfishing has destroyed the fisheries on the south shore of the Georgian Bay. We got whitefish thick up to 2,200 fish with one gang of nets and a single boat. Whitefish are now a thing of the past on this shore. Whitefish are the most profitable fish if they could be caught; they are gone on the south shore, and greatly reduced in the Georgian Bay by overfishing; small meshes have also reduced their size.

*Gilbert Peter McIntosh*, fish-dealer, Meaford, late president of the Fishermen's Association (page 172) says:—He has carried on a whitefish and trout fishery; says a 4½-inch mesh is too small for gill-nets in these waters; that a 5-inch mesh should be the minimum; the 4½-inch mesh has been the means of reducing the fishing. There are too many small immature fish caught; the autumn mesh should be 5½ inches. Is positive that nothing less than 5-inch mesh is proper for whitefish and salmon-trout. Fish now caught are immature and unable to breed. As a dealer, has seen small immature whitefish and trout on the market; has handled them; they come from different localities; small trout are more numerous on the south shore than on the north; some shipments average from ¾ pounds to 1½ pounds; quite small fish. Formerly we could not dispose of such fish, but we can do so now. Considers it injurious to the fisheries to catch these small fish. The mesh in the pots of the pound-nets is too small, and should be regulated like the gill-nets. A 2½-pound salmon-trout is immature, and should not be caught, and a fish at 1¾ pounds is a pretty small fish. The whitefish are the most valuable of the two. Has seen one boat take 2,000 whitefish in one lift; that would be an ordinary catch right in front of Meaford. In the last eight years the whitefish seem to have disappeared; there are but few left. If there is a close season, it should be enforced. A good many people along the shore break the law and fish in the close season. The black trout or fall trout, the species that come in to spawn, are as plentiful as ever, but the summer trout have fallen off one-half in 20 years, and the size of the fish reduced by using too small a mesh.

*James Pilgrim*, fisherman, Meaford (page 167):—Whitefish have left here; they don't come here; they have just disappeared; formerly one gang of nets would take 500, 1,000 to 1,500 at once with one gang of nets, usually from 20th November to 10th December.

*Adam H. Stephen*, druggist, Meaford (page 176):—We used to catch great numbers of whitefish off the shore here when I was fishing in what is called the Mudhole, about eight miles off Meaford—about the end of November—it was either a spawning or a feeding ground—this was eight years ago. Has taken 1,500 out of one gill-net; other fishermen did the same. They were full of spawn; they all left at once, and for a number of years have not fished it. The uniform mesh should now be 5 inches.

*John Nelson*, fisherman, Meaford (page 178) says:—The fishermen follow the whitefish to the north shore in October. The finest and largest whitefish and salmon-trout go there to spawn and they are not caught at any other time there. They are right on shore on their spawning grounds, 1st of November. "I have seen forty boats of us within three miles." This is general with other fishermen. It is the only time you can catch these large spawning fish. The boats come from all parts of the country there, from Manitoulin Island, and all parts of the Georgian Bay. Half-breeds and Indians all congregate there to catch these spawning fish. The fishermen follow the fish down from the north shore of the Manitoulin, and at this time the spawn is running freely from the fish.

*James Stewart*, fisherman, Meaford (page 192) says:—Trout are full of spawn in October and November, and then go to the north shore to spawn. We used to catch them until 15th November. Unless hatcheries are established to take the place of a close season, the supply must go down. The fishing for salmon-trout and whitefish has so fallen off here that the fishermen have gone to the north shore. The whitefish have fallen off most. They have gone from this place. Whole families of fishermen have left Meaford who formerly made their living here.

*Charles Little*, Meaford (page 194):—"The fishing has greatly decreased."

(L.)—MIDLAND.

*Albert Hutchins*, Midland, fisherman (page 227) says:—Prefers a  $4\frac{1}{2}$  mesh. Some fishermen fish with mesh of all sizes, as small as 4 and  $4\frac{1}{4}$  inches. These small meshed nets are injurious to fishermen and fish-dealers. They destroy too many small fish before they are full value and before they are able to reproduce their species. Whitefish come in the shoal waters very thick and close together to spawn, and if caught when spawning it is very injurious to the fishery. Immature fish are caught in pound-nets, seines, and hoop-nets with small mesh. Such nets would not be more injurious than gill-nets if they had a proper mesh. Pickerel are played out by overfishing, and whitefish are very much cleaned out by catching immature fish and fishing in the spawning time. A great many nets are lost with the fish in them by being out too long, several days usually during storms. The fish are spoiled; a great many are useless; some are salted. Local men take the dead fish if not too bad.

*Archibald Campbell*, fisherman, Midland (page 259) says:—Believes in close seasons, as they are right if properly selected. It would be in the best interests of fishermen, the public and the fisheries if the close seasons were maintained and maintained rigorously. The setting aside of the spawning grounds would be a correct thing if there were no close seasons. Would prefer this to the close seasons. Formerly less nets were used and more fish caught. If the fishing goes on as at present the fishermen cannot live.

*Charles W. Phillips*, Midland, fisherman (page 229):—Whitefish have fallen off most in these waters. The other fish have declined also, with the exception of herrings. The cause of the decline in the Georgian Bay and Lake Huron fishing is caused by overfishing—too many nets—too many boats. Sizes of mesh being too small, has also helped the falling off. The non-observance of close seasons has also done a good deal to lessen the number of fish.

*Samuel Fraser*, J. P. for thirty years, Midland (page 231), says the small mesh in pound-nets is very destructive to small fish; that large quantities of trout and whitefish caught in gill-nets are lost, and by reason of storms and neglect the nets are not lifted. In such cases the fish are not fit for food, nevertheless they are sold in a deceptive way throughout the country. Some are thrown away on the shore, some are seen floating on the water; these have fallen out of the nets. Some of the nets may be out a week and some longer, and some of the nets are never found at all; has seen them out in the bay with fish rotting in them. There is very considerable loss of nets and fish in this way late in the fall when fishermen are fishing along the shore during the close season. Close seasons are sound in principle but have never been enforced. The nets used in the close season are generally sunk, which makes it difficult to find out without boats and grappling irons. Small fish are thrown away on the ice below Waubaushene. Whitefish, salmon-trout, pickerel and herring are the most valuable fish, but they are becoming pretty scarce. The greatest falling off is experienced in salmon-trout and whitefish. This is very apparent.

*James A. Smith*, fisherman and dealer, Midland (page 235), says there were 100 miles of gill-nets used last year from Manitoulin to Midland, and around the bay

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north and south shores, and some 1,700 fishing crafts, large and small. The fishing cannot stand all this net in the water. It is vastly too largely fished and must be reduced, otherwise the fishermen will lose their industry; saw last season three large lots of small 9 and 10-inch pickrel shipped. Close seasons are right in order to keep up the supply of fish food.

*John Yates*, fisherman, Midland (page 241), says all kinds of fish have fallen off very much in recent years, especially whitefish and trout. The small sized mesh and too many fishing has reduced the fisheries. If the size of mesh had been kept up at 5 inches as formerly, the destruction of fish would not have been so great. Pound-net pots should be  $4\frac{1}{2}$  to 5-inch mesh. A close season for bass and all kinds of fish should be thoroughly enforced.

*W. J. Hodgins*, fisherman, Midland (page 247):—Fish are now one-third less than when he began. Overfishing and fishing in the spawning time have made a great difference in the fisheries. Quantities of fish are lost by fishermen having too many nets out, and leaving them in the water too long. The fish drown and die. The good fish are kept separate for the American market. The culls which they cannot sell are salted. Culls salted may be fit to eat by some, but would not eat them himself; has known 1,400 rotting fish thrown away at one time; approves of close seasons; something must be done to keep up the fisheries.

*W. W. Church*, fisherman, Midland (page 250), says seines destroyed the fishermen in Lake Ontario. They are a most destructive net. Fish are getting scarcer every year in the Georgian Bay. More salmon-trout are being caught as the whitefish drop off. That is the fish they go for now.

*Joseph Cunningham*, fisherman, Midland (page 257), says there are ten boats fishing now where there was only one ten years ago, making it appear that there is no falling off in fish. A good many fish are lost by drowning in the nets by their being out too long. Such fish are salted and then they go to market, otherwise they could not be used. It is desirable to have close seasons and spawning localities set apart where the fish would not be molested.

*Capt. McGregor*, master mariner, Georgian Bay (page 221), attributes the falling off of fish to fishermen using a greater number of gill-nets than they can attend to. Nets remain in the water until the fish decay and have to be thrown away. Last fall I lifted some gill-nets and at least a ton of rotten fish had to be thrown out of them. The excessive quantity of nets used had as much to do with this waste as the stormy weather. This will deplete the fisheries altogether if allowed to continue. The destructive work goes on in places 3 to 4 miles off shore on the honeycombed bottomed rocks, which are the real spawning grounds of the fish. This destruction applies to both salmon-trout and whitefish.

Neither trout nor whitefish under two pounds should be caught. A 5-inch mesh should be the lowest size licensed. Pound-nets in the locality of Cornell and Thessalon throw away and destroy large quantities of small fish. Late in October and in November fishermen use their old nets and take the chance of their being swept away, frequently full of dead fish. Fishermen now fish in water 70 fathoms (420 feet) deep, 15 and 20 miles out.

*Albert Hutchins*, Midland, Georgian Bay (page 227), says:—Before coming here fished in Lake Ontario about 30 years for whitefish and salmon-trout. The great majority were whitefish, and were caught at Wellington Beach with seines, as many as 5,000 to 10,000 at one haul during the night. This was in the summer time, June and July. These were salted and sold on the ground to dealers. He has caught as many in a season as would allow the owners of the seine for their share, about \$2,000. The other \$2,000 would go to the fishermen. Even more than this number were caught sometimes. Fishing was carried on in the fall of the year also. Whitefish were thick everywhere in Lake Ontario at that time; have known as many as 90,000 being taken in one haul in the night; was present and saw them counted; has often known from 5,000 to 10,000 being taken, and has taken 40,000

in a seine several times in July on Wellington Beach; those that were saved of the 90,000 were salted; many were lost because they could not be taken care of. There was another haul as large as this taken at Westlake Beach; the net was a 175-rod seine called "the sou'wester." When I left Lake Ontario some fourteen years ago there were no whitefish to be had by the fishermen where these great hauls had been made; in fact the whitefish fishery had ceased to exist; there was no more of it. I left Lake Ontario to fish here with a number of other fishermen who left for the same cause.

*James A. Smith*, Midland (page 235), says:—Has seen 20,000 whitefish on Consecon Beach, Lake Ontario, being one evening's catch, not one in twenty of which would weigh two pounds; this was in June; some were salted; others rotted on the shore and were made into manure. They were so plentiful that 100 could be bought for 25 cents. Whitefish were so plentiful in Lake Ontario that with one seine (I owned half of it), a 50-rod seine put up in one month 180 barrels for our net's share; the other men (eight of them) would get the equivalent to 180 barrels amongst them; this was in June, 1869 or 1870; there were other seines fishing also. The same year, in November, the fish were very numerous, and all larger fish than usual, weighing about 2½ pounds; as many as we could barrel we salted, but a great many were lost. Whitefish were so numerous that they were hauled away for manure for use upon the farms. The whitefish were so plentiful that in hauling the seine they could not pull it on the shore; they had to dip out what they wanted of the fish with small nets and let the rest go. When I left Lake Ontario some 15 years ago whitefish were almost exterminated; salmon-trout and whitefish in Lake Ontario were vastly more numerous than they have ever been in Georgian Bay.

*Capt. S. Whartman*, Midland (page 244), says:—Fished in Lake Ontario in 1874 at Presqu'Isle and Brighton, principally for trout of large size. The fish were quite plentiful then. Left there in 1878 to come to Georgian Bay to fish and better myself. The rough fish and whitefish in Lake Ontario have fallen off very much; understand from late residents that the fishing in Lake Ontario is all done now.

*William J. Hodgins*, Midland (page 247), says:—Fished in Lake Ontario from 1875 to 1877, and caught trout and whitefish; left there whitefish had become so very scarce. In 1856 and 1857 they were caught in great numbers. Whitefish were more plentiful in Lake Ontario than ever in Georgian Bay. Left Lake Ontario to come here to better his fishing, and other fishermen came here from there with the same intention.

*W. W. Church*, Midland (page 250), says:—In Lake Ontario whitefish years ago were caught by the thousands in seines from the 10th October to 1st November along the beach at Weller's Bay and the Consecon Bay, at Presqu'Isle along the shores of the lake; has known every 40 rods of the beach in five miles to have a seine; a seine would get from 1,000 to 6,000 whitefish at a haul. These fish were cleaned and salted in barrels. Seine owners would have sometimes as many as 15 persons cleaning and salting fish and sometimes many of the fish would be spoiled, they were taken so numerously. It was about 30 years ago when they began to drop off, then when I left it was not worth while going out with a boat, they were so scarce; has known as many as 40,000 caught in one seine in July. That business is all gone now, not worth carrying on at all. As the fish gave out in Ontario I came up to the Georgian Bay to fish, and quite a few other fishermen left for there in the same way.

*Joseph Cunningham*, Midland (page 257) says:—Fished in Lake Ontario for about 10 years but could not get enough to make a living out of it, and then came up here to carry on fishing; caught whitefish in Lake Ontario off Amherst Island, something like 1,900 at a haul at first but got very few later on. Both whitefish and trout became scarce from overfishing Lake Ontario.



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### (M.)—LAKE SIMCOE.

#### BARRIE.

*Alexander B. McPhee*, registrar of Barrie (page 267):—In 1862 I could catch 16 salmon-trout in a morning in this bay; now I might fish 5 or 6 days and not catch one—whitefish and all fish have decreased.

*John Stevens*, photo artist, Barrie, (page 271):—Regards the fisheries of Lake Simcoe as so depleted that angling only should be permitted.

*Samuel Wesley*, 42 years resident in Barrie, publisher (page 274) say:—The close season for whitefish and salmon-trout should begin 1st October and end 31st December, Lake Simcoe is so depleted of fish, from fishing in the spawning season and overfishing, that it should be closed against nets entirely. The lake is too depleted for fishing in a commercial sense.

*John Hines*, Barrie (page 276) says:—Fourteen years ago fishermen could make lots of money catching whitefish, trout and maskinongé in the Lake—the fishermen have gone elsewhere, the fishing is done. The Rome and Snake Indians follow fishing all the year round and their harvest is during the close season. There was a great deal of fishing at Midland, Waubaushene and Penetanguishene this year during the close season. The only whitefish caught now are speared about Big Bay Point.

### (N.)—LAKE ONTARIO.

#### *From evidence given at Hamilton.*

*William Depew*, Burlington Beach, Lake Ontario (page 308) says:—In the destruction of the salmon-trout and whitefish fishing, these seines with 1-inch bar mesh in centre were used. He has seen thousands of fish piled on the beach and left there to spoil. "The pigs came down to eat what they wanted."

The salmon-trout and whitefish were destroyed on Burlington Beach, Lake Ontario, down towards Grimsby by seines during the summer, but the biggest part was with gill-nets in the autumn months while spawning. They were caught out by overfishing at all times, including the spawning time. Ciscoes are not so numerous as formerly.

*Daniel McGwyn*, Burlington Beach, Hamilton (page 303):—Ciscoes and herring are what we fish for here. Whitefish and trout were in plenty in 1860; got 680 trout and whitefish in one haul on this beach; none at all now; none to market; destroyed; the yellow pickerel are gone also.

*Jonathan Corey*, fisherman, Burlington Beach (page 311), says they fished on Burlington Beach with seines, 1-inch bar mesh or 2-inch extension, twenty to thirty years ago. Large and small whitefish were taken. The small ones were so numerous they were thrown away in piles on the beach. The fishing was destroyed by catching in spawning time, overfishing and killing too many small fish.

*John Davis*, Hamilton, fish-dealer, gets fish from all the lakes; says the mesh is too small. Even from Lake Superior, where the fish are abundant, they send down small fish. We get nothing from the east; all fresh water fish come from the west. These immature fish are chiefly salmon-trout and whitefish. Less than a three-pound salmon-trout is not wanted. Immature fish are unsaleable to a certain extent; they don't command weight and price as mature fish. Two pounds is the smallest salmon-trout that should be caught. These immature fish come from the islands in the Georgian Bay, and from all the western fisheries in Lakes Huron, Superior and Georgian Bay. Collingwood and Wiarton are the great shipping points; they are usually sent in June and July. They catch a tremendous lot of small

fish at Southampton, and they must have small nets. There must be a larger mesh ordered for these lakes, both for gill-nets and pound-nets. If this is not done the fish will play out, and nobody will be able to live at it, neither dealers nor fishermen. The trout and whitefish were very numerous in Lake Ontario all the way down to Cobourg. Thirty years ago you could not put a net in the wrong place in Lake Ontario to catch fish; none now to be caught. The pound-net is the best. There are a great many fish destroyed in gill-nets. Fish are not fit for food that have been lying dead in those nets for four or five days. They are unfit for food whether they are herrings, whitefish or anything else. The ciscoes are falling off. To preserve the fish close seasons are necessary. The fish are not good then, and should not be caught. To keep up my reputation as a dealer I will not handle such fish. The public should be prevented from getting such fish, and everybody will be the better for it in the long run.

*Frederick Corey*, Burlington Beach, fisherman 60 years (page 320), says:—There was no law in 1840 to prevent our fishing our seines with any sized mesh, and we did not know what harm we were doing in catching small fish. We caught many thousands that were never used. They were unfit for use and were thrown away. We let them lie on the beach. These little whitefish would not weigh over a quarter of a pound or half a pound. The size of a mature fish was then four pounds. We fished all the year round for salmon-trout. The first gill-nets were used in 1853. Pickerel were very plentiful; we used to catch thousands of them with seines. The pickerel were destroyed by catching in the spawning season. They were always caught in that season. So far as salmon-trout are concerned they are not in existence now, in the way of business. They were all along the lake 40 years ago. We fished all the year round.

#### (O.)—LAKE ONTARIO.

*From evidence taken at Toronto.*

*Michael Doyle*, fishdealer, Toronto (page 287) says:—He deals in all kinds of fish. The biggest part of my whitefish and salmon-trout came last summer from Collingwood, some from Southampton and Goderich, and in the winter from Manitoba and Winnipeg; does not know anything about their nets, but knows they are catching unlawful fish and have been for years; the department has been busy putting in the spawn and the fishermen have been busy taking them up. They should be prohibited from fishing for three years now; if their nets were lawful they would not hold these fish; Southampton is a great place for them, both small trout and whitefish; they come fresh and cleaned and packed in ice along with the big ones; there are more small ones than big ones. There is a larger shipping place for these immature fish, but I forget the name (Warton, I believe). The salmon-trout would be from one pound to one and a half; the whitefish not larger than a good-sized herring; these fish are not fit to be killed; they should not be caught. All kinds of fish should be preserved while spawning; when fish are spawning they have neither taste nor flavour; it is like killing a cow in calf; there is plenty of law, but it is not enforced; whitefish and salmon-trout have fallen off most. I came here in 1862, and fishermen would bring in boats loaded with them down to the gunwale; this was at Toronto Island; now they are only catching the small whitefish you put in from the hatcheries; they have fallen off altogether. Formerly they brought so many whitefish and salmon-trout we could not get room in the market for them; we used to pile them up outside; they glutted the market; there were piles outside on the sidewalk on the street; we had so many to sell here at one time that we had liberty to sell till Sunday morning at 10 o'clock, the fish were that thick here. The whitefish weighed 4, 5 and 6 pounds and sold for half a dollar a dozen; the salmon-trout weighed 8, 10 and 12 pounds, and were so plentiful they sold for 50 cents each. There are none of these fish at all to be had now; they have emigrated or something has happened to them; should like to see Lake Ontario get a chance

## Ontario Fishery Commission.

to see if these fish would not accumulate again. They catch small whitefish off the island—the small, immature fish—(Mr. Wilmot's fish); they won't stand; are young, delicate and small; they won't keep. The business of the fishermen and fish-dealer will soon be at an end unless proper regulations are made to preserve fish and preventing their destruction at improper times and killing immature fish.

*Dawson W. Port*, fisherman, Toronto (page 202) says:—Immature whitefish and salmon-trout come to this market. They are soft, flabby and easily bruised and are to a certain extent unmarketable. They are not as saleable as full-grown fish. They come principally from the Georgian Bay and Lake Erie for the herring; and the head of Lake Superior for the salmon-trout. A good many of these small fish come from Port Arthur. There they get a large quantity of small whitefish, and being very soft they often come crushed by the weight of ice in the packing. Sometimes they are not saleable. If they come fit to sell, they are sold from 1 cent to 2 cents per lb. less than proper sized fish. The small herring are not saleable. If sold at all, it is at greatly reduced prices. These small fish are mixed up with big fish when sent to market. The fishermen, the dealers and the public are all interested in preventing the destruction of these immature fish. This and catching fish at the spawning season are the two great evils to be contended with. Whitefish have fallen off most by all odds, and salmon-trout are not so plentiful as formerly. Whitefish should receive special protection. Lake Ontario principally supplied the Toronto market in years past—Toronto and the east with whitefish and salmon-trout. They were caught in large quantities, with seines along the shores or about Willard's Beach, or Toronto Island, and at the eastern and western ends of the lake. Now there are only a very few brought to this market from Lake Ontario. We depend wholly on the western lakes. The speckled trout is gone, so far as the public is concerned. There are large quantities of fish destroyed by dying in the gill-nets when left out for three nights. This is caused by men trying to handle too many nets, and by stormy weather. If not altogether spoiled, they are generally salted. They would be unfit to sell as fresh fish. Lately the people won't touch them. They are unsaleable.

*Horatio John Bray*, fish-dealer, Toronto (page 297):—Pound-nets in salmon-trout and whitefish waters should have 5-inch mesh in pots and the same in gill-nets. We are now getting fish too small to be marketable. The really marketable fish now come from Manitoba. A barrel of herrings—a sugar barrel—should contain 350 herrings, 250 lbs. This would be a saleable fish. I receive many barrels more containing 600 and 700 herrings, and they are not worth the express charges when they come to the warehouse. They are perfectly unsaleable. You may sell a few for 50 cents per hundred and dump the rest. Large quantities of small herrings are used for manure and thrown away. My whitefish supply now comes from Port Arthur, Lake Superior mostly. The Lake Ontario whitefish are only half-grown. The seines destroyed whitefishing in Lake Ontario. That was done 14 or 15 years ago. Remembers some years ago they put in whitefish fry from the hatcheries over at Niagara. Afterwards the fishermen caught them in seines. Handled pretty much all of them that were shipped here. Got \$8 per 100; but they shipped so many we had to drop it. They were from  $\frac{3}{4}$  to 1 lb. They haven't had hardly any since. The speckled trout as a fish for the public is about extinct in Ontario.

*William Montgomery* (page 281) says:—A gill-net in Lake Ontario means a herring net. There are no salmon-trout. No whitefish have been caught in the fall for some years. Cannot tell when they spawn. The summer catch is not much. The ciscoe is our best fishing, and they have gone away for the present. Cannot account for the falling off in the whitefish. All he knows is they have disappeared. Our 2-inch bar mesh is too large, it will not catch the half-grown whitefish. The herrings are decreasing. The scarcer the fish get the less often we lift our gill-nets. They are now left out about four nights and catch 4,000. Three years ago we left them out two or three nights and got 6,000 or 7,000. On account of the way the fishing is, has only his brother helping him and a 28-foot boat. Three seines

is the extent of the whitefish seine fishing now around Toronto. The next seine is at Frenchman's Bay, down 20 miles from here. Towards Hamilton the Humber is the first, then I think no more till you get to Burlington Beach, Hamilton. The large catches of whitefish heard of were quite 18 years ago.

(P.)—AMERICANS FISHING IN CANADIAN WATERS.

Mr. *Keys*, who represented Sandusky fish-dealers at the Detroit International Fishery Conference, 1892, said: "Beyond Sandusky Bay strings of gill-nets reach clear over into the Canadian waters and whether there is a close season in Canada or not, they run their gill-nets clear across to Pelee Island, and they do not make any bones about it."

*Frank Jackson*, Port Dover (page 6) says:—American gill-net fishermen fish within six miles of our Canadian shore, off Clay Point and Long Point Island. Has seen as many as five or six boats, tugs and gill-net boats, each fish boat would have a gang of nets 2,000 yards. The usual months are June and July following the whitefish. These boats hail from Erie, Penn., on the opposite coast. This has been going on for ten years. No Canadian would be permitted to fish in this way on the American side of the boundary line.

Capt. *J. S. Allen*, Port Dover (page 11) says:—Americans fish inside the national boundary line within six miles of Gull Island, and eastward from Clay Point to Clear Creek.

*Henry Swan*, Port Burwell (page 28) says:—American tug boats lie off Clay Point, four or five miles out, and fish, the lake being fifty miles wide there; that would be twenty miles on the Canadian side of the line.

*W. Emery*, Port Burwell (page 23) says:—American fishermen boast of fishing in our waters. That is chiefly done about Long Point Island.

*C. C. Bates*, Clear Creek (page 17) says:—Last spring there was an American fishing tug fishing for herring and blue pickerel within a few miles of our shore (lake 50 miles wide). They were in sight fishing for several days. Ran up alongside of them and said: "You people are out of your element." They said they just came in to take some fish out, they often came over in the spring.

Capt. *John Ellison*, Port Stanley (page 29) says:—Americans fish in our waters within 20 miles of Port Stanley, (lake 60 miles wide); has seen them fishing with gill-nets and tugs; has a good chance to see these American fishing boats passing along on his steamboat route to Cleveland; it should not be allowed.

*Ira Loop*, of Kingsville (page 36) says:—American tugs cross from Sandusky and take fish on board direct from Canadian nets. It would be impossible for some of the fishermen to dispose of their fish if these tugs did not come and take them. The tugs get a permit to run one or two weeks, and then they clear on certain days. They do not infringe upon the law; it would be impossible to make entry every day; it is an irregularity, but they are permitted to do that.

*W. H. Black*, Kingsville (page 32) says:—Some Americans at the "Old Hen" fish gill-nets in Canadian waters. Capt. Post takes fish from a number of Canadian pound-nets direct to Sandusky.

*W. D. Bates*, Rond Eau (page 34) says:—We run our small boat alongside of the American tug, and just weigh and sell to them. Sometimes the tug comes into port—sometimes she goes direct to the American port.

Capt. *J. W. Post*, Leamington (page 61), says:—Have seen American gill-net tugs on Canadian side of boundary line, engaged in lifting gill-nets—about six miles east of Pelee Island—should think they were herring nets, but a 3-inch mesh will

## Ontario Fishery Commission.

catch ordinary whitefish and occasionally a sturgeon—has seen American tugs take fish from Canadian fishermen direct from the nets, and go direct to the American markets—Sandusky and Cleveland.

*John Lang*, Port Huron (page 85) says:—Near Kettle Point, Lake Huron, there is 10 miles square of rocky honeycombed spawning ground. There is a great rush of fish to this point. On these spawning grounds the Americans come with their tugs and nets and men and fish right through our close season, whilst the Canadians are keeping the close season. This fishing is wholly in Canadian waters. This was done this year by the Port Huron Fish Company. These American fishing companies claim that by instructions from the United States consul at Sarnia they could fish anywhere beyond three miles from the Canadian shores. These American fishermen fished right through the month of November. They made a wonderful catch of those spawning fish, and on account of the roughness of the season, great quantities of those fish were thrown away as unmerchantable, and many of them rotted in the water.

Capt. *John Craigie*, Goderich (page 89) says:—There is one American tug of 25 or 30 tons down here fishing in Canadian water. The latter part of the fall we have got to stop, and she can fish all she likes. This would be about six or seven miles from our shore; this has also been done at the lakes about Drummond Island.

*H. W. Ball*, Goderich (page 113) says:—There is great discontent among the fishermen at the present time by Americans being allowed to fish in our waters when we cannot fish in our own.

Capt. *James Inkster*, Goderich (page 106) says:—There is an American tug this season fishing in Canadian waters at Kettle Point. Have seen her.

(Q.)—EXTRACTS FROM SWORN EVIDENCE BEFORE THE FISHERY COMMISSION.

### THE BLACK BASS.

#### LAKE ERIE, ETC.

*William Grubb*, lighthouse keeper, Leamington (page 40):—Does not think it right for sporting men to angle for bass in the close season. They string them and tow them about all day to see who catches most and then at night throw them away. Most of them are dead. This is done by Pelee Island anglers.

*Phillip DeLaurier*, Point Pelee, fisherman for 33 years (page 41) says:—Black bass spawn from 20th June, through July.

*Gilbert DeLaurier*, fisherman 25 years, and fish-dealer 5 years, Leamington, (page 38) says:—They catch black bass largely at Pelee Island. They spawn about June.

*Ira Loop*, Kingsville, fisherman 25 years (page 36) says:—Black bass spawn late in June.

*W. H. Black*, fisherman, Kingsville (page 32) says:—Large quantities of black bass are caught by American anglers at Pelee Island. They are caught in June when spawning. It creates discontent among Canadian fishermen.

*Henry Smith*, Pelee Island, angler (page 45) says:—Angling is carried on on from 15th May to 1st June, and from middle of October to middle of November. They spawn from 1st June till July. They catch from 40 to 400 per day. Fishing is better in June. If they spawn in June it is better not to kill them. The quantity of fish is small to what it was formerly. They fish with one line and several baits. They sometimes catch four at a time, but not often. They have two or three

minnows, a couple of flies, a spoon bait and three to five hooks. Thinks pound-nets have helped to destroy bass fishing, but has not seen one lifted for five years; could easily see one lifted. Does not know what they catch.

## LAKE SIMCOE.

*Alexander B. McPhee*, Barrie (page 267) says:—Black bass should be protected for the benefit of the public generally. Would like to see the close season extended to the 1st July. Caught earlier, they are sluggish and not fit for food. They are sluggish even in August. Caught in proper season, prefers black bass to any other fish.

*Samuel Wesley*, Barrie, publisher (page 274) says:—Black bass are good in September. They are sleepy before 1st July. The close season should be extended till 1st July.

*John Hines*, Barrie (page 276) says:—The Buckskin Club from Buffalo come to the Severn River in the summer and catch large quantities of bass. The settlers said they caught them in piles and let them lie on the rock. Some places were stinking with fish. They caught them for sport.

## GEORGIAN BAY.

*Samuel Fraser*, Midland (page 231):—Regarding black bass fishing, it is carried on largely by tourists and anglers who catch them in great numbers and throw a great many on the rocks to spoil. This is done by campers out, principally. These fish should have a close guardianship. They are taken amongst the islands where they are not observed by the officers. These tourists are not of much service to the localities to which they come. They bring their supplies and camp out.

*J. A. Smith*, fisherman, Midland (page 235):—Bass will spawn in May, not so much in June. They may watch their beds and young in June and July, and this would lead to the impression that they were spawning then. Some of the tourists who come up here are very injurious. They catch more bass than they can consume, and fish are left upon the rocks to spoil—sheer wanton waste.

*John Yates*, fisherman, Midland (page 241):—There has been great waste by persons leaving black bass on the rocks to spoil. Bass are a fish that spoil very quickly unless iced. A close season for bass should be thoroughly enforced.

## LAKE ONTARIO.

*Daniel McGwyn*, Burlington Beach, fisherman (page 303) says:—Black bass are not fit for food in July and August, they spawn from May till June. They are caught in the summer when not fit to use,—in July and August—it is waste to catch them in Burlington Bay before November. It is not the fishermen who catch them, it is the sports. They are wasted. When fit for food they bring 10c. and even 12½c. per pound.

*William Depew*, fishermen, Burlington Beach (page 308) says:—To catch black bass in July and August is simply a waste of the fish. They are not fit to eat. They do not spawn until June.

*Jonathan Corey*, Burlington Beach, fisherman (page 311) says:—Black bass are hardly good in August. A first-rate fish in September, October and November. Does not think they should be supplied to the public as food before September. City people troll in the summer and throw away the fish.

## Ontario Fishery Commission.

*Frederick Corey*, fisherman, Burlington Beach (page 320) says:—The best time to catch black bass is the spawning time. They make their spawning beds 20th May, spawn about 1st June. They watch their young until they leave the bed.

*John Davis*, Hamilton, fish-dealer (page 316) says:—Black bass is a good fish and should be preserved.

### TORONTO.

*Michael Doyle*, fish-dealer, Toronto (page 287) says:—Bass in value come next to salmon-trout and whitefish, if we could get them, they are the dearest.

*Dawson W. Port*, fish-dealer, Toronto (page 292) says:—Bass are pretty good in September and October, best after that. They are not good in spawning time. No fish are good at spawning time. Black bass are good fish and should be preserved. Our customers will take them when in good condition.

*Horatio John Bray*, fish-dealer, Toronto (page 297).—Black bass are in best condition just as the ice leaves and they catch them with hook and line. They are more valuable than whitefish. They are not fit for food in July and August; they catch them in June. They should not be handled then. Could handle half a ton a day when they are in good condition, but do not get 25 pounds.

### (R.)—THE CISCOE.

*Daniel McGwyn*, Burlington Beach, says:—Ciscoes spawn from 25th December till the middle of January. They have fallen off considerably during the past four or five years by being overfished—too many nets. They are better cured than herrings, being a fatter fish. They are caught from 1st November until 1st May. They spawn in deep water on weedy bottoms, about six miles out, and are caught in deep water. They do not come near the shores. Two men can handle 2,000 yards of gill-net; 21-foot boat; that would be too much in a boat; some use a good deal more; sets one gang of nets and lifts one; some keep three gangs, 6,000 yards in the water, but 2,000 yards is enough for two men to handle; meshes  $1\frac{1}{2}$ -inch bar; net out two or three nights before being taken up; had them out twelve nights, and the fish still good; they live quite a while if not strangled; sometimes lose nets, fish and all, in some severe storms; have had a clean sweep of everything; do not fish for ciscoes in May, June, July and August; they are too oily, and we would have to go too far out to catch them; we would have to take ice, and that would not pay; December is the best month; has quit ciscoeing; they are going the same road as the whitefish and salmon-trout; they spawn all the year round, but chiefly in January.

*William Depew*, Burlington Beach (page 308):—Uses a  $2\frac{3}{8}$ -inch extension mesh for ciscoes; ciscoes are in the best condition all the winter; they begin to get soft in May; they are caught in deep water, six to fifteen miles from the shore; one fall they came within 200 yards of the shore; they keep out beyond the whitefish; the biggest part of the ciscoes spawn in February; see spawn in them in November and December; the eggs are pretty plentiful in the boats the latter part of January and February; they are a good deal better fish than the herring, when they are cured; the ciscoe is best cured; the ciscoe is a soft fish, and does not eat well; fresh salting and smoking makes them harder; ciscoe and herring are the same size; both about the same value; herring are more numerous and can be sold fresh; ciscoes are being caught out, and are not so numerous as they were formerly; they are overfished; the size of the net,  $2\frac{3}{8}$ -inch extension, is all right; it is overfishing that does it; they are caught most numerously in January and February; they begin to spawn in January, but mostly in February; thinks fishing in the spawning season has helped to reduce them.

*Jonathan Corey*, Burlington Beach (page 311):—Fishes for ciscoes with a  $1\frac{1}{4}$  to  $1\frac{3}{8}$  bar measure mesh.

*John Davis*, fish-dealer, Hamilton (page 316):—Ciscoes are good any time except when spawning. They are getting played out.

*Frederick Corey*, Burlington Beach (page 320):—Ciscoes have fallen off very much of late years by overfishing and catching in the spawning season.

*William Montgomery*, fisherman, Toronto (page 281):—Egg, flow freely from the ciscoe in November and January; leave nets out now over four nights and move nets and lift about 4,000; three years ago lifted some two or three nights and caught 6,000 or 7,000; the scarcer the fish get the less often we lift.

*Dawson W. Port*, fish-dealer, Toronto (page 292):—Ciscoes are always good except at spawning time.

*Horatio John Bray*, fish-dealer, Toronto:—Sixteen years ago began to handle ciscoes smoked; was the first man to smoke them; at that time the mesh was  $2\frac{5}{8}$  extension; they have got it down to  $2\frac{3}{8}$  and  $2\frac{1}{4}$ . The fish caught with the  $2\frac{5}{8}$  mesh were good saleable fish. The fish are getting so small it is hard work to sell them. If they were anything else but ciscoes they would not sell at all. The mesh should be  $2\frac{1}{2}$  extension. They are good all the year round. The dealers don't want to handle ciscoes from 1st June to 1st October. They are a delicate soft fish and spoil too quickly to be handled in the hot weather. The ciscoe is a valuable marketable fish and should be preserved.

The evidence in detail is herewith appended.

Respectfully submitted.

SAMUEL WILMOT,  
*Chairman.*

EDWARD HARRIS,  
*Commissioner.*

OTTAWA, 1st March, 1893.



Ontario Fishery Commission.

EVIDENCE

PART I

TAKEN NOVEMBER AND DECEMBER, 1892





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# DOMINION FISHERY COMMISSION

FOR THE

## PROVINCE OF ONTARIO.

### No. 1—PORT DOVER.

Mr. Samuel Wilmot and Mr. Edward Harris, commissioners appointed by the Dominion Government to investigate into matters connected with the fishery regulations which apply to the fisheries in the province of Ontario, under letters of instructions dated at Ottawa, 29th September, 1892, met at Port Dover on Friday the 4th day of November, 1892, when Mr. Wilmot was appointed chairman, and Mr. Harris acted as secretary *pro tem*.

Previous to the first meeting to take evidence, the commissioners had made a personal survey and inspection of the several fisheries on and around Long Point Bay and Island, and examined the pound-nets and seines using the 4-inch extension mesh. These nets were lifted and drawn ashore for their inspection. Information was also largely obtained from many local fishermen and residents of recognized position.

Mr. Jenkins, the secretary appointed for this commission by the department, not having reported himself, the commissioners decided to visit Simcoe, the county town, and arrange for a short-hand writer to be in attendance to take evidence on Friday, the 4th November, at 3 p.m.

To obtain the best results it was decided by the commissioners to take all evidence upon oath in the following form, and as provided by Chapter 114, Revised Statutes of Canada:—

You, \_\_\_\_\_ solemnly swear (or affirm) that you will truly answer all such questions as may be put to you by this commission, and also give such evidence and information as shall be within your personal knowledge to this commission relating to the fish or fisheries of the province of Ontario.

Mr. Frank E Gull, of Simcoe, a stenographer, having consented to act as secretary *pro tem*, he was, on motion, appointed.

The Commission then proceeded to take evidence.

H. E. ANSLEY, Esq., Warden of the County, was duly sworn and gave replies as follows:—

*By Mr. Wilmot:*

Q. Are you warden of the county?—A. Yes; and born in the county, and lived on this lake shore all my life.

Q. About how many years is it since you first obtained knowledge of fish and fisheries?—A. It would be 25 years, I suppose. I have been engaged in the fishing business about 15 years.

Q. I believe you are also a qualified chemist and have a diploma?—A. Yes; I am a graduate of the Ontario College of Pharmacy.

Q. What sort of fishing were you engaged in?—A. I have been engaged in pound-net fishing, also gill-net fishing, catching whitefish, sturgeon, herring, yellow and blue pickerel, pike, maskinongé and other coarse fish.

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Q. How many nets had you at one time directly and indirectly under your control?—A. I have had as high as eight and ten pound-nets.

Q. What quantity of gill-nets?—A. About two thousand yards of gill-net.

Q. Any seines?—A. No seines.

Q. What size mesh had you in the pot of your pound-nets?—A. I have fished 2-inch extension and 3-inch extension.

Q. What would you have in the hearts?—A. 4-inch.

Q. And the leader?—A. 6-inch of extension measure.

Q. With regard to the gill nets?—A. I have fished  $3\frac{1}{2}$  and 4-inch of extension measure.

Q. What waters do you fish in?—A. I have fished with pound-nets north, east and west of Port Dover.

Q. And your gill-nets were fished in the same localities?—A. More particularly in the outer Bay of Long Point.

Q. When is the herring and whitefish in the best condition?—A. In the best condition in the month of June.

Q. When are they in the softest condition?—A. Whitefish are softer in November.

Q. Are fish a higher price in June or in November?—A. Generally speaking, there is very little difference in the price. If there is any difference they would be higher in November, from the fact that during the middle months of the season, June and July, herring are caught in very much larger quantities, and being warm then it is necessary to dispose of them as they will not keep, and there is more demand in November because it is colder weather.

Q. Where do you market your fish chiefly?—A. There has always been a good market in Canada for whitefish, sturgeon, blue and yellow pickerel and bass, and have shipped to the United States. The home market is quite as good as the foreign.

Q. Do you think it is possible to largely increase the home market?—A. Yes.

Q. By what means?—A. By getting a more regular supply, and a greater distribution through the country.

Q. What do you suggest as being a better mode of distribution?—A. I should be inclined to think, by some means to protect the fish, so it would be encouraging, and by having a system of fish dealers and peddlers throughout the country.

Q. Have you ever taken any observations when the fish are ripe for laying their eggs?—Whitefish are ripe in November.

Q. As regards herring, what is your experience with them?—A. I think from the 15th of November to the 15th of December.

Q. Do you know anything about salmon-trout; have trout been caught here during your experience?—A. Odd ones are caught at times.

Q. Not in any quantities?—A. No.

Q. Have you heard of them being caught by other fishermen?—A. Not in this part of the lake.

Q. In regard to sturgeon, which is the time their eggs are ripe?—A. In June and July.

Q. Are the sturgeon caught pretty numerous?—A. Sturgeon are caught in large quantities.

Q. Their principal market is, where?—A. The United States.

Q. You say you have made caviare of the eggs?—A. Yes.

Q. Where is that disposed of?—A. A large portion of it is sent to Germany.

Q. Whether is the meat of the sturgeon, or the eggs taken from them to make caviare the most valuable?—A. I should think they would be about equal.

Q. Could you give me an estimate as to the average weight of your sturgeon?—A. I should say about 40 pounds.

Q. Could you give me an idea of the average weight of the eggs of a 40-pound sturgeon?—About 10 pounds of eggs.

Q. What price per pound do you sell it at?—A. I should think an average price for the meat would be  $4\frac{1}{2}$  cents. Caviare prepared is worth from 15 to 20 cents a pound.

Q. Have you taken any record of the time in which you consider it best for the fishermen to take up their nets?—A. The 1st of November.

Q. During your knowledge of fishing, have you known whitefish to be caught at all in the bay?—A. We have caught whitefish in the outer bay, and might be caught yet if it were not for the close season which prevents it.

Q. Have you any knowledge of any being taken in the inner bay?—A. I have not.

Q. Do you know or have you heard of whitefish being caught on Whitefish Bar?—A. I could not answer that.

Q. Do you believe that the protection of whitefish during their spawning would be beneficial to the fisherman?—I think so.

Q. Have you any remarks to make as to the size of meshes for pound-nets?—A. 4-inch mesh.

Q. Is it too large?—A. It is about the right size for whitefish; it is too large for herring; too large for blue pickerel.

Q. Now, what size mesh would you suggest as being a fair one for the capture of herring and blue pickerel?—A. 3-inch mesh.

Q. Well, with regard to seines and gill-nets, will it apply the same way?—A. It certainly would in gill-nets. The seines for catching herring and blue pickerel should be 3-inch mesh, but for catching whitefish it should be 5-inch; all the others would be 3-inch.

Q. What is the usual size of your whitefish?—A. The average would be about  $2\frac{1}{2}$  to 3 pounds.

Q. Have you ever made any inquiries as to the weight of the average herring that is caught?—A.  $\frac{1}{3}$  to  $\frac{3}{4}$  lb.

Q. Then have you taken any notice of the smaller whitefish? Would they be about the size of your herring or blue pickerel?—A. Little larger than a herring.

Q. Would a 3-inch mesh catch a medium size whitefish?—A. Yes.

Q. Are you aware that the Long Point Co.'s nets are 4-inch mesh, both in the pot of the pound-nets and seines?—A. Yes.

Q. Does the company fish gill-nets?—A. No.

Q. Do you think a regular enforcement of judicious regulations as to mesh, and close seasons, would materially injure the fishing trade and business?—A. It would injure it in the meantime, but would benefit it in the future.

Q. Do you think that would fairly apply to the waters of Lake Erie in general as well as to your section?—A. Yes.

Q. Are you aware that pound-nets are to be closed and taken up at six o'clock Saturday and not put down before six o'clock on Monday morning?—A. Yes.

Q. If that was carried out in its entirety, would it injuriously affect the fishermen?—A. It could not be carried out.

Q. Why could it not be carried out?—A. It is utterly impossible to get to the pound-nets at all times.

Q. Supposing they did lift the pot on Saturday evening, would they not then collect the fish?—A. They could not market them at that time.

Q. Then they would remain in the pots over Sunday?—A. Yes.

Q. Are fish not now left in the pots over Sunday?—A. Yes.

Q. Could the entrance to the pot be closed on Saturday night so that no more fish would get into the pot?—A. No. The pound-nets if they were required to be raised on Saturday evening and kept raised until Monday morning it would be wholly unprofitable to the fishermen.

Q. At the present time can pound-net fishing be carried on in Lake Erie without the services of a good fishing tug costing from three to four thousand dollars?—A. Not successfully.

Q. What gearing is required to carry on the fishery successfully in Lake Erie?—A. A considerable amount of capital to carry on the business, and 10 to 20 pound-nets.

Q. How many tugs?—A. One tug might fish these 20 nets.

Q. How many men for ten nets?—A. I would require six men.

Q. What other gearing is necessary?—A. Scow, pile driver, say couple of fishing boats, ice house, fish house and freezing house.

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- Q. What would that aggregate in costs for 10 pound-nets?—A. Three thousand dollars.
- Q. A tug?—A. Three to four thousand dollars.
- Q. Three men per annum?—A. About \$450 each.
- Q. Three men?—A. At about \$250 for the season.
- Q. Erecting a fish house and freezer?—A. A proper ice house and fish house, \$2,000.
- Q. Cost of furnishing the ice?—A. One hundred and fifty dollars for ice.
- Q. Pile driver, scow and fish-boats?—A. One thousand dollars.
- Q. Do you think that is a reasonable outfit to carry on operations?—A. I consider that a fair, reasonable outfit to carry on operations.
- Q. Do you think that a man entering upon business of that kind should receive protection from the Government?—A. Yes.
- Q. Do you think that the close season for whitefish could vary to suit the locality where the fishermen are engaged fishing?—A. Yes.
- Q. Have you entirely gone out of the fish business now, or actually employed in it?—A. I suppose I might say I am engaged in it this season. I do not know how long I will remain in it.

FRANK JACKSON was sworn and gave the following evidence:—

*By Mr. Wilmot:*

- Q. Give your nationality?—A. Canadian.
- Q. Occupation?—A. Fisherman.
- Q. Give your residence?—A. Port Dover.
- Q. How long have you lived here?—A. Thirteen years.
- Q. Are you foreman of the Long Point Fishing Company?—A. Yes, sir.
- Q. Do you remember at any time when this lake and bay had plenty of whitefish in it?—A. Yes, about 20 years ago.
- Q. Along this shore?—A. In the inner bay. My father caught lots of whitefish in the inner bay in the olden time; they caught them with gill-nets.
- Q. And seines?—A. Yes, sir.
- Q. What particular part of the bay?—A. Most were caught in Rice Bay and Sturgeon Bay.
- Q. What season of the year were they caught in?—A. In November; from the 1st to the 15th the thickest.
- Q. What were they doing there?—A. Spawning.
- Q. What did you do with them?—A. Fish were sold in barrels as a rule throughout the country.
- Q. Was that a food supply for the farmers?—A. Yes, sir.
- Q. The time you speak of there were no railroads and no foreign market for fish. Was herring worth catching then?—A. No, sir.
- Q. I suppose what you mean by that is that the supply of whitefish being ample the herring were valueless, as the whitefish were plentiful and much better?—A. Yes.
- Q. Would whitefish supply the market?—A. Yes, sir.
- Q. How long have you been actually employed on Lake Erie on this side as a pound-net foreman without a break up to date?—A. Last 12 years.
- Q. What sort of fishery is it now?—A. I should call it a herring fishery at the present time.
- Q. Is that caused by the other fish having been played out?—A. Yes, sir, whitefish having become extinct.
- Q. What are the rough fish?—A. Blue and yellow pickerel and mullet; the staple fish are herring.
- Q. The commoner fish are pike, bass and maskinongé?—A. Yes.
- Q. Herring and blue pickerel are the two principal staple fish?—A. Yes, sir.



Q. What mesh are you using now?—A. I use 4-inch mesh extension in pots, tunnels and hearts, and for leaders 7-inch.

Q. Can you catch herring or blue pickerel in 4-inch mesh?—A. No, sir.

Q. Then you swear that it is impossible to catch the staple fish with the 4-inch mesh?—A. Yes, sir, at this end of the lake.

Q. What size mesh would you undertake to catch blue pickerel and herring with?—A. The biggest size that can be used is 3-inch mesh.

Q. Will they gill in the 3-inch mesh?—A. Some will.

Q. If a larger sized twine was used for that mesh would it destroy the fish?—A. No, sir, they would not gill as bad.

Q. What size twine would you recommend so as not to gill fish in the pot?—A. It should be No. 20 or 22.

Q. How long will it be before a herring will spoil after it is dead?—A. They will spoil in about 18 hours after they are dead.

Q. What size twine do you use in your nets?—A. I use No. 18.

Q. What do they use in the gill-nets?—A. I think it is 45 or 50.

Q. Would the 4-inch mesh be better for whitefish than for herring?—A. Yes, and would allow the small whitefish to pass through.

Q. How many nets are you lifting in these waters?—A. Eleven.

Q. What plant is required to do this?—A. One tug, one seow, one pile driver, two boats.

Q. What value is the tug?—A. Three thousand dollars.

Q. How many men?—A. Six men all told.

Q. Could that tug be worked with two crews?—A. Yes, sir.

Q. If you were ordered to raise the pots of those pound-nets every Saturday night at six o'clock and keep them up over Sunday and put them down again on Monday morning, could you carry on that fishery?—A. It could not be done.

Q. Would it entail Sunday labour if the law was to be enforced?—A. Yes, sir.

Q. If you had 20 pound-nets in these waters when would you require to take them up and house them?—A. About the middle of November, in order to save our nets.

Q. Are you now speaking of the waters inside of Long Point Island?—A. Yes, sir.

Q. Are there any pound-nets used along the outside coast of Long Point?—A. No, sir.

Q. If you had pound-nets in the waters of Lake Erie, on that beach, when would you begin to take them up?—A. About 15th of October.

Q. Why?—A. On account of the gales and winds.

Q. Would this apply, in your judgment, to the fishing west of Long Point?—A. The farther west you go the easier you can fish.

Q. Did you ever fish west of Long Point?—A. Yes, sir.

Q. How far west?—A. Up to Port Bruce.

Q. Would you take up the nets on the 15th of October if you were fishing west of Port Dover?—A. I would begin to take up nets on the 15th of November.

Q. In your own judgment would fishing with pound-nets anywhere on Lake Erie after the 15th of November be unsafe?—A. Yes, sir.

Q. When are the herring or whitefish in the best condition for market?—A. In October and November.

Q. Why do you say that?—A. Because they are harder and firmer.

Q. In what condition are they as to their spawning at that time?—A. They do not spawn like whitefish, herring spawn all the year.

Q. When do whitefish spawn?—A. From 15th October to 1st December.

Q. How do you tell when they are spawning?—A. Spawn runs out of the fish when they are ripe.

Q. Do you ever see the spawn running out of herring in May, June or July?—A. I have seen it in June, January and February.

Q. Particularly when?—A. In June and February.

Q. And what you mean by spawning is when the eggs run out without any force?—A. Yes, sir.

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- Q. Have you ever known of any salmon-trout being caught here?—A. Once in a while at Port Burwell.
- Q. What might be the size of them?—A. Three were about 40 pounds each.
- Q. Have you any idea how it is that more are not caught?—A. I could not tell.
- Q. Do you recollect what time they were caught?—A. Caught in 1891.
- Q. Do you know of any being caught this year?—A. No, sir.
- Q. Have you an idea what size whitefish would pass through a 3-inch mesh?—
- A. About one pound whitefish.
- Q. Are you in the habit of fishing with pound-nets up as far as Port Burwell?—
- A. Yes.
- Q. Much farther?—A. Up above Port Burwell at a place called Silver Creek.
- Q. Is that point above the cut?—A. About 25 miles.
- Q. With pound-nets altogether?—A. Yes, sir.
- Q. What have you seen caught in these nets?—A. Sturgeon, whitefish, yellow and blue pickerel, herring and other coarse fish; lots of small herring.
- Q. What is the size of the mesh of the pot of the pound-nets there?—A. Two-inch extension, one-inch square.
- Q. That mesh would take almost anything?—A. Yes, sir; take small fish about 6 inches long.
- Q. Have you seen smaller fish caught?—A. Those down to 4 or 5 inches would be gilled.
- Q. You have seen tons weight taken, you say?—A. Yes, sir.
- Q. Could you describe any of the small kinds of fish that were taken there?—
- A. Principally herring.
- Q. Were these herring marketable?—A. No, sir.
- Q. What was done with them?—A. Gave some away to the farmers, and the majority buried. These small fish would die in the act of taking them out and then they were buried.
- Q. Were many of them thrown into the water again?—A. None at all.
- Q. Was this a common transaction in fishing these pound nets?—A. Quite common in 1890, in 1891 this destruction of small fish was the greatest, but in former years great destruction also took place.
- Q. Were there any small whitefish among these?—A. Just once in a while a small whitefish would be taken.
- Q. Was the taking of these small fish generally in the pound-nets?—A. Yes.
- Q. What would you consider a fair quantity in weight of these small fish that might be taken in the nets?—A. I have known two or three tons of these small fish that would be taken out of six and seven nets.
- Q. At what time?—A. This would be in May and June; June principally.
- Q. What other kinds of young fish would be taken in the net?—A. Young blue pickerel would be taken in like manner, but not so largely.
- Q. Would there be any other kinds of fish?—A. No, sir.
- Q. Would there be any bass taken?—A. Bass are not taken in the Burwell nets, but they are very destructive on young fish of all kinds.
- Q. Have you any idea when the bass spawn?—A. Between the 1st and 15th of June.
- Q. Do they go on the shore earlier than that?—A. They go on as early as the 15th of May; they run from the 15th of May to the 15th of June.
- Q. About the Americans fishing, have you any knowledge how far they come over towards our shore to fish?—A. American gill-net fishermen fish within six miles of our Canadian shore.
- Q. In what part of the lake would they be?—A. This would be off Clay Point and Long Point.
- Q. What do they fish with?—A. With 4-inch mesh for whitefish.
- Q. Are these fishermen in great numbers there?—A. I have seen as many as five and six boats, that is, tugs and gill boats.
- Q. What would you call a gang of nets?—A. Each fishing boat would have a gang of nets; each gang would consist of two thousand yards.

Q. What would be the usual depth of these gill-nets?—A. Between six and eight feet deep.

Q. When does this take place?—A. Principally in June and July, following after whitefish.

Q. Do they catch any sturgeon there?—A. No, sir.

Q. Where do these men hail from?—A. From Erie, U.S.

Q. Within your knowledge, how long has this sort of fishing been pursued along the lake?—A. For the past ten years.

Q. Do you consider this fishing by the Americans on the Canadian shore as injurious to the Canadian fishermen?—A. Yes; and it is also illegal.

Q. Would Canadian fishermen be allowed to fish on the American side?—A. No, sir.

Q. Fishing in this manner, I suppose?—A. Yes, sir.

Q. How do you set pound-nets?—A. In setting pound-nets I start the leader in about 16 feet of water.

Q. In what depth of water can you set a pound-net?—A. It has been set in 60 feet of water, but it will not pay.

Q. If the leader is set at 16 feet would it avoid catching small fish?—A. It would avoid catching young fish.

Q. Are you aware of pound-nets being set without stakes at all?—A. No, sir; in some cases pound-net leaders will be attached to the shore.

Q. Whether do you consider a pound-net or a gill-net most destructive in catching fish?—A. Gill-nets are more destructive to the fisheries than pound-nets.

Q. For what reason?—A. The pound-net fish are kept alive, whilst they die in the gill-nets, and after a storm, and the nets cannot be reached, the fish all die and are thrown away in a half-decayed state. A continuation of this destruction of fish would destroy the fishery.

Q. Is the destruction of fish by gill-nets generally known outside the fishermen?—A. No, sir.

Q. Do you know of your own knowledge whether dead and polluted matter would destroy a fishery?—A. I think it would.

Q. What distance do you think pound-nets should be set apart?—A. A mile and a half at least.

GEORGE F. ALLEN sworn:—

*By Mr. Wilmot:*

Q. Your occupation?—A. I am a mariner.

Q. Where is your residence?—A. Port Dover.

Q. Your nationality?—A. Scotchman.

Q. How many years have you been engaged in the fishing business?—A. About six years.

Q. Have you been off and on a longer period than that?—A. I have been off and on fishing about 15 years.

Q. What kind of fishery are you engaged in?—A. Fishing with gill-nets for herring and pickerel.

Q. Do you ever catch any whitefish or salmon-trout?—A. Have not caught any in my nets.

Q. Where do you particularly fish?—A. Chiefly in this bay, from 6 to 8 miles from Port Dover.

Q. Is the description of net you use a gill-net?—A. Yes, 3-inch mesh gill-net.

Q. Can you give me the depth of that gill-net when it is set?—A. It would be between 5 and 6 feet.

Q. How many fathoms long?—A. Our nets go from 80 to 100 yards in length.

Q. Is it 3-inch mesh throughout?—A. Yes, sir.

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- Q. Could you give me the number of twine you use?—A. We use No. 60, 3 cord.
- Q. You catch herring, you say, principally?—A. Yes, and perch, blue pickerel and other small fish.
- Q. Is your principal catch herring, blue pickerel and perch?—A. Yes, sir.
- Q. Have you ever ascertained what your herring will weigh?—A. I do not know.
- Q. When do you catch fish most plentifully?—A. Generally in the months of October and November.
- Q. Do you catch them somewhat numerous in the months of June and July?—A. Once in a while.
- Q. What fish do you catch in June, July and August?—A. Principally herring.
- Q. When is herring in the best condition?—A. In the month of June.
- Q. Do you know that every animal, after it has produced, is more soft and thinner than at any other time?—A. Yes, sir.
- Q. When do the herring spawn?—A. I could not give a decided answer.
- Q. When are they softest?—A. I could not tell.
- Q. When are their bellies biggest with spawn?—A. I could not tell.
- Q. Would it be June or November?—A. I have seen them as full in June as they are in November, but am not prepared to say.
- Q. Where do you market your fish?—A. All over.
- Q. What are the current prices you get for them?—A. We generally get from \$1.50 to \$2 a hundred for them; sometimes not as much; sometimes maybe they go down to \$1.
- Q. Do you think it advisable to protect them at spawning time?—A. Yes, I do; I think it would be good.
- Q. Do you meet with much loss in fishing at times?—A. A great deal of loss.
- Q. What time of the year?—A. I meet with more losses of nets in November than in any other month.
- Q. Then if a month was set aside would it be better for you that the month of November should be set aside as to these losses?—A. I do not know what to say.
- Q. Are you subject to more cold then than at any other time?—A. That is a sure thing.
- Q. Then you are not prepared to say if you had a choice of setting one month aside whether you would choose November or not?—A. No.
- Q. How long have you lived here?—A. Over 40 years.
- Q. Is it within your knowledge that whitefish were taken in the inner bay at Whitefish Bar?—A. I do not know.
- Q. Are herring scarcer now than they were several years ago?—A. Yes.
- Q. Can you give any cause for the falling off in quantity?—A. No; I could not say.
- Q. And the whole of your fishing is devoted to herring and blue pickerel?—A. Yes, sir.
- Q. What is the difference in the value of the herring and pickerel in your market?—A.  $1\frac{1}{2}$  to 2 cents.
- Q. Would that be in favour of the herring?—A. No.
- Q. Which do you think would be the better fish of the two for eating?—A. I would as soon have a herring as a pickerel.
- Q. Do you think the 3-inch mesh is the correct mesh to catch these fish?—A. Yes.
- Q. Do you ever catch any whitefish in your nets?—A. Very seldom. Get now and then a whitefish, but the size would be about the size of a big herring.
- Q. During the period in which you have been engaged in the fishery here has there been any salmon-trout caught?—A. No; I never saw one caught here.
- Q. Do you know anything about the sturgeon fishery?—A. I know nothing.

Capt. J. S. ALLEN was sworn, and gave the following evidence:—

*By Mr. Wilmot:*

- Q. Your occupation?—A. Fisherman.  
 Q. Your residence?—A. Port Dover.  
 Q. Your nationality?—A. Scotchman.  
 Q. How long have you resided here?—A. 31 years.  
 Q. What kind of fishing are you engaged in?—A. Pound-net fishing.  
 Q. How long have you been carrying on this fishery?—A. 15 years.  
 Q. What do you principally catch?—A. Herring, sturgeon, pickerel, whitefish and bass, and other coarse fish.  
 Q. Do you ever catch any salmon-trout?—A. Very seldom.  
 Q. Do you catch what they call ciscoes?—A. No.  
 Q. What particular place do you fish in?—A. In the county of Haldimand, in the township of Walpole.  
 Q. Is there any particular bay that you fish in?—A. I fish in a small creek called Nanticoke Creek.  
 Q. And do you fish with pound-nets altogether?—A. Yes.  
 Q. What size mesh do you use in the pots?—A. 2-inch extension; 1-inch bar.  
 Q. What about the tunnels?—A. 4½ inch extension.  
 Q. Hearts?—A. 4½; leader, 5½.  
 Q. How small a fish will the 2-inch pot catch?—A. It will take a herring 6 inches long.  
 Q. Will this 6-inch fish be gilled or will it be alive?—A. They will be gilled.  
 Q. What size twine do you use?—A. Number 18 cotton twine in the pot; numbers 15 and 16 in the rest of the net.  
 Q. What depth water do you set your nets in?—A. From 20 to 22 feet of water.  
 Q. In your experience, when do you find whitefish and herring in the best condition for food?—A. Herring is in the best condition in the months of May and June, and in September and October.  
 Q. Now, what about whitefish?—A. The same as herring.  
 Q. Where do you sell your fish?—A. I sell principally in Canada.  
 Q. What may be the average value of the fish—for instance, whitefish?—A. They will average 7 cents per pound.  
 Q. Herring?—A. Herring will average 2 cents.  
 Q. Do you catch many pickerel?—A. Considerable pickerel—principally blue pickerel.  
 Q. What do they average?—A. About 4 cents.  
 Q. Yellow pickerel?—A. I sell them at 6 cents.  
 Q. Other coarse fish?—A. Two cents.  
 Q. Do you catch catfish too?—A. Very few.  
 Q. Have you taken any particular notice as to the season when whitefish spawn?—A. About the first ten days in November.  
 Q. What about herring?—A. Herring spawn later.  
 Q. Do you know when salmon-trout spawn?—A. About the same time as whitefish.  
 Q. Have you taken any notice when the bass spawn?—A. I think they spawn in June.  
 Q. What about pickerel?—A. I think the month of April.  
 Q. What about catfish?—A. I do not know.  
 Q. When do you meet with the greatest loss of nets?—In November.  
 Q. What is the average size of your whitefish?—A. About four pounds; whitefish won't spawn under two and a half pounds in weight.  
 Q. Then what is the full size of the matured herring, what weight?—A. From ¾ to one pound.  
 Q. Would a six-inch herring be able to spawn?—A. I do not think so.  
 Q. Now, have you, in your experience of fishing, seen quantities of small whitefish cast away?—A. I have but very seldom. These small fish can be made marketable by curing in brine. I have sold them readily in this way.

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Q. What will they bring?—A. I have sold them for \$2 per hundred pounds. As a rule these small fish are not saleable when fresh.

Q. Now what do you think about this Sunday close time?—A. It is obeyed.

Q. Can they carry on their fishing and obey the Sunday law?—A. Yes, sir.

Q. Well, how would the Sunday close time be obeyed?—A. By fishing the nets; but it is impossible to obey the law if the nets had to be taken up, that is, every Saturday night and kept up until Monday morning at six o'clock.

Q. Do you know anything about this American fishing in our waters?—A. I am aware of the Americans fishing inside of the international line to within six miles of Gull Island.

Q. What kind of fishing implements do they fish with there?—A. With tugs, boats and gill-nets.

Q. Have you any idea what quantity of net a boat would have?—A. Each tug would fish twenty nets.

Q. And twenty nets would comprise how many yards?—A. About two hundred yards to each net.

Q. What mesh do they fish?—A.  $3\frac{1}{2}$  to 5-inch.

Q. The fish principally caught are what?—A. Herring, pickerel, whitefish and some salmon-trout.

Q. Do you consider this fishing as an invasion upon the Canadian territory?—A. I do, and therefore illegal, and the American catch of fish in Lake Erie is considerably made up of fish caught in the Canadian waters.

Q. Do you know that this sort of fishing is carried on throughout the length of Lake Erie?—A. This fishing, within my own knowledge, is east of Clay Point, in Lake Erie.

Q. Do you believe that it would be in the interest of the fishery that the close season should be abolished?—A. I think it would be desirable that a proper selected close season should be established.

Q. Do you think it would pay to fish pound-nets in Lake Erie with mesh more than two inches?—A. I do not.

Q. Do you catch sturgeon?—A. Yes, sir.

Q. In pound-nets?—A. Yes, sir.

Q. When does the spawn flow from them freely?—A. In June.

Q. Is it at that time the eggs are taken to make caviare?—A. Yes, sir.

Q. Is the sturgeon fishery an important one with you?—A. Yes, sir.

Q. Could you tell me what do you get for sturgeon flesh?—A. From 5 to 8 cents per pound, dressed.

Q. What do you sell the eggs for?—A. 18 cents per pound.

Q. What is the usual weight of your sturgeons?—A. About 25 to 30 pounds.

Q. A 40-pound sturgeon would give you what quantity of eggs for caviare?—A. From 8 to 10 pounds of eggs.

Q. Do you think it is advisable to have a close season for sturgeon?—A. I do not.

Q. Why?—A. As they are only caught three months in the year.

Q. What three months are they?—A. June, July and August.

Q. Are there many small ones caught?—A. A good many which should be let loose.

CROSBY MORGAN, coal and lumber merchant, sworn, and replied as follows:—

*By Mr. Wilmot:*

Q. Your nationality?—Canadian born.

Q. Occupation?—Coal merchant.

Q. How long have you resided here?—Thirty years and upwards.

Q. Have you been engaged in fishing in that period?—One net in pound-net fishing.

Q. Have you in a general way noticed any decrease in any of the various kinds of fish in this bay?—When they first started the pound-net fishing, about 15 or 16 years ago, they got very much larger lots of fish.

Q. Do you mean that before then very little fishing had been done in these waters?—Very little fishing had been done previous to that.

Q. Had there been before that time considerable gill-net fishing?—Not for a great many years.

Q. Were you in this fishing business alone or in partnership?—I was in partnership with Messrs. Ansley, Tibbetts and Stewart.

Q. How long did you remain fishing?—A. One year.

Q. What did you do then?—I sold out.

Q. Did you get your money back?—A. Yes, little more.

Q. Do you remember what mesh you fished with at that time?—A. I think it was two inch mesh.

Q. Can you remember what season of the year you got the most whitefish?—

A. It was in the spring.

Q. Where?—A. In Long Point Bay about 7 miles, from Dover.

Q. Did that fishery extend into Haldimand?—A. No.

Q. What length of fishery was it?—A. About ten miles in all. All that was pound-net fishing. Had three pound-nets.

Q. During the time you were fishing how many nets had you at Long Point?—

A. About three nets.

Q. What did you catch there principally?—A. Sturgeon, herring, pickerel, bass, a few whitefish and some coarse fish.

Q. Can you tell me any of the best catches of whitefish made in these waters?—

A. No, I cannot tell.

Q. Do you consider it a whitefish fishery?—A. I do not.

Q. Do you call it a mixed fishery?—A. Principally herring fishery. Take the herring out of the lake and you might as well stop fishing (referring to the fishery in Long Point Bay).

Q. Have you been in a position to notice the catches of fish for a number of years from the boats coming in here?—A. Yes.

Q. I suppose you have followed the fishing pretty closely?—A. Almost every day.

Q. Let us know the fish that are caught here?—A. Yellow pickerel, pike, sturgeon, a few bass, and a small quantity of herring this year.

Q. What do you consider a proper mesh to catch herring?—A. Well, I never had any experience with anything but those 2-inch mesh, I think that is about the right thing to catch them with.

Q. Would not that mesh take pretty small herring?—A. Well it will take pretty small herring.

Q. What do you think about the 3-inch mesh?—A. I think it would about gill all the herring.

Q. You have I suppose considerable business inland in connection with your coal?—A. Yes, do business in the next county and around.

Q. Do you know whether a large local home traffic could be carried on here in fish?—A. I think a large local home traffic could be carried on here.

Q. What season of the year is most fatal in pound-net fisheries?—A. In the fall of the year, in the months of October and November.

Q. When do you think the herring is in the best condition?—A. Herring is not much good in the spring.

Q. Have you an idea when herring spawn?—A. I think I have noticed that you get some herring that is spawning all the time.

Q. When is the proper time for their spawning?—A. I do not know.

Q. Do you think that there should be a close season for herring?—A. I do not think so.

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W. F. TIBBETTS sworn :—

*By Mr. Wilmot :*

- Q. Your occupation?—A. Postmaster, also a member of the Pharmaceutical Society.
- Q. Your nationality?—A. Canadian.
- Q. How long have you resided here?—A. Twenty-five years.
- Q. Have you been engaged in the fishing at all?—A. Yes; with Mr. Ansley for some years.
- Q. What kind of fishery?—A. Pound-net fishing.
- Q. Gill-nets?—A. No, sir.
- Q. What description of fish?—A. Principally herring.
- Q. No sturgeon?—A. Few sturgeon.
- Q. Any whitefish?—A. Some; I have caught whitefish, but none lately.
- Q. Have you ever caught any salmon-trout?—A. One or two in a season.
- Q. What particular locality do you fish in?—A. On this shore for two years, and at Long Point for two years, principally at Long Point Bay.
- Q. What season of the year do you catch the greatest number of fish, as a rule?—A. Well, there is always a good run of herring in May and in September.
- Q. Your best fishing for herring was in May?—A. Yes, sir.
- Q. Many in November?—A. Well, not much of a run.
- Q. When are these fish in their best condition?—A. I think the herring is best during cold weather.
- Q. What is your idea as to their quality in May or June?—A. Be fairly good.
- Q. Have you any idea when they spawn?—A. Well, I think they spawn in winter.
- Q. Do you think they spawn in May or June?—A. Yes, sir.
- Q. Do you think they are different from any other fish?—A. They must be different from any other fish.
- Q. What particular season do you think whitefish spawn?—A. I think that varies; I think it would be at the end of November.
- Q. Do herring spawn then?—A. I should think so.
- Q. Where did you generally market your fish?—A. Generally in Hamilton, Toronto, and to fish dealers.
- Q. Have you any idea what quantities you caught in a season?—A. I could not tell that.
- Q. The herring was the principal fish?—A. Yes, sir.
- Q. Did you notice that when you were engaged in the fish business, what part of the year was most unprofitable and destructive to your nets?—A. Take from May to December, November would be the worse month.
- Q. With regard to the mesh, what sort of mesh did you use?—A. Two-inch extension measure, 2-inch in the pots, and 4-inch in the hearts and leader.
- Q. What is your idea as to the 3-inch mesh?—A. I think it would do very well. Of course it would let the little fish escape and keep the better fish in.
- Q. And as to the hearts would the 4-inch answer?—I think so.
- Q. Do you think the 6-inch mesh for the leader would be a suitable one?—A. It would not make much difference.
- Q. Are black bass numerous in the bay here?—A. They are not numerous by any means, but there are a few.
- Q. Do you know anything about speckled trout in this neighbourhood?—No, sir; I know nothing about them.
- Q. Are you accustomed to sail about the lake and out into the Bay of Long Point?—Yes, sir.
- Q. Understand the waters thoroughly?—No; not that.
- Q. Do you think it would be possible to carry on the pound-net fishing here, and be compelled to lift the nets every Saturday afternoon at 6 o'clock and not put them down until Monday morning at 6 o'clock?—A. I do not think it would be possible.



The Order in Council relating to raising pound-nets dated 20th February, 1892, was then read. The witness was asked if that portion of section 7 relating to pound-nets could be enforced in Lake Erie and pound-net fishing could be carried on. He replied I think that you could not carry on business with any such regulations.

Q. Do you think that it is correct to preserve all fish while they are spawning?  
—A. Yes, sir.

Q. If a close season for whitefish was established, should it commence on the 15th of November?—A. Yes.

Q. During the 14 or 15 years that pound-net fishing have been carried on, have the pound-nets all been left down over Sunday?—Yes, sir.

Q. Have you ever heard any complaint made on any quarter here?—Never heard the subject mentioned here.

Q. Have you ever heard of any Sunday fishing being carried on, on account of nets being left out on Sunday?—A. No.

Q. Are you aware that when they are set in the spring of the year, that they are left there until the end of the season?—A. Yes, sir.

Q. What would be the termination of that season?—It depends a little on the weather: sometime in the month of November.

Q. I suppose you understand what a thoroughly efficient fishing tug is?—A. Yes, sir.

Q. How many pound-nets would such a tug be able to serve?—A. About ten or twenty pound-nets.

DAVID LOW sworn:—

*By Mr. Wilmot:*

Q. Your occupation is what, sir?—A. Fisherman.

Q. Residence?—A. Port Dover.

Q. What nationality do you belong to?—A. Canadian.

Q. How long have you been engaged fishing?—A. About 14 years.

Q. What kind of fishing have you been engaged in?—A. Pound-net fishing.

Q. Fishing for sturgeon and other fish?—A. Yes, sir.

Q. What particular waters have you fished in?—A. In the outer and inner bay.

Q. Do you use pound-nets altogether?—A. Yes, sir.

Q. Have you ever fished with gill-nets?—A. Yes, sir.

Q. Any seines?—A. Yes, sir.

Q. But principally pound-net fishing?—A. Yes, sir.

Q. What is the size of the mesh in your pound-nets?—A. Two-inch.

Q. What in the tunnels?—A. Four-inch.

Q. What in the leader?—A. Six-inch.

Q. Would the two-inch extension catch herring?—A. Yes.

Q. Pretty small herring?—A. Yes.

Q. Have you any idea what weight the herring would be?—A. About a half-pound herring.

Q. When do you think the herring is in the very best condition for market?—  
A. In June they are best for eating purposes, and then again in the fall.

Q. When are they most numerous caught?—A. About September.

Q. What about October and November?—A. Do not get so many.

Q. Is the fish good in June, July and August?—A. In August they are not good. June and July they are best.

Q. Where is the market for them?—A. In Hamilton, Toronto, pretty much in Canada.

Q. When do you think the herring are spawning more fully than at any other time?—A. In January.

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Q. Do you think they spawn in June at all?—A. I think they do some spawning all the while.

Q. Have you any idea when whitefish spawn?—A. Whitefish spawn in November.

Q. Have you any idea in regard to the sturgeon?—A. Yes, sir.

Q. When are they principally caught?—A. In June and July.

Q. What is done with them?—A. The meat is sold fresh.

Q. When have you seen the spawn running from them?—A. About July.

Q. Have you fished on the outside of the lake?—A. In the inside of Long Point.

Q. Have you had any experience in the distribution of the fish, watching the sale of them that are caught?—A. Not a great deal.

Q. Have you had any?—A. Some.

Q. Do you think the sale of fish could be largely increased locally?—A. I think so.

Q. I suppose you heard the evidence of the other witness in regard to raising the pound-nets every Saturday night and keeping them raised until morning at six o'clock?—A. Yes.

Q. Do you agree with him?—A. Yes.

Q. How long would it take to lift, wash and stow away 10 pound-nets, and lift the stakes with a good tug and a full staff?—A. Two weeks.

JAMES LOW sworn:—

*By Mr. Wilmot:*

Q. What is your occupation?—A. Fisherman.

Q. What class of nets?—A. Gill-nets.

Q. Your residence?—A. Port Dover.

Q. What countryman?—A. Canadian.

Q. How long have you been fishing?—A. About six years with gill-nets.

Q. Seines?—A. Short time.

Q. What sort of fishery do you call the outer bay of Long Point?—A. Herring fishery.

Q. Take the herring out, and would it pay as a commercial fishery?—A. It would not.

Q. What is the mesh, the largest mesh that you catch herring with?—A. Nothing larger than 3-inch mesh.

Q. How many months in the year do you fish for herring?—A. We fish about two months in the fall, and about the same in the spring.

Q. When in the spring?—A. About May, June and July.

Q. Have you a seine?—A. I have a draw-net.

Q. What do you catch with a draw-net?—A. Suckers, mullet and pike.

Q. Any herring?—A. No.

Q. Is the commercial fish of the lake deep water fish or shallow water fish?—A. In deep water.

Q. Have you taken any notice of the spawning season of the herring?—A. I think that in June or July.

Q. What other times?—A. January.

Q. What about October and November?—A. I do not think they spawn in these months.

Q. When do whitefish spawn?—A. I think about the 10th to the 15th of November.

Q. Have you ever caught any sturgeon?—A. A few.

Q. What season of the year do you catch them principally?—A. In June and July.

Q. Do you catch them for the benefit of their meat, or for their eggs, which are used for making caviare?—A. For their meat.

Q. When do you get the eggs most freely?—A. In June.

Q. Are you aware that there is a close season for whitefish?—A. Yes, sir.

Q. What season is that?—A. November.

Q. Is fishing carried on by pound-nets in the month of November?—A. Yes, sir.

Q. In the event of a month being set aside for spawning, and for the safety of the fishermen, what month would you say would be the best?—A. I think in November.

Q. What do you think about the Sunday close time?—A. Impossible to carry out the Sunday close time with pound-nets.

Q. Have you noticed any falling off in the quantity of herring caught now than there was years ago?—A. No.

Q. Do you think the fishing is as good now as it was ten years ago?—A. Yes.

Q. Are there more fish now than there was ten years ago?—A. Yes.

The Commission then adjourned, to meet at St. Thomas, on the 8th inst., due notice being given.

#### No. 2.—ST. THOMAS.

Mr. Samuel Wilmot and Mr. Edward Harris, Fishery Commissioners appointed by the Dominion Government to make investigation into the fisheries of Ontario, met at St. Thomas, on the 8th day of November, 1892; Mr. Wilmot as chairman, Mr. Harris as cross-examiner, Miss Gertrude B. Howarth acting as secretary *pro tem*.

The Commission then proceeded to take evidence.

C. C. BATES sworn:—

*By Mr. Wilmot:*

Q. Your residence?—A. Clear Creek.

Q. Your occupation?—A. Fisherman.

Q. Your nationality?—A. Canadian.

Q. How long have you resided there?—A. About six years.

Q. You have been engaged in fishing, how long?—A. For fifteen years.

Q. What kind of fishery do you carry on?—A. Pound-net fishery.

Q. What kind of fish do you catch?—A. All kinds.

Q. What particular waters do you fish in?—A. Lower part of the township of Houghton, 4 miles coast line.

Q. Do you use gill-nets at all?—A. Yes, but do not think it successful.

Q. What is the size of the mesh that you use in the pound-net?—A. Leader 5-inch, heart 5-inch, tunnel 4 inch, pot 2-inch.

Q. What is the average size fish that you catch in this pot?—A. About  $\frac{1}{2}$ -lb.

Q. Will the fish that get in the pot, ever escape from the pot?—Yes, when there is a run on, the majority of the fish get away.

Q. You formerly caught whitefish, what size were they?—A. About 5 inches in length.

Q. Your principal catch consists of what?—A. Whitefish, herring, blue pickerel and sturgeon.

Q. What number of salmon-trout do you catch in your pound-net?—A. Well, in the spring of the year, if we get one, two or three we think it quite a few, but have caught as high as seven in one lift.

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Q. What average in weight will these be?—A. About 15 lbs.

Q. Then you do not consider that your fishery is successful in catching salmon-trout there?—A. No, not enough to speak of.

Q. In your experience what months are whitefish in best condition?—A. I have not considered that.

Q. Well, in their condition for eating purposes?—A. Well, I should think the early and late months.

Q. Do you think that the months of June and July are the best months to catch them for food?—A. I think they are best in April, May, June, and also in October and November.

Q. When do you think herring is best?—A. Same as whitefish.

Q. When is sturgeon most marketable or best for food, when do you get the most caviare?—A. Sturgeon in June and July, and caviare is most obtainable then.

Q. Where is your principal market?—A. Buffalo, some home consumption.

Q. Are the prices at home as good in proportion as in Buffalo?—A. Yes, sir.

Q. What is the average value per pound?—A. Whitefish, 5 cents; herring, 1 cent; pickerel, 2 cents; yellow pickerel, 4½ cents; sturgeon, 4 cents, dressed.

Q. At what time in your opinion do whitefish drop their eggs?—A. I think November, herring, about the same time, pickerel, in the fore part of April, catfish, some time in June.

Q. Do you catch many of them?—A. No, sir.

Q. Are they becoming quite an article of commerce?—A. I do not know much about them.

Q. In what months do you receive the most damage to your nets?—A. In September, and hardly feel safe after that.

Q. Is November safe or unsafe?—A. It is safe.

Q. September, October, November, which is the worst?—A. Of course as the cold water increases the water is heavier and has more weight with the nets.

Q. Then you think that the later the season the danger will be greater for fishing, would November cover that?—A. Yes, sir; November would be the most serious for me.

Q. Have you had any experience with small fish being thrown out of the nets?—A. There is some times that we have to do it, but there is a great deal of talk about it and the cry is exaggerated.

Q. Well, if you heard a report to the effect that a ton weight were thrown away, would it be exaggerated?—A. Yes, it would be a great exaggeration, in my experience.

Q. If 500 lbs. were thrown away, would that be a large lot?—A. Yes, sir. In fact I can say there is no fish thrown away from my net. People come and take the small fish away, buy them at ½ cent per lb. to smoke.

Q. Do you take up your nets Saturday night and lay them down Monday morning?—A. No, I do not.

Q. Then if the law were enforced would it be impracticable to carry out?—A. Well, if it would be raining or come up a blow on Saturday we could not go out.

Q. Do the American fishermen enter in Canadian waters to fish?—A. Last spring there was an American tug within a mile from Canadian shore and I was alongside talking to them.

Q. What description of net did they use?—A. Gill-net.

Q. Fishing for herring and pickerel?—A. Yes, sir.

Q. Did they continue this?—A. They were in sight of our shore for several days.

Q. Would this be in Canadian waters?—A. Yes, not five miles out where that I saw them.

Q. Did you make any objection to these men fishing alongside of you?—A. I run up alongside of them and said "You people are out of your element," and they said they just came in to take some fish out.

Q. Were you willing to let them do it?—A. I was not.

Q. Did they come over very often?—A. Yes, in the spring.

Q. Could you see the smoke of their tugs in the centre of the lake?—A. No, sir

Q. Therefore the smoke you saw would be on the Canadian side?—A. Yes, sir.

Q. Do you say that it should be allowed so far as you are concerned as a fisherman?—A. No, sir.

Q. What have you to say in regard to fish being protected in their breeding season?—A. Yes, I believe in protecting them.

Q. Have you formed an estimate as to when the proper time is?—A. Whitefish in the month of November, herring the same, yellow and blue pickerel about the same time.

Q. What about salmon-trout?—A. I took no particular notice of them.

Q. Do you think that it would be judicious that they should be allowed to be caught the year round?—A. No; I think that there should be some way to protect them.

Q. You say that if there were close season it would not affect you at all?—A. No, not me.

Q. What distance are your nets apart?—A. We generally try to get them about one mile apart.

Q. What distance from the shore is the nearest part of your net?—A. I can hardly say, but think it about a half mile.

Q. What depth of water is it?—A. I fish from twenty to thirty-two feet.

Q. How long is your leader?—A. They are from sixty to eighty feet.

Q. At what depth does your leader begin?—A. Shortest depth would be about fifteen feet.

Q. Do you consider that there is anything to prevent the small fish from running between the shore and the lead?—A. No, there is plenty of room for them.

Q. Do you lift many small fish in your net?—A. No, not many.

Q. What do you consider the principal fish of your fishery?—A. Herring, pickerel and whitefish.

Q. Many blue pickerel?—A. Yes, sir, but not many yellow.

Q. Is there much demand for sturgeon?—A. Not very much.

Q. Would you consider it as a food supply in this country?—A. No, I would not, because if the sale of sturgeon was confined to this country, we would have more than we could get rid of. I think it is considered more of a luxury.

Q. Are there many sturgeon caught of a small size, say three feet and under?—A. No, there is not a great many.

Q. Do you think that it would be a good idea to throw out of the net any sturgeon that are three feet and under?—A. I would like that better than close seasons for sturgeon.

Q. Would it put Sunday labour on you or your men by lifting your nets Saturday?—A. Yes, it would.

Q. Do you think that it would be in the interest of the fishing trade to prevent the public from purchasing fish during the close season?—A. Well, the fish dealers have not complained of the fish not being fit for use at any time.

Q. Would it be right to allow fish to go on the market after spawning?—A. I never put them in, and they generally go off after spawning.

Q. Then you do think that fish at that stage are not as fit for food as they should be?—A. Yes, I agree with that.

Q. Do you say that your pound-net pot is 2-inch?—A. Yes, that is a square inch pot.

Q. Could a half-pound fish get out of an inch bar?—A. No, I do not think so.

Q. Would a quarter-pound fish get out?—A. Yes, I think it would.

Q. Would a quarter or half-grown herring pass through an inch bar?—A. No, I do not think a half-grown herring would.

Q. Would a half-grown whitefish be about the size of a full grown herring?—A. Yes.

Q. Are these fish taken in any considerable number from the nets?—A. No, not in any great numbers.

Q. As a half-grown whitefish is not capable of reproducing its kind, don't you think there is propriety for establishing a regulation preventing catching them?—

A. Yes, sir.

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Q. What is the average weight of blue pickerel?—A. About the size of a herring.

Q. Does the 2-inch mesh confine them in the pot of the net?—A. Yes, sir, they both take about the same size mesh, the blue pickerel being round consequently weigh more.

Q. Are pound-nets better for saving fish?—A. Well, if we gill the fish in the pound-nets, they would soon die. They will not live very long after being gilled.

Q. Could there be a more judicious mesh used than 2-inch extension?—A. No; I do not think there could be.

WM. CUDNEY sworn:—

*By Mr. Wilnot:*

Q. Your residence?—A. Port Burwell.

Q. Your nationality?—A. Canadian.

Q. Are you a practical fisherman or a dealer?—A. Fisherman.

Q. How long have you been engaged in this work?—A. About seven years.

Q. What description of fishery are you engaged in?—A. Pound-net fishery.

Q. What kinds of fish do you generally catch?—A. Sturgeon, whitefish, blue pickerel and coarse fish.

Q. Do you catch any salmon-trout?—A. Very few. Those caught are good, average about 30 pounds.

Q. What particular part of the lake do you fish in?—A. From lot 10, Bayham to lot 27, Malahide.

Q. What size of mesh do you use?—A. Leader 6-inch, pot 2-inch, heart 5-inch and tunnel 4-inch.

Q. Will a pound fish get through your pot?—A. No.

Q. Will the pot hold all fish under a pound?—A. Oh, no.

Q. What size will get out?—A. Quite a good size fish will get out of a 2-inch pot.

Q. What do you call small?—A. Those weighing about  $\frac{1}{4}$  to  $\frac{1}{2}$  pound.

Q. Do you find any difference as to the sale of your fish as to the months?—A. No.

Q. Are they any better one month more than another?—A. I think they are about the same all through. I have never noticed any difference in them.

Q. Where is your market?—A. Buffalo, and a few for local trade.

Q. What kinds of fish principally in the local trade?—A. The Canadians get the best fish.

Q. Is the value of these fish that you sell to the Buffalo dealers, the same as to the others?—A. Yes, the same.

Q. Have you noticed when whitefish are prepared to spawn?—A. Well, no, not particularly; whitefish spawn in November more than in October, herring in November.

Q. Do you believe that whitefish spawn all the year round?—A. No.

Q. What months do you receive the most damage to your nets by storm?—A. In November and October.

Q. Do you think Sunday close impracticable to keep?—A. There is no way that I know of, if a storm comes on, that will be safe.

Q. Would it be injurious to the fishery to use a 3-inch mesh?—A. Yes, I think it would be, it would be useless.

Q. Do you know anything about the Americans fishing in our waters?—A. No, I do not.

Q. Do you think that it would be well to have proper close season for the preservation of the fish?—A. There is no doubt that the close season increases them if observed in the proper time.

Q. If the close season were set aside in October, what then?—A. November would be the best; I do not think that whitefish spawn in October.

Q. When do you commence putting down your pound-nets?—A. About the 15th of May.

Q. Keeping them down until when?—A. First of November.

Q. Do you do any pound-net fishing after the 1st of November?—A. Probably two or three days.

Q. Do you think that it is unsafe to keep the nets down after the first of November?—A. Yes, I do.

Q. What is the earliest that you can put down your pound-nets?—A. About the last of April.

Q. How many nets have you?—A. I have five nets.

Q. How long does it take to set them out?—A. A set of stakes a day, will have the five nets out by the 15th of May.

Q. As soon as each net is in do you begin to fish it?—A. Yes, sir.

A. C. BROWN sworn :—

*By Mr. Wilmot :*

Q. Your residence?—A. Port Stanley.

Q. Your occupation?—A. A fisherman.

Q. For what length of time?—A. About 15 years.

Q. Your nationality?—A. Canadian.

Q. What kind of fishery are you engaged in?—A. Pound-nets altogether.

Q. What kind of fish do you catch in your pound-nets?—A. Herring, blue pickerel, whitefish, sturgeon and a few coarse fish.

Q. What particular waters do you fish in?—A. Upper part of Yarmouth and Southwold.

Q. What is the limit of your fishery?—A. About 8 or 9 miles.

Q. How many nets?—A. Five nets.

Q. All pound-nets?—A. Yes, sir.

Q. Do you ever use gill-nets or drop-net?—A. Gill-nets a few years ago but not lately, never drop-net, formerly a seine.

Q. What description of fish do you catch in your seine?—A. Assorted fish of various kinds.

Q. What was the size of the mesh?—A. 2½-inch bags and 3-inch wings.

Q. What is the size of the mesh in your pound-nets?—A. Pot 2-inch, tunnel 4-inch, leader 6-inch.

Q. Do you find this the best?—A. Yes, sir.

Q. What size fish will escape out of the 2-inch mesh in the pot?—A. ¼-pound herring will pass through.

Q. What about the blue pickerel?—A. Some will get out.

Q. Would a blue pickerel pass through a mesh that a herring would?—A. I think so, their bodies are about the same.

Q. Would a pound herring or ¾-pound pickerel pass through the same mesh?—A. No, I hardly think they would.

Q. Would the catch which you heard Mr. Emery speak of be your average catch?—A. His is greater than mine, although mine are very good.

Q. Have you taken any notice when whitefish are best for food?—A. Well, I should think in the spring of the year, May and June.

Q. When are herring?—A. I have had no experience as to them.

Q. What about blue pickerel?—A. In September and October they are best.

Q. Give me your opinion why you think they are better than in any other time?—A. Well, they are fatter and better.

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Q. What is the value of the fish that you sell?—A. Whitefish, 5 cents, herring, 1 cent, blue pickerel, 2 cents, yellow pickerel,  $4\frac{1}{2}$  cents.

Q. During your fifteen years' fishing, what conclusion have you come to in regard to the real spawning time of fish?—A. Whitefish latter part of November, herring about same time, blue pickerel in April.

Q. Do you know anything about sturgeon?—A. I do not get more than two or three in a season.

Q. Bass, do you know anything about them?—A. No, I catch very few of them, but have heard that they spawn in the same time of the year as the pickerel.

Q. When have you had the most losses to your nets?—A. November is the most dangerous to fishermen.

Q. Do you catch many small fish?—A. A few, not many.

Q. What do you mean by many?—A. It is a rare thing to have 100 pounds, once in a while 500 pounds.

Q. What do you do with them?—A. We sell most of them for home consumption.

Q. Have you ever buried them or destroyed them?—A. Yes, not many, very few, not more than half a ton in a whole season.

Q. In having these young fish in your net, how do you get them out?—A. Scoop them out.

Q. Do they ever pass through the meshes?—A. Some of them do.

Q. Are they ever injured in squeezing through?—A. Not unless they are too large.

Q. Keeping the Sunday close time, how would this affect you as fisherman?—A. I think it would be impracticable for me to do it.

Q. About the American fishermen, have you noticed anything with regard to this statement, that the Americans fish in the middle of the lake or near our shore?—A. No, I have not.

Q. Is it prudent to have close seasons for the fish at spawning time?—Yes, I think it is right.

Q. When do you generally commence fishing your pound-nets?—A. First of May.

Q. How long do you fish?—A. Until the middle of November.

Q. Are the blue pickerel on the increase or decrease?—A. I think they are on the decrease.

Q. Do they grow as large as pike?—A. No, I do not think so.

Q. What do you consider the average size of blue pickerel?—A. About 1 pound.

Q. What is the largest size mesh with which you can catch fish of 1 pound?—A. With about 2-inch mesh, 3-inch would gill them, but  $\frac{3}{4}$ -pound would go through.

Q. Do the blue pickerel follow the runs of the whitefish for food?—A. I could not say, they mostly run by themselves.

Q. What month are they most plentiful?—A. The heaviest catches are in October.

Q. Do you catch many sturgeon?—A. Not very many, but do catch some in the pound-nets.

Q. When do you find the sturgeon most freely in spawn?—A. Well, I never noticed.

Q. What is the size of them?—A. Live weight, I think, they would average about 60 pounds, 35 to 40 pounds dressed.

Q. What quantity of eggs would you get from a 60-pound fish?—A. From 10 to 20 pounds of eggs.

Q. Are they not worth more at some seasons than at others?—A. Same value at any time of the season.

Q. What is the price of the meat, dressed?—A. Four cents to five cents a pound.

Q. What are the eggs worth?—A. Fifteen cents per pound.



WILLIAM EMERY sworn :—

*By Mr. Wilmot :*

Q. Your occupation ?—A. A fisherman.

Q. For how long ?—A. About seven years.

Q. Native of this country ?—A. Yes, sir.

Q. What kind of fishery ?—A. Wholly pound-net, had a gill-net license but found it did not pay.

Q. What principal fish do you catch ?—A. Blue pickerel, whitefish, sturgeon and some coarse fish.

Q. Where is your fishery ?—A. From the township of Bayham, lot 12 to 13.

Q. What is the size of the mesh ?—A. 2-inch, 4-inch, 7-inch.

Q. What time do you find that the whitefish are best ?—A. May and June.

Q. What with regard to herring ?—A. I have noticed no difference, in the time of the year.

Q. What about blue pickerel ?—A. Some think for the whole season.

Q. Do you ever get any salmon-trout ?—A. Very few.

Q. Is your market Buffalo ?—A. Yes, sir.

Q. Do you have any local market ?—A. Peddlers take some of these in the interior towns.

Q. Do you ship any of your fish to Montreal ?—A. No, sir.

Q. Are your principal shipments to Buffalo ?—A. Yes, sir.

Q. Are the prices obtainable the same as given by the other gentlemen ?—A. Yes.

Q. Have you made any observation as to when the true spawning season for whitefish may be ?—A. Well, I am not a practical fisherman, but my observations are that whitefish spawn in November, herring the same, blue pickerel in the spring, I think April and May.

Q. What about bass ?—A. I do not know.

Q. When are fishermen in most danger as to their nets being lost ?—A. October and November, principally November.

Q. Are you the owner of the nets ?—A. I have a certain number of licenses.

Q. Do you notice many small whitefish at the time the nets are taken up ?—A. Yes, sometimes, but of late years we have not caught many whitefish, but about four years ago we did.

Q. In what proportion have you caught small or young blue pickerel to whitefish ?—A. More blue pickerel.

Q. What size would they be ?—A. From  $\frac{1}{4}$  to  $\frac{1}{2}$  pound.

Q. Would one pound be about the full average of these fish ?—A. Yes, sir.

Q. Are your small fish saleable ?—A. We sell them at reduced prices.

Q. Can you sell them to United States markets ?—A. No, only local use.

Q. Can you give me any idea why they do not take them abroad with the larger fish ?—A. Buffalo only take them from  $\frac{1}{2}$  pound up.

Q. The Sunday close time, would it be impractical to keep ?—A. I think it would.

Q. You do not put it in the strong light, that it would be impracticable to carry on the fishery ?—A. Well, it would injure the fishing interest.

Q. From your own observation, do you know if there is any American fishing done in our waters ?—A. I have heard of American fishermen boast of their catching fish in Canadian waters.

Q. With what machinery has it been carried on ?—A. Tugs and gill-net.

Q. Has there been any objection made to it by the authorities ?—A. It is carried on more particularly in Mr. Sharp's part, about Long Point.

Q. Are you a believer that protection should be given fish in regard to the fisheries ?—A. Yes, at proper times, and judiciously chosen.

Q. Is any fishing done in November and December ?—A. Sometimes in November.

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Q. What about fish hatcheries?—A. I think fish hatcheries should be encouraged by the Government for the people, by the Government.

Q. Should sturgeon be the principal fish bred?—A. Yes, because they are very valuable fish.

Q. Are the fishery laws enforced by the guardians?—A. I think that they have too much to look after; Mr. Sharp having about forty miles along the lake, and very much unpaid for what he does.

Q. Could this duty be attended to without some proper lake craft along the shore?—A. No, so far as the American fishermen are concerned, and I might say here, that it is believed that all descriptions of fish are sold to these American tugs direct from the nets.

Q. Would the close season for whitefish and herring, beginning the first of November, be considered by fishermen as beneficial in Lake Erie?—A. Yes, for our locality.

Q. In what months do you catch the greatest number of blue pickerel?—A. In October.

Q. Are you aware that most fish live upon one another?—A. Yes, we consider that they prey upon each other.

Q. Have you ever heard of blue pickerel being caught in any great numbers except in pound-nets?—A. No, I have not.

Q. Do these fish form a large food supply since pound-nets have been used?—A. Yes, sir.

Q. Do they not catch them in gill-nets?—A. Yes, they do sometimes.

WM. EMERY, re-examined, sworn:—Says in reply to the question, "What is done with the small fish?" I answered, "They were sold." I wish to add that when we have an extremely large catch, we sometimes get more than can be sold of small fish, and then we usually allow the people to take the small fish; if they do not take them all, the balance are buried with the offal.

*By Mr. Wilmot:*

Q. What would you call a good quantity of small fish?—A. We sometimes get one-half or three-quarters of a ton, according to the catch of larger fish.

Q. What kinds of fish are they?—A. Principally blue pickerel and herring, no other kind.

Q. Do you sometimes catch some young whitefish?—A. Some three or four years ago we did, but not lately.

Q. What quantities of these?—A. One-half to three-quarters of a ton weight might be buried, probably half a ton sometimes.

Q. Do you ever get such a stock of what you call marketable fish and then be compelled to throw them away?—A. Yes, some five or six years ago these small fish came with the larger fish, notably the sturgeon. Since then we have a freezer, and we utilize all the fish.

DEED Q. What do you mean by those fish that are not marketable?—A. Small fish, I mean.

Q. Would you kindly tell me what you would call a large catch of blue pickerel at the proper season of the year, what would be a moderate quantity?—A. Twelve tons, out of four nets in one day, between the 18th and 25th of October, 1892.

Q. What description would these be?—A. Principally blue pickerel, and a few whitefish, there might be a few sturgeon.

Q. What about herring?—A. None, but in June, 1891, we had a small run of herring.

DEED Q. Are they caught numerously at times?—A. We caught 29 tons in four days with 12 nets, although herring fishing is very good in October sometimes.

Q. When are pickerel caught?—A. In May and June, but this October has been an exception to that.

Q. When is usually your best run of whitefish?—A. Generally the latter end of May and June.

Q. At the time of these large catches, did you find it difficult to dispose of your fish?—A. Yes, the market was blocked.

Q. Then what did you do with them?—A. We telegraphed to other points.

Q. How many fish nets have you?—A. I have four nets.

Q. If you had double the number would you be compelled to dispose of all the fish to other dealers?—A. Yes, I think so, the same with the other dealers, as Buffalo could not freeze them as fast as they came in.

Q. Do the Americans fish more extensively on the other side than we do here?—A. Much more extensively, but not with the single nets as in Canada.

Q. What number of pots (or ponds) to each leader?—A. They are not entitled to more than one.

Q. Have you any special knowledge as to the habits of black bass?—A. No, I have not.

Q. Then they are not fish that live along these shores?—A. No, I do not catch more than  $\frac{1}{2}$  ton in a season.

Q. Would the average size of blue pickerel that feed upon the small fish pass through a  $3\frac{1}{2}$ -inch mesh?—A. Yes.

Q. What would you call an average size pickerel?—A. About 1 lb.

Q. If you have a larger mesh than that, would many of the small fish be gilled?—A. Yes, I think so.

Q. Do you frequently lift your nets without catching many fish?—A. Very often we have small catches.

Q. In what months would that be?—A. Latter part of July and August.

Q. Which are the best months?—A. Best catches in May and June, September and October, including all kinds of fish.

DANIEL LANG sworn:—

*By Mr. Wilmot:*

Q. Your residence?—A. Township of Alborough.

Q. Your nationality?—A. Canadian.

Q. Your occupation?—A. A fisherman.

Q. How long have you been engaged in this work?—A. About seven or eight years.

Q. What kind of fishery have you?—A. Pound-net fishery.

Q. You catch the same kind of fish as the rest?—A. Yes, herring principally.

Q. What part of the locality do you fish in?—A. Twenty miles west of here with two miles front.

Q. What is the size of your mesh?—A. Pot 2-inch, tunnel and heart 4-inch, and leader 7-inch.

Q. Have you noticed any part of the year in which the fish are in the best condition?—A. From deep water they are always better during June and July.

Q. Where is your market?—A. One-half sold in this country, and Detroit sell in quantities.

Q. What prices do you get for whitefish in Detroit?—A. Never lower than 5 cents and sometimes over.

Q. For blue pickerel?—A.  $4\frac{1}{2}$  cents, second class 2 cents, yellow  $4\frac{1}{2}$  cents.

Q. For sturgeon?—A.  $4\frac{1}{2}$  cents, sometimes  $4\frac{1}{2}$  cents.

Q. When do you think the sturgeon spawn?—A. I have not the least idea.

Q. Have you made any observation as to whitefish?—A. Yes, sir, from about the 10th of November until December.

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Q. When would be the heat of their spawning?—A. From the 10th to the 20th of this month. (November.)

Q. What about herring?—A. About the latter end of November to January.

Q. What about pickerel?—A. We get very little pickerel in the spring, but have seen them spawn in April.

Q. In what particular part of the year do you receive the most injury to your nets?—A. The latter part of October and November are supposed to be the worst.

Q. What about small immature fish?—A. I have caught hundreds of them.

Q. What kind would they be?—A. Principally herring.

Q. How does this apply to whitefish?—A. About four years ago we caught quite a number of them, but not since then.

Q. When thrown out of the pot do they live?—A. Yes, if not injured.

Q. Have you ever seen any quantities of these young herring caught and buried because they are not saleable?—A. No, I never have.

Q. What do you think about the Sunday close time?—A. It cannot be done at all.

Q. What about Americans fishing in our waters?—A. I never knew anything about it.

Q. How far is the American coast from you?—A. About 60 miles. The widest part of the lake.

Q. Do you think it will be to the interest of the fisheries that close season should be established?—A. No, I do not think so.

Q. When do you put out your pound-nets, as a rule?—A. About the 12th of April.

Q. And fish until when?—A. Until the latter part of July, and from September until we cannot fish.

Q. Have you any experience in the salt water fishing?—A. I was raised among it.

Q. Do fresh water fish require more careful handling?—A. Yes, I think so, as they are softer.

Q. Do you think it is possible to use gill netting with success?—A. No, I do not think so. It would be of no use to us.

Q. Does gill netting cause a great waste of fish?—A. Yes, sir.

Q. But there is no gill-net fishing carried on here, is there?—A. No, sir, it was tried but it proved a failure.

Q. Will the public get a better class of fish from the pound-net fisheries than from the gill-net?—A. Certainly they will.

Q. Do dealers ask the difference in making the bargain before seeing the fish?—A. Certainly they will, preferring the pound-net fishing.

WM. BACKHOUSE sworn:—

*By Mr. Wilmot:*

Q. Your residence?—A. Port Burwell, township of Bayham.

Q. Your nationality?—A. Canadian.

Q. How long have you been engaged in this business?—A. Six years.

Q. What description of fishery are you engaged in?—A. Wholly pound-net.

Q. What description of fish are you in the habit of getting?—A. Whitefish, blue pickerel, herring and sturgeon.

Q. Other fish would be bass, yellow pickerel and pike. Coarse fish would be catfish, mullets and suckers?—A. Yes, sir.

Q. Do you catch any salmon-trout?—A. Perhaps three or four in a season.

Q. Where are your particular waters for fishing?—A. Those bordering on the township of Houghton, from Lot 1 to Lot 15 or 17, I would not be sure which.

Q. What is the size of the mesh in you net?—A. Pot 2-inch, tunnel and heart 4-inch, leader 7-inch.

Q. Do you catch many small fish?—A. Not in proportion to large full grown ones.

Q. These small fish consist of what?—A. Mostly herring.

Q. Any whitefish?—A. Very few, but a few blue pickerel and a few sturgeon, in proportion to the other fish.

Q. What would be the size of the whitefish?—A. A small whitefish would be about 1 pound, and under.

Q. And the size of herring?—A. A small herring would be perhaps  $\frac{1}{2}$  pound and less.

Q. And they do not get through the meshes?—A. Well, they do not get through, but they are scooped in with the other fish. When they are scooped means that they are dead.

Q. Have you anything to say as to when whitefish are in prime condition?—A. In the spring of the year, in May and June.

Q. When do you think herring are in best condition?—A. In August, from May to November and December.

Q. Are your markets principally in the United States?—A. Yes, sir.

Q. Have you ever attempted to make a home market for them?—A. I have never looked for that, not being situated on the railway we cannot well make a home market.

Q. What prices do you get?—A. Whitefish, 5 cts.; herring, 1 ct.; yellow pickerel,  $4\frac{1}{2}$  cts.; sturgeon, 4 cts.

Q. Have you taken any observation as to when whitefish spawn?—A. The latter part of November.

Q. Do the herring about the same time?—A. Yes, sir, never the whole year round.

Q. Any in June?—A. No, sir.

Q. When do the blue pickerel spawn?—A. In March and April.

Q. Do the yellow pickerel spawn at same time?—A. Yes, sir.

Q. When do bass spawn?—A. I can say very little about them, as we catch very few of them.

Q. What about sturgeon?—A. Nearly all the year round, generally in July and August.

Q. When do you find it most profitable to gather these eggs?—A. In June, July and August.

Q. Then the eggs to make the caviare are separated from the ovaries?

Q. What is the average size sturgeon that you catch?—A. About 30 lbs.

Q. About 12 lbs. roe?—A. Yes, sir.

Q. What would be the value of the fish per pound?—A. 4 cts. to 5 cts.

Q. What the value of the eggs?—A. 15 cts. to 20 cts.

Q. Then the value of the flesh is less than the eggs?—A. Yes, of the sturgeon.

Q. Have you formed any opinion as to what months your nets are in more danger than at others?—A. Fall months, October and November. It does not pay to fish in November.

Q. Is it impracticable to carry out the law of closing pound-nets on Sunday?—A. Yes, sir.

Q. Have you any knowledge of the Americans fishing in our waters?—A. Yes, sir, I have noticed the smoke of tugs when fishing with gill-nets.

Q. Have you ever seen the gill-nets?—A. No, but from information obtained, Americans fish from 4 to 5 miles from our shore during the whole season.

Q. Then you think that this has been done continuously?—A. Yes, for several years past.

Q. Has there been any effort made on the part of the officer to prevent this?—A. No. The only way to stop it is to have a Government steam tug or cruiser.

Q. And you think this is pretty general?—A. Yes, sir.

Q. Give width of lake there?—A. About 60 miles.

Q. Do you think it desirable to retain the close seasons for the benefit of the fishermen for fish?—A. Yes, sir, for yellow and blue pickerel, whitefish and salmon-trout.

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Q. Do you think certain limits for spawning should be set apart?—A. I think that certain parts of the lake should be reserved for spawning.

Q. If these real spawning times were established, do you think that it would be well to set them aside?—A. Yes, sir, I think so. I would say also that artificial protection should be given fish on the part of the Government, particularly such fish as whitefish, salmon-trout, pickerel and sturgeon.

Q. Are salmon-trout of any moment in this lake at all?—A. Very few ever caught, sir.

Q. Is it impracticable to make a pound-net mesh smaller than 2-inch?—A. Yes, sir.

Q. What is the proportion of whitefish in regard to proportion of other fish?—A. Well, herring would be about one to sixteen in value of whitefish, the proportion of blue pickerel and whitefish thirty to one as to value.

Q. Then this lake is more notable for herring and blue pickerel?—A. Yes, sir.

Q. How many nets have you, and how far apart?—A. Four nets, about one mile apart.

Q. How far from the shore?—A. An average of fifteen feet, all being clear from that to the shore.

Q. Have you ever heard of any obstructions being laid?—A. No, sir.

Q. Is there no way that they could be lifted from Saturday to Monday?—A. I do not know. The only way that it could be done that I know of would be to fasten the leader to a stake.

Q. If you were to lift the nets would it entail any more work on your men?—A. Yes, it would if there were any amount of fish lifted.

Q. Do most of them follow any other trade?—A. No, they follow fishing as a business.

Q. Do blue pickerel ever grow to as large a size as the yellow?—A. No, I do not think so, average size is about 1 lb. for blue pickerel.

HENRY SWAN sworn:—

*By Mr. Wilmot:*

Q. Your residence?—A. Port Burwell.

Q. Your occupation?—A. Fisherman.

Q. How long have you been engaged in this business?—A. Six or seven years.

Q. Your nationality?—A. Canadian.

Q. What kind of fishery have you?—A. Pound-net fishery only.

Q. Catch what kinds of fish?—A. Pickerel, whitefish, sturgeon, herring, bass and other coarse fish.

Q. Ever catch any salmon-trout?—A. Very few.

Q. What is the limit of your fishery?—A. Walsingham.

Q. Do you corroborate the size of the mesh?—A. Yes, sir; pound-net, pot 2-inch, tunnel 4-inch, leader 7-inch.

Q. Have you ever taken any observation as to what months the fish are in the best condition?—A. No, I have not.

Q. Where do you market your fish?—A. Buffalo.

Q. What is the value of the fish that you sell at Buffalo?—A. About same as has been quoted.

Q. Can you give me any information as to when whitefish spawn?—A. Yes, in the latter part of October and November.

Q. What about herring?—A. About same time.

Q. What about blue pickerel?—A. About April.

Q. Would that cover the yellow pickerel as well?—A. Yes, sir.

Q. What about the bass family?—A. Most caught in the fall of the year. They are a spring spawning fish.

- Q. Do you ever catch any maskinongé?—A. Very seldom.
- Q. Do you catch a good many perch. When do they spawn?—A. In June.
- Q. When would be the most dangerous time of year for fishing nets?—A. October and November, on account of the inclemency of the weather.
- Q. Do you catch any small fish?—A. Yes, some small ones.
- Q. What kind?—A. Small herring and pickerel.
- Q. What about whitefish?—A. This season we have caught very few.
- Q. What is done with these small herring and pickerel?—A. We sell them at reduced prices.
- Q. Would it be impracticable for the fishermen to lift their nets for the Sunday close time?—A. I do not see how it could be made practical.
- Q. Do you know anything of the Americans fishing in Canadian waters?—A. I have seen American tugs lying off four or five miles in the lake.
- Q. Would they be there for carrying traffic down the lake or for fishing purposes?—A. For fishing purposes, I have understood.
- Q. Have you seen them?—A. I have seen them there and was told that they were there for that purpose.
- Q. Then you think that they were fishing there?—A. Yes, sir.
- Q. With gill-nets?—A. Yes, sir.
- Q. Are these tugs numerous?—A. Yes, we see them frequently.
- Q. How wide is the lake from there?—A. About fifty miles.
- Q. About how far from the shore could these tugs be seen?—A. About eight or ten miles.
- Q. Is it your wish that this innovation should be prevented?—A. Yes, sir.
- Q. Do you think that the present staff of officers could prevent it?—A. Not unless they had a steam-boat.
- Q. Who is your fishery officer here?—A. Mr. Sharp.
- Q. He lives about two miles from the lake shore, does he not?—A. Yes.
- Q. Do you think a close season to be of no interest to fishermen and fisheries?—A. No, I do not think so, as it does benefit them.
- Q. Is pound-net fishing carried on from the opening of the season to the closing?—A. Yes, sir.
- Q. Would a larger mesh than a 2-inch pot make it impracticable to catch the fish?—Yes, sir, it would be injurious to the fish and the fisheries, as it would kill too many fish and interfere with the profits.

Capt. JOHN ELLISON sworn:—

*By Mr. Wilmot:*

- Q. Your residence?—A. Port Stanley.
- Q. Your occupation?—A. Fisherman for sixteen years.
- Q. Your nationality?—A. Canadian.
- Q. What description of fishery have you?—A. Pound-nets altogether.
- Q. Where is your fishery?—A. Opposite the townships of Southwold and Alborough.
- Q. What extent does it cover?—A. Ten miles, with nine nets; five nets of my own and four purchased.
- Q. What are the measurements?—A. Pot 2-inch, tunnel 4-inch, heart, 5-inch, and leader 6 and 7-inch.
- Q. What kind do you catch? A. Principally herring.
- Q. Any blue pickerel?—A. Occasionally.
- Q. What do you do in the whitefish line?—A. Quite a number in the spring, very few in the fall.
- Q. What is the average weight of the whitefish that you get?—A. Four pounds average, have caught 20 lbs., frequently 15 to 16 lbs.

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Q. Have you taken any observation as to when fish are in better condition than others?—A. Whitefish in the spring.

Q. Do you catch any sturgeon?—A. Very few.

Q. Are your prices the same as Buffalo prices?—A. Mine are all home consumption. Whitefish, 6 cents; herring, about  $1\frac{1}{4}$  to  $1\frac{1}{2}$  cents; blue pickerel, 2 cents.

Q. At what time of the year is whitefish most ripe for spawning?—A. From the 15th to 20th of November.

Q. What about herring?—A. Somewhat later until January.

Q. What about blue pickerel?—A. About April.

Q. And sturgeon?—A. I do not know.

Q. Still you sell their eggs?—A. Yes, sir.

Q. Any catfish?—A. Not very often.

Q. What months are most dangerous for the nets?—A. November.

Q. How far do you fish from Port Stanley?—A. From twelve to thirty miles.

Q. Do you catch many small fish?—A. Very seldom, catch some less than  $\frac{1}{2}$  pounds.

Q. What size fish would pass through your mesh?—A. Nothing less than  $\frac{1}{4}$  pound.

Q. You sometimes catch these small fish?—A. Sometimes. In the run last year some, and four years ago we caught some, but not since.

Q. About what size would they be?—A. From  $\frac{1}{2}$  to  $1\frac{1}{2}$  pound.

Q. What are done with them, could you sell them all?—A. Well, I throw them back.

Q. What about Sunday service law?—A. It would be impracticable to lift our nets.

Q. Have you any knowledge of Americans fishing in our waters?—A. Yes, sir, they do. Within twenty miles of Port Stanley.

Q. How wide is it across from Port Stanley?—A. About sixty miles.

Q. Have you seen them fishing there yourself?—A. I have seen them fishing with gill-nets and tugs.

Q. To what extent have you seen them fishing there?—A. For about one week, when going to Cleveland I have noticed them fishing in our waters.

Q. Have you good opportunities for seeing them?—A. I have good chance to see them as I pass along on my route.

Q. Do you think that it should be allowed?—A. No, I do not.

Q. Do you believe that it is judicious to establish proper close season for the benefit of the fisheries?—A. Yes, I do, especially for the whitefish.

Q. You think whitefish in particular?—A. Yes, sir, I do.

Q. What do you consider a fair catch for the pound-nets?—A. One-half ton to two tons, average catch is from  $1\frac{1}{2}$  tons to 5 tons in June and July, taking in all kinds of fish.

Q. How far are your nets apart?—A. (I fish some of my nets in a string.) About half a mile apart.

Q. In what depth of water?—A. Twenty-eight, thirty, and thirty-two feet.

Q. About how far is the pot of your net from the shore?—A. About 200 yards from the shore in my locality.

Q. Do you think that the fish have a through passage between the shore and the net?—A. Yes, sir, I do.

Q. Do you waste any small fish in your nets?—A. No, I do not, I tell them to throw out the small fish to save their lives.

Q. Do you set out your nets to catch the large full-grown fish?—A. Yes, sir.

Q. Do you regard the appearance of small fish as a nuisance and a trouble, your object is to obviate it as far as possible?—A. Most decidedly.

Q. If the small fish were marketable, would you be willing to catch them?—A. I think all small fish should be saved, not caught.

Q. Have you a tug?—A. I have two of them.

Q. What do they cost?—A. One cost me \$12,000, the other \$3,000.

Q. What would be the average cost of a tug?—A. About \$4,000.



Q. What does a lifting-boat cost?—A. About \$100. A scow about \$100, a pile driver, with steam power, is worth \$150, \$100 is a fair estimate, stake driver cost \$50, a good pound-net set in the water is worth \$350.

Q. How many nets have you?—A. Nine nets.

Q. Then for running these nets how many men?—A. About ten or twelve men is the average.

Q. At how much per month?—A. I pay from \$35 to \$45 per month; I have three men at \$45 per month, seven men at \$32 for eight months.

Q. Do you put your nets together here?—A. Yes, at Port Stanley. Buy our nets in the States.

Q. Have you an ice-house?—A. Yes, I have an ice-house, no pound-net fishery is complete without one.

Q. What does it cost?—A. Ice house and fish house cost me \$1,600, 40 cents per ton will cover the cost of 800 tons.

Q. Have you a freezer?—A. Yes, it cost \$600; we pound our ice.

Q. Have you ever fished with gill-nets?—A. I have.

Q. How far out on the lake?—A. About 35 miles.

Q. What did you catch there?—A. Some whitefish.

Q. Did you ever come across any Americans fishing there?—A. No.

Q. Which of the nets give the public a better class of fish?—A. The pound-net fish get 2 cents per lb. more than the gill; whitefish, 2 cents; blue pickerel, 1 cent.

Q. How many nets could you handle with two tugs?—A. Forty nets.

Q. How many pound-nets would one good tug supply?—A. Ten to fifteen nets.

Q. With two crews and one tug, could do double the work?—A. One tug can attend to only ten to fifteen nets.

Q. Are there some parts on Lake Erie where it would not be well to fish five pound-nets and under with a tug?—A. No, I think it would be unprofitable.

Q. If you fish with a tug, it would require how many nets to make it pay?—A. From ten to fifteen nets.

Q. American fishing is free fishing, would you like to see that system established on this side of the water?—A. No, I would not.

Q. Do you know of any person who would?—A. No, sir.

Q. Is the fishing industry of Lake Erie largely in the hands of business men with capital?—A. No, sir.

Q. Is it assuming a business aspect of late years?—A. I believe it is.

Q. Can you see any indication that there is any political distinction made in the granting of licenses?—A. No, sir, it is very fair, as it is divided among both political parties.

I got a letter from the inspector, sent down on the train at night, in haste (letter produced). My fishing has been a little slack on account of the slime in the water, west of Port Stanley; there has been but little fishing done on that account, not enough to pay us. I had all the nets ready to put down when I received this letter which prevented me; there came a run of fish, and now my loss will amount to \$1,500 or \$2,000 worth of fish.

Q. If your nets had been put down as you say, in time for the run, what kind of fish would you have caught?—A. Herring and whitefish would have been the principal catch.

Q. Any salmon-trout?—A. No, sir.

There is always a run every month, then steady again for most every day.

In regard to the close season, I suggest that there be a good inspector appointed to attend to this work only.

Our men lift the nets, and the American fishermen take them to the States, without coming to the shore. This is done in close season and out of it. To obviate this an efficient officer should be appointed to attend to it, and the close season will be kept by the Canadians.

The Commission then closed its work at this place, and adjourned to sit at Leamington, on the 11th instant.

# Ontario Fishery Commission.

## No. 3.—LEAMINGTON.

The Fishery Commission met this 11th day of November, at Leamington, in accordance with previous notice.

Members present, Samuel Wilmot, Esq., Edward Harris, Esq.; when Miss Chamberlain was employed as stenographer.

Mr. Wilmot, as chairman, called the meeting to order, when the following proceedings took place.

The purport of the Commission was explained.

Mr. W. H. BLACK was called and sworn :—

*By Mr. Wilmot :*

Q. Your residence ?—A. Kingsville.

Q. Occupation ?—A. Fisherman.

Q. Nationality ?—A. Canadian.

Q. How long have you been engaged in fishing ?—A. Seven years.

Q. What kind of fishing are you engaged in ?—A. Pound-net fishing.

Q. What do you catch in your pound-nets ?—A. Herring, sturgeon, bass, whitefish, perch, catfish and other coarse kinds.

Q. Do you ever catch salmon-trout ?—A. Once in a while.

Q. What particular waters do you fish in ?—A. Between Kingsville and Ruthven, about two miles below Kingsville.

Q. What size mesh do you use ?—A. Pot, 2-inch; tunnels and hearts, 5-inch; leaders, 8-inch.

Q. What size fish can escape through the meshes of your pot ?—A. Small herring, small pickerel, small whitefish and bass.

Q. What would you call small ?—A. Herring 4 or 5-inch, pickerel same.

Q. Are there any kinds of those you take in your nets that cannot be sold ?—A. No, we ship everything we take out of our nets.

Q. What is the usual weight of your herring ?—A. Average  $\frac{3}{4}$  lb.

Q. What is the usual weight of your pickerel ?—A. Average  $1\frac{1}{2}$  lbs.

Q. What is the usual weight of your sturgeon ?—A. Average 60 lbs.

Q. Have you taken notice when fish are in best condition for table use ?—A. Whitefish and herring, in April and May.

Q. When do you catch whitefish more plentifully ?—A. After the 15th of November.

Q. When is the best run of herring ?—A. In November and part of December.

Q. Where do you generally market your fish ?—A. In Detroit.

Q. Any home market at all ?—A. Not much.

Q. What is the value of the fish you sell ?—A. Whitefish 5c., herring 1c., pickerel, first class, 5c., second class, 1c. The weight of the first class is about  $1\frac{1}{2}$  lbs., second class about like herring.

Q. Have you ever taken notice when whitefish are most ripe and ready to spawn ?—A. Commence about 15th of November.

Q. When for herring ?—A. About the same time.

Q. What about pickerel ?—A. March and April.

Q. Do you hold the idea that herring spawn all the year round ?—A. No, about the 15th of November.

Q. Do you catch considerable numbers of catfish ?—A. Very few.

Q. Do you know when they spawn ?—A. Cannot tell.

Q. When do you experience the greatest loss to your nets ?—A. In November.

Q. Is that brought about by stormy weather ?—A. Yes, sir.

Q. Have you any knowledge of any small fish being thrown away ?—A. No, sir; we do not throw anything away except shiners.

Q. Do you throw away no fish caught in your nets ?—A. We throw away the eel-pouts.

- Q. Is the Sunday close season law kept there?—A. No, sir.
- Q. If it were ordered to be kept, what would be the effect?—A. It would be impracticable, as it is sometimes impossible to get out to lift nets.
- Q. Do you know anything about the statement that Americans fish in our waters?—A. There are some Americans at the Old Hen who use gill-nets in Canadian waters.
- Q. Do they use pound-nets?—A. Not to my knowledge.
- Q. Where has Mr. Post, the fish dealer, got control of nets?—A. At Point Pelee.
- Q. Is he an American dealer?—A. Yes, sir.
- Q. Do these nets belong to Canadians?—A. Cannot answer.
- Q. Are they in Canadian waters?—A. Yes, sir.
- Q. How does he exercise control over them?—A. Most of them have Canadians to run them and he takes the fish from the nets with his two boats.
- Q. Does he take them direct to the United States?—A. Yes, sir, to Sandusky and other ports.
- Q. Are any of them landed on the Canadian side after he takes them in his steam-boats?—A. Cannot say.
- Q. How long has this been going on to your knowledge?—A. Seven or eight years.
- Q. Do you ever sell any of your fish to Mr. Post?—A. I have.
- Q. Do you think it wise that Americans should be allowed to fish in Canadian waters?—A. I do not, it is an interference.
- Q. Do you know of any Canadian fishermen on the American side fishing in like manner?—A. No, sir.
- Q. Do you think it is correct for the Government to have close seasons for fish?—A. I do.
- Q. But they should be chosen with proper judgment?—A. Yes, sir.
- Q. Is it customary to fish with pound-nets during November more than any other season?—A. No, sir.
- Q. Is the month of November more profitable for pound-nets?—A. Yes, sir.
- Q. Are you aware of American companies catching large quantities of black bass with angling on Pelee Island?—A. Yes, sir.
- Q. Have you any idea that black bass are spawning at that time?—A. I think they spawn about the same time, and they catch them in June.
- Q. Have you heard any complaints by Canadian fishermen against Americans coming over to fish for black bass?—A. Fault is found by Canadian fishermen that those American anglers are permitted to fish during the close season for bass.

*By Mr. Harris:*

- Q. You ship everything?—A. Yes, about everything.
- Q. Do you ship direct to retailers in Canada or elsewhere?—A. To Detroit.
- Q. Have you ice of your own?—A. Yes, sir.
- Q. Ice-house?—A. Yes, sir.
- Q. Who buys your caviare?—A. I manufacture it myself and ship it to the States.
- Q. A 60-pound sturgeon will make how much meat?—A. About 40 pounds.
- Q. What would be the worth per pound?—A. About 3½ cents per pound.
- Q. What is the value of the caviare?—A. Manufactured, 16 cents per pound.
- Q. When do you get eggs in best condition for caviare?—A. I cannot see one time better than another, got some just the other day.
- Q. How do you make the caviare?—A. By salting the eggs.
- Q. Do you not get more eggs at one season than at another?—A. We get more sturgeon from 1st of May till 15th of June.
- Q. Do you find it more profitable for caviare then than at any other time?—A. Yes, sir.
- Q. Are eggs the same size then as in June, July and September?—A. Yes, sir.
- Q. What fish are speared here?—A. None but pike in the spring.
- Q. Are they speared with torch lights?—A. Cannot say.
- Q. Are they speared through ice?—A. No, in channels.

## Ontario Fishery Commission.

- Q. Is there such a practice as shooting fish?—A. Not to my knowledge.
- Q. What class of people usually do spearing?—A. Sports and boys.
- Q. Do you think it does fishing harm to have pike speared?—A. Some.
- Q. Have you your own pile driver and scow?—A. Yes, sir.
- Q. Boat for lifting?—A. Yes, sir.
- Q. Do you put out your leader with stakes or floats?—A. Stakes.
- Q. How many sets of stakes do you drive?—A. Two.
- Q. How many sets of stakes could you drive with your apparatus?—A. One set a day on an average.
- Q. Your pile driver and scow only used for that purpose?—A. Yes, sir.
- Q. Do small fish gill in 2-inch mesh?—A. No, sir.
- Q. If you had 3-inch or larger mesh would the fish gill?—A. The mesh is as good as you can fix it, if larger they will gill.
- Q. Do you think that 2-inch mesh was gradually adopted by the pound-net fishermen as less destructive and more satisfactory?—A. I do.
- Q. Was it less troublesome to fishermen?—A. Yes, sir, we had 1½-inch bar, that is 3-inch extension, and we were continually for hours picking gill fish out of it.
- Q. Are these fish when picked out thrown back into the water?—A. Yes, sir.
- Q. Do you think that throwing dead fish in the water is prejudicial to fishing grounds?—A. I do, it is something we never do.
- Q. What would be called the aggregate weight of the small fish caught in your net?—A. Cannot answer that question.
- Q. How will it compare in proportion to your whole catch of fish?—A. Not much, sir.
- Q. If you were compelled to lift your nets Saturday night and then put them out Monday again, would that compel your men to work on Sunday?—A. No, sir.
- Q. What would you do with the fish you got Saturday night?—A. We ship the fish Saturday night if we lift that night.

The next witness was Mr. W. D. BATES, who was called and sworn:—

*By Mr. Wilnot :*

- Q. Your residence?—A. Ridgetown.
- Q. Occupation?—A. Fisherman.
- Q. How long have you been engaged in fishing?—A. Fourteen years.
- Q. Your nationality?—A. Canadian.
- Q. What description of fishery is yours?—A. Herring, whitefish, blue pickerel, yellow pickerel, sturgeon, bass and other coarse fish.
- Q. Give the locality of your fishery?—A. On Rondeau Point.
- Q. Do you use seines?—A. Principally pound-nets, but also seines and gill-nets.
- Q. How many pound-nets?—A. Four.
- Q. Seines?—A. I own one, and half interest in two more.
- Q. Gill-nets also?—A. Yes, 800 yards gill-nets.
- Q. Give size of your pound-net meshes?—A. Pot 2-inch, hearts and tunnels 5-inch, leaders 6 to 8-inch.
- Q. What is the size of meshes in your seines?—A. 4-inch mesh for centre, wings 5-inch.
- Q. What in gill-nets?—A. 3-inch.
- Q. When are whitefish in best condition for eating or for market?—A. Any time in the year except just after spawning season. We catch them in May and June, and again in the last of September and October, and a few in November.
- Q. Is it your opinion that the whitefish spawn on rocks?—A. Yes; and gravel.
- Q. You think the whitefish best in May, June and September and October?—A. Yes, sir.
- Q. When are herring best?—A. Same as whitefish.

Q. Where do you market your fish?—A. About half in Canada, the rest in the United States.

Q. Could you give me an idea of the market value?—A. Whitefish, in Canada, 5 cents; herring sell altogether by count of 100 at 80 cents, the first of the season, and \$1 after the first of September.

Q. Price of pickerel?—A. Yellow same as whitefish, blue  $1\frac{1}{2}$  cents this time of the year, one cent earlier in the season.

Q. Sturgeon?—A. 4 cents per pound dressed, 5 cents fully dressed.

Q. When do you consider sturgeon in best condition?—A. Any time except when spawning, they spawn at all seasons. We find some not fit for use, others are all right, all fish are lean and lank after spawning.

Q. You say sturgeon spawn the year round?—A. Yes, sir.

Q. What do you call ready to spawn?—A. When it flows from their bodies.

Q. Do you find eggs flowing from the body in June and July?—A. I have, and I have found them in November, from May to December.

Q. Is there any one time more than another you get them more plentifully?—A. Last of May and 1st of June, sometimes middle of June when there is a bit of sea or storm it makes them move around. I think they come from deeper water into shallower to spawn.

Q. When do you think whitefish spawn?—A. They are in the height of spawning about the 25th of November, herring about the same time.

Q. What about bass?—A. They spawn from 24th May to 15th June.

Q. Do you catch salmon-trout in your nets?—A. Yes sir, we caught eleven this season, the only ones we have caught in this fishery, weighing about 21 pounds each.

Q. When are nets most destroyed by rough weather?—A. By east winds, latter part of October and in November.

Q. Are all fish in your pound-nets caught with 2-inch mesh?—A. Yes, sir.

Q. Do you catch many small fish in this pot?—A. All marketable.

Q. Will you get whitefish under 6 inches long in your pot?—A. We never get whitefish smaller than that.

Q. How small whitefish do you catch?—A. Average 2 or  $2\frac{1}{2}$  pounds, some  $1\frac{1}{2}$ , some 4 or 5 pounds.

Q. Has a  $1\frac{1}{2}$ -pound fish eggs in it?—A. Cannot say.

Q. Would you call these immature fish?—A. Yes, sir.

Q. You get no fish under 6 inches long?—A. No, sir.

Q. Could smaller fish get through your pot?—A. They get through the hearts and tunnels, but gill in the pot.

Q. Would you think the Sunday close time impracticable?—A. We could not fish at all.

Q. Do you know anything about Americans fishing on our shores?—A. Only by hearsay.

Q. Do they buy fish?—A. Yes, sir, I have sold to them and shipped to them too.

Q. Do they come with a tug?—A. Yes, sir. I just bargained to sell them what I could not sell in Canada; we have no market for blue pickerel in Canada at all.

Q. Do they take the fish right from you fresh?—A. Yes, sir, we sell them to them right there; we run our small boat alongside of the American tug out in the lake and just weigh and sell to them.

Q. Does that tug then come to the Canadian port or go direct to the American shore?—A. Sometimes the tug comes into port, sometimes it goes direct to the American port, but she always comes in and clears, sometimes lying at the port over night and comes for the fish in the morning and then goes direct to the American ports.

Q. Are you an advocate of giving protection to fish during spawning time?—A. Yes, sir.

Q. How early do you commence setting nets in spring?—A. As early as April and continue to fish as late as the 14th of December unless storms tear up our nets, that is with pound-nets.

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Q. How with your seines and other nets?—A. We use seines in spring, gill-nets in winter, no other time.

A. Do you catch many bass here?—A. Yes, sir, get good catches with the seine in winter.

Q. Have you heard any complaints with regard to American anglers coming over to fish?—A. Only by hearsay.

Q. Do you know anything about spearing?—A. Have speared some.

Q. Is it practised much here?—A. Not much, in spring sporting men come and spear with torch-lights.

Q. Who is your nearest fishery officer?—A. Mr. Lindley now, he lives at Cedar Springs.

Q. Where is spearing mostly carried on?—A. In creeks and bays.

Q. What do they spear principally?—A. Pike, anything they can get, now and then they get a bass.

Q. Are these fish engaged in spawning at that time?—A. Yes, sir; they are.

Q. What do you know about caviare?—A. We manufacture it.

Q. What is the average size of your sturgeon?—A. About 40 lbs. dressed.

Q. What is that worth per pound?—A. 5 cts.

Q. From that quantity of sturgeon dressed what quantity of eggs would you get?—A. From 40 lbs. about 8 pounds eggs.

Q. What are these worth?—A. 18 cts. per pound, when salted.

Q. What is the process of making caviare?—A. The eggs are put through a large sieve first to separate them, then salted and mixed up and put in a small sieve to drain.

Q. Have you more difficulty at one season than another in getting these eggs?—A. I find sturgeon with spawn the year round.

Q. What is your average catch in the best fishing season?—A. At a lift about 3½ tons including all kinds of fish.

*By Mr. Harris :*

Q. You call your fishery principally herring?—A. Yes, then blue pickerel, then whitefish.

Q. Could you fish your fishery with larger than 2-inch mesh?—A. 2-inch is the largest we can profitably fish from the fact of there being so many gilled, and gilled fish are not saleable.

Q. Are all gilled fish spoiled?—A. Yes, sir.

Q. Have to be thrown into the water?—A. A man who fishes to any extent would have to do so.

Mr. IRA LOOP was called and sworn:—

*By Mr. Wilmot :*

Q. Your residence?—A. Kingsville.

Q. Occupation?—A. Fisherman.

Q. How long have you been engaged in fishing?—A. 25 or 26 years.

Q. Nationality?—A. Canadian.

Q. What sort of fishery do you carry on?—A. Pound nets only.

Q. What do you catch?—A. All kinds of fish.

Q. What principally?—A. Herring are most, then whitefish, a few pickerel.

Q. Do you catch any bass or other coarse fish?—A. A few, not many.

Q. Locality of your fishery?—A. At Kingsville.

Q. Is there any variation in the size of your mesh?—A. About the same as described by former evidence, 2-inch mesh pot.

Q. Do you consider whitefish and herring in better condition in the fall than in the spring?—A. Decidedly so, sir.

- Q. You mean best for fishing?—A. Best for eating.
- Q. How do they compare in spring with fall?—A. In April and May about the same.
- Q. Where do you sell your fish principally?—A. Detroit.
- Q. Do you sell any for home market?—A. Yes, sir.
- Q. Are prices about the same both places?—A. A little better at home but less disposed of.
- Q. What are the prices of your whitefish?—A. About 5 cents.
- Q. Herring, how much?—A.  $\frac{3}{4}$  cent in Detroit, 1 cent home market.
- Q. When is it most unseasonable and injurious to nets?—A. The last of November and 1st of December is worst.
- Q. When do you think whitefish are most ripe for spawning?—A. From 20th of November to 1st of December.
- Q. Herring?—A. About the same.
- Q. Sturgeon?—A. I think their ripest spawning season is from the 20th of June to the 1st of July.
- Q. Have you any idea about bass?—A. About same as sturgeon.
- Q. Are many small fish caught in your nets and thrown away?—A. Small fish will not travel with large fish, they do not enter the pound with big fish.
- Q. If they did what would be the consequence?—A. They would be eaten up.
- Q. Are there many small fish destroyed in the nets?—A. No, sir.
- Q. Have you seen or known any quantities of small fish being brought on shore and buried or thrown away?—A. I have seen some small fish thrown away and some buried in June and July.
- Q. What do you say about Sunday close-time?—A. It would be impracticable to take up nets from Saturday night till Monday.

*By Mr. Harris :*

- Q. Do you ever know any fishermen lifting their nets on Sunday?—A. I have heard of it being done, but they do not make a practice of it.
- Q. What would necessitate it?—A. A blow.

*By Mr. Wilmot :*

- Q. Do you know anything about Americans fishing on our shores?—A. No, sir.
- Q. Do they get fish?—A. Yes, sir.
- Q. How do they get them?—A. Some buy them.
- Q. Do you see any American tugs crossing and taking fish from our nets?—A. Yes, sir.
- Q. Are these fish taken immediately on board and taken to the American shores?—A. Yes, sir.
- Q. Is this practice carried on pretty largely?—A. Yes, somewhat.
- Q. Are these nets in this neighbourhood?—A. They are partly.
- Q. Do you consider that an infringement upon your fishermen's business here?—A. No, sir, it would be utterly impossible for some of these men to dispose of their fish if these tugs did not come and take them from them. I understand while we are shipping they get a permit to run one or two weeks and then they clear on certain days. They do not infringe upon the law, it would be impossible to make entry every day. To all intents and purposes I think it is an irregularity, but they are permitted to do that.
- Q. Do you advocate having close seasons?—A. I think there should be no close season. There might be on sturgeon, because they are getting scarce.
- Q. Would protection render service to fishermen?—A. I think it would on those.
- Q. When do you commence your fishing?—A. About 15th or 20th of April and fish until December.
- Q. How often would you need to take up a single net for cleaning during the season?—A. We do not fish at all during July and August, because it is destructive to nets and fish.

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Q. Why destructive to fish?—A. There are a good many smaller fish caught then than at any other time, and the market is so light then they will not take small fish.

Q. Do you know anything about bass fisheries at all?—A. I do not.

Q. Is there any spearing fish carried on to your knowledge?—A. No, sir.

Q. Do you catch any sturgeon?—A. A few.

Q. What is the average weight?—A. From 50 to 60 pounds.

Q. How much saleable meat will that make?—A. Fifty or 60-pound sturgeon will make from 35 to 40 pounds of meat.

Q. What is that worth?—A. \$1.75.

Q. How much caviare from a 60-pound sturgeon?—A. I could not tell; I sell the fish out and out, eggs and everything, for \$1.75.

*By Mr. Harris :*

Q. How many pound-nets have you?—A. Two under the name of Loop Bros., double license, got out in May, I think.

Q. How long since you first began fishing pound-nets?—A. In 1866.

Q. Have you a pile driver?—A. Yes, sir.

Q. Any fish-house?—A. Yes, sir.

Q. Ice-house or freezer?—A. No, sir. Freezers are not owned or used by any fishermen here, with the exception of G. DeLaurier & Sons, fish are all sold direct for market.

Q. When you ship fish, do you use ice?—A. Yes, sir, the dealers have the ice themselves.

Q. Do all fish shipped have to be iced?—A. No, sir.

Q. How many months in the year?—A. Probably two and a half or three.

Q. How many sturgeon do you catch in a season?—A. Sometimes 150 or 200.

Q. Are many of them under three feet in length?—A. We never sell them, we put them back into the lake.

Q. What length is it proper to bring to shore?—A. About three feet.

The two following persons, namely:—Mr. Urias Loop, and Mr. John Malott, corroborated the evidence given by Mr. Ira Loop.

Mr. GILBERT DELAURIER was called and sworn:—

*By Mr. Wilmot :*

Q. Your residence?—A. Leamington.

Q. Occupation?—A. Fisherman and fish dealer.

Q. How long engaged in this work?—A. Dealing five years, fishing twenty-five years.

Q. Nationality?—A. Canadian.

Q. What kind of fishery do you carry on?—A. Pound-net only.

Q. What particular kinds of fish do you catch and deal in?—A. Herring, whitefish, pickerel, bass, perch, sturgeon and all kinds brought in.

Q. Do you get many salmon-trout?—A. None at all.

Q. What is the locality of your fishery?—A. Fronts on Leamington.

Q. What is the size of your mesh?—A. Pot 2-inch, tunnels and hearts 5, leaders 8-inch mesh.

Q. When do you consider whitefish best for eating?—A. They are more firm in the fall. Herring are best in the fall also.

Q. Where do you market your fish principally?—A. We ship east through Canada, but when we have a surplus we ship to the other side. My object has been to work up home trade and I have succeeded admirably well so far. I cure fish in various ways and dispose of them in the same way.



- Q. Do you find curing fish as profitable as selling fresh?—A. To a certain extent fully more so.
- Q. Is this fact brought about only since you opened up that trade?—A. Yes, sir.
- Q. Then the business is quite new, is it?—A. Yes, sir.
- Q. What was your object in doing so?—A. The Americans had monopolised the fish trade previously.
- Q. Where do you realize best prices for your fresh fish?—A. Better prices for home market than sending them to the States.
- Q. Is this market increasing?—A. Yes, I cannot fill the demand this season.
- Q. Do you deal much in sturgeon?—A. All I can get.
- Q. Do you cure them?—A. I do.
- Q. Do you sell them in Canada?—A. Exclusively.
- Q. What markets do you send them to?—A. All the principal towns in Ontario as far east as Ottawa.
- Q. How do you send it?—A. In cases, not in sides.
- Q. What is this cured sturgeon worth?—A. Ten cents per pound wholesale.
- Q. Do you gather caviare too?—A. Yes, sir.
- Q. What do you get for it?—A. Twenty cents per pound.
- Q. Do you buy sturgeon fresh?—A. We buy them fresh and take the eggs from them and cure them.
- Q. What will the usual run of sturgeon be in size?—A. Average size 40 pounds.
- Q. How much cured meat will you make out of that?—A. About 20 pounds.
- Q. From that size sturgeon what amount of eggs will you get?—A. Five or six pounds.
- Q. Is there any season of the year in which you find eggs in better condition than another?—A. Yes, during the month of May and up to the 20th June, after that they are too ripe.
- Q. Do you ever find eggs too ripe in April?—A. No, sir.
- Q. How do you find eggs in July and August?—A. It is just about spawning season, the first part of July being the principal spawning time.
- Q. Is the sturgeon trade increasing or diminishing?—A. For the past five years they are not quite as numerous as before. Small sturgeon under 3½ feet should not be caught, as no eggs are obtained from them and they are not valuable for use in any other shape.
- Q. Do you cure whitefish and herring?—A. We cure herring in large quantities.
- Q. How are they put up?—A. In boxes.
- Q. Do you sell them by the pound then?—A. By the hundred or dozen.
- Q. What do you get a hundred for them?—A. About \$1.80 for best.
- Q. Is this a new trade here?—A. Yes, sir.
- Q. Is it on the increase?—A. Yes, sir.
- Q. Is there any other kind of fish you cure?—A. No, sir.
- Q. What do you get for whitefish, fresh?—A. About 6 cents.
- Q. For pickerel?—A. 4½ or 5 cents.
- Q. For bass?—A. Seven cents when we have them, but handle very few.
- Q. What do they weigh?—A. 2½ or 3 pounds. I mean black bass.
- Q. Do you get many bass caught with a rod?—A. No, sir.
- Q. Do they catch them at Pelee?—A. They do largely.
- Q. Where is market for bass at 7 cents?—A. Windsor.
- Q. Can you give us any information about Pelec Island?—A. I can't.
- Q. When are whitefish ripest for spawning?—A. Commence 25th November.
- Q. Herring when?—A. Same time.
- Q. Do you have coarser kinds of fish?—A. Not many, a few channel catfish.
- Q. What size catfish you get here?—A. Channel catfish from two to twenty-five pounds.
- Q. When do you think pickerel spawn?—A. Latter part of March and fore part of April.
- Q. Do you know black bass to be spring spawning fish?—A. Yes, sir, I think about June.

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- Q. In what month do you meet with greatest mishaps in pound-net fishing?—  
A. Latter part of October and during November.
- Q. Do you make any difference between small fish and proper size?—A. We do not take small fish at all.
- Q. What do you call small herring?—A. Would not buy 6-inch herring.
- Q. Do you know whether many of these small herring are caught at all?—A. I do not know.
- Q. Do you know of large quantities of small fish being thrown away because of being useless?—A. I have heard it repeatedly but have not seen it.
- Q. What about Sunday close time?—A. It is impossible in a measure to carry that out in fishing pound-nets.
- Q. Do you think it correct to have judiciously chosen close seasons for the preservation of fish?—A. I think they are a benefit if properly chosen.
- Q. Do you know anything about Americans fishing in Canadian waters?—A. I do not know anything about that.
- Q. Do you know any nets being set in our waters by Americans?—A. I do not, I know nets owned or claimed by Americans but fished by Canadians.
- Q. Do proceeds go direct to the United States?—A. Don't know, I think so.
- Q. In what localities are these nets?—A. Scattered along shore.
- Q. When do you generally start fishing with your nets?—A. First part of April and through till December, except during July.
- Q. Do you know that spearing is carried on here?—A. I do not think it is.
- Q. Do you use a freezer?—A. I do.
- Q. What magnitude?—A. Forty.
- Q. Do you freeze all kinds of fish except sturgeon?—A. Yes, in autumn months only, for winter market.
- Q. How many nets do you fish?—A. Three, but five or six would be more advantageous, for they could be cared for by the same hands.
- Q. Any other nets under your control?—A. No, sir.
- Q. Have you any bargains with pound-net men to sell you their take?—A. No, sir, their fish are all bargained to American companies, so I am barred out.

Mr. WILLIAM GRUBB was called and sworn:—

*By Mr. Wilmot:*

- Q. Your residence?—A. Point Pelee.
- Q. Occupation?—A. Lighthouse keeper.
- Q. Are you engaged in fishing at all?—A. I have been.
- Q. Your nationality?—A. Canadian.
- Q. Not a practical fisherman now?—A. Have sold out to my sons.
- Q. What should be the size of mesh in nets?—A. I think pot should not be larger than  $2\frac{1}{2}$  inches extension measure. Tunnels and hearts not more than 5; leaders not less than 6.
- Q. What would you say about close seasons?—A. Whitefish spawn from the 20th to the 30th of November; herring same. I am not acquainted with pickerel. Sturgeon spawn at all times. I do not think it right for sporting men to angle for bass in close season. Have known anglers to catch fish in the close season when the law forbids it. They string and tow them about all day to see who catches the most, and then at night throw them away. Most of them are dead. This is done by Pelee Island anglers, principally American clubs. I would say close season from 15th of April to 15th of June, during which time no one should be allowed to fish for bass.
- Q. Does Mr. Post, American fisherman at Point Pelee, fish on shore with Canadian fishermen?—A. Fish are put on board his tug and taken to Sandusky, Ohio; they are not brought into Canadian ports. It is carried on nearly altogether on the

east side, some on the west. I have been alongside the steamer and witnessed this. Proper close seasons are judicious. I think the Sunday close season is impracticable.

*By Mr. Harris :*

Q. What is the average weight of blue pickerel?—A. One and one-half pounds.

Q. Will 1½-pound fish get through a 3-inch mesh?—A. I think it would—it would gill.

Q. What is the proportion of blue pickerel to whitefish?—A. We catch a good many more blue pickerel than whitefish.

Q. You catch more herring than blue pickerel?—A. Yes, sir.

Q. Would herring go through a three-inch mesh?—A. Yes, sir.

Q. Which fish of the same weight would go through a three inch mesh easiest?—

A. Blue pickerel.

Q. You think a change from two-inch to three-inch mesh would be an improvement?—A. It would be injurious to the fish, gill-net is different from pound-net, the twine is finer.

Q. How far out from the leader is your pot?—A. One hundred yards.

Q. In what depth of water?—A. One 26 feet, one 33 feet.

Q. What length of leader?—A. One hundred rods on one, eighty on the other.

Q. What would be the distance from the shore end of the leader to the shore?—

A. One about eighty rods; the other about twenty.

Q. Have you lifted many small fish in your pot?—A. We never catch them at all.

Q. What is the size of mesh in your leader?—A. Ten inches.

Q. Do you think the public can be supplied with fish caught any other way?—

A. I do not, gill netting is not carried on at all with us.

Mr. PHILLIP DELAURIER was called and sworn:—

*By Mr. Wilmot :*

Q. Your residence?—A. Point Pelco.

Q. Occupation?—A. Fisherman.

Q. How long a fisherman?—A. Thirty-three or thirty-four years.

Q. Nationality?—A. Canadian.

Q. What kind of fishery do you carry on?—A. Pound-net only.

Q. How many pound-nets?—A. One.

Q. What kind of fish do you catch?—A. Same as other evidences given.

Q. What is the principal fish you catch?—A. Herring.

Q. Do you fish east or west of Point Pelco?—A. West of the Point.

Q. What size is your mesh?—A. Pot 2-inch, hearts 5, leaders 7.

Q. Where do you sell your fish?—A. Principally to Americans, but market some here.

Q. What firm do you sell to?—A. Buffalo company.

Q. Do they come and get the fish from your net?—A. Yes, sir.

Q. How do they come?—A. With tug from Detroit.

Q. How do you manage when they come to your nets?—A. They come close to the nets and we put the fish aboard.

Q. Are the fish weighed?—A. They weigh them and give us the weight.

Q. How far are you from this port?—A. About nine miles south.

Q. Is that the same system they pursue with other nets besides yours?—A. Yes, sir.

Q. Do you get about the same as the other witnesses for your fish?—A. About the same; I give pedlors some fish to sell also.

Q. What do you consider the worst month for the nets?—A. November.

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Q. Do you ever catch any very small fish in your net?—A. No; five or six years ago I caught a good number but do not now.

Q. Would it be impossible to take up nets from Saturday night till Monday?—A. I think it would be impracticable.

Q. Do you think it proper to have good close seasons?—A. I think it would be if Americans would do the same.

Q. When do you commence to fish?—A. About the 20th of April and fish until the 20th of June, and from the 12th of September, as long as it is safe to keep nets in.

Q. Do you know anything about bass?—A. Yes, we catch a very few, principally on reefs.

Q. When do you think they spawn?—A. From June 20th through July.

Q. Is there any spearing in your neighbourhood?—A. No, sir.

Q. Do you catch many sturgeon?—A. Very few.

Q. Do you think sturgeon spawn in June and July?—A. Yes, sir.

*By Mr. Harris :*

Q. You fish with a 2-inch extension?—A. Yes, sir.

Q. Would you be satisfied to fish with 3-inch mesh?—A. No, sir.

Q. Would you give up fishing?—A. Certainly; it would not pay.

Q. Any blue pickerel in your fishery?—A. Yes, a few.

Q. Would a law to compel taking up of nets for June and July be a benefit?—

A. It would be a benefit to fishermen and the community, for large amounts of small fish are destroyed then.

### No. 4—SANDWICH.

The Fishery Commission met at Sandwich this 16th day of November, 1892, according to previous notice.

Members present, Samuel Wilmot, Esq., Edward Harris, Esq., and Miss Chamberlain acting as stenographer. Mr. Wilmot, as Chairman, called the meeting to order, when the following proceedings took place.

The purport of the Commission was explained.

Mr. HENRY HEBERT was called and sworn:—

*By Mr. Wilmot :*

Q. Where do you reside?—A. Sandwich East.

Q. Your occupation?—A. Farming and fishing.

Q. How long have you been engaged in fishing?—A. Twenty-five years.

Q. What is your nationality?—A. Canadian.

Q. What kind of fishery do you carry on?—A. Seine fishing.

Q. What do you principally catch with your seine?—A. Whitefish, pickerel, sturgeon, mullet, herring and coarse fish.

Q. What particular waters do you fish in?—A. Lake St. Clair, opposite Peche Island.

Q. Do you use a seine altogether?—A. Yes, sir.

Q. What size fish will escape through your mesh?—A. Small herring will pass through, some pickerel.

Q. What size fish will escape?—A. A pound fish will pass through a 3-inch mesh.

Q. In what month in the year do you find whitefish best for table use?—A. In November late.

Q. When are herring best?—A. In November.

Q. Pickerel?—A. Good time for them too.

Q. Sturgeon?—A. 15th of April.

Q. Coarse fish?—A. When the water is cold.

Q. Where is your market for your fish?—A. We sell all we can on this side the balance to Detroit.

Q. What proportion will be sold on the Canadian side and Detroit?—A. About the same.

Q. What is the average value of your whitefish?—A. Six to seven cents per pound.

Q. What is the value of your herring?—A. One cent each.

Q. What is the value of your pickerel?—A. No. 1, six cents per pound.

Q. Same on both sides?—A. About the same.

Q. What kind is No. 1 pickerel?—A. A yellow pickerel or doré six cents, blue pickerel sell as coarse fish at seventy-five cents per hundred count.

Q. What is the value of sturgeon?—A. They sell by piece about \$1.25 each, average between 25 and 30 pounds.

Q. Does that mean meat only?—A. It includes everything.

Q. What length are your sturgeon?—A. A twenty-five pound about 3½ feet.

Q. Do you get many under 3½ feet?—A. Not many, all big.

Q. How many do you catch?—A. Caught about 10 last spring.

Q. How many of these were under 3 feet in length?—A. About 3 or 4 under twenty-five pounds.

Q. What might you have caught about 5 years ago?—A. About 300 hundred in the same place.

Q. Can you assign any cause for the reduced catch of sturgeon?—A. Because there were not any pound-nets 6 years ago in that lake.

Q. The introduction of pound-nets has decreased the sturgeon catch?—A. Yes, sir.

Q. When is the whitefish ripe for spawning?—A. If put in pens they begin about the 18th of November.

Q. If loose would they spawn earlier?—A. They might spawn earlier.

Q. What is the spawning time for herring?—A. Herring spawn before whitefish, principally in October.

Q. Have you taken notice when sturgeon spawn?—A. I think about May.

Q. Do you catch any black bass?—A. Not much.

Q. Do you ever catch salmon trout?—A. No, sir.

Q. When do you find it most difficult and expensive for you to fish?—A. In November.

Q. What is the size of mesh in the bag of your seine?—A. Bag and all the same size, 1½-inch bar, 3-inch extension measure. Big herring will be caught in this, fish 1 pound and under may pass through.

Q. Do you catch young immature fish?—A. No, sir.

Q. Are you aware of the Sunday close time?—A. We do not fish on Sunday.

Q. Do the Americans fish in the same waters you do?—A. Yes, sir, they cross the boundary more than we do.

Q. What description of nets do they use?—A. Seines.

Q. What is the length of your net?—A. About 55 or 60 fathoms.

Q. Do you think the American nets are longer than yours?—A. Some fish with 80 fathoms.

Q. Do you know whether they use the same kind of mesh?—A. The same kind.

Q. Do you think it wise to have properly chosen close season in which fish could spawn?—A. Yes, I believe that properly selected spawning time should be chosen.

Q. How soon do you commence fishing in spring?—A. About the 15th of March, stop the 1st of April; through May, June, July, August and September we do not fish; commence again about the 15th or 16th of October, and fish until the 1st of November.

Q. How long do you stop?—A. From the 1st of November until the 1st of December, then fish as long as the ice will let us.

Q. Are any bass caught in your neighbourhood?—A. A few black bass.

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- Q. Is spearing carried on at all?—A. Not that I know of.
- Q. Do you make caviare at all?—A. No, sir, sell sturgeon out and out.
- Q. Do Americans fish on Peche Island at all?—A. No, sir. I am a farmer and my fishery fronts on my farm.
- Q. How many men does it take to carry on your fishery?—A. Five besides myself.
- Q. Do they assist you in farming too?—A. No, sir, we fish on shares.
- Q. What share do they get?—A. They do the work and get half the money. I pay everything and supply the net.
- Q. What licenses do you pay?—A. \$25.

*By Mr. Harris :*

- Q. What is the value of your shares?—A. About \$200 for each for one year.
- Q. Do you keep any regular accounts of your catch?—A. No, sir.
- Q. Do the men keep pretty good accounts?—A. We divide every week.
- Q. Have you an ice house?—A. No, sir.
- Q. You sell herring about \$1 per hundred: do you sell wholesale or retail?—A. We sell some to farmers, some to Detroit on the market, sell more on this side than the other, but not herring. When they begin to salt them then we can sell on this side, we can then get more for them.
- Q. When you sell on the American side, how do you get them there?—A. We send them there in a small boat.
- Q. Who buys, the wholesale or retail houses?—A. We sell some on Detroit market, some to wholesale dealers.
- Q. You go there and sell them on the market?—A. Yes, sir; and sell them to a man on the market and he sells them again.
- Q. What is the nearest seine to you?—A. About thirty rods on the next farm, up towards the lake, the next is a pound-net about  $1\frac{1}{2}$  miles I think.
- Q. When was that pound-net first put there?—A. About six years ago.
- Q. Going down the river, how near is the first net?—A. One mile.
- Q. Are there nets all the way down the river after that?—A. None but a hoop-net, about one mile.
- Q. When do sturgeon first appear in your fishery?—A. Begin in April and stop before July.
- Q. Which way do they come from?—A. From Lake Erie.
- Q. What do they come up the river for?—A. To spawn in May.
- Q. Where do they spawn?—A. They go up to the middle of the lake in shallow water.
- Q. Do you know anything about the depth of the west end of Lake Erie?—A. No, sir.
- Q. Suppose the depth of the west end of Lake Erie to be twenty-five or thirty feet, would it be strange for sturgeon to run up from that to Detroit River to spawn? Do you say they come to spawn?—A. I hear everybody say they do.
- Q. You say pound-nets destroy sturgeon?—A. Yes, sir.
- Q. In what depth of water are pound-nets put?—A. Twelve feet where I am.
- Q. If pound-nets destroy sturgeon where will it be, in which lake?—A. In both, I could not say which most.
- Q. How many pound-nets in Lake St. Clair?—A. Four on the Canada side.
- Q. Do you know how many in Lake Erie?—A. No, sir.

*By Mr. Wilmot :*

- Q. What do these fish come from Lake Erie for?—A. So far as my knowledge goes they come up to spawn in Lake St. Clair and Detroit River, my experience goes to show that they enter the fishery in March and leave that in June and July, my conclusion is that they come to spawn and go away again.

*By Mr. Harris :*

- Q. Which description of fishing do you think would be most destructive to fish spawn, pound nets remaining perfectly still, or a seine drawn five or six times over the shore where fish deposit spawn?—A. I do not know about that.

Q. Do they fish with gill-nets in Lake St. Clair?—A. No, sir.

Q. Did you ever hear that they fish with gill-nets in Lake Erie?—A. No, sir.

Q. Is your net white?—A. Yes, sir.

*By Mr. Wilmot :*

Q. Give the size of twine in your net?—A. No. 12.

Q. What about the hatchery fry?—A. About five years ago I have seen young fish from the hatchery taken up there and thrown into a large pond in Belle Isle, and seen lots of them dead afterwards, about one inch long, all along the shore.

Q. Did you see a dozen of them?—I think more, may be a hundred.

Q. Will you swear that they were young whitefish?—A. No, sir.

Q. They may have been other fish?—A. Yes, sir.

Mr. HENRY SMITH was called and sworn:—

*By Mr. Wilmot :*

Q. Your residence?—A. Pelee Island.

Q. Your occupation?—A. Grape-growing and wine-making.

Q. Nationality?—A. Am a native of the United States.

Q. Are you a naturalized subject of Canada?—A. I am.

Q. Do you carry on fishing at all?—A. No, sir.

Q. Did you formerly?—A. I am an angler.

Q. What kind of fish do you catch?—A. Black bass is the principal fish.

Q. What particular waters do you catch them in?—A. All around Pelee Island.

Q. What description of gear do you use?—A. Rod, line and reel, with spoon bait, and also with live bait, but not with fly.

Q. In what month do you usually fish?—A. In May till the middle of June.

Q. Are you aware that is close season?—A. It is now, but I have not been fishing for five or six years.

Q. At what time is angling carried on now?—A. Generally from 15th of May till the 1st of June. There is no other angling now except by American clubs.

Q. When do they commence fishing?—A. The 15th of May, cease the 1st of June.

Q. Do you know that as a fact?—A. I do.

Q. Do they fish at some other season?—A. In the fall from the middle of October till the middle of November.

Q. Do they catch the greater number of black bass in spring or autumn?—A. I cannot say.

Q. When are the fish best?—A. No difference so far as eating is concerned.

Q. When do black bass spawn?—A. In June, I think from the 1st of June and July.

Q. Do you know of bass spawning at all in May?—A. I do not.

Q. What quantities do the club catch?—A. From 40 to 400 a day.

Q. Would that be the same in autumn?—A. Fishing is better in spring.

Q. What do they do with these fish?—A. Some they turn loose, they are brought in and put in a large car and kept alive and in two or three days they turn them out except what they use.

Q. What is the reason for doing this?—A. I do not know only to make record.

Q. Do they send any away in the fall?—A. Some in fall.

Q. What do the bass come particularly upon the shores in May and June for?—A. First to feed, then to spawn.

Q. Is it right to kill the spawning fish?—A. I do not know. If they spawn in June it is not advisable to kill them then. The quantity of bass is small to what it was formerly.

Q. What do you attribute that to?—A. Pound-nets.

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Q. At the present time what would be the proportion of fish taken in pound-nets?—A. I do not know what quantities of bass they catch in pound-nets now, not as many as four or five years ago. I have seen from  $\frac{1}{2}$  to one ton of bass taken out at a lift five or six years ago.

Q. Are there any anglers besides the Pelee Club?—A. Yes, sir, another American Club.

Q. Any Canadian anglers?—A. Never saw any.

Q. Is the Pelee Club incorporated?—A. Yes, but the others are not to my knowledge.

Q. The bass are much scarcer than formerly and you attribute that to pound-nets?—A. Fishing with nets and angling it is the same.

Q. Do you think it right that there should be close seasons?—A. Certainly.

Q. What time would you suggest for them?—A. The month of June.

Q. Do American fishermen come over there with tugs and nets and fish?—A. I do not know of any.

Q. What is the usual size of bass?—A. From  $1\frac{1}{2}$  to 4 pounds.

Q. Have you sufficient knowledge to say whether a  $1\frac{1}{2}$ -pound fish can spawn?—A. I think so.

Q. How small fish have you seen taken by the anglers?—A. None under 1 pound.

Q. How do they prevent them?—A. They do not bite.

Q. Do they throw away female fish when caught?—A. I do not know.

*By Mr. Harris :*

Q. How long have you lived at Pelee?—A. 26 years.

Q. Do you know any members of the Pelee Club?—A. Some.

Q. Do they spend much money there during the fishing season?—A. They employ a good many men whenever they can be suited.

Q. Have they a pretty fine club house?—A. Not very.

Q. Are they very popular?—A. I cannot tell.

Q. Have you ever seen one of them fishing?—A. Yes, sir.

Q. Fish with minnow?—Yes, sir.

Q. Do they attach a fly, too?—A. Yes, sir, only one line and rod for several baits.

Q. Do they pull in four or five fish at a time?—A. Not often, they do sometimes. It is not unusual to catch two, but four very seldom.

Q. This line will have on it what?—A. Two or three minnows, a couple of flies, a spoon bait and from three to five hooks.

Q. When did you see a lift of a pound-net?—A. Not for the last five years.

Q. Was that too long ago for you to tell us what a pound-net is like?—A. No, sir, they have a long net running from the shore out into 20 feet of water joined to what is called a heart, from that the tunnel runs into a square bag called the pot.

Q. How near does that lead come to the shore?—A. Sometimes three or four rods.

Q. In what depth of water?—A. Could not tell, think they vary.

Q. You say you saw from half to one ton lifted?—A. I have years ago.

Q. Can you tell us where that net was set?—A. Somewhere around the north end of Pelee Island.

Q. Is the water deep around Pelee Island?—A. In some places.

Q. You told us that the Pelee Island Club catch bass during close season?—A. They catch them from the 15th of May to the 1st of June.

Q. Are you certain the club fish all the time you say from the 15th of May to the 1st of June?—A. Some of them do, they are not all there.

Q. You gave us the lift of a pound-net five or six years ago, have you had the curiosity to see one lifted lately?—A. I have not.

Q. Do you know how many bass a pound-net lifts now?—A. I do not, very much less than five years ago.

Q. How many pound-nets are there around Pelee Island?—A. I cannot tell.

Q. Are there five?—A. Yes, sir.

Q. Are there ten?—A. I do not know.



Q. Are there twenty?—A. Do not know, can see four or five from my place, but cannot say how many.

Q. It would be quite easy to see one lifted?—A. Yes, sir.

Q. Yet you do not see one?—A. No, sir.

Q. Do you know the catch of the Pelee Club?—A. No.

Q. Can't tell what a pound-net catches around Pelee Island?—A. No, sir.

*By Mr. Wilmot :*

Q. You see pound-nets fishing out in the water?—A. Yes, sir.

Q. When do they generally put their nets down?—A. 1st of May.

Q. How long do they continue fishing?—A. Until the last of June or July; take up and put in again the 1st of September.

Q. Do they take up during May and June?—A. No, sir.

Q. Could they catch black-bass during May and June?—A. They are as likely to be caught as anglers are to catch them on hooks.

Q. Pound-nets fish right through until July?—A. They do.

Q. Do they observe close season?—A. Cannot say.

Q. How do pound-net fishermen fish with their nets?—A. They go out in boats and take them up.

Q. What sort of boats?—A. Sail, they are fish boats; they meet the "Louise," from Sandusky. Fish are taken out of nets, put into the "Louis," and taken to Sandusky.

Q. Do they come to Canadian ports before going to Sandusky?—A. I do not know.

Mr. JOHN DELAURIER called and sworn :—

*By Mr. Wilmot :*

Q. Your occupation?—A. Fish dealer, formerly fisherman.

Q. Your residence?—A. Windsor.

Q. Nationality?—A. Canadian.

Q. What kinds of fish do you deal in?—A. All kinds, principally herring, sturgeon, whitefish, pickerel and coarse fish.

Q. Where do you get these fish?—A. Principally at Leamington.

Q. Do you know anything about the description of nets they are caught in?—A. Pound-nets.

Q. Do they catch with hoop-nets?—A. Not in Lake Erie, to my knowledge, but some in Lake St. Clair.

Q. What is the size of mesh in pound-nets?—A. Two and a half extension for pot; tunnel, 3-inch; leader, 6 to 8, and hearts from 5 to 7-inch.

Q. How small fish will pass through these?—A. Quarter-pound herring will pass through this, and  $\frac{1}{2}$  pound pickerel, and  $\frac{1}{2}$  pound whitefish might pass through.

Q. When do you find whitefish in best condition?—A. In the fall of the year, before spawning time.

Q. Where do you market your fish?—A. Mostly in Canada, London, St. Thomas, Hamilton, Bowmanville, Windsor, &c.

Q. Do you find the market is not over supplied?—A. I can always find sale and better prices than in the United States.

Q. Do you buy all your fish direct from fishermen?—A. Generally from Canadian fishermen, but during the past year have had to buy them from American dealers in Detroit.

Q. Where would they be caught principally?—A. These fish would be taken at Kingsville.

Q. Why not get them from Kingsville then?—A. American dealers have a bill of sale of the fish gear at Kingsville and Leamington, they are therefore obliged to

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sell fish to these dealers. The Buffalo Company have a spotter who sees that the Canadian fishermen do not bring their fish ashore but are compelled to put them on the fish boat or ship them to Detroit.

Q. What would be the consequence if they sold fish to you?—A. The Buffalo Company could shut down on them and take the gear.

Q. What do the Leamington and Kingsville fishermen get from the Buffalo Company for fish?—A. Fifty cents per hundred pounds for herring, for whitefish 4 cents, pickerel No. 1, over 1 pound weight, 3 cents, all the rest as soft fish 1 cent, sturgeon \$1.75 a carcass, that is in the spring, fall sales for herring increase 25 cents per hundred.

Q. What do you pay the American dealers for them?—A. I have to pay 1½ cent per pound for herring, whitefish would be 5 cents, pickerel No. 1, 8 cents, soft fish 2½ to 3 cents, sturgeon 6 cents a pound.

Q. What is the average weight of a sturgeon carcass?—A. About 25 or 30 pounds dressed.

Q. How much caviare would you get from a sturgeon that would dress 25 pounds?—A. Eight good fish will give 120 to 125 pounds caviare.

Q. What is that worth?—A. 16 cents per pound.

Q. Have the Canadian public to pay more for fish bought from you than American?—A. Canadian people have to pay extra prices because I have to buy from American dealers.

Q. Have you taken notice when whitefish are ripest for spawning—A. Principally from the 18th to the 26th of November, some spawn before, some after.

Q. When do the herring spawn?—A. Principally in October and November.

Q. Have you any experience in black bass?—A. Spawn about 1st of June.

Q. Pickerel?—A. In May.

Q. Sturgeon?—A. In June.

Q. Do you ever find many small immature fish on the market?—A. No, sir, not any herring and whitefish but find quite a lot of small pickerel that is under a pound weight.

Q. Do you never see half grown herring sold?—A. Yes, sir, some 6 inches long, they are frequently caught and thrown away mostly, a few are sold but are not marketable.

Q. What quantity?—A. Have seen at times a ton thrown away.

Q. Where principally?—A. On the east side of Point Pelee near Wheatley.

Q. Would there be any of these young whitefish?—A. No, sir, never saw any small whitefish caught, some claim these small fish are whitefish but they are not.

Q. Have you examined them closely?—A. Yes, sir, am satisfied they are not whitefish.

Q. What other kind of small fish besides herring?—A. Small pickerel, some small sturgeon of 10 pounds, they are generally thrown back into the water.

Q. Would 10 pound sturgeon have eggs?—A. No, sir, never saw any.

Q. Do you think this damaging to the fishing business?—A. I think it is when they are dead and thrown away.

Q. How could you prevent the catching of small fish?—A. Do not know that you could prevent catching, but you could put them back with very little trouble.

Q. What size mesh would allow them to pass through?—A. 2-inch bar would not allow little fish to get out because they would get all crushed together, 3-inch extension mesh would allow pretty good herring to pass through.

Q. Have you anything to say about Sunday close season?—A. It is impracticable to carry it out with regard to pound-nets.

Q. Anything about Americans fishing on our shores?—A. I do not know, only where they claim nets and get all the fish.

Q. What do they do with the fish?—A. Some are taken up into fishing boats and put on the American steam-boats and shipped direct to Detroit and Sandusky before coming into Canadian ports, claiming they are not obliged to come into Canadian ports. The American steam-tug "Jones" blows her whistle when she comes near the nets, the fishermen then go out, lift the nets and put fish on the "Jones" and they are carried directly across the lake to the United States, some are also taken with the "Louise."

Q. Do you know any Americans fishing their nets?—A. Only in the way I have mentioned.

Q. Do you think proper close seasons wise?—A. I do.

Q. Think they have a tendency to preserve fisheries and benefit fishermen?—A. I do. The large business carried on with the American dealers with us, has a tendency to destroy our fisheries. I think some restriction should be put on that description of trade, the consequence would be that Canadian dealers would go into business more extensively and consumers in Canada would get fish more freely and more numerously while some get none. Up to this fall I shipped 25 tons to London market alone, while this year I have not been able to ship a pound on account of American dealers getting all the fish. I ship both fresh and cured fish.

Q. When do they generally put down pound-nets?—A. About the 1st of May, fish right through until the 1st of July, pull out until the 1st or 10th of September, and fish until the ice forms. Close season is not observed by any fishermen. They would do so just while the inspector was present, as soon as his back was turned they go on fishing.

Q. Anything about black bass at all?—A. Not much.

Q. Any spearing in your neighbourhood?—A. No, sir.

Q. Has artificial breeding of whitefish been beneficial?—A. Can't say, artificial planting would be beneficial if done properly, young fish were planted off Leamington two years ago and the next day the lake was covered with young dead fish. I saw it.

Q. What size were they?—A. From  $\frac{3}{4}$  to  $1\frac{1}{2}$  inches.

Q. Are these whitefish?—A. I cannot say whether they were young whitefish or pickerel, people around there thought they were young whitefish or pickerel, have seen quantities of large fish at other times near.

Q. Do you think you could see  $\frac{1}{2}$ -inch fish floating on the water?—A. I do.

Q. Have you heard that quantities of small fish are dead at other places on the lake?—A. Have seen young dead fish at Wheatley.

Q. What size were they?—A. From  $1\frac{1}{2}$  to 2 inches.

Q. At what season of the year?—A. April and May.

Q. Do you know what they were?—A. I do not.

Q. Don't you know that whitefish put out from the hatchery do not reach  $\frac{1}{4}$  inch in length?—A. I don't know what size they are.

Q. Do you know whether fish swim from Canada to the American side on the river?—A. I do not, but think they do.

Q. Do you think fish cross from Leamington to the other side?—A. I do.

Q. What kinds?—A. All kinds, I think they are the same on both sides.

Q. Are you really certain?—A. No, sir, but it is reasonable to suppose they do.

Q. Do you think the Americans get the chief benefits of our fisheries at the west end of Lake Erie?—A. I do.

Q. Have they a number of Americans employed carrying on the fisheries?—A. They have a number of Canadians employed, I do not think they have Americans employed, but have American boats and tugs.

Q. Is there a large amount of capital in those tugs?—A. Yes, sir, and it is all American.

Q. Do you think it would be better if all that capital were Canadian?—A. I do.

Q. Have you ever thought of any remedy to have that done on a different system?—A. I often thought it would be better to put an export duty on those fish.

Q. Do our fishermen get higher prices for those that go to the States?—A. They might get as much, but if the export duty were put on they would not get as much.

Q. If the export duty were put on and the plan left as it is, if fish went to the United States do you think our fishermen would get as much money?—A. I do, Americans would pay duty.

Q. Do you know that all fishermen take out license?—A. Most do.

Q. All these fish that are caught ought to be landed on our shores?—A. Yes, sir.

Q. What proportion is landed?—A. Not one-tenth.

Mr. HARRIS from the Fishery Report of 1891: Americans claim that in 1885, \$242,774 worth of fish were caught in Lake Erie by Canadians and that \$1,100,000 worth of fish were caught on the American side.

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Q. Admitting that these figures are correct from what you know of the fishery at this end of the lake do you think that the American catch is largely made up of Canadian fish?—A. I do.

Q. Are you aware that Americans fish all the year round?—A. Yes, sir.

Q. No close season?—A. No, no license.

Q. You are aware that Canadians have close season?—A. Yes, sir.

Q. Do you think that the publishing of figures of that kind has a tendency to give Americans an undue opinion of their waters, and a tendency to make them adhere to their present system of no close season?—A. I do, when our seasons are closed there are scarcely any fish in Detroit.

Q. These Canadian fish which should be reported in this country are reported in the United States and make our catch appear smaller than it is?—A. Yes, sir.

Q. Do you think that would have the effect of making Americans doubt the policy of close seasons, they see their large catch without close seasons and our small catch with close seasons?—A. I do not think they doubt the policy of having close season, but they are differently situated. A man can go up to Congress and boodle these statesmen.

Q. Do you think it would be a benefit to have the catch represented properly, which at present is not?—A. I do, a few years ago fishermen at Point Pelee had an idea that if they gave the amount of fish they did get, the Government would raise the license.

Q. Do you know whether the fish caught at this end of the lake pay duty?—A. No, but if I, as a Canadian, took them there I would have to pay duty.

Q. These fish, you say, are taken from the nets and put upon American boats and go direct, and are landed as American fish?—A. Yes, the whole outfit is American, and they go to swell the American catch, which is really Canadian catch.

Q. When you fished at Leamington did you catch blue pickerel?—A. Sometimes a ton at a time, that was 12 years ago. I understand the difference between blue and yellow pickerel. Blue pickerel at that time were not worth anything and are not worth much yet.

Q. Why did you pull out your nets?—A. Because the water was too warm.

Q. Would that apply to other lakes where the water is cold?—A. No, sir, we would have fished if the water were not warm, but it destroyed the nets, it was not because fish were worse.

Q. All our men are licensed?—A. Yes, sir.

Q. How would it do to license pedlars and dealers, wholesale and retail men, so as to keep track of all fish and prevent any one selling Canadian fish except licensed dealers?—A. I am licensed as a municipal licensee at \$4.00; if there is a large catch of fish anywhere in the country farmers or anybody come and sell fish in Windsor, he can just come and pay market fee and sell one day, but if he comes next day he must pay again. That does not interfere with me.

Q. Would you consider it hard for the Government to make you pay license?—A. I would not like that.

Q. Are there overseers here?—A. Yes, sir.

Q. Have you ever seen one who received a large salary from the government?—A. As a rule they receive small remuneration, not enough, it would be unreasonable to suppose that they would spend their time for what they get, all they know is what fishermen tell them.

Q. Is there pretty good demand for fishing locations along the coast?—A. Yes, sir, they are pretty much all taken up.

Q. Do you think that as a rule the fishermen are inclined to exaggerate their catch and to make their return as big as they could make it?—A. No, sir, they would make it as small as they could make it.

Q. Do you think returns made to local inspectors are just the fish brought on shore after they have loaded American tugs?—A. Just a little more. These ideas apply generally all around.

Mr. NOAH JOLIE called and sworn:—

*By Mr. Wilmot:*

Q. Your residence?—A. Sandwich West.

Q. Your occupation?—A. Been a fisherman 40 years.

Q. Nationality?—A. Canadian.

Q. What kind of fishery do you carry on when engaged in it?—A. Seine fishery, river fishing.

Q. What sort of fish do you catch?—A. Whitefish, pickerel, herring, sturgeon, and soft or coarse fish.

Q. In what particular waters do you fish?—A. Detroit, St. Clair and Maine, Ohio.

Q. What size mesh do you use?—A. Whitefish, 4-inch extension, herring, 2-in. extension, pickerel, 2½-inch.

Q. What sort of net for sturgeon?—A. Sturgeon with the same net.

Q. What size whitefish escape through 4-inch mesh?—A. Under a pound weight would pass through.

Q. How small have you seen them in Detroit?—A. Seldom or never under 1 pound weight.

Q. Have you seen them anywhere else?—A. Have seen them on the lake.

Q. When do you think whitefish are in best condition for eating?—A. In the fall of the year, October and November.

Q. Herring?—A. Same time.

Q. Where was your market principally?—A. Detroit.

Q. Did you sell many for home consumption?—A. Not many.

Q. To what extent did you carry on your fishery, what quantity, did you fish more than one seine?—A. Had 2 grounds. About 18 years ago the 2 grounds caught about 70,000 fish, about an average would be 20,000 for each net.

Q. How many fisheries in the river?—A. Could not tell; should judge about 15 or 20 on the stations on the Canada shore. Some grounds were better than mine and some not so good.

Q. How did you take care of your fish at that time?—A. This was 18 years ago; we kept our fish in ponds or pens.

Q. How were these constructed?—A. By driving posts and planks forming a pen.

Q. What was the size of that pen?—A. It covered about half an acre.

Q. How many fish in one of these pens?—A. Had 40,000 one year in one pen; neighbours had about the same numbers.

Q. When would you sell these fish?—A. From the 10th of December.

Q. When you put them in the pen what would they be worth?—A. Price if sold when first caught from \$5 to \$6 per hundred.

Q. When you kept them till December and January?—A. \$15 to \$25.

Q. Out of that 40,000 how many would you sell in December and January?—A. Have lost from 1,500 to 2,000 out of a pen.

Q. Did you ever lose four or five times that many?—A. One year we lost about half of our fish.

Q. What caused this loss?—A. Bringing from the channel water into warmer water and sickness.

Q. How did they show their sickness?—A. Fungoid growth showed on them.

Q. Did they rise to the surface when sick?—A. They would come to the top.

Q. What did you do with these?—A. We would sell them along with the others; the very bad ones were culled out and buried; some were as healthy as the day we caught them; others were sick.

Q. Did you ever know at times that a great many more than your proportion died in other ponds?—A. About the same, but if the ponds were smaller then there would be more sickness. These sickly fish were the first run of fish.

Q. Who instituted the principle of building those pens?—A. There were some before I built my crib 40 by 20.

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- Q. What did these fish come up the river for?—A. To spawn.
- Q. Did you catch any in the early spring months?—A. Not until October.
- Q. You therefore come to the conclusion that they come up to spawn in the fall of the year?—A. That is the general opinion.
- Q. How long since you gave up fishing?—A. About 13 or 14 years ago.
- Q. Why did you give it up?—A. Fish became scarce, so it did not pay.
- Q. What is the state of fishery now, in comparison to 13 or 14 years ago?—A. Some stations might now give 2,000 or 3,000. This falling off has been experienced for the past 10 to 12 years.
- Q. Why was this falling off?—A. My opinion is that it was first occasioned by general scarcity and pound-nets catching them in the lake and preventing their passage up the river.
- Q. This was more experienced during the past 12 years?—A. For the past 10 or 12 years.
- Q. If there were no pound-nets in Lake Erie 10 or 12 years ago, how would that hold?—A. In my opinion there would be lots of fish yet; did not know of any then.
- Q. Do you think this only took place since the hatchery was established?—A. I don't know.
- Q. When are whitefish ripest for spawning?—A. Generally about the 15th of November would be the hottest time; some before, some after, but not many before.
- Q. Do you think the catching of whitefish ready to spawn, detrimental to the fishery?—A. I think it would be in a measure to that fishery.
- Q. What about herring?—A. I do not know, I think they are a little later than whitefish in this river.
- Q. You caught sturgeon?—A. Yes, sir.
- Q. When did you principally catch them?—A. Sturgeon were not then marketable and we caught some in our nets along with other fish.
- Q. How long since sturgeon became remunerative and profitable here?—A. About 10 or 13 years ago, have caught them in St. Clair River about 20 years ago and sold them from five cents to twenty-five cents each.
- Q. What was the average weight of them?—A. Fifteen pounds and upward.
- Q. Were the eggs of sturgeon then valuable for caviare?—A. It was not generally looked for then.
- Q. How is the sturgeon fishery now?—A. Pretty poor, that is they are very scarce.
- Q. What is the cause?—A. Do not know; over-fishing I think.
- Q. Do you know when sturgeon spawn?—A. Do not know, in spring and fall but spawn more in June.
- Q. How do they catch sturgeon, with hooks?—A. They are caught with hooks, but I can't tell how.
- Q. In your fishing operations did you find one season more destructive than another?—A. Nets were injured more by the warm weather we had in July in St. Clair.
- Q. With your inch bar nets, how small fish would you catch?—A. Below a pound, that is, herring; can catch herring with  $2\frac{1}{2}$  inch extension mesh, but a great many get gilled, therefore we use smaller mesh.
- Q. On St. Clair or Detroit River did Americans fish sweeping nets across?—A. Was fishing on the American side myself, never stretched across; the river was too wide.
- Q. Would it be judicious to have proper close season?—A. If properly chosen it would be correct.
- Q. When did you commence your net fishing?—A. Commenced the 1st of October and fished until the 25th of November, stopped fishing after that. This was generally done.
- Q. What close season at that time?—A. Can't tell exactly.
- Q. Have you ever caught bass of any consequence?—A. No, sir.
- Q. Has spearing been practised here at all?—A. Not that I know.

*By Mr. Harris :*

Q. Is fish a favourite food of yours?—A. Yes, sir.

Q. Which do you like best?—A. Whitefish.

Q. You prefer them in November?—A. Yes, sir, and October, not as good in summer.

Q. Is the water in this river colder in October and November?—A. Yes, sir.

Q. What time do they come up Detroit River?—A. 1st of October used to when I fished, we got a few about May and July, perhaps one in a week but they are better in October and November.

Q. Are fish at breeding time likely to be as good for food?—A. I do not know that.

Q. Do pound-nets destroy white fish?—A. We think something like that prevents them coming up the river, they are destroyed on the way coming in.

Q. How near was the nearest pound-net to your fishery?—A. I do not know.

Q. Did you ever fish pound-nets?—A. No, sir.

Q. How long ago did they get scarcer?—A. Twelve or thirteen years ago.

Q. How many pound-nets in Lake Erie seven years ago?—A. Don't know.

Q. Would pound-nets on our side of the lake do as much harm with fish coming up the river as the other?—A. No difference but do not know anything about them.

Q. Do you know how many pound-nets there are now?—A. No, sir.

Q. When you speak of pound-nets affecting the fishery it is the result of what people tell you?—A. I heard the description and formed that opinion.

Q. Why do you think those fish come up that river?—A. It must be for spawning.

Q. They ran up formerly in great numbers?—A. Yes, sir.

Q. If you had not caught them in great numbers they would have deposited spawn in this river?—A. They would have somewhere, no doubt.

Q. All these fish that died in your pens, if they had not been caught, would have spawned in the river?—A. Yes, sir.

Q. With all that slaughter don't you think it must have had something to do with accounting for the disappearance of white fish?—A. They spawned in the pens but I do not know what they came to. It was no damage in the river for they would have been caught anyway and would have been put on the market, that would have been better.

Q. Do you think it unwise to have close seasons in Canada when they have none in the United States?—A. I do.

Q. Did Americans catch any fish in Detroit River at that time?—A. Yes, sir, no doubt as many as I did.

Q. You know most about Detroit River?—A. Yes, sir.

Q. Are they catching as many there as we are?—A. Yes, about the same.

Q. Do they catch as many fish on the opposite side now as on this?—A. I do not know anything for certain.

*By Mr. Wilmot :*

Q. When catching fish numerously, years ago, were there not as many or more fisheries on the other side?—A. About the same.

Q. Did they catch as many?—A. I think we caught a good many more on this side.

*By Mr. Harris :*

Q. Herring gill in 2½-inch mesh?—A. Yes, in seine only.

Q. Did you ever use seines smaller than 1¼-inch?—A. Yes, 1 inch in the centre and 2½ to 4 wings.

Q. Are seines in this river 2½-inch measure?—A. That is for herring, but changed to 4 extension for whitefish.

*By Mr. Wilmot :*

Q. How many men were employed at each fishery fifteen or twenty years ago?—A. Six men to each crew, one station.

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Q. Do some work two crews night and day?—A. Yes, sir.

Q. When you caught 20,000 at that time, did you catch herring?—A. Sometimes a few when using small mesh.

Q. How many men were engaged on the Detroit River this year?—A. About 30 men.

Q. Do you believe that fish that spawned in these pens were as productive of fry as in the river?—A. Can't say anything about that.

Q. Would it pay you to fish in November?—A. November is the only month that will pay to fish for whitefish in Detroit River. It would not pay to fish in October alone.

Q. How long since the fish hatchery was established?—A. Over fifteen years.

Q. Do you believe the hatchery has been any good to fishermen on Detroit River?—A. Do not know, but think if we had not had the hatchery we might not have had any fish at all.

Mr. REMI LAFRAMBOISE sworn:—

*By Mr. Wilmot:*

Q. Your residence?—A. Sandwich West.

Q. Occupation?—A. Fishing part of the time. Am a carpenter.

Q. Nationality?—A. Canadian.

Q. What kind of fishery do you carry on?—A. Seines for Mr. Gauthier, and others.

Q. What kind of fish do you catch?—A. Whitefish on Detroit River; pickerel on St. Clair.

Q. Did you catch herring at all?—A. Yes, sir.

Q. Did you catch soft fish?—A. Yes, a few, and a few sturgeon.

Q. What size mesh did you use in seines?—A. From 3½ to 4-inch for whitefish, 2½ and 2-inch extension for herring.

Q. Have you observed in what months whitefish are in best condition for table use?—A. About November, from the few caught here. They are caught here only in October and November.

Q. Where are your fish marketed?—A. Detroit, a few, not many for local consumption.

Q. What is the market value of your fish?—A. Whitefish \$18 to \$25 per hundred weight; herring, 75 cents to \$1.00 per hundred fish.

Q. Have you noticed when whitefish are in the act of spawning here?—A. About November is the spawning month.

Q. When for herring?—A. A little later, the last of November or 1st of December.

Q. Have you caught any sturgeon?—A. A few.

Q. What time of the year principally?—A. Most in spring, May and June, and in October.

Q. What are sturgeon worth?—A. About \$1.50.

Q. What is the average weight of sturgeon?—A. Thirty to forty pounds.

Q. How much of that when dressed would make marketable meat?—A. About twenty pounds.

Q. What quantity of eggs will you get from a 40 pound sturgeon for caviare?—A. From 7 to 10 pounds.

Q. What would the meat of sturgeon cured be worth?—A. About 12½ cents, I think.

Q. What is caviare worth per pound?—A. Do not know, never sold it.

Q. Do you know the time when the greatest amount of eggs are obtained from the sturgeon?—A. About June; when gaffing them into the boat, spawn is seen running from the fish.



Q. Would that indicate ripeness of eggs?—A. It would.

Q. Are there many sturgeon caught here now?—A. Very few.

Q. Do you recollect when the sturgeon catch was large?—A. Sturgeon catch was never large on Detroit River, there are many more on St. Clair River.

Q. When you were fishing, did Americans fish on our side of the river at all?—A. Last winter some Americans fished on Fighting Island by permission.

Q. Are you of the opinion that properly selected close seasons are beneficial?—

A. Yes, sir.

Q. When did you generally commence your fishing?—A. For herring, in the fall, and about the 1st of May for pickerel, with  $1\frac{1}{4}$ -inch bar.

Q. Did you fish through the whole season then?—A. About five and a half to six months, commencing in May, June, July, and again in September, October, and as long as the 28th of November.

Q. Fished September and October for herring?—A. Yes, sir.

Q. Whitefish in November?—A. Yes, sir.

Q. Whitefish caught in November while spawning?—A. Yes, sir.

Q. Have you any knowledge of the quantity of fish caught here in former years?—A. North pier, twelve or thirteen years ago, we got something over 20,000.

Q. Would other fisheries bear a similar proportion?—A. Only about half.

Q. What has this pier produced these last two or three years?—A. In 1891, 2,300 fish; in 1890, 4,000, up to this time, 1892, 16th of November, 3,900 had been taken, a little better than half over.

Q. Do you know anything about the American stations immediately opposite?—

A. About 600 or 700 fish have apparently quit there.

Q. Were whitefish caught in considerable numbers in that fishery?—A. It has never been considered a first-class whitefish fishery.

Q. What about the fishery three or four years ago?—A. Never caught much over 2,000 that I can remember, did not catch anything but herring there this year, but was always good formerly.

Q. What is your idea with regard to the falling off of whitefish?—A. Large numbers were caught and put into pens about 100 feet square, a good many died, and were thrown out in the river, some were buried and some converted into oil.

Q. How did you think this effected the after runs of fish?—A. Dead fish in the river will drive fish out of the river.

Q. How many have you known put into pens of that kind?—A. 15,000 to 20,000 would be put in the pens.

Q. How many would die and be converted into oil or buried?—A. Some years 2,000, some years more.

Q. Would they die from disease?—A. Yes, sir; they got mossy and died.

Q. Would they not all be more or less affected?—A. Some would look bright but large numbers would be affected.

Q. These fish were kept there until December and January?—A. Some were.

Q. Were these in as good condition as they should be?—A. There would be some bright, some diseased, the seine would bring up the dead fish from the bottom of the pens.

Q. Were herring kept in these ponds?—A. Yes, sir; along with whitefish, one year about 300,000 or 400,000 herring were caught and one year the pens were so full that the fish were crowded so close together that they died in great numbers. Days were occupied in scooping dead ones out and throwing them into the river. That was about the beginning of October.

Q. When throwing out these herring would there be any whitefish too?—A. Had not commenced catching them yet.

Q. Did you ever hear of the Detroit authorities forbidding fish going into the States on account of the sickness?—A. I did not.

Q. Do you know anything about bass?—A. No, sir.

Q. Was this practice of impounding fish general along the river?—A. Yes, sir; and the death rate was about the same.

Q. Do you know any special reason why these fish were put in those pens?—

A. Because fishermen could get better prices later on and we were catching more

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than we could handle. When first caught whitefish sold from \$8 to \$10 a hundred weight, in winter from \$18 to \$25.

Q. How long have you been acquainted with the fish hatchery?—A. About 5 years, I think.

Q. What size are little whitefish when turned out do you know?—A. From  $\frac{1}{2}$  to  $\frac{3}{4}$ -inch long.

Q. What size are pickerel?—A. About the same size.

Q. Could they grow in one day or night to  $1\frac{1}{4}$  or  $1\frac{1}{2}$  inches long?—A. I do not think so, not so long as they are in the hatchery anyway.

Q. Did you hear the statement that small fish were thrown out at Leamington and next day were found  $1\frac{1}{4}$  and  $1\frac{1}{2}$  inches long?—A. Yes, sir.

Q. Is that possible?—A. No, they could not grow that size.

Q. Could the bay around the dock be covered with fish thrown from the boats?—A. I do not think so.

Q. Do you think you could see young whitefish or pickerel when turned out from the hatchery?—A. Hardly possible for in the hatchery when they want to see them they take them out and put them into a glass jar and look sidewise through at them.

Q. The statement that they could grow to that size in one day is absurd; is it?—A. Yes, sir.

Q. Have you been distributing fish?—A. No, sir; my working season is in spring, I know nothing about distributing at all.

*By Mr. Harris :*

Q. You say vast numbers of these fish died in the ponds or pens?—A. Yes, sir.

Q. Would they be as good when salted and smoked as when fresh caught in the river?—A. I do not think so, for they made the river foul with quantities of rotten fish.

Q. No doubt many fish are inclined to leave a foul stream?—A. That is my opinion.

Q. Do they say the same about fish gilled in gill-nets?—A. I expect it would be the same.

Q. In your opinion is there any other reason for the destruction of the whitefish fishery on Detroit River than catching them before they spawn; and if allowed to spawn do you think this fishery would have been destroyed?—A. I do not.

Q. If fish had deposited spawn undisturbed what would become of the little fish?—A. I think they would have been carried by the current into Lake Erie because they are frail and delicate at that time.

Q. Does Detroit River widen down?—A. I think a little, there are two or three channels just before the lake is reached.

Q. Do you think whitefish coming up would cross over?—A. They would come back in the same channel.

Q. As to young fry, do you think if the parent fish had laid their eggs on this side of the river the fry would have gone on our side into the lake?—A. Yes, sir.

Q. Did you ever hear that there were whitefish caught at Niagara Falls on the Canadian side?—A. I have heard so.

Q. Did you ever hear that there were fine whitefish fisheries off Port Dover and Port Stanley in Lake Erie?—A. Yes, sir; have heard so, but have never been there.

Q. If I were to tell you that there were splendid whitefish fisheries in Lake Erie which now are not considered so at all, do you think that the catching of the fish when coming up to spawn would be the cause of their destruction?—A. Do not know, all that came from Lake Erie to spawn in Detroit River were destroyed and there was nothing to go back.

Q. Is that sufficient then to account for the destruction of whitefish fisheries?—A. I think a good deal.

Q. Do you think the parent fish would go back or work up the river?—A. We claim they would run back if allowed; some might have gone up as far as Lake St. Clair; most would go back if not caught.

Q. Do you know of any small whitefish under a pound weight being caught in Detroit River?—A. Might be an odd one but not generally speaking.

Q. Is it a fact that Canadian fisheries on Detroit River have not always been known to be better than American?—A. It has been that the Canadian side has been better than the American of late years, and long as I can remember.

Q. What is the reason of that? Have they not fished longer and oftener?—A. They fish as late on the American as on the Canadian side.

*By Mr. Wilmot :*

Q. After the spawning takes place would it be the spawn or the fry that would go down the river?—A. I do not think the spawn would be as likely to go down as the fry for the spawn go to the bottom until hatched.

Adjourned until 17th November, at 10 o'clock a.m.

The Fishery Commission met again at Sandwich, this 17th day of November, 1892, according to adjournment.

Mr. DANIEL MALOCHE sworn:—

*By Mr. Wilmot :*

Q. Your residence?—A. Sandwich West.

Q. Occupation?—A. Farmer at present, have been fishing 50 years.

Q. Nationality?—A. Canadian.

Q. What kind of fishery were you engaged in?—A. Whitefish and herring.

Q. Where did you fish principally?—A. In Detroit River, also in Lake St. Clair in spring.

Q. How many stations?—A. Three stations.

Q. All seines?—A. Yes, sir, except one pound-net on Lake St. Clair.

Q. When running three stations, how many seines?—A. A station would mean two seines.

Q. How many men at a station when running?—A. Six men and two horses for each net when running.

Q. What would be the size of mesh?—A. For herring, generally 2-inch extension for bag, 3-inch wings; whitefish, net-bag 3-inch extension and 4-inch wings.

Q. Would white-fish gill in 3-inch mesh?—A. They do mostly in wings of 4-inch, but some in the 3-inch.

Q. In what months did you catch whitefish and herring mostly?—A. Whitefish from the 10th October to the 15th November; herring principally September to the 15th of October. Very few whitefish caught before the 10th of October.

Q. Has this always been the case?—A. Seldom or never catch whitefish in Detroit River previous to the 1st of October. This will also apply to Lake St. Clair and River St. Clair.

Q. Do you catch any herring in spring months?—A. Yes, sir, in April and May, they are not nearly so numerous in spring as in fall.

Q. How long since you gave up fishing?—A. About five years ago. Fish became too scarce to make a living by fishing.

Q. Is that the same with your neighbours?—A. I think it is.

Q. When did you catch whitefish most numerous in Detroit River?—A. In 1870 we caught most fish, they have been decreasing ever since.

Q. What catches did you make then?—A. Average about 30,000 white fish, about 2½ pounds each.

Q. What did you do with these fish?—A. Put them in pens.

Q. How large was this pen?—A. On one ground about 100 x 150 feet, deepest water about 10 feet.

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Q. Why did you put them in these pens?—A. To keep them for the New York market later on.

Q. When did you sell them?—A. Generally from January to March.

Q. What would you get per hundred weight for these?—A. From \$20 to \$32 per hundred.

Q. What were they worth when first put in pens?—A. About \$10 a hundred.

Q. Did you lose many in these pens?—A. Some years more, some less.

Q. What proportion might the loss be?—A. Five per cent or six per cent.

Q. When you caught these fish were they ready to spawn as a rule?—A. From the 12th to the 20th of November eggs flow most freely.

Q. Do you consider fish as good then as when they first come into the river?—A. Just as good, but reduced in weight after spawning. When sold in winter they would average about two pounds.

Q. Would you have many herrings in your pens at the same time?—A. A few.

Q. Did your pens ever get out of order and lose fish?—A. Losses occurred sometimes from keeping them over.

Q. Did the whitefish drop spawn in these pens?—A. Yes, sir.

Q. What became of these eggs?—A. They hatched out. I saw lots of minnows in these pens in the spring.

Q. Can you say they were young whitefish?—A. I think so, can't say for certain.

Q. These whitefish in that small limit of the pen would be constantly stirring about?—A. Yes, sir.

Q. Would not the eggs be stirred about too?—A. They could not stir the water at the bottom; do not think the eggs would be disturbed by them.

Q. What appearance had the fish found dead and floating on the surface?—A. Some had red spots, some moss.

Q. What was done with these?—A. They were buried, and oil made from them.

Q. Were any fish taken from these pens and taken to Detroit market?—A. Some were taken and sold in Detroit for consumption.

Q. Did you ever hear of any fish from any pens being objected to?—A. I have heard so. Mine never were.

Q. What do you assign as the cause for the falling off of whitefish and herring in Detroit River?—A. Pound-nets in Lake Erie stop the fish from coming up into the river to spawn; they come up the river only to spawn. We felt the result the first year they had pound-nets in the lake.

Q. Are the fisheries in Detroit River worth fishing now?—A. I consider them worthless; I would not fish the best grounds in it.

Q. Do you consider this falling off a great calamity to this country?—A. Yes, sir, of \$50,000 a year on the Canadian side.

Q. Do you think close seasons properly selected a benefit for the fisheries?—A. Do not think a close season for whitefish is of any account, so long as they are allowed to catch them in Lake Erie.

Q. Suppose a close season for pound-nets in Lake Erie, as well as in Detroit River?—A. I do not think we would require close seasons if pound-nets were taken away and let fish be caught with seines.

Q. Do you know that these pound-nets catch small fish?—A. I did not know that they did. Report said that they did, and that they were buried in the sand or thrown back into the lake.

Q. When did you generally put your nets down in the fall for whitefish?—A. About the 1st of October for whitefish, and fished about five or six weeks, according to the weather.

Q. Was the fishing ever stopped on account of close season?—A. Yes, sir, that was before close seasons were established.

Q. Close season was suspended here?—A. Yes, sir, fishing went on during the whole month.

Q. Was there any winter fishing?—A. Not in the river, but in Lake St. Clair, under the ice, not whitefish, pickerel and soft fish.

Q. Were bass of any account here?—A. Not much, very few bass; a few sturgeon were caught in Detroit River.

Q. What was your catch of sturgeon in Detroit River?—A. One hundred sturgeon would be caught in one net during the fall.

Q. Are there any caught now?—A. Not one-tenth of what we used to catch.

Q. Did you sell the eggs to make caviare?—A. We did.

Q. When did you principally catch the sturgeon?—A. In October and November.

Q. What is your idea of hatcheries?—A. I do not think much of them; do not think we feel any good from them.

Q. Do you consider the hatchery helped to destroy the fish as well as pound-nets?—A. They did not destroy fish but do not do much good.

Q. Are you aware that there are a great many hatcheries on the American side?—A. Yes, sir, some in Detroit, Milwaukee, on Lake Michigan; the Sandwich one was the first, since then the Americans have built many. I think the Americans are the same as Canadians—no help.

*By Mr. Harris :*

Q. How long since Detroit River fishery began to fall?—A. Fifteen years.

Q. Have you ever fished pound-nets?—A. I did in Lake St. Clair.

Q. Would that affect the fishery on Detroit River?—A. Not at all; would on the Thames; never have set any pound-nets in Lake Erie.

Q. What was the size of mesh of nets in Lake St. Clair?—A. Two and a half extension for pot, dimensions of pot about 16 feet square.

Q. How long a lead had you?—A. About 60 or 80 fathoms.

Q. You never saw any pound-nets in Lake Erie?—A. No, sir.

Q. Do you know how many there are now?—A. Have no idea at all; am told from one dozen to fifteen in Lake Erie, cannot say for certain, that is on the Canadian shore.

Q. Have they increased lately?—A. Yes, sir.

Q. How many might there have been fifteen years ago?—A. I think only two at the time.

Q. Do you think those two pound-nets helped to destroy the fishery on Detroit River?—A. I do: fish kept decreasing, pound-nets increasing.

Q. Do you think that if all the pound-nets were taken out of Lake Erie, Detroit River would become good again?—A. I do.

Q. It would be good for Sandwich and Windsor to have that fishery back again?—A. Yes, sir.

Q. How many years ago did you commence fishing?—A. Fifty years ago, quite fifty years ago.

Q. Was there no close season when you commenced?—A. None.

Q. When was your principal catch at that time?—A. October and November.

Q. You say 1868 was your best year?—A. Yes, sir.

Q. When did close seasons first begin, to your knowledge?—A. Ten years ago; might have been before but were never obeyed here.

Q. Up to ten years ago in Detroit River fishermen drew seines all the year round?—A. Yes, sir, in October and November for whitefish.

Q. What did fish come up the river for?—A. To spawn; they would jump out of the river and we could see them spawning.

Q. They were caught before depositing spawn?—A. Yes, sir.

Q. What became of the spawn dropped in the water?—A. It went down to the bottom until hatched.

Q. About what was the length of your seine?—A. About sixty fathoms.

Q. These seines were sweeping the river or were pulled over the spawn and stirred it up?—A. It could not stir that up, it was drawn over; fish kept increasing until pound-nets began.

Q. Would you like to have the hatchery taken away from the river?—A. I do not wish that exactly, but do not think much of it.

Q. But you would like to have it used?—A. Yes, sir.

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Q. Why do you not like it?—A. Because those spawn deposited there are kept from November to April, and let go and then they are there in not exactly cold water, just as soon as you turn them out every one of them dies. The management is all right but it does not do any good at all.

Q. It might be that the hatchery would be closed up; suppose it were, what would you think to be the proper course to take with the river?—A. Let the public draw seines and stop pound-nets.

Q. Would you have close seasons?—A. No, sir, we won't need any; fish all the time and get plenty of fish; no licenses.

Q. Would you get good sale in Detroit now?—A. Yes, sir, big price.

Q. Do you think this the best locality to do all the fishing of Lake Erie?—A. All the fish from Lake Erie would come up to Detroit River to spawn.

*By Mr. Wilmot :*

Q. It is said the little fish are no good because they die when put out in the water because it is too cold?—A. Yes, sir.

Q. Do you know the size of the pipe with which the water is brought into the hatchery from the river?—A. I think about 2-inch.

Q. It is larger, but how long do you think the water would be running from the river through a 2-inch pipe with 15 horse-power engine? How long running from one end of the house to the other?—A. One or two minutes.

Q. Is the pipe not under ground about six feet?—A. Yes, sir.

Q. Would the temperature change much going through?—A. Not much.

Q. Then the water coming from the river through the pipe into the hatchery would be only a few minutes it would have to run out as fast as it came in, and would only be one or two minutes, what would be the change of temperature?—A. The minnows stand in still in the house, there are no big swells, or roly water to disturb them, and my opinion is that they are let out of the hatchery too soon.

Q. But the water is brought into the fish house and quickly runs out again, and when the little fish hatch out they are almost immediately let out into the river again. When they are hatched naturally in the bottom of the river they rise to the surface and are carried away down the river in the same way; now, is not the same process carried on in the hatchery?—A. No, sir, I do not think it is, they change from the still water into the river and are destroyed, while if hatched in the river they rise and go down.

Q. You want them protected longer still?—A. Yes, sir.

Q. If you were told it is impossible to feed young whitefish would that finish your argument?—A. If raised naturally they would get used to storms.

Q. These eggs are taken from fish caught in nets for the market?—A. Yes, sir.

Q. If the department did not use these eggs, they would be thrown away, would they not? Is it not, therefore, a clean gain?—A. Yes, providing they could raise them, no good if thrown into the river.

At the request of Mr. Gauthier, the following questions were put to witness:—

Q. Did you find that when you caught fish in October when the water was pretty warm and you put them in pens, did many of them die?—A. Yes, sir.

Q. Was it the custom to sell the first run of fish out of the pens in Detroit as soon as you could get good prices for them?—A. Yes, and then fill up the pens.

Q. Was it the custom after the 1st of November to keep all fish caught in your pens?—A. Yes, sir.

Q. Did a number of them die?—A. Some died; not many; very few.

Q. Was it the coldness of the water that preserved these fish then?—A. Yes, sir.

Q. Did the fish spawn in the pens?—A. Yes, sir.

Q. Do you think a large percentage of the eggs laid in these pens come to life in the spring?—A. I do.

Q. Do you know anything about the time it takes to hatch a whitefish egg out?—A. No, sir.

Q. Would it be true if one person were to swear that he saw hundreds of whitefish floating on these ponds in November?—A. I think it would be from the fish caught in October.

Q. Do you think the Americans are reaping the benefits of the Canadian fisheries?—A. Yes, sir, they are allowed to fish on this side of the water and have no restrictions at all.

Q. Do fish at times swim very fast?—A. Do not know; sometimes they swim a little slow, sometimes a little fast.

Q. Do you think fish swim from one side of Lake Erie and Detroit River to the other?—A. Yes, sir, I had a fishing ground on one side of the river, Mr. Clark on the other; when the wind changed, the catch changed.

Q. Do you know that Canadian fishermen were stopped fishing on Detroit River in 1891 and license granted to Americans to come and fish here?—A. Do not know, sir.

Mr. J. W. POST called and sworn:—

*By Mr. Wilmot:*

Q. Your residence?—A. Leamington.

Q. Occupation?—A. Master of fishing tug, trading in fish.

Q. Name of tug?—A. "City of Dresden."

Q. Nationality?—A. American.

Q. How long have you been engaged in this work?—A. Eight years.

Q. What fish do you deal in?—A. Principal catch is herring.

Q. Have you anything to do with whitefish?—A. Yes, sir, some, and coarse fish.

Q. What particular waters do you trade in?—A. Shores of the counties of Kent and Essex.

Q. Are the fish you get caught in pound-nets or seines?—A. Pound-nets altogether.

Q. Have you taken any notice of the size of mesh?—A. Have ordered nearly all the twine in the country. Pot, 2½-inch; back of pot, 2-inch; tunnels and hearts, 5-inch; leader 8 and 10-inch.

Q. Do you use seines?—A. I have at times taken fish from seines, but very little.

Q. When are whitefish in best condition for table use?—A. In the spring of the year; about May and June.

Q. When are herring?—A. Whenever the water is cold in June, July and August.

Q. Do you trade in pickerel?—A. Yes, sir, and occasionally in trout.

Q. When are pickerel best?—A. Not much at any time but are best in autumn, October and November.

Q. Are they caught in large quantities with herring?—A. No, sir.

Q. In comparison with other fish what quantities would blue pickerel bear?—A. On 29th June, I had a little over 56 tons herring mostly; in that there might have been about 300 of other fish, lawyers, &c.

Q. What do you call lawyers?—A. Ling, or eel-pouts.

Q. What about bass?—A. None to speak of; some are caught about Pelee Island, but few about the main land.

Q. When are they in best condition?—A. In fall of the year. One angler would get more bass on a hook and line in two hours than I would get in forty-eight hours with 22-pound nets.

Q. Where do you market your fish?—A. Sandusky, O., and some on the Canadian shore.

Q. What is the proportion sold on the Canadian shore?—A. About two or three per cent.

Q. What are the values of the fish you sell in Sandusky?—A. 1892, paid 5 cents for whitefish, to fishermen, herring and blue pickerel 3 to 4 cents, grey pickerel

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4 cents. Soft fish and blue pickerel have taken a great change since a few years ago; this year a little higher. White bass are worth 3 to 4 cents; catfish, 2½ cents; sturgeon, \$2 each over 4 feet; under that, from 3 to 4 feet, only 50 cents.

Q. What causes the difference in value of those under 4 feet which bring only 50 cents each?—A. No eggs in the small ones.

Q. Do you manufacture caviare?—A. No, sir; men aboard the tugs take caviare for the parties who buy the fish on the other side.

Q. Have you any idea of the value of caviare at the present time?—A. It is worth 15 or 16 cents a pound.

Q. What is the quantity of caviare from a 4-foot sturgeon?—A. It is not fully developed at 4 feet.

Q. A large sturgeon would be, how large?—A. An average of 70 pounds of meat is got from a whole carcass of 125 to 150 pounds.

Q. What amount of caviare from that?—A. Three or four gallons.

Q. Are the eggs worth more than the fish?—A. Yes, sir.

Q. Have you taken notice when whitefish are in the act of spawning?—A. About the Island and head of Lake Erie, 20th of November, eggs are taken for the American hatcheries. On the north shore of Lake Erie, I do not know when.

Q. What is your experience with herring?—A. Commence to spawn about the 13th or 17th of November, and go pretty far on in December.

Q. Pickerel?—A. Commence to spawn as soon as ice leaves in spring in bays.

Q. Do you catch pike or maskinongé?—A. Yes, sir, a few.

Q. When do they spawn?—A. In spring of the year.

Q. When for catfish?—A. I do not know.

Q. Sturgeon?—A. Spawn the year round—more freely in June and July.

Q. As a dealer do you find that fishermen lose more nets and fish from the inclemency of weather at one time than another?—A. Yes, after 4th of November.

Q. Are immature fish caught, and are there many unmarketable?—A. They are caught, but liberated alive. Five years, three years and two years ago, each year we got a run of small herring.

Q. What size?—A. A great many half grown, nothing but small herring.

Q. In what quantities would they be?—A. Immense quantities were caught and liberated again, probably five tons of them.

Q. How were they put out of the net?—A. Big ones picked out and small ones turned over the line of the net.

Q. In that great number would they be taken up in bulk?—A. Yes, sir.

Q. Would a great number be killed?—A. Perhaps two bushel killed, including gilled ones about four bushels.

Q. Would they all live after being turned out?—A. Yes, sir; because the water was cold when we got that run. During the past two years I have not seen any of these small fish.

Q. Is it not a fact that herring are easily killed?—A. Yes. If the water is warm; these were caught in June, and when we get a cold wave then is the time when we catch herring. Herring are not caught in large quantities when the water is warm.

Q. When do you think water coldest, as a rule, in the lake?—A. In Lake Erie from breaking up of ice until July; at times the temperature in the lake east of Pelee is colder than Detroit River in summer; it is the same at Point aux Pins, 40 miles east of Pelee.

Q. What about the Sunday close time?—A. It is impracticable to obey the Sunday close law.

Q. Do Americans fish in Canadian waters, or do you know anything about that at all?—A. Have seen their gill-net tugs on the Canadian side of the boundary engaged in taking up nets.

Q. What description of nets would they be?—A. Gill-nets.

Q. How far from Canadian shores?—A. About six miles east of Pelee Island.

Q. Have you seen many of these?—A. No, sir; have seen in the last two years about six.



Q. What kind of fish do they principally catch—A. Should think they were herring nets.

Q. Have you an idea what mesh those nets would be?—A. Am not familiar with them.

Q. Will 3-inch extension mesh nets take whitefish?—A. Yes, sir, have seen sturgeon caught in them.

Q. Will it take many herring, as a rule?—A. It will take large ones, but would take ordinary whitefish.

Q. Have you seen American tugs take fish from Canadian fishermen direct from nets?—A. Yes, sir.

Q. What do they do with these fish?—A. Take them to American market, Sandusky and Cleveland.

Q. Do these tugs go direct or come into Canadian ports?—A. Some proceed direct to the United States.

Q. What is your idea about close seasons?—A. It is correct to have proper close seasons for the preservation of the fishing industry.

Q. When are pound nets generally set out in spring?—A. As soon after the 1st of April as weather will permit.

Q. How long are they kept in the water then?—A. Until June or July, then taken up and cleaned, and re-set again twenty miles on the west side of Point of Pins until the 1st of November, the weather then blows them out. East of Pelee, also east of Pins fishing is carried on during the whole month of November. This is generally the case.

Q. Is there any winter fishing carried on?—A. Some about Rondeau by seines in the ice.

Q. What fish generally?—A. Black bass, perch, pike, mudcats, pickerel, suckers.

Q. Any special places?—A. In any shoal body of water deep holes are frequently found; these fish will congregate there and lie in kind of a torpid state, and there nets are used to catch them. This will deplete the fishery in any small body of water.

Q. Are fish at this time in as good condition as at others?—A. I do not think so.

Q. Why are they not—do they feed there?—A. I do not think they are in as healthy a state, they lie torpid, and are more easily taken at this time.

Q. The black bass is stupid then?—A. Yes, sir, and it is injurious for the fishery to take them at this time.

Q. Is it partaken of by many people?—A. Only a few as compared with the summer months.

Q. Do you know of spearing?—A. No, sir.

Q. Is artificial hatching of fish beneficial?—A. I know it is.

Q. Is it your impression that it should be enlarged?—A. Yes, sir, in the interest of the industry.

Q. What number of fish hatcheries do Americans have on Lake Erie?—A. I know of several to supply Lake Erie with young fish. All fish hatcheries have done good service to Lake Erie; so it is conceded by the majority of fishermen.

Q. Do you know the kinds of fish principally hatched at their various hatcheries?—A. They are principally whitefish.

*By Mr. Harris :*

Q. What is the tonnage of the "Dresden" tug?—A. One hundred and twenty-three tons net.

Q. American register?—A. No, sir, Canadian.

Q. Employed wholly in fishing business?—A. Exclusively, but occasionally carry passengers, perhaps 14 this season.

Q. Have you a certificate as engineer?—A. Yes, sir, two of them, have four certified officers on board.

Q. Does it cost more for a certified officer, are there many men who could do that without a certificate?—A. No, sir, they are not allowed.

Q. Is it necessary to have a certified crew?—A. Yes, sir, legally necessary, and in every other respect.

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Q. Never carry passengers?—A. Yes, sir, I have a passenger license. Over 100 ton it is necessary to have a certified crew if employed wholly in fishing business. I furnish fishermen supplies and take their fish.

Q. Have you any knowledge of fish on American side?—A. Yes, sir.

Q. Do they catch the same class as here?—A. Yes, sir.

Q. Is there any difference in size and quality?—A. No, sir, none whatever; in summer they get very few fish and they are not so good there, and Canadian fish are in better demand.

Q. Is this on account of the shallowness of the water on the American side?—A. Yes, sir; practically there is no fishing there in summer months—that is, in the waters opposite Kent and Essex counties.

Q. You say you get \$2 for sturgeon?—A. Yes, sir.

Q. For all?—A. Yes, for all large ones.

Q. How do you manage about small ones?—A. From 3 to 3½ feet long sold as half a fish.

Q. Ever throw any back in the water?—A. Have seen some do it.

Q. Do you think it a good plan to carry out?—A. I think it would be well to compel them to; all under 3½ feet should be returned to the water. All other small fish as well.

Q. Give the average weight?—A. Seventy pounds dressed.

Q. All over 4 feet?—A. Yes, sir.

Q. How many nets are you attending to?—A. Deal with 22.

Q. How many could you serve?—A. Have served 32, that is outside.

Q. Do you think fishermen would prefer to have a close season for sturgeon?—A. I think they would.

Q. Would it have a marked effect upon the sturgeon fishery?—A. Yes, sir, for the benefit of the fishery.

Q. What amount of capital have the others in these nets?—A. Can't say, but I started the whole of them.

Q. They are really fishing for you then?—A. No, sir, they are independent, every one of them.

Q. Do you not think they are compelled to sell their fish at a less rate than other fishermen?—A. No, sir; I have to pay the usual market prices.

Q. Who drives the stakes?—A. The fishermen have pile driver and everything but the boat, but there is a mortgage on them; fish are all taken on my tug. We ship our fish in cars in ice, also in boxes late in the season.

Q. Do fishermen understand that it is to their own interest not to destroy small fish?—A. Yes, sir.

Q. What is the right way to let them out of pound-nets?—A. Dip up and pick out big ones, and put the smaller ones over with a dip net; all large fish must be taken out first from the net.

Q. What size is the mesh?—A. 2½-inch, 1½-inch in back of net and smaller sometimes.

Q. How would 3-inch extension mesh do for pots?—A. It would be of no use here, because you would catch very few herring; blue pickerel would be all.

Q. Give average size of blue pickerel?—A. About a pound fish would go through 3-inch mesh.

Q. Is the blue pickerel the same as pike?—A. No, sir, it is blue pickerel; it resembles the "doré," except it is blue. The largest I ever have seen of blue pickerel would be 15 or 18 lbs., yellow pickerel, or "doré," 24 or 26 lbs.

Q. Are they the same fish?—A. No, sir, in the quality the doré is better than the other in any shape.

Q. Do they not sell for the same price?—A. No, sir.

Q. What is the difference in prices?—A. About 3 cents per pound; "doré" sells for 4 cents, the other for ¾ cent.

Q. What difference is there between yellow and blue for consumers?—A. Just about the same; the large blue pickerel and yellow pickerel bring about the same prices.

Q. Do blue pickerel go in large bodies together?—A. Sometimes in lifting we get a large catch of blue pickerel, indicative that they go in shoals. Grass pike do not do that.

Q. Would you think that its habit is to follow smaller fish in deep water?—A. They all look for food.

Q. Being caught in deep water indicates that blue pickerel are deep water feeders?—A. Yes, sir, and grass pike is a marsh feeder.

Q. If the herring and whitefish fisheries are to be preserved, is it important to prevent blue pickerel overrunning the lake?—A. Yes, sir.

Q. Ought pound-nets to be so constructed as to catch those fish?—A. Yes, sir, to preserve all small fish. One, or 1½-inch bar is the proper size, but small fish should be taken out again; this should be made compulsory.

Q. When you take your fish to the States do you sell them to wholesale men?—A. Yes, sir.

Q. He receives and ships them?—A. Yes, sir, Sandusky is the distributing point.

Q. In selling your fish at Sandusky do the wholesale men understand that fish are at some seasons better than at others?—A. Yes, sir, that is clear.

*By Mr. Wilmot :*

Q. What would you call fish in season?—A. When fish are in good condition; out of season would be when spawning. They are not as good when spawning as three months before or after.

*By Mr. Harris :*

Q. Then, the public should be protected from having fish supplied when not in best quality for food?—A. Yes, sir.

Q. Would it be better for the fish trade?—A. Yes, sir; fish should not be sold when not in season.

Q. Do you know anything about gill-nets?—A. Gill-net fish are not as good as caught in pound-nets.

Q. Could the public be supplied with good fresh fish from Lake Erie, unless caught in pound-nets?—A. No, sir; that is the only way I know of, unless by seines.

Q. How far east on Lake Erie does your knowledge extend?—A. To Port Stanley.

Q. Do you consider Port Stanley a good fishery?—A. There have been good fisheries there.

Q. Is there good fishery at Rondeau?—A. Yes, sir.

Q. At Leamington?—A. Better east of there.

Q. Of late years has the fishing industry been increasing on Lake Erie?—A. Yes, sir; some.

Q. Has it become quite an industry now down east?—A. Yes, sir.

Q. How many years experience have you in these parts?—A. Have been in Canada eight years.

*By Mr. Wilmot :*

Q. Do you say you fished with twenty-two nets this year?—A. Yes, sir.

Q. What quantity of fish from these nets this year?—A. This year, 1,593,012 pounds; in 1891, out of 32 nets, 1,160,635 pounds, exclusive of sturgeon.

Q. Have you any idea of the proportion of whitefish in 1892?—A. More than in 1891. In this year's catch perhaps 25 tons would be whitefish; about 80 per cent of the rest would be herring. They are the main fish; the balance would be soft fish.

Q. Now, about Pelee Island. Do you know anything about the fishing of the American Pelee Club?—A. Yes, sir.

Q. What is their mode of fishing?—A. With hook and line.

Q. What do they consist of?—A. American citizens, mostly.

Q. What does the hook and line consist of?—A. Three hooks, with a feather and spoon on a swivel on each line.

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Q. What number of fish do they catch?—A. Can't say; commercially speaking, they do not come in considerable numbers, but they come for angling purposes. Catch about 20 or 30 a day. They come here for recreation. Some play poker, and they have bowling alleys and billiard tables, and stay usually about two weeks in spring and about the same in fall. They used to come earlier at one time, but later this year.

Q. Is the club beneficial to the Island?—A. They leave a good deal of money there.

Q. Does this club return small bass into the water again?—A. I hear them say that anything under a certain size does not count. They keep record of fish caught; might occasionally get a perch or pickerel, but the general fish are black bass.

Q. Are herring as plentiful now as they were?—A. I think they are, speaking of Lake Erie only; I do not know anything about herring on the Detroit River.

Q. Are large quantities caught on both sides of the lake?—A. Yes, sir; the water is warm on the American side in June. In the middle of the lake it is warm about August.

Q. Do you know that whitefish are caught in large quantities far out in Lake Erie?—A. I know that quantities of small whitefish are caught out in the lake off Erie, Cleveland and Fairport; tons of these are not fit to be sold for herring, they are too tender, they are about the size of small herring.

Q. Do you know what is done with these small fish?—A. Some are made into fertilizers, others sold as herring, some thrown overboard, unless the nets have been lifted recently.

Q. Are these herring caught also on the American side?—A. Yes, sir; from American boats and nets from Erie, Cleveland, Fairport, &c.; cannot say whether they are caught in Canadian waters or not.

Q. Is this ruinous for the whitefish fishery business on the lake?—A. Certainly.

Q. Why is it ruinous?—A. The instinct of the small whitefish fry leads them out into deep water at first and they do not come out of that until they are at least the size of herring, then the gill-net is put in as soon as they begin to move and gets them.

Q. Do you know are they capable of spawning?—A. No, sir; they are immature fish.

Q. Is the water deeper at the east end of the lake than at the west end?—A. Yes, sir.

Q. Have you caught sturgeon in gill-nets?—A. Have never seen them caught in herring and whitefish gill-nets. A 10-inch mesh would only let a very small sturgeon through. Herring and whitefish migrate from end to end of the lake. At Pelee Island the fisheries are different from the main land, they are caught the same there as on the American side during November. They have no summer fishing at Pelee Island.

*By Mr. Harris :*

Q. Have you got pound-nets all around the Island?—A. A few about all around, the other boats have got some.

Q. How close to the shore does the leader commence as a rule, to what depth of water?—A. It is all shallow water, 10 or 12 feet deep. About 7-inch mesh for the leader.

Q. Do black bass lead well into pound-nets?—A. He will go into pound-nets, but will go out again.

Q. Is it not considered a good fish for lifting in pound-nets?—A. No, sir; never saw half a ton lifted, but have heard of it from fishermen.

Q. How long ago since he said that happened?—A. Eight years ago.

Q. What was the most you ever saw lifted off Pelee Island?—A. As high as 200 pounds; that would be from 60 to 70 fish, and is a good lift.

Q. How often do they lift these nets?—A. Once a day.

Q. Do they catch that many a day in pound-nets?—A. No, sir; the average might be two or three; they will not stay in pound-nets.

Q. At what season of the year is the biggest lift?—A. About the early part of September.

Q. What time does the Pelee Club get done fishing?—A. Cannot give the date; it is my impression this year the meet was in September.

Q. At what season of the year is black bass best for market?—A. The further from spawning the better, best in September and October.

Q. Is there pretty good demand for black bass in the United States?—A. Yes, sir; they are considered a good table fish among some people.

Q. Do Canadians like to eat them?—A. Yes, sir.

Q. Do they never get them unless caught in pound-nets?—A. They catch a good many with hook and line, there are very few caught in pound-nets.

Q. Can the public in the interior of the country get fish unless commercial fishermen supply them?—A. No, sir; unless some are caught with hook and line.

Q. Is it not a fact that black bass are sold in quantities in American markets?—A. There have been when caught in great numbers, but they are not caught with hook and line.

Q. Are there any bass on the shore up here?—A. East of Detroit River there are a few splendid places to catch them.

Q. Are close seasons pretty well obeyed?—A. For the last few years they have been.

Q. Do you think it would make the people and fishermen on the shore dissatisfied if exceptional privilege were given to one and withheld from another in that respect?—A. I think they should be allowed to angle at any time.

Q. Why should not pound-nets and every mode of fishing be allowed as well?—A. They catch in a wholesale manner.

Q. Should angling clubs be permitted during close season but nets should not?—A. I think so.

Q. Why do you think black bass spawn about July?—A. Have seen bass with spawn ripe about that season of the year.

Q. Did you ever see bass on spawning beds?—A. No, sir.

Q. If spawn was ripe about July, when do you think close season for bass should end?—A. As far as commercial season is concerned it might be all the year round prohibiting pound-nets from catching bass.

Q. In the interest of black bass and for the preservation of the fisheries, when should it end?—A. I think close season should be from 15th of June to 15th of July.

Q. Do you think it right that if American citizens are forbidden to catch black bass then in their own country, it would be right for us to say they might come here and catch them, is that just?—A. No, sir.

Q. Are there any bass on the American side?—A. Yes, sir.

Q. Any close season?—A. They catch them any time.

Q. Catch as many as at Pelee Island?—A. I think so, in proportion to the people fishing.

Q. Can any one fish anywhere they like on the American side?—A. Yes, sir.

Q. Any kind of mesh they like?—A. Yes, sir.

Q. Is it a good plan to allow this on this side of the lake?—A. No, sir; the plan of the Fishery Department of Canada for meshes and close seasons is good if properly carried out; all that is required to make the system perfect is to give proper close seasons, proper meshes and then the system is good.

JOHN A. BURTON sworn:—

*By Mr. Wilmot:*

Q. Your residence?—A. Kent county.

Q. Occupation?—A. Fisherman.

Q. How long?—A. About five years.

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- Q. Nationality?—A. Canadian.
- Q. What is the nature of your fishery?—A. Pound-nets.
- Q. What kind of fish do you catch?—A. Pickerel, blue and gray, whitefish, herring, sturgeon and coarse fish.
- Q. Any salmon-trout?—A. One this season, 34 pounds dressed.
- Q. What particular waters do you fish in?—A. Twelve miles west of Rondeau.
- Q. Do you use any net beside pound-net?—A. No, sir.
- Q. Do you do any winter fishing?—A. No, sir.
- Q. What is the size of your mesh?—A. Pot, 2-inch; tunnels, 2½-inch; hearts, 5-inch; leaders, 8 to 10.
- Q. Have you taken notice when fish are in good condition?—A. Herring in June and July to the 1st of August, we catch a good number of whitefish in July—they are good then—sturgeon in June and July.
- Q. Where do you market your fish?—A. To Captain Post; they go to Sandusky; a small portion are sold to Canadians.
- Q. What kind of fish are sold to Canadians?—A. Same as to Americans.
- Q. What do you get for your fish?—A. Whitefish, 5 cents a pound; pickerel, 4 cents; herring and blue pickerel, ¾ cent; very few bass.
- Q. When do you meet with the most losses?—A. In November.
- Q. Have you taken notice when whitefish are ready to spawn?—A. About the 1st of November.
- Q. Herring?—A. Later.
- Q. When are sturgeon ready?—A. We get most eggs for caviare in the latter part of July.
- Q. Pickerel?—A. They are done spawning by the 1st of April, because when we catch them in spring we find them going east, not many going west.
- Q. How small fish do you catch in your pot?—A. Herring 6 or 7 inches long; they are not marketable; we put them overboard with a dip-net after the large ones are sorted out.
- Q. Any other small fish?—A. Small white bass, no whitefish.
- Q. What about Sunday close time?—A. It is not practicable.
- Q. Are there any American fishermen fishing within our territory?—A. I do not know.
- Q. Do you think it is right for proper close seasons to be established?—A. I do, in the interest of fishermen.
- Q. What time do you set your net down?—A. From the 10th to the 20th of April, then take it up until 10th of July, and set again the last of August or 1st of September, until 1st of November, when the wind generally takes them up for us.
- Q. Is it profitable to fish in November?—A. No, sir, it is not.
- Q. Is spearing practised in your neighbourhood?—A. No, sir.
- Q. Do you get many sturgeon?—A. Quite a few, about 75 or 80 this year, less than in former years.
- Q. What did you get in former years?—A. As high as 200.
- Q. What is the cause of their being less?—A. More northerly weather; we attribute it to the wind; we get sturgeon when it is rough weather.
- Q. What is the average weight of sturgeon?—A. Average about 100 pounds.
- Q. Do you sell the whole carcass?—A. Yes, sir.
- Q. Who buys them?—A. We sell to Post Fishing Co.; all fish are sold the same way.
- Q. Does the tug come to your nets?—A. Yes, sir, the fish are put on board.
- Q. Is this done with the other nets in your neighbourhood?—A. Yes, sir.
- Q. Do you make a bargain for the whole season?—A. They take what fish we catch during the whole season at marketable prices, only what we dispose of on our own shore.
- Q. Do they not make an agreement that you must give them all your fish?—A. No, sir.
- Q. Do you prefer selling on the Canadian side?—A. If we could sell our quantity.
- Q. Do you get the highest price from Canadians or from Post Co.?—A. From Mr. Post, for we have less trouble with the fish.

Q. Where do the fish on this tug go?—A. To Sandusky, Ohio.

Q. Straight across?—A. I do not know.

Q. Have you any knowledge whether artificial fisheries are any help?—A. Yes, sir, they are beneficial to fishermen.

Q. Do they desire more of them?—A. Yes, sir. Would like to see close seasons properly kept and hatcheries carried out.

*By Mr. Harris :*

Q. Do little fish get in the nets frequently?—A. Yes, sir, we slack away the nets so the rim line will be close to the water; when caught in large quantities we let them all go when there are not many large ones, when there are we sort the big ones out and upset the net into the lake.

Q. Did you hear that 4-inch mesh was ordered to be the regular mesh last spring?—A. Yes, sir.

Q. If ordered to fish with them, what then?—A. I would not put in the net at all.

Q. What do you call your fishery?—A. Herring fishery.

Q. Many blue pickerel?—A. Quite a few, too many, they are very destructive fish, prey upon young whitefish and young herring.

Q. Many sturgeon under 3½ feet?—A. Quite a few, liberate all under 3 feet, it would be a benefit to put in all under 3½ feet, we could sell them but not so high and they are troublesome to handle.

Q. How would you like 3-inch extension mesh?—A. It would be no good.

Q. Why so?—A. They would gill in it.

Q. What do you do with gilled fish?—A. They are no good; we bury all we find dead in our pounds.

Q. How often do you go to your pounds?—A. Every day.

Q. Would fish be all bad that were gilled?—A. If we went every day they would not be bad, but in case of a storm they are bad.

Q. In your fishery is the least destructive pot one with mesh that will not gill fish?—A. Yes, sir.

Q. Are herring as plentiful as three or four years ago?—A. More so.

Q. Have you the same description of fishing you had before?—A. Yes, sir, more fish and less nets.

Mr. JOSEPH MALOCHE sworn:—

*By Mr. Wilnot :*

Q. Your occupation?—A. Carpenter; have been a fisherman about twenty-five years; gave it up five years ago.

Q. Your residence?—A. Sandwich, West.

Q. Nationality?—A. Canadian.

Q. What sort of fishery did you carry on?—A. Whitefish, herring, pickerel, &c.

Q. Did you carry on a whitefish fishery?—A. Yes, sir, by seining in Detroit River, St. Clair River, and Lake St. Clair; pound nets in Lake St. Clair. In fall we caught whitefish principally, and herring, pickerel and soft fish in spring.

Q. Were your nets same as previous witness?—A. Yes, sir.

Q. Where did you sell your fish?—A. Same as former witness.

Q. When do whitefish spawn?—A. In November.

Q. Herring?—A. About the same.

Q. Pickerel?—A. Some in March, mostly in April.

Q. Anything about bass?—A. Have caught them; think they spawn in June.

Q. Sturgeon?—A. In July.

Q. What was the mesh of your seine?—A. 1½ inch, 1¾-inch, 2-inch, for whitefish, 3½-inch extension; herring, 2-inch extension.

Q. Would whitefish gill in 3-inch mesh?—A. They will.

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Q. Will whitefish gill in  $2\frac{1}{2}$ -inch mesh?—A. Seldom, but the smaller sized ones will.

Q. Do you think it advisable to have properly selected close seasons?—A. They are no good if the fish are kept in proper pens so they can spawn, they lie still there and nothing disturbs them.

Q. Are these pens made with planks to walk all around them?—A. Yes, sir, generally.

Q. For what purpose?—A. To make it handy for people to walk around and see how the fish are getting on.

Q. When these ponds were in use, a good many people walked around?—A. They did, when we would allow them.

Q. Fish could be disturbed then?—A. Yes, when fish were thick they could be, and were disturbed.

Q. Would they be as quiet there as in the open river?—A. I think so, the fish were more quiet in the pen than in the river.

Q. Was the place where the horses and men were working alongside of the pen?—A. Where the fish were caught and seines drawn was part of the pen. This made no disturbance to the fish at all.

Q. What did the fish come up Detroit River for?—A. To spawn.

Q. Were they principally caught in October and November?—A. Yes, sir.

Q. How soon in October?—A. Commence about the 10th of October.

Q. Would this apply to herring, too?—A. Herring commenced in September, and spawned about the same as whitefish.

Q. Is it a fact that some ponds would have 20,000, 30,000, and 40,000 whitefish in?—A. We had 80,000 and 90,000 at one time in a single pen.

Q. Were there any other pens would have as many as that?—A. I do not know of any, there were in other pens at the same time 30,000 and 40,000.

Q. This would be, when?—A. In November, which was their spawning time.

Q. What was done with these fish?—A. They were kept until January, February, some until March, and sold in New York markets mostly.

Q. Did you sell them yourselves?—A. Yes, sir, I went there.

Q. What would they bring about that time?—A. From \$25 to \$32 a hundred.

Q. Did some die in the pens?—A. A few of the biggest fish died in the pens. Male fish are generally the largest; they are the ones that died; very few females died.

Q. You think the loss to the river, if all males died, would not be great?—A. No, sir, females are of most value to the river.

Q. If you had 1,000 females in a pen how many males would they require?—A. Quite a few, the great proportion of them would be males, and die. In the last run they are all smaller fish, and are pretty much all males.

Q. What quantity would you lose out of 90,000 in pens?—A. If early, the loss would be heavy, about 10 per cent would be lost.

Q. If you had no pens would it be advisable to have close seasons to allow the fish to spawn?—A. Yes, sir.

Q. Do you think pens injurious to the river?—A. No, sir.

By request of Mr. Cleary the following questions were put:—

Q. Do you know that young fish all lived that were spawned in those pens?—A. Most of the eggs spawned in pens produced young fish, and they lived; have seen millions of them in that way.

Q. How did you know they were young whitefish?—A. Was so well acquainted with the fish.

Q. How many fins has a young whitefish?—A. Never took the trouble to count, but can tell them on sight.

Q. Are fish affected by noise overhead?—A. Fish cannot hear, but they can see. If people were walking around these pens they could not hear, but the vibration would frighten the fish; it would make no difference about 100 feet distance from the pen, but nearer it would annoy them.

Q. Do the larger proportion of fish die in October than in November?—A. Yes, sir, the water is colder in November.



Q. Does the temperature of the water affect full-grown fish?—A. I believe it does.

Q. Do you know anything about fish hatching?—A. Yes, sir, a little, nothing practical.

Q. Have you been inside the hatchery?—A. Yes, sir, did not know anything about it, saw young fish there, saw them put out, and they looked pretty lively.

Q. Do you know whether they lived or not?—A. That is hard to tell.

*By Mr. Harris :*

Q. When did you first see fish begin to fail in Detroit River?—A. Fifteen years ago.

Q. How do you account for the failure of the fishery?—A. A good deal to pound-nets.

Q. Did you ever fish with pound-nets?—A. Yes, sir, in Lake St. Clair.

Q. Does that affect the fishery on Detroit River?—A. It has nothing to do with it. Never fished with pound-nets in Lake Erie; have been down to Kingsville, on Lake Erie, twelve or fourteen years ago.

Q. Were there any pound-nets there then?—A. Yes, sir.

Q. How many did you see?—A. Never kept track.

Q. How many do you think?—A. Could not say.

Q. Have you any idea of the number of pound-nets on Lake Erie at that time?—A. Could not tell.

Q. Have you any idea of the size of Lake Erie; how long?—A. Could not tell, no idea, saw as far as Kingsville.

Q. Can you read and write?—A. Yes, sir.

Q. How long have you lived here?—A. Was raised here.

Q. How far west have you been in the United States?—A. Many places—Michigan, Ohio, on the shore of Ohio; have seen pound-nets there twelve years ago.

Q. Do you think if pound-nets were taken out of Lake Erie now, fishing would be all right again in the river?—A. Yes, sir.

Q. How many pound-nets in Lake Erie?—A. Do not know anything about it.

Q. What kind of fishing would you recommend there?—A. Seine fishing is the only kind that would pay.

Q. Would you draw them in October and November?—A. Sometimes in September for herring. Fishing would pay better now than ever before, we would sell the bulk of them in the United States.

Q. Do they want any quantity of our fish there?—A. Yes, sir.

Q. Would you have close season for these seines?—A. Close season is all right I think. November is the right time for herring and whitefish.

Q. Could you catch whitefish coming up Detroit River in November?—A. Catch them and spawn them in pens and sell them when spawned out. We would have fish sure then and spawn for the public.

Q. Is it pretty clear that all fish run up to spawn?—A. Yes, sir.

Q. Is this supposed to be the easiest place to catch them?—A. Yes, sir, the easiest way in the rough season.

Q. What about the hatchery?—A. I do not think much of that; very little help; but I think a pen is the better way of breeding them in Canada or the United States, they breed naturally in pens.

Mr. JOSEPH ALLEN sworn:—

*By Mr. Wilmot :*

Q. Your residence?—A. Sandwich.

Q. Your occupation?—A. Fisherman, still fishing.

Q. How long a fisherman?—A. For the last 20 years.

## Ontario Fishery Commission.

Q. Nationality?—A. Canadian.

Q. Where are you fishing?—A. Lake Huron.

Q. What kind of fishery did you run here?—A. Seine fishing in Detroit River, for whitefish and herring, and a few sturgeon, probably from 50 to 75 in a fall.

Q. What kind of fishery are you engaged in?—A. Whitefish fishery on Detroit River and Lake St. Clair; run seines on River St. Clair.

Q. What is the size of mesh?—A. For herring, 2-inch extension, whitefish, 4-inch extension.

Q. Will 3-inch mesh gill any whitefish?—A. It will if gill-net twine, it will not if seine twine, some odd fish will gill.

Q. When are whitefish in best condition for market?—A. They are always in good condition if you can catch them, but not quite so good after spawning.

Q. When do they spawn?—A. About the 10th of November—some before, the greater part after.

Q. When do herring spawn?—A. Latter part of November.

Q. Have you ever seen them spawning in the beginning of November?—A. Never.

Q. When do sturgeon spawn?—A. The year round, sir—eggs are flowing from them the year round, more particularly in June.

Q. Do you make caviare?—A. Yes, sir; eggs are a little more loose in June.

Q. Do you know anything about bass?—A. Nothing.

Q. Do you know anything about Americans fishing in our waters at all?—A. I do not know.

Q. Do you believe it advisable to have well selected close seasons for preserving the fish?—A. I do not think so at all. I think if all nets, in the first place, had right sized mesh, 4-inch extension, and not destroying small fish, the fish would be preserved. I think fishermen would be better satisfied to fish 4-inch mesh, and fish when others do.

Q. All big fish would be caught?—A. Yes, sir, have seen a great many small fish caught, some were used and some were not. These were caught in meshes 3-inch extension.

Q. What about pound-nets using 1-inch bar?—A. I do not think it right that any net should be allowed under 4-inch extension if it is desirable to preserve the fishery. This should apply alike to pound, seine and gill-nets.

Q. Do you think it wise to have fishing general in the month of November, if that is the spawning time for whitefish?—A. Whitefish should be caught at all times if limited to 4-inch extension. We are helping to supply fish for the same waters as Americans, and why not have the benefit of it as well as Americans.

Q. At what time are most herring caught in Detroit River?—A. In November, which is their spawning season.

Q. Do you know anything about the herring fisheries in Detroit River so far as to quantity caught ten years ago?—A. Herring were caught in good numbers seven years ago; as many as 400,000 and 500,000 were caught on the west side of Fighting Island on five stations. For 1888 and 1889 we did not catch much more than enough to pay expenses.

Q. Were they ripe for spawning when you caught them?—A. Do not think so; they were caught principally in September and the beginning of October.

Q. What were they there so numerously for?—A. Do not know; they were filled with spawn.

Q. Do you not think catching such vast numbers would affect the crop of young fish afterwards?—A. It might, it might not. It does not improve it, this quantity being taken could not improve the fishery.

Q. If they were allowed to spawn do you think it would improve the fishery then?—A. I think it would. The same would apply to whitefish.

Q. When are these nets generally set for fishing?—A. In fall, put out about the 1st of September for herring, for whitefish about the 15th or 25th of October, and fishing was carried on through October and November until 1889. Permits, however, were granted to catch whitefish during the month of November, with the view of supplying the hatchery with eggs.

Q. Is the artificial breeding beneficial?—A. Not to the river; it may be to the lake.

Q. Is it advisable to increase the number of hatcheries?—A. I am not fishing in the lake, and derive no benefit from them in the rivers, so do not think it advisable to put in more. If the month of November was close season, the hatcheries are not required; if no close season, might keep the hatchery going; do not know it does any good; it does none in the river.

Q. Do whitefish spawn in Lake Huron?—A. Yes, sir; around the islands. Do not know whether they spawn in Lake Erie or not, but think they do.

Q. Is there any loss to fishermen on account of eggs being obtained for the hatchery?—A. Yes, sir; we lost time in the way they handle the fish. They lost \$1,000. I was Mr. Gauthier's foreman in 1889, and we got notice to stop fishing in close season for two days; then we got a permit to fish again, if we would supply the hatchery with eggs free. We lost money by this transaction. We were not compelled to go on fishing under this arrangement, but we went on and lost by it. We had agreed with other parties to furnish eggs for the hatchery in the United States; but, by accepting the department's offer, we could not furnish these eggs during close season to the Americans, and so lost \$400 that we expected to get for catching fish and supplying eggs to Americans during close season in Canada. I am interested in getting a portion of this \$400. We caught about 9,000 whitefish under that permit. We sold about 3,000 or 4,000 at half price, that is,  $4\frac{1}{2}$  cents per pound; the others we sold at 9 cents.

Q. How long did you fish?—A. We fished until the end of the season.

Q. Were any other persons fishing in the river at that time?—A. We were the only parties allowed to fish during close season.

*By Mr. Harris:*

Q. Is 4-inch mesh recommended for Detroit River only?—A. All the lakes, too.

Q. Have you ever fished anywhere but Detroit River, Lake St. Clair and Lake Huron?—A. Never on Lake Erie.

Q. Are you certain it would be suitable to Lake Erie?—A. To the fish certainly, because small fish work through. Cannot catch herring with 4-inch mesh. They are the most staple fish, but if 4-inch mesh, it would be for whitefish.

Q. Would 4-inch mesh catch herring in Lake Erie?—A. No, sir.

Q. Would it catch blue pickerel?—A. It would gill some, probably 2 or  $2\frac{1}{2}$  pounds.

Q. Have you caught many blue pickerel?—A. Yes, on River St. Clair.

Q. What weight usually?—A. About  $2\frac{1}{2}$  pounds, largest size.

Q. How big pike do you get there?—A. Five pounds.

Q. Are they pretty numerous in Lake Erie?—A. Do not know.

Q. How big whitefish would you get?—A. One pound would get out;  $1\frac{1}{2}$  pound would gill in 4-inch mesh pound nets.

Q. Would all gilled fish be destroyed?—A. No, sir. Have fished with pound-nets in Lake Huron; it is a trout and whitefish lake.

Q. Did you use 4-inch mesh?—A. No, sir.

Q. Have you ever seen one?—A. No, sir; but it is 5-inch mesh we are using in Lake Huron; all the herring go through. It is used for whitefish, trout and yellow pickerel.

Q. Is it set for pickerel or trout or whitefish?—A. We have grounds we set only for pickerel and sturgeon on the north shore of Lake Huron.

Q. Is 5-inch mesh the regulation for sturgeon?—A. Yes, sir; we observe the law.

Q. Is 4-inch mesh right for Detroit River?—A. Yes, sir, and Lake Erie as well, only seines in Detroit River. Have not fished in Detroit River since 1889.

Q. How long back did you fish?—A. About 20 years ago.

Q. When did you first notice Detroit River fishing giving out?—A. About 13 years ago.

Q. How do you account for the fishery becoming poor?—A. They have been catching fish lots of them on both sides. I hear there are two or three times as many pound-nets on the American side as on the Canadian side.

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Q. Does that account for the loss by catching fish on both sides of Lake Erie?  
—A. Yes, sir.

Q. To make Detroit River fishing good again would you stop fishing on Lake Erie?  
—A. I would not stop all fishing there.

Q. How do you account for the loss of fish?  
—A. I blame pound-nets to a certain extent, because allowed to fish too small a mesh net.

Q. Would a pound-net begin to destroy a fishery in one year?  
—A. It would take a few years to do so.

Q. How many pound-nets on the Canadian side of Lake Erie 13 years ago?  
A. I do not know anything about that.

Q. Do you know how many there are now?  
—A. I heard to-day about 200 on the north shore.

Q. Do whitefish run into Detroit River to spawn?  
—A. Yes, sir.

Q. And the time to catch them was when they were spawning?  
—A. Yes, sir.

Q. How close were nets together on Detroit River 13 years ago?  
—A. Pretty close, some places there was room for more, some places there was not.

Q. What was the average number of nets per mile?  
—A. At one portion about seven nets in one mile, that was about the thickest, all are not so thick on the opposite shore, probably there would be two in one mile more on the Canadian shore; same sized nets, same build on both sides.

Q. Did it ever occur to you that fish in Lake Erie feed on each other?  
—A. Yes, sir; whitefish and herring do not; pike and blue pickerel feed on other fish.

Q. When you catch the finer class of fish such as whitefish and herring, and leave those behind that feed upon them, does not that account for their disappearance?  
—A. I do not think that makes much difference, man makes more difference than fish in reducing the quantities of the better kinds.

*By Mr. Wilmot:*

Q. You say you caught about 9,000 fish after starting on the permit in about 14 days with six seines; were the fish from all these seines used for getting eggs for the hatchery?  
—A. Yes, sir.

Q. How many men were engaged with the seines?  
—A. About 50 men at the rate of 80 cents a day. We caught and supplied the eggs and lost \$400.

Mr. CHARLES GAUTHIER sworn:—

Mr. WILMOT.—Mr. Gauthier requests to be allowed to read a paper and then be examined and re-examined upon it.

Mr. HARRIS.—I will not admit that, for we have to go all over again and we may have to submit to it over and over. Examine no witness except as all others have been.

Mr. WILMOT.—Suppose we take the written document and then go on and examine him.

Mr. HARRIS.—He can do anything he likes with it, he can mail it to us or to the press.

Mr. Solicitor CLEARY, (was permitted to offer a question for Mr. Gauthier.)—We offer it to you now, it does not bar you from asking the questions you have.

Mr. HARRIS.—I do not want any help; my duties are told me in the case in which I have got.

Mr. CLEARY.—Mr. Gauthier has a letter from the Deputy of this Commission which might be valuable.

Mr. WILMOT.—It would be better sent to Mr. Smith, the Deputy Minister.

Mr. CLEARY.—You could examine the statements and cross-examine and ask your own questions; we thought it would save time.

Mr. WILMOT.—We can take the paper as a letter, but cannot take it as evidence. Mr. HARRIS will put an elastic around it.

Mr. CLEARY.—You can read it at your leisure.

Mr. WILMOT.—Suppose he reads the paper; it will not be taken down as evidence.

Mr. HARRIS.—I have very strong objections to the paper being read; we are not appointed to hear any evidence only on certain points, proper size of mesh and proper close season—those subjects more particularly.

Mr. CLEARY.—You are to take such information as will be good for the Commission.

Mr. HARRIS.—We are quite competent to examine Mr. Gauthier without any prompting or any help whatever.

Mr. CLEARY.—May not a man prepare a paper whose memory might be defective?

Mr. WILMOT.—We will take the document if he gives or mails it to us, but we cannot take it as evidence; we examine him as we have all other men, we will take this in, but we cannot take it as evidence.

Mr. CLEARY.—You can cross-examine him.

Mr. WILMOT (looking over the paper).—Some of these things are impossible to swear to.

Mr. CLEARY.—He will stand the results.

Mr. WILMOT.—We do not want to be placed in the unpleasant position of proving any wrong act against him. Do you give us this for our information.

Mr. GAUTHIER.—I send it in for you to keep and take down and then want the paper back.

Mr. HARRIS.—Go on with the examination with Mr. Gauthier the same as with all other witnesses.

*By Mr. Wilmot:*

Q. Your residence?—A. Windsor, Ont.

Q. Occupation?—A. Fisherman.

Q. Are you actually engaged as a fisherman now?—A. Yes, sir.

Q. Nationality?—A. Canadian.

Q. What kind of fishery do you carry on?—A. Have been engaged in catching whitefish, trout, sturgeon, pickerel, herring, perch and other lake and river fishes.

Q. When?—A. For a large number of years; commenced on the Detroit River; fished about 25 years ago, up to 1889 without any trouble as to close seasons, on Lakes Erie, St. Clair, and Huron part of the above number of years. Also fished in Lake Winnipeg, also did fish business in New Brunswick, British Columbia, having probably taken as many hard fish as any other fisherman or fish dealer in Ontario, and at times have employed from 250 to 300 men in fishing and work connected with fisheries. During this time I studied the fishing industry, habits of fish and spawning season.

Q. What description of nets did you use?—A. Seines, pound-nets, gill-nets. Have fished fike-nets.

Q. What size mesh did you use in these nets?—A. Various sizes.

Q. In pound-nets?—A. Later years in Lake Huron, three sides of the net, 4-inch mesh, back 3½, but that will allow herring all to escape in Lake Erie. When I fished we used meshes of 2 to 2½ inches, hearts and tunnels, 4½ to 5 inches, leaders, 6 to 7 inches.

Q. In gill-nets?—A. I principally used for trout fishing 5 to 5½ inches, for whitefish fishing, gill-nets 4¾ to 5 inches.

Q. What about seines?—A. For perch and herring in Detroit River, mesh about 2-inch extension, and for whitefish, 3½ to 4 inches.

Q. For sturgeon?—A. Have caught sturgeon in pound-nets and seines; set a few gill-nets for sturgeon, with mesh 10 and 11-inch: these were only for experiment.

Q. Do small fish pass through pound-nets?—A. A 4-inch mesh in pot of pound-net will allow a 2-pound fish to escape which is a marketable fish. This was used in Lake Huron for catching whitefish, salmon-trout and such other fish as come into the nets.

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Q. In Lake Erie your nets were 2-inch extension, how small fish will pass through 2-inch mesh?—A. Fish from  $\frac{1}{4}$  to  $\frac{1}{2}$  pound will pass through mesh 2 to 2 $\frac{1}{2}$ -inch extension measure.

Q. What fish do you mean when you say that?—A. These will be pike, perch, small herring, small whitefish and small pickerel.

Q. In your observations of twenty-five years in what months are these marketable fish in best condition?—A. Salmon-trout, from early spring to the 15th of October.

Q. When during that time are they in best condition?—A. In the spring.

Q. When are whitefish best?—A. In best condition from spring to November 10th, on Lake Huron; in Lake Erie would be till November 1st; after this period in both cases fish are preparing to spawn or migrating to their spawning grounds.

Q. When are herring in best condition?—A. Same as salmon-trout and whitefish.

Q. With regard to coarse fish, sturgeon?—A. Not much difference with sturgeon, I believe they spawn the whole year round. They are in good condition except from the 15th of June to the 1st of July, at which time the majority of these fish spawn.

Q. Pickerel or doré?—A. Better after the 1st of May, and remain so until the 1st of April following.

Q. Do you catch maskinongé or pike?—A. A few, they are in best condition after the 1st of May until the end of the season.

Q. Do you do anything with the mudcats?—A. No, sir.

Q. When are bass in best condition?—A. From 15th of June to the end of the season. I am not fully acquainted with these fish. Bass should not be allowed to be taken with nets, but should be allowed to be taken the year round with rod and line. I have not taken during all my fishing exceeding one ton of bass. I did buy at one time about two tons of bass caught in Mitchell's Bay, in May or June, some years ago. I purchased other large quantities at other times by my agents at Mitchell's Bay, as early as April.

Q. Do you know anything about bass fishing at Pelee Island?—A. I am not acquainted with it, but it is said bass enter pound-nets and go out again.

Q. When are perch in best condition?—A. Perch and sauger pickerel or sand pike are in best condition after the 15th of April.

Q. Where did you generally market your fish?—A. In the United States; a few in Canada.

Q. Could you give us the average price of whitefish?—A. The average wholesale price for whitefish and trout would be about 6 cents per pound at Detroit during summer and fall.

Q. What are herring?—A. During summer and fall about 2 cents, and in the winter 3 cents at the same market.

Q. How do prices bear in Canada with regard to prices in the United States?—A. Generally speaking, we had to sell our fish for less in Canada than in the United States, and it is hard to make sales in Canada.

Q. Give the price of sturgeon?—A. During summer and fall now about 6 cents a pound for dressed sturgeon.

Q. What is the ordinary weight of your sturgeon?—A. From 16 to 20 pounds when dressed, that is, Lake Huron sturgeon; Lake Erie fish are larger.

Q. What would be the whole weight of that sturgeon?—A. The ordinary length of sturgeon in Lake Huron would be about 5 feet, and would weigh from 30 to 50 pounds.

Q. Have you been engaged in the collection of eggs for caviare?—A. Yes, sir.

Q. How much would you get from a forty-pound sturgeon?—A. Forty-pound sturgeon will give from 6 to 12 pounds of caviare, but it is only one out of 10 or 15 sturgeon that will give eggs except from 15th of June to the 1st of July.

Q. When do you believe that salmon-trout are principally engaged in spawning?—A. There are several kinds of trout; the kind known as salmon-trout, from the 27th of October to 15th of November.

Q. When do whitefish spawn?—A. In Lake Huron they spawn about 18th November to 20th December. In Lake Erie and Detroit River, 15th of November to the 25th of November on the average, but very few spawn before and after. Some seasons they vary a little, according to circumstances.

Q. Herring, when?—A. They spawn in Detroit River about the same time as whitefish; in Lake Huron a little later.

Q. Pickerel, when?—A. From 15th of April to May 1st, depending upon locality.

Q. What about maskinongé and pike?—A. Spawn in the spring.

Q. Bass?—A. Spawn in spring; would say May and June.

Q. When is it most dangerous or difficult to carry on your fishery?—A. Late in fall, in the latter part of November and December.

Q. Have you lost more nets from storms during November and December than at other times?—A. Fishermen lose more nets from storms from the 20th of November and during December, but not so much during October.

Q. Have you any knowledge of large quantities of immature fish being caught and thrown away as unmarketable?—A. Immature fish have not been caught and thrown away by me. I lifted pound-nets with 3½ and 4-inch mesh with thousands of young herring in, but nearly all of them went through the net. If you have the mesh of pound-nets too large, a great many herring will get gilled in it, whereas if the mesh were 2-inch, it will catch young fish. The fishermen might turn the young fish out, if they chose; some would be gilled in the act of putting them out.

Q. Have you any knowledge of large quantities of small fish being caught and thrown away?—A. Never.

Q. Did you never write that to the department, that large quantities were thrown away?—A. No; I have seen small whitefish caught at Erie in small mesh gill-nets; was informed they were caught in gill-nets; saw 400 or 500 pounds. This was during one time I was there. These small whitefish are principally caught east of Port Dover.

Q. Do you know of any other kind of fish besides small whitefish being caught and thrown away?—A. I do not know of any except suckers and mullets.

Q. What about the Sunday close time?—A. It is utter folly and foolishness, no lake fisherman can keep it, any evil-disposed person can come along and unjustly put him in trouble.

Q. Do you know anything about Americans fishing in our waters?—A. I do not know about that only by report that fishermen from Detour crossed over into North Channel, Georgian Bay, and fished there during close season. Do not know this to have been done in Lake Erie.

Q. Do you think it wise to protect fish by close seasons?—A. One general long close season should be established, the time to be from November 20th to April 20th, outside of that no black bass to be caught in nets of any description.

Mr. Gauthier wishes to make a statement giving his reasons; Mr. Harris says, "Take it down"; Mr. Wilmot does not agree but gives way.

My reasons are, the fish killed in the month of December, January, February, or March, would be dead fish; the spawn of that fish would be lost in the lake, just the same as if it had been killed the day before it spawned, because fish live many years.

Next, it would be a great benefit to fishermen; they would have no great variety of close seasons interfering one with the other, so that at nearly all times of the fishing season the men are liable to be complained of for violation of close season, and nets confiscated and other penalties.

Another good reason is, the fish would be more valuable on the average price, because the fish dealer would preserve the surplus fish to be sold during the winter months, by distributing the total catch of all fisheries, in that way the average value of the fish would be increased. Commencing on the 20th of November, the spawning time of whitefish in Lake Huron, and Georgian Bay, and Lake Superior, would be covered about as well as at the present time. The spawning time for whitefish in Lake Erie commences about the 18th or 20th of November; in Detroit River they commence to spawn a little earlier, but the month of November is the only time that whitefish can be caught in Detroit River, in sufficient quantities to pay for

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fishing them, and has been so for a number of years. For thirteen years from the year 1876 to 1889, the close season for whitefish in Detroit River was suspended, and several ministers, I think Mr. Pope, Mr. McLellan and Mr. Foster, would not enforce that close season in Detroit River, because it was unreasonable. Whitefish in Detroit River cannot be caught here in sufficient quantities to pay expenses before about October 25th, leaving only five or six days, which would not pay any fisherman to purchase his fishing outfit and go to the expense of getting ready.

Salmon-trout, and other trout in Lake Superior, Huron and Georgian Bay, are a fish that can never be caught out with nets so as to deplete the lakes altogether. Whenever the fish have been caught out in any quantity in one locality the fishermen move from one station to another to fish. Lake Huron is at places over eighty miles wide, there are shoals in the middle of the lake extending many miles, and are scarcely as yet fished on. Take Sandbeach and Oscoda, on the American side, the American fishermen this year made splendid fishing for salmon-trout, and salmon-trout are a fish that are mostly caught with gill-nets. Gill-nets when set in the lake are not over from six to ten feet, on the average; the salmon-trout at certain seasons of the summer swim high in the water, and come to the surface of the lake when the fishermen cannot catch them, except a few; they come to the surface of the lake for herring, grasshoppers and other insects that float in the water. Gill-nets are set in the winter months, fishing for whitefish in Lakes Superior, Huron and Georgian Bay; these nets at times are not lifted for many days, the fish are caught, and when the nets are raised the cold weather of the winter freezes the fish solid. They are generally there on the ice where there is snow, and a great portion of these are not fit for the market, but cannot be detected until thawed out. They greatly injure the market price of good fish caught in summer months and preserved for winter sale. At Port Arthur, on Lake Superior, whitefish caught at that point will not command over one-half the price of the whitefish of Lake Erie, when they are sold in the markets in the winter months. It injures all of our fishermen and fish dealers, as they sell these fish at low prices to get rid of them. Salmon-trout when caught in these gill-nets, in the winter months, and lifted out of the water, soon become hard, the fisherman may be miles from his fishing shanty, and before he can dress them they are so hard he cannot do it, the result being that the gill of the fish, and the large quantity of small fish which it contains at times soon rots the fish inside, and that also injures the sale of fish caught during the summer and fall months. I have known both of these, from my own experience in handling fish. I consider the winter fishing destructive and wasteful, and not profitable; the only way whitefish can be caught during winter, is gill-nets under the ice. I believe that winter fishing is carried on in some localities for black bass, mullets and pickerel, notably too in the River Thames; I think in Mitchell's Bay, for black bass towards spring, and many other places. Black bass in winter months is dormant, and should not be caught in nets at any time of the year, in my opinion.

In Lake Superior trout are very plentiful, and not many fishermen on that lake so far; if trout became a little less in Lake Huron, the fishermen would obtain a higher price for them, while the close season for trout would commence on the 20th November, it is now commencing on the 1st of November, a difference of twenty days. As the trout spawn from the 1st to the 15th or 16th of November, the average benefits of close season in the case of the whitefish and increased price of fish would far more than counterbalance the few days' difference in trout fishing, while I do not think trout can be exterminated by nets out of Lakes Huron and Superior.

*By Mr. Wilnot :*

Q. What time do you set your nets in spring?—A. In Detroit River we commenced for whitefish formerly 10th of October, but lately the 25th or 27th of October, but very few fish are caught in Detroit River before the 1st of November. Comparatively there were none to be caught before the 10th of October.

Q. What did the whitefish come up the Detroit River for?—A. To spawn.

Q. Were they not taken at any other time?—A. No, sir.

Q. When would the whitefish fishing cease?—A. The end of November—the bulk of it was in the middle of November.



Q. Would that be the principal spawning time, then?—A. From the 15th to the 20th of November, spawning would be pretty much over by the 20th of November.

Q. If fishing was carried on principally during the month of November, it would be principally during spawning time, would it not?—A. Certainly.

*By Mr. Harris :*

Q. When did you first hear of this Commission being appointed by the Government?—A. Noticed it in the paper.

Q. How long ago?—A. In fact Mr. Wilmot's son told me about it a month ago.

Q. Was there any concentrated action of fishermen in this locality?—A. No, sir. I tried to induce a few of the old fishermen to come and give their evidence, but I am sure there are about fifty or more who would have liked to have given their evidence agreeing with the evidence given yesterday.

Q. When does the run of whitefish and herring first appear in the river?—A. The first run formerly came on the 15th or 20th of October; the second run about the 1st of November.

Q. Any whitefish caught in Lake St. Clair?—A. Not very many.

Q. What year did you fish in it?—A. Several years with pound-nets.

Q. Are you fishing with pound-nets there now?—A. Not to-day.

Q. How far back does your knowledge of Lake St. Clair whitefish go?—A. Ten or fifteen years.

Q. Has there been an increase or decrease of whitefish?—A. I think a decrease.

Q. Have you any figures?—The largest catch out of two or three pound-nets would be about 400 or 500 fish.

Q. Have blue pickerel always been part of the catch?—A. No. I caught some down in Lake Erie first; they do not run up this river; that was about five years ago; do not think there are any, only stray ones in Lake St. Clair.

Q. Do you think the destruction of fish in pound-nets is greatly exaggerated?—A. I do.

Q. By a general law for close seasons did you mean statutory law or Order in Council?—A. The same as it is now, fishery regulations for the province of Ontario.

Q. You say no black bass should be caught in nets?—A. No, sir.

Q. Do you regard black bass as a good table fish?—A. I do.

Q. One in demand by the public?—A. Certainly.

Q. For which they pay good prices?—A. Yes, sir.

Q. In commercial fishing is it necessary to distribute the various fish caught inland to make it remunerative?—A. It is.

Q. If black bass are not caught in nets, how are the general public in the interior of Canada to get them?—A. If the public were permitted to catch them with rod and line at any time, they would have a proper chance to catch them.

Q. Do you want the whole community to turn fishermen and catch black bass?—A. Some who caught with rod and line might sell some. If not caught with rod and line they would become more numerous.

Q. Do black bass pound easily?—A. No, sir.

Q. Do they usually get out?—A. Yes, sir.

Q. Under any circumstances then not many are caught in nets?—A. Principally in seines.

Q. Do you consider seine fishing a destructive mode of fishing?—A. Not more than other kinds of nets, generally speaking.

Q. Where would you consider them most destructive?—A. If drawn in small ponds, or bays or small rivers.

Q. What fish would they catch there?—A. It depends upon locality.

Q. Herring or whitefish?—A. No, sir.

Q. The places where seines would not be destructive would be in rivers and places where herring and whitefish spawn?—A. In large rivers they would be destructive, but the fish would have a good chance to escape. In large rivers you get a certain percentage: you get a haul; it takes some time to make another haul.

Q. You have had considerable experience fishing in Lake Huron?—A. Yes, sir.

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Q. What system is the least injurious in that lake, what tends to exhaust the fish the least?—A. Pound-nets would not catch many salmon-trout, pound-net fishing is the best mode to catch the fish in Lake Huron—they would catch whitefish, herring and salmon-trout.

Q. What do you regard as the most destructive mode?—A. Gill-nets.

Q. Are there any blue pickerel in Lake Huron?—A. Never noticed any.

Q. Are they in great abundance in Lake Erie?—A. I think so.

Q. Are they very destructive to small fish in the lake?—A. I have no doubt that they are.

Q. Do they go about in shoals?—A. I think they do, different from the hard pike.

Q. If they go about in shoals naturally they frequent deep water?—A. Yes, sir.

Q. Hard pike hugs the shore?—A. He runs in marshes.

Meeting adjourned *sine die*.

### No. 5.—SARNIA.

Evidence of MARQUIS A. HITCHCOCK, of Sarnia, taken before Fishery Commissioners Wilmot and Harris at Ottawa, 1st March, 1893.

*By Mr. Wilmot :*

Q. What is your occupation?—A. Fisherman for 35 years, and a Canadian by birth.

Q. What description of fish have you principally caught during that time?—A. Herring, pickerel and sturgeon.

Q. What description of net have you used?—A. Seines altogether. The seine mesh would be  $1\frac{1}{2}$  inch bar measure, and the wings would be from  $1\frac{1}{2}$  to 2 inches.

Q. Have you ever fished with pound-nets, fike-nets or gill-nets?—A. No.

Q. What locality have you principally fished in?—A. Right in the mouth of the River St. Clair; we did not go into the lake. The river is about 300 yards wide, and we fish about one-third of that distance out.

Q. What description of twine do you use as to size?—A. We use Nos. 9 and 12 thread principally all the time.

Q. How much would a net of  $1\frac{1}{2}$  inch bar measure shrink when put in the water and used?—A. Our nets do not shrink; they are cotton, and we do not tar them; we put them through hemlock tan. When made of cotton twine the net is inclined to extend rather than contract. With linen twine or thread I could not tell, I never used it.

Q. Are there many seines fishing in your neighbourhood?—A. There are about four or five above me; and below, down the St. Clair, for a distance of 20 or 30 miles, there are probably a dozen or fifteen more.

Q. Are the seines used of the same description as yours?—A. Those used in the river are pretty much the same; those used in the lake are larger in the mesh, the wings are larger. They go up as high as  $2\frac{1}{2}$  to 3-inch mesh for the wings.

Q. What season of the year do you fish principally?—A. Spring and fall.

Q. When you say spring, what do you mean?—A. From the middle of May till the middle of July.

Q. What kind of fish do you catch during that time?—A. Pickerel and sturgeon.

Q. When do you commence fishing again after the middle of July?—A. About the middle of September and we hang on till it freezes up.

Q. What kind of fish do you catch in the fall?—A. Principally all herring.

Q. Do you catch any whitefish at all?—A. No. In former years we caught a few.

Q. Is it the exception now to catch whitefish in your nets?—A. Yes. We caught only three last fall.

Q. What sort of fish do they catch on the American side, which you say is about 300 yards across?—A. The same as we do, and their nets are about the same size.

Q. Do you say you commenced fishing in the fall in the middle of September, and fish on until frozen up?—A. Yes, until about the 1st December.

Q. Then did you fish right through the month of November?—A. We quit last season, it was the first time we had a close season.

Q. Then previous to 1892, did you fish until the winter set in?—A. Yes; no close season was observed by anybody with the nets above or below.

Q. Do you ever catch any salmon-trout there?—A. An odd one.

Q. How is it you only catch pickerel from the middle of May till the middle of July? Are pickerel not on these grounds at any other time of the year?—A. No.

Q. What do you think they come there at that time for?—A. I could not tell. It is their habit to come there. I don't think they come there to spawn, but they must spawn along about the middle of April or 1st of May and we do not catch them there at any time of the year except the spring months.

Q. Where do they appear to come from?—A. The spring pickerel drop down out of Lake Huron for the first two or three weeks; then we get pickerel that come up, I think, from Lake St. Clair.

Q. Do you think they come down into Lake St. Clair and St. Clair River for spawning purposes, as well as on the beach of Lake Huron?—A. They possibly may.

Q. Are the pickerel free from spawn in the latter part of June and in July?—A. Yes, there is no spawn at all in them then, but when we catch them when they first come down, they are full of spawn.

Q. Then the inference to be drawn is that they come down to spawn, and go back empty of spawn?—A. Exactly.

Q. So that the spawning time would be between April and July?—A. I notice that the spawn is nearly all gone by the middle of May; they spawn from middle of April to middle of May.

Q. With regard to the herring, do they come down from the lake in the same manner in the fall as the pickerel come down in the spring?—A. Yes.

Q. Do they pass down into St. Clair Lake and River?—A. I do not think they go down as far as Lake St. Clair.

Q. When they come down in September, are they laden with spawn?—A. No, but they are full of spawn, the latter part of October.

Q. Do they return in the same manner as the pickerel do?—A. Very much the same.

Q. When they return is there any spawn in them?—A. No.

Q. Do they spawn out during September and October?—A. They are not ripe to spawn then, not until November and December, they are empty some of them.

Q. So that the latter part of October and November would be the time when there are most eggs in them?—A. In November the eggs are ripest.

Q. What is the usual size of the pickerel that you catch in the spring of the year?—A. From 1 to 4 or 5 pounds, they are the yellow pickerel, or doré, we don't catch blue pickerel at all.

Q. As an old fisherman, what do you think of the blue pickerel, as to character and quality?—A. I could not give an idea; I only saw a few of them.

Q. What is your estimate with regard to the yellow pickerel or doré?—A. It is one of the best hard fish. We get from 3 to 3½ cents a pound, just as caught, not cleaned.

Q. Do you catch many sturgeon?—A. Not many these last few years; they have almost left us, they were plentiful some years ago. In the mouth of the river we would get in one haul 10 or 15 sturgeon. That would be a pretty good haul. Now we get one or two or three.

Q. What do you suppose is the reason of the falling off of the sturgeon?—A. I claim that the pound-nets have caused this falling off.

Q. What is the common acceptance amongst fishermen as to the time when sturgeon eggs are ripest?—A. July, I think, would be the time.

Q. What is the value of a sturgeon?—A. They are worth about \$1, and their average size, about 4 feet long; there are not many caught under 3 feet. A 3-foot sturgeon is saleable, but we get only half-price for it.

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Q. Do you clean the sturgeon at all?—A. We don't open them at all; I have seen them cleaned, though. I don't know that a 3-foot sturgeon would have spawn in it, but a 4-foot sturgeon would be mature enough to lay eggs.

Q. What is the value of the herring you catch?—A. We sell about 100 barrels, or 75 barrels, at  $3\frac{1}{2}$  cents a pound.

Q. What is the comparative difference between the catch of herring made the last year or two, and what you caught ten or twelve years ago?—A. There are very few herring caught now at all; some years ago there was a very good catch.

Q. What would you call a good catch of herring, say ten or twelve years ago?—A. About 15 or 20 thousand a day.

Q. How much was your average catch for the last year or two?—A. Last fall we caught about 30,000 the whole season through. In former years from 15 to 20 thousand each man.

Q. What do you think is the cause of this falling off?—A. I must claim that the pound-nets are the cause from the beginning to the end. From the time they began to put in pound-nets our herring began to leave us.

Q. How long since the first pound-nets were put in?—A. Four or five years ago. Lang and Selkirk put in the first nets.

Q. What quantity of pickerel do you catch as a rule in the spring months?—A. About five or six hundred pounds; three to five hundred pounds is 24 hours' work.

Q. What would be the catch 10 or 12 years ago?—A. Three times that.

Q. Then there is a great falling off in pickerel?—A. Yes.

Q. Do you attribute that to the pound-nets also?—A. Yes; they get them.

Q. Do you catch many small pickerel with your  $1\frac{1}{2}$  inch bar-nets?—A. Not many; we throw them back.

Q. Did you formerly catch many?—A. No. There is not a great many of what you would call under-size or immature pickerel caught; the smallest size we generally catch for sale is 1 pound. Any under that size are generally thrown back, because they are not saleable.

Q. With regard to herring, do you fish for them with the same net as you fish for pickerel?—A. It is pretty much the same, only the wings are a little smaller.

Q. Taking the average size of herring, are there any a pound in weight?—A. Few; as a rule they go from  $\frac{3}{4}$  to  $\frac{7}{8}$  of a pound.

Q. Where do you market your fish principally?—A. In the United States. Pickerel and sturgeon we sell at Port Huron, on the American side. Herring are all disposed of in Canada.

Q. Are you aware that there is a close season for the protection of both pickerel and herring?—A. Yes. I believe in close seasons.

Q. Were whitefish plentiful in bygone days?—A. Some years ago they came in large quantities. They were all caught with seine. There were not many people seining at that time, only about three at that one point.

Q. What would be considered a fairly-good haul for the season?—A. Probably two or three hundred barrels, for one seine caught along in the fall in October and November.

Q. Are there any caught there now at all?—A. Not the last few years, fishing for whitefish is perfectly done. None of the fishermen consider that any more whitefish are to be caught.

Q. What is your idea with regard to the cause of the falling off of the whitefish?—A. I do not know, unless they migrate over to the American side. It is a fact within my knowledge that where whitefish were plentiful many years ago, now there are none. As to salmon-trout there was not any quantity, nothing to speak of. The principal trout fishing is over on the American side.

Q. Have you studied the question of artificial breeding? With regard to the increasing of the hatcheries?—A. I have not studied it, but I think it would be very beneficial, both in the interests of the fisheries and fishermen. I wish we had a hatchery at Point Edward, or in that neighbourhood.

Q. Do you hold an important fishery at the mouth of the river?—A. It is not very important now, although I have paid for it, \$500 a year for about five years.

Five years ago it was a fair business, then we had no reason to grumble, but it is not profitable now, we are not making a cent. It has been falling off the last three or four years. The bottom of the fishery has fallen out and while it was worth \$500 a year, five or six or seven years ago, it is not worth that now.

Q. What description of boat do you fish with?—A. An ordinary row-boat, flat bottom.

Q. What is your view with regard to setting aside grounds that you know to be actual spawning grounds?—A. Where fish are in the habit of coming to spawn it should be set aside for them.

Q. Are there any coarse fish of any consequence caught in your nets, pike, bass, maskinongé, or catfish?—A. We catch no pike or bass; once in a while we get a maskinongé, but hardly any catfish, but there are lots of suckers. They are light-coloured suckers. A large quantity of these are caught in the month of June. We throw them back into the river, as they are worthless; we cannot get anything for them. They remain during the season just for a few weeks.

Q. What is the nature of the bottom where you haul your seine?—A. Gravel bottom; coarse gravel, from the size of a goose egg to the size of your fist.

Q. Do you consider that a good ground for eggs to be deposited for hatching purposes?—A. The eggs would not stay there. The current would carry them off.

Q. Which is the most valuable fish, herring or pickerel?—A. Herring used to be most profitable, but latterly the pickerel is better; but both have fallen off almost down to the bottom.

Q. Have you any suggestions you would like to make yourself with regard to these fisheries?—A. I claim that the pound-nets have been most destructive. I claim for Lake Huron that seining has not been the cause of the falling off in the fisheries. There are about four nets between me and Blue Point. Altogether, on our side, there are about five nets included within a distance of 12 miles, and on the American side opposite us there are a number of pound-nets, but there is no seining at all, except in the immediate neighbourhood, and they catch pretty much the same number of fish that we do.

Q. How many pound-nets are there along the American shore within 12 miles?—A. Twenty or thirty, and they catch more fish with these pound-nets than we do with our seines, about double.

Q. Has the catch of the Americans fallen off in the same ratio during the last 10 or 12 years as on the Canadian side?—A. To some extent it has.

Q. Do they catch whitefish and all other kinds of fish in the pound-nets?—A. I cannot say as to whitefish, but they catch pickerel, herring and sturgeon. The size mesh these pound-nets have is  $1\frac{1}{4}$ -inch, and takes everything.

Q. In your knowledge of the matter, are there many small fish destroyed?—A. They catch everything—sell everything. We throw away the small fish we catch, when they sell theirs. We don't believe in keeping them.

Q. Faultfinding is generally expressed by the fishermen on our side that the Americans catch all the fish and we get hardly any, how is this?—A. The Americans catch the majority. They catch a good many more than we do. They don't catch four or five times as many as our seines do, but they catch about double.

Q. Will 20 pound-nets about double the catch of five seines?—A. Yes, about that.

Q. Do they keep a close season on the American side?—A. No; but I have heard it is contemplated in the State of Michigan to establish a close season.

Q. Have you any other suggestion to make?—A. I have often felt it pretty hard on us to observe a close season, when right across the river they can fish right along. We pay enormous licenses; they pay nothing. Then again in the fall of the year, we have a close season and they have none.

*By Mr. Harris :*

Q. Do you run your own boat, or have you a foreman?—A. I have a foreman who runs it, and give him \$30 a month or a little more, perhaps \$5 a month more.

Q. Do you know the localities, north and south, up the lake and down the river from where you fish pretty well?—A. Pretty well for twelve miles on both sides.

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Q. Do you think it would be good policy on the part of the Government to reduce the number of nets, and let the fish increase?—A. Well, I don't know, but I think if the pound-nets were abolished, the fish would increase, but I don't think abolishing the seines would increase the fish. I don't believe that by cutting off some of the seining grounds it would increase the fish.

Q. If the present fishing goes on, and the license fee is reduced, how long do you think it will take to wind up the fishery?—A. My opinion is that seining would never wind it up.

Q. Then a few of you would monopolize the whole fishery?—A. If every one fished legally, and did not fish on Sundays, the fish would increase. Gill-nets don't interfere with our fishing much; there is a good deal of Sunday fishing going on.

Q. How near is the nearest pound-net?—A. Twelve or thirteen miles off. It is put in the water about the 1st of May and taken out about 1st of November. The law says they should be lifted on Sundays, but they are not.

Q. When do you commence fishing?—A. 15th May.

Q. Are there plenty of fish there?—A. Not many now.

Q. When do the fish begin to go north? Is it after they have done spawning they go up into the lake?—A. They drop down into the river first, and then return again, and work out into the lake.

Q. Then is it not your seine fishing that interferes with the pound-nets?—A. No, sir. We catch what fish there is on this side of the pound-nets; after that none. They catch all the fish above us. They stop the fish from coming down.

Q. When do the fish begin to run down the lake into the river?—A. About the 1st of April.

Q. And you say the pound-nets are not set out until the 1st of May?—A. The 15th of May.

Q. Then how can they interfere with your seine fishing?—A. Of course, they come down about the month of April. But the pound-nets are not set out then. After the 15th of May they are.

Q. Is not the cream of the fishing done then?—A. No, sir, our best fishing was always in the month of July.

Q. Do the fish continue to run down until July?—A. No, sir, the run of pickerel stops about the last of July, that is, coming up the river from St. Clair.

Q. But does the great run of pickerel come from Lake St. Clair up the river to where you are?—A. Yes, in the month of July, and the pound-nets are nearly all up on Lake Huron then.

Q. Do you know anything about the American Fish Companies opposite you? Do they ever come over to fish within three miles of our coast?—A. They come within 10 or 15 miles to fish with gill-nets. They have no close season; they fish on their own shore all through November.

Q. Are there a good many pickerel caught at Blue Point?—A. Yes, a good many from pound-nets there.

Q. What is the size of a No. 1 pickerel?—A.  $1\frac{1}{2}$  pound, or  $1\frac{1}{4}$ , and the size mesh we catch that fish with is  $1\frac{1}{2}$ -inch bar measure. I think that a proper size; I would sanction that.

Q. What sort of a contract do you make for the sale of your fish?—A. Sometimes I make a contract, and sometimes do not.

Q. Have you ever made one to sell all the fish you caught, large and small?—A. No.

Q. Did you ever hear of any one doing that?—A. I don't know of it being practised on our side.

Q. What proportion of No. 1 and No. 2 salmon-trout do you catch?—A. There is quite a difference. More No. 1; we call No. 2 anything under a pound.

Q. What season are the little pickerel caught?—A. About the month of June, I think; the latter part of June and July.

Q. Do the farmers ever come around the fisheries to buy up the small fish?—A. Not with us. Some years ago, at Au Sable, when there was a large quantity of fish caught, some were sold to farmers.

Q. Is a No. 2 pickerel worth as much as a No. 1?—A. A No. 2 is worth only half of what a No. 1 is worth.

JOHN LANG, of Port Huron, was examined by Commissioners Wilmot and Harris, at Detroit on 22nd December, 1892.

JOHN LANG duly sworn:—Residence—Port Huron, a fish dealer and fisherman for about eight years—a Canadian by birth—purchases and sells all kinds of fish and catches them also, the kinds are yellow pickerel, sturgeon, herring, whitefish and trout—the principal kinds taken are pickerel and sturgeon.

*By Mr. Wilmot :*

Q. What particular waters do you fish in?—A. In Lake Huron on the Canadian side, about twenty-two miles up the lake from Port Huron to Blue Point. I use pound-nets in the above waters, but fish with gill-nets off Kettle Point.

Q. Give me the size of mesh in each kind of net?—A. The mesh in pound-nets is  $2\frac{3}{4}$  inches in the "pot," the "tunnels" and "heart" 5 inches, all extension measure. In the  $2\frac{3}{4}$ -inch mesh only No. 1 herring will be taken and smaller sized than these will all escape; these are immature and may be called young herring, not fully grown. This mesh will also let small unmarketable pickerel through—these herring and pickerel are immature fish—this mesh will also let whitefish of half a pound and under pass through, and they will also let the salmon-trout of one pound and under pass through. The sizes of twine used in my nets are for the "pot" of the pound-net No. 15 cotton, and "hearts" and "leader" No. 12. The gill-nets I use are  $4\frac{3}{4}$  and 5-inch and  $5\frac{1}{2}$ -inch for catching trout at Kettle Point; these fish are caught as they come on shore about the latter end of October and very largely in November. These fish go there only to spawn on the rocky honeycombed bottoms. This spawning ground will cover a bed of about 10 miles square; the great rush of fish to this point is as above stated. Some are caught during the summer months, but in very much less numbers, and also a very few whitefish and some yellow pickerel are also taken on that shore; the principal fishery, however, is for salmon-trout. On these spawning grounds the Americans come with their tugs and nets and men and fish right through our close season, whilst the Canadians are keeping the close season. This fishing is wholly in the Canadian waters. This was done this year, and it was done by the Port Huron Fish Company, who formerly fished with Canadians who got their licenses from the department. These American Fishing Companies came here this year, claiming that by instructions from the United States Consul at Sarnia they could fish anywhere beyond three miles from the Canadian shores. This information was given to the department at Ottawa, but from delays, either on the part of the department or the fishery officer here, these American fishermen fished right through the month of November. These American fishermen made a wonderful catch of those spawning fish and on account of the roughness of the season great quantities of these fish were thrown away as unmerchantable and many of them rotted in the water. The whitefish here are of a larger size and will average about 10 pounds dressed weight. There were about ten tons caught south of Bayfield in May and June last. They were caught in pound-nets off the shore about one-half to one mile. These fish at this season of the year come there for feeding purposes. These fish always come on the shore along the Au Sable Beach in the spring and in November. Herring last spring were very large; in June and July as many as from three to four tons would be taken out from one "pot" in a pound-net. Pickerel are caught in pound-nets more at Blue Point—principally from 1st April to July. To form an idea of the average size of these fish, say out of nine or ten thousand there would be only about 200 that would be No. 2 pickerel—No. 1 pickerel are fish from one pound up to ten pounds—No. 2, are one pound and under.

Q. What months are fish in their best condition?—A. The salmon-trout are good all the while except in November when they are spawning—they are chuck full of spawn in October, getting near to maturity. Whitefish are good from the early spring till the spawning time, when they become lean. Pickerel are good at any time, but not so good at the spawning time as before it; herring are good all

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through but not so good at spawning time as at others; sturgeon are as good at one time as another, because their spawning season appears to be at all times.

Q. Where do you market your fish—at home or in foreign markets?—A. I generally market my fish in the United States, none in Canada.

Q. What is the average value of fish of different kinds?—A. Salmon-trout are sold at about 5 cents a pound dressed; whitefish, 6 cents dressed; pickerel, 5 cents whole; herring, 1 cent; sturgeon of four feet and over \$1 each, four feet and under 50 cents each—two of the smaller are counted as one of the larger.

Q. When are fish ripest to emit their spawn?—A. Salmon-trout are ripest during the month of November, and sometimes in the latter part of October. Whitefish are at the height of spawning in November; herring spawn in October also, and in November—generally they are all spawned out in November. Salmon-trout do spawn sometimes in the latter part of October. Pickerel spawn generally about the 1st of May. With the sturgeon the eggs are ripe at all times apparently, but more are found matured during June and July, at which time the greatest numbers of sturgeon are caught and the greatest number of eggs are noticed. At this time they are caught in most numbers off Blue Point and Bayfield; at Point Edward they are more numerous than anywhere else. They are taken with seines, as many as 200 at a haul by Weiss Brothers; these fishermen, when the catch of sturgeon is reduced to thirty or forty, give up the fishing. This company catches as many as four or five thousand in the season; these sturgeon will run to an average of about 90 pounds. No sturgeon under four feet in length should be taken. A 60-pound sturgeon would give about fifteen pounds of eggs or caviare, the average price of which would be about 20 cents per pound. These eggs are cured by salting, and they are put up in casks of about 125 or 130 pounds each, and shipped to the United States. This company sends their caviare on to Germany. The flesh of the sturgeon in the United States is worth about 4½ cents a pound. A 60-pound sturgeon will give only about 25 pounds of meat, dressed, and 15 lbs. of caviare. Messrs. Hitchcock, and Weiss Bros., catch their fish principally about three miles above Point Edward—this is a great seining ground, running along about five miles.

Q. What month do you find most destructive to the nets?—A. The nets are most injured in the fall—in September, October and in November.

Q. Do you know of small immature fish being caught, and in what nets, and are they thrown away?—A. At Sarnia great slaughter is made with young pickerel, that is where the principal fishing is carried on, it runs from below Sarnia about three miles, and also some five miles above, all done by seines. The contract made by the fishermen is to sell all fish they catch, large and small, fish as small as one quarter of a pound are caught, in fact everything is taken with these seines. This, however, only applies to the pickerel; in the spring months they will catch tons and tons of these small No. 2 pickerel, that is one pound and under, and a very few of No. 1 pickerel are then taken. No. 1 pickerel are one pound and upwards, and No. 2 are one pound downwards. The proportion of No. 2 is four tons of No. 2 to one ton of No. 1 pickerel. These fish are caught in the early spring down to the 1st of August. This is a most destructive method and ruinous to the pickerel fishing. This point is no doubt the greatest pickerel fishing locality in Canada, that is, including the St. Clair fishing also. Young whitefish, that is small immature ones, are taken all long in seines and pound-nets in May and June, along from Kettle Point to Grand Bend; these small whitefish are about the size of herring, some are salted, and others are sold, some are buried. Farmers will come and give \$2 for a haul of the seine, and sometimes take away a wagon load of these small whitefish, a great proportion would be very small fish. These seines will run from 80 to 100 rods, with meshes in the bag of two inches or one inch square, the "wings" about three inches extension, depth about twenty feet. Whitefish are the principal fish taken with these seines. This taking of small fish is most destructive and damaging to the fisheries, and should be discontinued and prevented by all means.

Q. Is the Sunday close time observed by taking up the nets from Saturday night to Sunday morning?—A. This would be perfectly impracticable for pound and gill-nets, but it could be applied to seines.



Q. Should protection be given or should close seasons be abolished?—A. Close seasons are most desirable and should apply to all parties alike everywhere.

Q. Should certain spawning grounds for fish be set apart and where?—A. Well-defined and well-known spawning grounds for whitefish should be set aside and no fishing be allowed there by seines as it destroys the eggs undergoing hatching and the young fish afterwards, as they are found for some time on these spawning grounds after hatching out. This same should apply to pickerel spawning grounds and should be prevented from being carried on.

(An old fisherman and fish-dealer present here stated that he had known some two hundred half-barrels of young whitefish being put on the market salted that would average not more than one-quarter of a pound when dressed—this was at Point Edward.)

*Examination of Mr. Lang continued:—*

Q. Is there any black bass fishing in your neighbourhood?—A. I don't catch black bass, but a good many are caught in Lake St. Clair and St. Clair River and at Mitchell's Bay, and at the latter place as many as two or three tons are brought in at a time. Some black bass are caught with hook and line and some with seines; black bass are not fit to eat in August, they are full of grubs after their spawning time and become repulsive to the sight and for eating.

Q. What do you say about the artificial culture of fish—have you any experience in the matter?—A. Fish culture is most beneficial to the fishing interests and should be carried on, but it will be of no avail if the young immature fish produced from the hatcheries are allowed to be killed before they reach a proper growth. A hatchery should be established either at Sarnia or at Goderich.

Q. Which is the most valuable fish in the waters in which you are engaged fishing?—A. The pickerel will stand first on account of its hardihood for shipping, whitefish next, salmon-trout next, sturgeon next, herring next, perch, catfish and other coarse fish will follow in about the order named.

Q. Which of the different kinds of fish have fallen off most within your memory?—A. Whitefish were very plentiful in former years, as many as forty or fifty barrels in one haul, say five thousand fish, was an ordinary catch. These fish have fallen off very greatly. Pickerel have fallen off wonderfully during the past four years. The river or large herring weighing about a pound have fallen off entirely, only a smaller kind are now taken. In former years one company here have salted three thousand half barrels in two months, besides selling large quantities in the fresh state. Four years ago I paid this company \$160 per day for the catch of one seine during September; I would not pay them anything now, for the fishing has become so greatly fallen off. At that time the herring were full of spawn. Pickerel have fallen off greater during the past four years than during any previous period, the cause of falling off is the same as with the whitefish, over-fishing, improper fishing, and the killing of small immature fish. The same cause has reduced the pickerel—each of these two kinds of fish are caught in less and lesser numbers every year. Sturgeon have fallen off largely by reason of over-fishing and improper fishing with seines, particularly about Point Edward.

Q. What description of boat and net do you fish with?—A. I fish with a tug 70 feet keel and with boats to lift the fish out of the pound-nets, and use about 300 pounds of web; three pounds of the web will make 18 rods of the net, and I require six men to run the tug.

Q. Are you aware of many fish being lost by reason of storms and the consequent inability to take the nets up?—A. Yes; fish are lost in considerable quantities during storms in the gill-nets, that is, they get drowned and become rotten and are unfit for food; anything, though, that will stand the handling by the fishermen are sent to market, and unless detected by the buyer are sold. Quite a number of these imperfect fish are salted, but many are sold fresh.

Q. Are you aware that a fishery conference has been held recently in the city of Detroit?—A. Yes.

Q. Have you read the resolution which they passed in regard to regulating the fisheries?—A. Yes.

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Q. Have you read the first resolution, which says: "That all small fish and others unfit for food of all kinds, when taken by seines, should be replaced in the water when taken alive, and that fishermen should not be allowed to take such fish on shore, or expose them for sale?"—A. Yes, that is a good resolution, and should be maintained in both countries.

Q. What do you say about resolution No. 2, which reads, that any string of pound-nets used in the lakes shall not extend more than four miles from shore?—A. That is too severe on the fishing; two pounds on a leader are quite sufficient, and that all pound nets should be at least two miles apart.

Q. What about resolution No. 3, which says that one-half part of all channels, or elsewhere, through which fish migrate to spawn, shall be kept free from nets of all kinds at all seasons?—A. That resolution is very good for the preservation of fish, as they are most easily taken in nets when they are travelling to their spawning grounds, but while on the spawning grounds they are not so easily taken.

Q. What about resolution No. 4, which says that all whitefish taken of less than 16 inches in length, and all salmon-trout less than two pounds in weight shall be immediately returned to the waters when taken, and shall not be exposed for sale at all?—A. This resolution is a good one, but I would prefer the size for the whitefish to be two pounds, which would be about a 17-inch fish. This would be better for all parties concerned.

Q. What do you say about resolution No. 5, which says that the month of November in each year shall be made a close season for whitefish, herring, salmon trout or lake trout?—A. This resolution is right for salmon-trout and whitefish, but I don't think it would do so well for herring, as the latter part of October should be the time for herring in Lake Huron.

Q. What do you say about resolution No. 6, which fixes the penalties?—A. The resolution is correct and it is perfectly right to inflict the penalties and they should be enforced.

The witness then made the following suggestions:—

That sturgeon do not require a close season.

The "pots" in the pound-nets should be of  $2\frac{3}{4}$ -inch mesh, as a larger mesh would gill the fish.

Gill-nets should have a  $4\frac{3}{4}$ -inch mesh for salmon-trout, for whitefish the same.

Seines should have a mesh of not less than 3 inches from the 15th of May to the 1st of September—after this a  $2\frac{3}{4}$ -inch mesh would do. The 3-inch mesh would suit pickerel fishing and the  $2\frac{3}{4}$ -inch mesh would suit the herring fishing.

Questioned by Mr. Commissioner Harris, witness answered as follows:—

If these resolutions were thoroughly enforced it would soon regulate the sizes of mesh by the fishermen themselves—if the above resolutions were carried out it would be unnecessary to make a law as to the sizes of mesh in pound-nets. The herring ran about one pound each three years ago—now they have gone down to almost nothing.

The witness then retired.

## No. 6.—GODERICH.

The meeting was called to order in the town of Goderich, at 11 o'clock a. m., of the 22nd of November, 1892.

Present: Samuel Wilmot, Esq., and E. W. Harris, Esq.; Miss M. Climie, secretary *pro tem* and stenographer.

The meeting was opened by a short explanation by Mr. Wilmot, the chairman, as to the object of the Commission, and the following evidence was given:

Captain JOHN CRAIGIE, sworn:—

*By Mr. Wilmot:*

Q. Where do you reside, sir?—A. In Goderich.

Q. What is your occupation?—A. Fisherman.

Q. How long engaged as a fisherman?—A. Well, I have been twenty-one years at it.

Q. What as to your nationality?—A. I am a Scotchman.

Q. What kind of fisheries have you been engaged in?—A. Salmon-trout, whitefish and herring.

Q. Does your fishery cover bass, maskinongé, or pickerel?—A. No, sir.

Q. Any coarse fish of any kind?—A. No, sir, we have never been fishing any coarse fish.

Q. What particular waters do you fish in?—A. Well, we fish for salmon-trout and whitefish out in the lake not any shallower than ten to twelve fathoms and from ten to eighty and ninety fathoms sometimes, just according to what part of the lake we are fishing in.

Q. Have you any special locality fronting any place, or do you take the general run of the lake, wherever you like to go?—A. Well, just wherever we like to go, as a general rule.

Q. How far out in the lake do you carry on this fishing?—A. About halfway across, that would be about twenty-two miles, and then of course we go north and south and take say probably fifty miles of a run sometimes.

Q. Do you run out to the middle of the lake, to the boundary line between here and the United States?—A. Yes, to the boundary line.

Q. Do you not fish along the shore at all, then?—A. We do fish along the shore some, at certain seasons of the year.

Q. Now, what description of net do you fish with?—A. With gill-nets.

Q. Any other kind?—A. No.

Q. Gill-nets only?—A. Only.

Q. What may be the ordinary size of these nets—are they subject to the departmental regulations?—A. Yes, sir.

Q. What do you usually fish?—A. Well, I could not hardly tell you exactly.

Q. Give just a rough estimate?—A. Something from about twenty to twenty-four thousand yards.

Q. Twenty to twenty-four thousand yards will cover the point, will it?—A. Well, pretty near about that, I would not swear positively.

Q. What would be the depth of that gill-net when it is set, in feet?—A. Well, it is about five feet in depth.

Q. Do you use either seines or hoop-nets or what are called fike-nets?—A. No, sir, not at all.

Q. Will you give me the sizes of the meshes you use in your gill-nets?—A. Yes. We use  $4\frac{1}{2}$ -inch mesh.

Q. That is extension measure?—A. Yes, sir.

Q. Have you used any other kind, larger or smaller?—A. No, sir.

Q. That is the size?—A. That is the size for whitefish and salmon-trout. Herring is smaller, but I have not used them for a number of years.

Q. Would this be too large for herring?—A. Oh, yes, too large for herring.

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Q. Then you do not fish for herring now at all?—A. No, I have not fished for herring this last eight years.

Q. Might I ask for information as to the description of net you used when you did fish for herring?—A. We used gill-nets and we had a seine a part of the time.

Q. What might be the size of the gill-nets, or the mesh of the gill-nets, and the seine when you caught herring?—A. The size of the mesh was about  $2\frac{1}{2}$  inches.

Q. This was extension measure?—A. Yes, sir.

Q. And for gill-nets for herring?—A.  $2\frac{3}{4}$ -inch.

Q. When using  $2\frac{1}{2}$ -inch mesh or the  $2\frac{3}{4}$ -inch mesh when fishing for herring, did it not sometimes take whitefish?—A. No, we never used to get whitefish when we were fishing herring nets.

Q. How was that?—A. Well, we were fishing in bays at that time.

Q. That is, the locality you were fishing in for herring would not have whitefish?—A. No.

Q. Can you answer me this, will a 3-inch mesh take whitefish of a small size?—A. Oh, yes.

Q. A 2-inch mesh will take whitefish?—A. Oh, yes, take those very small ones.

Q. What would you call a small whitefish?—A. We call a small whitefish one weighing from 1 pound to  $1\frac{1}{2}$  pounds; a 2-pound whitefish is as small as we catch, or  $2\frac{1}{2}$  pounds.

Q. With your  $4\frac{1}{2}$ -inch extension mesh, how small a fish will escape through your gill-nets, generally speaking?—A. Oh, I could not tell exactly. In fact I should judge about  $1\frac{3}{4}$ -pound fish would slip right through easily. I do not think we catch anything smaller than 2-pound.

Q. Then you could catch no herring in it at all, of course?—A. No, no herring.

Q. At what period of the year are whitefish and salmon-trout in their best condition for food? We will take, for instance, salmon-trout. When are they in their prime condition for eating purposes?—A. Well, I am sure I could not say; I should think the spring of the year would be as good as any.

Q. Well, I will endeavour to assist you. I suppose you are aware that any fish when spawning is not in as good a condition as it is before. Is that your opinion?—A. Well, they are not in as good condition when they are spawning, and after they have spawned they are not in a good condition.

Q. You say then that at the time of spawning and after it, they are not in as good condition?—A. Yes, I think so.

Q. You think then that fish are in better condition before the spawning time?—A. Oh, I think they are.

Q. Have you noticed any particular months in which you find they are in firmer and better condition, that is for table use—would it be in the spring months or at what season?—A. Well, I could not tell you any difference.

Q. Are salmon-trout better before spawning than later on?—A. Well, yes, they are better before spawning, after that they are not such a firm fish.

Q. How does that apply to the whitefish?—A. I never did catch any whitefish after the spawning season, because it has always been too late in the season. Whitefish is a fish that does not spawn till in November and we have always been through fishing before their spawning season.

Q. Do you know whether whitefish are better in May and June than they are in October and November?—A. Oh, I do not think there is much difference.

Q. Do I understand you to say then that there is not much difference in the condition of whitefish before spawning?—A. I don't know that there is previous to their spawning, but I never did make a point of fishing whitefish up to that time, because we always concluded before the spawning season was through.

Q. Well, then we will say there is not much difference in the condition of whitefish?—A. No, not much difference.

Q. Have you taken any particular notice of the herring, when they are in the best condition?—A. Well, we always used to think herring was in the best condition just right before spawning in the fall.

Q. What season of the year do you more particularly catch herring in?—A. In October, and first of November.

Q. Where is your principal market—where do you generally sell your fish?—  
A. Well, there is a good many of them shipped to the United States, the principal part of them, and some are sent through Canada wherever we can get a market for them.

Q. The most part are shipped to the United States and some are sold in Canada?—A. Yes, sir.

Q. What proportion would the one bear to the other?—A. Well, I could not tell you exactly.

Q. Give a rough estimate. Would there be one-fourth sold in Canada or one-half, or one-eighth of your catch?—A. I could not tell you exactly how many there would be—there would be about one-fourth, I guess.

Q. About one-fourth sold in Canada?—A. I guess so.

Q. Could you give me an average of the values of these fish—what is the usual value of your salmon-trout—you sell it by the pound, I suppose?—A. Yes, sir.

Q. Well, then, what do you get for your salmon-trout usually from the American purchasers?—A. Well, I could not tell you exactly what they get for them; what we get for them is  $3\frac{1}{2}$  to 4 cents, just according to the market.

Q. And your whitefish?—A. About the same.

Q. And your herring?—A. In fact I cannot tell you how the herring rates, for years I have not been interested in them.

Q. Are these prices that you have now mentioned the current prices at the present time, this year?—A. Yes.

Q. How does this compare with the prices seven or eight years ago—would it be more then or less?—A. Well, it is a little more now than it was then.

Q. Formerly the prices were not quite so good?—A. Not quite.

Q. Do you get the same price for your local sales here, or do you get a price more or less?—A. More or less.

Q. Do you get more?—A. Well, I could not tell you what they do sell for; we sell all to the one man, and I cannot tell you how much they deal them out at.

Q. And do you get from that one man as much as you get from the Americans?—A. We just make an agreement for the season—we get so much a pound for the season's catch.

Q. From one man?—A. Yes.

Q. Is this man a local man—does he live here and do business here?—A. Yes, he does his business here.

Q. Can you give me his name?—A. Yes, Mr. Clark.

Q. You say that about three-fourths of the quantity went to the States and one-fourth to Canada. Does Mr. Clark arrange this matter?—A. Yes, Mr. Clark arranges that matter.

Q. Is the demand for them greater than you can supply?—A. Well, we can always get rid of all we catch, anyway.

Q. Do you know whether there is a system carried on here of people coming in and getting fish from the fishermen and peddling them through the country by the wagon-load, or by the dozen, or the hundred, &c.?—A. Yes, there are some people carrying on that business.

Q. Fish peddlers do sell fish through the country?—A. Yes.

Q. What kind of fish are these principally—salmon-trout, whitefish or herring?—A. Salmon-trout and whitefish and sometimes some herring.

Q. With your observations have you taken any special notice when fish are most ripe to spawn? For instance, take the salmon-trout; when is the time they principally lay their eggs?—A. Well, I think with salmon-trout it is about the 1st of November.

Q. Would they spawn sometime before and sometime after?—A. Well, I don't think there is many of them that spawns before the 1st of November; they commence about the 1st of November, I think.

Q. What about the whitefish—have you taken any special notice when they begin to spawn or the month during which they spawn, generally?—A. Well, they never spawn much before the 10th of November—that is, some years ago. We have always been prevented before that time.

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Q. Have you not fished whitefish for some years?—A. Not after the spawning season.

Q. You say whitefish will commence spawning about the 10th of November?—A. About the 10th, that is what we used to count for.

Q. And what do you think of the herring?—A. Well, I do not know. Herring spawns about the 1st of November, I should judge.

Q. The month of November is their spawning month?—A. Yes.

Q. Pickerel, I suppose, is not much known here?—A. No.

Q. You don't fish for them at any rate?—A. No.

Q. Nor for these coarser fish?—A. No.

Q. When do you find it most destructive to your nets or most unprofitable to use your nets? Is any one month worse than another owing to the inclemency of the weather or any other reason?—A. Oh, it would most certainly be in the fall, in the month of October or November; we have some bad blows in September also.

Q. Well, what about November, is that a bad month for you?—A. Well, yes, it is a bad month, but we generally have as good weather in November as we have in September sometimes.

Q. Then you would say that the months of September, October and November would be the most detrimental to your fishing?—A. Yes, those are the roughest.

Q. Well, which one of the three would be the most detrimental to your fishing?—A. Well, November would be the roughest. It is generally a bad season.

Q. Can you give me any information in regard to immature fish being caught. Small fish, not marketable, fish that are under size and not able to reproduce their kind, you understand?—A. Well, there is a certain amount of them, I suppose. Mr. Clark will be coming after me, and he will be able to give you more on that point than I can.

Q. Do you know that small fish are frequently caught in pound-nets?—A. Well, I know that small fish are sometimes caught in pound-nets, but I never was that near anywhere pound-nets were used, as a general rule.

Q. What would these small fish be—salmon-trout, whitefish, herring or what?—A. We do not catch young salmon-trout, they do not come that near to the beach.

Q. Are young whitefish caught?—A. Yes, there would be some young whitefish, I suppose.

Q. And herring?—A. No herring.

Q. What is generally done with these young whitefish that are caught?—A. Well, I suppose most of them that are any use are sold, that are of any size at all, and those that are too small are set at liberty.

Q. Do you not know of any large quantities of young whitefish being caught in nets and thrown away?—A. Well, I never have been near where pound-nets have been used, as I told you; I have never been much along with them.

Q. Are there any of these young or small fish caught in your gill-nets or are the nets too large?—A. Yes, they are too large.

Q. Are you aware that there is a law to the effect that nets have to be taken up at six o'clock Saturday night until Monday morning, do you know that?—A. Yes.

Q. Is that law adhered to?—A. Well, it is a thing impossible that we can do it because we have got our nets down and if we should take them ashore we could only get a certain amount of them in one day.

Q. Then you say it is impossible to carry out the Sunday close season, in the interests of the fishermen?—A. Yes, that is if we were only running one rig of nets, if we only had one rig of nets we could carry them in Saturday night and take them out Monday morning, but as it is we cannot do it.

Q. Are there any Americans fishing in the immediate neighbourhood where you fish?—A. Yes.

Q. Are Americans fishing on the same ground that you do?—A. Yes, on the same ground we do, we go to the boundary line.

Q. Do you mutually exchange sides at the boundary line, one go on one side or on the other if you choose?—A. Yes, sir.

Q. Is there no restriction?—A. There is no restriction. But this fall they are fishing on the Canadian waters, there is one tug down here fishing on the Canadian

waters all this fall, or at least the latter part of the fall. We have got to stop, and the American tug can fish all she likes.

Q. How far from the Canadian shore would that tug be fishing?—A. About eight miles, not quite that I suppose, about six or seven miles.

Q. Is there more than the one?—A. Just the one down there.

Q. What is she fishing with?—A. With gill-nets.

Q. Have you known of this work being done previous to this year?—A. No, I do not know of this work being done previous to this year, I believe it had been done up the lake, but not at this lower end.

Q. Then you are aware that it has been done up the lakes previously?—A. Yes.

Q. By up the lake do you mean up towards Kincardine?—A. Oh, no, it is away up the head of the lake, up towards the straits, away up around Drummond Island.

Q. Has this tug been fishing this year here with gill-nets, or are you aware what sort of a net it is, what size mesh?—A. Well, I don't know what size mesh; I should judge it is the same size as we are using.

Q. Would they be fishing for the same kind of fish?—A. Yes, just the same.

Q. Do you know what the capacity of that tug is, what its tonnage is or nearly so?—A. Oh, I suppose it would be about twenty-five or thirty tons.

Q. Have you any idea of the quantity of nets she fishes with, and the fathoms?—A. I don't know.

Q. Do you believe that properly selected close seasons should be observed for the protection of fish by both countries, while they are spawning?—A. I do, if they would keep it up on both sides, but I do not the way it is going on.

Q. You do think there should be close seasons established?—A. But we should not have it close here and the Americans free over there.

Q. Then, otherwise speaking, you think it is unfair to have a close season on this side while the Americans do not have one?—A. I think we should have no close season except the Americans have one. I think the close season should be equally along on both sides and then it would be a good thing, but otherwise it does not hurt us, because we have our nets up then.

Q. Do you generally take up your nets then?—A. Yes, but we would keep them in if we were allowed to do the same as the men on the other side, that is providing we were in a place where we could make it pay.

Q. Do you think it wise, in the interests of the fisheries, that the fish should be caught in the act of spawning; is it wise, either in the interests of the fisheries or of ourselves?—A. Well, I do not think it is.

Q. How early do you set your nets in the season, when do you put them out?—A. Well, about the middle of April or the 20th of April.

Q. How long are these nets kept in, until how late?—A. Well, until about the last of October.

Q. Do you set them again in December at all?—A. No, sir.

Q. When you take up your nets the last of October is it the end of the fishing for that year?—A. Yes, that is the end.

Q. Is there any winter fishing carried on here?—A. Very little now, there used to be some herring fishing through the ice.

Q. Do you know anything about the black bass family? Are they caught here to any extent at all?—A. No, sir, very few.

Q. Well, these few, how are they caught?—A. Hook and line, I think that is the only way they catch them.

Q. Have you any idea of the spawning season of the bass?—A. I do not know.

Q. Is spearing practised here at all in catching fish?—A. No, sir.

Q. Do you catch any sturgeon?—A. No, sir.

Q. Have you any idea or are you able to express any idea at all, with regard to the artificial hatching of fish, whether it is advisable or beneficial?—A. I have no idea; I could not say. I suppose it would be, if it was carried on in the right system. They make a success of it on the other side, why should they not on this side?

Q. Were you one of the signers of a large petition asking the Government to help the fish interests here by erecting a fish-breeding establishment at Goderich?—A. Yes, sir, I think I was.

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Q. Then, your idea was that the erection of a fish-hatchery here would be the means of helping the industry in which you are engaged?—A. Yes, sir.

Q. You have been fishing here, you say, for some twenty odd years?—A. Yes, sir.

Q. Well, when was the fishing at its best here? In your view of the matter, when was it most profitable and the greatest number of fish caught?—A. Well, I could not exactly tell you. The best season that ever we had here was last season, but then the fishing rigs that we had in former years were not quite so good as the rigs we have now.

Q. The best fishing was last year?—A. Yes, sir.

Q. But was it on account of having superior gear and fishing material, was that it?—A. Well, I think it was to a certain extent. It was just as good last year as I have seen it for a number of years.

Q. In former years did you fish with steam tugs at all?—A. No.

Q. And do you now?—A. Yes.

Q. Did you fish with anything like the extent of gill-nets then that you do now?—A. Yes, but we had no steam tugs, and one tug does as much as two fishing boats.

Q. Then, the fishing in former days with nets and boats would be only half the amount that you do now?—A. Yes, just half the amount; the tugs and the boats together do twice as much as the boats used to do.

Q. Now, generally speaking, are the fisheries here declining?—A. Well, yes, the whitefish are declining, but I think the trout are just about the same as they used to be.

Q. Do you fish further off shore now than you did?—A. Yes.

Q. Why do you do that?—A. To enable us to get bigger catches.

Q. Are there any nets used now at the same distance out as they were many years ago?—A. Oh, yes.

Q. How do you account for the decrease of whitefish?—A. I could not tell you, I am sure.

Q. You never formed an opinion in your own mind at all?—A. No; I suppose they have been run off the ground.

Q. How run off?—A. Moved to different parts of the lake. Fish is not a thing that stays in one place all the time.

Q. Now, if they had gone to other places, do you not think fishermen would go and look for them?—A. Well, they have been getting big catches of fish in the Georgian Bay.

Q. We are speaking now more particularly of your own fishery in Lake Huron?—A. Yes, there is no doubt that it has dropped off in Lake Huron.

Q. With regard to the size of the salmon-trout now compared with what you caught in former years, what is the difference?—A. Well, I do not think there is much difference; they are just about the same now as they were ever since I have been here. Sometimes they are smaller, and sometimes they are larger.

Q. And that has been so for twenty years, you say?—A. Yes.

Q. What is the average size of the salmon-trout you catch?—A. About three and four pounds.

Q. Have you anything you wish to suggest yourself, sir?—A. No, sir.

*By Mr. Harris :*

Q. What is the most profitable catch in this fishery, whitefish or trout?—A. There is no difference much. It does not make any difference to us; they both sell at the same price.

Q. Which fish of the two would you prefer to become extinct in your fishery, if you had to choose between the one and the other—which would you like preserved, the whitefish or the trout?—A. Well, I could not tell much about it; I guess the whitefish is fully the nicest fish.

Q. As a fisherman which fish would you rather fish for?—A. Well, undoubtedly, I would rather fish for the whitefish, because you would not have as much hard labour for them, you would have to fish in shallower water, and you would not have the amount of labour to catch them.



Q. Is Mr. Clark an American or a Canadian?—A. He is a Canadian.

Q. And he resides here?—A. Yes, sir.

Q. A wholesale dealer?—A. Yes, sir.

Q. Where were these pound-nets located that you referred to in which you say small fish were caught?—A. Well, down here at the Sauble Beach is the only time that I ever seen them lifted, and I have seen them lifted up the lake.

Q. On the Canadian side?—A. Yes, sir.

Q. What was the size of the mesh in those nets you saw lifted?—A. I could not tell you—about three inches, I should judge. I did not take notice of them, I was in the tug, and I could not get close enough to them to take notice of them.

Q. By up the lake, do you mean Kincardine or Southampton?—A. No, sir.

Q. Well, where?—A. Up to the Manitoulin Islands.

Q. You think it was a 3-inch mesh?—A. Well, I would not swear what size of mesh it was; it was a mesh that would hold in herring.

Q. I think I heard you say that the Americans fish in seine grounds?—A. No, I did not say that.

Q. What did you say?—A. I said they fished in our waters; they fish out of the bar—you cannot hold a seine eight miles from shore.

Q. You say the close season does not affect you because you take up your nets?—A. Yes.

Q. Well, who do not take up their nets?—A. Well, they are all compelled to take them up now in the close season; it is time to take them up anyway on the 1st of November.

Q. Has it been a habit in this neighbourhood of fishing after the 1st of November?—A. I could not say; I think there may be some, I could not say.

Q. Do you think it would be more profitable in Lake Huron year on and year off for the fishermen to stop fishing on the 1st of November?—A. I think it would, if we had the same laws on the other side. It is pretty hard to see the Yankees going and catching all the fish when you stop us.

Q. Would it be more profitable for you if all the fisheries were thrown open to the public and any one allowed to fish?—A. Americans, do you mean?

Q. No, Canadians. Toronto people—capitalists—any one who had money to come out and put in nets in these waters—would you like that plan adopted?—A. Why, are they not doing that anyhow? Cannot any person fish that likes now?

Q. They have to take out a license?—A. Oh, yes, they have to take out a license.

Q. Well, am I to infer from that answer that there are so many who take out licenses now that it might as well be public?—A. Oh, no, I believe in every man taking out his license.

Q. You do?—A. Yes, sir.

Q. Well, having got out your license you have a practical monopoly of your waters, have you not; nobody else can fish in that water?—A. Oh, yes; there is probably eight or ten boats here and they all take out licenses for the same water.

Q. And you all fish in that water?—A. Yes, all fish in that water.

Q. Well, tell me about what is the extent of that water in which you and the nine or ten boats fish?—A. Well, we fish all over Canadian waters, just where we like to go; of course, we have a certain limit, but the license applies to all Canadian waters.

Q. Just wherever the wind takes you you can go?—A. Yes, sir.

Q. Then you think that the Canadian plan of conducting the fisheries is more likely to preserve the fish and prevent the destruction of the fish than the American plan of fishing?—A. Well, I think the Americans are doing more now at the present time, for they are putting in more hatcheries and they give their fishermen more chance to carry on the business; they allow them to fish the whole season through, let them fish wherever they like.

Q. Then the Americans fish all the year around and do just as they please?—A. Yes.

Q. Well, do you think the people of Canada would think it good policy to allow a large expenditure of money to be made every year in their fisheries department

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in trying to establish close seasons, protecting the fish, &c., if they allowed any one to fish all the year around, just as the Americans do?—A. No, they could not do it; the two things would not agree.

Q. Would not that be the end of our fisheries department altogether, we would have no fisheries department?—A. No, we would have no fishery department then; they would have fish hatcheries though all the same, the same as they have on the other side, and there would be men to take out the licenses for their boats all the same—they have licenses all the same, too.

Q. Then your opinion is that if hatcheries are adopted that the fishermen could fish just as long as they please?—A. No, I believe in a close season all right enough, provided they have a close season over there, but I think we ought to have it the same as the other side.

Q. What is the width of the lake here?—A. It is about forty-two miles across here.

Q. Do you know the depth?—A. Yes, pretty near it.

Q. Five or six hundred feet?—A. Yes, some parts are deeper than others.

Q. Do you think the fish cross from side to side?—A. Well, I do not think it at all, for I am sure of it. Do you mean to tell me that if you have a flock of cattle on one side of a field that they are going to stay there all the year and not going to take a stroll to the other side? And it is the same with the fish; nature teaches you so.

Q. The Americans are establishing large hatcheries on the other side, are they?—Yes.

Q. Putting in millions of fish all the time?—A. I don't know exactly how many they put in; I saw accounts of it at the time.

Q. And these fish will come over here, too?—A. Oh, yes, we will get a share of them.

*By Mr. Wilnot :*

Q. Then, if they are putting in these many millions of fish, according to your theory of matters, we will get as large a share of them as they will themselves?—A. Yes, we will get a part of them, no doubt.

Q. Then, perhaps, we had better stop our hatcheries and stop our close season and all?—A. Oh, no, I believe in equalizing with them.

Q. If we do not put in fish on this side would not the Americans have cause to say that we are catching their fish over here?—A. Most undoubtedly, but they catch all they can here right along and you will not get the Canadians fishing on their side at all.

Q. You think the Americans poach in Canadian waters and the Canadians do not poach in American waters, is that what you mean?—A. Yes; if we fished over there their cruiser would soon be after us, but the cruiser does not seem to see fit to go after the tug here.

Q. Do you think that the cruiser is at present engaged in carrying out the laws of the country here?—A. Yes.

Q. And yet she allows the American tug to fish here?—A. Well, I suppose she has not been notified. She does not know of its being here, I suppose.

Q. Well, as a fisherman here, would it not be right for you to report that fact?—A. I have reported it to the fishery officer, and what more can I do.

Q. You have done that?—A. Yes, sir.

Q. How long since you saw the American tug fishing here?—A. I seen her last Tuesday.

Q. To what fishery officer did you state that the tug was fishing there?—A. To Mr. Ball.

Q. Have you seen the cruiser around here at all?—A. No, not this year.

Q. Then your advocacy of the close season is that we should have one if the Americans have one, is that the plain English of it?—A. Yes, sir, that is the plain English of it.

Q. And if they have not one we should not have one?—A. Yes.

Q. And if we have one they should have one?—A. Yes, they should have one.

Q. Well, we will not argue that matter with you, but it appears strange that because they have not judicious laws there, we should not have judicious laws here?—

A. Well, I only give you my idea of it.

Mr. JAMES CLARKE sworn:—

*By Mr. Wilmot :*

Q. What is your occupation, Mr. Clarke?—A. A fish dealer and fisherman—I have fished as well, I understand fishing.

Q. Your residence?—A. Goderich.

Q. What is your nationality, sir?—A. I come from Scotland.

Q. How long have you been engaged as fish dealer and fisherman?—A. Something about twenty years, I suppose, since I began.

Q. What kind of fishery do you carry on?—A. Gill-nets and pound-nets.

Q. What description of fish do you deal in?—A. Principally whitefish and trout, that is the principal fish.

Q. What other kinds then?—A. All other kinds caught.

Q. Herring?—A. Yes.

Q. Sturgeon?—A. Yes.

Q. Pickerel?—A. Yes.

Q. Bass?—A. Yes.

Q. And coarse fish of all kinds?—A. All kinds.

Q. Are there any such fish as the ciscoe caught?—A. Well, I have never seen any of them that were called ciscoe. I believe there are more in Lake Ontario.

Q. Are you at all acquainted with the ciscoe?—A. No, I am not.

Q. What particular section of waters does your fish dealing, and fishery extend over?—A. All through the lakes, Lake Ontario, Lake Huron and Georgian Bay.

Q. Have you anything to do with Lake Erie?—A. Yes.

Q. Do you do anything in Lake Superior?—A. No.

Q. Where are your headquarters?—A. Buffalo, U.S., and Warton is our Canadian headquarters.

Q. Do you carry on business alone, or is it in connection with a company of any kind?—A. In connection with a company.

Q. Connected with what company?—A. The Buffalo Fish Company.

Q. You say you do not practise fishing yourself but are a fish dealer?—A. Yes, sir.

Q. Then are you prepared to give me any information in regard to the size of the mesh used in these nets?—A. We use all  $4\frac{1}{2}$  mesh at this time; we used to use  $4\frac{3}{4}$ . For whitefish and trout, that is in the fall of the year, we use 5-inch mesh, and  $5\frac{1}{2}$  sometimes, and  $5\frac{1}{4}$ .

Q. Why do you use  $4\frac{1}{2}$ -inch mesh now when you formerly used  $4\frac{3}{4}$ ? Is it according to regulations?—A. Oh, we go according to regulations.

Q. Why do you use the 5 and  $5\frac{1}{2}$ -inch mesh in the fall?—A. Well, they are larger fish in the fall and we can catch a larger fish with a larger mesh; we use coarser twine.

Q. What months do you mean by the fall?—A. In the months of September, October and November, if we can fish.

Q. While upon this subject, what is the cause of the fish being larger in these months than at any other time?—A. Well, the fish that we catch in the fall of the year is a different kind of fish, they are shallow water fish and larger, mostly trout.

Q. How do you make them out to be different?—A. They are the shallow water fish, the black trout, the black salmon-trout, and the trout we catch in the summer are deep water fish.

Q. Shallow water produces a black trout?—A. Yes, a dark trout.

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Q. A dark trout of what size?—A. Oh, from 3½, to 9, and 10 pounds; it depends upon the locality in which they are.

Q. And the other trout?—A. The other trout is light in colour and small.

Q. And you catch them where?—A. In deep water.

Q. Their average is about what?—A. About from 2 to 5 pounds.

Q. That is a pretty large margin?—A. Well, they vary in size considerably, they do not average that, they run from 2 to 5 pounds.

Q. And they average what?—A. Well, probably about 2½ pounds.

Q. Have you ever taken any particular notice with regard to this fish, have you opened them and examined them to see what state they are in?—A. No.

Q. For instance, take this small fish of 2½ pounds, have you ever opened them and looked at them closely as to what state the eggs or ovaries were in?—A. No, I have seen them often, but I never took any special notice.

Q. Did you ever see eggs in them?—A. No, I never saw any eggs in them that were mature, but I believe they spawn in November, the same as the dark fish do.

Q. With the dark fish, have you noticed them particularly as to their eggs?—A. Yes.

Q. When they are caught are their eggs pretty well advanced?—A. Yes, some of them.

Q. The dark or larger fish show eggs advanced, do they?—A. Yes, sir.

Q. And they spawn when?—A. November, probably in some places a little earlier and some later; I do not think they spawn in all places at the same time. In the same lakes they will vary probably eight or ten days.

Q. Do you catch these large dark trout at any other time?—A. We catch a few of them during the summer, only a few.

Q. How do you explain that only a few of the large dark trout are caught in the summer months; and that they are only caught in the autumn months on the shore?—A. I think in the summer time these large fish swim high above our nets.

Q. You were speaking pretty positively as to the other matters, you are only thinking this, you say?—A. Well, that is the only way I can account for it; they catch them trolling very often, and we often see them on the top of the water. I think they catch flies in the summer, we often see them after flies in the summer.

Q. You think these large trout feed on flies?—A. They seem to keep on the top of the water pretty well.

Q. They keep on the top of the water and feed on flies, is that it?—A. Yes, I think so, and there are herring on the top feeding also.

Q. And these small trout, how about them?—A. They feed in deep water.

Q. You say you catch these big trout about October and November?—A. Yes, and the middle of September, they begin then to come more to the shore—and about the 15th of October they begin to come on the shores and reefs.

Q. What do they come there for, do you think it is to spawn?—A. Well, I think so, but still their eggs are not ripe when they come in.

Q. Some may be more advanced than others, I suppose?—A. Yes.

Q. However, you say they come in to spawn. When do these small ones come in to spawn?—A. We do not catch them during that time at all.

Q. Why, are the small ones not caught then?—A. Not on this side, we do not fish for them.

Q. Well, if they were amongst the large ones they would be caught, would they not?—A. Yes, they would.

Q. Then the conclusion would be that they do not come?—A. No, they spawn on the reef in the centre of the lake.

Q. Did you ever see any spawn in these small ones?—A. I do not know whether I ever saw any, but I know they catch them in large quantities sometimes from Alpina by the American tugs that go out. We are lying more on a lee shore and we cannot get to the reefs so well—they catch them in large quantities during the month of November there. We cannot get to the reefs owing to the prevailing west winds, and we do not fish for them.

Q. Is that because they are not along with the big fish on the shore?—A. Well, we have too far to go for them, and the prevailing heavy winds are from the west and north-west.

Q. As they are not along with the big fish, you do not go out into the lake for the small ones?—A. No, not in the fall.

Q. Are the big ones the most profitable, is that the reason that you do not go out after the small ones?—A. Well, they are the same value to us, sometimes the small ones are more value, they are a more marketable fish than the large ones.

Q. When do you think these fish are in the best condition for table purposes—you are an old dealer and will know?—A. Well, I think in the spring of the year when the water is cold.

Q. Do you say that salmon-trout, whitefish and herring are better in the spring months?—A. Yes, sir.

Q. Would these months be May, June and July?—A. Well, I don't know that there is much difference at that time in them, I cannot see but very little difference in the quality of them.

Q. Now, where do you market your fish?—A. On the American side, principally.

Q. What proportion do you ship there, is it three-fourths as Mr. Craigie said?—A. No, we ship a good deal more than three-fourths.

Q. Seven-eighths of it?—A. Yes, fully that.

Q. And the balance you sell for local consumption?—A. Yes, sir.

Q. Could you just roughly state the amount of your sales this year?—A. Well, I cannot exactly say—probably about in the neighbourhood of five million pounds—that is from Georgian Bay and the upper end of the lake here.

Q. How does that compare with the sales you have made in former years?—A. It compares quite as well as any year that I have been in the business.

Q. Then this year would be about the same as former years?—A. Yes, sir.

Q. Are the number of people that you buy from in your transactions, and the fishing gear that you use, as large now, or larger than it was years ago?—A. Well, I don't think it is any larger, but it is probably the nets are a little finer that we use now, we use about the same number, but probably a little finer twine. We use probably the same number of nets, but the twine is finer, and I think they are a little longer.

Q. What do you mean by the twine being finer?—A. Well, a finer thread.

Q. Why do you use a finer thread now?—A. Well, we think it better for catching fish.

Q. It catches more fish?—A. Yes.

Q. Could you reduce the size of this thread and make it more killing still?—A. It would not stand the wear.

Q. You have got it now to what you think is the minimum?—A. Yes, sir.

Q. What is the size of the twine you use in the gill-nets?—A. We use number 50 in the summer principally, and in the fall numbers 35 and 40.

Q. Why do you use 35 and 40 in the fall?—A. We get larger fish, and fishing in the shallow water is harder on the twine.

Q. Are you engaged in anything except gill-net fishing?—A. Well, yes, I am slightly engaged in pound-net fishing as well.

Q. What is the size of the mesh in the pot of the pound-nets that you use?—A. I believe  $4\frac{1}{2}$  in the pot.

Q. And in the heart and in the tunnel?—A. The heart and the tunnel is 5 or 6 and the leader is either 5 or 6, I think.

Q. What is the size of the twine you use for this?—A. About number 15 and 16 thread cotton, and some use 12.

Q. What do you use?—A. Well, we use numbers 12, 15 and 16.

Q. Is that for the pot?—A. Yes, that is for the pot, and the whole thing, sometimes we have the pot a little heavier.

Q. Do the fish gill in a  $4\frac{1}{2}$ -inch mesh in the pots?—A. Sometimes they will gill.

Q. As you are a dealer, will you understand fishing thoroughly?—A. Yes, I understand fishing thoroughly.

Q. Do you say fish will gill in a  $4\frac{1}{2}$ -inch pot?—A. Four-inch is what I mean.

Q. And you say fish will gill in 4-inch pots?—A. Yes.

Q. Are these the smaller fish?—A. Yes.

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Q. What would you call your small fish?—A. Oh, about one and a half, and one and three-quarter pounds and under; less than one and a half pounds will not gill, they will pass through.

Q. Will whitefish sometimes gill in a 3-inch mesh?—A. Well, I suppose a small one would.

Q. What size whitefish would that be?—A. It would be about one pound, and three quarters of a pound—the size of a large herring.

Q. Are there many small fish caught in these pound-nets?—A. Well, I understand there has been a good many, but I think the fishery overseers have made them comply with the law, and put in a larger net, and now they are not caught.

Q. Were there a good many caught in this way?—A. I understand that at one time there was a good many caught, but I never saw it.

Q. Would there be small trout too?—A. They would be small whitefish principally. They do not catch many whitefish in a pound-net, not unless in some localities; they are not so much fished for.

Q. Are these small whitefish saleable?—A. Not when they become too small.

Q. Well, at one pound, or three-quarters of a pound are they saleable?—A. Well, less than one and a half, and one and a quarter pounds they are not really saleable.

Q. Whitefish of one and a half pounds, and under are not a saleable fish?—A. No.

Q. Not even among the local dealers?—A. No, they are not wanted.

Q. The average of your whitefish here would be what?—A. Oh, about two and a half, to two and three-quarter pounds.

Q. These that are not saleable, and not marketable what is generally done with them?—A. Well, they have been salted, I understand, at one time, but I do not think there are many of them caught at the present time. They used to go to Detroit at one time. The only place they were caught was up at Duck Island, I believe, until the law was enforced. It was generally around that coast, I do not say just there, but about that coast, that is the principal place they did much pound-net fishing, but lately a lawful mesh has been enforced and I don't think there are many caught now.

Q. What mesh were these caught in?—A. About 2½ to 3 inches.

Q. And the pot that took these fish would be what?—A. About 2½ to 3-inch mesh. I had some of them myself, the same kind of nets at that time, and we caught some small fish in them.

Q. Do you, as a dealer and trader in fish, object to the 4-inch mesh in the pot?—A. No, not where we fish for trout and whitefish.

Q. In fishing for trout and whitefish is a 4-inch mesh the right size?—A. Yes. I would say not less than that certainly.

Q. Otherwise speaking, a 4-inch mesh is the lowest one that should be allowed for whitefish and trout?—A. Yes, exactly.

Q. Have you ever fished for herring to any extent?—A. Well, we are interested down at Point au Place and at other places, and at Port Stanley the company is interested in them and at all those places down there. We deal mostly all along that shore.

Q. What sort of nets do you use for them?—A. We use a smaller mesh principally for catching herring. Herring is the greater part of their catch there, and blue pickerel—that is what they call them. I don't know what their proper name is.

Q. What size of mesh do they use there?—A. Well, I am not exactly certain, I suppose it would be about a 3-inch mesh, anything over that would not hold herring.

Q. Are you not in error there, do they not use a 2-inch mesh?—A. Well, they may, I would not be positive, I know that over 3-inch would not hold herring.

Q. Would they not hold pickerel either?—A. Well, no. I know the 3-inch mesh is the largest size they could use to hold them, but they may probably use 2-inch; anything over 3-inch would not hold them, and over 2-inch the herring would gill in them and it is very hard to get them out of the pots if they gill.

Q. What do you think is the real time for the spawning of salmon-trout?—A. Well, I think about the 1st of November they are at their best.

Q. And for whitefish?—A. Whitefish about the same time, I think; in both they may vary a little earlier or a little later; they vary according to the water. In very stormy weather the fish cannot come up to shore, you know, they cannot live in it.

Q. What about herring—are they the same?—A. Well, about the herring I cannot say. I suppose about the same, but think there should be no close season for them; herring are plentiful.

Q. Why do you say that?—A. Because I think they are as plentiful as ever and they are very cheap. We get all of them we want.

Q. Do you know what herring are the principal food for?—A. Well, herring are the food for all other kinds of fish, that is, all the fish that eats fish—mostly trout, I think, and pike and pickerel.

Q. If the food of the salmon-trout and pickerel, which is herring, is wholly gone, what effect would that have upon the salmon-trout and pickerel?—A. Well, I suppose it would have some effect upon them, but they seem to have plenty of food. There are other fish, you know, what we call the minnow here, just about the same as the ciscoe in Lake Ontario, about three or four inches long, that the trout live on.

Q. Then, you do not think the destruction of the herring would affect the food of the salmon trout and the pickerel?—A. I don't think it; not at present as they are catching them. It would if you exterminated them.

Q. Do you deal in bass and catfish?—A. Well, we buy all we get of them.

Q. Do you buy bass and catfish to any extent?—A. Yes; some places we get a good many of them; we get a good many black bass in the Georgian Bay.

Q. Are the catfish in marketable demand?—A. Oh, yes, the catfish are.

Q. I suppose, in fact, almost any kind of fish are a marketable fish now?—A. Yes, almost any kind; we sell all kinds.

Q. What month do you consider the most ruinous on your nets when fishing?—A. Well, the summer months are the hardest on the nets on account of the warm weather.

Q. But owing to the inclemency of the weather?—A. Well, September and October.

Q. What of November?—A. Well, we never fish in November, but I consider November would be very hard on nets, and we would rather be out of the water, that is, as far as I am concerned.

Q. But you are largely concerned, because you do a large business?—A. Yes, I would rather have them out; still, if we had liberty, we would fish right along.

Q. Oh, yes, I understand. What about this Sunday close time?—A. It is impossible to carry out. It takes pretty near a week sometimes to put in a net.

Q. Have you heard something about the Americans poaching in our waters—do you know that to be the case?—A. Well, it is very little done; I don't think it amounts to much. There is one American tug here this season that I believe is principally fishing in Canadian waters, but it may be fishing on the reef in the centre of the lake there.

Q. How far is that from the Canadian shore?—A. Well, I could not say. I did not see it, but they say it is six or seven or eight miles from the Canadian shore, more or less. They move the nets every time they lift them, you know.

Q. Are they all gill-nets?—A. Yes, gill-nets.

Q. Do you know the extent of the nets they use?—A. Oh, they will use the same as we do on one of our tugs.

Q. The gill nets would be how many fathoms?—A. Well, I could not say; it would be about thirty-five to forty nets at  $3\frac{1}{2}$  pounds to the net.

Q. Well, what is the length of one net?—A. I suppose they use the same twine as we do, 100 yards, in all some 40,000 yards.

Q. Do you know the size of the mesh, or anything about these nets?—A. I suppose they are using  $4\frac{1}{2}$  inch.

Q. Why would they use  $4\frac{1}{2}$ -inch, while you are using 4?—A. Well, I don't know if they get up their fall nets the same as we do. They are in the middle of the lake on the reef, but the reef runs down to Kettle Point, and the Point is towards the Canadian shore, some eight miles off the Canadian shore. They are fishing off Kettle Point.

Q. What is your idea with regard to the close seasons being abolished in Canada, or would you advocate it?—A. I would sustain close seasons.

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- Q. Are close seasons in the interest of the fishermen, and of the fishing industry?  
—A. Yes, sir.
- Q. Do you get many sturgeon?—A. Well, not very many, we get a few.
- Q. Could you give me anything like an average of the size of the sturgeon you get?—A. About sixty to eighty pounds, before they are dressed.
- Q. That is for the carcass?—A. Yes. They come about four feet and over in length. We buy them according to their length, and anything smaller than four feet we call a half sturgeon, and we do not get many of them.
- Q. You buy them by the carcass out and out?—A. Yes.
- Q. What would those of four feet and over cost?—A. Well, here we pay \$1 apiece for them on the ground, but down below they pay much more for them, down at Point Pelee they pay \$1.75. They are larger down there, I think, in Lake Erie.
- Q. Do you cure this fish yourself?—A. We ship it.
- Q. Do you ship the carcass whole?—A. Just the carcass, sometimes whole, sometimes we dress it—take out the inside and take the head and tail off.
- Q. Take a seventy pound sturgeon, what would you get of dressed meat?—A. Well, a sturgeon averages probably about thirty pounds: a Lake Huron sturgeon, from twenty-five to thirty pounds dressed meat.
- Q. At how much per pound?—A. Oh, about 4 cents.
- Q. How much caviare or eggs would you get from that?—A. There is very little caviare in the sturgeon you get here.
- Q. How is that?—A. Well, I don't know, it seems they do not have much caviare, that is, eggs.
- Q. When you do get any, when do you get it most freely?—A. We get it all seasons from the spring to the fall, there does not seem to be any time in particular.
- Q. Have you any idea of when sturgeon deposit their eggs?—A. Well, I don't know, but we get it ripe, and they never lose it until it is ripe.
- Q. Well, what time do you get it ripe?—A. It does not seem to make any difference to us; we get it all the season through.
- Q. Is there not a season in which the caviare is more easily separated from the fibres than others?—A. Well, I do not see any difference. We do not see them until they are easily separated.
- Q. And what time do you see them?—A. Well, as soon as we put in our nets in the spring.
- Q. Are they more freely taken in one month than another?—A. No—well, the spring and the fall they seem to be more freely taken.
- Q. You cannot say when they spawn?—A. They spawn all seasons, I think.
- Q. Yes, but when they are ripest?—A. Well, I find them ripe all seasons—some of them are ripe all the year around.
- Q. Is the sturgeon fishery of much importance with you here?—A. Well, not here, still there are a good many caught down below here, but we have caught very few this last year here.
- Q. Have you anything to say on this question of hatcheries. Do you consider that they are beneficial?—A. Well, that is a thing I can say very little about, but still I think I would continue them.
- Q. That is rather qualified, "continue them;" by that you infer that there is a question of discontinuance?—A. Well, I have not been in a neighbourhood where there has been much spawn put in, so I cannot say very much about it, but I understood from parties who have been in that neighbourhood that it is a benefit.
- Q. Then you are not prepared to say that you would continue the hatcheries?  
—A. Yes.
- Q. What is the impression among fishermen in regard to them?—A. Well, I cannot say; some of them would say they are no use, and some of them say they are a benefit. I suppose they would all consider them beneficial if they were allowed to fish in the close season. There are fishermen who say, put in hatcheries and let us fish all season.
- Q. Do you believe that is a correct principle?—A. No, sir, I don't.
- Q. Do you not believe in that, because you think the close season is beneficial?  
—A. I think it is beneficial; I would have the close season begin the 1st of November and kept strictly.



Q. Have you any remarks to offer yourself, Mr. Clarke, now in regard to any of these matters, or any other matters?—A. No, I don't know that I have, further than I would have the close season remain as it is at present and I would keep the Georgian Bay clear of all pound-nets and I would keep it a breeding place for whitefish; I think it is the only place we have now for a breeding place for whitefish, and I would keep pound-nets out of that place.

Q. Anything else?—A. As to whether the Americans have a close season or not I don't think it interferes with us at all, I think that we should have one. I think that the bulk of the fish that we really try to protect do not move much off our ground—they come back to the same ground every season. I don't think our fish move around much, I do not think they leave our shores, they have their feeding grounds and they stay there.

Q. Otherwise speaking, the fish native to our shores remain there?—A. Yes, remain on the shores, and on different shores you get different sizes of fish. Take the fish from Kincardine up to Cape Heard the fish are larger there than what you get in the Georgian Bay, very near double the size and the same kind of fish, too; we never get them mixed; and from that up again to the Manitoulin Islands they are a little different to these in the Georgian Bay.

Q. Otherwise speaking, they come in families, do they not?—A. Yes, I think so, they are in families, or else it is the nature of the feeding grounds.

Q. Do you think that they go in families and resort to certain places in which they feed and breed?—A. Yes, I think so.

Q. Does this generally apply to our fish?—A. Yes; in regard to this I speak from experience, from my own practical knowledge.

Q. Have you any other remarks to offer?—A. Well, nothing further than I mentioned with regard to the herring close season; I think there should be no close season for herring. I understand now that they have a little grievance down at Point Pelee, in Lake Erie. The Americans are now bringing from their shores herring into the Detroit market, and the Canadians are prevented from doing that now in the close season. I think herring moves around more than any other fish, but they do not seem to be getting any scarcer. The men down there claim that they are as plentiful as ever.

Q. Have you any knowledge of the Detroit River at all?—A. No; I have not much knowledge of the Detroit River.

Q. Have you any other remarks that you would like to make from your standpoint as a large dealer here?—A. No, I don't know that I have.

*By Mr. Harris:*

Q. How many gill and pound-nets have you?—A. Oh, I cannot exactly say how many the company has; we have them scattered around in many places.

Q. Have you some of your own?—A. Yes, some.

Q. How many pound-nets have you got?—A. I have only got two that is run in my own name.

Q. Then you have some others also, have you?—A. I am interested in others; yes, I am interested in more or less all the nets that we buy fish from; we have got to supply the men with twine.

Q. Have you got a tug?—A. Yes, a number of them.

Q. How many pound-nets should one good tug serve on this lake?—A. Oh, I suppose one good tug in fine weather could serve twenty or thirty nets.

Q. One good tug could serve twenty or thirty nets?—A. Yes, I suppose it could with a boat attached.

Q. What depth of water do you fish in this lake?—A. About twenty eight feet or thirty, it depends on the water.

Q. How long is your leader?—A. Oh, about 60 to 80 rod. I claim it should go into the beach, but they generally leave them out from the shore in eight or nine feet of water.

Q. What size of mesh in the lead?—A. They use all sizes of mesh, 5 or 6-inch mesh and sometimes 7.

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Q. Is it ever as low as 5 in this lake?—A. Well, I don't know that it is, but I don't think it matters much because the pot is the main part of the net to catch fish.

Q. Do pound-nets give the public fish in better condition than those caught in any other way?—A. Well, I don't know as they do. The fish we catch in the gill-nets cannot be caught in pound-nets.

Q. Are the fish supplied to the public caught in pound-nets fresher than those caught in gill-nets?—A. Sometimes they are and sometimes they are not.

Q. When are they not?—A. When they are a shallow water fish, then I claim they are not as good as deep water fish; they are softer and not usually as good as deep water fish.

Q. Do they ever fish with gill-nets in the same depth of water that you use pound-nets in?—A. Yes, they have tried that but they cannot catch them. They can see the net in shallow water and they do not gill.

Q. Is gill-net fishing carried on in this lake in 28 feet of water?—A. Well, I don't know that it is. Sometimes there may be a few nets in the fall of the year set in that depth of water, but through all the principal parts of the fishing season they are in deep water.

Q. Then, the water would be colder?—A. Yes, the water is colder.

Q. Is there less waste in pound-net fishing than in gill-net fishing?—A. Well, I don't know that there is.

Q. Are there any fish rotten and decayed?—A. Sometimes we get fish what we called "drowned fish" and we salt them. That is the fish that dies in the net, and undoubtedly that fish will not stand as long as the fish that is alive when caught.

Q. Well, then, in your pound-nets you claim that there is never any dead fish?—A. Oh, yes, there is dead fish in other nets, pound-nets and all, there will be dead fish in them all.

Q. Are there as many dead fish in pound-nets as there are in gill-nets?—A. No, I don't think there are—oh, no, there should be none in pound-nets unless they gill.

Q. What dead fish do you notice in the pound-nets here?—A. Well, there is no dead fish unless they gill.

Q. What variety gill in your pound-nets?—A. Well, only fish small enough to go through the mesh.

Q. What kind is that?—A. Pickerel, whitefish, trout and herring, if the net is small enough for them to gill in.

Q. How often do you lift your pound-nets?—A. Sometimes every day, and sometimes once a week, and sometimes once in two weeks; it depends on the quantity of fish that is going in them. Sometimes there is no fish that goes in them at all, we won't catch them for weeks, there won't be one hundred pounds of fish in them.

Q. You are a dealer as well as a fisherman?—A. Yes, sir.

Q. Are you in the employ of any American company?—A. I am interested in an American company.

Q. As partner?—A. A stockholder.

Q. Do you get a salary?—A. Yes, sir.

Q. And that is paid you, how?—A. It is paid me by the Buffalo Fish Company.

Q. You say you are a stockholder in the Buffalo Fish Company?—A. Yes, I am a stockholder and a manager.

Q. Can you tell me what quantity of fish you have caught this year in the nets, I mean under your control?—A. Well, I could not say. You know to avoid the McKinley Bill we formed the company.

Q. The McKinley Bill has nothing to do with this question of how much fish you caught?—A. I cannot tell you that unless I go to the books.

Q. You cannot give me an idea?—A. I have said that we have handled in the neighbourhood of five million of pounds from our different points—Georgian Bay and Lake Huron.

Q. Have you handled all that amount of business here?—A. Yes.

Q. Do you represent the American company in all these localities, in all these sections near here in Lake Huron?—A. Yes, sir, represent all in stock, you understand, as dealers.

Q. Is the herring fishery carried on profitably on this lake?—A. No.

Q. The only fish that there is any money in is whitefish and trout and pickerel?—A. Yes, and sturgeon and bass and such other fish as we catch.

Q. What fish do the salmon-trout feed on?—A. They feed on all kinds of fish.

Q. What do you think is their principal food?—A. They will eat salmon-trout.

Q. Eat each other?—A. Yes, sir.

Q. And you think herring is their principal food?—A. I think they are most numerous.

Q. If the herring were to be reduced in numbers considerably they would have to look for other fish for food?—A. Well, I suppose if they were exterminated or a great deal reduced they would have to look for other fish, I suppose. I don't think they are particular what kind of fish they get as long as it is fish.

Q. As to this close season question. Do you object to the close season?—A. No; I do not object to the close season.

Q. You think it is proper to have a close season?—A. Yes, I think so.

Q. Do you think it is better for the fishermen to continue this system that the department has introduced?—A. Well, I don't know that it hurts the fishermen any.

Q. Do you think it would hurt the fishermen and the present holders of these licenses if the whole thing was thrown open to the public?—A. I don't think it would make much difference. I don't think a man stops fishing because he has got to pay a license.

Q. Can any one get a license who asks for it?—A. Well, I never knew any one to be refused—well, not for a gill-net license, for pound-nets they are refused.

Q. But you never knew any one refused for a gill-net?—A. No, I never knew any one refused for a gill-net. I think the tug licenses should be \$10 in place of \$25, because they are out of proportion to the amount of twine they run. It is not the boat that catches the fish, it is the nets, and the tugs are better both for drawing in the fish earlier and better for the men. There are six men on a tug and three on the boat, and we run, in the tug about double the quantity of nets that the boats do, but there is double the quantity of men as well; but still the tug pays \$25 while the boat pays only \$5, and I think the tug should be reduced down to \$10.

*By Mr. Wilmot:*

Q. You say that you have two pound-nets on your own license?—A. I have them in South Bay in my own name.

Q. And you are interested in all the pound-nets that you buy fish from?—A. Well, we are interested in mostly all the nets.

Q. What quantity would that be, roughly?—A. Well, I cannot tell you just exactly. We are interested down below and we have to furnish the men the money to fish with.

Q. With regard to the fish caught in the gill-nets, are more killed in them than in the pound-nets?—A. Oh, certainly more are killed, yes; in the gill-nets.

Q. In fact they are all killed in the gill-nets, you may say?—A. Yes, certainly—well, a great many are alive when we get them.

Q. Does it not happen sometimes that severe storms will prevent you from taking up your gill-nets for a number of days?—A. Yes, sometimes they do, and if a gill-net is kept out too long, undoubtedly we will have more dead fish in it.

Q. What if kept out four days?—A. Well, four days does not signify if we fish in dead water. The fishermen generally regulates that, because if they bring dead fish they do not get anything for them—if they are too long out they are unsaleable.

Q. And are these unsaleable fish thrown away—necessarily?—A. No, not necessarily thrown away, they are salted.

Q. Is an unsaleable fish fit to salt?—A. Well, a fish may be a drowned fish and yet comparatively a good fish but they would not keep, they are too soft. Our fish has got to be several days old before we get them to the market and after they reach Buffalo they have to be repacked and reshipped to New York, etc.

Q. But all this time they are preserved on ice?—A. Yes, and the drowned fish are unsaleable, and therefore we salt them.

## Ontario Fishery Commission.

Q. Are there not a great many that are not fit to salt?—A. No, not very many—a fish will live a month in a net, you know.

Q. But the fish when swelled up will sometimes bring the net to the surface of the water from being too long out in a storm?—A. No.

Q. You have never seen that?—A. No.

Q. Never heard of it?—A. No.

Q. Do you know of a practice which has been pursued of putting a prod or sharp instrument in the bellies of the fish to let the gas out?—A. The fish very often when it is struggling in the water, even on a hook or line it seems that there is a wind that gets into him. I understand when he is struggling anyway that will get into him.

Q. And to get rid of that the fish is prodded?—A. Yes, I saw that done and the fish alive after it was put in.

Q. But these fish that are in the gill-nets and swollen up and prodded to let the gas out are dead fish, are they not?—A. Oh, no, not dead fish. It is a kind of bladder that is full of wind and the fish may be perfectly alive, probably not in the net half an hour before the nets are lifted, and yet it may be full of this wind or gas, whatever you may call it. I think it is air that the fish inhales in going up to the surface, very often.

Q. Then you say that gill-nets cannot be lifted sometimes, for how long?—A. Oh, it depends on the length of the storm and the weather.

Q. For how many days, will you say?—A. Well, probably two or three days, it depends on the length of the storm. The fish that we catch with gill-nets cannot be caught with anything else.

Q. And if the nets are left out too long the fish die, is that correct?—A. Yes, part of them die.

Q. And then being unsaleable are salted, is that correct?—A. They become unsaleable for being packed in ice as fresh fish.

Q. And are salted?—A. Yes, still they may be good fish—we are supposed not to ship anything but live fish.

Capt. JAMES INKSTER sworn :—

*By Mr. Wilmot :*

Q. Your residence is where?—A. Goderich, here.

Q. And your occupation?—A. Fisherman.

Q. How long?—A. Well, seventeen years.

Q. Your nationality?—A. Scotch.

Q. What kind of fishery do you carry on, Mr. Inkster?—A. Gill-net fishery.

Q. What description of fish do you take in your gill-net?—A. Salmon-trout chiefly and whitefish.

Q. Sturgeon?—A. No.

Q. Any other fish?—A. An odd pickerel once in a while.

Q. And what particular locality do you fish in?—A. Oh, I have fished all along this shore and the Georgian Bay, these last two seasons I have been down here.

Q. Along the lake shore of Lake Huron, is it?—A. Yes. And the Georgian Bay, and the north channel of the Georgian Bay, I have been out there one season.

Q. You use gill-nets wholly?—A. Yes, sir.

Q. No seine nor hoop-nets?—A. No, sir.

Q. What size mesh do you use in the gill-nets?—A.  $4\frac{1}{2}$ -inch this last year or so, before that it was larger,  $4\frac{3}{4}$ .

Q. Was the regulation  $4\frac{3}{4}$  formerly?—A. Yes, sir.

Q. That was the standard regulation?—A. Yes.

Q. And it has been reduced during the last year or two to  $4\frac{1}{2}$ ?—A. Yes, sir.

Q. Consequently you use it?—A. Yes, not all of the nets, some of them do, but some use larger mesh.

Q. Will this mesh catch all the marketable salmon-trout and whitefish?—A. Oh, yes, I think so.

Q. Now, how small a fish will pass freely through this  $4\frac{1}{2}$ -inch mesh?—A. Oh,  $1\frac{1}{2}$  and 2 pounds, I should judge.

Q. One and a-half pounds and under will pass through the  $4\frac{1}{2}$ -inch mesh?—A. Yes, there are lots of fish that get caught that are not gilled at all, some are caught by the teeth.

Q. Well, ordinarily speaking?—A. Well, about a 2-pound fish you can pass them through quite easily.

Q. Two pounds and under will go through a  $4\frac{1}{2}$ -inch mesh, as a rule?—A. Yes, some fish are leaner built than others.

Q. This will apply to pickerel, salmon-trout and to whitefish, will it?—A. Yes, sir.

Q. Now, we are a little anxious to ascertain if we can when these fish are supposed to be in their best condition for domestic use, or for market. When would you consider the salmon-trout in its best condition?—A. Well, I could not say, I am sure. There is generally the best demand for them in the spring, but that is on account of their scarcity, I presume.

Q. The demand is not so much what we want as the time when they are best for table use. You know some animals' flesh is better for eating in some seasons than others, does not this apply to fish as well?—A. Here the fish are in good condition all the year around that ever I saw, except the fish that are sick.

Q. Salmon-trout, and whitefish both, you say, are always in good condition?—A. This part of the lake down here they are.

Q. Would you say they are in good condition then during the spawning season?—A. I think so, in fact, better condition than any time; they are fatter, I think.

Q. Is the fish in as good condition when he is spawning as it is before?—A. That class of fish we catch we always count them better.

Q. Better when they are spawning?—A. Yes, to all appearances—herring in particular, they are in a prime state.

Q. And you do not know of a month of the year that they are in better condition than another?—A. No, sir, I do not.

Q. Have you any knowledge of what condition they are in after they are done spawning?—A. Herring is not as good.

Q. Herring are not good after spawning?—A. Are not as good after they have spawned. I don't know about whitefish or trout, I never caught them.

Q. Don't you think nature would operate in the same way as to whitefish and trout?—A. I should think so, yes.

Q. What market do you have for your fish or where do you sell them?—A. At the present time I am just working on wages here, but I have a boat up on Lake Superior and her fish is all sold in Canada. The fish caught down here are sold to Mr. Clark, in Buffalo.

Q. What is the market price you get for those sold to the Buffalo company?—A. This year they are  $3\frac{1}{2}$  to 4 cents for salmon-trout and whitefish.

Q. And those you sell in Canada from Lake Superior, what do you get for them?—A. They are too far from the market— $2\frac{1}{2}$  to 3 cents.

Q. Do you sell them up there for that or down here?—A. Up there.

Q. For the same kind of fish?—A. The same class of fish, yes; they are too far from the market.

Q. What do you get for herring?—A. I do not catch herring, not of late years, we used to catch them and not sell them; they were too plentiful.

Q. Are herring caught in Lake Superior?—A. We do not catch any.

Q. Have you noticed when these fish are in their ripest condition for laying their eggs, for instance, salmon-trout?—A. There are two or three species of trout in this lake. I have seen them spawning the latter end of August or the first of September, out on the outside reefs in the middle of the lake—we call it a reef, but it is under thirty or forty fathoms of water.

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Q. What kind of trout do you call these?—A. I don't know the proper name for them; they are a kind of deep water trout—"red fin" we call them.

Q. What size will they be generally?—A. Well, from three to eight pounds, around there—five or six pounds.

Q. Well, the general average would be what?—A. Well, they are a pretty large size.

Q. Would they average five pounds or four pounds?—A. Well, from four to five pounds I should judge—that is this class I am speaking of, you know.

Q. That is what I mean. They would run to an average of about four pounds?—A. Yes, sir.

Q. One gentleman gave us black trout and white trout?—A. Well, the black trout is what we call the rock trout inshore.

Q. Well, then, these are the white trout?—A. Yes, deep water trout, or white trout or red fin.

Q. Do you know that they do spawn there?—A. I have seen them spawning several times.

Q. In September?—A. The 1st of September and all through it.

Q. Does this fish ever go near the shore at all?—A. No, sir; I have never caught them inshore.

Q. Not in the midsummer months?—A. No, sir.

Q. Well, now, the other kind of trout, what do you call them?—A. The rock trout.

Q. Or black trout?—A. Yes, or black trout.

Q. When do they begin to spawn?—A. About the 1st of November generally; they commence to come in then. That is when we commence to catch them. They are not altogether ripe then for spawning.

Q. They come in along the shore about the beginning of November?—A. Yes, about then; some seasons are later than others.

Q. And commence spawning afterwards?—A. From that date, I should judge.

Q. What will the average weight of these fish that come in at that time be?—A. Well, they are from four to ten pounds, around there; a pretty large fish.

Q. Well, what average would they be?—A. They will average five pounds easy, down this way.

Q. Then, they are not much larger than the deep-water trout—they will only average a pound higher than the deep-water trout, or are they much larger?—A. They are much larger, apparently; of course, you will get some deep-water trout as large.

Q. But we are taking their average?—A. Well, they will be probably six or seven pounds; of course, different catches are different sizes.

Q. And these are always spawning fish; are they mature fish?—A. Yes, sir.

Q. Well, do you catch this trout at all out in deep water?—A. Well, seldom; an odd one once in a while.

Q. Have you any idea where these fish go to in the summer that are only caught in November or the fall.—A. My idea is that they are all over the lake, scattered about; in fact, I have seen them playing, fine days.

Q. Do you suppose that this is on their feeding grounds, as distinguished from their breeding grounds?—A. Oh, yes; their breeding grounds are on clean rock, no sand or mud; it has got to be clean honeycomb rock.

Q. And about the 1st of November they come into the shore to spawn?—A. Where there is hard, clean rock bottom, you won't get them anywhere else; that is where they frequent, that class.

Q. What is your idea about herring—when do they spawn?—A. Some years it is a little later than others. Down here where I have fished for years, they generally spawn about the same time, or a little later, probably; about the 15th of November is their best time.

Q. Have you any idea when the pickerel spawn?—A. No, I don't know.

Q. Do you know whether they spawn in the spring or in the autumn?—A. They don't spawn in the autumn, I don't think, except it is very late. I am not positive, because it is only an odd few we do catch.

Q. Well, what do you think as to the time the pickerel spawn?—A. They are a coarse fish and we hardly ever catch them out in the gill-nets, they are caught more all along the shore with trap-nets and seines.

Q. And you cannot say anything about their spawning time?—A. No, sir.

Q. When do you experience the greatest amount of loss with your nets in fishing in the lake?—A. Oh, in the fall of the year generally, this fall in particular. After September there is never very much made. The latter end of September and October is generally unfavourable weather. It is the most unfavourable time; we never lose any nets, but we lose time, it is the most unfavourable time.

Q. What about November?—A. Well, that would be worse still, I should judge. We generally pull out anyway whether it is a close season or not.

Q. Well, exactly. November would be a worse month still?—A. Yes, sir.

Q. You do not use pound-nets at all, you say?—A. No, sir.

Q. Do you meet with difficulty at times after stormy weather in the summer months with being unable to get out to your nets in the deep water to take them up?—A. We meet with difficulty after big storms, more with big logs going through the nets.

Q. Would you meet with this difficulty of big logs out in the deep water?—A. Oh, yes, all over, sometimes after big gales. Sometimes they drift for miles.

Q. Then the gill-nets are injured by being fouled with logs?—A. Yes, and from strong currents and storm.

Q. When this takes place with a large number of fish in the nets what results?—A. If the nets were found in due time the fish would be all right.

Q. What would you call due time?—A. Oh, four or five days. As long as they were not decomposed in any way they would all, or nearly all, be fit for food.

Q. Well, would the fish be all dead at this time?—A. Oh, no, probably one-half of them would be alive.

Q. Would they all be as marketable as fish brought in after one day's catching?—A. No. There are two classes, first class, and second class, and these drowned or dead fish are sold as second class fish, and the live ones are first class fish.

Q. Then they are not unmarketable at all, it seems?—A. No, except a chance one that will be destroyed. Sometimes probably after a storm we would not be out for two weeks and then of course there are many that are not marketable; many of them were this fall, and during the summer too.

Q. Well, the unmarketable ones, what happens to them?—A. They are thrown away or taken ashore and buried if they will handle. Sometimes they won't handle in that way.

Q. Does this occur often?—A. Oh, no, probably once or twice in the season.

Q. Depends on the weather?—A. Exactly on the weather. Very seldom in the summer time, generally in September and so on.

Q. Is that about the general thing with all the other fishermen as well as yourself?—A. That is a general rule.

Q. Is it?—A. Oh, yes, I think so.

Q. These 1½-pound fish—do you know them to be immature, that is unable to reproduce their species, unable to spawn?—A. I have seen some very small ones spawn, I could not say the exact weight. Two pounds and over I am satisfied that they are mature.

Q. Would this be the same with the bright fish, and with the black fish as they are called?—A. Well, I don't know about the rock trout, but the deep water fish I am satisfied do; I never caught rock trout that small.

Q. The deep water 2-pound trout is sufficiently mature to produce eggs?—A. Yes, but I rather think not with the rock trout.

Q. Are you aware of the law with regard to the Sunday close season, that is to take up the nets at 6 o'clock Saturday night and keep them up until Monday morning?—A. Yes.

Q. Is it practicable or possible for the fishermen to comply with that?—A. No, sir, not here; we could not make a living if that was the case.

Q. And you think it is altogether impracticable to enforce it?—A. It is altogether impracticable.

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Q. Do you know of a practice of the Americans of poaching or fishing in our waters?—A. Well, except this fall, I never saw them before. There was one this season, I believe, or at least I saw her once or twice down here at Kettle Point.

Q. Was that a tug?—A. Yes, a tug.

Q. With her fishing gear—fishing where?—A. About 35 miles south-east of here down at Kettle Point, that is the name of the place, in Canadian waters.

Q. How far would this fishing be carried on from our shore?—A. Oh, from five to ten miles, they say five or six miles from the nearest land. In the summer time we make no difference, we would be setting alongside of them, and sometimes our nets would be foul of each other—no distinction of line made between us.

Q. This would be where?—A. About the centre of the lake where we call the reef is.

Q. Well, we want to know whether it is judicious and fair on the part of the Canadian Government to have proper close seasons. What is your opinion as to that?—A. Well, naturally speaking, I would say it would be, but I have seen no results of it yet. It has been ten or fifteen years in operation now and I have seen no results from it yet.

Q. You say that generally the fishermen here have not fished in the month of November?—A. No.

Q. Then the month of November not being used by the fishermen the close season here has not effected them but has benefitted them in two ways, in that it preserves the fish and prevents loss by the fishermen?—A. Well, I fished here long before there was a close season and we never did anything more than we do now, we always tried to let up about that time.

Q. Then there is a natural close season?—A. Yes, a natural close season.

Q. If some people fished during that time and others did not, they would have a certain advantage over those who did not fish, and, therefore, would it not be better for the Government to establish a close season?—A. I think if a poor man wanted to catch a few fish let him do so, but naturally thinking I would say it would be better and more natural that there should be a close season; but I say we never made anything at that time.

Q. Naturally speaking it should be so?—A. Yes.

Q. How soon do you usually set your nets in the spring?—A. Oh, from the middle of April to the 1st of May, around there, whenever the ice gets off.

Q. And you generally pull up your nets when?—A. We fish right on until the stormy season comes; we let up the summer or deep sea-nets, about the middle of September.

Q. Well, now the summer net is a net to catch what kind of fish?—A. This smaller fish: they have larger mesh-nets to catch these rock trout.

Q. The rock trout-nets are set when?—A. The 15th of September to about the 1st of November.

Q. With meshes of what size?—A. Oh, 5 to 6-inch extension measure.

Q. Why do you give the name rock trout?—A. Because they are always caught on rock bottom; never catch them anywhere else.

Q. Do they frequent this rock bottom for spawning purposes?—A. Yes, sir.

Q. Have you anything to do with the sturgeon at all?—A. No, sir, I have seen them.

Q. Have you formed any opinion with regard to the advisability of the artificial breeding of fish?—A. I don't know much about it, I am sure, sir. I cannot say I have seen any results around here.

Q. You do not know anything about artificial breeding of fish?—A. No.

Q. Were you one of the petitioners to Government to have a hatchery established here at Goderich on account of the falling off of the fisheries?—A. I expect I was, very likely I did: I almost forget now.

Q. Have you the same opinion still?—A. I have heard a great deal of talk from the other side.

Q. Well, have you the same opinion still that you then subscribed to, viz.: that on account of the falling off of the fisheries here it would be advisable to have a hatchery here?—A. Well, yes, as long as they can prove that they would replenish the waters.



Q. Well, we cannot prove that until they are built. You think that the petition for having a hatchery here is correct?—A. Yes, that will do: yes.

Q. You sell your fish you say, to the Buffalo Company?—A. To Mr. Clark here.

Q. Where are they delivered?—A. Right in the harbour here.

Q. And are they put into a freezer?—A. Packed in ice and sent away the next morning generally.

Q. Have you been fishing here long?—A. About seventeen years.

Q. Were fish more numerous years ago than they are at present?—A. Well, whitefish was, but not trout.

Q. What is your conclusion for that being the case?—A. I think the trout has eaten up the young fry, that are not killed, that is my belief.

Q. It is caused by the trout consuming the young whitefish, you think?—A. Yes, that is my own opinion, I do not say it is so.

Q. And any other reason?—A. Well, the old fish being caught or killed off too much.

Q. Being too numerously caught, is that what you mean, or being over fished?—A. Well, probably there is something in that. You see they only frequent a certain distance along the water, they do not go out over twenty-five or thirty fathoms and the trout go out all over the lake. Whitefish frequent waters near the shore and wherever it is shallow and are more easily caught.

Q. And the continuance of this, you think, has brought about the present reduction of whitefish?—A. That is my idea, yes.

Q. Is there any falling off of the salmon-trout to what they were in former years, either in size or in quantity?—A. Well, there is in certain places; other places they are just as numerous.

Q. What do you think is the cause of this falling off?—A. Or, in other words, I have seen very poor years when I first started, very poor years, and the last two or three years they have been fully up to the average.

Q. What we want to find out is, is there any falling off of this salmon-trout between now and former years?—A. I do not think there is much falling off of the salmon-trout except in certain places, but it is made up for in other places.

Q. What is the cause of the falling off in these certain places?—A. Well, they have probably moved off or have been scared away, I could not tell.

Q. Not by over fishing?—A. No, I don't think so.

Q. When the fish leave one place do the fishermen follow them if it is possible to find them?—A. We loose all track of them. They migrate away and they are liable to come back to-morrow, but it might not be the same run.

Q. What about the herring, sir, are they scarcer?—A. The lake is chuck full of them; at least they do not pay to fish now with gill nets.

Q. What do you think the whitefish live upon?—A. They feed on the bottom altogether, on worms, small worms, we pick them up in the nets often—little grubs.

Q. And are these places where the worms and grubs are found far out in the lake or generally in shallower water?—A. In about twenty fathoms of water, from eighteen to twenty fathoms.

*By Mr. Harris:*

Q. Do you think it would be better for the fishermen if they all took their nets out after the first of November, do you think they would make more money in the end?—A. I think they would be just as well off if they would pull out then, that is, not for herring, but for whitefish and trout; they would catch no herring at all if they did not fish with gill-nets.

Q. Well, what fish do you regard as most profitable of the fish in the lake?—A. Well, with gill-nets, salmon-trout altogether.

Q. Which would you put first?—A. Well, salmon-trout. We did not catch enough whitefish last year to pay the men's wages.

Q. Is the close season regarded as a hardship here?—A. It is not by us, but it might be by some sporting men.

Q. But not by fishermen?—A. No, sir.

## Ontario Fishery Commission.

*By Mr. Wilmot :*

Q. You say that the fishermen would be better off if their nets were taken up in November, except for herring?—A. Except for herring.

Now, what sized mesh do you use for herring?—A. Two and a half to two and three-quarters.

Q. Do you know if there is any regulation for it?—A. No, sir.

Q. You say the herring net mesh now used, is what?—A. Two and three-quarters to two and five-eighths, I think.

Q. Where would you fish with these herring nets—would they be seine or gill-nets?—A. Gill-nets.

Q. Where would you fish with these to get your herring?—A. Up around the Bruce Peninsula and the bays between the islands. We always used to make for shelter.

Q. And this would be in November?—A. Yes, sir.

Q. In what depth of water would you use this net?—A. On four or five fathoms, that is all, sometimes less.

Q. What sort of bottom would there be there?—A. All kinds, rock and sand, and clay; they come in that numerous that they are all over, sometimes all over the bay; it does not make any difference to them.

Q. If you are using this two and three-quarters or two and five-eighths gill-net mesh in these places for catching herring in November, how would that effect the whitefish and salmon-trout?—A. They do not come in there at all. I never caught a whitefish with a herring net. I have caught an odd salmon-trout.

Q. Do I understand that whitefish and salmon-trout do not go into any bays at all to spawn?—A. No, they stay on the shallows outside, they won't go into the sandy or muddy bottom at all, rock-trout won't.

Q. Are you acquainted with Wiarton Bay?—A. Yes, sir.

Q. What kind of bottom would you call that, five or six miles down?—A. Well, it is what we call a clean bottom. I never fished there.

Q. Do you know whether salmon-trout come in there to spawn?—A. Well, it is a local trout, they do not come in from the Georgian Bay there, probably a few local trout.

Q. My reason for asking you this question, is if possible to devise some means to prevent salmon-trout and whitefish which go in there to spawn being caught by the herring nets of 2½ and 2⅝-inch mesh—but you say they do not frequent the same waters?—A. Well, Wiarton Bay is a very deep bay—where we fish it is near five or six fathoms deep.

Q. You are engaged now in a salmon-trout gill-net fishery?—A. Yes, sir, I am now.

Q. When the month of November comes around do you take up your nets and do you resort to the herring fishing then?—A. No, sir, the last four or five years it did not pay us. We have done nothing.

Q. Well, is it the custom with the fishermen when they are done with the salmon-trout and whitefish fishing to commence the herring fishing?—A. It used to be so, but it has not paid us to catch them of late years.

Q. Then, in your opinion, there would be no objection to a close season for whitefish, salmon-trout and herring?—A. Well, I don't see any use for a close season for herring, there are so many of them.

Q. Is it the principal food of the salmon-trout?—A. No, sir, they are not the principal food.

Q. What is?—A. They feed on minnows in particular, and also on herring and on all young fry.

Q. The minnows you refer to are not the young of herring and whitefish?—A. No, sir, they are not. I have examined them particularly and I am sure of that.

*By Mr. Harris :*

Q. You don't think there should be a close season for herring?—A. I do not see any need of it.

Q. What time do you think that close season should be?—A. For herring?

Q. Yes?—A. Oh, from the 15th of November to the 5th of December, if there was a close season that would be the time.

Q. I do not understand what difference that would make to any fisherman if all the nets were up at that time?—A. Oh, there is a great many who depend on that altogether, don't you see.

Q. If it would pay the fishermen on this lake to take up their nets by the 1st of November, I do not see how a close season would matter?—A. I am speaking now of the tugmen. We fish pretty hard all summer and don't feel like continuing on, but there is some who scrape along all summer and they have got to do something in the fall to help them over the winter, and they fish for herring.

Q. Then the reason you think there should be no close season for herring is that there would be so little fishing for them in November in this lake that it would hardly matter. Is that what you mean?—A. Yes, something like that. It would not pay us to hire men to go on catching them, but if a man wishes to go on to catch them, well and good, there is lots of them there. That is my idea.

Q. That is what you mean?—A. Yes. To get up a fishing rig and hire men to catch them would not be safe, you would come out in debt. But if a man wants to get a few to help him over the winter, that is a different thing. So long as there is whitefish and salmon-trout to be caught we don't want to bother with herring.

Q. Whether do you consider the fishery on the Canadian side of Lake Huron or on the American side the better?—A. I consider we have the best grounds altogether. The best feeding grounds and also the best breeding grounds—we have a rolling bottom, a more uneven bottom.

Q. Are you of the opinion that the fish that are native to these grounds on this side of the lake pass over to the American side at all, spawning or breeding there?—A. Well, I should hardly think they would from the Georgian Bay, but I am satisfied that they do down here where it is only forty or fifty miles to the other side.

Q. And you think that they pass from one side to the other?—A. Oh, yes.

Q. But if we have got the best breeding grounds why should they do that?—A. Well, I don't know. I suppose there is not much difference down here, but take it up by the Georgian Bay that is the best breeding grounds on the whole chain of lakes; they have not got an equal to it on the whole chain of lakes, but down here it does not make much difference.

H. W. BALL, being sworn, made the following statement:—

Mr. Chairman, I wish first of all, to put before this commission, what I believe to be the correct time of spawning of fish, and all that I will say will be from actual observation taken by myself.

I reside in Goderich, and am fishery overseer here. My nationality is English. I wish to say that I have made personal examination with a microscope of all fish that I may speak of. Salmon-trout unquestionably spawn from the 1st to the 30th of November; I have come across a few towards the 27th and 28th October that would be softening, apparently ripening for voiding; but I have never come across any mature fish yet of that tribe, that has spawned by the 1st of November. Recently, in fact, on the 17th day of the present month, I seized about thirty-four fish and they are all what our friends here call rock trout, but they were caught in nets placed out on the 27th of October. I should judge they had been in the nets about ten days. I examined the fish and found that none of them had spawned but were all ripe, as far as I could see—they were decomposed, and therefore I did not handle them much. As to whitefish, I have had only three or four opportunities for examination, but in those that I have had, I found that the spawn as hardly ripe as in the salmon-trout, I should judge from five to ten days behind. Herrings—I have examined hundreds ripe throughout—I am positive, as a rule, spawn from the 1st day of November, right well on until December; and perch spawn the same time.

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Pickrel, I have never caught yet, with the spawn ready for voiding. I have caught them in the fall and found the fibers; but after the 15th day of May, the legal day on which they could be caught, I have never found one with spawn. Therefore they spawn by the 15th of May. In regard to bass, their spawn in the month of October is more fully developed than that of the pickrel, but I caught a large number this year, and never in one instance by the 15th or 16th of June, until I might legally catch them, has there been any spawn in them. They would have spawned before the 15th or 16th of June. Now, the only other fish that I have critically examined is the sturgeon. In the year 1891, I examined between ten and twenty sturgeon in the month of May, and I found the spawn in this fish in all stages, some you might say almost softened for voiding, some almost ready to be laid, whilst others were hard. In June, I examined as many fish, and in July, the same number of fish, and my experience was the same. In August, a great number of fish, and the same experience; and the same experience in September with a lesser number of fish. The first two examinations I made were on the 8th and 15th of October: on the 8th I examined seven fish, three were without spawn and three others were fish about to spawn, but still seemed to lack ten or fifteen days of full ripeness; and on the 15th of October I examined four, two of them only with spawn, and those two seemed to require a few days yet before their spawn was in a proper condition for deposition on the rocks.

Regarding the observations made here to-day of salmon-trout, I am clearly of the opinion that we have no two different kinds of fish on this lake, but the fish are the same and their habits are different in this way, that the smaller fish stick to the bottom where they are away from the larger fish, and the larger fish go all over the lake in the summer time for feeding purposes and in the fall they gather together in large shoals for the purpose of spawning on shallows or reefs, coming together in large numbers. The whitefish of course, as I have already said, spawn about the same time, and there is no trouble about the two kinds of fish.

*By Mr. Wilmot :*

Q. It is a fallacy then, in your estimation, that there are two kinds of salmon-trout in this lake that frequent different waters?—A. Yes, undoubtedly. I may say that the reason our fishermen believe that there are two kinds of fish is simply because they inhabit two different kinds of water, the smaller fish go to the deeper waters where they are less the prey of the bigger fish.

Q. Would you give an opinion as to migration?—A. The smaller fish are all in deep water in the middle of the lake and unquestionably they migrate, but I don't think they go to the other side any more than this.

Q. Would you give an opinion with regard to these smaller fish, whether they are ripe or mature for spawning?—A. Yes, they are; I have seen them at two-pound weight, certainly.

I wish to put on record that I believe there should be no close season whatever for sturgeon. In addition to their spawning habits, I have examined the feeding habits of this fish, and in every sturgeon that I examined I found food through the microscope, that I feel convinced was the spawn of other fish. I have also found that in the sucker tribe and the mullets, and I have found that in no other fish, and this is why I am strongly opposed to a close season for sturgeon. In those of the salmon-trout I have found nothing but herring and these small minnows or chub.

Q. The principal food of the salmon-trout is herring?—A. Yes, and the small minnows called chub. In the whitefish I found the food to be a grub or worm, and a large mineral or vegetable growth interspersed with them.

Q. Do you mean that the worm feeds on the vegetable growth?—A. Yes, and also the fish feed on the vegetable growth. When I came to Goderich there was a very fair run of salmon-trout and whitefish on this coast, that is twenty years ago. The numbers caught were not numerous, but the fish caught were very heavy, and therefore the work was one that paid the fishermen. As years went by there was no law carried out as regards bringing the offal to shore and therefore the fish being cleaned on the boats when coming home, part of the offal was thrown into the lake.

This, to my mind, caused what followed—an entire loss of fish off this part, so that some five years since two boats could hardly be profitably employed.

Q. Might I just ask this, in passing. Would that lead you to believe that these fish are in families and perform their functions in certain localities, and if once driven therefrom would that end their existence there?—A. For a time until the grounds became pure again and they would come back again. The last two or three years salmon-trout have been very plentiful in this part, there being about twice or three times the number caught the last two or three years annually to what was caught twenty years ago, although the weight is not so great and the profit therefore is not more.

Q. Is it because there is more capital employed and more fishing gear used now than then that more are caught?—A. Yes, that is one cause, but the main cause is the purity of the ground. All the decaying matter that was put in at one time has entirely disappeared and there has been good feeding ground. There is more caught now, on account of the size of the net, which is reduced from five inches to four and a half, and also on account of its flexibility and the make of the twine.

Q. An improvement in the strength of the twine?—A. Yes, and in catching the fish. In a proper twine net where one trout used to be caught by the teeth, with the new twine thirty would be caught by the teeth and of course these would be of all sizes, from a four-ounce trout to any size.

Q. Are you prepared to make a recommendation as to the size of twine that should be used?—A. Well, I am not, for that is a point I have never studied.

Q. Would it not be advisable to regulate the twine?—A. Well, I am not prepared to say about it; it seems to me an impossibility to do that now.

The take of salmon-trout in this part is as good as ever it was in past years, and I would like to say that that of course shows that the hatcheries must have had an influence in that direction, for in 1871 it only required ten fish to make a hundred weight and now it takes from thirty to forty, and it seems to me it naturally follows that the hatcheries come into play here, for the fish now are three times as abundant as they were at that time, because that is admitted, I think, by the fishermen themselves, that they catch as much in weight to-day as they did twenty years ago.

Q. But the fish are more numerous?—A. They must be more numerous to make up for the weight, when they catch as much now as they did then.

Q. Do you know anything in regard to the poaching by the Americans on our shore at all?—A. Well, I merely heard some of them talking and they turned around to me; and I wrote a letter last night to the Government on the subject.

Q. You have reported the thing to the department?—A. I wrote to the Government, to the Deputy Minister. It is not in my district.

Q. You have described very fully what you think about spawning time. Now, what is your idea with regard to the periods in which fish are in their best condition for eating purposes—would it be sometime before the spawning season?—A. The time of their best condition is when the water is cold.

Q. Then you think the spawning operation does affect the fish at all?—A. Unquestionably I do think so.

Q. What is the quality of the fish when done spawning?—A. Well, they are miserable then.

Q. What is your idea with regard to the herring fishery?—A. Well, my idea is that there should be a close season for all fish. It is admitted on all hands that herring fishing after trout and whitefish fishing, does not pay. Now, during ten days' experience I observed how the herring fishery was carried on during this present month. There was but one boat seen on the move during that ten days, and I know a man who supplied seven hundred packages or barrels for herring, and he informed me that less than one hundred and fifty were filled and the men had all left the fishing grounds. If this was not on account of the water it shows me that our herring fishery is becoming very much diminished, because all this fishing took place between hundreds of islands and the main land along that shore where there was a moderate protection all the time from one gale to the other.

Q. And your impression is that herring need protection as well as others?—A. Yes, that is my impression. I am sure that they are gradually diminishing in Lake

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Huron. Five years ago, I or any other man could go down to the river here and catch one hundred herring; this season I caught but twenty-eight and worked hard for them. They do not come here, and it seems a natural conclusion that if they do not come around here where they are bred, that they cannot be in any other place.

Q. You have not given us your views, sir, with regard to what is the correct size of mesh for the pots—of pound-nets in order to gill a fair sized fish and yet not gill an immature fish?—A. Well, there is a great difference about that. In one case I would only have 2 inches so that the perches and suckers would be caught; but this would catch immature fish. I think a mesh of 4 inches would cover all purposes—a mesh of 4 inches in the pot would be equivalent to 5 or 5½ inches in the present whitefish nets used, so far as gilling the fish.

Q. In your experience and supervision as fishery officer do you consider it would be possible to establish a pound-net for one description of fish, and a pound-net for another description of fish in another locality? For instance, if a man wanted to fish for the coarser fish, such as perch and pickerel and all these coarser fish and he has to get a license to fish for these with the pound-net, would it be advisable to give him a 2-inch mesh to fish in a certain locality for a certain fish?—A. If he was an honest man it would be. It would have to be with the condition that for all fish that his license did not cover should have to be returned to the water.

Q. But there are certain localities where certain fish frequent?—A. I know nothing about that. On our coast they all mix up together and you catch anything from a herring to a sturgeon.

Q. Then, your idea is that a 4-inch mesh would cover the ground?—A. Yes, the tunnels and heart should be 5-inch and the leads perhaps 6 or 7.

Q. A 4-inch mesh would let all the herring out, would it not?—A. Yes, and all the undersized pickerel and all the other fish.

Q. Would a 3-inch extension mesh for either a gill or pot pound-net gill or take medium sized whitefish?—A. Oh, they rarely gill in a pound, but in a gill-net proper whitefish would be rarely caught, but a large number of trout would be caught by any sized mesh by the teeth—very few gill.

Q. You think that a gill-net with 3-inch extension measure would not gill young whitefish?—A. I think not.

Q. How is it that in the Georgian Bay all the whitefish are caught by gill-nets?—A. Because it is shallower water and they are larger fish.

Q. A 3-inch gill-net with the ordinary fine twine that they use would it not catch a medium-sized whitefish; if a full-grown whitefish will gill in a 4½-inch mesh, would not a medium size gill in a 3-inch mesh?—A. Well, it would have to be a very small fish.

Q. One and a-half pound?—A. Yes, at the outside.

Q. Well, will not a 3-inch mesh or a 2½ inch mesh gill a great number of large herring?—A. Yes.

Q. Well, a large herring would be perhaps a pound or a pound and a-half or two pounds?—A. Oh, rarely. The average herring caught on this lake is less than a pound, or three-quarters of a pound.

Q. Then a large herring would not gill in a 3-inch mesh?—A. Well, I have never seen them.

Q. What I want to know is that with a 3-inch mesh in the gill-nets, or 3-inch mesh in the pots, whether it would not gill in any case a number of the immature whitefish?—A. Yes, if they went into the pot.

Q. Well, if they got into the pound would they not try to go out and then gill in the 3-inch mesh?—A. Hardly. The whole trouble is the pliable twine which catches the gills and holds them. The soft twine would allow them to pass through.

Q. But with regard to the gill-net, if the mesh were 3-inch would it not catch quite a number of small whitefish?—A. Well, I could not say. I have had no experience. I should think it would, of course, but I don't know for my part. There is one thing I would like to suggest, and that is, that it be added to our regulations the same as in the Ontario Fish and Game Act, that no bass be caught under a size of ten inches in our waters.

Q. Speckled trout, what about them?—A. I know very little about them, sir. I only know that the close season certainly covers the spawning season, and that is as far as I know.

*By Mr. Harris:*

Q. How far back does your knowledge of this Lake Huron fishery extend?—A. Well, theoretically twenty years, but practically only four.

Q. About what time were the whitefish in the greatest abundance here; how far back?—A. About from sixteen to twenty years.

Q. And the salmon-trout, when were they in their greatest abundance?—A. At the present day in numbers.

Q. Have the whitefish greatly decreased?—A. Yes, greatly, almost disappeared on this coast.

Q. To what cause do you attribute their disappearance?—A. To pollution of the fishing grounds by dropping offal therein.

Q. What offal?—A. From the fish when being cleaned.

Q. Is that practice continued still?—A. No.

Q. When was that stopped?—A. Stopped when they stopped fishing.

Q. For whitefish?—A. For any fish here, it naturally stopped, there was no fish.

Q. Were they cleaned for the purpose of salting?—A. No.

Q. For what purpose?—A. Why, to bring them in and sell them. A fisherman here goes out twenty or thirty miles, and takes his catch and on the return to shore, and those not employed in running the boat, clean fish and by the time they get here the fish are cleaned.

Q. What season of the year was the principal catch of whitefish at that time?—A. Oh, I could not say. It was generally though during the year. I know we could always catch them.

Q. Do you consider a close season for herring a necessity?—A. Not for herring themselves, but for the protection of other fish to prevent illegal methods being carried out.

Q. I suppose you have a knowledge of the system of pound-net fishing as well as gill-net fishing?—A. Well, a little.

Q. Which system of the two do you consider the most destructive to fish?—A. Gill-net fishing.

Q. More wasteful also?—A. Exactly, that is what I mean. It is wasteful. My meaning is this, if the pound-net breaks away the fish are all loose; if a gill-net is washed away there may be ten tons of fish in it and they are blown all over the lake, the fish are lost and the lake filled full of decayed fish.

Q. And that would be as destructive to the fishery as cleaning the fish and throwing the offal into the lake?—A. Oh, yes, of course.

Q. You think the department should not discourage pound-net fishing in this lake?—A. Certainly not. Of course the licenses should be issued with discretion, but I look upon it as only a fair return to the Government to try to protect the fish in this lake and see that every fish that is caught in it is a marketable commodity, and I have known when the proceeds of a gill-net is brought to shore not one-half of it is marketable, and, again, if some of the fish are mellow and salted away, it is not good for the reputation of Canada that we should salt such fish. They are not wholesome food.

Q. Is there any discontent among the fishermen here at the present time?—A. Great.

Q. Great?—A. Yes.

Q. What is the cause of it?—A. The argument is brought up that the Americans are allowed to fish in our waters when we cannot fish in our own. But there would be no discontent, or there should be none, if fishing was not a little overdone, like every other calling, and except for the herring fishery this fall it would be the best paying business in the county of Huron.

Q. Is the principal cause for discontent that the Americans fish in our waters?—A. Oh, no, I did not say that.

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Q. That is not the principal cause?—A. No.

Q. What is the principal cause?—A. That the business is overdone, that is the principal cause.

Q. Otherwise speaking, too many fish are caught and too low a price is paid?—

A. Yes, too many in the business anyway, it all amounts to the same thing.

Q. Is it the gill-net fishing or the pound-net fishing that is overdone?—A. The whole fishing business generally. In pound-net fishing last year we had a man who had about twenty nets within the next twelve miles south, not in my district, and he took them all up in June, and I will guarantee that he did not catch as much fish as paid for the license he got.

Q. Am I to understand that the fishery in Lake Huron or this part of it is too overcrowded to be profitable?—A. No, I did not say that. There are many people engaged in the business that do not grumble, and there are others that do. It is a business that if a man has been in the fishing business and has some capital another man goes to him and says, advance me money to start fishing, and they advance him money and start him. They would start anybody to get fish.

Q. Am I to understand that the large dealers succeed in getting men to go into the business who do not understand their business?—A. No, I did not say that.

Q. Do large dealers encourage fishermen to fish late in the season?—A. None that I know of, because the dealers are all watched too closely.

Q. For herring?—A. Oh, no, they do not touch them.

Q. As a rule what time do the fishermen stop fishing in this lake?—A. As a rule they stop at the end of October. They may have a net left in after November, but they never set a net after the 27th of October, to my knowledge, down this way.

*By Mr. Wilmot :*

Q. Then the present close season is not injurious to fishermen at all?—A. It is a benefit, it is a benefit in every way to them.

Q. In preventing them from losing their nets, and in the preservation of the spawning fish which produce young fish?—A. Yes, sir.

Q. That is the true English of it, I suppose?—A. Yes, that is the English of it.

November 23rd, 1892.

MALCOLM McDONALD sworn :—

*By Mr. Wilmot :*

Q. What is your residence, Mr. McDonald?—A. Goderich, sir.

Q. And what is your occupation?—A. Fishing, sir.

Q. Of how many years standing?—A. Well, between eighteen and twenty off and on.

Q. Your nationality?—A. Scotch.

Q. And what kind of a fishery is that you carry on?—A. Gill-net fishery, sir.

Q. What description of fish do you catch in your fishery?—A. Salmon-trout and whitefish, principally.

Q. Are these the only fish that you take?—A. Well, that is about all; there is an odd rough fish gets in once in a while.

Q. Do any sturgeon get into your net at all?—A. Oh, very seldom, an odd one.

Q. In what locality is your fishery carried on?—A. Well, in Lake Huron and the Georgian Bay.

Q. You use no other kind of net except the gill-net?—A. No, sir.

Q. Can you give me as near as possible the size of the mesh and the net that you use for salmon-trout and whitefish?—A. Four and a half inches.

Q. The same mesh?—A. Yes, sir.

Q. Can you give me the description of twine you use?—A. Number fifty during summer fishing and for fall fishing number thirty to thirty-five.



Q. How do you mean thirty and thirty-five, will a portion of the net be thirty and another portion of it thirty-five?—A. No, no, sometimes we use thirty, and sometimes thirty-five.

Q. What might be the average size of the fish you catch of the summer fish, say salmon-trout?—A. Well, I should judge from  $3\frac{1}{2}$  to 4 pounds.

Q. And of the fall fish or what you call rock-trout?—A. Well, between 5 and 6 pounds, about the average.

Q. Now, in your summer fishing, Mr. McDonald, with the  $3\frac{1}{2}$  to 4-inch mesh, how small would be the run of fish that would pass through that mesh?—A. Well, I guess about between  $1\frac{1}{2}$  to 2 pounds would pass through.

Q. Two pounds and under would pass through a  $3\frac{1}{2}$  to 4-inch mesh?—A. Yes, sir.

Q. And what size would freely pass through your 5 and 6-inch mesh?—A. Oh, a 3-pound fish.

Q. A 3-pound fish would pass freely through your fall mesh?—A. Yes, sir.

Q. Herring would pass through both of them freely, would they?—A. Oh, yes, unless it was an extra large one.

Q. Well, generally speaking, herring would pass through?—A. Oh, yes.

Q. In your summer fishery with your  $3\frac{1}{2}$  to 4-inch mesh?—A. We do not use  $3\frac{1}{2}$ , it is  $4\frac{1}{2}$ , sir.

Q. For the small fish?—A.  $4\frac{1}{2}$ -inch mesh, sir.

Q. Do you think that any whitefish would be gilled in 3-inch mesh extension, moderate sized whitefish?—A. Well, it would be very small, sir.

Q. What would you call very small,  $1\frac{1}{2}$  pounds and under?—A. Oh,  $1\frac{1}{2}$  pounds and under.

Q. Have you ever considered, Mr. McDonald, at what season of the year the fish are really in their best condition—salmon-trout, for instance, in which of the months is it really in its best condition for eating?—A. Well, I don't think there is any difference in the summer months, I think they are the same in May, June, July, August and October until after spawning.

Q. Until after spawning, when would that be?—A. Well, of course there is some of them spawns earlier than others, but as a general rule November is the time of the majority.

Q. Do many of them spawn in the last of October?—A. Oh, yes, I have found them spawn in the last of July and August, that is an odd one, that is outside fish.

Q. That is exceptional, then?—A. Oh, yes.

Q. When do the whitefish spawn?—A. Well, I guess from about the 5th to the 20th of November.

Q. And in regard to their condition then?—A. Oh, they are just about the same as the salmon-trout.

Q. They are best during the summer months and until when?—A. Until after spawning.

Q. Where do you market your fish generally?—A. Well, what fish is caught by my own boat goes to Canada, principally all goes to the Canadian market.

Q. That is, you mean for Canadian consumption?—A. Yes, sir.

Q. What fish will they principally be?—A. Salmon-trout and whitefish, principally all trout.

Q. That is those caught in your own boat. Now, what other boat do you fish in?—A. Well, I am working for the company here now—Clark & Company.

Q. Are they the Buffalo Fish Company?—A. Yes, sir.

Q. Then what proportion of your catch would be sold to the Buffalo Fish Company?—A. Oh, I could not say, I am sure, I guess they are all sold to the Buffalo Company.

Q. But you catch a considerable number of fish with your boat?—A. Well, of course, what is caught with my own boat goes to the Canadian market.

Q. Exactly, and what proportion will you catch with other boats?—A. Oh, I guess I have caught between fifty and sixty ton in the other boats I was in.

Q. For the American market?—A. Yes, sir.

Q. What arrangement do you make with the Buffalo Company—do they furnish you all the material?—A. Yes, sir.

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Q. They furnish you with a tug?—A. Yes, sir.

Q. Nets?—A. Yes.

Q. In fact all gear?—A. Yes, sir. Everything, they just hire me to run the nets.

Q. Do they pay you by the share?—A. No, sir; by the month.

Q. And is that general with the most of the other fishermen?—A. Yes, sir; that is employed by the company.

Q. That is the system pursued by most of the other fishermen here, is it?—A. Yes, sir.

Q. They hire in that way with the gear and the material all furnished and are paid by the month?—A. Yes, sir.

Q. Then you make no bargain with regard to the value of the fish at all?—A. No, sir.

Q. You just hand the fish right over to them?—A. Yes, sir.

Q. In fishing for the Buffalo Company, do you fish with their tug?—A. Yes, sir.

Q. One tug you have yourself?—A. Yes, one tug.

Q. And how much net?—A. Well, I forget exactly what it is, it is about the same as the rest of them, I suppose.

Q. One tug with necessary fathoms of net?—A. Yes, sir.

Q. You do not recollect just what the fathoms may be, then?—A. No, I do not just now.

Q. There are other boats, too, connected with the tug, are there not?—A. Oh, yes.

Q. In fact they furnish you with everything?—A. Yes, sir.

Q. Who pays the license for this tug?—A. Well, it is the company.

Q. And is the license taken out in your name?—A. No, sir; it is taken out in the company's.

Mr. BALL.—Yes, it was; it was taken out in your name this year.

Q. It was taken out in your name but paid for by the company?—A. Yes, by the company.

Q. And so far as you know the other fishermen do the same thing?—A. Yes, I think so.

Mr. BALL.—I issued five and they are all made out in the names of the captains.

Q. What was the license for the tug this year?—A. \$25.

Q. For the whole thing?—A. Yes, sir.

Q. Now, with regard to your own fishing, you say you fish with one boat yourself?—A. Yes, sir.

Q. What license do you pay for that?—A. \$5.

Q. That will be called a boat license?—A. Yes, sir.

Q. Do you recollect the quantity of net you use with that boat?—A. Well, about half as much as we do for a tug.

Q. And the fish caught under this license you sell in the Canadian market?—A. Yes, sir.

Mr. BALL.—It is six thousand yards of net on the license for a boat and twenty-four thousand for a tug.

Q. Could you get as good a price from the company for the fish you catch in your own boat as you can in the Canadian market?—A. No, sir.

Q. They do not give you as much?—A. No, not by shipping our own fish.

Q. Where are these principally sold, in the immediate neighbourhood?—A. Oh, down the road, Brantford and Stratford.

Q. Do you ship them away yourself?—A. Yes, sir.

Q. What is the usual value of fish that you get from your own boat?—A. We get from  $4\frac{1}{2}$  to  $5\frac{1}{2}$  cents per pound for the salmon-trout and whitefish.

Q. Do any of your brother fishermen sell to the Buffalo Company the fish that they get?—A. Well, they may.

Q. There are others situated the same way as you are, that is the company secures the license for the boat and they fish?—A. Yes, sir.

Q. And some of them sell to the Buffalo Company?—A. Yes, I think so.

Q. Have you an idea of what they get from the Buffalo Company for salmon-trout and whitefish while you get  $4\frac{1}{2}$  and 5 cents from the Canadian market?—A. They get  $3\frac{1}{2}$  cents.

Q. For both whitefish and salmon-trout?—A. Yes.

Q. Then if the trade was sufficiently large in Canada, the profit would be better than the American market?—A. Yes. It is  $3\frac{1}{2}$  cents for whitefish when the tug goes after them, and  $3\frac{9}{10}$  cents when the fishermen deliver them at any depot where there is a railway station.

Q. They get  $3\frac{9}{10}$  cents when the fishermen deliver them at a point where there is a depot?—A. Yes, sir.

Q. Well, could you sell more than you catch with your own boat in the Canadian market if you had the facilities?—A. Yes, sir.

Q. For instance, suppose you owned a tug of your own, and you had all the necessary apparatus, could you find an outlet for the fish in Canada?—A. Yes, I guess we could.

Q. You could sell more than you catch now?—A. Yes, if we had another boat.

Q. You could sell from two boats, you think?—A. Yes, I guess we could.

Q. Have you ever applied for more than one license?—A. Yes, sir.

Q. Are you able to fish for more than one boat on your own account?—A. No, not a present.

Mr. BALL.—They are not refused licenses if they apply for them. They can have more than one license.

Q. You indirectly stated something about the spawning of fish. Now, can you tell us when you think the salmon-trout are most ripe for spawning purposes—when do they spawn more freely than at any other time?—A. Well, I think about the 1st of November.

Q. Would that mean that some would spawn before and some after the 1st of November?—A. Well, most freely at that time, I think.

Q. In regard to whitefish, when do you think they are most free in emitting their eggs?—A. I think they are a little later on, sir.

Q. That would be still in November?—A. Yes, about the 15th, probably.

Q. Do you catch any herring at all?—A. Well, not of late years; we do not.

Q. Do you experience a greater loss with your nets and fishing gear in any one month more than another? Is one month more than another more unsafe for your fishing operations?—A. Well, it is in September and October.

Q. Do you fish in November?—A. No, sir.

Q. If you fished in November what might be the effect?—A. Well, some years would be better than October, and other years would be worse.

Q. You have had no experience in catching these immature fish, have you?—A. No, sir.

Q. Your meshes are all too large and they pass through?—A. Yes, sir.

Q. What is your idea in regard to the Sunday close time, that is, taking up the nets from Saturday night until Monday morning? How would this affect the fishermen?—A. It is impossible to do it, sir.

Q. Have you any knowledge of any Americans poaching or fishing on our side of the water boundary line?—A. Well, I have seen them this fall, that is all—one only.

Q. Seen one what?—A. One tug.

Q. One tug with fishing gear. I suppose that is what you mean?—A. Yes, gill-nets.

Q. Fishing where, sir?—A. Kettle Point.

Q. How far off from the point?—A. Well, I should judge about five to seven miles.

Q. Between five to seven miles from shore?—A. Yes, sir.

Q. Do you know how far it is to the American shore from Kettle Point?—A. Well, I could not exactly say, but I guess it will be twenty miles.

Q. That is in a straight line across the lake?—A. Yes, twenty miles.

Q. Do you know the distance from Goderich across to the American shore?—A. Forty-seven miles, sir.

Q. When was this tug there, Mr. McDonald?—A. It was last week, sir.

Q. Do you know how long that tug was fishing there?—A. I do not.

## Ontario Fishery Commission.

Q. But you saw it there last week?—A. Yes. I have heard that they were fishing at Sand Beach, on the American shore, and then they moved on to Port Huron, and then on to Kettle Point.

Q. That brings up a very interesting point in the whole matter which perhaps may be the means of creating a great deal of dissention, namely, that Americans are allowed to fish during the close season when you are not. This American tug has been fishing in our waters during the close season?—A. Yes, sir.

Q. Is it fishing now, do you know?—A. I could not say now, but it has been fishing, I expect it is, it was setting its nets back that day.

Q. You have no idea of the quantity of fish they caught?—A. No, sir.

Q. Nor to whom they sell their fish?—A. No, sir.

Q. Now, with regard to this matter of protecting fish. You are an old fisherman: What are your ideas with regard to the establishing of proper close seasons for the preservation of fish on behalf of the fishermen and the fishing industries?—A. Oh, I should think we ought to have a proper close season if it is rightly kept, still I should think it should be kept on both sides.

Q. What reason do you give for the close season being kept, is it that the fisheries should be preserved for the future as well as for the present?—A. Oh, yes. Still it is very discouraging for us to be keeping it and the Americans not, and they fishing in our waters all the time.

Q. And this close season would refer to what kind of fish? All kinds?—A. Yes, that is salmon-trout and whitefish.

Q. Would it in your estimation apply to any other kind of fish or to all fish during their breeding seasons?—A. Well, of course, herring I don't know much about, because the lake is so full of herring, you cannot kill herring off anyway.

Q. Was not the lake at one time pretty full of whitefish too?—A. Oh, there has been lots of them along the shores, and I guess there is yet in some places.

Q. Am I correct in stating that the whitefish were at one time plentiful?—A. Yes, sir.

Q. And what is the state of them now, are they not so plentiful now?—A. Oh, some years they are, that is, where they are to be caught, in the Georgian Bay.

Q. But we are speaking now of Lake Huron?—A. Oh, not in Lake Huron.

Q. They are scarce in Lake Huron?—A. Yes, sir.

Q. When do you usually set your nets?—A. Well, generally about April, sometimes earlier or later.

Q. And you continue fishing until when?—A. The 1st of November, sir.

Q. It has been stated here that there are two kinds of salmon-trout in the lake?—A. Yes, sir.

Q. Is that your opinion?—A. That is my opinion, sir.

Q. How do you describe them?—A. Well, we call them deep water trout, and rock-trout.

Q. What is the size of your deep water trout?—A. Well, they go from 3½ to 4 pounds, probably on an average.

Q. And the rock-trout?—A. Probably 5 to 6 pounds, some places they are larger than others.

Q. Where do you catch the deep water trout?—A. Out in the middle of the lake pretty well. Out from shore a long way, clear of the rocks, in deep water.

Q. And the rock-trout?—A. Along the shore.

Q. At what time?—A. Well, they generally come on from September and October.

Q. What do you suppose they come to the shores for?—A. Well, I could not say; I guess it is to get ready to spawn.

Q. And they spawn principally, I think you said, in October and November?—A. November, as a general rule.

Q. Sturgeon, you know nothing about, you say?—A. No, sir.

Q. Have you ever formed any opinion at all with regard to the artificial batching of fish; do you consider it beneficial or otherwise?—A. Oh, I should think it would be beneficial.

Q. And were you one of those gentlemen who petitioned the Government, with numerous others, to have a hatchery established here?—A. Yes, sir, I was.

Q. And you think it would be beneficial?—A. Yes, sir.

*By Mr. Harris:*

Q. What month do you begin work?—A. About April.

Q. Just as soon as the ice goes?—A. Yes, sir.

Q. And you work steadily until November?—A. Yes, sir.

Q. Seven months?—A. Yes, sir.

Q. Have you ever seen any pound-nets at work here?—A. No, sir; I never saw them down here.

Q. You don't know anything about them at all?—A. Oh, I have seen them at other places.

Q. At what other places have you seen them?—A. Oh, I have seen them up along the Manitoulin.

Q. What nets have you seen there?—A. Oh, I could not say. I could not tell you about them. I have just seen them, that is all.

JAMES CLARK re-examined:—

*By Mr. Wilmot:*

Q. You consider yourself sworn now, do you, Mr. Clark?—A. Yes.

Q. You stated yesterday something in regard to the number of tugs you had—you said that you had two of your own?—A. I said I have two pound-nets, not tugs, that I took out licenses for in my own name. They belong to the company, the same as the rest.

Q. Well, your operations cover quite a number of pound-nets, don't they?—A. Yes, sir.

Q. Just give us a rough estimate of the probable number?—A. I have no idea.

Q. No idea at present?—A. No.

Q. Do you know how many tugs you have in operation?—A. Well, we have thirteen that we own, but we get fish from a good many more.

Q. These thirteen tugs you run for the fishermen, do you?—A. Yes, sir.

Q. These are on Lake Erie, Lake Huron and the Georgian Bay?—A. They are all on the Georgian Bay and Lake Huron at the present time. Some of them are employed carrying fish from the stations; we had ten last year doing this.

Q. And these tugs and all the fishing gear connected with them are wholly under your control, are they?—A. Yes, sir.

Q. Under your control personally, or as a member of the company?—A. Well, as a member of the company.

Q. And stockholder, I suppose?—A. Yes, a stockholder.

Q. And that is the Buffalo Fish Company?—A. Yes, sir.

Q. You can only give us an approximate of the quantity of fish you handled last year for the company, about five millions, I think, you stated?—A. Yes, about five millions.

Q. That is from Canadian waters?—A. Yes, we buy and catch them all.

Q. And these are all shipped to what parts?—A. Well, we sell them all through Canada and the United States.

Q. The proportion to the United States is how much?—A. Well, about seven-eighths of the whole.

Q. Can you tell me what the duty is upon Canadian fish going into the United States under the McKinley Bill?—A. Seventy-five cents a hundred pounds was to be in force.

Q. That is three-quarters of a cent on the pound?—A. Yes.

## Ontario Fishery Commission.

Q. I suppose that is what affects the Canadian fisherman here very much, that is one of the complaints?—A. Yes, it will destroy the fishing altogether; still, it has not been collected this season, I don't think.

Q. Has it not been collected from you?—A. It has not been collected from any one as far as I know.

Q. When you say from any one else you mean from the Canadians?—A. From the Canadians; I do not know of any Americans who have any fishing here.

Q. Well, was this collected formerly at all, the whole duty?—A. No, there was one time last winter that we expected we would have to pay it.

Q. Yes, but have you at any time paid it?—A. We have, part of it; last winter we paid some of it, for a short time.

Q. That would be for fish caught in 1891?—A. Well, it was about this time or after this time in 1891—on frozen fish. I don't know that we have paid anything this year, nothing that I know of.

Q. Do you know of any extensive Canadian company that is engaged in the fishing trade?—A. Well, this is a Canadian company, the principal part of it.

Q. But in distinction to what may be called the Buffalo Company?—A. No, I don't know of any, not an extensive company.

Q. Are there no other dealers at all—what is this man Post or Port?—A. Well, he never was a dealer, he is simply a small trader in the fish line.

Q. Does he ship his fish to the United States at all?—A. No, we often ship to him, he is simply a trader.

Q. Then you ship to Canadian dealers in Toronto, and where else?—A. Everywhere in Canada where we can ship fish, where they want them. That is the first place we attend to, to supply the Canadian trade all they wish.

Q. And one-eighth of the quantity you catch you say is disposed of in this way?—A. Yes, that is all that they require, that they take from us.

Q. Well, now, do you also furnish the traders in the United States?—A. Yes, we furnish the traders.

Q. That is done in the same manner is it?—A. Yes, sir.

Q. You say you pay no duty?—A. We have not paid this season.

Q. When you sell to the United States dealer, what may be the value of whitefish or salmon-trout?—A. Well, I ship them from here to a wholesale house in Buffalo which is our house or agency in Buffalo, and they ship them to various parts, and sometimes the market is up and sometimes the market is down. The price varies from 4 to 5 cents.

Q. And when sold to the Canadian dealer?—A. Well, we charge them sometimes 4 cents, and sometimes  $4\frac{1}{2}$  cents and sometimes  $4\frac{3}{4}$ , that is the highest we charge the Canadian dealer this year. We get more from the American trade than we do from the Canadian trade.

Q. Is the quality of fish shipped to the Canadian dealer precisely the same as the quality shipped to the American dealer?—A. Just the same, sir, we do not know any difference.

Q. And it is all salmon-trout and whitefish?—A. Yes, that is the principal fish we handle at this end of the lake in my district.

Q. Your headquarters for business are here?—A. No, at Wiarton and Collingwood, we ship from both points.

Q. Where do you ship the most from?—A. I think from Wiarton.

Q. Do you find the quality of fish any different in Lake Huron to the Georgian Bay?—A. Well, there is all the difference in the quality of fish. It is mostly all whitefish we get in Georgian Bay.

Q. And other places mixed?—A. Well, in Lake Huron it is mostly trout now.

Q. And which of these two kinds of fish take best in the American market?—A. Well, we require them both to keep a good market.

Q. They are required, but does not one take the lead of the other?—A. Which-ever is scarcest and takes the lead.

Q. But the quality and the price?—A. Well, the quality and the price is the same.

Q. In the American market?—A. Yes, the same.

Q. And do they range the same in the Canadian market?—A. Yes, sir.

Q. That is as far as your markets are concerned?—A. Yes, sir.

Q. Can you give us any information with regard to the wholesale dealers in Buffalo or elsewhere, as to how they take when the fish go into the interior of the country?—A. Well, I think the whitefish is preferred.

Q. You think the whitefish is preferred for domestic use?—A. Yes, especially on the American side, not so much in Canada; they are about equal in Canada.

Q. I think you gave us information on almost every other subject yesterday about the general questioning that we are anxious to get hold of. I do not know whether we asked your views with regard to the diminution of the fish crop at the present time as compared with former years?—A. Well, we have not found it in our company, but in my own business I consider our catch has been better this year than it has been for some years.

Q. In your own plant you have not discovered any diminution in the quantity of fish?—A. No, sir.

Q. Would you qualify that by any place?—A. Well, sometimes it is better in some places and sometimes in another, but in the average catch with the same kind of plant that applies.

Q. Does this apply more to Lake Huron or to the Georgian Bay or where?—A. Well, mostly to Lake Huron.

Q. Then, the falling off, if any, has been greater in the Georgian Bay?—A. I think it has been greater in the Georgian Bay. Still, in the Georgian Bay they have caught more inshore this year than they did before, but there were two or three stations there that have not been so good, but at others again it has been better.

Q. Then you have not found a falling off in the Georgian Bay?—A. No, we have not found a falling off in the Georgian Bay, that is, unless they have increased their plants. I have not found any falling off in the Georgian Bay but at two or three stations, but at other stations it has been better than in former years, but I think the plant probably has been increased a little more in the Georgian Bay than on Lake Huron. We have not increased ours any.

Q. Who are the parties interested in fisheries in Southampton?—A. Well, besides ourselves, the only party interested in carrying on the fishing trade in Southampton is Dougal McCauley.

Q. Does he carry on transactions the same as you do, shipping to the United States and Canada?—A. Yes, he ships to the United States and Canada.

Q. Have you at the different points at which you carry on your business freezing establishments?—A. We have only freezing establishments where we save them, in Wiarton and Collingwood, that is in Canada; we have a small establishment at Southampton but we do not use it.

Q. And of the fish you catch during the summer there, is a certain proportion put in and frozen at once?—A. We freeze all we cannot sell fresh, all we cannot dispose of.

Q. Could you approximate the quantity that are frozen in comparison with those that are sold fresh?—A. I suppose we have fourteen hundred thousand pounds of frozen fish now in Wiarton and Collingwood.

Q. Is the market for frozen fish different from the market for fresh fish in price?—A. Well, we generally add the expense of freezing them.

Q. Then frozen fish are sold at a higher rate?—A. Yes, we sell them for 5, 5½ or 6 cents.

Q. That would be an addition of 1 cent or 1½ cents?—A. Yes, sir.

Q. Is the demand as great in the market for the frozen as it is for the fresh fish?—A. It depends a great deal on the weather.

Q. Did you ever meet with any losses with the frozen fish by spoiling or anything of that kind?—A. We have not, not lately. We did at one time, we did not exactly understand it: we tried a new process and lost a few at one time, but that is the only loss we had.

Q. A considerable quantity lost last year?—A. Not many.

## Ontario Fishery Commission.

*By Mr. Harris:*

Q. If the United States were to enforce the three-quarter cent duty, what would be the effect upon the Lake Huron fisheries?—A. It would shut them up.

*By Mr. Wilmot:*

Q. Shut them up, or shut yourselves up, which?—A. Shut ourselves up.

Q. The Canadian fishermen would be the losers and it would close up your business?—A. Yes, that fourteen hundred thousand pounds of frozen fish there would keep the market going, the small quantity the Canadian market takes would not amount to anything, and we would have to pay the duty all the time—we would probably not close up, but we would have to put it on the fishermen. The fishermen would have to pay it, and the fishermen would not be able to stand it.

*By Mr. Harris:*

Q. Has this matter of three-quarters of a cent duty been greatly discussed here?—A. Well, not so much, because we have not had to pay it so far.

Q. But the fishermen understand the question?—A. The fishermen understand that they have not got to pay it yet.

Q. And they quite understand the effect if they had to pay it?—A. They would, yes, some of them, the intelligent class understand it; there is a part of them probably that do not understand it, but there is others again that do.

Q. And if it came out of them they could not fish?—A. No, I don't think they could fish, that is, the same quantity, there might be a few of them fish. Fish at the present time becomes a luxury—the fish we handle on the Georgian Bay and Lake Huron is a luxury.

Q. Are there any herring where you have your pound-nets set?—A. Not many; we get a few, but not many.

Q. What mesh have you?—A. We had a 2-inch mesh at one time, but we had to throw that away and put in a larger mesh, according to the fishery regulations.

Q. If you had a 3-inch mesh would the herring gill in it?—A. Well, I think they would.

Q. If they were in great numbers they would gill in great numbers?—A. Well, yes, they would gill up considerable if they were in great numbers, in a 3-inch mesh they would.

Q. That five million pounds of fish that you say the Buffalo Company handled, is that their entire handling from this country?—A. Oh, no, we handle a great many more than that in this country, but that is merely in my division, like—that is the Georgian Bay and Lake Huron, in my beat.

Q. Do you think, if attention was directed that way, that the sale of fish could be largely increased in Canada?—A. Well, I don't think it. We often sell cheaper in Canada than we do on the other side, but it does not seem to increase the sales. We have sold them in Canada for 3 cents per pound, but it does not seem to increase the sale more than when sold at 4 or 4½ cents per pound.

Q. You often cheapen the sales in Canada. When would that be?—A. During the summer months.

Q. I suppose the occasions when you would sell cheaper in Canada than in the United States would be in the summer months when fish do not keep?—A. Fish keep all the time with us.

Q. Just as well in the summer as any other time?—A. Yes, sir.

Q. Are there any times when you have very large catches, too large to ship to the States?—A. Sometimes.

Q. And then you sell in Canada cheaper?—A. Very often we have, and then sometimes we sell in the States cheap and sometimes in Canada cheap.

Q. Do pedlars come here for fish?—A. Yes.

Q. A good many?—A. Yes.

Q. And to all the lake ports?—A. Yes, and we give them all they want, never refuse a man a fish.

Q. Do they get a pretty good price for their fish?—A. Yes, sometimes.

Q. Does it pay to sell to the pedlars?—A. Yes.



*By Mr. Wilmot :*

Q. You say that five millions is about the quantity handled in your district, that is the Georgian Bay and Lake Huron?—A. Yes, sir.

Q. Now, have you any idea what may be the quantity, roughly speaking, of fish handled by the company at other points—Canadian points?—A. Well, I cannot say anything about that; I don't know anything about what they handle.

Q. Would it be as large?—A. Oh, I should think so, probably more, but a different class of fish.

Q. It might be more at other points?—A. It might be more or less, I could not say exactly.

Q. Do they operate in Lake Erie?—A. Yes, sir.

Q. Do they operate in Lake Superior?—A. No, not in Lake Superior, but we do in Manitoba.

Q. On Lake Winnipeg?—A. Yes, I think it is Lake Winnipeg.

Q. Do you operate in British Columbia at all?—A. No, I don't know; we probably get sometimes salmon from there.

Q. Do you operate in the province of Quebec at all, or the Maritime Provinces?—A. Yes, we deal there.

Q. Well, you say five millions would be the probable amount which you handle on Lake Huron and the Georgian Bay. And in all these other localities you do an extensive trade, do you?—A. Yes, sir.

Q. Would it be as great or greater than it is here?—A. Oh, yes, it would be greater.

Q. Much greater in the other places combined?—A. Oh, yes, much greater.

Q. I will merely ask you now, if five millions are obtained here would twenty millions be obtained in all the other places?—A. Oh, probably fifteen millions, from ten to fifteen millions—fifteen probably.

Q. Do you know of any other extensive American companies that are engaged in the fish trade as the Buffalo Fish Company are engaged?—A. Well, I don't know. Booth of Chicago, I think, is the most extensive dealer in fish; he deals in Canada—he has an extensive fishery up in Lake Winnipeg.

Q. There are other large United States companies that purchase Canadian fish?—A. Yes, sir; Gauthier's company is an American company, in fact, all the companies in the North-west are American companies, who employ Canadian fishermen.

Q. In like manner as you do here?—A. Yes, just the same.

Q. Well, now, for arguments sake if you obtain five million from two points, might not the whole catch from all points easily run up to one hundred millions?—A. No, I don't think it would run up to a hundred million.

Q. Would it run up to fifty millions, do you think?—A. Well, I don't know, it might perhaps.

Q. Well, supposing it does—that fifty millions of fish are in actual requirement in the United States now for food, are they not?—A. No, I don't know as they are in actual requirement—we find large quantities of fish from the salt water.

Q. But this quantity of fish that is sent over to the States and sold there is required, is it not?—A. Yes, to a great extent they are.

Q. That is sent by you?—A. Yes, to a great extent.

Q. And the quantities sent over by these other companies are also required?—A. Yes, a large proportion of them is.

Q. All those that buy the same as you do buy probably for the American market?—A. Principally for the American market, it is the only market we have to count on.

Q. What I want to come at is this. We will say, here is five millions, or fifty millions, as the case may be, of fish food sought after by the American public which you and the other American dealers supply?—A. Yes, sir.

Q. That is correct?—A. Yes, sir.

Q. Now, if that five or fifty millions was shut off by virtue of a duty of three-quarters of a cent a pound, you say the Canadians would suffer in consequence?—

## Ontario Fishery Commission.

A. I would shut down altogether and move to the other side, as far as I am concerned, I would not be here two days.

Q. You say this great demand of fish food would not be sought after to the same extent?—A. Not to the same extent. If the American Government put a duty on it, it would have to come out of the fishermen.

Q. If this five or fifty million pounds of fish is at present required for the American consumption, and it should not be obtained afterwards owing to some legislation, would it not be possible or probable that the American Government would withdraw their three-quarters of a cent a pound in order that the American people could get their fish as formerly?—A. Well, I think they have withdrawn it now.

Q. Have they decidedly admitted that they won't push it and are willing to overcome the three-quarters of a cent?—A. Yes. They have not bothered us this season, as far as I know.

Q. You can readily understand that the object is this: that you are anxious, and we are all anxious that this duty should not be imposed, and if the question arises, if it was imposed, whether the American people would not demand that it should be taken off with the view that they should continue to get their cheap food?—A. I think probably now we have a better chance to get it taken off. Our company worked all last winter to get it taken off, and they succeeded, as far as I know.

Q. Do you not think then that the American Government if they found that an export duty was put on by Canadians on their fish they would reciprocate and withdraw theirs?—A. I don't think it would make any difference as far as the Americans are concerned. I don't think that would stick them, because we would have to pay it. In the first place we could not possibly get any more than we are getting from them and I think our Canadian fishermen would have to suffer; that is my opinion. But the feeling at present on the American side is to take the duty off and they have not charged is as far as I know this year.

Q. Well, that is an indication that they do not want to charge it because it would affect their people?—A. Yes, it would closely affect their people and closely effect our fishermen.

Q. Therefore if the duty was taken off both we and they should be benefited?—A. Yes, sir.

The Commission then adjourned and proceeded to Southampton to take evidence, notice being given to that effect.

### No. 7.—SOUTHAMPTON.

The Commission opened at Southampton at 10.30 o'clock, Thursday, 24th November, 1892.

Present: Mr. Samuel Wilmot, chairman of the Commission; Mr. Edward Harris, associate commissioner; Miss M. Climie, secretary *pro tem* and stenographer.

The chairman explained the nature and objects of the Commission.

DONALD McCaULEY was sworn:—

By Mr. Wilmot:

Q. Where do you reside, Mr. McCauley?—A. Southampton.

Q. Your occupation?—A. Fisherman.

Q. For how long, sir?—A. I have operated on these lakes since 1855.

Q. What is your nationality?—A. Scotchman, Highland Scotchman.

Q. What kind of a fishery do you carry on?—A. Whitefish and herring and trout.

Q. Do you catch any other fish besides these—sturgeon?—A. No, not to mention.

Q. Your principal fishery is whitefish, herring and trout?—A. Yes, sir.

Q. What particular waters do you fish in?—A. Well, I fish in Lake Huron and the Georgian Bay.

Q. Have you no special points, or do you have the whole of Lake Huron and the Georgian Bay for your operations?—A. Yes, sir, we used to move from place to place.

Q. What description of net do you fish with?—A. Gill-net; I have fished some with seine-net, but not of late years.

Q. What is the size of the mesh that you use in your gill-net?—A. In the summer time we use from  $4\frac{1}{2}$  to 5 inches.

Q. Is that all extension measure?—A. In the fall we use from  $5\frac{1}{2}$  to 6.

Q. All extension measure?—A. Yes, sir.

Q. In your summer net, what size of twine do you use?—A. Number fifty, and number sixty.

Q. And for the autumn nets?—A. Number twenty-five and thirty.

Q. What is the usual length of your net in fathoms?—A. Now, that is a question that I cannot answer.

Q. Just in rough figures, it is immaterial—I suppose there is a certain limit included in your license always?—A. Yes, sir.

Q. And I suppose you adhere to that as near as possible?—A. Yes, sir.

Q. Well, do you recollect what it is?—A. 6,000 yards, I think it is.

Q. And the depth of your net when it is set?—A. It is from fifteen to eighteen meshes deep.

Q. That is in both summer and autumn nets?—A. Yes, the fall nets they are narrower than the summer nets, but the meshes are bigger, and they are about the same depth in feet.

Q. Well, now, with this  $4\frac{1}{2}$  or 5-inch summer net how small a fish can fairly and easily pass through without being injured. Take the salmon-trout—what sized salmon-trout would pass through easily that  $4\frac{1}{2}$  or 5-inch mesh?—A. Oh, I guess two pounds and under would pass through.

Q. Well, now, what size fish would pass through your  $5\frac{1}{2}$  or 6-inch fall mesh; what would be a fair limit for that net?—A. Well, between three and four pounds.

Q. Would you say four pounds and under?—A. Yes, I guess that would be about it. Four pounds will run through it. When the fall fish will come on, we cannot get any as small as that.

Q. Have you ever observed, in your experience of fish and fishing, the difference in the quality of the fish for eating in the different seasons of the year?—A. Yes, what we call the fall trout.

Q. What month of the year are they best for eating?—A. What we call fall trout we do not get hardly any in the summer season, not until October or through October. They begin to come in then, and we cannot catch them at any other season of the year.

Q. Then, the fall trout are only caught in the autumn and never during the summer months?—A. No, not during the summer months, unless a very odd one.

Q. Well, but are the trout in their best condition in the early spring and mid-summer months, or are they best in the fall?—A. They are better in the fall.

Q. Why do you conclude that they are better in the fall?—A. Why, they are fatter and better eating.

Q. But up to what time, sir?—A. Until after spawning; then they are getting thin, the same as any other creature.

Q. What with regard to whitefish?—A. Well, whitefish, they are just as good in the summer season; we cannot get whitefish in the fall of the year.

Q. Do you think whitefish are better in the summer season?—A. Yes, more of them.

Q. What you call your fall trout are the large ones?—A. Yes.

Q. And when do they begin to approach the shore—at what time?—A. Well, through October; about the middle of October they are coming in. There are few before that. Some seasons they are earlier and some seasons later.

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Q. Would it cover the general rule to say about the middle of October?—A. Well, a little school might come on a little earlier than that some seasons, but about the 15th of October.

Q. What do you think they come to shore for?—A. Well, it is their nature.

Q. Yes; for what special purpose, do you think?—A. For breeding, I suppose.

Q. And they commence to spawn about when, do you think?—A. Well, some sorts are earlier than other sorts.

Q. Take the average the season through?—A. Well, as far as I know, they begin to spawn about the 8th or the 10th of November; very few of them spawn before that time there; there might be an odd one, but not worth mentioning.

Q. What about your spring or summer trout, as you call them; do you think there are two kinds of trout?—A. Oh, yes, more than two.

Q. Are there more than two kinds?—A. Yes, sir.

Q. How many kinds do you think there are?—A. Well, there is what we call the fall trout; they are different altogether from the deep water trout.

Q. There is the fall trout and the deep water trout?—A. Yes, and then there is a trout out in the lake different from either of them.

Q. What do you call them?—A. Reef trout, and I have seen them spawning in the summer season, with the spawn ripe in them.

Q. Do the deep water trout come to the shore?—A. No, nor the reef trout; they do not come to the shore to breed. It is what we call the fall trout come to the shore.

Q. Reef trout and deep water trout do not come to the shore?—A. No, sir, at no season of the year.

Q. Well, what is the difference between a reef trout and a fall trout?—A. Well, the reef trout and the fall trout are equal in size, but the deep water trout they are smaller.

Q. What average will the reef trout and fall trout weigh?—A. Well, they will run from six pounds to sixteen.

Q. Then they will run to an average of about ten pounds, will they?—A. Yes, about that.

Q. Then, your deep water trout, what will they weigh?—A. Well, they are a smaller fish, the deep water trout, as the deeper the water the smaller the fish is.

Q. Well, as you catch them in the summer, what will be their average weight?—A. Oh, we catch them with small mesh, about three or four pounds.

Q. With small mesh, you say?—A. Yes, with smaller mesh.

Q. What size will that mesh be?—A. Well, our nets should be from  $4\frac{1}{2}$  to 5 inches in the summer season. They are  $4\frac{3}{4}$  generally.

Q. Where do you market the fish that you catch?—A. In Canada, and the United States.

Q. What is the proportion that you sell in Canada as compared with the States?—A. Oh, I could not tell you that.

Q. Do you sell half as many in Canada as you do in the States?—A. Well, there is more going to the States these years because we cannot get a market in Canada.

Q. Do you send them through direct yourself?—A. No, sir. I give them to a trader here; a fisherman that is going on the lake cannot attend to both.

Q. It is the Canadian fish, and the American fish you sell to a trader here?—A. Yes, other parties buy them.

Q. And are these Canadian traders or American traders?—A. I give them to Canadians.

Q. All sold to Canadian traders?—A. Yes, sir.

Q. Are these traders natives and residents of the place?—A. Yes, of Ontario.

Q. What do you usually get for your fish, say the salmon-trout; what is the value that you generally get for them?—A. From  $3\frac{1}{2}$  to 4 cents a pound.

Q. And your whitefish?—A. About the same.

Q. Are those that you sell to go to the States, as well as in Canada, the same price all around?—A. Yes, sir.

Q. There is no difference in the price of those for the Canadian market, and those for the American market?—A. No, sir, no difference, not to me.

Q. Now, you said something or other about when fish were ripe to spawn. When do the eggs come most freely from the fish; take the salmon-trout, for instance?—A. Well, very few eggs will be seen until about the 8th of November.

Q. Well, some spawn before that, and some after it, I suppose?—A. Oh, it is after that altogether.

Q. And what about the whitefish?—A. Whitefish is later.

Q. All in November, though?—A. Yes, sir.

Q. Do you catch any pickerel here at all?—A. Not on the shore.

Q. It is not an article of trade here at all?—A. No, sir.

Q. Then your whole trade is salmon-trout and whitefish?—A. Yes, whitefish and salmon-trout; there might be an odd pickerel.

Q. When do you meet with the greatest difficulty from storms and other things connected with the fishing?—A. In the fall.

Q. Any special months of the year in which your losses are greater than others?—A. In September, October and November.

Q. And which of these three months are most ruinous to your business?—A. Well, sometimes we cannot count for the storms coming, and some years are not the same as other years. About the equinoctial gales is very bad in September, and the gales will be on from that time, but every year it is not the same.

Q. But is there any one month of these three months that is worse than another?—A. October is a very bad month for gales.

Q. And how about November?—A. Some years very good and some years bad. It is very bad this year. I know I set nets on the 27th of October this year, and I could not get them up, and I sent for a permit to get them up as the law said not to leave them in the lake, if it was possible to take them up, and I sent to headquarters to get a permit to take them up as I could prove that they were out on that date, and I did not like the word that came up to destroy the nets. As we always got relief from headquarters in other places I was in, I thought they ought to look into the matter and see if I was telling the truth, and let me have my crop in, and if I was telling a lie to punish me for it; I thought that would be the way.

Q. Anything further on that question?—A. Well, about fish spawning; if all the fishermen on Lake Huron were to go out and fish all the season through, I must say that the suckers are doing more harm to spawn than all the fishermen put together. As soon as the fish will spawn, and about the time that they leave the ground, the suckers are coming on so thick that they cover the ground, and eat the spawn for food, sucking up the spawn. Pickerel is another fish that is great for eating small fish.

Q. What about salmon-trout, do they eat young fish too?—A. Yes, they feed on whitefish and on herring. In the summer season the trout are on top of the water, they do not go down to where the nets are and that is the reason we cannot catch them.

Q. That is the big salmon-trout you mean?—A. Yes.

Q. And the small salmon-trout are below feeding, are they?—A. Yes; they and other kinds, and they eat worms the same as whitefish.

Q. In regard to the Sunday closing law, can that be practically carried out here, that is, taking in nets at six o'clock Saturday night, and keeping them in until Monday morning?—A. No, sir. It is impossible to do it. If we had only one gang of nets it could be done, but we have three, and sometimes four, and with them it is impossible to do it.

Q. Are you aware of any fishing being done by Americans in our waters?—A. Not here.

Q. Do you know of it anywhere else?—A. No, not where I am fishing.

Q. Well, do you know of it anywhere?—A. Well, I am not going to give hearsay, I am giving what I know myself.

Q. Do you think it advisable on the part of the Government, to establish proper close seasons for fish in the interest of the fishermen, and of the fisheries?—A. Yes, sir, in the proper season, but I think they are a little too early with it.

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Q. That is in reference to your own fishing you are speaking now?—A. Yes, of the trout here.

Q. Well, what is your season here, what is your present close season?—A. The 1st of November, you might say until the 1st of May following.

Q. But the legal close season is during the month of November, is it not?—A. Yes, from the first to the last of November.

Q. At what season of the year do you generally put out your nets first?—A. About the 1st of May.

Q. And you keep them down until when?—A. Well, the most of them keep them down until the 1st of November, taking them up and drying them, and putting them out again.

Q. They are out except during the time of drying and cleaning, I suppose?—A. Yes, sir.

Q. Is bass fishing carried on here?—A. No, sir.

Q. Any winter fishery carried on here?—A. Not of any account, we might get a few herring.

Q. Any sturgeon caught here?—A. No, sir; the water is too clean for sturgeon here.

Q. You have been fishing here for how many years?—A. Since '55.

Q. What was the state of the fishery when you first came here, as to the quantity of fish?—A. Well, I must say that they were more plentiful when we first came here.

Q. That applies to both salmon-trout and whitefish, does it?—A. Yes, sir.

Q. Were the fish as a rule larger in former times than they are now?—A. No.

Q. They were about the same size?—A. Yes, sir.

Q. Did you catch more of them along the shore then than you do now—was the fishing nearer the shore then than it is now?—A. Just the same.

Q. What did you fish with in former years, had you tugs, &c.?—A. Fish boats.

Q. Fishing was then carried on by sail boats?—A. Yes, sir. I never fished in a tug.

Q. Well, did you go out with your sail boats as far then as you do with the tug fishing now?—A. No, sir.

Q. Fishing was more along the shore with the sail boats?—A. Well, there was not so many out and we had more room then, there was not so many men fishing.

Q. You say fish was more plentiful then?—A. Yes, because there was fewer men at it. When I fished first there was only a couple of boats here, and I have seen twenty-five boats fishing here since, so that we would have to scatter and get room for our nets.

Q. Then, speaking in general terms, do you consider that salmon-trout and whitefish are scarcer now than they were formerly?—A. Well, there were so few at it then. I know when there is too many on the ground it will scare fish off the ground; but there was only so few nets then in the lake.

Q. Are there too many now?—A. Well, there is a good many poor men try to make their living at it.

Q. You think if there are too many nets it will scare the fish?—A. It will make them change the ground.

Q. And do you mean us to understand that there are too many nets now and it does scare the fish?—A. Oh, I know when there are too many nets on the ground it will scare the fish to other grounds.

Q. Well, do you think there are too many nets fishing now, and do these nets scare the fish away?—A. Well, I cannot answer that. One has as much right to fish as another, as long as they will pay license for it. I know a few nets in a place will catch more fish according to the rigs and boats.

Q. Do you say that one man has as much right as another to fish?—A. I think so. As long as he will pay the license and do what is right.

*By Mr. Harris :*

Q. You say you catch whitefish and trout in your fishery. Which do you place first in value, which is of the greatest importance to fishermen here, trout or white-

fish?—A. Well, in value some would rather have the trout and some would prefer the whitefish.

Q. Which do you consider the most valuable fish in the water, the whitefish or the trout?—A. Well, in the summer season the whitefish is the best, but in the fall of the season we cannot catch whitefish here, it is trout we get altogether.

Q. The question I want to get at is, which fish do you consider of the greatest value, the most important fish in the fishery?—A. I think the whitefish is. The whitefish is a harmless fish and won't destroy other fish, and the trout does destroy other fish.

Q. You regard whitefish as the best commercial fish?—A. Yes, sir.

Q. And the most profitable for fishermen to catch?—A. Yes.

Q. Do you fish as much in Lake Huron as you do in Georgian Bay?—A. Yes, I fish more in Lake Huron.

Q. Do you ever land any of your fish in the Georgian Bay ports?—A. Yes.

Q. Any considerable quantity of them?—A. Yes, sir.

Q. What proportion of your catch do you think you land in the Georgian Bay ports?—A. Well, I could not be sure, now, I don't know as I could say. I do not make up my mind.

Q. Oh, just give me to the best of your recollection what you think about it?—A. Well, I could not be sure.

Q. More than half?—A. Do you mean how many tons we land there?

Q. Yes?—A. I could not be sure of that now.

Q. But you land a very considerable portion of them there?—A. Yes, when we used to fish there.

Q. More fish go to the States of late years. Is that caused by the opening up of the railway and making a market there?—A. No, because they do not buy them in Canada. When there was few boats they would sell them all in Canada, but now there are so many boats they cannot consume them all in Canada, and without a market there is no use for men to catch fish.

Q. You said more fish went to the States of late years. Then they did buy them in Canada once?—A. Yes, because there are more fishermen fishing now than there was when I started here first, and Canada would take them all then. There was no market in the States at all then, but there is more fish caught now than the country wants—in the summer season.

Q. Then, it may be that the railway gives you direct communication with the United States and the Canadian market may be supplied from other fisheries in Lake Erie, or Lake Ontario, or Lake Superior?—A. Yes. I know from salt water the railways are making the market good, I know that.

Q. How do the prices compare now with the prices that you got formerly in Canada?—A. About the same.

Q. Do you sell your fish to the Buffalo Fish Company?—A. Some of them to what they call the Buffalo Fish Company. There was James Clark, and McKay, and McLeod who were acting for the company.

Q. Are they Canadians or Americans?—A. Canadians.

Q. Are they agents for an American house?—A. I understand so.

Q. Do you think that the Americans being in the market here is a good or a bad thing for the fishermen?—A. It helps the fishermen.

Q. The fishermen always get their cash, do they?—A. Yes, cash or trade.

Q. Do you think the fishermen would be better off if they all took out their nets in November, do you think it would be better for them all?—A. Yes, sir.

Q. You think it would?—A. Yes, sir, but I think they should get time to take them out if bad weather sets in, if they had their nets out in October they should get time to take them out.

Q. You commenced to fish in 1855?—A. Yes, sir.

Q. Is the fishing gear now in use better, and more adapted to catching fish now than it was then?—A. Oh, they are improving on them.

Q. They have improved on it?—A. Yes, they must improve on everything.

Q. And they have improved on the fishery gear?—A. Yes, sir.

Q. Have you a tug?—A. No, sir.

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Q. All your fishing then is done with a sail boat?—A. Yes, sir.

Q. How many miles of gill-nets have you?—A. I don't know now, I could not tell you that.

Q. If you had a good tug and as many nets as a tug could fish, do you think you could under those circumstances fish more profitably than you do now?—A. Well, there would be more expense in it, and they would catch more fish.

*By Mr. Wilmot :*

Q. Mr. Harris asked you if it would be better for your fishermen to take up their nets in November and you say it would. Well, how long would it take you to take up your nets when you once began it?—A. Oh, it won't take so long, in two good days we could take them up, but in bad weather we could not, that is if we had good luck and they would not break.

Q. During stormy weather when you cannot get out to your nets for a certain time, and when you do get out, do you find many of your fish dead in the nets?—A. Yes, we do in stormy weather—we do, yes.

Q. Are these fish then unmarketable?—A. They are kept for salting.

Q. They are not marketable for fresh fish?—A. No, if they are long dead they are not good, but there is a good many fish that will do for salting that won't do to use fresh.

Q. Well, does salting bring the fish around to its proper condition after it has got a little the worse for using fresh?—A. Yes, sir.

Q. Salt will bring them back to what may be termed a fresh, wholesome state again for eating?—A. Yes, you would not know the difference if they are dead in the nets, unless they are too far gone, and then you cannot cure them.

Q. What do you call too far gone?—A. If they are useless.

Q. Well, are many of them useless in the nets?—A. Well, if it comes stormy weather like we had this year.

Q. Stormy weather like you had this year would make a great many useless, would it?—A. Yes.

Q. What do you do with these useless ones, then?—A. They are no good.

Q. But what do you do with them?—A. Put them with the guts.

Q. Where are the guts put?—A. Well, in the summer season they are making oil of them.

Q. But these fish that become useless and are not fit for salting, what do you do with them—bring them ashore and bury them, or throw them overboard?—A. No, sir, we do not do that.

Q. Do what?—A. Throw them overboard.

Q. Then you bring them on shore?—A. Yes.

Q. And bury them?—A. No, sir, we do not bury them.

Q. Well, what do you do with them on the shore—do you pile them together in a particular place or just throw them loosely about?—A. They are making oil of them, unless some people are on an island and then they bury them.

Q. And do they make oil out of the offal too?—A. Yes.

Q. Are the fish converted into oil along with the offal?—A. Yes.

Q. Are there any oil factories up here or is it done by individual fishermen?—A. Just a man making his living by it.

Q. There are men making a living by making this oil?—A. Yes, all over the lake.

Q. What is done with this oil?—A. I think they send it to the tanneries.

Q. Is there much of it made?—A. A good deal.

Q. What is it worth when sold?—A. I think the man here this year told me he was getting 30 or 32 cents a gallon—that is, taking all costs out of it, all expenses out of it.

Q. Then is this what you say in a few words,—that in stormy weather when the nets cannot be reached freely that a number of the fish will die, the best ones are sold, those that have gone a little bad are salted, and those that are very bad are brought ashore and turned into oil?—A. Exactly, sir.



Q. Have you any knowledge whatever with regard to pound-nets?—A. No, sir, I never used them.

Q. Are you able to give an opinion then whether more fish are killed in pound-nets than in gill-nets?—A. I never worked any pound-nets.

Q. Do you know anything about them at all?—A. No, sir.

Mr. MALCOLM MCKENZIE sworn:—

*By Mr. Wilmot:*

Q. You reside here, do you?—A. I do, sir.

Q. And your occupation?—A. Fisherman.

Q. What length of time?—A. I have fished in Canada since the year '71, and I fished eleven years in salt water before that.

Q. But with regard to fresh water fishing?—A. I have fished since '71.

Q. You are a Scotchman too, I presume?—A. Yes, sir.

Q. What sort of a fishery do you carry on?—A. Whitefish and salmon-trout—gill-nets.

Q. And where do you fish?—A. Well, for the last ten years before this year I fished in the Georgian Bay, and this year I fished here in Lake Huron.

Q. When you say Lake Huron you do not mention any particular locality?—A. Well, when I fished in the Georgian Bay, I was fishing in the Georgian Bay and Lake Huron both.

Q. But this year you say you fished in Lake Huron alone?—A. Yes, sir.

Q. What particular description of nets do you use?—A. Gill-nets alone.

Q. And is the mesh the same as the previous person spoke of, namely  $4\frac{1}{2}$  to 5 inches in the summer?—A. Yes, and  $5\frac{1}{2}$  and 6 in the fall.

Q. I would like, if possible, to get some opinion as to how it is that the summer fish are so much smaller than the autumn fish. The fish you catch in the summer are a smaller fish, what do you call them?—A. Well, I have seen as big a trout in the summer as I ever seen. It is not all the same kind of fish that a person catches in the summer.

Q. Salmon-trout then are not all the same, that is you mean with regard to size?—A. Yes, I seen some salmon-trout in summer time that would weigh 50 pounds.

Q. You say they are not all the same with regard to size, those in the summer are smaller and those in the fall larger, is that it?—A. Yes, sir, as a general rule.

Q. Is there any distinctive difference in their appearance between the summer trout and the autumn trout?—A. Oh, yes, a good deal, between the deep water trout and the shallow water trout; they do not appear to be the same class of fish at all that is, in their appearance or in their eating qualities.

Q. In their eating, you mean for domestic purposes?—A. Yes.

Q. Which is the best for eating purposes?—A. Well, the fall fish are very good, and in very deep water the fish are, as a general rule, fat when they get their ciscoe head.

Q. Well, just say shortly, are the salmon-trout from the deep water the best for eating purposes?—A. Well, I would sooner have the fall trout for eating purposes.

Q. The fall trout are much larger, are they?—A. Yes, they are larger than those caught in deep water, but, as a general rule, fish is better tasted when the water is cold in the spring and the fall—the fish as a general rule taste better when the water is colder.

Q. What will be the general average size of what you call your summer trout?—A. Well, about  $2\frac{1}{2}$  pounds or they will run 3 pounds about sometimes.

Q. Average about 3 pounds?—A. Yes, about 3 pounds.

Q. And the fall trout will average about what?—A. Well, I suppose they will average about 7 pounds. They are larger here than they are in the Bay.

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Q. Do you catch many of what you call your 3-pound trout in the fall, in the month of October?—A. Oh, yes, we catch a few.

Q. Only a few of the 3-pound trout are caught in October?—A. Oh, yes.

Q. Have you taken notice what sex they are, whether they are generally male or female?—A. Well, as a general rule, the male is the smaller fish.

Q. As a general rule these small fish are males, are they?—A. Yes, sir.

Q. You are now referring to those caught in October, are you?—A. Yes, sir.

Q. What may be the usual length of your nets that you fish with?—A. Well, I could not exactly say.

Q. The usual length of your net is as per license, is that it?—A. Yes, sir.

Q. The depth is not mentioned here—what depth of net is used?—A. Well, the summer nets are 18 feet deep and the fall nets are about the same.

Q. Well, the fall and the summer nets are the same number of meshes deep?—A. Yes, the fall nets are 14 and 15 feet deep, but they are so much bigger in the mesh it makes it about the same depth.

Q. You say the fish are in the best condition in the spring and fall?—A. Well, when the water is colder it stands to reason that the fish is in better condition, but of course here we cannot get any whitefish in the fall and in the spring, whitefish is in good condition in the summer time.

Q. That is simply because you can catch them then, is it?—A. Well, I don't know. If a man catches whitefish in the Georgian Bay, of course it is different, we get whitefish right there in the spring and they are in very good condition then.

Q. Well, what is your experience in regard to fish at the time of spawning; is the fish in as good condition then as at any other time?—A. Well, I cannot see much difference in them—the parent fish may not be, but the male fish, I cannot see any difference in them.

Q. What about the female?—A. Well, I don't know that they are quite as good after they do spawn.

Q. But at the spawning time, we mean?—A. Oh, I could not say that they would be just as good as they would be a month before that, at least, that is my experience.

Q. The flesh of all kinds of fish is softer when they are spawning, is it not?—A. Oh, yes. I think so.

Q. Where do you market your fish as a rule?—A. Well, this summer, I marketed them in Canada, but generally I have sold them to the Buffalo Fish Company, but this year I sold them in Canada.

Q. What do you mean, in Canada?—A. I shipped them to the local market most of them.

Q. Where are your local markets here?—A. Oh, all over.

Q. Did you send them down as far as Toronto?—A. Oh, yes, as far as Montreal.

Q. Which do you consider the more valuable fish of the two, in the interests of the fishermen, the whitefish or the salmon-trout?—A. The trout is more valuable in these lakes to the fishermen, because they get more of them.

Q. But as to the quality of the fish?—A. Well, as to the quality there is some parties would not want any trout at all; of course the mixed fish is the best fish for the market, it makes a variety.

Q. Well, which in your own judgment is the best quality of fish, the whitefish or the salmon-trout?—A. Well, I would prefer the whitefish.

Q. Now, whether is the whitefish industry, or the salmon-trout industry the most important here to the fishermen—which are caught in the greatest quantities?—A. Well, there is a larger quantity of trout caught here than of whitefish.

Q. Are the whitefish as numerous now as they were?—A. No.

Q. Can you assign any reason, in your opinion, why they are not as numerous now as formerly?—A. Well, I can. I will tell you just exactly what I think caused the decline of the whitefish, and that is on these grounds here just the same as on the Sauble Beach, when the people come up from Port Frank they commenced drawing the seines on the Sauble Beach.

Q. Then you think that seining has produced this effect on whitefish?—A. I believe so.

Q. At what localities?—A. On our fishing grounds generally. They seined them specially on the Sauble Beach, I do not think seining anywhere else has any effect on the whitefish.

Q. Where is the Sauble Beach from here?—A. Just about eight miles north of this.

Q. What do you suppose the whitefish were on the Sauble Beach for more particularly when they seined them there?—A. Well, in 1876, the whitefish came on the seining grounds thick.

Q. What for, do you think?—A. Well, it was not to spawn. I do not think they were spawning in the sand there, but in the summer time that place used to be swarming with young whitefish.

Q. What time was that?—A. During September.

Q. And they were caught largely there with seines, were they?—A. Yes, and lots of them left dead in the water.

Q. Were they thrown out of the seines dead?—A. Those that were too small were left there.

Q. Were these smaller whitefish caught in great numbers?—A. Lots of them, yes, and left on the beach.

Q. What do you mean by small whitefish?—A. What was not marketable, nor yet fit for salting.

Q. Can you give me an idea as to the probable size of these small whitefish?—A. Oh, I seen lots of whitefish always over there that were not 4 inches long.

Q. Over and under 4 inches long?—A. Yes.

Q. Do you know the mesh of the seinc-net they used?—A. No, I don't know.

Q. Well, it would necessarily have to be a small mesh with which they caught these small fish, would it not?—A. Yes, I suppose it was a small mesh because it was seines they were using for herring.

Q. These nets were herring nets, were they?—A. Yes, sir, herring seines.

Q. What is the usual size of the mesh of the herring seines?—A. I don't know, but I suppose 2 inches on the Sauble Beach, extension measure—that is one inch square, as I am just told.

Q. Where were these fishermen from, that fished there?—A. Oh, they used to come up from Port Frank down below the Sauble; some of them lived up there themselves, but the most of them came from Port Frank.

Q. Where is Port Frank?—A. Down near Sarnia.

Q. Then, the fishermen that came to this Sauble Beach were not fishermen of this neighbourhood?—A. No, sir.

Q. And the fishermen here did not fish there?—A. No, it is all Indians that fish there now. The Government took the license from the white people and gave it to the Indians—the Indians only commenced last year.

Q. Is this business carried on now by these men from down below; is that sort of seining still carried on?—A. No; there are no white men allowed to fish on the Sauble Beach now at all; none but Indians.

Q. Are you of the opinion that this ground was the breeding or spawning ground of the whitefish?—A. Well, it would be up off that shore that we always used to catch our whitefish, but we did not get them afterwards.

Q. And of late years you did not get them there?—A. Well, in the spring of the year we used to get them, but the fish afterwards worked up north. We got more this year than, I suppose, for quite a few years.

Q. Then, you give as your reason for the failure of whitefish the fact of the small whitefish being caught and thrown out in quantities?—A. Yes, and I believe that the spawn would be turned up by the seines and thrown out and killed.

Q. And are you of the opinion that that was the principal spawning ground about this portion of the lake for whitefish?—A. Oh, no; the whitefish that I mind first used to spawn on the shallows up at the fishing islands, on those wide shallows, but I believe that was their feeding ground, though.

Q. Still, you state as one reason why the whitefish have become scarcer was their destruction on that beach?—A. Yes, sir.

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Q. Do whitefish and salmon-trout spawn on the same ground? A. Well, I suppose some of them do.

Q. And about the same time?—A. No, I think the trout spawn earlier than the whitefish.

Q. They both spawn in November, though, do they not?—A. Yes, I expect they do.

Q. Have you any idea when the salmon-trout commences to spawn?—A. Well, it is very seldom I ever saw the spawn loose until about the 10th.

Q. You mean by that that they commence to lay their eggs most freely about the 10th of November?—A. Yes, sir; the spawn is generally hard until then.

Q. Will some spawn earlier and some later than others?—A. Oh, yes, I suppose so.

Q. How does that apply to whitefish?—A. I don't know; I never caught many whitefish on the shallows when they would be spawning.

Q. But you have an idea of your own? Do they spawn generally about the same time as the trout or a little later?—A. I think they are a little later.

Q. Are there two kinds of whitefish, as well as two kinds of salmon-trout, do you think?—A. Not that I know of; of course there are smaller and larger, and take some parts of the Georgian Bay and you will get some grounds that the fish is larger, but, as a general rule, our whitefish in Lake Huron is bigger than in the Georgian Bay.

Q. Then you conclude that there are not two kinds of whitefish, as there are of salmon-trout?—A. No, I don't think there is.

Q. What is the average weight of the whitefish here?—A. Oh, I suppose they will average two and a half pounds.

Q. Is not that small?—A. Oh, well, there is some that will go six and seven, but that is about the general average of whitefish all over.

Q. Have you taken any notice what season is the most injurious to your fishing operations with regard to the losses of nets and gear owing to stormy weather—what particular month?—A. Well, the month of November.

Q. That is on account of storms?—A. Well, there is just as big storms in October and September, but the nets at that time are in deeper water and consequently they escape being broken up, more than in November. Of course there is no person fishing here in November; they clean and take the nets ashore in October.

Q. Well, the latter part of October and November would be more generally injurious?—A. Yes for the nets in shallower water.

Q. Can you give us any information with regard to the destruction of immature, or young fish, other than those you spoke of caught in these seine-nets?—A. There are no young salmon-trout caught.

Q. Take two pounds and under, is there not great destruction of young salmon-trout of that size that should be remedied and prevented?—A. Oh, I don't think so.

Q. In the nets that you use all the young fish will pass through, you think?—A. Oh, yes. There is nobody here that uses any mesh smaller than  $4\frac{1}{2}$ -inch.

Q. They are all gill-nets?—A. Yes, all gill-nets. There are no nets used here that are not gill-nets.

Q. Are herring seines used here at all?—A. No, not used here.

Q. None of any consequence?—A. None at all, not now, there was not this year anyhow.

Q. I may mention for your information that there is an impression gone abroad throughout the country that a great number of immature fish unable to reproduce their species are caught in nets that are in use and thrown away as unmarketable, and the consequence is that it affects the quantity of fish afterwards?—A. Oh, I never have seen anything of that kind done here except what I have seen on the Sauble Beach.

Q. Well, I should judge, as you are a gill-net fisherman and use  $4\frac{1}{2}$  to 6-inch mesh, you say that the young fish could not possibly be caught in them, there might be an odd one caught by the teeth, but that is not a thing of any consequence?—A. No. The only small fish that entangle in them are these minnows, but they do not go to market anyway.

Q. Then the minnows do get entangled in the mesh?—A. Yes, not as big as my finger.

Q. But that is not to any great extent?—A. No.

Q. What are these minnows?—A. Well, they are something like the ciscoe in Lake Ontario, but not that big—just what we call bloaters, and they are full of spawn every day in the year. I don't think I ever saw one of them that was not full of spawn.

Q. Then they could not be young whitefish or salmon-trout?—A. No, no, neither whitefish or salmon-trout.

Q. But you do know of young whitefish being caught in herring seines on Sauble Beach?—A. Yes, sir.

Q. And that practice may be going on yet, may it?—A. No, I don't think it. There might be young whitefish among the herring, but I don't think they will catch any big whitefish.

Q. You say that formerly when these people came up from below and fished there, they caught great numbers of young whitefish and threw them on shore?—A. Yes.

Q. Do you know whether that practice is still continued?—A. No, I don't think it.

Q. If it is, it ought to be stopped in your interest and in the interest of all fishermen?—A. Well, they were hauling there this fall.

Q. Would you say that the same destruction is going on by the use of the same seine-nets on this Sauble Beach, that formerly killed young whitefish in great numbers?—A. Yes, the same nets are used.

Q. Now, you can readily understand as an intelligent man, that if the Government, which is supposed to be the guardian of the fishery interests, allows people to kill young salmon-trout, and young whitefish, or young fish of any kind, they are not doing what is right, because if these little fish are destroyed, you are destroying the possibility of having a crop of adult fish afterwards?—A. Certainly.

Q. And it is one of the objects of the Government to try and find this out and prevent it if possible. It is reported from very creditable sources that up north here somewhere, the young whitefish are taken in tons weight and thrown away, from pound-nets, and some from gill-nets, and it is one of the objects of this Commission to ascertain that if possible, and in the interests of the fishermen to prevent it. I think every fisherman must admit that it would be very wrong to allow such a thing to be carried on?—A. Yes, there is no doubt about it, but I don't know of any fishermen in these parts who uses less than from 4½ to 5-inch mesh.

Q. With regard to the Sunday close law, do you think it is possible to have it carried out here?—A. It cannot be carried out with gill-nets; it would take a man a week to take the nets in, and a week to set them out again.

Q. Now, serious complaints are made to the department that the Americans are poaching on our shores during the close season while our own fishermen are prevented from fishing during the close season, that is a complaint that has been put forward, and the fishermen here use it as a means, if possible, to try and get the Government to do away with the close season altogether. Some of them say it is unfair for us to have a close season, while the Americans are fishing in our waters during the close season. Now, we want to know whether that is a fact?—A. Well, all I can tell you about that is, I heard from a man that was going on a tug that was carrying fish to Lake Erie, that they had to stop fishing on Lake Erie and the Americans kept on fishing right alongside of them, that is when they were coming up to Kettle Point with the tug, and the Americans were fishing 1½ miles out, and the Canadians had to lift their nets.

Q. You do not know anything of your own personal knowledge?—A. No, I don't know anything, it is too far for them to come across here.

Q. Now, with regard to the protection of the fisheries of the country. Is it advisable that there should be a properly selected close season to protect the fish during their spawning times? Is it advisable in the interest of yourself and others that the fish should be allowed to peacefully lay their eggs during the spawning season?—A. Well, I believe it is possible to have a close season late in the season

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when the fish commence spawning, provided the Americans have the same, but I cannot see the advisability for the Canadians to have a close season and the Americans none at all, for it does not take fish long to cross over the lake.

Q. Well, the State of Michigan has a much more severe law with regard to fishing than we have on our side?—A. They do not pay any license and they can fish any time they like.

Q. Would you wish that to be done in this country—pay no license and fish whenever you like?—A. I cannot see the benefit of paying a license, and I cannot see what good the fishery officers are doing.

Q. Then, while you believe in a close season you say there is no object in a license and no benefit from the fishery officers?—A. Well, I cannot see why a tug pays \$25 for a license and a boat only \$5.

Q. Would you like the boat to pay \$25?—A. No, but I would like the tug to pay less. I would like the tug to pay two boats' license, because the tug does not fish any more than two boats, and I think it is very unjust for a tug to pay five boats' license.

Q. When do you generally set your nets here?—A. Well, April for the last few years was about the time, but I have seen it as late as June here before we set nets.

Q. And how long do you keep the nets in?—A. The beginning of November now—if we can get them out.

Q. Have you any faith in fish hatcheries, that they are of any use at all?—A. I have.

Q. You think fish hatcheries are good?—A. Oh, yes.

Q. Are you one of those who petitioned to have one built here?—A. Well, I would like right well to see one built here.

*By Mr. Harris :*

Q. Is there any discontent among the fishermen here?—A. Yes, there is a good deal.

Q. What is the probable cause of it?—A. Well, a great deal of the cause is these combines, American capital being allowed to destroy Canadian capital.

Q. American capital competing with you, is that the cause of the discontent?—A. Yes, a good deal of it.

Q. Would that apply to any capital?—A. Yes, half of the fish-nets in the Georgian Bay and Lake Huron to-day are owned by American combines and the half of the tugs, yes, more than half of the tugs, pretty near all, and they just give to the men what they like.

Q. Would it make any difference to you if it was a Montreal, or a Toronto combine with the same capital and the same money?—A. It would not be so bad. Since the McKinley Bill came into force they can take their fish to the States without paying the 75 cents a hundred pounds on them, but we could not ship to the American market without we pay 75 cents a hundred out; and the Canadian capitalists were making a declaration that it was all American capital that was doing it, and they would get their fish in free.

Q. When was that?—A. Ever since the McKinley Bill came into force, since a year ago last August.

Q. Does any fish shipped from this locality pay duty going to the United States?—A. I don't know.

Q. That is not the point. Do you know of any fish shipped from this locality that pay duty going into the States?—A. Well, I cannot tell. I do not ship any fish to the States, I could not, because I would have to pay 75 cents a hundred duty.

Q. Did you ever pay 75 cents duty?—A. No, I did not, I could not ship, but I shipped frozen fish and I paid 50 cents a hundred duty.

Q. If the Americans were driven out of these waters, I suppose some other capital would take its place?—A. Yes, I have no doubt of it.

Q. And you think the Americans had better be driven out and let other capital take their place?—A. I think so, yes.

Q. Do you think the fishermen would then be better satisfied?—A. I believe so.

Q. Have you a tug?—A. No, not now, I sold it last winter—I gave her away.

Q. How big a tug was it?—A. Sixty-two feet keel.

Q. I suppose it was a \$5,000 tug?—A. She cost me \$4,500.

Q. What sort of nets were you fishing with when you had that tug?—A. All gill-nets.

Q. How many miles?—A. Well, I forget how many, we had four gangs; we would not have all our nets in the lake at one time, we would have nets on the shore drying.

Q. Had you as many nets as the tug could serve?—A. Oh, yes. We were fishing in deep water most of the time and we could not use many nets.

Q. Then, am I to understand that your fishing with that tug was not sufficiently profitable to continue it?—A. Oh, yes, but where I was fishing with her was up in the Georgian Bay, and I could not get the value of my fish there and I went in debt with it. The first year I fished there, I done very well.

Q. If these Americans were driven out of the country and Toronto or Montreal people put their capital into it and bought all their fish here, you think it would be better?—A. Yes, I think so.

Q. Would that be because the fish would be sold in Canada?—A. Well, there would be so much sold in Canada, and I believe what would go to the United States the people would give a better price for it.

Q. You think that if Canadian capital were employed in this fishery instead of American capital that the fish would be sold in Canada?—A. Yes, and the Canadians could buy the fish and the overplus could be shipped to the States, because they would not buy our fish at all if they could do without them.

Q. Do you know what proportion of the fish caught in the province of Ontario is shipped out of the country?—A. Oh, mostly all, I expect. There will be seven or eight million pound of fish go to the United States from the province of Ontario.

Q. Probably seven-eighths of the whole catch?—A. Oh, yes, more than that.

Q. Seven-eighths is a good deal of the whole catch?—A. Yes.

Q. Only one-eighth going to Canada. Now, I suppose there is no doubt that these Americans have managed by some plan or other to get all these fish into the States without paying any duty?—A. So I understand.

Q. Well, the duty on seven or eight million pounds of fish at three-quarters of a cent a pound would be pretty close on to fifty or sixty thousand dollars?—A. Yes.

Q. Do you think the Americans would have paid that duty if it had to be paid, or who do you think it would have come out of—out of the fishermen?—A. Certainly, out of the fishermen, and if that duty had not to be paid at all, the fishermen would get more money for their fish—they would get that sixty thousand dollars.

Q. The fishermen would get more money, you have no doubt of that?—A. No.

Q. Then, as that duty has not been paid the probability is that the fishermen have got more money for their fish?—A. No, the fish buyers have got it.

Q. The middlemen?—A. Yes, sir.

Q. Now, do you think that any Canadian capitalists could have gone to Buffalo and humbugged things so as to get all this fish into the United States without paying duty?—A. I don't think so.

Q. Well, in the interests of the fishermen,—talking of this duty question—don't you think it would be as well to let well alone and not stir it up, or do you think it would be better to expose it?—A. I think it would be better for any fish that was caught with American capital to put an export duty on it, and then those in Canada would have as much chance to put fish on the American market.

Q. Are there some seines worked up here?—A. Yes, the Indians use seines.

Q. Do you know what extent of seines are used there?—A. Oh, just herring seines.

Q. I suppose 400 yards long?—A. I don't know indeed how long they are; they are all Indians who are fishing there now.

Q. But white men did fish there years before?—A. Yes, but they are stopped now by the department.

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Q. Then the Indians fish all the year round in season and out of season, do they?  
—A. Oh, they generally fish seines in the summer time.

Q. Now, the close season here for white men, for some time, was from the 1st to the 10th of November?—A. Yes, some time ago.

Q. Were you a fisherman then?—A. Yes, sir.

Q. Was that close season generally kept in this locality?—A. Well, it was.

Q. It was pretty well kept in this locality?—A. Yes, pretty well kept.

Q. From the 1st to the 10th?—A. Yes, unless sometimes it was just as we had the weather this fall and they could not take their nets ashore.

Q. Now, you approved of a close season in your evidence, if the Americans have a close season too?—A. Yes, from a certain time, from the 10th of November. Well, it would be a close season then with us all the year round after the 10th, and the fish do not commence spawning until after the 10th.

Q. You approve of a close season from the 10th of November to the end of November, that means there would be no more fishing at that season?—A. Yes.

Q. But would you approve of that close season if the Americans had an open season at the same time?—A. No, I don't know as I would.

Q. Then your idea is that we should not have one unless they had one?—A. Yes, sir.

Q. Well, now, does it strike you that if we abandoned our close season, so as to be the same as the Americans, that there would be no use for our fishery department or license or anything of that kind, that there would be no alternative then but to introduce the American plan and fish when we pleased and do as we pleased, the same as the Americans do now. Now, would you approve of the introduction of the American plan on this side, the same as it is over there?—A. Well, I don't know as it would make any difference, because the fish swim over there just as they do here.

Q. And you would be quite willing to have free fish, no license, etc.?—A. Yes, for all the fishing except pound-net fishing. I would not have pound-net fishing.

Q. But you would have to take that with the rest if you followed the American plan, they approve of pound-net fishing on the other side, more than any other kind—but you approve of the American plan all except pound-net fishing?—A. Yes, sir.

*By Mr. Wilmot :*

Q. With regard to this discontent; do I understand you that the discontent is occasioned here on account of the combines of the American capitalists who own half of our fisheries and nearly all the tugs—these combines give you for your fish just what they like, but before the McKinley Bill passed, Canadians could take fish into the United States free, but since then the Canadians are stopped by the  $\frac{3}{4}$  per cent duty, and consequently the Americans combine together to get our fish as low as they possibly can, and then take them into the States free of duty, and the Canadian fishermen suffer by this means, and that an export duty should be put upon these fish caught by American capital? Are these your sentiments?—A. Those are my sentiments.

Q. You say you would be willing to have the American system carried out here, with this one exception, of pound-nets not being allowed on Canadian waters. Of course, I can understand this, because you are wholly engaged in gill-net fishing. But pound-net fishing is perhaps more largely carried on in Canada than gill-net fishing, so you see your views would only go towards serving a certain class of fishermen, but a Government must take things upon a broader basis. Now, I am of the opinion that we have no right to copy from the Americans in any way as to fisheries, because we have got better fisheries than they have, and should sustain them, and if we carried out your plan, we would soon lose them. As long as we protect our fisheries here and keep them in good condition we will always have the American market, but if we go on killing and destroying our fish, our fisheries will become extinct, as they are in many places already, and the only way to protect them is to have a proper close season?—A. Well, the boats cannot run with any less nets than they have got just now, and pay the men's wages. But take



Lake Huron, we have no hatcheries here to help, and I believe it would be to the interest of the Government to have a hatchery on this side of Lake Huron, and I think this place has more claim to it, because there is more boats out of it than any other place on the lake.

DANIEL McCAULEY sworn:—

By Mr. Wilmot :

Q. Are you a resident here?—A. Yes, sir.

Q. A fisherman?—A. Well, I have been a fisherman, of late years; I work for the Buffalo Fish Company.

Q. Are you now the agent of the Buffalo Fish Company?—A. Yes.

Q. What nationality are you?—A. Canadian.

Q. Do you not carry on a fishery yourself now, then?—A. Well, I have a boat.

Q. What fishery is yours; a gill-net fishery?—A. Yes, gill-net fishery.

Q. And a tug?—A. A sail boat.

Q. What kind of fish do you catch?—A. Whitefish and trout.

Q. Any other kinds?—A. No, sir.

Q. And where do you fish with your boat?—A. At Tobermoray, Georgian Bay and Lake Huron.

Q. Are the sizes of the mesh used by you the same as described by the previous witness?—A. Yes,  $4\frac{1}{2}$  to 5 inches, and  $5\frac{1}{2}$  to 6 inches.

Q. Can you give us an idea of when you think the fish are in their best condition?—A. Well, fish are very good in the spring; they are good in all seasons, I think, unless in the spawning season.

Q. Do you refer now to salmon-trout and whitefish?—A. Yes, sir.

Q. Are they good at all times previous to the spawning season?—A. Yes, that is if good, sound fish.

Q. The fish that you get are marketed where?—A. Well, I think we market most of them in the United States, they belong to the Buffalo Fish Company.

Q. Are you fishing yourself too?—A. Well, I am not fishing, but I have a boat.

Q. Do you license a boat?—A. Yes, but I handle fish for the Buffalo Fish Company. I cannot say whether they all go to the States or not.

Q. Well, all fish handled by you are for the Buffalo Fish Company?—A. Yes.

Q. You say you have a license for one sail boat?—A. Yes.

Q. And the whole benefit and crop from this license goes to the Buffalo Fish Company?—A. They are all Buffalo Fish Company.

Q. Are you the actual owner of the boat and the fishing gear in connection with the boat, is it your own *bona fide* property?—A. Not at present.

Q. Whose property is it?—A. The Buffalo Fish Company's, they bought it from me last spring.

Q. A *bona fide* sale?—A. Well, they bought the nets from me.

Q. Do they allow you the money for the license? You paid so much for the license, did you?—A. Well, it was one of the company got the license himself.

Q. One of the company got the license for you?—A. Yes.

Q. They took your name down and your name was entered in the department for a license and they paid the money for it, is that it?—A. Yes, sir, that is the way.

Q. And they control the boat and the license, and yourself, do they?—A. They do, this season, sir.

Q. And also your services?—A. Yes, sir.

Q. Do they pay you for your services?—A. Yes, sir.

Q. How, monthly or weekly?—A. By the season, I suppose monthly.

Q. And do you also act as agent in getting fish from the other boats as well?—A. I do, sir.

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Q. What number of tugs and boats do these people control here—in the first place, do you work for them out of Southampton?—A. It was at Tobermora that I worked.

Q. Well, the company controls how many boats here?—A. They had three tugs and three boats part of the season.

Q. And all the fishing gear?—A. Yes, sir.

Q. And all fish caught in these boats and tugs were shipped to the United States?—A. I shipped them to the company to Wiarton, and I suppose they go to the States.

Q. Have they freezing establishments there?—A. Yes, large ones.

Q. And from this place their shipments are made either to Canada or the States?—A. Yes, sir.

Q. Is this practice pursued by all the fishermen in this neighbourhood, or mostly all the fishermen?—A. Well, of course there is a company here who buys fish.

Q. There are other companies here besides the Buffalo Company?—A. There is one company here.

Q. Is that an American or a Canadian company?—A. A Canadian company, as far as I know.

Q. Well, the average value of fish, I suppose, is the same as the other witnesses have just related—what is the value of the salmon-trout?—A. Well, it is  $3\frac{1}{2}$  cents, and the whitefish the same this season.

Q. What were they previous seasons?—A. They were  $3\frac{1}{4}$  cents last season.

Q. That is in 1891?—A. Yes, and the season before that I think they were only 3 cents.

Q. So that this year they have been a little higher?—A. Yes, and before the Buffalo Company went into buying fish in the Bay in the shape they are in now, I have sold fish for  $2\frac{3}{4}$  cents.

Q. The same fish?—A. Yes,  $2\frac{3}{4}$  cents.

Q. Are you sufficiently acquainted with the habits of fish to give us an idea of when they are ripest for spawning purposes—when do you think the salmon-trout, as a rule, are most ripe for spawning?—A. Well, on in November, I suppose.

Q. When do you think the whitefish are?—A. Well, the whitefish come at the earliest after the 12th, so they must be later.

Q. Still, in November, though?—A. And I think in the Georgian Bay the trout are as late as December.

Q. Well, of course they cannot all lay their eggs at one time, but the month of November will cover the principal spawning time, will it?—A. Yes, I think so.

Q. Is it not a fact that salmon-trout frequently spawn the latter end of October?—A. Well, I cannot say, maybe some do. November, I think, is the principal month.

Q. Do they spawn some before and some after?—A. Yes.

Q. Do you believe that the qualities of those fish are as good at the spawning time as they are before it?—A. I think I answered that before. I said they are good at all times previous to spawning time.

Q. In your operations at Tobermora are there not other fish caught besides salmon-trout and whitefish, do you catch any herring at all?—A. Well, not of any account.

Q. Do you catch any quantity of bass or pickerel?—A. Oh, not a great many.

Q. Do they catch any black bass at all?—A. Oh, there is a few, not of any account.

Q. Have you in the interests of the company or yourself or the country made any observations as to the season in which it is most injurious to the fishing gear and boats to carry on fishing?—A. From the month of September to the end of the fishing.

Q. What do you mean by the end of the fishing?—A. Well, till the close season comes in; there are very severe storms then all through the fall, at least most falls.

Q. Would it be considered profitable then to fish during November, or would it be desirable to have the nets taken up then? Would it be in the general interest of the trade to have the nets take up for the whole month of November?—A. Well,

people fish on in October as late as they can and it is sometimes very good out in the month of November the first few days.

Q. You say from the month of September to the end of the season is the most injurious?—A. Yes, sir.

Q. Do you mean the end of the close season or the end of the fishing season?—A. The end of the fishing season.

Q. Do you know anything about the catching of young immature fish—you have supervision over pound-nets; have you?—A. No, they have none at all up here.

Q. That is, this Buffalo company have no pound-nets at all in Lake Huron or the Georgian Bay?—A. I do not know of any, sir.

Q. Are you prepared to give an opinion on this Sunday close time regulation, whether it is practicable to carry out the work of taking in the nets?—A. It cannot be done, sir, I don't think.

Q. I need not ask you whether Americans fish in our waters, because it seems all the nets and boats you control are under the management of the Americans, but as to poaching from the other side, do they come in with their tugs and fishing gear and fish in Canadian waters—do you know of any instance?—A. I have no personal knowledge of it.

Q. Are you under the impression that it would be advisable that a proper close season should be established for the preservation of fish?—A. I am, sir; a proper season at a proper time.

Q. What is your idea with regard to hatcheries?—A. Hatcheries, I think that they will be a good thing, in fact, I would like to see a hatchery fixed up here.

Q. Hatcheries should be sustained and you want one here, do you?—A. Yes, sir.

Q. Have you lived here any length of time?—A. I was born here.

Q. Have you made any observations with regard to the decline or otherwise of fish here—are the whitefish and salmon-trout as plentiful here as they were in former times?—A. Well, I cannot say that they are.

Q. Can you assign any reason why they are less numerous now—is it overfishing, or is it because they have not been protected properly, or both?—A. Perhaps overfishing has more to do with it.

Q. Have you any remarks to make with regard to other matters?—A. Well, these questions that Mr. Harris asked Mr. McKenzie.

Q. Well, have you any particular matter that you want to make any remarks upon?—A. Well, as to the price of fish.

Q. What have you to say about that?—A. Well, since the Buffalo Fish Company have started we get a better price for our fish than we ever did before up the lake.

Q. And what else?—A. That is about all; I think if Canadian buyers had to pay this duty of 75 cents on fish, I think that we would have to lose it, or the fish catchers would have to lose it.

Q. The fishermen would lose it?—A. I think so, and I also think that if there was an export duty put on fish that it would come off the fish catchers.

Q. It would come out of the fishermen, would it, if an export duty was put on?—A. I think so, it looks reasonable in my mind anyway.

Q. Then, do I understand you to say that all the fish shipped into the United States go in there as American fish?—A. Well, I think so.

Q. If they did not go in that way they would have to pay duty?—A. There is one of the company here, I suppose he can tell.

Q. Have you any other remarks that you desire to make?—A. No, I think that is about all.

*By Mr. Harris:*

Q. Do you know anything about the opposite coast of Lake Huron?—A. I have been over there.

Q. Have you any idea whether or not the Americans fish that pretty thoroughly?—A. Well, I heard they did.

Q. Do you think they have got as many nets in there as we have here?—A. I think on the opposite shore they have as many nets as we have on this shore.

Q. Where do they sell their fish?—A. I suppose they sell them in the States.

## Ontario Fishery Commission.

Q. Do you know any particular point?—A. Well, Detroit is a very good point, I believe, that is, take the opposite side of the lake, I think their fish go to Detroit.

Q. Do you know how the prices over there compare with those here?—A. I don't know.

Q. Now, we have heard something about this Buffalo Fish Company up here, when did you first hear of it?—A. Two years ago.

Q. How long have you fished here?—A. Well, I have not fished since seven seasons. I worked for McKay and Clark before they went into the Buffalo Fish Company, and I have worked for them ever since.

Q. How long have you been working in this locality altogether in the fishing business?—A. Oh, I suppose it is ten years anyway.

Q. And you only heard of the Buffalo Fish Company two years ago?—A. It was two years ago they started as the Buffalo Fish Company.

Q. What were they before that?—A. Well, Mr. McKay and Mr. Clark were Canadian fish buyers and they were in company in Wiarnton.

Q. And were they shipping to the United States?—A. Yes, and to Canada too.

Q. And two years ago it assumed the shape of the Buffalo Fish Company?—A. Yes, sir.

Q. Well, has the investment of American capital and the growth of the American trade here been gradual, as you understand?—A. Well, the fishing trade has.

Q. The fishing trade with the States has been growing up gradually for a number of years?—A. Yes.

Q. Do you regard the investment of American capital here as an injury or a benefit to the people?—A. I regard it as a benefit.

Q. You spoke of the whitefish selling for  $3\frac{1}{2}$  and 3 cents?—A. Yes, and  $2\frac{3}{4}$  cents.

Q. Well,  $2\frac{3}{4}$  cents was before the Buffalo Fish Company came here?—A. Yes, sir.

Q. And you speak of it now as  $3\frac{1}{2}$  and 3 cents?—A. Yes, now.

Q. Have you a tug?—A. No, sir.

Q. You have a fishing license?—A. Yes, sir.

Q. Is the license you have paid for by the Buffalo Fish Company?—A. Yes, sir.

Q. And are the nets paid for by them?—A. They own the nets.

Q. You fish them?—A. No, sir, I do not fish them, a man up the lake there fishes them.

Q. And he gets for the fish he brings in  $2\frac{3}{4}$  cents a pound?—A. Three and a-half cents.

Q. And the Buffalo Fish Company pay for all the gear besides?—A. Well, the price is allowed the boats and tugs,  $3\frac{1}{2}$  cents.

Q. The Buffalo Fish Company own the tugs, own the nets and pay for the license, and this man fishes with that gear, is that it?—A. Yes, sir.

Q. And he gets  $3\frac{1}{2}$  cents a pound for his fish?—A. The tugs and boats are allowed  $3\frac{1}{2}$  cents a pound for their fish; that is, that price is put down to see whether that tug will come out clear and pay all expenses or not.

Q. Do you think that these fishermen who get  $3\frac{1}{2}$  cents on this plan from the Buffalo Company are doing better than if they were fishing independently?—A. Well, I think that the prices are better now than they were when Canadian buyers handled them alone.

Q. When they got  $2\frac{3}{4}$  cents for fish, the fishermen then took out their own license?—A. Yes, sir.

Q. And paid for it?—A. Yes, sir.

Q. And paid for all their nets?—A. Yes, sir.

Q. And had their boats and all their capital in it and then only got  $2\frac{3}{4}$  cents a pound for their fish?—A. We got that one year, yes.

Q. And now they get  $3\frac{1}{4}$  and  $3\frac{1}{2}$  cents from the Buffalo Company with very little capital of their own invested?—A. Well, I understand that the company owned all the boats and tugs that were there in the summer time and they allowed these tugs and boats a certain price for their fish, just the same as they allowed outsiders.

Q. So you regard it as a good thing for the fishermen to be in with the Buffalo Fish Company and work for it?—A. Well, I think the prices are higher than they were before, but other men who are not in the fish company, they get more for their fish.

Q. They get more for their fish?—A. Yes.

Q. But then they have more capital invested in their fishery?—A. Yes, sir.

Q. And they have got the risk of their capital and the risk of their nets and gear?—A. Yes, sir.

Q. And the other way the Buffalo Fish Company take all the risk?—A. Yes, they hire the men who run these boats.

Q. And these men are all men as intelligent as you are?—A. I suppose so.

Q. They are all men who can read and write and are smart fellows?—A. I suppose so. They work and get their wages the same as I do. The Buffalo Fish Company owns these boats and they pay these men so much a month.

Q. You have a certainty about it, you have your wages and you get your pay?—A. Yes.

Q. And the other men are the same way?—A. Yes.

Q. And they seem to like it?—A. Well, sometimes they growl.

Q. Can you give me any idea of what fishing plant there is here at Southampton—how many tugs are there here?—A. There are two fishing here.

Q. How many sail boats?—A. I am away in the summer time and I cannot tell very well.

*By Mr. Wilmot :*

Q. Do I understand you to say this: The Buffalo Fish Company own the boats and nets and gear and employ the men, and all the fish caught in these boats and by this gear are brought in to the company to do what they like with?—A. That is correct.

Q. And other fishermen owning boats and nets of their own independent of the Buffalo Company, get the current market price for their fish, which is  $3\frac{1}{2}$  cents a pound?—A. Yes, sir.

Q. For salmon-trout and whitefish?—A. Yes, sir.

Q. That covers the whole thing, does it?—A. That covers it all; I paid that this year.

Q. That is just the whole meaning of your evidence is it not?—A. That is it.

FINLAY McLENNAN sworn:—

*By Mr. Wilmot :*

Q. You reside here at Southampton?—A. Yes, sir.

Q. A fisherman?—A. Yes, sir.

Q. How long?—A. Twenty years.

Q. What country?—A. Canada.

Q. What kind of a fishery are you engaged in?—A. I was engaged in the herring fishery until of late. I was always in the herring fishery since I started until this year.

Q. And what are you doing this year?—A. Well, I fished part of the season.

Q. Well, have you had anything to do with whitefish at all?—A. Oh, yes, I fished for years whitefish, but for the last four or five years I did not do anything. I have gone out of it.

Q. Where do you fish principally?—A. White Fish Island is my fishing station.

Q. Where is White Fish Island?—A. Sixteen miles north of here.

Q. And you used what nets?—A. Seines I used there.

Q. Seines for whitefish and herring?—A. No, seines for herring only.

Q. And what did you use for whitefish?—A. Gill-nets.

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Q. Do you use what is called hoop-nets here at all?—A. No, I never saw but one here in my life.

Q. What is the size of the mesh you use in your herring seines?—A. Two and a half in the bag.

Q. And in the wings, what?—A. Oh, three and a half and sometimes four; sometimes I will have the wing four.

Q. What size do you use for your gill-nets?—A. Four and a half to five inches.

Q. Two and a half—that will be one and a quarter bar in your herring net?—A. Yes.

Q. What sized herring will that two and a half inch extension let through?—A. Oh, it will let full-grown herring through. Suppose you had in the seine a couple of barrels, if you will give them time they will all go through.

Q. They will all go through?—A. Two and a half inch mesh will let a seven-inch herring pass through freely, but when there is a large bulk of herring in they cannot get through because they all huddle together.

Q. Well, in hauling your seines for the herring of course a great number of half-grown herring would get caught and would run out?—A. Yes, sir.

Q. Did you in your experience ever see any great number of whitefish run out?—A. No, I don't know as I ever saw a great number of whitefish in the nets in my life.

Q. Do you know anything about this place called the Sauble Beach?—Yes, sir.

Q. Did you ever fish there?—A. No, I never fished there.

Q. Do you know of young whitefish being caught there in seines?—A. Yes, I saw young whitefish there upon the beach.

Q. Young whitefish of what size?—A. Oh, I should judge two to four inches long on the beach there. I walked down just on purpose to see. It is only four miles.

Q. How did they come on the beach?—A. Caught by seines.

Q. In large quantities?—A. Oh, I could not say. I never was there but once when I saw young whitefish there, but I have heard different times, and I came down once just to see.

Q. You saw them from two to four inches long there?—A. Yes, and more than that.

Q. Who were they caught by—Indians or white people?—A. Oh, there was about twelve seines on the beach there from one end to the other. It is about five miles long, and the Indians had two seines and the white people had ten of the twelve seines.

Q. Is that fishery carried on now in the same manner?—A. No, it is carried on by Indians wholly now.

Q. How is it that the white people do not fish there?—A. The Indian Department interfered and took it from the white people, I believe; the Indians made out it was on their reserve,—a year ago.

Q. It is on the Indian reserve, is it?—A. No, the land back of the beach all along it belongs to the Government, it is not Indian land at all.

Q. Well, how do they make out that this Sauble Beach is on the reservation?—A. Well, I could not explain that, the land all behind is settled by white people.

Q. Where did these white people belong to that fished there at that time?—A. They came from below Bayfield down here.

Q. Down from the Sarnia neighbourhood?—A. Yes, near Sarnia, half-way between Goderich and Sarnia.

Q. Well, for information, would a three inch gill net mesh catch medium sized whitefish, or young whitefish?—A. Oh, I could not tell, that is a net I never fished, but I would naturally think it would, because I have seen whitefish no larger than herring and a three inch mesh will catch herring, but I never fished with a three inch mesh in my life.

Q. You think a three inch mesh will catch herring and will also catch some whitefish?—A. Oh, yes, I would think so.

Q. Will a two and a half inch mesh catch any whitefish at all, that is, half-grown whitefish?—A. No, I never saw it. I have used herring nets a while in the fall with my seines, but I never caught a whitefish in my life.

Q. Have you caught a herring of two pounds or one and a half pounds?—A. I don't know.

Q. Have you caught them a pound?—A. Yes, sir.

Q. Well, then, a herring net of three inch mesh would catch a pound herring and would also catch a pound whitefish, would it not?—A. Yes, a pound herring and a pound whitefish is just about the same size or very near.

Q. When do you think the herring are in the best condition for food?—A. Well, we never catch herring here but once a year and that is the only time I know anything about them.

Q. What time is that?—A. November, the latter part of October and November. Oh, you might get a few any time in the year, what we call summer herring, but I never care for them.

Q. Are not summer herring good for eating?—A. No, I never cared for them.

Q. And you think that herring are very good in October and November, the spawning time?—A. That is the only time we catch them here and they are good then.

Q. Is that their spawning time?—A. Oh, yes.

Q. You do not fish for them in the summer months?—A. No.

Q. Are herring very numerous in this section of the lake?—A. Well, not of late years they have not been, this last three or four years they have not been.

Q. That is in comparison with what they were before, you mean?—A. Yes, sir.

Q. Can you give any reason why that is the case?—A. Well, I don't know, I might give a reason, but it might not be correct; I think the saw-mills along the coast have a great deal to do with it.

Q. Then saw-dust would have a bad effect, is that what you mean?—A. Yes, sir.

Q. Would that be floating on the surface or settle to the bottom?—A. Well, it floats for a while until it gets water soaked, and then it settles on the bottom.

Q. Then what effect has the saw-dust on the bottom of the water?—A. The herring will not go there; the herring is a very shy fish, and they get saw-dust in their gills, and won't go there.

Q. Where this settles on the bottom, is it on the spawning ground of the herring generally?—A. Very often, because when the herring go inside they always go into quiet waters if they can, and that is where that rubbish settled without a doubt.

Q. What about whitefish, you say you used to catch whitefish, too?—A. Oh, yes, quite a few years ago.

Q. You do not catch them now?—A. No.

Q. Is that because you do not fish for them now, or because they are scarcer?—

A. No, I don't fish for them, I have not fished for them this last three or four years.

Q. Where was your market for selling your fish, or where is it now?—A. I sell to the local Canadian market, Toronto and Hamilton; I have sent some to Buffalo in former years, but not much though, just enough to experiment on.

Q. What was the price you used to get for the salmon-trout in former years?—

A. Well, I find fish in my experience a good deal like anything else: sometimes when the market was over-supplied, you would have to sell cheap, and sometimes you got more, but you could range the market generally, say 10 years ago, sometimes you would have to sell at 3½ cents, and sometimes you got 4½ or 5 cents.

Q. Well, about an average of 4 cents?—A. Yes, about that.

Q. What do you get now for them?—A. Well, I am not selling on the market now, and I cannot tell you.

Q. This refers to salmon-trout?—A. Yes, and whitefish the same.

Q. What did you get for your herring?—A. Well, what herring I caught, I always salted them and sold them salted.

Q. At what?—A. They used to average \$4.50; if I averaged \$4.50 per barrel for them, that was my standard price.

Q. How many herring would go in a barrel, as a rule?—A. Oh, good sized herring, about 27 or 28 dozen a barrel.

Q. That would be the herring when cleaned?—A. Yes, herring with their heads on.

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Q. You said you sold them at \$4.50 to \$5.00 per barrel, cleaned herring?—A. Yes, 38 dozen say of small herring.

Q. Could you sell herring at that time fresh at all?—A. Oh, I could not get them to market, it was too far away.

Q. They were salted because you could not get them to market?—A. Oh, I might send a load down here but it would not be often.

Q. I think you said that herring spawned in November—when do whitefish spawn?—A. Oh, I think they spawn in November. I don't think anybody here can give a very correct idea of when they spawn, because we don't know that; I don't think they come on to these shoals to spawn, many of them.

Q. What you mean by that is, that there are no whitefish spawning grounds around here?—A. Well, if they spawn here heavily it is after we are done fishing operations.

Q. Have you had any experience with regard to losses of nets in any one month more than another from storms, and so on?—A. Yes, certainly.

Q. What month would affect you most?—A. Oh, I suppose there are more losses in October than any other month.

Q. Is the weather generally any calmer or better in November or is it worse than it is in October?—A. Very often we have a better November than October—with the exception of this year.

Q. But the most stormy weather is October and November?—A. Yes.

Q. Do you say that your 2½-inch mesh when you are hauling it would frequently catch small herring but no whitefish?—A. No, sir.

Q. You never noticed that?—A. No.

Q. Would you be able to discern with your eyes quickly the difference between a small whitefish and a small herring?—A. Yes, quicker than a shot.

Q. What is the difference?—A. The whitefish is longer in the upper jaws than herring.

Q. Is there any other perceptible difference that you could notice in a hurry—I suppose you do not pick a fish up and look at its jaw?—A. Oh, yes, they are not the same shape. The herring is much rounder than the whitefish in his build.

Q. What is the smallest sized herring that is marketable?—A. Seven-inch is about the smallest that is marketable; if they come below that we would have to sell them at a smaller figure.

Q. Then you never catch many under 6 or 7 inches in your nets?—A. No, not many.

Q. Well, with regard to seine fishing, would the Sunday close season affect you very much with that kind of fishing?—A. I never hauled a seine in my life on Sunday, but when I fished gill-nets I know it could not be done.

Q. Then you all agree that it would be impracticable to keep the law as it now is, that nets should be taken up from six o'clock Saturday night until Monday morning?—A. You would have to commence taking them up on Wednesday to get them ashore.

Q. Are you of the opinion that it is judicious on the part of the Government to have a close season for fish in the interest of the fishermen and of the fisheries?—A. Yes, if they are brought on at the right time.

Q. Then you think close seasons properly chosen are beneficial in the interests of fisheries?—A. Yes, sir, I do.

Q. And do you think that the spawning season as you formerly mentioned, is as nearly correct as possible?—A. Well, I think all that gave their evidence before I did are all too early in regard to the whitefish. I do not think they spawn until very late in November.

Q. As a general thing with regard to your knowledge you have stated that herring and whitefish will, and do spawn in November?—A. Yes, I believe they do.

Q. Is that correct?—A. Yes, sir.

Q. Do you know anything about the spawning of the salmon-trout?—A. Yes, I believe they spawn in November, too.



Q. When were you in the habit of setting your nets out, as a rule, in the spring?  
—A. Oh, we set them here always when the ice went away, sometimes the middle of April and sometimes the middle of May and sometimes the first of June, but you can take an average of about the middle of May.

Q. And you fish steadily on until when?—A. Until the close of the season, the way it is now.

Q. When was it before?—A. Well, it was always to the 1st of November, but we could fish then after the 10th, the close season only continued from the 1st till the 10th of November, and we used to go out again and fish.

Q. Well, then you fished on until stopped by the weather of the department?  
—A. Yes, that was the only thing that would make us stop, if our health was good.

Q. Do you carry on any winter fishing here for herring?—A. Nothing of any account.

Q. In hauling your seines did you ever get any white bass, black bass, green bass, yellow bass or pickerel?—A. Oh, I might have caught some pickerel, but nothing worth mentioning.

Q. What is your opinion with regard to this new idea of hatcheries for propagating fish?—A. Oh, I think it is a very good idea if it is properly conducted.

Q. Is there an anxiety on the part of the fishermen here to have one put up at Southampton?—A. Yes, I think that is a general feeling here on the part of the fishermen; I think they have been slighted in that respect, because this used to be the most important fishing station on the lake, and we used to think we should have had a hatchery here long before now.

Q. You say at one time it was considered the most important station on this shore of Lake Huron, why is it not now the most important station?—A. Well, a number of our fishermen now go off to better fields, go off to the Georgian Bay.

Q. Why is it not considered the most important station now?—A. Well, fish have now become scarcer, and more fishermen are fishing.

Q. And these are the reasons you give for the requirement of a hatchery; fish are scarcer, and more men are fishing?—A. Yes, sir.

Q. Do you know anything about the different kinds of trout they say they have here?—A. Oh, yes, I have seen all kinds of trout that comes in.

Q. And do you think there are two or three different kinds of trout here?—A. Yes, three or four different kinds.

Q. Then you beat the rest of them?—A. I would just as soon be alone as with a crowd sometimes.

Q. Three or four different kinds of trout, do you mean in their families or in their sizes?—A. No, it is different families.

Q. Different appearance altogether?—A. Yes, different shape, size, colour, length, breadth and everything else.

Q. Would salmon-trout of a pound in size be the same shape as one weighing 15 or 20 pounds?—A. No, I don't think so.

Q. Well, then, might not these different shapes and sizes belong to the same fish but at different ages?—A. No, you take a full-grown deep water trout and it is different altogether from a fall fish.

Q. Have you any suggestions of your own to make. You say you have been interfered with in your business, how is that?—A. Well, I did not fish herring this fall on account of the information I got about the close season. I was told by the fishery overseer that I would have to quit by the 1st of November, the close season.

Q. Did he tell you what close season it was for?—A. He said it was the close season for herring.

Q. He told you it was the close season for herring?—A. Yes, and all fish.

Q. He said it was the close season for herring, did he?—A. Yes, he said it was in the notice that he got that the close season for herring was the 1st of November, and he was going to carry that out.

Q. Is there anything else that you have special cause to complain of?—A. Yes, the close season, certainly.

## Ontario Fishery Commission.

Q. What is the trouble with the close season?—A. It commences too early, or quits too late, either one or the other, it is too long. We had a close season here from the 1st to the 10th of November, and we did not complain about that, and the law was carried out to the point.

Q. What is the good of a close season of that kind when you all admit that the fish do not begin to spawn until after the 10th?—A. Well, if we do not catch them then we never will catch them.

Q. You say the close seasons are too long; when should they commence?—A. The 10th is plenty early for any good at all.

Q. Is this both for salmon-trout and whitefish?—A. Yes.

Q. What about the close season for herring, sir, when should it be?—A. Oh, if I got my way, it would be the same thing. I would be satisfied if I never fished after the 10th of November, it would be too cold.

Q. Have you any other special grievance?—A. No, sir, if I got my way that far I would be satisfied.

*By Mr. Harris :*

Q. Have you got a farm?—A. I have got a small little bit of ground, sir.

Q. Is your seine fishery on that?—A. No, it is on the island, I fish on in the lake.

Q. Who owns the island?—A. The Government.

DOUGAL McCAULEY sworn :—

*By Mr. Wilmot :*

Q. Your residence, sir?—A. Southampton.

Q. Your occupation?—A. Fisherman.

Q. How long, sir?—A. Fifteen or sixteen years.

Q. And your nationality?—A. Canadian.

Q. What sort of fishery do you carry on?—A. Gill-net fishing.

Q. With sail boats or tug?—A. Tugs and sail boats.

Q. When you say "tugs" you mean more than one?—A. Yes, we have two tugs, at least I have a partner that is in with me, but I am representing the company.

Q. You are a partner of what company?—A. McCauley & Logan is the firm.

Q. Where are their headquarters?—A. Southampton.

Q. Do they come under the head of an American company or a Canadian company?—A. Canadian.

Q. Wholly Canadian, is it?—A. Yes, sir.

Q. And this company's outfit consists of the two tugs and how many boats?—A. Well, one boat we have. We only run the two tugs, all summer we had a half interest in another boat but we sold it this fall, so that covers the whole.

Q. And the fish you catch are?—A. Whitefish and trout, and herring.

Q. What are the proportions of each of these—are the salmon-trout the greater number or the whitefish?—A. Salmon-trout are the greatest, and then the whitefish.

Q. I hear of the ciscoe here from one or two parties, do you know that fish?—A. Yes, sir.

Q. Do you know anything about that fish in Lake Ontario?—A. I have seen them, I have been on Lake Ontario.

Q. You know the ciscoe then, do you?—A. Yes, sir.

Q. Is the ciscoe here about the same?—A. Well, they are just about the same, I have seen the ciscoe as large here, but as a general run they are a great deal smaller. I think there is another fish called the smelt over there just about the size of the ciscoe here. We have never fished them here to make a business of it, there are plenty of them in the lake, the lake is full.

Q. Are they about the size of the ordinary herring?—A. They are smaller. I sent out a herring net with the fishermen just to see what was there and the net was just full of them and of little wee trout. We just set the net there to see what would be in it.

Q. The mesh of this net would be what?—A. Two and three-quarters. It would only catch the larger ones and the smaller ones would get tangled up in the mesh.

Q. And what size of trout would it catch?—A. Oh, it would be just small little wee fish half a pound and under, just little wee things.

Q. Amongst these small fish that you caught were there any other kinds of small fish besides the ciscoes and salmon-trout, did you catch any whitefish?—A. There is no whitefish lives in that water, not what we call whitefish.

Q. Well, are there any other kinds of whitefish?—A. Well, there is another kind here what is called the moon-eyes.

Q. They have nothing at all to do with whitefish. You say you know the ciscoe that is caught about Hamilton in Lake Ontario?—A. Yes, I have seen them there.

Q. And you think the ciscoe caught here is the same, only smaller?—A. I think so; they are just as fat, and I have got them smoked and they are just as good, I never ate them better.

Q. And you are quite satisfied in your own mind as a fisherman that they were neither herring nor whitefish?—A. Yes, sir.

Q. And they are only caught in deep water, you say?—A. Caught in deep water.

Q. What would you call deep water?—A. Forty-five fathoms and over, or forty fathoms and over.

Q. What season of the year was it you caught these?—A. Oh, you can get them any season, they have been a regular bother to us men fishing in deep water because they would come in the nets and there would come up perhaps half a dozen or a dozen of these little minnows as we call them to one other fish.

Q. Did you take notice whether the mouth of the ciscoe was the same as the herring or the whitefish?—A. I did not.

Q. Your fishery is in what waters?—A. Lake Huron, only from the port of Southampton.

Q. The mesh of your nets is the same as the others?—A. Just the same, 4½ inches summer fish, and 5½ to 6 for fall fish.

Q. Now, with this 4 or 4½-inch mesh what sized salmon-trout will pass through freely without being gilled?—A. If he gets his head free he will go through if he weighs 2 pounds.

Q. Two pounds and under will go through a 4-inch mesh?—A. Oh, yes, and perhaps larger than that.

Q. And how large a fish will pass through your 5½ and 6-inch mesh?—A. Well, I guess about a 4-pound.

Q. What sized fish might pass through a 3-inch mesh?—A. Well, I could not give you any idea.

Q. Well, if a 2-pound fish will pass through a 4-inch mesh and a 4-pound fish will pass through a 5½-inch mesh, what size will pass through a 3-inch gill-net?—A. Oh, I guess a pound fish would perhaps get through, I guess it would; of course I have never given it any consideration.

Q. Would a 1½-pound fish go through?—A. I don't think it would.

Q. Would one pound and under go through?—A. I could not swear to any particular weight.

Q. Do you consider there is any difference in the quality of fish from one month to the other during the season? Don't take marketable purpose into consideration; but when, in your estimation, is the fish the best for consumption for table use? For instance, what time would the salmon-trout, in your opinion, not taking into consideration cold or hot water or the marketable value, be worth the most for domestic use?—A. I could not say.

Q. Well, according to your own ideas?—A. Well, in September, I should think; I always put them up for my own use at that time.

Q. What are they in May and June?—A. I could not tell you; we never get any of them.

## Ontario Fishery Commission.

Q. What about whitefish?—A. I think they are very good whenever we can get them; it is seldom we can get them.

Q. What about spawning time?—A. Well, I should think they would not be as good at the spawning time.

Q. Whitefish are good at any time, you say, but more particularly before they have spawned?—A. Yes, I think so; but I don't suppose we would catch one hundred pounds of whitefish after August here, because the fish are in deep water all the time.

Q. Where are your markets for selling your fish?—A. Well, Canada and the United States.

Q. Do you sell altogether in Canada?—A. Well, we sell some in the States, just wherever we get the best market.

Q. But principally in Canada?—A. No, I think we sold over one-half our fish to the American markets; I think, two-thirds to the American markets.

Q. Which market do you find the best so far as price is concerned?—A. They are both about the same so far as we are concerned; we get the same price from each market.

Q. The value of the salmon-trout is what?—A. Our fish is worth 4½ cents.

Q. And the whitefish?—A. The whitefish is the same.

Q. Do you ship on ice, or do you freeze?—A. We ship in ice, and we freeze just a very few in the fall.

Q. What fish do you freeze?—A. October fish.

Q. Why do you freeze in October?—A. To supply the home market in the winter time.

Q. What price do you get for your frozen fish in the winter?—A. From 5 to 5½ and 6 cents; from 5 to 6 cents.

Q. Have you ever sent any of these frozen fish to the States?—A. No, sir, not this year. I sent some last year.

Q. How did the markets hold out with regard to the winter fish you sent last year, are they higher than the summer fish?—A. Oh, yes, frozen fish always sell higher. Fish are generally scarcer in the winter, and bring a higher price.

Q. The Canadian market is not sufficient for you to sell all your fish in?—A. No, I tried it very hard this year, but I found out I could not do it, and I just tried to hunt the best market I could in the States. I sold the best I could in Canada; I shipped to thirty different men in one day, but there was none of them took over a hundred pounds.

Q. In shipping your fish to the States do you have to pay the duty there?—A. Well, we leave that to them; we do not pay the duty, we sell them the fish and they can do what they like with it. I know nothing about it.

Q. But you pay no duty?—A. No.

Q. How do you consign these fish when you send them over there—consign them to a house in Buffalo or wherever you send them?—A. We send them right across the line. For instance, we send to the Buffalo Fish Company; we just mark down the price we get for them on the invoice and we give that to the express messenger.

Q. A bill of lading is sent?—A. Yes, sir.

Q. With the quantity of fish and the price?—A. Yes, sir.

Q. You have nothing more to do with it then at all?—A. No, nothing.

Q. You get your money back, I suppose?—A. Sometimes we do and sometimes we don't.

Q. Who pays the freight?—A. They pay the freight; they pay everything. We sell them here f.o.b. at from 4 to 4½, and 4¾ cents—some men you can get more from than you can from others—and some I have sold for 3 and 3¾.

Q. There is no demand made for duty?—A. No.

Q. Is this the same price that single fishermen get for fish here from the Buffalo Fish Company and others?—A. These are wholesale prices. We catch our fish and sell them ourselves to the best advantage we can to foreign or home markets.

Q. And is your custom the custom pursued by the Buffalo Fish Company when they buy their fish from other persons?—A. I don't know anything about their business.

Q. Do you buy fish from other fishermen here?—A. Yes, sir.

Q. And do you pay the same price that the Buffalo Fish Company pay for them?—A. Sometimes I have paid more.

Q. And sometimes less?—A. No, I never can get them any less.

Q. Do you know of your own knowledge the actual time many of these leading fish are actually engaged in spawning—take the salmon-trout?—A. The salmon-trout is a fall trout. We have them spawn about the 10th of November, I think. I have about the same views as the other men have in that respect; I don't know any difference.

Q. Do you think that some of them spawn before that time and some after it?—A. Well, I think there might be an odd one, but I think that is about the season.

Q. But do you mean to say that all spawn on the 10th of November?—A. Oh, no, but about the 10th.

Q. What about whitefish?—A. I think they are later, in my opinion.

Q. What about herring?—Oh, we do not catch many of them.

Q. Have you an idea that they spawn at the same time as the other fish, or what?—A. I think they are later. The herring have passed by this shore; there is no herring fishing done within thirty miles of here that pays at all.

Q. Do you mean by that that it does not pay for the quantity caught, or the value of them?—A. It does not pay for the quantity caught; it does not pay any way.

Q. Are your nets affected the same as others who have spoken here, in the month of September, October and November, by the rough weather?—A. Just the same, the same blows affect them all, but when we are fishing in deep water the blows do not affect them so much.

Q. Well, the general impression is that it would pay the fishermen better to take up their nets in November than to leave them down, would that be your opinion?—A. No; we would be very sorry to take them out, especially before the 10th, if we were allowed to leave them in. If we were allowed to take our tugs out to the reefs, in the middle of the lake, in the month of November, I think we would take a great quantity of fish. I believe they take a great quantity of fish; men from here go there and they say that is the case.

Q. How far out is it that you go?—A. We go out fifty miles or so, that is the general fishing grounds in the summer time with the tugs, that is where we have to go to get sufficient quantities of fish to pay us.

Q. How long have you been fishing here?—A. Well, ever since I have been able to fish. I was brought up here.

Q. Were you always obliged to go out that far?—A. I think there was just as good fishing here this year as there was at any time since I started fishing; we go out there simply because with the tugs we can make the time going out.

Q. I should think the longer you would be making the time the worse it would be?—A. Well, if we can get a hundred more fish by going to the reefs, why, we will go there.

Q. What about the Sunday close season?—A. Oh, we could not do it at all; that would mean no fishing at all with the gill-nets. We would set our nets on Monday and we could only leave them till Thursday or Friday.

Q. You mean then that it is impracticable?—A. Yes; we never go out on Sunday; the men never were in the habit of going out from Southampton on Sunday.

Q. What about these Americans poaching, do you know anything about that?—A. Well, we never can go out there to see them.

Q. Is that in November, you mean?—A. Yes.

Q. What about the other seasons?—A. Well, they have seen them, from Goderich; they say that they fish right alongside just the same as they do elsewhere, but I could not give you any practical information about that, only hearsay.

Q. Are you of the opinion that it is correct to have properly selected close seasons?—A. I do, when there are no hatcheries. We ought to preserve the fish.

Q. That is both in the interests of the fishermen and of the fisheries?—A. Yes, sir.

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Q. And do you lay the whole responsibility upon the hatcheries? If you have hatcheries, am I to infer that you do not want any close seasons?—A. We do not want any close seasons if we have hatcheries. Probably my reason for thinking that is that when we had boats that could go out and fish in the same waters as the Americans can we would catch just as many of the fish raised by artificial process as they would themselves; we would not care a rap whether we fished inside or not if we fished out there.

Q. Are you prevented from fishing on the American shore?—A. Yes, it is too far across; we cannot land our fish here.

Q. Would you prevent the Americans fishing on our shores?—A. I believe they would not poach as much, because when there is nobody looking at them they can go where they like.

Q. Your idea is, if we have hatcheries we do not want any close seasons, and you would be willing that all people should fish on our waters at any time they chose, yourselves and others?—A. Oh, I would not want others to fish on our waters; no.

Q. Are you one of those who petitioned to have a fish hatchery established here?—A. Yes; I don't know as I petitioned, but if I have not done so already I would be very glad to do it.

Q. You would petition for a hatchery here if they were to have no close seasons?—A. I would petition for one whether there was close seasons or not. I would like to see a hatchery all right enough, and I would like to see the close season in force if there was a hatchery.

Q. Are there any matters on which you have any suggestions to make yourself?—A. Yes, I would like as far as I am concerned, and I think the rest of the fishermen will fall in with my views, that if we had a certain day or a certain time for which to take out our licenses, and each man to get out his license at that time to fish during that season, and then it would be a benefit to those who are making their living by it.

Q. Do you think everybody should get out his license at the same time?—A. Yes.

Q. They have the privilege of doing that now, have they not?—A. Yes. There are two-thirds of the fish caught here in the fall of the year that are caught by boats which do not pay for licenses at all, boats that are not fishing steadily for a living. There are some boats paying license and some that are not. We had to pay \$50 for those two tugs and they did not catch one-quarter the fish that the other boats did that did not pay for licenses.

Q. And you think that all should be on the same footing?—A. Yes, sir.

Q. Is there a fishery inspector here at all?—A. There was a fishery inspector come here the other day, collected \$56 from me and burnt another man's nets.

Q. Do you know that it is your own fault that you are not all on the same footing?—A. No.

Q. It is your own fault if you do not give some information regarding it?—A. I look at it like this—if a hotel-keeper takes out a license, and another man sells whiskey in another store without a license, he is soon stopped.

Q. You know as a fact that some of the fishermen do not pay license?—A. Yes, I know that.

Q. I think a good deal of that blame is attachable to yourselves for not informing, because the department cannot see all over the Dominion. They have a fishery officer stationed at Goderich, and those of you who do pay license ought to give him some information regarding those who do not pay license. You say it is a fact that more persons fish here without a license than those who do get a license?—A. That is the case this fall as far as I know. I was told by the fishery overseer to tell the men to come up and pay him, but I had other things to do.

Q. Have you anything else to make a suggestion about?—A. No, sir, only I have been on the Sauble Beach this year, and I can corroborate the statement made by Mr. McKenzie, that the Indians are fishing there with 2½-inch extension measure mesh nets. Whether it is injurious or not, I don't know. They do not catch many herring or anything else now, so I don't suppose it makes a great deal of difference.

Q. Do they fish at all times, through the close season and every other time?—

A. I think they will fish whenever they can get a fish there.

Q. But do they fish there at all times?—A. I don't know that. They don't start fishing until October, but there was not enough fish there this last couple of years to pay them anyway, so it does not make much difference what mesh they use.

*By Mr. Harris :*

Q. Are you the managing partner in that firm?—A. I don't know, we just went together this fall, and we have both been managing as well as we could.

Q. Do you think the profits of the company from year to year would be better if all your nets would be taken up the 10th of November, considering the loss of twine, and so on in that month?—A. Oh, no, it would not be better to us.

Q. If the whole of the fishermen would stop on the 10th of November, do you think it would be better?—A. I cannot speak for all, but I think when we fish to the 1st of November, and have to take up our nets then, I think when the fishing is coming on pretty good, it would be more profitable for us to be allowed to fish to the 5th or the 10th.

Q. But take the average of years, would you be content that all the fishermen should take up their nets on the 1st of November taking it as a whole over all the ground, would it be more profitable from a business point of view?—A. Well, if everybody would take them up I would be satisfied, and stop everybody.

Q. Do you approve of the license system being carried out strictly?—A. No, I don't like this license system at all. We have two boats down there and we can fish the same amount of nets as one of the tugs in them two boats for \$10 and the tug has to pay \$25 for fishing two boats' nets, and I don't think that is right, I think the tug's license should be \$10. I am perfectly satisfied to pay license if everybody paid it, but I think the tugs are paying too much, and I think everybody should pay license and not jump on a few and let the rest go free.

Q. Do you think the tugs assist to bring the fish to market quicker than the sail boats?—A. Oh, yes, from a long distance, the boats do not go as far.

Q. Are the boats' fish or the tugs' fish in the better condition?—A. The boats do not go as far; if the boats were to go the same distance as the tugs then the boats' fish would be in better condition, but they do not do that and the boats' fish are not in as good condition as the tugs' fish for the distance they go.

Q. By going longer distances do you think you get a better quality of fish?—

A. Well, going on these reefs that is the best quality of fish we get; they are not the same as the salmon-trout at all.

Q. The further out you go, is that less injurious than fishing inshore?—A. Yes, I think so, because we are fishing where they never fished before and these fish are not caught near shore anywhere within twenty miles of shore, and the tugs go out there and fish in places where boats never fished before.

Q. Well, fishing as you do out in the middle of the lake with tugs do you think you would have a fair case to ask the department not to charge you anything at all for tugs as compared with off shore fishing?—A. Oh, I don't know. When we are fishing out in the middle of the lake we are perfectly satisfied to pay license because we do not fish all our nets there, but I think they should not pay any more than twice a boat's fee, because we do two boats' work out there and two boats only pay \$10.

Q. Does fishing with a tug and nets spread over a greater area than the sail boat fishing?—A. Yes, it does, in this particular point because the lake is so wide across here.

Q. And do you interfere less with the sail boat men than if you had sail boats?—A. Oh, yes, they do not interfere at all with them in the summer.

Q. Putting it in that way do you think it is unfair to discriminate against you as the owner of a tug and charge you such a heavy fee?—A. Yes, sir.

Commission then adjourned, to meet at Owen Sound, according to previous notice given.

## Ontario Fishery Commission.

### No. 8.—OWEN SOUND, GEORGIAN BAY.

Evidence taken on Saturday, 26th November, 1892, at Owen Sound.

Captain DONALD McDONALD called and sworn:—

*By Mr. Wilnot:*

Q. Your residence, Capt. McDonald?—A. Owen Sound.

Q. Your occupation?—A. I am a fish-dealer.

Q. Of how many years' standing?—A. I commenced in 1856.

Q. Your nationality?—A. Scotch.

Q. What kind of fish have you been handling?—A. Whitefish and trout.

Q. In your fishing did you catch any herring?—A. Well, we catch some herring.

Q. In what particular locality?—A. I get them mostly at Club Island.

Q. What are the limits of this island?—A. I guess it is about a mile and three-quarters long.

Q. What description of net do you use?—A. I use the gill-net altogether. The mesh is four and a half and four and three-quarters. We use five and one-half in the fall.

Q. What particular description of fish do you catch in your summer net?—A. Well, I guess they don't average more than two and one-quarter. I suppose they average that, and in the five and one-half they average about three and three-quarters to four.

Q. What kind of fish will pass through freely?—A. Well, we catch some that weigh one and a half, and under, and these will pass through the four and one-half mesh.

Q. Well, what will pass through the five and one-half?—A. Well, I guess about two and one-half and under will pass through that.

Q. Have you taken notice, during your experience as a fish-dealer, when the whitefish are principally caught?—A. I think in the spring of the year, May and June. I think there is not much difference. They are also caught at times of spawning.

Q. Where is your market?—A. I sell between Toronto and Hamilton down the line and other places over Canada.

Q. Could you give me just a fair estimate of the values of these fish, what your salmon-trout were generally worth a pound?—A. In the spring, I suppose they would average about 4 cents per pound, salmon-trout and whitefish. They run pretty near the same in autumn. Autumn fish don't get out up so much.

Q. What month do you find the most injurious or damaging?—A. Well, in some parts October is pretty bad. I have seen August a bad time, but you can't tell exactly. In the fall of the year the fishermen always fish close to the shore. In the summer months, August and September, and in the fall, October.

Q. What do you say about November?—A. This year it has been a pretty stormy month.

Q. What do you say about the whitefish?—A. Do not get any in the fall.

Q. Do you know anything about the black bass?—A. No, I have never fished any black bass.

Q. Do you get any pickerel or herring?—A. I have not had any great experience in herring. I think they commence about the 15th of this month, but I have never fished many of them here. In deep water they may be earlier.

Q. Do you know of any instances when young fish are caught in any quantities and are unmarketable?—A. I saw a man coming in with some and I would not take them. They were caught at Horse Island.

Q. What might be the size of them?—A. I don't think they would be more than one pound and under.

Q. You considered these unsaleable?—A. Yes, sir.

Q. What do they do with them?—A. I suppose they sell some of them.



Q. What would you mean by some?—A. I don't mean exactly the quantity. No, I could not give any idea.

Q. What is the usual way of setting the gill-nets?—A. They are set off the stern of the boat.

Q. How far out?—A. At different distances from the shore, running from 30 to 40 miles from the shore.

Q. In what depth of water do you generally put these nets?—A. There is a difference in the depth of the water, but they are usually set in from 15 to 40 fathoms, in this bay.

Q. Where else do you fish?—A. From 15 to 70 miles down and in Lake Huron.

Q. Do you meet with many losses?—A. Sometimes in the fall of the year I may have had some, but not many.

Q. Do they remain in the nets?—A. There may be an odd time when they remain in the net for a week or ten days according to the weather.

Q. When do you usually take up nets?—A. Well, that is according to the weather, too. In summer from two to six days will elapse before taking up the nets. In the later season in the fall I take them up every day, if possible.

Q. Are the gilled fish alive when taken out?—A. They are generally dead when taken out. Well, sometimes they are dead. In warm weather the deaths are greater if the nets are left out.

Q. Well, are these dead fish fresh?—A. No, they salt them as they are not firm, and send them to the market.

Q. Are these dead fish as fresh as the others?—A. No, they are not. They get soft in the net. The best and fattest fish die first.

Q. If you were buying these yourself which would you take, those that had died in the nets, or those taken out alive?—A. Of course, I would take the live ones.

Q. Do you think the salt cures the dead soft ones?—A. Well, I suppose it helps them.

Q. Where are they sold?—A. They are sold in Montreal and Toronto, and some of them are sent to the States.

Q. Have you noticed them so far advanced after death that they were not fit to bring home?—A. I have seen a few, not many though.

Q. Does this refer to both salmon-trout and whitefish?—A. Yes, sir.

Q. Whether do salmon-trout or whitefish die first in the nets?—A. I have seen both.

Q. What is the size of twine you have in nets?—A. We call it number 50 and 60 in the summer. In the fall, 40 and 45.

Q. Do you ever see any Americans fishing in our waters?—A. I fish up in the end of Lake Huron with the Americans on one side and us on the other.

Q. Do you think they were fishing in our waters or not?—A. I could not say.

Q. Do the Americans always come there?—A. I think they generally come there.

Q. Do you believe in the close season?—A. If it is kept right.

Q. Are you of the impression that close seasons are advisable?—A. Certainly, they are if kept right.

Q. Can you give any information with regard to the increase, are fish plentiful?—A. No, they are not. Fish are not as plentiful as formerly.

Q. Has there been a great falling off?—A. I could not say. I think the whitefish is less and has fallen off most.

Q. Can you assign any cause for this?—A. I believe it is caused by overfishing. Four and one-half meshes should not be allowed in this bay, it should be  $4\frac{3}{4}$ . Four and one-half is too small, as immature fish are caught. I would recommend  $4\frac{3}{4}$ -inch mesh, nothing less.

Q. Have you any other reason that you could assign for falling off of fishing?—A. I don't know. Close seasons should be made to suit different localities.

Q. Do you think catching fish during spawning season would have an effect of reducing supply?—A. Certainly. The taking of fish during spawning time must necessarily reduce supply.

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Q. Do you do much herring fishing?—A. No, not of any consequence.

Q. When do you set nets?—A. About the 1st of May, and they are kept in until the close season, which is the 1st of November.

Q. Do you think they all take up nets on the 1st of November?—A. No, I don't think so.

Q. Do you think it is correct to have a license law allowing fishing to be carried on?—A. I don't think there is any benefit in it.

Q. Do people fish now without license?—A. Well, I suppose they do if they can get rid of it.

Q. What is your idea of the system of hatcheries?—A. I believe if they are used right, that it is the best thing could be done. I think they are beneficial if properly conducted.

Q. Would you like one here?—A. Yes, sir. I think it would be a good idea.

Q. Do you think it advisable to catch fish during the spawning season?—A. No, I think it is advisable to have a close season, and if possible the Americans should have one too.

Q. Are you a fish-dealer?—A. Yes, sir.

Q. What part of the bay?—A. About 80 miles from here.

Q. How long have you been here?—A. I am here six years.

Q. Are the trout as plentiful now as when you started?—A. No, I don't think they are.

Q. Are the whitefish?—A. They are gone altogether.

Q. How are the herring?—A. I never do much at them.

Q. Do you know all the different kinds of nets?—A. I am not much acquainted with pound-nets.

Q. You know much about seine-nets?—A. No.

Q. Do you regard gill-nets as wasteful?—A. Yes, sir.

Q. Do you know anything about seines at all?—A. Not very much.

Q. Are they served with tugs as well as sail boats?—A. Certainly.

Q. Is the fishing principally carried on with sail boats?—A. There are a good many tugs.

Q. Do you know anything about black bass?—A. I don't know anything about them.

Q. Do you ever sell them?—A. I never bought them.

Q. As a fish-dealer would you think it to your advantage if the public would protect the fish in the close season?—A. I suppose the fish would be more plentiful.

Q. Ten or twenty years ago whether was salmon-trout or whitefish the most plentiful?—A. Whitefish were.

Q. What would you consider a large catch of whitefish, ten or twenty years ago?—A. A thousand whitefish would be considered a pretty good catch.

Q. At the same time what did you consider a large catch of salmon-trout?—A. From five to six hundred.

Q. What would you call a large catch now?—A. I was told that a man got about 200 trout, but he did not get any whitefish. The salmon-trout are more numerous than the whitefish, and I think there should be more protection given to the whitefish than to the salmon-trout. Another cause for the scarcity of fish is the saw-logs brought across by the Americans, which disturbs the feeding and spawning grounds.

Captain EDWARD DUNN called and sworn:—

*By Mr. Wilmot:*

Q. Your residence?—A. Owen Sound.

Q. Your occupation?—A. A mariner.

Q. For how long?—A. I carried fishermen on boats for years, and I have been among fishermen a good deal for many years.

Q. Your nationality?—A. English.

Q. What description of fish have you particularly noticed?—A. Since I have been made fishery officer I have particularly noticed all kinds of fish caught in these waters—in Georgian Bay and Lake Huron and the North Channel.

Q. Which were the most particular kinds of these fish?—A. The great majority were whitefish and salmon-trout, and not a very great quantity of herring.

Q. Do you know the description of nets used?—A. The small gill-net.

Q. Do you know if pound-nets were used?—A. Well, not in Georgian Bay. Gill-nets were used in Georgian Bay, and pound-nets in other waters.

Q. Do you know of seine-nets and hoop-nets being used at all?—A. Oh, yes. I destroyed some 50 or 60 hoop-nets this last season as they were fished illegally.

Q. In what manner were they fished illegally?—A. They are an illegal net, and are not allowed on the Georgian Bay.

Q. What did you do with these nets?—A. I burnt them.

Q. Were these your orders from the department?—A. These were my instructions.

Q. Did you notice the size of the mesh in these hoop-nets?—A. They were small, very small, about 2 inches and less, extension measure, or 1 inch square.

Q. What description of fish would these nets principally take?—A. That depends upon the locality: if near a marsh, principally perch, bass and small pickerel, and all kinds of smaller fish.

Q. Were the nets that you seized principally trap-nets and hoop-nets?—A. Yes, not pound-nets.

Q. Do you ever get any young whitefish?—A. A few herring, whitefish don't go near these meshes. In the larger nets, the trap-nets, mostly pickerel in these.

Q. Would you get any small herring and whitefish in these trap-nets?—A. Yes, unless the mesh was made larger and for catching larger fish.

Q. What is generally done with these small fish?—A. They sold them to the dealers, that is if the dealers would take them. I don't know how small ones the dealers would take. Sometimes they would not take the very small ones, and, of course, I never saw the fishermen taking them out, but I have seen the fish they have sold at the fishing stations, ready for shipping, etc.

Q. Don't you know whether they were thrown away or not?—A. I don't know.

Q. What is your opinion of the hoop-nets?—A. These nets are very destructive on account of the smallness of mesh and taking these very small fish.

Q. Has there been much of this work going on?—A. There has been a great deal of it going on along the north shore. It is a very difficult shore to guard.

Q. Do you think there are thousands of small channels in which this work is carried on and therefore difficult to stop?—A. Oh, yes, it is difficult to stop.

Q. Do you know when the salmon-trout and whitefish are in their best condition?—A. I would say in the spring.

Q. Do you mean to say that they are better then than at the spawning time?—A. Oh, yes, better than at any other time in these months and perhaps till the middle of July, until the water begins to get warmer. All fish caught here are marketed in the States, principally in Buffalo.

Q. Have you any knowledge of the market value for them?—A. The fishermen get from the dealers about  $3\frac{1}{2}$  to  $3\frac{1}{2}$ .

Q. Who are these dealers?—A. Well, a number are representatives of the Buffalo Fish Company. There are some independent ones.

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Q. How do they pick up these fish from the nets?—A. Well, some by sail boats and some by tugs. The American companies have stations on the shore where they take in the fish to ice and put in these cars.

Q. Is there a practice of the tugs going and taking the fish from the nets out of the waters?—A. No.

Q. Can you give us your opinion when the salmon-trout are ready for spawning?—A. Well, what these former gentlemen said is correct with regard to this part of the lake. The salmon-trout are ready for spawning during the latter part of October and during November.

Q. Does this apply to the whitefish?—A. I think not. Whitefish are somewhat later. Formerly they caught them in December.

Q. Do you know anything about when herring spawn?—A. No, I do not.

Q. About this Sunday close season, what do you think of that?—A. I think that is not practicable to be carried out.

Q. Have you any knowledge of the Americans fishing in our waters?—A. No, nothing. I have heard of it, but don't know of it for certain, at least in the waters over which I have had control.

Q. What is your idea with regard to close seasons, is it necessary to have them?—A. Most decidedly, I think so, for all parties, fishermen and all.

Q. Within your knowledge, do you know whether the fish are increasing or decreasing?—A. Decreasing, literally decreasing.

Q. Whether is the salmon-trout or whitefish decreasing most?—A. I have heard fishermen say that whitefish are, but I know there are more whitefish shipped than salmon-trout. The quantity of salmon-trout shipped in the summer is not more than one-third of the whitefish; in the fall there are more salmon-trout, in October.

Q. How long have you taken observations with regard to fishing in these waters?—A. Well, more particularly since I was appointed fishery officer, from about 1890. But I have carried fish for the traders the last twenty-five years.

Q. What is your experience with regard to falling off in autumn?—A. The fishermen in those days would not have one-quarter of the net used now, and would take more fish than with the present quantity used, which is much greater.

Q. What do you think is the cause of decrease?—A. By overfishing, and by too small mesh net.

Q. Any other cause that would bear upon the matter as to seasons?—A. Catching them during spawning seasons.

Q. Is there any winter fishing carried on here?—A. Not on this shore, but along the north shore there is considerable done through the ice for pickerel.

Q. Do you know something of the pickerel?—A. Yes. They spawn in the spring. This spring I got in the neighbourhood of 1,500 which were caught with a seine. It was a few days before the close season was out, about the 12th of May, and there was a large quantity of spawn found in them at that time.

Q. Do you know anything of sturgeon?—A. There are many taken in some parts, but I don't know when they spawn.

Q. Have you heard the fishermen say when they spawn?—A. They told me in the spring, in April. They then go up the rivers to spawn.

Q. Do you know anything about black bass?—A. I have seen considerable of them among the islands. There are very few on this shore, they are largely taken on the north-east shore among the islands.

Q. How are they taken generally?—A. Principally by these illegal nets, hoop and trap-nets.

Q. What is done with them?—A. They are sent to the States, and you never can get the accurate quantities, they deny all information, and they sell them as soon as possible.

Q. What time of the year are they taken?—A. In the earliest part of the summer, from May and June all through the season.

Q. Have you any idea when the spawning of the black bass is?—A. Yes, in the spring.

Q. Do you know any month in particular?—A. May and June, I should say from the 15th May to the 15th June.

Q. Have you anything to say with regard to the hatcheries?—A. Of course I only know of them from what I have read, and I think they are a great aid, to say the least of it, to keep up a supply of fish.

Q. Should they be increased in number?—A. If it is possible to support these.

Q. What are your ideas as regarding 'the sizes of mesh in nets?—A. I think that the  $4\frac{1}{2}$ -inch gill-net should not be used for taking whitefish, smaller than 5-inch will take half-grown fish. I think they should be 5 inches.

Q. What about the pound-net mesh?—A. I think the pound-net should be pretty much the same size. The twine of them is coarser.

Q. What do you think about the system of having the pound-net pots only 2 inches in extension?—A. I don't believe in it. I think it is ruinous.

Q. In catching herring, what would you call a good-sized herring mesh?—A. A  $2\frac{1}{2}$  to 3-inch mesh.

Q. Do you think the guardianship is sufficient on these waters?—A. Well, I think the guardianship is not sufficient, particularly at close season, and that depends upon locality. Guardianship is not so particularly required along the south shore as on the north shore.

Q. Who are the buyers?—A. The ordinary dealers.

Q. Do you think a system of licensing the dealers would have a tendency of checking illegal fishing?—A. It might.

Q. Do you think that fishing would be a more paying business if nets were taken out of water on the 1st of November?—A. I think so, in the end.

JAMES TELFORD called and sworn:—

*By Mr. Wilmot:*

Q. Your residence?—A. Owen Sound.

Q. Your occupation?—A. Banker.

Q. Your nationality?—A. Scotch.

Q. What description of fishing are you desirous of giving information on?—A. Trolling exclusively, in Owen Sound Bay.

Q. What kind of fish?—A. Salmon-trout.

Q. Are there any other kind?—A. A very odd time a pickarel.

Q. Any bass?—A. No, I never caught any.

Q. What description of troll did you use?—A. A bait that I make myself, imitation of a herring, a spinning bait.

Q. With one hook or more?—A. There are three hooks joined together at the neck. Two hooks in one bait.

Q. When do you think salmon-trout is in its best condition for market and domestic use?—A. My experience goes clean against what I hear. There are some very good fish in June, but my experience is that they are as good in October as any other time of the year. Fish that have spawned are not good, or that are far advanced ready to spawn.

Q. Your fishing is for your own domestic use?—A. Yes; I never sold a fish in my life, nor never caught one out of season.

Q. Have you made any observation as to what time the salmon-trout eggs are mature?—A. Salmon-trout come on the grounds for the purpose of spawning about the 15th of October. They do not come till about the 27th of October to the mouth of the bay for spawning purposes.

Q. Have you taken any observation with regard to whitefish?—A. No, I know very little about them.

Q. What is the usual size of the salmon-trout you catch?—A. Salmon-trout average from one pound up to three pounds.

Q. Do you troll in spring months as well as in fall?—A. A little in June.

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Q. What is your opinion with regard to propriety of having a close season at time of breeding?—A. I think there should be a close season, and I think there should be no discrimination between trollers and net fishermen.

Q. How long have you been here?—A. I have been here for over forty years. A great deal of fishing is going on during the close season, and I think it should be stopped. I accidentally came across a man who has been in the habit of taking a load of fish down to Markdale every year and selling them, and he would have this year, only he had not time.

Q. Did he buy them or sell them?—A. He bought them.

Q. Did he buy these fish from the fishermen?—A. Yes, and take them to the interior and sell them.

Q. This is all during the legal close season?—A. Yes, and I am sure this is also done by trollers.

Q. What class of individuals do you call the trollers?—A. The farmers living in the neighbourhood.

Q. Could this, with any amount of reasonable guardianship, be put a stop to?—A. Yes, I think it could.

Q. What has been the state of the fishing during your experience?—A. About six years ago we had the best year's fishing I have ever seen, and I don't know a great deal of difference from my own experience. But from the fishermen they seem to have decreased.

Q. To what would you attribute the cause of this decline?—A. Fishing during the close season, and having appliances better for capturing fish.

Q. Have you taken any notice whether another cause would be from throwing of polluted matter into the water?—A. Not in my own observation.

Q. Have you formed any idea of the artificial culture of fish?—A. I think it would be more successful than the natural way, and I think it should be encouraged.

Q. Do you think it would be a means of benefit to the fishermen?—A. I think so. I would like to say that I think the 1st of November would be a suitable time for the close season to commence, for if made on the 15th of October we would have no fishing here at all. I think also that there are more fish caught in June than at any other time.

Q. Can you give any particulars about the whitefish?—A. No, I cannot.

Q. In some places some of the fishermen think that by fishing on one side of the lake, the other side will be affected. Do you think so with regard to Georgian Bay?—A. Well, no, I don't think so.

Q. How long have you fished here?—A. About eighteen years.

Q. When the fish begin to fall off here, do the fishermen then go farther north. Where do the fish go to?—A. My experience has been confined to this bay, so I cannot say anything about that.

Q. Do you think that the fishermen carrying on a fishing business with capital invested in it would be more likely to break the law than those who take it up temporarily?—A. I think that the great bulk of fishermen I have seen are inclined to break the law.

Q. The spawning time of this bay is about the end of October, you say?—A. Yes.

ROBERT McKNIGHT called and sworn:—

*By Mr. Wilmot:*

Q. Your residence?—A. Owen Sound.

Q. Your occupation?—A. Registrar of the county of Grey.

Q. Your nationality?—A. Irish.

Q. Have you been a resident here long?—A. For over 20 years.

Q. Were you at one time engaged in fishing?—A. Yes, but to no great extent. I have bought and handled some of the fish. That would be about 20 years ago.

Q. What kind of fishing was this?—A. Salmon-trout and whitefish.

Q. In the waters of the Bay of Owen Sound?—A. Yes, off Cape Rich.

Q. What is the extent of your Bay here?—A. About 10 miles.

Q. What description of net did you use?—A. Gill-nets, similar to what are used at the present time.

Q. Then they were then home-made nets; they are now factory nets?—A. I believe so. The present nets are certainly of factory make.

Q. Have you any recollection of the size of the mesh?—A. No, I don't know the size of the mesh used then. From casual observation I fancy they are about the same now as then.

Q. Have you ever taken notice when the fish are in their best condition for market and domestic use?—A. In my estimation they are as good in October as in any other season of the year.

Q. Where did you market your fish in those days?—A. Mainly in Canada. Sometimes in Buffalo, but never sold any in the States outside of Buffalo. I was not very largely engaged in the business.

Q. Is there any change in value?—A. Yes, they bring a better price now.

Q. What do you suppose is the cause?—A. Well, I don't know. I suppose the population is greater and the fish are scarcer, whitefish especially, but I don't think salmon-trout are much scarcer, if any.

Q. Don't you think the anglers are more expert.—A. Well, I think so.

Q. Could you give a pretty fair idea of when fish are ready for spawning?—A. My observation goes to show that up to the 1st of November, about perhaps 6 or 7 per cent have spawned; and the balance are about ready for spawning. Afterwards probably through November.

Q. What do you think about the whitefish spawning?—A. I don't understand anything about the time whitefish spawn, but there are next to no whitefish now, when 20 years ago they were plentiful. I have known 1,600 not an extraordinary catch. Boats use to come in loaded with them, and at present there are practically none at all.

Q. Can you assign any cause for that falling off?—A. No, I cannot, except overfishing.

Q. Have you any knowledge of the herring?—A. Not to any great extent. Occasionally I caught some, but herring fishing is not an industry here at all.

Q. Have you in your observations found that there is any month in the autumn that is more destructive than others to nets, &c.?—A. I know that the latter end of October is frequently quite destructive, and I presume it would be nothing better in the following month.

Q. Have you noticed any destruction of the smaller young fish?—A. Not to any extent.

Q. Do you know anything of the Americans poaching on our waters?—A. Not to any extent.

Q. It is reported that the American fishermen fish in our waters?—A. Oh, yes, that is a common report, but I don't know its value.

Q. I think you already mentioned that it is judicious to have proper close seasons?—A. Oh, yes, and I think proper time is spawning time.

Q. About the increase or decrease of fish, what do you think about it?—A. My conviction is that along this shore of the Georgian Bay salmon-trout have decreased very little, if any at all, but whitefish have become almost extinct. I am speaking of along this shore only.

Q. When is the usual time for fishermen to put their nets out?—A. Along the coast here about the 1st of May, sometimes earlier, and kept out until the close season as a rule, not on the same grounds of course.

Q. Are you prepared to give any opinion on the usefulness of fish hatcheries?—A. I think if they consist in replenishing the wants they would be a decided advantage.

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Q. Do you think it would be advantageous to have hatcheries erected?—A. I certainly do, and the prevailing opinion, as far as I know, is that they should be greatly extended and multiplied.

Q. Do you think it would be advantageous for the fishermen to have one built here?—A. I think so, but I don't know much about the real value of increasing the fish.

Q. What do you think is the principal food of the salmon-trout?—A. Principally herring, but I think they will eat almost any living thing.

Q. Have you formed any opinion with regard to the difference between the pound-net and the gill-net?—A. I don't know anything about them.

Q. Do you know that large numbers of the fish caught are unfit for food?—A. A small proportion are. I know that I would not buy one that is not fresh, for I think they are unwholesome for food.

Q. These fish are nevertheless sold, are they not?—A. I don't think that drowned fish are sold to any extent. They are salted, as a rule, and are not used as fresh. Salting will not restore them to proper condition.

JOHN MCKENZIE called and sworn:—

*By Mr. Wilmot:*

Q. Your residence?—A. Owen Sound.

Q. Your occupation?—A. I am a lighthouse keeper.

Q. Your nationality?—A. Canadian.

Q. You are not engaged in fishing then?—A. No, sir. I occasionally fish for herring for home use. I was a fish-dealer about thirty years ago and kept at it for about fifteen years.

Q. What kind of fish did you deal in?—A. Principally trout, and occasionally some whitefish.

Q. Any other kind?—A. A few herring.

Q. Where were your grounds?—A. For trout around Cape Croker in 1868, and at Horse Island and Fritz William.

Q. What sort of nets did you use?—A. The Indians principally fished by trolling.

Q. How did you catch fish?—A. I was trading, and I bought them from the Indians.

Q. What kind did they catch?—A. Salmon-trout.

Q. What time of the year did they catch these?—A. The Indians started to catch about the 4th of September and fished until the 15th of October, at which time the fish had done spawning.

Q. You bought these fish fresh?—A. They were all salted fish, as freezers were not known then, not in Canadian waters.

Q. This work was done by trolling?—A. Principally. There were some nets, of 5-inch mesh, with thread No. 40 to 60.

Q. In what season would the fish be in their best condition?—A. They would be best from the 15th to the 29th of September, and after that some of them would be a little flabby. Fish caught with troll are much better than those caught with net.

Q. Where was your market?—A. Detroit was the best market. Some went to Toronto and elsewhere.

Q. What did you get for fish in those days?—A. The fish sold for \$4 a package. Worth from \$3 to \$4 a package of one-half barrel of 100 pounds.

Q. What is the true time for salmon-trout to spawn?—A. Salmon-trout spawn earlier at Horse Island, and along Manitoulin Island, generally about the 15th September to the 15th October.

Q. What about whitefish?—A. I don't know anything about whitefish. A thousand fish for one are caught at the north end of Georgian Bay and around Manitou-



lin Island, and the present close season is therefor no use for the north end of the bay, as the fish spawn so much earlier.

Q. What do you mean by spawning?—A. Coming in on the shore and laying their eggs; they are done spawning by the 15th of October.

Q. Is it the temperature of the water that makes the fish spawn earlier?—A. Yes, I do think so.

Q. Is the water warmer down here than up there?—A. Yes, as a rule it is.

Q. Have you seen many young fish caught and thrown away?—A. Never.

Q. Have you had any experience with regard to Americans in our waters?—A. They don't come over here.

Q. Do you think it necessary to have a close season?—A. I don't think the close season is of any possible use. They continue fishing, and the close season as at present kept becomes ruinous, because it is not actually carried out, for many persons put out their nets without any interruption; but I think hatcheries will save the fishing, if there are enough of them.

Q. Are the fish as numerous as they were 20 years ago?—A. No, fish have become scarce to what they were. The cause of this is overfishing in summer; but hatcheries will cure everything and save the fishing.

#### No. 9.—MEAFORD.

MEAFORD, Nov. 30, 1892.

Mr. Wilmot, as chairman, in his opening address stated what the nature of the meeting was in the following terms:—

“Gentlemen, in opening this meeting I beg to introduce Mr. Harris here, as my colleague; Mr. Marks, of Port Arthur, has also been appointed, but has been unable as yet to attend. Mr. Harris is engaged largely in the fisheries himself; and hence he has been appointed to practically assist us in this work. Mr. Huggard, of Barrie, will act as secretary and stenographer.”

Mr. Harris then addressed a few remarks to the meeting, stating that he had fished in Lake Erie when the fish were plentiful, and now they were almost reduced to a herring fishery only in that lake. He also stated that any gentlemen who could give information on the subject of the fisheries would be gladly received, and that any evidence so given would be for the benefit of the fishermen in that part of the country. He stated that Mr. Wilmot would inform the meeting of the position he occupied in this country with regard to his engagement with the Fishery Department. He was of the opinion that the fisheries of the country should be protected and sustained. He stated that he had been called by the Government to join in this Commission and assist in getting information, and called upon any gentleman who was desirous of giving his views in the capacity of a fisherman; when Mr. James Pilgrim volunteered to give a statement.

JAMES PILGRIM was sworn, and gave evidence as follows:—

*By Mr. Wilmot:*

Q. Where is your residence, Mr. Pilgrim?—A. Meaford.

Q. Your occupation?—A. A fisherman.

Q. How long?—A. About twenty years.

Q. Your nationality?—A. Canadian.

Q. What kind of fishery are you engaged in?—A. Whitefish and salmon-trout.

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Q. Do you catch any other kind of fish of importance?—A. No, none of importance.

Q. What particular waters do you fish in?—A. That is owing to the season of the year.

Q. Do you fish generally in the Georgian Bay?—A. Yes.

Q. Where in the Georgian Bay, and at what seasons?—A. In the spring and summer on the north shore, and in the autumn at Meaford.

Q. What description of net do you fish with?—A. Gill-nets altogether.

Q. Any pound-nets or seines or hoop-nets?—A. No, sir.

Q. What is the size of the mesh you use in your nets?—A. In summer, nets  $4\frac{1}{2}$ -inch mesh.

Q. And what in the autumn?—A. Five and a quarter; that is, in the fall, in September and October.

Q. What kind of fish do you get in the summer with a  $4\frac{1}{2}$ -inch mesh?—A. Whitefish, the majority of them.

Q. What might be the average size of the whitefish that you get with  $4\frac{1}{2}$ -inch mesh?—A. The average size is two pounds.

Q. Do you catch any salmon-trout in this mesh?—A. A few. It is according to what waters we set in; if we set in 30 or 40 fathoms the majority will be trout, as a rule, but if we set in shallow water from 12 to 20 we get whitefish.

Q. What may be the average of the 20 and 30 fathoms trout?—A. About two and a-half pounds.

Q. And in all your calculations, are they dressed fish?—A. Yes, sir.

Q. What proportion do you consider is lost in dressing?—A. Oh, about half a pound, perhaps, to a fish, according to the size of the fish; there would be about a fifth of the fish lost in cleaning.

Q. When a whitefish is dressed, you say they weigh two pounds?—A. Yes, sir.

Q. What sized whitefish will pass through your  $4\frac{1}{2}$ -inch net readily and escape?—A. One and a-half pounds will go through, as a rule.

Q. What will pass through the larger mesh?—A. Three pounds and under will pass through a 5-inch mesh.

Q. And fish of this size you speak of would be marketable?—A. Yes, sir.

Q. Small and large?—A. Yes, sir; down to three-quarters of a pound or less. The dealers will take anything.

Q. Do you think it advisable, in the interests of the fisheries, that these smaller fish should be caught?—A. No, sir, I do not.

Q. Have you any reason for stating that?—A. Because they are not mature.

Q. That is, unable to reproduce their kind?—A. Exactly so.

Q. Have you made any observations, Mr. Pilgrim, as to when fish are in their best condition, that is, in their prime condition for food or market?—A. It is according to what kind of trout.

Q. What kind of trout have you?—A. We have two kinds of trout, anyway.

Q. It is said one is a summer trout and the other is a fall trout?—A. Yes, we call them summer trout, because they are different to the fall trout.

Q. Is the summer trout the "potgut"?—A. Yes, sir.

Q. And are they smaller than the others?—A. Yes, sir.

Q. What is the average size of these "potguts"?—A. I could hardly say; sometimes we get one seven or eight pounds, but the average size is three pounds. The large grey trout will run sometimes to seven or eight pounds.

Q. What about this other kind of trout?—A. The other kind go about four pounds—they are black and a different shape and are quite a large trout; we call them shoal trout.

Q. When are they caught?—A. In September, October and November.

Q. Is that the season they come in to shore?—A. Yes, sir; about November they are the most numerous.

Q. What is the average size of those trout?—A. About four pounds, sir.

Q. Are there any larger than that?—A. Yes, they sometimes will run up to 40 pounds.

Q. What is the average of the larger ones?—A. They average from 8 to 10 pounds.

Q. These latter ones only come in during the fall months on the shore?—A. Yes, sir.

Q. What do they come to the shore for?—A. I presume to spawn.

Q. When are the summer trout or potguts in their best condition?—A. I think in the spring of the year, May or June—I would imagine that they are in better condition in May and June.

Q. When are the black trout or fall trout in their best condition?—A. I should say the black trout are in their best condition in September.

Q. Where are your markets principally for your fish?—A. In the United States.

Q. Wholly or partially?—A. Wholly.

Q. Do you ship these yourself?—A. I do from here, myself, to the United States.

Q. Do you sell any for home consumption?—A. An odd one—the home consumption is small.

Q. Where do you ship them to?—A. To Buffalo.

Q. Do you ship them to the Buffalo Fish Company?—A. I ship to S. H. Davis and Co.

Q. Do you pay any duty on the fish sent over there?—A. No, sir.

Q. Could you give me the value of the salmon-trout, as a rule, that you get?—A. We have had 4 cents per pound for salmon-trout, fully 4 cents, and for whitefish the same.

Q. What proportion of your catch as between salmon-trout and whitefish is the greatest?—A. The whitefish, four-fifths of my quantity or catch for shipment on the north shore is whitefish.

Q. Do you catch any whitefish on the south shore?—A. I do, sir; yes.

Q. Are they small in number?—A. Oh, quite a number. There is not more than one-fifth taken on the south shore of what is taken on the north shore in the summer time.

Q. Where is the south portion of the shore?—A. From Colpoys Bay to Collingwood or to Cove Island.

Q. How far is Cove Island from here?—A. Oh, I couldn't say exactly.

Q. Where do you get the most of your salmon-trout?—A. About Meaford—we get the "pot-guts" principally off Meaford here, and between here and the north shore in the middle of the bay in the summer time.

Q. Are the black trout taken off Meaford shore?—A. Yes, sir; along there.

Q. What is your experience about the spawning of fish—I think you said salmon-trout come here in September and October and November—when is their ripest time—when do their eggs fall most freely from them?—A. I think about the 10th of November.

Q. Do you mean by that, that they spawn some before and some after that time?—A. Yes, sir; I have seen them spawning in October—different fish at different times.

Q. Now, with regard to whitefish, when do they spawn?—A. There are two or three different classes of whitefish.

Q. When is their spawning season?—A. I think from the 20th of November up to the 1st December—thereabouts, I think.

Q. May there be some before and some after?—A. Yes, sir.

Q. When do you notice whitefish first beginning to go on their spawning grounds; how early?—A. On the north shore, about the 25th of October.

Q. On the south shore, when?—A. About the 20th November.

Q. Do you know anything about the herring spawning?—A. No, sir; I am not acquainted with the herring.

Q. Nor bass?—A. No, sir.

Q. Nor pickerel?—A. Not much.

Q. Are you not prepared to say when they spawn?—A. No, sir.

Q. In your experience as a fisherman, what is the most perilous time of the year for you to carry on your work in regard to your nets?—A. It is according to the kind of work you do; the shore fishing is most dangerous in November.

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Q. When is the fishing most dangerous in deep water?—A. It is about the same throughout the season.

Q. Do you think there is much difference as to destruction of the nets in the summer months?—A. No, sir.

Q. Do you know anything about any quantities of small, immature fish being caught and disposed of?—A. No, sir.

Q. Are there not some immature fish caught by accident with a gang of nets, for instance weighing  $1\frac{1}{2}$  and 2 pounds caught?—A. Not many.

Q. There is a clause in the Act that says that all nets must be taken up on Saturday night and put down again on Monday morning; what do you think about that?—A. It could not be done here.

Q. Do you think that it is impracticable?—A. I am sure it is.

Q. Have you any knowledge of the Americans fishing or poaching in our Canadian waters with tugs by gill-net fishing, or pound-net fishing?—A. I have no knowledge of it, sir; I don't know of that being done on the Georgian Bay.

Q. What is your idea as to whether there should be a judiciously chosen close season in the waters of Canada or not?—A. I think the close season if properly kept would be beneficial.

Q. Do you mean if the officers would see it properly carried out?—A. Yes, sir; I mean if all persons were kept under the same rules; I mean the Americans as well as ourselves. There is no use preserving fish for the Americans.

Q. When are the gill-nets generally set down?—A. In the spring of the year.

Q. When do you commence fishing?—A. As soon as the ice is out; sometimes the 10th March, sometimes 1st May. I think it is generally about 1st May.

Q. When do you usually take them up?—A. The last day of October.

Q. Is there any winter fishing carried on here?—A. Not to any extent, there is little fishing done after December.

Q. Do you know of any bass fishing being carried on in the bay at all?—A. No, sir.

Q. Do you know of any spearing or shooting of fish practised?—A. No, sir.

Q. Have you formed any opinion with regard to artificial culture of fish; do you believe it would be beneficial?—A. I can't say; I don't know, you could tell me more about that.

Q. What is your impression of the matter?—A. I can't say decidedly, but I think artificial culture or artificial production would be good and should be encouraged.

Q. Which of all the fish that frequent the bay do you consider the most valuable in the interests of the fishermen? Whitefish or salmon-trout?—A. The Canadians would sooner have the trout, and the Americans the whitefish, as a rule.

Q. Now, of those two, which is the most profitable for the fisherman?—A. The whitefish is the most profitable.

Q. Taking it all through the season?—A. Yes, sir, all through.

Q. Which of these two kinds of fish have fallen off most in the Georgian Bay? On the south shore which have fallen off the most?—A. I should say whitefish; they have left here; we can't catch them the same as we used to.

Q. On the north shore, how is it there?—A. I can't say much about that—I never caught any fish on the north shore in the fall.

Q. Can you give any reason for the falling off of the whitefish?—A. I think they have gone to some other spawning grounds—I don't think it is because they are caught—they don't come here, they have gone elsewhere to spawn; they may be caught in the summer, for all I know.

Q. Do you think this falling off is caused by overfishing?—A. No, sir, I don't think so.

Q. Nor from killing them in spawning time?—A. No, I don't think so.

Q. Do you mean to say they have nearly all disappeared?—A. Yes, sir.

Q. Have you any knowledge of the quantities of whitefish that were caught, say, ten or fifteen years ago along the south shore?—A. Yes, sir.

Q. What was the average catch in years gone by in the bay?—A. Sometimes 500 and sometimes 1,000 and 1,500 were taken at once.

Q. What amount of nets would that require?—A. One gang of nets.

Q. What might be taken now?—A. I have never tried any in late years.

Q. What time of the year used these large hauls be made?—A. They were taken from the 20th of November to the 10th of December.

Q. Can you not give an opinion of what may be taken of late years?—A. Oh, there may be about one-third taken now—there might be lots of them out there this year.

Q. Would this apply to salmon-trout also as compared with former years?—A. I don't see any difference in the trout.

Q. How would it compare with former years?—A. Oh, 300 or 400 fish is an ordinary catch—sometimes more or sometimes less.

Q. What might it be in the last two or three years?—A. I think about the same—they are as thick as ever they were since I have been fishing, the black trout are as plentiful as ever.

Q. Now, have you any suggestions to make of your own, Mr. Pilgrim?—A. No, sir.

Q. Do these questions cover the general information that you can give us on the subject?—A. I think they would cover all that would interest the fishermen, in my opinion.

Q. With regard to pound-nets, have you any knowledge of pound-nets?—A. No, sir, I have no knowledge of them. I would know a pound-net if I saw it and that is about all.

Q. Have you been in the habit of noticing shipments of fish as they pass through here to the United States?—A. Yes, sir.

Q. Have you ever noticed the size of them particularly, the size of the fish that would be in the course of transit?—A. They would be about the size of what I have told you.

Q. Have you ever seen any immature fish in the course of transit?—A. No, sir. There are very few go.

Q. The reason I ask you that question is this—because reports come from leading men of the country that all the small fish shipped to the United States are supposed to be caught about the Manitoulin and Duck Islands—you say you have never seen them?—A. No, sir.

Q. What is the greatest length of nets you have out at one time?—A. About 12,000 yards, I guess.

Q. Would it be less injurious if you all fished with uniform meshes?—A. I think so, yes.

Q. If a uniform mesh were ordered for Lake Huron and the Georgian Bay—what should that be?—A. It should be about  $4\frac{1}{2}$  inch, a very fair mesh.

Q. Should that be for both whitefish and salmon-trout?—A. Yes, sir.

Q. What season of the year have you the greatest length of nets in the water?—A. Just about the middle of the summer.

Q. When do you take them up? I mean take them up all together for the season?—A. About the 30th October.

Q. What do you take them up during the summer for?—A. Only to attend to them, that is all.

Q. Do you think it would be better for the fishermen if everybody were to take them out during the close season?—A. There is no doubt all would fare better; some do fishing late, and some don't—some obey the law, and some don't—it is all one-sided the way it is now.

Q. Do you think it should be made universal?—A. I think so, the law is not carried out; I know there is a close season, but it is not observed.

Q. Do you fish with a sail boat or with a tug?—A. A tug.

Q. Could you fish with a greater length of net—fish more fathoms of gill-nets than you have?—A. Yes, sir.

Q. Why don't you?—A. Too poor to get the nets.

Q. Do you fish up to the full complement of your license now?—A. Yes.

Q. I suppose the real reason you don't fish more nets is because if you applied for more you would not get them?—A. Yes, sir; the licenses say 12,000 yards.

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Q. Do you lose much length of twine during the fishing season?—A. No, sir.

Q. Where fishermen are fishing with tugs do they lose as much twine as men fishing with sail boats?—A. I don't think it would make much difference; a man losing his nets is his own fault.

Q. I suppose you can lift your lines easier with a tug than a sail boat?—A. Yes, sir.

Q. Is a tug a better boat to fish with?—A. I think so.

Q. If you were able to get them, how much more net could you fish with?—A. I could, if allowed, fish with 24,000 yards.

Q. With regard to the size of your fish, do you notice any decrease in the size of fish caught now as compared with what were caught 12 or 15 years ago—will trout and whitefish average the same?—A. There is no diminution that I can observe.

Q. What about the summer trout?—A. There is no falling off of trout or whitefish, so far as I know.

Q. Do you think the moon has any influence on the times of the fish spawning?—A. I don't know, I don't think it has.

GILBERT PETER McINTOSH was then sworn, and replied as follows:—

*By Mr. Wilmot :*

Q. Your residence, Mr. McIntosh?—A. Meaford.

Q. What is your occupation?—A. A fish dealer.

Q. How long have you been engaged in the work?—A. About 30 years.

Q. What is your nationality?—A. A Canadian.

Q. What kind of a fishery have you been carrying on?—A. Whitefish and trout principally.

Q. Do you catch any other fish at all besides them?—A. Not extensively.

Q. Where have you been carrying on your work?—A. On the north shore of the Bay latterly.

Q. Where formerly?—A. At Meaford and Tobermory.

Q. What kind of nets do you fish with?—A. Gill-nets.

Q. Always gill-nets?—A. Well, I don't see them myself, but where I have been dealing they are gill-net fishermen.

Q. No trap-net fishermen?—A. Trap-nets ain't allowed in the Bay.

Q. Can you say anything about the size of the mesh used?—A. Yes, sir; I believe they are  $4\frac{1}{2}$  for trout, whitefish, and for summer fish.

Q. What for fall fish?—A. Five and  $5\frac{1}{4}$ , principally  $5\frac{1}{4}$ , sometimes  $5\frac{1}{2}$ .

Q. Have you any remarks to make on this question—do you think  $4\frac{1}{2}$ -inch mesh is a correct mesh?—A. No, I don't.

Q. For the summer fishing?—A. No, I don't.

Q. What would be a correct mesh?—A. Five inches.

Q. Five inches should be adopted?—A. Yes, 5 inches should be adopted.

Q. Why should a 5-inch be adopted?—A. My only reason is that I believe that the small net, the  $4\frac{1}{2}$ -inch, has been the means of reducing the quantity and quality of fish.

Q. What do you mean by that—reducing the standard of the size of the fish?—A. No; but there is too many small, immature fish caught.

Q. What about 5 and  $5\frac{1}{4}$ -mesh, do you think that too small for the autumn fish?—A. I think that is about right,  $5\frac{1}{4}$  or  $5\frac{1}{2}$  would be right.

Q. Should they all use a 5 or a  $5\frac{1}{2}$ -inch mesh?—A. The autumn mesh should be  $5\frac{1}{2}$ , in my opinion, all over.

Q. Is that because the fall fish are larger?—A. Yes, sir.

Q. Would that apply to both salmon-trout and whitefish?—A. No, not in all localities—there is a locality on the north shore that a 5-inch mesh would be necessary to use.

Q. Very well—would you adhere then to the 5-inch mesh for the whitefish and salmon-trout?—A. Nothing less than 5-inch for any fish, either whitefish or trout, should be used.

Q. With the present 4½-inch mesh for summer fish, how small or what sized fish would pass through freely?—A. It would be quite a small fish, perhaps 1¼ or 1½ pounds.

Q. Would you consider such fish immature and unable to breed?—A. Yes, sir, I would.

Q. Have you formed any estimate as to when fish are in their best condition for market—as to when salmon-trout are in their prime condition for food?—A. The male of any kind of fish is good at any time.

Q. When are the females, then, in their best condition?—A. I think in the spring of the year, in June and July.

Q. Can you give me any reason why they are better in June and July, is it because they are most remote from the spawning season?—A. The chances are that that would be correct—I think it is a very correct idea.

Q. Now, Mr. McIntosh, why is a male fish good at all times?—A. Because the male does not carry anything and is not pregnant at any season of the year.

Q. If that is your reason and no other it is erroneous. I will give my views to you later on.—A. Yes, sir.

Q. Where do you market your fish generally?—A. At Buffalo.

Q. Do you ship them direct yourself?—A. Yes, I ship them direct.

Q. Do you sell any in the Canadian market at all?—A. Very few.

Q. Will your average of the price compare with the last witness?—A. About the same.

Q. I would like you to tell us when are the eggs most free to fall from the salmon-trout?—A. The salmon-trout are in their prime for spawning about the 10th November, that is, the black trout or shore trout.

Q. Will some spawn before and some after that?—A. Yes, oh yes.

Q. What about the summer trout, the "potguts," when do they spawn, or do they spawn at all?—A. I have no perfect knowledge of that—I think they spawn later on than the black trout.

Q. When do the whitefish spawn?—A. November, I think.

Q. When are they ripest to lay their eggs at that time?—A. At the latter end of November whitefish are ripest to spawn, that is in localities that I know.

Q. Do some spawn later and some earlier?—A. Yes, but principally in the latter part of November.

Q. Have you any knowledge of the herring spawning time?—A. No, I do not know.

Q. Do you know anything about the bass, I mean the spawning time?—A. I don't know.

Q. Have you taken notice what time is the most destructive for the fishermen to fish their nets?—A. It depends upon the season; there is no doubt but the fall of the year is the most destructive time.

Q. What month?—A. October and November.

Q. Which do you think is the worst month from general opinion?—A. I should think November.

Q. Have you any knowledge as a dealer about this complaint of immature small fish being caught and sold? Have you seen many of these small fish on the market, or sent to the markets?—A. I have seen them.

Q. Do you mean in transit to the market?—A. Yes, I have had them myself.

Q. Have you seen small fish in packages for shipment?—A. Yes, I have seen them.

Q. Have you any idea where they came from?—A. Yes, from different parts, different localities. I think there is more small trout on the south shore than on the north shore.

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Q. Do you think there are more small fish caught on the south shore than on the north?—A. I should judge that is so.

Q. In what quantities have you seen them shipped, what size might the small fish be?—A. Well, from  $\frac{3}{4}$  to  $1\frac{1}{2}$  pounds—quite small fish.

Q. Are these fish as valuable as the others?—A. Well, in some places they are; nowadays they may be, but formerly we could not dispose of them at all, but we can do so now.

Q. Well, have you seen these small fish in large quantities?—A. No, nothing extra large.

Q. What do you call a package?—Well, they ship them in small cars, that is small cars put on railway cars.

Q. What would there be in each small car?—A. Well, there would be from ten to fifteen hundred pounds in each car, but there may be very few small fish in them, perhaps not any.

Q. Where do you ship to?—A. To different points, Buffalo, Detroit, Hamilton and other places.

Q. Do you think it injurious to the fisheries to catch these small fish?—A. Yes, I do.

Q. Why do you think so?—A. Because they are immature young fish and have not got their growth and are unable to breed.

Q. Do you know any points outside the Georgian Bay from which these small whitefish are brought here or to Collingwood?—A. No, I don't know.

Q. Have you no knowledge of the fish on the Manitoulin or Duck Islands?—No, sir, I have not.

Q. What about the Sunday close season?—A. Well, if that is enforced here you might as well take them up the other parts of the year.

Q. You think, then, it is impracticable?—A. I say it is impracticable.

Q. Have you any knowledge of the Americans poaching in our waters?—A. I have heard they do a little.

Q. But you don't know personally?—A. I don't. I have heard that fish are taken in the Canadian waters by the Americans.

Q. What is your view with regard to the protective laws for the preservation of fish in their breeding time, or do you believe that a properly selected close season is beneficial?—A. I don't think it is generally necessary—it is necessary for fall trout, but that is all.

Q. What for the other fish, should there be a close season for their protection?—A. I think there are other remedies better than a close season.

Q. What are the remedies?—A. Too small a mesh is used with gill-nets—you should compel the use of a larger mesh.

Q. Is there any other remedy?—A. I think that is the principal cause of the decrease of fish, it is the small meshes in the gill-nets.

Q. Would that not apply to the pound-nets too?—A. Certainly it would.

Q. Do you think that the trout have diminished in size from former years to the present time?—A. I think summer fish have.

Q. To what extent do you think?—A. To a pretty large extent to what they were 25 or 30 years ago.

Q. What about autumn trout?—A. I can't discern any difference, they remain as before.

Q. What about whitefish?—A. I think they have diminished too, I think the whitefish are smaller than they were. I think in some localities the whitefish have diminished in size very much.

Q. Can you give any reason for that?—A, I think it is all on account of the nets with small meshes.

Q. How large or heavy should a trout be to enable it to reproduce its kind, before it is fit to spawn?—A. I have seen salmon-trout at  $3\frac{1}{2}$  spawning, principally  $3\frac{1}{2}$  or 4 pounds—of course that is a dressed fish.

Q. But at what size will salmon-trout usually be able to spawn?—A. Well, that is rather a difficult question to me.



Q. What would you call immature?—A. Well, salmon-trout are immature at 2½ pounds, they should not be caught that size.

Q. What about whitefish, when are they immature do you think?—A. I would call a whitefish at 1½ pounds a pretty small fish.

Q. What is your idea with regard to artificial culture of fish?—A. I think it good if properly carried out, I think it would be beneficial.

Q. You think it would be beneficial to extend the work?—A. Yes, I think so.

Q. What about a hatchery here, do you think it would be of service here?—A. I think it is the very place for a hatchery, there would be plenty of spawn got here.

Q. Whether do you consider the salmon-trout or whitefish the most plentiful in this bay, and which are the most profitable?—A. Well, the whitefish are the most profitable and the salmon-trout are the most plentiful.

Q. Do the whitefish pay the fishermen the best?—A. Well, I think you would get more whitefish on the north shore, and on the south shore you would get more salmon-trout than whitefish.

Q. Which is the most valuable of the two?—I think the whitefish is the most valuable of the two.

Q. Which has fallen off most, trout or whitefish, in comparison with former years?—A. I cannot say; it is impossible for me to say.

Q. Can you give any statement with regard to the quantities that were caught by fishermen in former years along the south shore here at ordinary catches?—Oh, I have seen one boat take two thousand whitefish—taken from one gang of nets.

Q. You say you have seen two thousand whitefish taken in former years?—A. Yes, sir.

Q. Where was that?—A. Right here in front of Meaford.

Q. Would that be considered an excessive catch?—A. No, it would be an ordinary catch.

Q. How is it at the present time?—A. Well, the last eight or nine years the fish seem to have disappeared—there are but few left—a very few got in the last eight or nine years—the fall fishermen can't get but very few.

Q. What is the cause of this falling off, do you think?—A. I can't give any reason for its falling off from one year to another.

Q. What about the salmon-trout that you caught at the same time?—A. The trout are about the same now as formerly; the black trout are as plentiful now as in former years.

Q. Is that the general impression of the people here?—A. I think the general impression is that the fish are falling away; I believe the fall fish are as plentiful as ever, but not the summer trout.

Q. Is there a marked falling off of the summer trout?—A. I think they are falling off very rapidly.

Q. And is it still your opinion that it is the meshes that has caused it?—A. Yes, I think it is by reason of the small meshes.

Q. Have you any suggestions you would like to make yourself with regard to anything that would conduce to the interests of the fisheries?—A. Nothing particular more than I would like to see larger meshes used, and hatcheries introduced, according to my opinion, that would be more beneficial, and the close season abolished.

*By Mr. Harris :*

Q. What are the fall months when applied to fishing?—A. October, November and December.

Q. Is there any considerable net fishing done in this bay without license?—A. Not that I am aware of.

Q. At any time?—A. No, not that I am aware of—I think they all pay their licenses.

Q. Do you think there are not any illegal nets in the water?—A. I have never interfered with these nets, and I don't know.

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Q. What is the size of mesh in the pound-nets in these waters?—A. I don't know about the size, but think they should be regulated the same as the gill-nets are.

Q. Are any fish taken direct to the United States without calling at the Canadian ports?—A. No, not that I know of.

*By Mr. Wilmot :*

Q. There is no wish to implicate anybody or yourself, but aren't you aware there is a great deal of fishing carried on during the close season?—A. I might tell you that there is—I never done any myself—I don't know it myself, but I think there is some done.

Q. Generally by whom?—A. By the farmers and people along the shore—there may be some done by farmers.

Q. Do you think it right for some people to be allowed to fish and others not to in the close season—is it right for one to be allowed to break the law while others are not?—A. I should say it is the same as any other legal offence.

Q. If there is a close season at all it should be enforced alike; is that your idea?—A. Yes, certainly.

Q. And all put on the same footing?—Yes, all treated alike.

Mr. McINTOSH, re-called :—

Q. What is your idea with regard to the propriety of having every boat numbered and the owner's name put on it?—A. That is the very thing that we are fighting for; every boat should be numbered and the buoys numbered, and then all licenses issued should mention that the boat should have the owner's name and number, and upon their buoys also—there are two buoys on each gang of nets—and that the number should be put upon the issue of the license. I think that that would be a benefit to the fishermen themselves.

Q. What is your opinion with regard to the allowing pound-nets or trap-nets; do you think they should be allowed, in the interests of the fisheries, if properly regulated?—A. I think so.

Q. What is your reason for this?—A. Well, because pound-nets or trap-nets do not interfere with the feeding grounds of the trout or whitefish.

*By Mr. Harris :*

Q. I suppose pound-nets would be taken up the 1st November and not laid down after that?—A. No, I don't think so, because the weather is getting very rough then.

ADAM H. STEPHEN was sworn, and stated as follows :—

*By Mr. Wilmot :*

Q. Where do you reside, Mr. Stephen?—A. Meaford.

Q. What is your occupation?—A. A druggist.

Q. And your nationality?—A. A Canadian.

Q. Are you practically engaged in the fishery yourself?—A. No, sir.

Q. How long have you resided here?—A. Well, I have been in this neighbourhood all my life.

Q. Are you acquainted with the fishery interests and fisheries?—A. Yes, sir, to a certain extent I have been out among them. I have been up the lakes four or

five times a year. I followed it when young for eight or nine years; latterly by observation, but formerly practically for a living.

Q. What do you wish to suggest, sir—that is, with reference to mesh of nets?—

A. I would be unable to answer that. I would like to answer some of these questions with regard to the close season and the cause of the depletion of the fish. I would be able to answer some of them, I think.

Q. Very well, then. When are the fish ripest to spawn—that is, the salmon-trout?—A. Well, on this shore, up at Vale's Point, they commence a few days earlier than here—about the 1st November there, but here they commence about the 5th of November.

Q. When are the salmon-trout ripest to spawn?—A. From the 28th October to the 15th November; that is, shore trout.

Q. What about the summer trout?—A. Well, summer trout spawn, as far as I can understand them, they have spawn in August.

Q. The summer trout have spawn in them in August?—A. Yes.

Q. When do they lay their eggs?—A. I can't say when they lay their eggs.

Q. Have you any knowledge of the whitefish, Mr. Stephen?—A. We used to catch great numbers of whitefish off the shore here when I was fishing in what is called the "mud hole," about eight miles off Meaford.

Q. At what time of the year?—A. Well, after the black trout season was over; that would be from the 20th of November through December.

Q. What were they in this mud hole for?—A. I don't know. I don't think they either made a spawning ground or a feeding ground of it.

Q. Were they there numerously?—A. Yes, eight years ago.

Q. What do you mean by numerously?—A. I have taken ashore 1,500 whitefish out of one net.

Q. Was this pretty general?—A. Yes, at that time of the year and during the month of December.

Q. Do you mean by other fishermen too?—A. Certainly. Until December—during November and December; from the 25th November and through December.

Q. Well, what were these fish doing there?—A. I don't know; they were full of spawn.

Q. When they left there, do you know where they went to?—A. No, they all went out at once.

Q. What year was that; do you recollect?—A. What I mean to say is, they would leave this fall and next year they would not be worth fishing for—not worth the loss to nets and lines. They seemed to have left that place altogether since then, and for a number of years they have not fished it; but they have begun again, and I don't know the result until they lift these nets.

Q. Can you assign any reason for their leaving that place?—A. No, I cannot assign any special reason for their leaving.

Q. Were the salmon-trout as plentiful at that time, and could you give us any idea of any number caught in boats at that time?—A. I have seen 600 trout taken off Vale's Point at one lift with 2,000 yards.

Q. But Mr. Pilgrim brought more than that in this year?—A. With the same amount of net—I don't know the quantity of net Mr. Pilgrim had.

Q. What do you say about the mesh of the net as used for catching salmon-trout—is it a correct mesh?—A. I could not say anything about the size of mesh; there was nothing said about it when I used to fish.

Q. Do you know anything about herring at all?—A. No, sir.

Q. Have you any idea when these fish may be termed immature fish?—A. No, I don't know anything about that.

Q. What is your idea about having proper laws for the protection of fish?—A. I consider it so difficult to enforce that law that it would be better to use the money in supplying hatcheries that we have now spent in trying to enforce the law, and exact a larger license from the fishermen. The money that is spent in a cruiser and that sort of thing should be spent in supplying hatcheries. I am of the opinion that the fish in the Georgian Bay and Lake Huron migrate—that the fish that are caught at Goderich, the same fish can be caught at any harbour in Michigan.

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Q. Why should not the same class be caught on both sides?—A. Why then, if we have the close season in Canada and not in the United States, there will be no fair-play in that. If the two Governments would make arrangements to supply hatcheries, I think it would be better than a close season.

Q. What is your opinion with regard to the falling off? Which have fallen off the most; what can you say about that?—A. I agree with Mr. McIntosh that there should be a uniform mesh.

Q. What should that mesh be?—A. I think it should be not less than 5 inches and a uniform mesh.

Q. What about fall trout?—A. I don't wish to say anything about them.

Q. Do you wish to say anything about whitefish?—A. No, sir.

Q. What can you say about the logs and bark in the waters that is complained of?—A. I had a long talk with Noble, a fish dealer, and I have talked with others on the shores of the Bustard Island, and it seems that after every storm the nets are clogged with bark from the logs passing through the Georgian Bay, and it gives the fishermen a great deal of trouble and their nets are spoiled by the bark which comes off the logs and which is ripped off the logs and sinks to the bottom, and the current sweeps it along and it catches in the nets; it gets entangled in the meshes of the nets and spoils them until it is picked out. When in the net it is soft, and when brought ashore it gets hardened and I believe it seriously affects the fishing.

Q. How can this be remedied?—A. This can be remedied by making the contractors peel the bark off the logs before the logs are towed across the bay; it is done in Lake Winnipeg, and we ought to have it done here.

Q. Has this been going on for several years?—Yes, and is on the increase now that the duty is off the logs.

JOHN NELSON was sworn, and gave the following evidence:—

*By Mr. Wilmot:*

Q. Where is your residence, Mr. Nelson?—A. In Meaford.

Q. Your occupation?—A. A fisherman.

Q. Of how long standing?—A. Fourteen years.

Q. What is your nationality?—A. A Canadian.

Q. What kind of a fishery have you been engaged in?—A. Whitefish and salmon-trout.

Q. Is it with gill-nets in the Georgian Bay?—A. Yes, sir; and in Lake Huron part of the time, three or four years ago.

Q. The last four years?—A. No, sir.

Q. What would you like to touch upon in your evidence more particularly?—A. The size of the meshes.

Q. What should the size of the mesh be, in your opinion?—A. Four and a half for salmon-trout and whitefish in the summer season.

Q. When would you use the other sized mesh?—A. In the fall, in August, September and October.

Q. What size would you use then?—A. From 5½ to 6 inches.

Q. Have you any remarks to make upon these meshes: I think you said you had something to say about them?—A. Mr. McIntosh means to say that the 5-inch mesh would be of no earthly use on the north shore of the Georgian Bay in the summer season, as it is whitefish we catch.

Q. Do you say that salmon-trout don't amount to anything on the north shore in the summer time?—A. No, sir.

Q. Do you think a larger mesh for fall fishing should be adopted?—A. Yes; any place I have been fishing lately.

Q. Where have you been this year?—A. In Lake Huron on the east shore and the north shore of the Georgian Bay, and I used a 5½ and 6-inch mesh for both

salmon-trout and whitefish in that season of the year, and I think that size should be adopted.

Q. That is during August, September and October?—A. Yes, sir.

Q. Now just tell me why you used a 5½ and a 6-inch mesh?—A. Simply because the whitefish and salmon-trout caught on the north shore of the Georgian Bay are the largest at that season of the year, and they are not caught at any other time there.

Q. Why do you go fishing there in September and October for these fish—what do you think brings these fish there at that time?—A. I suppose it is their spawning grounds. I should judge it was for spawning purposes. You don't catch them at any other season of the year, anyway.

Q. About how far from the shore do you fish?—A. About one mile and a half from the shore when they first come in.

Q. Where do you catch them after that?—A. Later on close along the shore, and about the first of the close season they are right on the shore; about the 1st October they are up on the shores on their spawning grounds.

Q. How long do they last?—A. The first run of them lasts about eight days, and then they disappear and leave the shore again.

Q. What quantities have you taken of these during October there?—A. In October I have taken, I guess, as large a quantity on that shore as on this one; I have caught as many as 500 fish; we used small boats and a short gang of nets.

Q. Is this general with other fisherman too?—A. Yes, sir; I have seen as high as forty boats of us within a distance of three miles.

Q. Are these fish all ready to spawn then, when they come on shore?—A. Yes.

Q. Does the eggs flow from the fish freely sometimes when you are taking them in?—The first class of fish we get on the outside about a mile off the shore or a mile and a half, they are not ripe to lay until they move in.

Q. What state are these in that are caught near the shore, is the spawn going freely from them?—A. Yes, just before the close of the season up to the end of October.

Q. Is this the case with all the other fishermen as well as yourself; would it occur in a like manner with all the other parties at the same time?—A. Certainly, the boats come from all parts of the country there.

Q. Where do the boats principally come from?—A. All parts of the country down off the Manitoulin Island, and from all parts of the Georgian Bay, and Manitoulin half-breeds and Indians.

Q. Then do these people all congregate there to catch them?—A. The fishermen I have heard follow the fish down to this place. I have never been further up than the Bustard Islands, and I believe they follow them down from the north shore and the Manitoulin.

Q. And do they catch them as above stated, is that correct?—A. Yes.

Q. Have you any idea of what quantity of fish are caught by those forty boats in October?—A. No, sir. If the weather was good there would be a large quantity—if the weather was fine there would be a great haul.

Q. How if the weather was rough?—A. If the weather was rough there would not be as many caught.

Q. What number did you catch?—A. I could not say.

Q. With your boat how many would you catch, in rough figures?—A. Upwards of four or five tons.

Q. And would the other fishermen average that too?—A. Some of them would, and some more, and some less—the Frenchmen don't generally have as big hauls as we do.

Q. Do you know whether the Indians and half-breeds are fishing during the close season?—A. I could not say.

Q. Would they average about four tons?—A. Take them all through—yes, I should say about four tons, but not this season—I don't think they would—I don't suppose they would average five hundred pounds on that shore.

Q. What is the reason of that?—A. Bad weather.

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Q. But usually in fine weather what has been the case?—A. I could not say only as to when I was there.

Q. Do you know anything about herring?—A. Not on that shore, I do on Lake Huron.

Q. Do you catch salmon-trout at all upon the north shore?—A. No, sir, not to amount to anything—we catch an odd one—we get that any place.

Q. Do you know anything about where the salmon-trout come to spawn in this neighbourhood?—A. Yes, I have caught a few off Vale's Point and a few off Lion's Head, and off Meaford here.

Q. Any at Thornbury?—A. No, sir.

Q. At what season principally?—A. In September; I never fish much in October; I just fish a sail boat.

Q. What do these salmon-trout go there for in that season of the year?—A. To spawn I suppose, as far as I know.

Q. Are they caught all summer?—A. No, sir, not as I know of. I cannot say whether these fish are caught there in the summer months or not; I never fish there; I have caught them in Lake Huron with a 6-inch mesh, but that would be no use for summer fishing, that is for fall fishing.

Q. Where do you principally fish for these in the fall in Lake Huron?—A. I set at a place called Little Pine Tree, this season.

Q. How far from Southampton?—A. About forty miles north of Southampton.

Q. Were there many others fishing there at the same time as you were?—A. There were about eight boats I saw in that place, and a tug.

Q. What number of trout would you have caught this year in September?—A. I caught thirty-three hundred pounds.

Q. Would the other boats do about the same thing?—A. Yes, the other boats would average about the same thing. There would not be one caught alive here should the 5-inch mesh be introduced for summer fishing; the fishermen with sail boats and tugs could not make a living with it in the Georgian Bay, or the north shore—we could not live with that mesh.

Q. What mesh is the correct one, then?—A. Four and a half is the correct mesh for salmon-trout and whitefish in the summer season. The whitefish are just as large to-day as the first day I went on it.

Q. How many years ago is that?—A. Seven years ago.

Q. Well, would the quantity be as large now as seven years ago?—A. Not this summer, but the quantity last year was larger.

Q. In 1891 did you get more than other years?—A. Yes, I did, the catch was larger, and we attribute the reduced number of this year's catch to the bark from the logs of these rafts, they both spoiled our nets and destroyed the feeding grounds of the fish.

Q. Well, do tows of logs pass over the nets where you fish in September and October?—A. Yes, but nothing like in the summer season.

Q. It is during the summer season the bark from the logs that are towed, and these rafts pass over your nets?—A. Yes, sir.

Q. Is your fishing principally in September and October?—A. That is the large run of whitefish, but these are not the summer fish; these large rafts pass over our nets only in summer.

Q. How far from the shore?—A. In the middle of the lake; they tow them clean across the bay.

Q. What size might one of these rafts cover?—A. One of them would cover about four acres of ground.

Q. Have you any knowledge of the number that pass along there?—A. I could not say, but I believe there is an average of about two a week pass in that season of the year with a tow.

Q. What effect do these logs have upon the fish?—A. The bark off these logs spoils the feeding grounds of the fish.

Q. Does it affect your nets at all?—A. It does—it just about ruins our nets.

Q. Is it in June and July and August these rafts pass along?—A. Yes.

Q. Do any of them pass along in September and October, or is the season over for them then?—A. The season is pretty well over for them in September and October.

Q. Is it the bark alone, or is there anything else goes off these logs besides the bark?—A. It is the inside soft bark that does the damage to the nets.

Q. What depth of water would you be fishing in when these logs pass along?—A. From 14 to 18 fathoms.

Q. What sort of a bottom is it there?—A. Well, muddy generally and white clay and black muck—that is all we know about, it comes up on the sounder. There is some black muck comes up on the lead.

Q. Do you ever catch any weeds in the nets?—A. Yes, we do get some in the nets occasionally.

Q. What description of weed would that be?—A. It would be small branches like.

Q. Do you mean small weeds that would collect or grow along the bottom?—A. I think it is weeds that grow straight up and are very slender.

Q. Have you ever seen it in mill-ponds?—A. It has a small long leaf about four inches long on each of these little branches.

Q. Have you ever seen any insects of any kind on these small branches?—A. No, sir.

Q. Did you ever notice any little insects about the size of a flea?—A. No, sir, not that I ever noticed, but they might be there.

Q. What kind of a worm have you ever got from the bottom in your nets?—A. From half an inch to a quarter of an inch long.

Q. Are they on these pieces of weeds?—A. No, sir; we get them as they come up in the nets—where we catch nothing else they come up on the nets.

Q. Do you think the fish eat them?—A. No, sir.

Q. Do you ever find any of these worms when cleaning the fish?—A. No, sir.

Q. Do you know what the whitefish feed on—what they eat there?—A. I think they eat some kind of a grub—there is one thing I have noticed, when we catch lots of whitefish we don't get many of these worms. I don't know what the whitefish live on—it may be grubs or worms. Some men say that whitefish feed on grubs, but I could not say. I have heard old men say that these are the feeding grounds of the whitefish.

Q. Did you ever take notice what is in the body of a whitefish at all?—A. I never saw any small fish in the stomach of a whitefish when opened.

Q. Do you believe they live on other fish—young whitefish?—A. No, sir, I don't think so, not on whitefish.

Q. Do you believe they live on worms and insects, then?—A. Yes, sir.

Q. Now, sir, have you anything else to state about this matter?—A. No, only that I think the majority of the fishermen would rather have hatcheries, and open seasons.

Q. In the first place, do you not think it wise and judicious to preserve your fisheries, and that there should be a close season?—A. I do to a certain extent.

Q. Don't you think the close season would be beneficial, in order to allow the fish to spawn, if properly chosen?—A. Yes, sir.

Q. What do you say about the hatchery business?—A. I think it would be a good idea to have a hatchery established in the Georgian Bay.

Q. Now, is there anything else that we could touch upon—do you know anything about the Americans coming to fish in our Canadian waters—have you known any in Lake Huron?—A. No, sir, only just by hearsay.

Q. Do you know anything about black bass or pickerel?—A. I don't know anything about them—I know nothing about their spawning season. I left Lake Huron to come to the Georgian Bay, and I have left the Georgian Bay to go to Lake Huron. I have been fourteen years a fisherman, and have only fished the last four years on the Georgian Bay. I have fished in both places, and this year I went to Lake Huron for the fall fishing.

Q. Why could not the whitefish be caught in a 5-inch mesh along the north shore?—A. They are too small a fish; they never average more than 2½ pounds.

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Q. What would the average of the whitefish be?—A. About 2½ pounds before being dressed. The whitefish that are caught in the fall will average from 4 to 6 pounds—sometimes we sell by the piece and sometimes by the pound.

Q. These caught in the summer will weigh what?—A. From 2 to 2½ pounds.

Q. You say there are two distinct fish?—A. Yes, sir.

Q. Well, have you any reason to call them two distinct fish except their size?—

A. Well, the reason I give for that is because one is larger than the other.

Q. The fall fish are the large fish, you say?—A. Yes.

Q. And what else?—A. The only difference I can see is the fall fish, when we get them, they are rougher on the outside and have blue noses.

Q. What distinguishing mark is there with these in the summer season from those caught in the middle of the lake?—A. Oh, they are just as large a kind as the summer fish.

Q. Have you ever noticed whether a male has a higher hump on his shoulder than a female or not?—A. We call them bow-backs. There is only a portion of them that are rougher fish—of course some are a great deal rougher than others.

Q. Can you recollect whether the rougher fish are a more bow-backed kind than the others?—A. I can say I never caught any in the summer season—they are not caught on the grounds where we catch the smaller fish.

Q. Where do you suppose these big fish go to when they are done spawning—do you think they migrate to the United States?—A. No, I think they go up into the bays on the north shore.

Q. Is there any fishing going on in these bays?—A. No, sir; not that I know of.

Q. After the spawning season is over there is no fishing done?—A. No, sir; not to my knowledge. The Indians and half-breeds might have been fishing all summer, for all that I know.

Q. Well, sir, we have got some useful information from you. And I will now call the Commission to order, but before proceeding, I think it my duty to call your attention to certain things in relation to the habits of fish. All fish have feeding grounds and spawning grounds which are separate from each other. We will take, for instance, the fish in the Georgian Bay: the law of nature has so ordained it that they have two grounds—one for spawning, and the other for feeding, and at certain seasons of the year they must leave their feeding grounds and go to their breeding grounds. The most of these fish are spread over large areas of water, feeding until their productive organs become somewhat mature, when they leave their feeding grounds and go to reproduce their species. For instance, they may have breeding grounds in different parts of the Georgian Bay, and on reefs out in the lake which may be adapted by nature for fish to lay their eggs with safety. They will go there in large bodies and closely congregate together, because unless they do so the eggs cannot receive the fluid which is emitted from the male fish, hence it is a necessity that they should be close together. It must be plain and patent to every one of you that if the fish leave their feeding grounds for the express purpose to reach their spawning grounds, they should be let alone on these breeding grounds and protected against molestation. This must appear to all of you here present and to every intelligent person as the best of reasons why the fish should be protected at the breeding seasons. I mention this because some of you may not be aware of this fact, and hence it is almost all over the world with all civilized countries, with few exceptions, that laws for protecting fish by close seasons when breeding are enacted. In Europe and in many of the States they adhere to this plan because they feel that if the parent fish is killed with ten or twenty thousand eggs in its body not only is the mother fish destroyed, but there are also so many thousand young fish lost. Now, I think that is a good reason why the fish should be protected during that peculiar breeding time. To illustrate this, take the farmer: if he killed his sheep at the time of lambing, he would neither have lamb or sheep to keep up his stock, and the same thing applies to fish. Keep on continually doing that kind of work, killing the fish with the eggs in their bodies, and you will exterminate the fish in time. The fish have fallen off wonderfully in the Georgian Bay, and this is mainly the cause of it. I merely mention this, in passing, to show to you that there is some sound reasoning for having a close season, and the intel-



ligence of the world believes it to be correct, and I think every one of you fishermen should see it in that light, because if we take the fish that would lay twenty thousand eggs, we not only kill the fish, but destroy the eggs also; and there is just so much of a loss to the fisheries of the country. I simply tell you this in order to show you the reason why it is desirable that a proper close season should be established, and a close season observed; but while this is so, we should not go so far as to interfere with the fishermen too much. The fishermen have out of the twelve months eleven to exercise their calling. All that the Department wishes is that the one month should be observed as a close season. But of course we all know that the selfishness of the fish-dealers and fishermen would induce them to fish all the year round, regardless of what may be the good of the future, and again, if you look at it in an intelligent way, you must agree with me. I have been almost all my life interested in this fishery business, more as a labour of love than anything else, and I think the intelligence of the country will go with me in saying we want proper close seasons. I think it but right to explain about the short notice given you of these meetings. We don't know when we will get through at one place, and therefore we may not be able to give timely notice of our arrival at another, but usually as soon as we get through at the one place, we telegraph to the authorities and fishery officers at another, with a view to their being able to give as much notice as possible in their localities of the meetings. We have nothing to hide, nothing to keep from the public in any way whatever: our object is to receive and give the public in every way whatever all the information possible on the fishery question. I might mention that there is a somewhat disputed question now existing between the Local and Dominion Governments regarding the fisheries. The Local Government of the province of Ontario have passed a very extended Act for the protection of game and fish, and both Governments are now legislating on fishery matters. I may state that in parts of the United States no law exists for protecting their fish. I may also state that the Federal Government of the United States have already applied to the English Government to have laws passed with a view to the proper preservation of the fish in all international waters. The United States authorities have come to the conclusion that their fisheries are going down very fast; they have, therefore, applied to the British Government to have this investigation; and some of the individual States are now passing more stringent laws than Canada regarding protection of fish, and whilst we have only a penalty of \$20 for violation they have a penalty of \$200 for similar offences, so I hope people won't go away with the idea that the department at Ottawa is alone in endeavouring to preserve the fish wealth of the country.

Mr. McINTOSH recalled, said:—

In the first place I have a little statement, without asking any questions at all. In the matter of close seasons, we would like to be placed on an equality with everybody else. We find that the Indians have a preference over us. Mr. Tupper informed me personally that the Indians could fish all they had a mind to, and I find out that they use a great amount of fish. I have Mr. Tupper's authority for it.

Mr. WILMOT stated that the law with regard to the close season places the Indian and the white man in the same position. The Indians may have separate waters to fish in in close season, but that is for their family use only, but they are not permitted to fish outside of their own reserves.

Mr. McINTOSH.—I find that the Indians use a great amount of fish, from twenty to twenty-five packages in a season. We would like to be put on an equality with the Indians. We find that the Indians have the same chance in the franchise as we have got, and they can catch fish for their own use, and for some reason or other they use a great many. One winter I was credibly informed they put away twenty or thirty packages. I don't say that the Indians sell them, but for some reason or

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other they provide a large quantity for each one. When I was down at Ottawa about a year ago, one of the delegates asked a question, if the Indians had the privilege of catching fish for their own use, and Mr. Tupper said they had; he did not make any qualification. We have a grievance here. The Indians are under the impression they can catch fish anywhere they like for their own use.

Mr. WILMOT.—The Indians cannot fish in their own waters for their own use without a permit from the Government. The Indians who have left their tribe have no more right to fish in the close season, outside their own reserves, than you have.

Mr. McINTOSH.—That is all right, according to your argument. Even in their own reserves I think it is wrong, and I quote to you the laws of Manitoba that applies to Manitoba and the North-west Territories.

Mr. WILMOT.—With regard to the close season and the Indians, you have asked a question and I have attempted to answer it, and I have given you my views and tried to endorse that reason by reading to you the clause in the Fishery Act which applies to Manitoba and the North-west Territories. Now, Mr. McIntosh, both today and before you have taken an interested part as president or chairman of the Fishery Association, also when you went to Ottawa with regard to certain matters to get redress; therefore, we have thought fit to call upon you to give us further information.

Q. Now with regard to the falling off in quantity and size of fish—in your leading capacity, what is your idea with regard to the falling off of the quantity of fish, particularly on the southern shore—what length of time have they been falling off, say within the period of 15 years, or 5 or 10 years, at your pleasure, because it bears strongly upon the subject with which we are dealing?—A. On the south shore in the last 20 years they have fallen off 50 per cent, in my opinion—that is, the summer fish.

Q. What with regard to the autumn fish?—A. It is my opinion that they have not fallen off at all, that is, for October and November fish—that is, the species that come into the shore to spawn.

Q. You say that the south shore fish during the last twenty years have fallen off so that at the present time they are only one-half of what they were then, that is, the summer fish; and that the October and November fish, that is, the black fish which come in to spawn on the shore, show no perceptible falling off?—A. I think the catch is as good now as it was then.

Q. Now, if the summer fish which averages two pounds, I think you said, have fallen of 50 per cent, how is it that the others have retained their usual standard?—A. I believe there are two families of fish; that is the only way I can account for it; that is my belief.

Q. How is your estimation made that the summer fish have fallen off one-half?—A. I suppose it is because there are too many of them caught.

Q. Is there anything else that would cause it?—A. The small mesh I think is the only cause, and the main cause—I think that is the cause of it beyond all doubt.

Q. What is your view for the retaining of the other fish, that is, the sustaining of the autumn fish?—A. Because we don't catch them in any other season of the year, only in October and November, unless a very small percentage of them which is there caught in the summer time.

Q. And is that not the time they come into spawn?—A. Yes, sir.

Q. That ought to be a good reason for their falling off, is that not the best reason in the world?—A. Well, if you allow me to ask you a question about the way they keep up their quantity; there is one thing certain, that the summer fish are falling away. There are other causes. Take this year; in the month of November, this year, there were only five days we could fish—this was on account of the rough weather.

Q. How about the other eleven months?—A. Well, the other eleven months there is better weather, and usually good.

Q. Now, this is with regard to the falling off of the quantity—now, what about the falling off in size of the fish—now, what is the cause of the size of the fish falling off?—A. From the same cause—it is from using the small mesh.

Q. With the summer fish, from what size have they fallen off to the present time?—A. Well, they have fallen off largely.

Q. Can you give any reason for that?—A. The same reason, the same cause—the small meshes taking the little fish and leaving the big ones.

Q. What about these other trout, have they been reduced at all in size?—A. No, sir, they have not.

Q. Well, then, otherwise speaking, the fall trout—the spawning trout, the black trout, or rock trout as they call them, are as plentiful as ever in size and quantity as they ever were?—A. Yes, that is my opinion.

Q. Have you any idea of the quantity of fish caught and shipped at any of these ports?—A. Nothing definite; I know they are shipped in large quantities.

Q. Have you any idea of what are shipped from Wiarton?—A. There are large quantities—I suppose 900 or 1,000 tons.

Q. What might be shipped from Meaford?—A. Well, there would not be so many shipped from Meaford—perhaps in a whole season there would not be more than 60 or 70 tons.

Q. Now, what might be shipped from Collingwood?—A. From Collingwood about half as much as from Wiarton—perhaps 300 or 400 tons.

Q. Do you know any of this as a matter of fact?—A. It is only supposition—I don't know for a fact. It is not my business to look after all the lakes—it is not my province to look after the amount of fish that is shipped. I can say this much, that I rather think that I am under the mark in these figures. I don't wish to keep anything back; I am willing to give you any information I can, on account of being chairman of the Fishermen's Association.

Q. Do these figures apply to both whitefish and salmon-trout?—A. Yes, salmon-trout and whitefish principally; there might be a few pickerel and pike.

Q. With regard to all these shipments where there are hundreds of tons, who would be the principal buyers?—A. The Buffalo Fish Company and S. H. Davis & Co., of Buffalo and Detroit.

Q. Are these the principal towns that fish have been shipped to from this place—would there be other quantities consumed in Canada, without going to the United States?—A. Yes, there would be quite a portion over and above these shipments—there would also be a quantity consumed in the country parts.

Q. Can you form an estimate of what would be consumed in this country?—A. There would be at least one hundred tons.

Q. Well, in this quantity what would the greater proportion be, salmon-trout or whitefish?—A. The larger portion would be whitefish.

Q. What per cent do you suppose?—A. Well, at least two-thirds of them would be whitefish, and the balance salmon-trout and a few pickerel.

Q. Of these salmon-trout what would be the proportion of summer trout?—A. I should judge there would be perhaps 80 per cent of them summer trout, and the remaining balance would be fall trout.

Q. Then it appears to us very plainly that the fall trout must have fallen off wonderfully to what the summer trout have—20 per cent of the fall trout and 80 per cent of the summer trout.

Q. Have you anything further that you would like to put in?—A. No, not that I know of just now.

*By Mr. Harris :*

Q. What are the principal shipping ports?—A. Wiarton and Collingwood.

Q. Which is the largest of these two?—A. Wiarton.

Q. Where do you ship from here?—A. We ship from north to Collingwood.

Q. Have you any idea of the shippers on this bay?—A. Wiarton and Collingwood are the main points; there are a few from Meaford and a few from Owen Sound.

Q. When you were speaking of 900 tons, were you speaking of Wiarton?—A. Yes.

Q. That would be from this side?—A. Yes.

Q. They ship also from Goderich?—A. Yes.

Q. And some from Southampton?—A. Yes; but Wiarton is the main shipping point in Canada, and Collingwood is next.

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Q. Do you know that the entire shipment of fish from this bay is 8,000,000 pounds, that is whitefish and salmon-trout, that is the entire catch?—A. When the meeting commenced this evening there were some remarks made about the close season. Now, it is just as well to understand, I think, who the fisheries belong to, and to my mind there is no doubt but the Department at Ottawa control them. I am quite certain this Commission would not have been appointed had not considerable weight been laid before the Department, because Lake Ontario is pretty well depleted of fish, and Lake Erie is depleted of fish, and there is no doubt the Department have to care for them in the Georgian Bay. A great many of you people are intelligent and capable of understanding, and a great many of the people of Ontario have become anxious recently about the fish question and the protection of the fisheries of Canada. The Government have to consider the people of Canada and the country; they must protect the industries of men who are employed in that service. I think it is just as well for the fishermen to understand that it is to their best interests, and there is a great deal of attention paid to this subject quite independent of them, and it would be as well for them to understand that the time has come that some proper rule should be made to prevent the extermination of the fish; what those rules are nobody will know for some time to come. Probably it will depend upon the evidence taken down by this Commission that is now sitting. There is no doubt whatever about the falling off of the fish, that is a certainty, and I think it well for the fishermen to look upon the question as quietly as they possibly can and to be prepared for rules to be made within some reasonable time.

JOHN McCRAE was sworn, and answered as follows:—

*By Mr. Wilmot :*

Q. Where is your residence?—A. Meaford.

Q. And your occupation?—A. A fisherman.

Q. For what length of time?—A. I came on the bay in 1855.

Q. Have you been a fisherman since then?—A. No, not that long.

Q. How long since 1855 have you not been fishing?—A. Probably five years out of that time I have not been fishing.

Q. What countryman are you, sir?—A. A Canadian born.

Q. What kind of fishery do you carry on?—A. Gill-netting.

Q. Salmon-trout or whitefish?—A. Both salmon-trout and whitefish.

Q. Any other description of fish at all?—A. No.

Q. What waters have you been in the habit of fishing in?—A. The Georgian Bay, Lake Huron and Lake Superior, but principally in the Georgian Bay though.

Q. What description of net have you been using?—A. Gill-nets altogether.

Q. Have you never used pound-nets or seines?—A. No.

Q. What size mesh do you usually use in your gill-nets?—A. I don't think that I have ever used anything less than 4 $\frac{1}{2}$ -inch mesh.

Q. This is for catching, what?—A. For catching trout principally on this shore; we get no whitefish now to speak of.

Q. Is this the size of the mesh you use for the whole year?—A. Well, a 5-inch is better late in the fall, but 4 $\frac{1}{2}$  is what I generally use through the whole season.

Q. What size of a salmon-trout will readily pass through this 4 $\frac{1}{2}$ -inch mesh?—A. Oh, just a small one; it wouldn't weigh more than 3 pounds. I wouldn't like to say a fish 3 pounds would pass through; it may be that a fish 2 $\frac{3}{4}$  would pass through this net.

Q. When speaking of the whitefish you speak of uncleaned fish?—A. Yes, of course, not cleaned.

Q. What sized whitefish would pass through this mesh?—A. Probably 2 $\frac{1}{2}$  or 2 pounds; I think a 2 $\frac{1}{2}$ -pound fish would gill in it all right.

- Q. A whitefish of 2 pounds and under will pass through this mesh readily?  
—A. Yes, I think so.
- Q. Will they be much injured in passing through?—A. No, it would pass through without serious injury.
- Q. Would a 2-pound salmon-trout and under be a mature or immature fish; is it a fish capable of laying eggs and reproducing its own species?—A. That is not a proper question; I should think a fish 2 pounds weight is not big enough to reproduce its own species; it is not a mature fish.
- Q. What about a 2-pound whitefish; what state would it be in?—A. In my opinion it is not a mature fish either.
- Q. And under these circumstances they would not be able to reproduce?—A. No.
- Q. Do you think that a 4½-inch mesh is a fair and reasonable mesh for catching fish, in the interests of the fish and fishermen?—A. It is a very good mesh in the interests of the fishermen, but not of the fisheries.
- Q. Why not in the interests of the fisheries?—A. Because it catches the small fish before they are large enough to breed; it catches immature fish.
- Q. You say it is in the interests of the fishermen to have these meshes; why is this?—A. Because on the north shore with a larger mesh than that they would not be able to live. It would not pay them; and I think on this shore it would not be very profitable.
- Q. Would you recommend then, from your experience here in the interests of the fisheries, that the mesh be larger than 4½?—A. Yes, I should recommend that it be larger, in the interests of the fisheries and maintenance of the fisheries.
- Q. Do you think that even a larger mesh than 4½ mesh would be beneficial?—A. Yes, sir.
- Q. Now, Mr. McCrae, what have you to say about the fish at certain seasons of the year; what is your opinion as to the period that salmon-trout are in their best condition?—A. I should consider them better in the earlier part of the season.
- Q. What do you mean by the earlier part of the season?—A. Well, I would say that in May they would be fully better than in any other month.
- Q. Would you say May and June?—A. Yes, the water is colder then.
- Q. What in regard to whitefish?—A. Well, the same rule will apply to both of them.
- Q. Can you give any opinion with regard to other kinds of fish?—A. No.
- Q. Where do you generally market your fish?—A. Toronto.
- Q. Do you send them direct there yourself?—A. Yes.
- Q. Do you always have a full demand for all you can send there?—A. Yes.
- Q. If you caught double as many could you send them?—A. Yes, parts of the season.
- Q. Could you say the demand is greater than your supply?—A. Yes, at certain times of the year they would, and at times they would not.
- Q. There is always some demand for them?—A. Yes, I always get a demand for mine, anyway.
- Q. Do you send any to other markets, or to the United States?—A. No.
- Q. What is the average price you get for your fish?—A. I get 4½ cents a pound; I got that last summer for salmon-trout and whitefish both.
- Q. Is that about the same price as your brother fishermen are getting from the Buffalo Company?—A. That is more; I pack mine at the station.
- Q. Is that more than the Buffalo Fish Company are paying?—A. The Buffalo Fish Company are buying on the north shore, where the fish are more plentiful, and they pay their own men for the packing.
- Q. Would it be about equal to the Buffalo Company's price?—A. Oh, I think so, something about equal.
- Q. Have you taken any notice with regard to when these two kinds of fish are most ripe for spawning; that is, when the spawn flows most freely from them?—A. Well, that depends upon the localities, the further north you go the earlier they spawn.

## Ontario Fishery Commission.

Q. Well, take the Georgian Bay, for instance?—A. Well, up about the Island of Coves they begin to spawn about the 1st October.

Q. Where is the Island of Coves?—A. It is right between the Georgian Bay and Lake Huron.

Q. How far above Wiarton?—A. It is probably about sixty miles above Wiarton, just at a rough guess.

Q. Would that be north of Tobermory?—A. Yes, sixty-six miles above Tobermory. I think as you move down this way they are later coming on.

Q. When do they come on to spawn here?—A. They won't come on here until about the 1st November, but they will commence at Vale's Point about the 20th October; of course some years they are earlier than others.

Q. Where is the next point they come?—A. At Meaford.

Q. About when?—A. About the 25th October, and then further down to Collingwood.

Q. Do you know anything about Mink's Island?—A. No.

Q. Do you know anything about the Bustard Islands?—A. No.

Q. Or the Christian Islands?—A. No.

Q. Within your knowledge you find it more particularly the case at Cove's Island, Wiarton, Vale's Point and Meaford where they commence to spawn about the dates you mention?—A. Yes.

Q. And how long do they remain?—A. Until about the 1st November, and they stay to spawn about three weeks or a fortnight. And I have never seen the spawn flow so freely on the shore, as I have seen it after they have left the shore and went out on to the herring camp as we call it, about the 1st November and up to about the 20th November.

Q. What experience can you give with regard to whitefish?—A. My experience with regard to them is that they are a thing of the past on the south shore.

Q. Are they yet somewhat numerous on the north shore?—A. I can't say; I don't fish there.

Q. Can you give us any information as to what they were formerly?—A. Yes; formerly these fish were plentiful all along this south shore.

Q. When they were plentiful what would be the probable quantities that would be taken by the fishermen from the 20th November up to Christmas?—A. Well, we would get them thick up to 2,200 fish in five or six bags of nets out of here with one gang of nets and a single fishing boat.

Q. This gang of nets would comprise how many fathoms in length?—A. Well, say 3,000 yards.

Q. Do you say from this and other reasons, you think the whitefish are a thing of the past?—A. Yes, on this shore.

Q. What has brought this about, what is the reason of their becoming a thing of the past?—A. I expect it is overfishing.

Q. Do you add anything to that besides overfishing—do you think it is fishing at improper times, in the spawning time?—A. It has always been a thing to my mind that we should get off in deep water, for I am told they spawn in shallow waters.

Q. What do these whitefish go to this shore for?—A. Well, I cannot tell, unless it was leaving their feeding grounds and congregating here—they used to do the same thing in Collingwood.

Q. Do you mean the grounds in and around Meaford?—A. I mean these fish come to the grounds in and around Meaford at the above named time.

Q. For what purpose?—A. I would not like to say they come there to spawn, because we get them in a mud bottom and in deep water. I have seen the fish spawning in water from 45 to 50 fathoms deep.

Q. About what time of the year would you get the two thousand fish with the one gang of nets?—A. Along about the 1st December. These fish come to these grounds in front of Meaford at the above named time, but I cannot say they come there to spawn.

Q. Where did the trout come from?—A. I don't know.

Q. What about the whitefish ; when do they spawn?—A. I have never caught them on the north shore in November and December. It don't run very freely from them although there is lots of spawn in them.

Q. When you caught these two thousand fish and threw them into the boat, were there any eggs coming from their bodies at the time?—A. There were very few.

Q. Do you know anything about the time of herring spawning?—A. No, sir.

Q. Is there any month of the year you have suffered more loss to your nets than another?—A. October is our worst month.

Q. Is that out in the bay or along the shore?—A. It is along the shore.

Q. What is the loss during November?—A. Well, we are out in deeper water and don't suffer so much as we do in October.

Q. Have you had any experience in either catching or knowing others to catch these small immature fish?—A. I have caught some of these small trout myself, but not in any large numbers.

Q. Would this be general with the gill-nets?—A. Yes, they would get fast by the teeth. A very small fish will catch by its teeth sometimes and drown himself.

Q. What are these small fish that are caught by the teeth, are they marketable then?—A. Yes, if they ain't dead too long.

Q. Are these small fish not as marketable as larger ones?—A. No, sir, they are not.

Q. With your experience in fishing, are your nets sometimes kept out by stormy weather so that you can't get at them for some time to lift them?—A. Yes.

Q. How long may these storms last sometimes, and you are unable to get your nets up?—A. Sometimes we may have them out two weeks, sometimes more, and sometimes less by reason of the storm.

Q. How do you find them when they are out two weeks; what state are they in?—A. They begin to get soft, especially in the fall of the year or summer time.

Q. And are they unsaleable?—A. There are very few that will become unsaleable in a week.

Q. What proportion of the fish that would remain out a week would become soft and spoiled?—A. I don't think there would be more than one per cent of them in a week.

Q. Do they ever get so that you have to salt them rather than sell them fresh?—A. Well, it is very few; in fact I have been fishing all summer and I didn't think it necessary to salt a single fish; they were frozen. When fish were more plentiful the dealers were more particular, and we had to salt them or lose them, and we frequently did salt them.

Q. At the present time are they all taken fresh?—A. Yes, sir, they all go. They are all shipped for sale.

Q. Have you any experience in pound-nets at all?—A. No.

Q. What is your opinion with regard to a Sunday close time?—A. Well, that is all bosh.

Q. Do you mean that it is impracticable?—A. Yes.

Q. Have you any knowledge of American fishermen poaching in our waters?—A. I suppose they pay us a friendly visit occasionally, and I suppose our men do the same thing.

Q. Who takes the most fish?—A. The smartest man.

Q. Which is the smarter, Canadian or American?—A. He is a Yankee.

Q. What is your view with regard to close seasons? Is it correct that properly selected times should be set aside for the preservation of the fish?—A. It would be correct for the Georgian Bay, but for Lake Huron, Lake Ontario and Lake Superior it would not be.

Q. Why not correct for those lakes as well as the Georgian Bay?—A. Because they are American as well as Canadian. We may protect them here, but the Americans catch them while we protect them.

Q. Do the American fish come to our side?—A. Some of them do, and if we protect our fish the Americans get the benefit of it.

## Ontario Fishery Commission.

Q. Do you say that the fish from the American side come to our side?—A. Yes, they do, very often.

Q. Are the American fish not so scarce, now, that few of them come to our side?—A. Yes, that is right.

Q. You say you don't know of any poaching or wrong-doing of that kind?—A. No, not particularly.

Q. When do you usually set out your gill-nets?—A. As early in the spring as the ice will let us.

Q. And how long do you keep them down, till what time?—A. Till the 1st of November.

Q. Is there any winter fishing that you know of?—A. No, you cannot do anything here in the winter.

Q. What about artificial breeding; is it a good thing to try to breed fish artificially?—A. Yes.

Q. Do you advise extending it more largely than at present?—A. I would, certainly.

Q. Which are the most marketable and profitable fish for the fishermen in the Georgian Bay, salmon-trout or whitefish?—A. Well, whitefish are the most profitable, if we could catch them.

Q. Is it on the south shore you mean?—A. Yes, but on the north shore they are plentiful yet, but not like what they used to be eight or ten years ago.

Q. Do you know anything about the quantities that used to be shipped?—A. Nothing more than I have heard by report.

Q. Do I understand you to say that the fish are much less than what they have been?—A. Yes, in the waters of the Georgian Bay.

Q. Have they become lessened in size as well as quantity?—A. Well, I think that they have on the north shore, but not so much on this shore.

Q. And do you say this reduction in the size you mentioned before has been brought about by the small meshes of the nets?—A. Yes, that is my opinion.

Q. Would you like to suggest anything yourself with regard to the net matter; perhaps you might be desirous of giving some further information on this question, or do you think these questions cover the important points with regard to the fisheries of the Georgian Bay?—A. I think they do.

Q. Do you think it wise to have legislation to overcome the difficulties which you speak of, and that the department should pass remedial measures to do so?—A. I think probably it would; I think so on the Georgian Bay, but not on Lakes Huron, Superior and Ontario. If the Americans fish let us do the same, or treat with the Americans to stop, and let us do the same.

Q. Do you think it would be advisable that each boat licensed should have the number and the name of the owner upon it?—A. With regard to these boat licenses, I don't consider it a fair thing; a poor man with only a small little rig has got to pay as much as a man that can get up a good rig. They charge a tug \$25, and there are several boats on the Bay that fish as much net as a tug.

Q. What will a tug run?—A. From 40 to 60 bags of nets.

Q. Do the tugs fish the whole amount of their licenses?—A. Well, I guess the tugs fish the full quantity allowed by the license.

Q. And the small boats do the same thing?—A. Some of them do; some men have not got it to fish with. My memory don't serve me right with regard to what a tug is allowed to fish. Some of them get the complement, and some of them get more. A tug pays \$25 for 12,000 yards, and a small boat pays \$6 for 12,000 yards. There is a good deal more expense attached to a tug on account of its costing more to keep a tug going.

Q. Should the buoys on the nets be numbered so as to know whose they are?—A. Well, frequently we mark our own.

Q. If there was a departmental mark would it not be the safest?—A. I don't think so.

Q. Have you anything to say yourself, or suggestions to make?—A. No, sir.



*By Mr. Harris :*

Q. About 90 per cent of our fish are caught for shipment to the States, and if the Canadian market requires the fish no doubt any amount of money could be obtained to establish hatcheries; now, in view of these difficulties do you see any better remedy than a proper close season and artificial culture?—A. Yes, if you abolish the steam cruiser and apply the money towards hatcheries.

Q. It seems to me that the cruiser is doing pretty good work. You say abolish the cruiser and apply the money for building hatcheries?—A. If they require a close season it can be done for one-half, and will be more effectual. To have one man at Thornbury, one at Meaford and one at Owen Sound will do more good, and be more effectual in observing a close season than half a dozen cruisers.

Q. If the guardianship of the cruisers are thrown aside, how would you protect the close season?—A. You can guard them better by having a man on the alert at each place—at each fishing station.

Q. What to do?—A. To see that there are no nets set or lifted at that time.

Q. How far out in the bay are these nets set and lifted at times, take it generally?—A. They don't meddle anything until November, in the close season.

Q. At present you are not permitted to set a pound-net, and if another man comes along and illegally sets a pound-net, and the cruiser comes along and finds it out and takes it up, is not that advantageous to your interest?—A. Yes, sir.

Q. In November how far out in the bay do you go, in the close season?—A. It is impossible for a man to watch two nets in the summer time; we go from one to three miles, I guess, from the shore.

Q. And if there were no cruiser, these men at these points you have mentioned could do as they please?—A. I say that protection could be given by having a man to care for the fisheries and see that no nets were lifted or set in November, in the close season, instead of using a cruiser. That would be my idea. If we had hatcheries enough established we might do away with the close season. I believe in the interests of the Georgian Bay fisheries it would be better to enlarge the meshes, and do away with the cruisers, and establish hatcheries and do away with close seasons. Perhaps for a few years it might possibly be better to keep a close season until the supply increased, especially in the month of November.

Q. Do you think the black trout fishing now is as good as it was twenty years ago around Vale's Point?—A. No, I don't think it is as good now as formerly.

Q. Do you think pound-nets would do more injury to the fisheries than gill-nets, if the meshes were the same?—A. I don't know anything about a pound-net, but for the summer season I should think they would not be so injurious to the fisheries as the gill-net, if the regulations were the same as with the gill-nets.

Q. What would be the proper size for the mesh, in your estimation?—A. Well, it would be owing to what fish you are fishing for. The pound-net twine would be as large again as the gill-net twine. It is really more than as large again, and with a pound-net a good sized fish would go through a  $4\frac{1}{2}$ -inch mesh.

Q. Then you think if the pound-net mesh were reduced to  $4\frac{1}{2}$ -inch, it would be better?—A. In regard to these pound-nets, if they would take a large quantity of suckers and mullets, which in the fall destroy a large quantity of trout spawn, they would do good if set along the shore, but of course a  $4\frac{1}{2}$ -inch mesh would hardly catch the suckers or mullets, and therefore a smaller mesh would be required to catch these. This lake is not like down below; we have nothing in this lake that would destroy the spawn of the salmon-trout and whitefish, except the sucker and mullet. I saw lots of lamprey eels here, and you can hardly get a trout or a whitefish that is not marked with lamprey eels.

Q. Are there no rough fish on this side of the Georgian Bay, except what you describe?—A. Nothing except suckers, mullets, and some walleyed yellow pike. There are no pike on the south shore, but there is on the north shore.

## Ontario Fishery Commission.

Mr. JAMES STEWART was sworn, and gave the following evidence:—

*By Mr. Wilmot:*

Q. Is your residence here?—A. Yes, sir.

Q. For how long, Mr. Stewart?—A. Near on 35 years; it is 34 past.

Q. And your business and occupation is what?—A. I am in the insurance business at the present time. I have carried on business for a number of years here.

Q. Would you like that some of these questions be put to you?—A. I know very little about them; I used to troll a little here in the fall of the year for two or three months, I suppose for the last 15 years, more for pleasure than for anything else.

Q. Have you found in your trolling any decrease in the catch or number of your fish lately?—A. Oh, yes, very much; in the last few years I have caught very few compared to what I did 15 years ago.

Q. In what proportion has it decreased?—A. Well, this last year I was only out one day and we only got five fish in the whole day.

Q. And in former years what would you get?—A. Some few years ago, perhaps, we would get 40 or 50 or 60 in the same length of time.

Q. Do you consider this a great falling off, then?—A. Yes; now it is the first of November when the close season begins, and that may be a reason; it used to run to the 15th, if I recollect right.

Q. And do you think this may be a reason for catching more in former years?—A. This last few years I know we have caught very few up to the 1st November.

Q. What is your view, generally speaking, of the falling off of the fish?—A. I know several years ago there were a great many fish brought in here where now there are very few. Mr. McCrae was the only man that fished here this summer, that I know of. I think last year there was not one at all, that is, during the summer I mean. Of course we had them here during the fall.

Q. Had you no fishermen here for the summer fishing?—A. No. The reason, I believe, is because it does not pay them to fish here compared with the north shore.

Q. Then, is it your opinion that the fishery on the south shore has very much declined?—A. I think it must be so, when the fishermen left it and went to other parts of the bay because they didn't catch enough to pay them, although they did quite a large business here at one time.

Q. Can you assign any cause for this great decline of the fish here?—A. I cannot give any cause, unless it is fishing them out, which was the cause that made the decline in other lakes. At one time there was a large fishery carried on down on Weller's Beach on Lake Ontario.

Q. Do you know of your own knowledge that the whitefish were at one time plentiful in Lake Ontario?—A. Yes, I have seen great quantities of them taken out of Lake Huron too.

Q. When you speak of trolling, do you refer only to trout fishing?—A. Yes, it was for sport I went there trout trolling.

Q. What is your opinion with regard to the trout gathering along the shore in the autumn months?—A. I believe it is for the purpose of spawning, to lay their eggs, because they are generally full of spawn when caught in October and November.

Q. Do you think it wise on the part of any one to take these fish at the time of spawning, in the interests of the fisheries?—A. I believe, unless hatcheries can supply what is taken out, the supply must deteriorate. They must be supplied by artificial hatcheries to take the place of the close season.

Q. And would you go further and say that if continued it must destroy the fisheries?—A. I should think it would.

Q. What is the usual size of the salmon-trout caught by you in fishing?—A. Well, they would run from 5 to 7 or 8 or 10 pounds, and I have seen them up to 12 pounds. Of course 12 pounds would be an extra large one, but sometimes we get one to weigh that.

Q. Are these the black trout that the fishermen speak of?—A. I suppose they are; they are dark coloured trout.

Q. Are you of the opinion that there are two or three different kinds of trout?—A. I could not say for that, but the fish in the summer time are a lighter and clearer fish than the fall fish.

Q. Are they smaller?—A. I have seen just as large fish in the summer time as in the fall, and sometimes larger.

Q. Do you think it judicious for the fishing industry that the close season should be maintained?—A. I should think for the preservation of the fisheries it would be wise to have a close season, and I would also like to see hatcheries established.

Q. Which have, the whitefish or the salmon-trout, fallen off most, to your knowledge?—A. I think the whitefish have fallen off the most. A few years ago there would be large quantities of whitefish brought in here in December, but now there is not hardly any.

Q. Do you think the whitefish are almost gone from this place?—A. I think they are, as far as I know.

Q. What reason can you assign for the falling off of the whitefish?—A. I cannot say. I have heard it said that they left quite suddenly. I cannot give any idea of my own.

Q. Have you any views to offer of your own independent of these questions?—A. I should like to see more hatcheries established on the Georgian Bay to help to replenish the supply. I think the supply and industry should be kept up and encouraged, if it is possible to do so.

Q. Was it considered a great benefit to this town in former years—the fisheries?—A. Yes, there is no doubt about that; there was a large number of people here that earned their living by fishing wholly.

Q. And it has now fallen off, you think?—A. They certainly have as far as local trade is concerned—whole families have left, that used to reside here, by reason of the falling off of the fish.

Q. Mr. Burns, a former witness, says he is an old resident, and you, Mr. Stewart, carry out his opinion from first to last. He says that the fisheries have become very much changed, and he has been fishing himself. How does it affect the town?—A. It is nothing very serious to the town; of course a few families have left. A few fishermen, by reason of the reduction of the fisheries and better facilities for fishing and shipping to other points, have left.

Q. What is your recollection with regard to the whitefish being caught here in former years?—A. Well, all that I know is only hearsay. I have taken notice to the boats being allowed a greater quantity of nets, and they get a less quantity of fish with them than with a less quantity of nets. In former times I have seen a small skiff come in with 900 trout off the clay bank.

Q. About what time of the year would that be?—A. In the fall of the year when the fish would be spawning on the rocks.

Q. How is the decrease in whitefish?—A. Well, I could not say. I know from hearsay that the whitefish are getting very scarce. I think that Mr. McCrae's statement in respect to the matter of preservation of the fisheries, is correct—that we really want proficient officers here in the place to prevent the fishermen taking any undue advantage of the fisheries and bringing in fish during their spawning time. This would be better than employing these cruisers.

Q. Are there any nets out during the spawning season?—A. Why, yes; there has been nets out all the time—it is a common thing, and as Mr. Pilgrim said, that if the law were put in force it would be an advantage to all.

Q. The execution of the law is always better than the law itself, and if enforced it would be better in the interests of the fisheries and fishermen?—A. Yes, that is so.

Q. Have you anything to suggest, Mr. Burns?—A. Well, of course it would be also very necessary to establish hatcheries. There is no doubt there has been fishing going on along this shore at different places during the close season, and unless the law is put into execution there is no use in it, and I don't think the cruiser can execute it and, I think, in the interests of the fisheries the law ought to be executed.

## Ontario Fishery Commission.

CHARLES LITTLE, sworn, answered as follows:—

Q. Is your residence Meaford?—A. Yes, sir.

Q. Well, for how long?—A. About thirteen years.

Q. What are your observations?—A. My observations are that Mr. Stewart and Mr. Burns are right when they say that if the close season was observed it would be better and without mentioning any locality, I consider that the contention of the fishermen is right in one respect, that is, with regard to the Americans being allowed to fish while we are not. The Americans will fish in these international lakes, and I think the Canadians should have the same right. If the close season is enforced in Canada, the Americans will take advantage of the restrictions laid upon us and fish all they like. Supposing we saw two extending armies and one would say: We don't want to fight on Sunday but will fight the next day; would not that be giving the advantage to the enemy. So it is with the Americans, they can fish and we can't. As the Georgian Bay is international waters, or the same thing, I claim that the fishermen's contention here is correct, and especially with regard to Lake Superior.

Q. Is the contention of the fishermen regarding a close season correct when applied to the Georgian Bay, and it would be correct also in the other lakes if the Americans observed the close seasons, the same as the Canadians?—A. Yes.

Q. Do you think, Mr. Little, the fisheries have decreased, in your estimation, during the past years to what they were formerly?—A. Most decidedly, from what I have heard I think they have, although I don't know much about them myself, but I think they have to what they were in former years.

Q. Have you any idea what caused that?—A. I suppose it was over-catching that will cause a scarcity of game on the lands as well as cause a scarcity of fish in the waters. There is one thing I would like to say about Mr. McIntosh, I think he was a little quizzical; I think the Indians should be allowed to fish in the waters, they should have extra privileges if any persons are entitled to it.

Q. Do you mean for their own use or for profit if they want to?—A. Yes, for their own use, or for barter if they want to.

Let me here add, Mr. Little, and say that if you could produce the fish by hatcheries alone, and allow the fishermen to fish during close seasons they would consider you a benefactor indeed. It is quite necessary to educate the fishermen and bring them to a knowledge that it is essential for them to have close seasons in order to recuperate the fisheries and keep up the supply. I was one of the first originators of fish culture on this continent of America, and have always believed in its efficacy, but I cannot go so far as to say that the artificial mode of production will alone sustain the fish in our waters, and for me to say that artificial culture is going to do it would be absurd. Artificial culture is only an aid to the natural one, but to say that it will do it alone without the natural way it is erroneous. It would be perfectly impossible to keep up the fish wealth if nature was allowed to die out, and to depend on hatcheries alone, for you never could succeed. I state this believing it to be correct, that fish hatcheries are only a supplementary help to the natural methods, and that close seasons should be upheld now more than ever; I tell you that fish hatcheries are beneficial, but don't go away with the belief that if a fish hatchery is established along the Georgian Bay that it is all you need without the aid of nature, and without properly selected close seasons in which the fish can freely breed.

Meeting adjourned *sine die*.

## No. 10.—COLLINGWOOD.

COLLINGWOOD, Ont., 30th November, 1892.

Meeting held by Messrs. Wilmot and Harris in the interest of the Ontario fisheries; Mr. Huggard, of Barrie, acting as secretary and stenographer.

Mr. WILMOT addressed the meeting, as chairman, in the following terms:—"I will hastily mention what the object of this meeting is, and if you feel disposed to give us any information you can do so in the interests of the fishermen and fisheries of the country. Regulations have been made by the Government from time to time establishing close seasons, and for the regulating of nets, which are so necessary for the preservation of the fisheries of the country. Some of these regulations have met with opposition, and various petitions have been sent in asking for modifications of these regulations, and the Government, in order to obtain full information, has thought proper to appoint a Commission to look into the matter. The Commissioners consist of myself, my colleague here, Mr. Harris, and Mr. Marks, of Port Arthur, who, unfortunately, has been unable as yet to join us in our investigations. As far as we have proceeded, we have obtained a great deal of very useful information of a practical character. We started at Port Dover and followed the shores of Lake Erie and reached Windsor, and from Windsor proceeded along the shore of Lake Huron till we reached Owen Sound, and from Owen Sound we came here, giving notice beforehand of these meetings. This place appears to be a very prominent fishing point, and we were under the impression that there would be a large number of fishermen here to give evidence. We propose holding another meeting this evening, and then perhaps a better opportunity will be given to enable you to give us further information in regard to the fishery questions. I might also mention that the Commissioners have been appointed under the statute and have power to take evidence under oath, so that we will take your statements under oath, as at all other places, if you feel disposed to give it, and if not so disposed, we shall be obliged to you for your opinions in any case. We have chosen a number of questions which touch on the points under consideration, and if the parties prefer to go on and answer these questions, we will proceed at once. We will, therefore, commence by asking if there is any gentleman here who is desirous of giving any information. The attendances at other places have been very fair indeed. A large number of persons have come out and given their statements fully and freely."

Mr. GEORGE KNIGHT then came forward and took the following oath:—"You, George Knight, do solemnly swear that you will truly answer all such questions as may be put to you by this Commission, and also give such evidence and information as shall be within your personal knowledge to this Commission relating to the fish or fisheries of the Province of Ontario, so help you God."

*By Mr. Wilmot:*

- Q. Where is your residence, Mr. Knight?—A. My residence is in Collingwood.  
 Q. What is your occupation?—A. A fisherman, sir.  
 Q. Of what standing?—A. About twenty years.  
 Q. What is your nationality?—A. English.  
 Q. What description of fishery do you carry on?—A. Whitefish and salmon-trout principally.

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Q. Any other kind of fish?—A. No, sir.

Q. What particular waters do you fish in?—A. Where do you mean?

Q. I mean in the Georgian Bay?—A. I fish in all parts of it.

Q. Do you fish in any and all parts of it?—A. Yes, but mostly on the shores.

Q. In what vicinity?—A. Near Mink Island.

Q. What description of net do you use?—A. I use a  $5\frac{3}{4}$ -inch gill-net.

Q. Do you use this  $5\frac{3}{4}$ -inch mesh all the season through?—A. No; I use  $4\frac{3}{4}$  and  $4\frac{1}{2}$  for summer fishing.

Q. What is the size of your mesh for autumn fishing?—A.  $4\frac{1}{2}$  and 5-inch mesh.

Q. Is this for trout fishing?—A. Yes.

Q. What are the size of the fish you generally catch with a  $4\frac{3}{4}$  and  $4\frac{1}{2}$ -inch mesh?—A. Well, whitefish, about two pounds, and trout similar in size; you can catch a trout with a larger mesh.

Q. What is the size of the salmon-trout that you catch by gilling?—A. They will average about three pounds.

Q. Is that the average of your summer fish?—A. Yes, about.

Q. What class of fish do you catch with a  $5\frac{1}{2}$ -inch mesh?—A. They are pretty much all trout.

Q. What is the average weight and size?—A. About four pounds, some a little more and some a little less, but from four to five pounds is about an average weight.

Q. What is the size of the twine that you use in your summer nets?—A. I use No. 50 most of it, some of it is No. 60.

Q. And what is the size of the fall net twine?—A. I use No. 35.

Q. Are you speaking now with regard to the extension of the meshes?—A. Yes, sir.

Q. How small a fish will that sized mesh catch?—A. Well, a 2 or  $2\frac{1}{2}$ -pound fish.

Q. Have you ever had any experience with a 3-inch mesh?—A. No.

Q. How small a fish will a 3-inch mesh catch?—A. Too small for any use; too small for anything.

Q. Will it catch a two-pound fish or under?—A. Yes, or a 4-inch mesh will catch a fish that size, but a 3-inch mesh is too small.

Q. What sized fish will a 3-inch mesh catch?—A. A pound and a half or a two-pound fish, but that mesh is injurious. I think that the standard of  $4\frac{1}{2}$ -inch mesh is a very fair standard.

Q. What period of the year do you think that salmon-trout are in their prime and best condition for eatable purposes?—A. It is good in the fall of the year.

Q. When are they in their prime condition?—A. I don't think there is much difference.

Q. Are they just as good in June and July as any other part of the year?—A. I think salmon-trout are good all the year round; a great many people claim that they like trout better in the fall than any other time.

Q. You say salmon-trout are good at all times?—A. Yes.

Q. How about whitefish?—A. They are the same as salmon-trout.

Q. Do you include in this statement at the time they are spawning?—A. No, I don't think they are as good at the spawning time as previous to it.

Q. Then you think they are not as good at that time of the year?—A. No, not just at that time.

Q. As they are before it I suppose you mean?—A. Yes.

Q. Where do you usually sell your fish here?—A. I sell them at the Mink Islands.

Q. To whom?—A. To Stoker.

Q. Who is Mr. Stoker?—A. He is a fish buyer there.

Q. On behalf of himself or an American company?—A. We sell to him, and I don't know who he buys for.

Q. Do you know whether they go into the Canadian market or the United States?—A. I know they go into the United States.

Q. What is the average value of your fish; what do you get for your salmon-trout?—A. About  $3\frac{1}{2}$  cents per pound.

Q. What are your whitefish worth?—A. They are worth about the same.

Q. Is there no change in the price when Autumn comes on?—A. No; pretty much the same price all the season through.

Q. Have you ever taken any close observation, Mr. Knight, with regard to when fish are really ripe and ready to lay their eggs?—A. That depends on where you are.

Q. Well, where you fish in the bay then, when you think they are ready to lay their eggs, when they drop most freely from them?—A. They vary some few days, but I should think the latter end of October, some before, and some later, but I think they very seldom lay before that time.

Q. Whitefish, what do you say about them?—A. They vary a great deal too, some places where they go to spawn; now, away up on the north shore they spawn there before here.

Q. Take it as a fair average?—A. I have never fished for whitefish in the fall, so could not tell.

Q. Do they spawn about the same time as trout?—A. They come a little later than the salmon-trout.

Q. Then, generally speaking, they spawn later than the salmon-trout?—A. Yes.

Q. In your experience as a fisherman, do you lose more nets at any one period of the year than another?—A. Well, in the fall I lose more than in the summer.

Q. What month would you say was the most dangerous and perilous to your nets?—A. We consider that September and October are about the worst months here; sometimes in November it has been very bad.

Q. September, October and November are the three worst months for fishermen, then?—A. Yes; September, I think, is a very bad month in this part of the bay, and we have no protection against people stealing our nets—there were two parties here lost a whole gang of nets.

Q. Then you meet with losses by parties stealing your nets?—A. Yes, we do. In the summer, parties come here—we do not know who they are—and steal our nets.

Q. Do they take the whole gang?—A. Yes, take everything. I spoke to Capt. Dunn up there, and he said he could do nothing with it. There were two lots of nets stolen between Mink Island and Campbell's Rock it was supposed to be done by people from Penetanguishene.

Q. This was done by parties up the bay?—A. Yes, and they do it right here—I lost two buoys in October.

Q. Is it strange that you never come across any of these parties?—A. You never can see them. We saw parties coming up from Penetanguishene, but didn't know who they were. We don't get any protection, and I think they should look after our nets as well as after our fishing and give us the same protection that other industries have, when we pay our license. We have complained to the inspector two or three times having lost nets on each occasion, but never got any satisfaction.

Q. Now, are you aware of any small immature fish of any consequence being taken?—A. No, I do not know of any—there may be some small mesh nets used, but the sellers usually won't sell that class of nets to people.

Q. Do you know of any small whitefish being shipped into this harbour?—A. Well, we see them a pound and a half, and I have seen them less than that in small quantities. The small whitefish are pretty hard to ship away.

Q. Where are they shipped to?—A. They mostly go the American harbours.

Q. Where are these principally caught, Mr. Knight?—A. All over the bay almost, you will catch some of them any time through the summer. They are what we call a small run of fish. There is a different class of whitefish—there is one class that I don't think would ever grow to be a big fish, which are sometimes caught in a 4½ mesh.

Q. Are you aware that the law requires a close Sunday time, that is, the nets are to be taken up on Saturday night and laid down again on Monday morning—what is your idea about that?—A. We never could do it. It is all right in the bay here, but a man never could do it out in the lake.

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Q. Do you say it is impracticable to carry that law out?—A. Yes.

Q. Do our American neighbours fish in this part of the bay with their tugs and nets?—A. No, not in these parts.

Q. Do they in any other parts?—A. No, not unless they come and pay their license, or duty; I don't know whether there are any in the bay here at all or not.

Q. Are you of the belief that there should be some protection like a closed season?—A. I don't think it is a benefit these close seasons. I believe all these rough fish eat up more spawn than the fishermen destroy. For instance, you take a sucker, and you will find him full of spawn, and herrings also eat a great deal of spawn.

Q. Would it be a difficult matter for you to show us a fish of this kind with spawn in it?—A. I dare not do it; a man dare not catch a herring, or a sucker, the very worst enemies of the spawn.

Q. With regard to spawning grounds? Do you think it advisable to set aside certain places for spawning?—A. I do not think it would be beneficial to have these spawning grounds set apart.

Q. Why?—A. Because these spawning grounds, or spawning places are always in shallow water. I believe that fishermen ought to be allowed to fish at any time and in any manner.

Q. With any kind of nets?—A. With gill-nets. I think that fishermen should be allowed to fish at any time without a closed season.

Q. When do you put your gill-nets down; what season in the year?—A. Well, that depends upon the season; we generally put them down about the middle of April or the end of April.

Q. When do you generally take them up again?—A. We are through about the 1st of September.

Q. That is the summer fishing?—A. Yes.

Q. And when do you set them down again?—A. Oh, we don't set down again until about the middle of October, about the 15th.

Q. When do you take them up again?—A. They are taken up again the 1st of November.

Q. Is there any winter fishing carried on here at all?—A. I don't think there is; a very few may; there is of course a few herring caught under the ice.

Q. With nets?—A. Yes, with nets.

Q. Do you know anything about any bass fishery here?—A. There is no bass here of any account.

Q. No spearing or shooting of fish here in the spring of the year?—A. No; there is a little spearing in the middle of the winter after the ice is set.

Q. How far out do they go to get them spearing?—A. Oh, they go out about three miles.

Q. Are they a large kind of trout that are speared?—A. Yes.

Q. What kind?—A. Shoal trout we call them.

Q. Are these the largest kind?—A. Yes.

Q. What do they generally weigh?—A. Sometimes up to ten or twelve pounds.

Q. Have you seen them when caught; have you looked at them closely?—A. No; I never speared any myself.

Q. Have you ever seen any speared?—A. Yes.

Q. Have you seen them opened?—A. No.

Q. Do you know whether there was any spawn in them or not?—A. No; you don't get spawn in trout after the 20th of this month, November.

Q. The spawning season is over then?—A. Yes.

Q. Now, sir, what is your idea with regard to artificial culture of fish?—A. I believe it would be a great benefit.

Q. What do you draw your conclusions from?—A. By some places where they have bred them. I believe if there was more spawn saved a great deal more fish would be saved.

Q. Do you know any place particularly where you could say fishermen have been benefitted by it?—A. Well, there are parties on Lake Erie that have been.

Q. Have you reference now to trout?—A. No, to whitefish.



Q. Do you think that on the American side, since hatcheries have been established, fish have been more plentiful?—A. Yes.

Q. Do you know that yourself or are you speaking from hearsay?—A. I have often fished on the American side some twenty years ago, but they did not use artificial means then, but fish were fished out since then and artificial means of re-producing the fish resorted to.

Q. Have you fished there since the hatcheries have been established?—A. No, I have not fished there lately, but since then I have been informed that the fish are more plentiful by reason of the hatcheries.

Q. Which are the most valuable kinds of fish caught in the Georgian Bay?—A. They are both the same.

Q. Which would you prefer?—A. As a rule these fish we call the fall fish are not as valuable.

Q. What reason do you attribute that to?—A. It is because they are more plentiful, but it is very seldom we get a good season now.

Q. Is it because they are softer or flabbier?—A. No, it is simply because they are more numerous; it is their plentifulness that causes them to be cheaper.

Q. Is there any distinctive difference between whitefish and salmon-trout; do fishermen prefer getting one kind to the other as a marketable commodity?—A. No, one is worth just as much as the other now.

Q. Have the whitefish fallen off as a rule more than the salmon?—A. Yes, to a very great extent to what they formerly were; they have here around this part.

Q. What do you mean by that?—A. We don't get any whitefish here in the fall—there are very few indeed.

Q. Do you mean right here in the bay?—A. No, I mean all over.

Q. In your recollection were they pretty plentiful at one time here?—A. Yes, years ago.

Q. How long ago might that be?—A. That would be about fifteen or sixteen years ago.

Q. Can you account for this falling off in your own mind?—A. Well, there was not one-quarter as many nets then as now.

Q. Do you say they were plentiful fifteen or twenty years ago?—A. Yes.

Q. Then what do you think is the cause of their falling off?—A. I don't know, unless they have taken some other course.

Q. Was this then their spawning ground, this bay?—A. Yes, on the south side.

Q. Do they not come here to spawn any more?—A. No.

Q. Have you formed any idea how it is that they have fallen off so largely?—A. I can't tell, unless it is that this bay is getting very dirty with bark, and thistle-downs blown in off the lake has made it very foul.

Q. You say whitefish only come here to spawn in the fall of the year?—A. Yes, around the edge of the rocks.

Q. Is there nothing else? Have not the spawning grounds been disturbed a good deal by fishing in former years?—A. I don't know. The fish seemed to drop off all at once; I think they have taken a different course. It is supposed that the fish that come into this bay are supplied from Lake Huron.

Q. That is only supposition though, is it not? And you say years ago you could get them here in the fall?—A. Yes, lots of them.

Q. Well now, with regard to the fish that come here in October—what do they come here for?—A. They merely come to spawn. They remain here until they are done spawning and then go away. We don't get but a very few; they swim high, and we catch them through the ice.

Q. Don't you catch them in the summer season?—A. No, you would not catch ten in a day. You can frequently see them jumping in the water. We call it fly-catching, but you can very seldom catch one.

Q. Are not these fisheries carried on extensively up through the Georgian Bay?—A. There is a large class of fish caught on the north shore. It is not like Lake Ontario—there is only one class of trout there that I ever saw.

Q. So that upon the whole there is a great falling off, of both salmon-trout and whitefish in this bay?—A. Yes.

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Q. At the present time compared with former years?—A. Yes.

Q. Now have you any suggestions to offer yourself, Mr. Knight?—A. No, I am of the same opinion as the rest of the fishermen. The close season does not effect the fishing along the north shore—they are done fishing before we catch any here, and when the fish come down here we have to stop.

Q. Do you admit that trout come here to spawn?—A. Yes, they come here to spawn, I believe they are here all the time.

Q. Then do you think if the close season was carried out you would not get any salmon-trout at all?—A. It is carried out now.

Q. Do you say that close seasons are not beneficial?—A. I don't believe they are. I believe that hatcheries would be more beneficial. We don't hardly ever get any fish in the closed season.

Q. Then you think a hatchery is what is wanted, and not have a close season?—A. If hatcheries were established I think we would have more fish. I never heard tell of any close season anywhere but here. I think that fish ought to be caught in the closed season. I don't suppose there was two ton of trout caught altogether during the closed season, and if we had hatcheries and allow us to fish all the year round, we could save a good deal of spawn where now it is destroyed.

Q. How would the present catch compare with the number of trout caught 8 or 10 years ago?—A. As a rule I don't fish a great deal for trout.

Q. You say that this season that not more than two tons were caught, how would this compare with what was caught 8 or 10 years ago?—A. I don't think there is much difference—very little difference.

Q. How many tons of trout could you have caught 10 years ago?—A. I would not have caught a ton—we used to fish outside in deeper water.

Q. This year how many did you catch?—A. I did not get more than six hundred pounds—this year there was rougher weather. Some years there is more fish caught. It depends upon the weather.

Q. I don't know that you can tell us a great deal more, Mr. Knight.

*By Mr. Harris:*

Q. I want to know something more about—where that island is you say you fish on?—A. It is Mink Island.

Q. Where is it from Parry Sound?—A. It is 20 miles from Parry Sound.

Q. Is Mink Island near Squaw Island?—A. There is Cabbage Head, and Milestone Island, which are only five miles from Mink Island, and Mink Island is 60 miles north of Collingwood off the eastern shore of the northern bay.

Q. Do you ever fish in the bay down about Collingwood?—A. Oh, yes; I have fished here for a number of years.

Q. I suppose the fishing got bad here before you went up to the north shore?—A. Of late years, yes.

Q. You spoke of pickerel—is that what the Americans call yellow pike?—A. Yes.

Q. Do you ever catch any other kind of pickerel?—A. No.

Q. Have you heard our American neighbours speaking of blue pickerel?—A. No.

Q. How many fathoms deep of water do you fish in?—A. About 16.

Q. How many fathoms of net do you fish with?—A. I don't know, it would be about 6,000 or 7,000 yards.

Q. You have a sail boat I suppose?—A. Yes.

Q. Do you deliver your fish to the tug?—A. No, we take them to Mink Island.

Q. Have you ever lost any nets in rough weather?—A. Yes, lost some.

Q. Does it happen pretty frequently?—A. No, not unless there is a very bad storm.

Q. How do you lose most of your nets, tell me that of your own personal knowledge?—A. Sometimes we get a whole gang of our nets destroyed by bark off the saw logs, that is the inside strips of the bark coming off pine logs. A net is almost worthless after it comes in contact with this bark. This is another way of

losing nets besides what we lose with storms. And this bark appears to drive the fish all away, too. We often take up our nets when they are full of bark.

Q. Does that bark carry your nets away?—A. No, but they are no use, they are spoiled and won't fish after it any more.

Q. Whether do you lose more in deep water or shallow water if there comes a big blow; can you give me an idea of your percentage of loss from that reason?—A. I cannot.

Q. What I want to know is, can you give me any idea of the percentage of twine you lose from storms and rough weather?—A. Well, I suppose on an average we lose a thousand yards every year.

Q. Do you lose that much beyond what is stolen?—A. Yes, we have that loss, besides what is stolen; I lost some this fall, and I suppose a thousand yards would hardly cover it each year.

Q. What is the average weight of your trout?—A. The trout average about three pounds.

Q. What do your summer trout average?—A. Summer trout average about three pounds also.

Q. What do your autumn trout average?—A. They average better than the summer trout.

Q. Do they average higher now than they did fifteen or sixteen years ago?—A. No, I don't know that they do. Our summer trout are what is called "potguts," or mud trout; they live in deep water.

Q. Is it the same trout as the autumn fish?—A. No, it is a different fish altogether.

Q. When is the best time to catch these fish?—A. In the latter end of October.

Q. What is the average size of them?—A. I think about four or five pounds.

Q. What size of fish would you catch in the autumn fifteen or sixteen years ago?—A. I don't see any difference at all. I have heard reported that they used to catch fish twenty, twenty-five or thirty pounds, so they do now, sometimes, what we call "mokers" in deep water. I have caught large trout in Lake Erie weighing thirty or forty pounds, but what we see here were great big fish no use for anything; I would not eat a piece of one of them.

Q. What nets do you consider the most destructive, the pound-net, gill-nets, or seines?—A. I think pound-nets are the worst. I don't think the seine is so very destructive, for you see fish as a rule don't go on the shore until certain seasons of the year, and on our shore you can't have a seine on account of the rocky bottom.

Q. Do you say that the whitefish spawned here fifteen or eighteen years ago, do you mean around here?—A. I mean right here, and in Meaford and Thornbury.

Q. Was there any particular place for spawning?—A. Off the edge of the rocks.

Q. Did salmon-trout spawn there then?—A. No.

Q. Where did they spawn at that time?—A. Around the south shore of Collingwood and Meaford.

Q. Do you like the American plan of allowing their lakes to be fished?—A. Yes, you can fish any place you have a mind to, with any sized mesh. We used to go from here there and pay duty.

Q. What is the duty?—A. Thirty per cent on their nets.

Q. What do you mean by 30 per cent?—A. You could fish by paying duty on the boat, \$80.00.

Q. Is it more expensive there than here? Would you like the American plan adopted here of allowing any boat to come here and fish where they like?—A. No, I would not.

Q. What do you think of the meshes used here?—A. I think the meshes used here are about as small as ought to be used.

Q. Would you like the American plan introduced here?—A. No, they kill with everything there.

Q. Do you think it would be right for the Americans to come over here and fish in our closed seasons?—A. We don't want to fish the same as the Americans with regard to nets, but want to fish the whole season through. I can take my rig over there

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and fish the whole season through by paying for my boat. I fished there about 20 years ago, and the fish all run out, but I believe they are getting their whitefish replenished by artificial means.

Q. Now you say you want no closed season and don't want the American plan—in fact, what you want is more than what any American is permitted to have—you want to fish these waters the whole year around and prevent everybody else except a few licensed persons, and you want to keep the public out?—A. No, I don't want to keep anybody out. We don't want all sorts of nets; but we don't want trap-nets, nor pound-nets, but we want protection, and we also want some means of hatching these fish.

Q. Then, as I understand your evidence, you want to use your gill-nets in the Georgian Bay with a 4½-inch mesh?—A. I don't care about that, but I suppose anybody who pays license has a perfect right to fish. On the American side all through this month they can fish away; here we are fined if we only catch a herring or a sucker, the greatest enemy to the trout. We are not allowed to bring in a sucker or a herring; there is only about three or four months in the year that we can fish. We start about the middle of April, and about the middle of August we have to pull out again, and then we have a little bit of fall fishing and that is all we get out of it.

Q. Now, in reference to the question of loss of nets, what season of the year is your principal loss in twine?—A. In the fall of the year.

Q. Do you think you would make more money if all the gill-nets were taken up the 1st of November?—A. They don't, as a rule, fish with summer nets in the fall of the year. Our summer nets are all laid up by the 1st of November.

Q. Would it be better for the fishermen if they all took their nets out by the 1st of November?—A. Yes, I think the fish would be more plentiful.

Q. Considering the rough weather, would you be better off if they all took their nets up the 1st of November?—A. No, I don't think so, November is a fine month—September, as a rule, is the worst month—our summer nets are all taken out in September.

Q. Let me know what portion of your nets are in the water the 1st of September?—A. If I had a boat I would have about 5,000 yards, and in the summer have all the others in a shed.

Q. Do you not think it would be better for the whole lot if they took all their nets out on the 1st of November?—A. Well, I don't know; there would be a lot more expenses, and it is a hard matter to make a living, the fish are getting so scarce.

Q. Then, on account of the scarcity of the fish, you think it would not be better to take the nets up the 1st of November?—A. Yes, when we had no close season at all here there were more fish.

Q. Don't you get nearly twice the price now for the same kind of fish you did some years ago?—A. No, we do not get a great deal more for them now than we used to get.

Q. How much more do you get?—A. Well, when we sold whitefish here we used to get about 12½ cents a piece for them, and they would not give more than 3 or 4 cents a pound now. We used to get a York shilling each when whitefish were plentiful.

Q. Are there any fish dealers here in town?—A. No.

NORMAN SANDERS, having been duly sworn was examined:—

*By Mr. Wilnot:*

Q. Where do you reside Mr. Sanders?—A. In Collingwood.

Q. What is your occupation?—A. A fisherman.

Q. Of how long standing?—A. About twenty-five years.

Q. Of what nationality?—A. A Canadian.

Q. What class of fishing do you do?—A. Salmon-trout and whitefish, pickerel and pike.

Q. Salmon-trout are the principal ones?—A. Yes, sir.

Q. Do you principally fish in the Georgian Bay?—A. Yes, of late years.

Q. Where in former years?—A. In Lake Ontario.

Q. What part of Lake Ontario?—A. Gilluses Island on the American side, I have fished in it up on the Canadian side.

Q. What made you leave the fishing on Lake Ontario?—A. For better fishing here.

Q. The fishing was played out there, was it?—A. No; it was not played out altogether.

Q. What particular locality have you been fishing in here?—A. Near Squaw Island on the south shore here.

Q. Do you mean all the shore?—A. I mean from Cabbage Head to Christian Islands around to Collingwood, it takes the whole Bay principally in.

Q. You have been fishing here about how many years?—A. About 14 years in the Bay here.

Q. What description of net would you fish with formerly?—A. I have fished with pound-nets in Lake Huron, and gill-nets in the Georgian Bay, and seines here.

Q. Where was your principal fishing ground ten or twelve years ago?—A. Ten years ago I was fishing at the mouth of the Nottawasaga Bay.

Q. Was the best fishing there at that time?—A. I don't think it was.

Q. Where are the best fishing grounds?—A. On the north and south shores here in the vicinity of Squaw Island and Mink Island, for whitefishing in the summer and trout fishing in the fall.

Q. Well, how did it pay you?—A. Did you ever keep an account of the fish caught in those days, say eight or ten years ago?—A. No.

Q. Did you fish with one or more boats?—A. One boat.

Q. What would you catch with one boat in those days?—A. Well, we used to get from fifteen thousand to eighteen thousand fish, that is whitefish, they were the principal kind of fish.

Q. These were taken where?—A. In the vicinity of Squaw Island, on the Squaw Island fishery.

Q. Were you fishing there this year?—A. Yes, sir.

Q. The same boats, same nets and everything?—A. No sir, I am fishing with a tug now.

Q. How much additional net do you carry now?—A. I have about twice as many nets with the tug.

A. What quantity of fish did you get this year?—A. I got about thirty-one or thirty-two tons.

Q. About what number of fish would you have?—A. We don't count them by the fish at all now.

Q. What would eighteen thousand fish weigh in olden times?—A. They were about the same size then as they are now. I see very little difference.

Q. Well, then you got about half as many with the same appliance with a tug this year. You got 32 tons and divide that by half of what you got in former times?—A. Of course, I don't fish as many months now as then.

Q. Are the fish scarcer now in your opinion than formerly?—A. Well, yes, I don't think there are as many fish now as in former years.

Q. Well, now you say they are very much less off the shore than they used to be?—A. The whitefish are very scarce; very few whitefish have been caught for the last eight years.

Q. What is your idea about this great falling off?—A. I cannot hardly tell what the cause of it is; of course there is more boats fishing now than what there was then; there is almost double the amount of fishing done now to what there was then and since I first came on to the lake, and that must be the cause of the falling off.

Q. Can you give any reason for the falling off on the other shore, or is it the same reason as you gave for the scarcity on the north shore?—A. Yes, sir.

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Q. Do you suffer in your fishing from the effects of these logs, which the previous witness spoke about? What are the effects from these logs?—A. Well, they fetch them out in rough weather and the bark all comes off them and they sink into the nets on the bottom and destroy the nets. They tow logs from the French River over to the American side principally, and that spoils our fishing grounds at Squaw Island.

Q. Do they tow them past the island?—A. Yes; they cannot very well tow them across it.

Q. In doing this, the bark comes off and spoils the bottom?—A. Yes.

Q. Do you think the bark comes off there more than any other place?—A. No.

Q. What distance do these rafts have to travel from Mink Island before they come to Squaw Island?—A. They have to come 40 miles from the bank, where they are lodged before they reach Squaw Island and about 20 miles from French River.

Q. Don't you think the most of this bark is knocked off before they reach Squaw Island?—A. We don't catch our fish on the shores; the fishing is carried on from five to twenty miles from the island.

Q. Could you show us a specimen of your gill-nets?—A. We can save you a specimen of our gill-nets another season if you require them.

Q. Is the Squaw Island fishery a good place to fish for trout?—A. No; very few trout are caught on Squaw Island; about one-fourth of the catch are salmon-trout and the balance are whitefish.

Q. Is it all gill-net fishing there?—A. Yes, it is all gill-net fishing there.

Q. Well, as a rule, is the salmon-trout and whitefishing equally as good as it was in former years?—A. I think we have as many trout now as any time within the last ten years.

Q. With regard to the trout, the falling off is not as great as the whitefish?—A. I think there is more trout in the bay at the present time than there were a few years ago. I think the trout are increasing in the bay whilst the whitefish are decreasing.

Q. Then this is the only reason that you know of; its overfishing and nasty stuff from the logs that is spoiling the fishing?—A. Yes.

Q. What way does the bark effect the fishing grounds?—A. It falls off the logs and drops to the bottom and spoils the bottom, and the fish will not stay where it is.

Q. Then, the fish that used to be there are not there this season?—A. No, there is 35 miles there of ground that would be ten miles wide that you hardly dare set in once the windy weather commences. Last year we had over \$300 worth of nets lost by the bark, and the year before about \$400 worth, and we quit this year in time. It is a slimy stuff that comes off the inside part of the bark and will break all the nets you have.

Q. What shape is this bark?—A. It is the fine bark and is stringy and doubles across these nets and you can't get it off the nets and they are no more use.

Q. It is a great benefit to the fish I should say?—A. Well, you won't catch them then.

Q. You think these are the causes that are spoiling the fishing then?—A. Yes.

Q. Does that lie on the south shore?—A. No this bark does not affect the south shore, that is from Wiarton down to Collingwood they are not bothered with it.

Q. And yet the whitefish have almost disappeared along the south shore?—A. I never saw very many around here in my time anyway. Whitefish are hardly ever taken here on the south shore. There have been very few caught since I have been on the bay.

Q. Then it could not be the bark that caused the whitefish to leave the south shore?—A. Well, I don't think it ever was much of a ground for whitefishing. November was the month that they did this fishing and they don't fish in November nowadays, and I can't say whether the whitefish are gone now or not.

Q. When do the salmon-trout come near Squaw Island shore?—A. There is no spawning grounds at Squaw Island that amounts to anything.

Q. When is the spawning time of the salmon-trout?—A. I think the average spawning season in this bay as far as I know has been from the 25th October, to the 10th of November. I think either before or after that there is very little harm

to fish by catching. Some seasons there may be a little difference, but that has been the time or the average time in my experience.

Q. Have you ever had anything to do with the herring business?—A. Yes, I have had a little bit on the bay.

Q. What time do they spawn?—A. I never paid any attention to them; they don't seem to be of much value—I could not say anything about herring; I know they are getting very plentiful on the bay—I have heard they are very destructive and have spawn inside of them, but don't know whether it was on their own spawn or the spawn of whitefish.

Q. Well, what do you think now it was?—A. I thought they were whitefish spawn. I have seen as much as a cupful in one of them.

Q. Do you know whether they spawn in the fall or in the spring of the year?—A. I think they spawn in the fall, because I have caught them at all times of the year and I don't know that I ever met them yet with the spawn running out of them.

Q. What about bass?—A. I never catch any bass.

Q. Do you think it right to have some judicious laws for the protection of fish in the Georgian Bay?—A. Yes, I think it is right to protect them if there is nothing else to replace them, there is no way of doing it but by carrying the law out.

Q. What is your idea in regard to these artificial hatcheries?—A. I don't know whether they are of any value or not; they claim they are catching twice as many fish in Lake Erie as before they introduced them. I have never fished where they have been used—since I was a child they have been catching fish some years good and some years bad.

Q. The falling off of the whitefish has been much more than the salmon-trout?—A. Yes, that is my experience.

Q. Which is the most valuable fish, the whitefish, or the salmon-trout as a fishing industry?—A. The whitefish are the most valuable fishery on this bay.

Q. That is the Georgian Bay?—A. Yes.

Q. And it accordingly ought to receive more consideration to sustain it?—A. I think so because it is a whitefish bay.

Q. What is your idea about these two kind of salmon-trout they speak of?—A. I don't know.

Q. Do you think there are two or three different kinds of fish?—A. The salmon-trout may look different, but I think they are all the same fish. I never caught a small fish yet with spawn in it.

Q. Is that the reason, because you catch them in the summer?—A. Yes. I never catch them on the shoals, these different trout they speak of.

Q. Well, have you ever caught any of these big trout?—A. It is all principally big trout we get in the fall of the year, except in the spawning season.

Q. And this would be about October, you say?—A. From the 25th of October to about the 10th of November.

Q. The summer salmon-trout caught in the summer don't appear to have any spawn in them, do they?—A. I have never seen any in them.

Q. Do you think the  $4\frac{1}{2}$ -inch mesh and 5-inch mesh is about right?—A. I think the  $4\frac{1}{2}$ -inch mesh is the correct mesh for whitefish and salmon-trout.

Q. And for the summer salmon-trout, do you mean?—A. Yes, I mean summer trout. These  $5\frac{1}{2}$ -inch meshes are fitted out with buoys for shore fishing. Men use them who do not observe the law, although the regular fishermen do use them for trout fishing on the shoals, but these are not an extensive net, but fishermen sometimes use them in the fall of the year to fish on the rocks and shoals and shores.

*By Mr. Harris:*

Q. What way do you notice that it is an injury to fish, this rafting of logs on the bay?—A. Because I never yet caught fish where there was a dirty, muddy bottom. You know that stuff is washed up and fish won't stay amongst it. I don't think it is injurious to the spawning grounds, but we can't catch fish where it is.

Q. Do you notice that it in any way drives the fish away?—A. Yes, sir, it drives the fish away from these grounds.

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Q. Do you see any dead fish about it?—A. No, that rafting injures us more than it does the fish. It injures our property.

Q. Do you fish at Squaw Island during the spring and summer months?—A. Yes.

Q. Do you catch whitefish there then?—A. Yes, and the Lake Huron fishermen come across and fish in the Georgian Bay.

Q. Canadian fishermen?—A. Yes, sir.

Q. Do you think they have a right to?—A. Yes, I think so. They are Canadians; I can't see any reason why they should not.

Q. Are there too many fishermen in the Georgian Bay?—A. I think when a man cannot make a living at it he will quit.

Q. Did you ever hear of the miles of gill-nets there are in the bay?—A. No, I did not.

Q. Would you like to adopt the American plans?—A. It just depends—if I knew whether these hatcheries were a good plan or not. If hatching is a good plan I would like their fishing. If the hatcheries are satisfactory I would rather have their plans.

Q. If they would hatch out as many fish as you catch you would like the American plan?—A. I would rather have their plan, yes.

Q. Mr. Sanders, have you had any experience with regard to pound-nets on the American side?—A. Yes, sir.

Q. Do you know as a matter of fact that a great number of small fish are caught in pound-nets?—A. Yes, they catch everything.

Q. When you say small fish, what do you mean?—A. I mean whitefish and trout.

Q. What do you mean by small whitefish?—A. Well, a whitefish a pound or a pound and a half, or under, are small fish.

Q. Are these fish marketable?—A. No, they are not.

Q. What do they do with them then?—A. They are generally thrown away.

Q. Thrown out into the water?—A. No, thrown on the shore. The general run of the fishermen usually bring them in on shore and throw them away.

Q. Can you give me any idea of what you have seen at one quantity thrown away that way?—A. I have seen 400 or 500 pounds.

Q. Have you ever seen anything with regard to the kind of pound-nets the Canadians use here?—A. I don't know anything about them here—I have never fished with them here. You see the same reports of the Canadian fish here at the Manitoulin and Duck Island where Covey has his nets, yet I would like to know if there was any reason why we were stopped from fishing with trap-nets.

Q. What do you mean by trap nets?—A. I mean what is called the hoop-net or fike-net. It was the pound-net that they petitioned against and the hoop-net or fike-net would only be used for catching rough fish, such as pickerel, bass, pike, etc.

Q. Then you want no way of providing against the use of certain nets?—A. I can't answer that question. There are a certain amount of men that want to make a few dollars—September is no use, and October is very little better, and also the last twenty days of November—I don't see why the Government stops us from catching trout during that time.

6 p.m., meeting adjourned till 8 p.m.

8 p.m. Meeting opened again for business:—

WILLIAM A. CLARK, having been duly sworn, was examined:—

*By Mr. Wilmot:*

Q. Where do you live Mr. Clark?—A. At Collingwood.

Q. What is your occupation?—A. I am a fisherman.

Q. How many years have you been engaged in fishing?—A. In the neighbourhood of thirty years—all my life.



Q. What is your nationality?—A. A. Canadian.

Q. What kind of fishery do you follow? What quality of fish or kind?—A. Whitefish and salmon-trout.

Q. What kind of net do you use?—A. Gill-net and pound-net.

Q. What description of fish are you in the habit of catching most?—A. 95 per cent trout and whitefish.

Q. And the balance would be what?—A. Herring and coarse fish.

Q. Have you done anything in the way of sturgeon?—A. I have caught some sturgeon, but very few.

Q. And what in regard to bass?—A. I have never caught 500 pounds of bass in my life.

Q. What particular waters are you in the habit of fishing in? What locality?—A. Lake Huron.

Q. What particular description of net do you use there?—A. Gill-nets in Lake Huron and the Georgian Bay; and gill-nets entirely in Lake Superior.

Q. Where do you use the pound-nets?—A. In the Georgian Bay.

Q. Well, do I understand you to say that you use pound nets only. There is a difference between a trap-net and a pound-net?—A. I mean pound-nets.

Q. What is the difference between a pound-net and a trap-net?—A. Well, the pound-net is on a larger scale, but they are generally used in about the same localities. The pound-net can be set on a soft bottom with stakes, and the other you have to float. (The reason I ask you this question is because there is a diversity of opinion about these nets.)

Q. Well, is there any difference in the body of the two, or is one wholly enclosed and the other not?—A. The trap-net is enclosed at the top and bottom.

Q. They have the same kind of tunnel?—A. Either net may be enclosed altogether; in a trap-net it is just the same as a money bag, or purse.

Q. Are they otherwise the same?—A. Pretty near, only the trap is on a smaller scale.

Q. We are seeking information, Mr. Clarke?—A. Yes.

Q. Would the trap-net be as destructive as the pound-net?—A. Yes, the trap-net is very similar.

Q. Do you say you used pound-nets in the Georgian Bay before the time when the law stopped them?—A. Yes.

Q. How many years ago was that, do you recollect?—A. That was done; I think the last pound-net fishing was done about seven years ago in the north channel.

Q. Now, Mr. Clarke, you have given a very fair statement of this matter; do you recollect what the cause of the pound-net being allowed in the Georgian Bay was?—A. Yes, it was by representations made by Mr. Gothier; Mr. Gothier was a fisherman at Sandwich.

Q. Do you know how it was that he had influence to have all that done?—A. I could not say, but I know his representations were that the principal spawning grounds of the whitefish were at Killarney. He represented that his men opened this imaginary line.

Q. Where was this imaginary line?—A. It was from Cape Herd to Spanish River.

Q. Then since that time there has been no pound-net fishing east of that line?—A. Well, of course, that knocked the life out of us fellows; we sold and destroyed our nets; I did so with mine, and the others did the same thing.

Q. You say that this destroyed the pound-net fishing industry in the Georgian Bay?—A. Yes, we all turned to gill-net fishing again.

Q. Are you of the opinion that was a correct statement that all the whitefish breeding grounds were east of that line?—A. It was such from the description given to the Government. It was then represented by Mr. Gothier that the young whitefish frequented the waters east of this line.

Q. This has always been a puzzle, Mr. Clarke? I have always been of that impression myself, but I am glad to hear it endorsed by you that Mr. Gothier abolished the use of pound-nets in the east of that line on the Georgian Bay. Now,

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is it not a fact that the young whitefish largely frequent the waters west of this imaginary line?—A. Yes, they do.

Q. What is your reason for that, Mr. Clarke?—A. Because of the large quantities of young whitefish caught there, and that come from that locality; they come from the fishing stations in that locality.

Q. Would that locality include the Duck Islands?—A. Yes, the Duck Islands and the Little Missiasauge.

Q. Would that also take in the fisheries on the north shore of the Manitoulin?—A. Yes, on the north shore of the Manitoulin, at Theslon Point and Dollar Bay.

Q. Would that take in Killarney?—A. No, that is further west.

Q. May I ask you, Mr. Clarke, whether there are many fish taken from the nets in this channel?—A. There is a current there that keeps the water in a state of agitation there and that stirs up food for them.

Q. Are these waters more protected than the open waters?—A. Oh, certainly.

Q. And, therefore, the young whitefish prefer it?—A. Yes.

Q. In what quantities have you seen these young whitefish going to market; would they be in large quantities?—A. I have seen from one to four and five cars.

Q. What, at one time?—A. Yes.

Q. Well, has this been pretty continuous?—A. Well, I have taken notice to it for the last two years. I have been there near the line for the last three years and have called people's attention to it.

Q. Do you know if these young fish are taken from Mr. Gothier's nets?—A. I don't know from where they come; I know they are taken, that is all.

Q. Did you know they were passing through in transit to market?—A. I have seen them here and in Buffalo and Detroit on the market.

Q. What would be about the probable average size of the whitefish you have reference to?—A. From  $\frac{3}{4}$  to  $1\frac{1}{2}$  pounds; probably in a whole carload you would not get one bigger than that.

Q. Are you speaking of whitefish altogether?—A. Yes, sir.

Q. No more than a pound or a pound and a half in a whole carload?—A. Well, the whitefish would not exceed that.

Q. Could you give me a rough estimate as to the probable quantity of these fish that are caught during the season?—A. No, I could not.

Q. Have you seen them frequently passing in transit?—A. Yes.

Q. Did you look particularly at them?—A. Yes; I generally made it my business to look; I have seen them passing in transit and on the market.

Q. Does this same catch of small fish apply in any way to the salmon-trout?—A. There are very few salmon-trout caught.

Q. What do you call a small salmon-trout in the same line as the whitefish?—A. Well, a pound or a pound and a half; of course the gill-net men get some, and they get a cent or a cent and a half a pound, and if they catch 20 or 25 of these small trout they would consider that a good many to pull out at once; the gill-net men will not fish where they are small trout, but move to other quarters. This of course applies to the Georgian Bay.

Q. What is the reason of that?—A. Well, they go to other grounds.

Q. Is that by reason of the trout being small?—A. Yes, they won't carry on a fishery where they are small.

Q. Are they considered marketable or as eatable, or as good to sell as the larger ones?—A. No, they are neither as good for eatable purposes nor for sale.

Q. Are there many of these small whitefish disposed of in the Canadian market?—A. No; they mostly all pass through to the American market; of course there are a few of these trout packed in with cars of other fish.

Q. Do the young whitefish pass the Canadian market?—A. They pass through to the American market mostly.

Q. Is this practice carried on in the Georgian Bay?—A. No, not in the Georgian Bay; this is all done beyond and west of the line, from Cape Hurd to Spanish River.

Q. None of it done here, you say, from that established western line?—A. No; none of these young whitefish are caught or shipped from the waters east of this line.

Q. Would that be from the fact of the gill-nets being set on the Georgian Bay east, and the trap or pound-nets being set on the west side of this line?—A. Yes, certainly that is the cause, it is on account of the mesh in the pound-nets.

Q. Have you any knowledge of the size of the meshes in these pound-nets?—A. On an ordinary herring-net the meshes are very small.

Q. That is the body of the net you mean?—A. Yes, sir. The meshes are so small that they catch a small herring.

Q. What would you call an ordinary sized herring?—A. Oh; a half pound.

Q. Then do you think that accounts for all these small fish being caught in the pound-nets?—A. Yes, I think that is the cause of it.

Q. Do you use any seines of any kind?—A. No, sir, I never used a seine in my life.

Q. What about hoop-nets?—A. I never used any.

Q. What is the size of the mesh in your gill-nets?—A. Up to two or three years ago, since the legal mesh was reduced from 5 to  $4\frac{1}{2}$  inches, we use the  $4\frac{1}{2}$  mesh.

Q. What was it then? What did you use then?—A. Yes, I used  $4\frac{1}{2}$  and  $4\frac{3}{4}$ . I have fished with a mesh smaller than  $4\frac{3}{4}$ , it was reduced to  $4\frac{1}{2}$  from 5 inches.

Q. Do you think that was beneficial in the interests of the fishery?—A. No, sir, I do not.

Q. For what reason, sir?—A. Because it took the fish before they were matured.

Q. Because the smaller meshes took fish before they were matured?—A. Yes; I mean in this locality in the Georgian Bay.

Q. What is your idea with regard to the size of a salmon-trout, that would be sufficiently matured and fit to lay its eggs on a general average?—A. Well, that depends on the locality and kind of water it frequents.

Q. Have you got two kinds of trout?—A. Yes, there is a summer fish and a fall fish.

Q. What is the size of the summer fish generally?—A. In Lake Huron they will average from  $2\frac{1}{4}$  to 4 pounds dressed.

Q. What will the autumn fish average as they are caught?—A. They will average undressed from 3 to 5 pounds.

Q. What will the average of the summer trout undressed be?—A. From 3 to  $4\frac{1}{2}$  pounds.

Q. What would you consider the average fish that would be immature, that is unfit to lay its eggs?—A. I have never noticed any spawn in what we call deep water trout. The smallest would weigh probably from  $1\frac{1}{2}$  pounds to  $1\frac{3}{4}$  pounds.

Q. And with the fall fish what would be the smallest size that you would see eggs in?—A. Oh; we don't catch one black trout in a thousand in the autumn with spawn in it.

Q. They are invariably the one size according to the locality—they are larger than the summer trout?—A. We call them summer trout and fall trout. It is because they frequent the top of the water.

Q. Which kind frequent the top of the water?—A. The fall fish.

Q. The fall fish feed on what, sir?—A. On herring and flies. Out in deep water he feeds all over.

Q. What does he feed on in the autumn?—A. He goes in and feeds on crabs and snails, etc.

Q. During the spawning season does he eat very much?—A. No, I think not. I have seen spawning fish when their stomach would be full of slime, probably on outside shoals, slime of the rocks.

Q. What about the summer trout?—A. He feeds principally on small herrings; deep water herring—I don't know whether you call them herring or not; we call them bloaters and ciscoes and herring and other fish. They eat anything they can get after spawning.

Q. Do you know trout to be very voracious and eat almost anything they can get?—A. Yes, I know that the salmon-trout will eat anything they come across except during the spawning season.

Q. Do they then eat very little?—A. Yes, they eat very little in the spawning season.

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Q. And are you of the opinion that there are two distinct species of trout in the lake?—A. I think there are three, just as well as there are English, Irish and Scotchmen.

Q. What are the distinctive marks in the three different kinds of trout? Are the summer kind one distinct trout?—A. Yes, sir, known as the top water trout, and the fall trout. Then there is a run of what we call "mokers"—these are very large fish.

Q. What are they probably on an average?—A. Oh, they average some 18 pounds—a boat load will average that right through. Then there is the black—or what we call rock trout—these are fall trout. These are the ones that come in in the fall to spawn.

Q. What time do they generally come in?—A. That depends upon the locality.

Q. Give us one instance?—A. Well, in Lake Erie they come in about the 10th September.

Q. When in Lake Huron?—A. It would be later than in Lake Superior.

Q. Well what is the difference?—A. There is a month's time between Duck Island and our town here of Collingwood.

Q. In Lake Huron about what time do they come to spawn?—A. About 20th September.

Q. And in the Georgian Bay, when?—A. Well, there are very few trout south and east of Cabbage Head before—probably the 20th October.

Q. All these fish come in expressly for spawning?—A. Yes, that is when they come on the rock bottoms.

Q. How long are they in the act of spawning before they leave their beds again?—A. It don't take them long. They leave in as many more days, some 7 or 8 days.

Q. Does it take them a week?—A. I think they would get through in twenty minutes once they get ready and then they leave again immediately.

Q. Do they leave at once for deeper water?—A. Well, I think they come to the surface—these fish I don't think frequent deep water very much—they stay with the herring principally, and on reaching the surface again begin to feed.

Q. Well, what do you call the other kind of trout that you speak of?—A. There is another fish in Lake Superior what we call the red fin.

Q. Are the red fins a large or small fish?—A. They are a smaller fish than the ordinary Lake Superior fish and run nearly all one size.

Q. Do you know that other kind of trout they call the red salmon?—A. Oh, yes, there are a few places up there where they are caught.

Q. Do you know anything about the ciscoes up there?—A. Yes.

Q. What do you know about the ciscoes?—A. Well, they frequent deep water for one thing.

Q. Well, why are they called ciscoes?—A. I think it is because of their great fatness. I wish I never saw any of them.

Q. Why do you say you wish you never saw them?—A. Because they are a very unprofitable fish.

Q. Are they numerous?—A. Yes, very numerous.

Q. Are they principally taken in deep water or shallow water?—A. Deep water, from 60 to 100 fathoms.

Q. Are they much used as an eatable fish?—A. No, you cannot feed on them; if a man gets a feed on them once he has diarrhoea for three or four days.

Q. What is the cause of that?—A. I think it is from their oily nature.

Q. Do you think that prevents them from being a marketable fish?—A. Yes, I do.

Q. Is there nothing of that kind in the Georgian Bay?—A. No, I have not seen them in the Georgian Bay.

Q. Do you know of any distinct difference in whitefish?—A. Oh, yes.

Q. Is there more than one kind of them?—A. Yes, sir.

Q. How many kinds of these?—A. I think there are three kinds of whitefish.

Q. How do you distinguish them?—A. Well, there are fish we catch in from 15 to 20 fathoms; that is the fish we principally fish for.

Q. What are they?—A. Ordinary whitefish.

Q. What is the average size of them?—A. Well, we catch them with a 4-inch mesh; they will average from two pounds to two pounds five ounces.

Q. And what is the next size?—A. The larger whitefish—the “moker” whitefish—the same as the big trout.

Q. Where are they taken?—A. In the shallower waters.

Q. What will they average?—A. They will average on Lake Superior—and we get them here on the Georgian Bay—they will average eight pounds dressed.

Q. What do you take these with?—A. With large mesh gill-nets and pound-nets.

Q. Well, these large mesh gill-nets will be about what size?—A. About a 7-inch mesh, and a 6-inch mesh.

Q. Are they a marketable fish?—A. No, they are not. You can only sell a limited quantity of them.

Q. Well, now, what about the third kind?—A. They are these little bloaters, we catch in pretty deep water; they are a pretty fine fish.

Q. What will they average?—A. It takes about 40 to 60 to make a package.

Q. Could you give about the average weight at all?—A. Oh, they would not weigh more than a pound or nine ounces dressed.

Q. Are they as marketable as the others?—A. No, they don't carry well these small whitefish. I never caught many of them in the Georgian Bay; they are principally in Lake Superior.

Q. Are there none of any consequence in the Georgian Bay?—A. No.

Q. Would a 3-inch gill-net catch these small whitefish?—A. It would stop quite a few of them.

Q. Would it also catch at odd times some of the medium or summer whitefish in the Georgian Bay—a 3-inch gill-net?—A. Oh, yes.

Q. It would catch numbers of the small and immature whitefish?—A. Oh, yes, it stops hundreds of them.

Q. And a 3-inch mesh seine would catch them large and small?—A. I don't think a seine should be used in any case for catching whitefish and salmon-trout without the mesh being a great deal larger than the gill-net, a quarter larger anyway. Of course this don't apply to Lake Erie. It is Lake Huron, Lake Superior and the Georgian Bay I refer to.

Q. Have you formed any opinion as to which is the more destructive, the pound-net or the gill-net for general fishing in the Georgian Bay?—A. Well, where I have been on the beach with the two nets, the pound-net has always been the most destructive of the two.

Q. Why is that?—A. We judge on account of the mesh, and also that the pound-net is used invariably where the young whitefish frequent.

Q. One reason, I suppose, is because it is closer to the shore?—A. Yes, sir.

Q. Well, would you say it was on account of the mesh in the pot of the net?—A. Yes, I think so.

Q. What is the average size of the mesh?—A. From one inch and a half to a two-inch extension.

Q. Will this take any kind of small fish?—A. It will catch almost everything.

Q. Will it take everything almost from a minnow upwards?—A. It will take fish off all kinds that are not marketable, no matter what kind.

Q. Everything that is unmarketable?—A. Yes, sir. I put in two years on Whitefish Point, probably one of the largest and best fisheries on the chain of lakes.

Q. Where is Whitefish Point?—A. In Lake Superior, 40 miles above the Sault, in the State of Michigan. I have seen probably one hundred thousand young whitefish destroyed there in a season; they are carried to the dump and thrown away.

Q. Was it on account of their smallness?—A. Yes. When they would be put in with a boat load they would get bruised on account of their softness.

Q. Have you ever seen instances of that kind in Canadian waters at all?—A. Yes, sir, I have seen some.

Q. Do you consider this most destructive to the fisheries?—A. Yes.

Q. Where have you seen this done?—A. At Thessalon Point.

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Q. Do you think these small fish would become good marketable fish if left there longer?—A. Yes, they would get larger and become a marketable fish in a year or two, and become able to reproduce their species.

Q. Have you anything else to mention as to the two kinds of nets?—A. No, I think that covers it all.

Q. In your experience as a fisherman, Mr. Clarke, have you noticed when fish may be in their best condition—take salmon-trout, what months are they in their prime condition for market?—A. In April and May, and up to June.

Q. What time are the whitefish at their best?—A. In the corresponding months—any time from New Year out.

Q. Can you give any reason for this, is it because they are farthest from the spawning season?—A. Well, that is one cause, and the water is colder.

Q. Then is it your opinion that when the fish are spawning, or approaching to spawn, they are in poorer condition than at any other time?—A. There is no doubt about it. They are poorer because they do not feed as well in the act of spawning.

Q. Does this apply to all kinds of fish in your estimation?—A. Yes, sir.

Q. When the fish are spawning do they move around much?—A. No, they do not; you can go and pick one out for your breakfast or dinner or supper with your hands.

Q. Would you pick a mother fish or female?—A. No, a male fish.

Q. Where do you market your fish generally?—A. In Canada and the United States—about 90 per cent in the United States.

Q. I suppose if the demand were all right you would sell here?—A. Well, the Canadian price is lower and the demand limited.

Q. Canada is not large enough to carry on the work to advantage?—A. No, sir.

Q. Are there no large dealers to contract with on an extensive scale?—A. No, sir, none that would guarantee employment to the catchers.

Q. Who do you principally sell to here?—A. I have been selling to the Buffalo Fish Company, or at least they have been handling our stuff.

Q. Do they furnish the nets and tackle to carry it on, or do you furnish that yourself?—A. They advance the money to get the nets, etc., and give us a line of credit.

Q. Do they ever deduct anything from you for duty on fish going to the United States, or is that ever considered?—A. No, sir.

Q. Do they all go free into the States?—A. Yes, sir, they do.

Q. Do you know there is duty on them but they don't collect it?—A. Well, I don't wish to say too much on that point from the Canadian fishery standpoint. We have not suffered from it.

Q. What is the average price that you get for your fish?—A. Our whitefish and salmon-trout are about the same thing. They average from  $4\frac{1}{2}$  to 5 cents per pound—but they dropped this fall to  $3\frac{1}{2}$  cents.

Q. Have you any idea whether that was on account of the extra quantities?—A. Yes, we have had heavy catches all through the year, and I think that was the cause of the fall. Manitoba has to-day probably 2,500 tons of their own stock. Lake Winnipeg is windy. I had a son on one of the tugs there this summer, and it seems to me that there is something that the fish take in their stomach there, and just as soon as the fish die they become swollen and are no good, and that is the reason, I think, why the pound-net would be better to keep the fish alive longer. I think, Mr. Wilmot, it would be but fair and right to give them a chance to see if they could catch fish with a pound-net in Lake Winnipeg, because from what I can learn, there is a great deal of current in the lake and that raises a sediment in the lake which will hide it.

Q. Have you any idea as to the time when the fish are ripest to spawn?—A. That depends on the locality.

Q. In your experience, do you find any month in the season when you suffer from inclement weather more than another?—A. Oh, yes, the bad weather starts about the middle of October, and earlier on Lake Superior.

Q. This continues through, I suppose?—A. Yes, invariably.

Q. And it is during that time you lose most of the nets?—A. Yes, the currents are heavy in the lakes, then.

Q. Now, what is your idea with regard to the Sunday close time?—A. It is impracticable—it could not be done.

Q. Have you any knowledge of the Americans fishing in Canadian waters at all?—A. The two years that I fished at Whitefish Point, the half of them were Americans.

Q. Is this pretty general?—A. Where the boundaries are close together it is.

Q. Then you don't suffer from Americans fishing in the Georgian Bay?—A. No.

Q. Have you fished in Lake Huron? Have you noticed this interference at all there?—A. It is the case when they take tugs at Goderich and at Sandfield, but it is mostly on the boundary line between the two countries—one will poach as much as the other, the only difference being that the Americans fish in November and the Canadians don't.

Q. Do they fish in the close season?—A. Yes, whilst the Canadian has to observe one; of course the Government know as we draw their attention to it. The Americans have no restrictions as to the kind of nets or licenses which is an injustice to the Canadian fishermen.

Q. Why do you say that is an injustice to Canadian fishermen?—A. Because they compete in the same market and we have the transportation against us and the Americans have this to the good.

Q. Have not they got to transport to the States, too?—A. Yes, but they are closer and their transportation is easier.

Q. Are you of the opinion that it is judicious on the part of the authorities to have a proper close season for the preservation of the fish?—A. That is the material question.

Q. Do you consider that it is advisable to have properly selected close seasons to maintain the fisheries of the country?—A. Well, when I was talking to Mr. Tupper a year ago or a little better, he said our people were then trying, and had been trying for a number of years, to bring about an arrangement where both people could be suited with international arrangements, which would be an advantage to the country and to fishermen of both countries. I think it is pretty hard to tie the Canadian up in November, and let the Yankees go ahead, because it don't save the fish—they are a thing that will migrate and move from one body of water to another, that is the general opinion.

Q. Whether do you think it desirable on the part of this country to have a closed season or not?—A. Well, I have given you my view on the matter.

Q. But as a Canadian subject and a person carrying on traffic in the country, is it right if the Americans have no laws for the preservation of their fish, that we should have none either? Take for instance the Georgian Bay, there is no possibility of the fish of the Georgian Bay going over to the other side? Don't you think close seasons are beneficial in our waters and lakes that are entirely surrounded, and are wholly Canadian, such as Winnipeg, Nipigon, and Lake of the Woods?—A. Yes, but I think there should be joint action and that the Americans should have a law to observe the close season also. I may tell you that it is no use to attempt that matter, as the Federal Government has no control over the individual states. But if it could be arranged with the Americans that they should have close seasons, I would say let us have the same thing. If we were the consumers of the fish I would say close the season, but when we have to sell 95 per cent to "Uncle Sam" I say put us on equal footing—if the United States have not got close seasons, the Canadians should have the same fair play, because the Canadian fisherman's market is almost wholly in the United States, 90 per cent anyway.

Q. When are your nets generally put down first?—A. About the opening of navigation—say about the 1st May; it won't vary more than four or five days one way or another.

Q. When do you take them up?—A. They remain set then until the close of the season; 75 per cent of the catch is completed by the first September when the fishing business is over.

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Q. The close season would not affect very many then?—A. No, just a few fishermen.

Q. Does this apply to the whitefish, salmon-trout, yellow pike, sturgeon and pickerel fishery also?—A. Yes, all of them.

Q. Is the pickerel fishery of any consequence here?—A. Yes, there are very large quantities caught here, and there is a good demand.

Q. What part of the bay are they taken from?—A. From Waubashene and Thessalon Point.

Q. Well, what do you call yellow pickerel?—A. The regular wall-eyed pike, as they are called in the United States.

Q. Do they run a pretty good size?—A. Well, late in the season they would average fully four pounds.

Q. Have you ever seen any blue pickerel?—A. There is no such fish known here as blue pickerel, I have never seen any of them here.

Q. Are they spring spawners?—A. Oh, yes.

Q. When do they spawn?—A. About April and May, part of each month.

Q. Is there any winter fishing carried on here?—A. No, not in this vicinity.

Q. When you say not in this vicinity, what do you mean?—A. Well, from Christian Islands north, and right around; of course, there is some done at Waubashene, and Penetanguishene, and among the Islands on the north side of the bay, and east up to the Mink Islands, and from the Mink Islands to Waubashene.

Q. Do you know of bass fish of any consequence up there?—A. There are some bass caught on the north shore, probably 30 tons of bass come through here in a year.

Q. Are they principally taken with nets, do you suppose?—A. I think they are.

Q. What kind of nets?—A. I don't know, they are not taken with gill-nets, and pound-nets ain't allowed—some are caught with a troll, and hook and line—I can't tell you how they are caught, but they come there.

Q. Do you know when they spawn?—A. Not exactly, I think it is in October, that is the time they come in on shore.

Q. Do you know of any spearing or shooting of fish being done here?—A. The Indians do some spearing of trout, and the farmers do a little spearing, but a speared fish is not a marketable fish.

Q. What is your idea with regard to artificial production?—A. I think, by all means, that the hatcheries are a benefit to the fisheries.

Q. Now, can you give me your idea with regard to the most valuable fish that frequents this bay?—A. Well, the supply is changed, and also the kind in the last five years, now trout are becoming the most valuable fish. Yellow pike and bass bring more money, but there is not many of them caught. There is now so many summer resorts being opened up that the trout makes a better dinner.

Q. Well, how does that make him more valuable?—A. The demands are greater, take for instance the State of New York, a single hotel will order five barrels in a morning.

Q. Do you say the people prefer the trout to the whitefish as a dinner fish?—A. Yes.

Q. Which of these fish have fallen off the most, in your memory, the salmon-trout, or whitefish; can you give us any comparison now as with former years?—A. I think the trout have fallen off more than the whitefish.

Q. When you say fallen off, in what way do you mean? What would be the proportion that has fallen off in comparison with eight years ago?—A. Well, take it eight years ago and the present time, the falling off on the spring catch is fully 30 per cent. Now, on the north shore, or any place in the Georgian Bay up to the 1st June, you won't get any whitefish.

Q. What with regard to the autumn catch?—A. Well, I think this fall I never got a bigger haul of trout than I got this year.

Q. Do you think the fall trout are about the same, then?—A. Yes, about the same.

Q. How does this compare with whitefish, say now and eight years ago?—A. Oh, whitefish have dropped off more than 30 per cent. We don't know what was in the lake at all, we caught fish 15 and 20 years ago only on the shores.



Q. Did you fish up near Squaw Island?—A. Yes.

Q. Well, were the fish more plentiful years ago than they are now?—A. Of course, 20 years ago if a man was to take a gang of nets to Squaw Island, like they do now, it would take a small schooner to carry the fish away; at all times summer fish were plentiful, and the autumn fish were plentiful 20 years ago at certain seasons of the year along the coast as they were passing.

Q. What time of the year were they the most abundant as a rule?—A. Well, take it in November, the whitefish in this vicinity would be the most abundant.

Q. Salmon-trout, when?—A. In October they are just as plentiful as ever.

Q. Are whitefish taken on the same grounds, or are they of any consequence at all here?—A. There ain't any more whitefish on these grounds.

Q. Have you to go away for them?—A. We don't get them in the fall at all.

Q. Are salmon-trout here yet?—A. Yes, they seem to be about as numerous as ever.

Q. Is that in September and October?—A. Yes.

Q. Do you know anything about the Warton fishing grounds at Colpo's Bay?—A. Yes.

Q. What would you call the fish you catch there?—A. These we call black trout.

Q. Do you say then, generally speaking, the fish have declined considerably within the last 20 or 30 years?—A. I would say from 30 to 40 per cent.

Q. Have you any reasons of your own that you could give for this decrease?—A. I think the decrease has been caused by overfishing and fishing in the spawning time.

Q. Then your principal salmon-trout fisheries are in what locality of the bay?—A. Well, I think along the south shore of the Manitoulin Island and on the east shore of Lake Huron.

Q. What about the Georgian Bay here?—A. Well, we only catch them in any quantities in May here, and again in September or the fall.

Q. That means in October, does it?—A. Yes, October and November.

Q. In what localities are the whitefish principally caught?—A. Well, from the Western Islands on the Georgian Bay along the north shore and up the north passage to Thessalon Point.

Q. You say a few on the south shore?—A. No, none on the south shore.

Q. You said they were taken plentifully at one time?—A. Yes, in the fall of the year.

Q. Have you taken many?—A. Oh, from 1,700 and upwards with one gang of nets.

*By Mr. Harris:*

Q. I want you to show me on the map where these fisheries are. (Produces map and shows Lake Huron.) Where is Duck Island in the Georgian Bay?—A. Duck Island is on the south shore of the Manitoulin.

Q. Where are your fisheries where you fish with pound-nets and other nets?—A. In the north, generally about north-west of Squaw Island, in what we call Cagawanuck Bay and Campbell's Point.

Q. And where are they?—A. North from the Manitoulin Island to the main shore. It is from one to two and three miles wide and some places ten or sixteen or eighteen miles.

Q. What is the average depth of the water in that place?—A. Probably from eighteen to twenty feet on the north channel, or back of the channel it is from eighteen to thirty fathoms.

Q. How many pound-nets are there out there?—A. I had four.

Q. Had any other persons pound-nets there besides yourself?—A. Yes, the Noble Brothers.

Q. What year was that?—A. About seven or eight years ago, up to the time that this dividing line was run from Spanish River to Cape Hurd.

Q. Where is Spanish River? Show me it on the map?—A. (Shows Spanish River on the map.) All west of that line you can fish with pound-nets, or trap-nets, but east of it you could not.

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Q. Were there seven or eight more pound-nets besides yours?—A. Yes, there were quite a number.

Q. What sized meshes had the bodies in these nets?—A. I think ours was a two-inch; it would pull about two-inch extension.

Q. That I suppose was about the size as a rule?—A. Well, I brought mine from Point Abbey, Lake Erie.

Q. Were none of the other nets any larger?—A. None that I know of.

Q. What kind of fish would you catch?—A. Some sturgeon, trout, bass, pickerel, a general variety.

Q. Any sheepheads?—A. Yes.

Q. Any dogfish?—A. Yes. We call them "lawyers" here.

Q. Pretty ravenous, ain't they?—A. Yes, they are pretty good feeders.

Q. How often do you move your nets?—A. Pound-nets, every other morning.

Q. What depth of water do you put the bodies of your nets in?—A. Twenty-eight and thirty feet.

Q. What length of lead?—A. Perhaps four or five rods.

Q. How close to the shore do they run, in what depth of water?—A. About four feet.

Q. Did you fish with a steam tug?—A. No, Mr. Noble used a tug.

Q. Can pound-net fishing be carried on better with a tug than a sail boat?—A. Yes, if you have nets enough to make it pay.

Q. How many pound-nets could a steam tug use?—A. Oh, that would depend upon the distance apart.

Q. Well, say a mile apart?—A. Oh, I think, say from 10 to 15. I don't think they would be able to get over 15 nets.

Q. About what distance ought the pound-nets to be apart so as not to injure the fishery?—A. Probably, I think, about two miles, although most places I have seen them a good deal closer. They should be further apart in the channel than in the open lake. I think they should fish in the channel without them, they come on to the beach and don't move much.

Q. Have you an ice-house?—A. Yes, sir.

Q. No freezer, I suppose?—A. No, not just now.

Q. How near do the gill-net men fish to you when fishing there?—A. Oh, within two or three hundred yards around us, and in the shallow water. I have seen it when the pound-nets would get from two to five tons in a day, and I have set gill-nets clean around them, and not got 50 pounds.

Q. Have you ever seen nets with the fish dead in them?—A. No, not unless something would strike them and kill them, or sometimes in a storm.

Q. Do you think fishing, as conducted 6 or 7 years ago, was proper?—A. I think it was, if the meshes were right.

Q. By the mesh I suppose you mean the mesh in the body?—A. Yes.

Q. What size do you think that mesh should have been?—A. I think it should have been  $4\frac{1}{2}$ .

Q. It would then catch whitefish of what size?—A. From  $2\frac{1}{2}$  to 3 pounds.

Q. Trout of what size?—A. About the same, they might be a little smaller, say 2 pounds.

Q. If pound-net fishing were carried on again with that sized mesh, would you think it less destructive than any other kind of fishing?—A. I think it a nice way of fishing. A great many of the fish caught with pound-nets would not be caught with gill-nets; we never catch yellow pike and pickerel with gill-nets.

Q. Are the yellow pickerel one of the best fishes in the lake for table use?—A. It is the best fish it seems, from a dealer's standpoint. It ranks the best; it is a fish that carries well, and you sell it quick.

Q. Are they pretty plentiful up there?—A. Yes, in certain seasons of the year, from spring till about the middle of July.

Q. Do you call them yellow pike?—A. Yes, sir.

Q. Are they a ravenous fish?—A. Yes; the first thing after spawning the pickerel is looking for something to eat, and will eat anything it can swallow.

Q. Would young whitefish be a portion of that fish's food?—A. I suppose it would. The herring or the whitefish is just as ravenous as the pickerel at that season of the year, they will eat other fish as quick as the pickerel.

Q. Do herring eat young whitefish?—A. Yes, and whitefish eat young herring.

Q. What season of the year are they the most ravenous?—A. The herring, in the spring of the year early, and along about August you can go down to this dock and take down a hundred minnows and you will get a herring, or a half a dozen, for every minnow you have got, and you will catch an odd whitefish right along with the herring.

Q. Have you caught whitefish with a hook?—A. I have caught lots of them myself with a hook.

Q. Have you seen a considerable number of small immature fish shipped from this country to the States?—A. Yes, sir.

Q. Have these shipments been at various times in large quantities?—A. Yes.

Q. Where are they principally caught?—A. In the north channel above Little Current.

Q. Was that the time the pound-nets were used, or since?—A. Both at that time and now. There never was as many caught as the past season.

*By Mr. Wilmot:*

Q. Can you tell who caught those small fish, will you tell?—A. Certainly I will let you know.

Q. Who caught these fish then?—A. C. Noble, jr., & Brother and Lapointe, and I think the nets belong to Gauthier and others.

Q. Was it Noble and Gauthier then that shipped these small fish—down where?—A. Most of them come this way and to Warton. The Dollar Bay and Thesalon fish have to go through the American channel to DeTour.

Q. Are these Dollar Bay fish caught with nets the same as the other fish?—A. No; there are more or less nets in all these islands, Pike's Bay and Missisauqua Islands in the vicinity of the Manitoulin.

Q. Do you know anything about Cameron Island?—A. No, sir.

Q. Were the Gauthier nets set at the mouth of the Spanish River?—A. Yes.

Q. Do you know that numbers of small whitefish were also caught off islands at the mouth of the Spanish River?—A. The fish caught about Spanish River are principally pike, and sometimes sturgeon are caught in the clear water off the Manitoulin Islands.

Q. Are these fish caught in pound-nets?—A. Yes, sir. They have been doing some nice fishing there with one or two nets.

Q. Where does Gauthier ship his fish?—A. They go to Detroit, although nobody will ever know what Gauthier has been doing.

Q. Have you any suggestions to make as to how the catching of these small fish could be stopped?—A. Yes, sir. As I told you before, make the crib of the net not less than  $4\frac{1}{2}$ -inch mesh and in the body.

Q. If pound-nets were licensed to responsible parties to fish these waters with steam tugs, would that be a protection to the small whitefish?—A. I don't think so. I would like to give you my reasons, for whenever taking young fish out of pound-nets of a pound and less in weight, every place a whitefish touches is bruised or hurt, and in a very short time you will find them dead; and where there are lots of pound-nets you may dip out a half a dozen nets and many fish will become putrefied and rotten.

Q. Would that apply to  $4\frac{1}{2}$ -inch mesh?—A. Not much.

Q. Are you now speaking of nets with an inch body?—A. Yes.

Q. Would all the fish caught in a  $4\frac{1}{2}$ -inch mesh be marketable?—A. I would say  $4\frac{1}{2}$  mesh would be about right.

Q. Do you say that if a fish sits in this mesh it holds him?—A. Yes, a fish that touches it, stays there.

Q. Have some of these small fish been shipped through to Buffalo?—A. Yes, plenty of them.

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Q. Would there be any difficulty in making regulations to seize those fish, to confiscate them, they could be easily traced?—A. They have all been made away with now.

Q. If there was a regulation to confiscate immature whitefish, say under two pounds, and trout under two pounds, what would the result of that be?—A. That would rest with the Government. I should think there would be no trouble if a regulation of that character were established.

Q. Is this fishing done openly and surreptitiously?—A. Yes, sir, and shipped along with other fish.

Q. Do you think it would be a benefit if the Government would seize all immature fish?—A. Certainly, I do.

Q. An immature whitefish, what size would it be generally, and about what weight?—A. Generally about one and a half pounds or one and a third pounds.

Q. An immature salmon-trout would weigh about what?—A. About the same.

Q. And do you think a  $4\frac{1}{2}$ -inch mesh would prevent their destruction?—A. Yes, sir.

Q. Would a 4-inch mesh allow these small immature fish to escape?—A. No, it would not, not without hurting themselves.

Q. Do you say about 90 per cent of the catch of the fish here go to the States?—A. Yes, sir, from the Georgian Bay and Lake Huron, and I might say from Lake Superior.

Q. Then, if a hatchery is established, 90 per cent of what are hatched out will go over to the other side?—A. Well, if we can hatch fish here for ten cents a hundred and sell them for \$12.50, that is a good speculation.

Q. This hatchery, then, would be principally for the benefit of the fishermen?—A. Not any more than their American hatcheries would benefit us; of course, it would give employment to a large number of people and would bring a lot of money into our country; there are 150 men in this town that won't do anything else only follow the water.

Q. Do you think all fishermen would have a larger supply and a greater demand for their fish?—A. Yes, with a hatchery I can supply Canada with all the whitefish they want; it would be like a drop of water in a bucket; south and west of the Canadian Pacific Railway, that is brought from Sudbury down this way.

Q. Well, looking at it that way, if a hatchery is established and small fish put in the Georgian Bay, do you think it necessary that some protection should be had for these fish before they can mature?—A. The small fish ain't marketable after you catch them and you would only get an inferior price for them, and if they were put in from a hatchery they could be preserved till mature.

Q. How could this be done?—A. By the mesh of the net.

Q. And by what else?—A. I think the mesh in the net would be fully as much as the close season.

Q. What else?—A. This can be obtained by a proper sized mesh, say  $4\frac{1}{2}$  in the pound-nets and  $4\frac{1}{2}$  in the gill-nets.

Q. Is there any other means by which these little fish could be preserved to come to maturity?—A. There is only one way, having a proper close season, preventing the Americans as well as Canadians; we start at Pigeon River, away 150 miles west, and we fish down this way.

Q. Are you talking of Lake Superior, too?—A. Yes; take from the Sault down to Kingston, and you can go down as far as Saugeen Bay, it is nearly as big as the Georgian Bay.

Q. Then you think if these northern waters were stocked with fish from hatcheries, the most stringent regulations should be made to prevent their destruction in the Georgian Bay until they arrive at maturity?—A. Well, in the way I spoke of formerly, I believe so.

Q. Do you say, Mr. Clarke, they should be taken care of until mature; they are not a good fish to catch at a pound or a pound and a half?—A. I might just as well say that I am in favour of the close season and be done with it.

Q. If the Georgian Bay waters were stocked with young fry from hatcheries, should they be taken care of until matured?—A. Yes, sir, that is my opinion.

Q. Well, what parts of the year are trout caught on the islands in the north channel?—A. In the spring and fall.

Q. Are they not there in the summer?—A. They are there, but they are on the surface; that is what we call "potguts"; the black trout I don't know where they go. I have seen these nets get a ton of black trout in a morning and then they would leave.

Q. Now, when do whitefish appear about the north channels?—A. They move with the moons up and down. They are there sometimes in one locality and sometimes in another.

Q. Where are the whitefish spawning grounds principally?—A. From the Mink Islands to Thessalon on the north shore principally.

Q. Where principally would be the spawning grounds of the trout?—A. From Mississauga to down about the Scotch Bonnets on the east shore of Lake Huron, and the west shore of the Georgian Bay, and from Tobermory to Collingwood.

Q. Now in the event of a hatchery being established here could you get a plentiful supply of eggs?—A. Yes, we could have a plentiful supply of trout and whitefish, we have a steamer for it from both the north and south shore, there is Killarney, Bustard Islands, Byng Inlet, Point Barry, Mink Island and above that also.

Q. Are these all spawning grounds in the months of October and November?—A. Well, it is according to how the moon is.

Q. Are you speaking of whitefish or salmon-trout?—A. At these points whitefish spawn principally in the fall.

Q. At what distance from the shore?—A. From one to three hundred yards.

Q. Could they be easily netted there?—A. Yes.

Q. What kind of nets?—A. Gill-nets.

Q. Are they the only kind of nets—the reason why I ask you is because fish caught in a gill-net would be useless for a hatchery?—A. You could not use pound-nets for a hatchery—they would have to be caught with a gill-net.

Q. Would the difficulty with pound-nets be on account of the rocky bottom?—A. Yes.

Q. Do you know anything about Colpoy's Bay?—A. Yes, the one is a formation of clay and limestone and the other is clear granite, without you get between the rocks and the islands. You will readily understand that in catching fish in a gill-net you have to haul up the nets at once, before they die; but if caught in a pound-net they can remain for a week or a fortnight if necessary—before taking the eggs from them.

Q. Is there a sandy bottom there?—A. No, it is a curious thing, fish spawning; the coarser the fish the rougher is their spawning ground, they drop down into the rocks.

Q. Is there a current there?—A. Up where these whitefish spawn there is no current.

Q. What depth is the water?—A. From one to four feet, and the shallower the water, the thicker the whitefish,—they spawn on the flat rocks up to twelve inches in depth.

Q. Are there any bays or little capes that could be fenced in as a reservoir to keep fish in when caught?—A. Yes, there is a belt of land there, six or eight miles wide, where fish could be kept in abundance; this, of course, would be of no use unless caught alive to be put into it.

Q. In the event of a place being found there for that purpose what length of a trip would it be from there to Collingwood?—A. About one hundred miles.

Q. The time coming in ordinary weather would be about what?—A. About ten hours.

Q. By steamer or by tug?—A. By our boat, it is a tug.

Q. Where would salmon-trout eggs be got readily?—A. I think if I was going to set a pound-net for eggs, I would go to Cape Reach.

Q. What about Vale's Point?—A. It is pretty hard to do much there.

Q. Where is Cape Reach?—A. It is about 25 miles away. I have been fishing on grounds, whitefish grounds, when the fish would come in in a body and lay their eggs and disappear just as mysteriously—this year the fish were 15 days late. I

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believe there is more than a month between Manitoba and Ontario. Our bottom is bad, take it where we had our whitefishing grounds, the bottom of the Georgian Bay is becoming literally rotten with the bark of these large rafts of timber coming out of the French River—for instance they start for Lake Huron, the prevailing wind in this country is from the west and coming from different streams of the pineries on the shores of the bay, I have known a raft to lie for three or four days in sight right over the principal feeding grounds of the whitefish, and it is both destructive to the fish and also to the nets, because when a gang of nets get amongst them they have to throw them away or take two or three weeks to clean them.

Q. Do you think the natural food of the whitefish is destroyed by these deposits?

—A. Yes, the fishing grounds are destroyed, besides the destruction of the nets.

Q. You say the natural food of the whitefish at this season is small insects, and it is destroyed by this broken bark and its effects?—A. Yes, sir.

Q. Hence the whitefish leave these grounds?—A. Yes, sir.

Q. Do you refer to rafts that have been towed to Michigan?—A. Yes, sir.

Q. And you say this bark and these rafts are injurious to fish?—A. Yes, and a worse injury to the nets, because you might just as well throw away your net.

Q. How does this bark effect the net?—A. It gets into it and sticks to the meshes of the nets and rots the twine.

Q. What may be the size of some of these rafts?—A. Some of them cover from fifty to seventy acres.

Q. That is a pretty large raft, is it not?—A. Yes, sir, one raft will cover an area of from fifty to seventy acres.

Q. Are these rafts very numerous?—A. You can nearly always see one crossing the bay.

Q. To what point do they generally go?—A. Principally to Saginaw, and different points in Michigan, and some to Tonawanda in New York State.

Q. Is this traffic increasing in quantity yearly?—A. Yes, very rapidly; the last two years there have been immense quantities since the duty was taken off the logs.

Q. Are you speaking in this case of the feeding grounds?—A. Of course; these rafts keep away from the shore and do not affect the breeding grounds, as the latter are near the shore, whilst the other are out in the deep water.

Q. If it has only the effect of driving fish from their feeding grounds, it does not kill the fish at all?—A. No.

Q. It merely makes them leave their feeding grounds?—A. May this be the reason so many are caught in the north passage.

Q. Well, how would a hatchery remedy this fault?—A. Which fault?

Q. These logs and debris?—A. It would not remedy them at all. If the Government allows them to go on the same as they have been there will soon be none to fish.

Q. A hatchery would benefit some parts of the bay which now seem depleted, you think?—A. Oh, certainly, this would be a splendid place for whitefish.

Q. Would it have a tendency to resuscitate the whitefish where they were almost gone?—A. Yes, it would help.

Q. Would this be on the south shore?—A. I have seen it on the south shore after a heavy south-wester, the spawn washed up into a lather in spawning season, especially with a south-west or south-east gale.

Q. What kind of spawn was it?—A. It was whitefish spawn, I am sure.

Q. What time of the year would this be, Mr. Clarke?—A. Along about the first of November.

Q. What about the herring spawn?—A. The herrings are very thick in this bay.

Q. Are they also on the north shore?—A. Yes, you can take an ordinary market basket and dip them out faster than ten men would salt them.

Q. How could you discern the difference between whitefish and herring spawn?—A. All the difference in the world. The eggs of the whitefish spawn are as large as three herring eggs. These whitefish are nearly like the Manitoba fish.

Q. What becomes of the herring eggs?—A. They go into the rivers to spawn, and in this end of the bay they spawn on the sand beach.

Q. With this destruction of spawn all these arguments are put to show the necessity of having a hatchery?—A. Yes, sir.

Q. Do you suppose all fish eat one another?—A. Yes, fish eat fish all the way through.

Q. Do you say herrings are very destructive to small whitefish?—A. Yes. You made an illustration a few moments ago about fish, that before the lakes were fished out, about there being a better quality, well, I don't quite agree with you, Mr. Wilmot. I do to quantity, but not to quality; a few years ago I didn't feel very well, and I thought I would take a little tour in the way of discovery, and I went to Lake Superior and went to Bear River and took the Canadian Pacific Railway down to Nipigon, and went up the bay to the river and made a thorough test and survey and sounding—this lake is literally alive with fish of an inferior quality.

Q. What kind of fish?—A. Trout, whitefish and sturgeon, and yellow pike and pickerel; the pickerel are a good class, but the trout, in 200 of them you would not get two alike, big heads, humps, small tails, and the whitefish would not weigh more than  $1\frac{1}{2}$  lbs. a piece.

Q. What size are the trout?—A. The trout run from all sizes—from 1 to 25 lbs.

Q. What condition are they in?—A. They are a poor fish and eat poor. Near that is a lake, if there was some fish taken out of it and restocked and crossed by the breed, it would be better.

Q. What is the size of Lake Nipigon?—A. Lake Nipigon, as near as I could guess at it, is about 600 miles around, that is the coast line.

Q. Do you bring this up as an off-set, and say this case is one in which the fish in their normal state were poor and plentiful?—A. Yes.

Q. Hence you believe that if a number were caught out that the rest would be better?—A. There is no doubt about it. I believe that is on the principle of former years, the smaller the quantity, the better the quality.

Q. Did you say pike, pickerel, &c., were not a saleable fish at one time here?—A. Oh, yes, they were saleable, but the Americans had enough to supply the demand at one time, but are obliged to come to Canada now.

Q. What is the average weight of whitefish now?—A. The average weight of whitefish now is down pretty small, they will average about 2 lbs. 5 oz., and they were formerly  $2\frac{3}{4}$  lbs.

Q. We are informed that there are about 4,000 tons of fish sold here annually, that is from the north shore of the Georgian Bay, north of the Manitoulin Island, that number at 2 lbs. to the fish, would be between 3,000,000 and 4,000,000 fish, admitting the addition to be right, now if a fair proportion of these fish were taken when not spawning, all right, but if those that escape the nets in the open season are killed at the spawning time in close season also, you not only destroy these 3,000,000 or 4,000,000 fish, but you destroy the reproduction of those which would have been saved if fish had not been caught by the fishermen in November when ripe to spawn.

Meeting adjourned *sine die*.

Capt. McGREGOR'S statements as elicited by interrogations of Mr. Samuel Wilmot, at Ottawa:

Q. Your name, Capt. McGregor?—A. Alexander Murray McGregor.

Q. What is your occupation?—A. Master mariner.

Q. Are you acquainted with the fisheries and fishing generally?—A. Yes.

Q. How long have you been conversant with the fisheries, etc.?—A. Since 1840.

Q. What countryman are you?—A. Canadian.

Q. Are you acquainted with the various modes of fishing, pound-net fishing, gill-net fishing, &c.?—A. Yes.

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Q. What descriptions of fish are you more intimately acquainted with?—A. Salmon-trout, whitefish, herring and pickerel.

Q. In what waters?—A. Georgian Bay and Lake Huron.

Q. Could you give a description of the kind of net that you see used principally in Georgian Bay?—A. The nets that are used vary in size; the twine is imported from the old country. The mesh used for salmon-trout and whitefish is generally  $4\frac{1}{2}$  inches, but after being in the water for some time it shrinks, so that it becomes less than  $4\frac{1}{2}$  inches.

Q. Then the mesh of  $4\frac{1}{2}$  inches after being used becomes actually less than the legal size?—A. Yes.

Q. To sustain the legal size the nets should be of what size?—A. About  $4\frac{5}{8}$  inches.

Q. Do you think they shrink from  $\frac{1}{4}$  to  $\frac{3}{8}$  of an inch?—A. Yes.

Q. Do you know anything about seine-fishing?—A. I used to fish with seines myself, catching herring.

Q. Do you know the size of mesh of pound-nets used in Georgian Bay?—A. I do not know; I never fished with one of these; but they are of different sizes.

Q. With regard to gill-nets, what is the size of mesh used?—A. From  $4\frac{1}{2}$  to 5 inches. I saw some as large as  $5\frac{1}{2}$  inches, but they were the exception.

Q. Is there a difference in the size of the mesh used for summer and winter fishing?—A. I do not think so. I think they use the same sized meshes in winter as in summer.

Q. In your knowledge of the fisheries, are salmon-trout of larger size in the winter than in the summer?—A. They were not so formerly when I was first fishing, but they are smaller now as a rule than formerly.

Q. Are fish scarcer now than formerly?—A. I think so; certainly the herring are scarcer. The salmon-trout and whitefish have also fallen off considerably.

Q. To what cause do you attribute this falling off?—A. I attribute it to people using a greater number of nets than they can attend to. The nets are left in the water until the fish decay and have to be thrown away. This last fall I lifted some nets and I think at least a ton of rotten fish had to be thrown out of them.

Q. You know that fact of your own knowledge?—A. Yes.

Q. What season was that?—A. In November.

Q. Would that apply pretty generally to the fishing that was carried on through November?—A. Yes.

Q. What was the cause of the nets being left out until the fish became rotten; was it on account of stormy weather?—A. That had something to do with it, but the principal cause was the excessive quantities of nets used.

Q. Do you think this a serious matter, and that it will damage the fisheries?—A. I think it will deplete the fisheries altogether if allowed to continue.

Q. In what portions of the bay did you find this destructive work going on in November?—A. I have observed it in places three miles off shore; three to four miles; on the honey-combed bottom rocks which are the real spawning grounds of the fish. This destruction was going on among the parent fish; there was any quantity of spawn in the fish, and also in the boats.

Q. Do you think this is a most serious injury to the fisheries of the bay?—A. I certainly do.

Q. Would this destruction be caused by the excessive number of nets apply to the whitefish as well as to salmon-trout?—A. Yes.

Q. What is your idea, Captain, as to the time when salmon-trout and whitefish are in prime condition?—A. In the spring of the year. In the months of May and June. They become a little impaired in July.

Q. What condition are they in at their spawning time?—A. They are not fit for food. They are quite a different article to what they are when in good condition.

Q. Yet there is a market demand for them, and they are caught and sold as food?—A. Yes, they are caught and placed in freezers, and sold along with other fish.

Q. Can you tell me what is the size of an immature fish, a fish incapable of reproducing its species?—A. Anything in the shape of a trout under 2 pounds would be an



immature fish. In fact, they are very seldom sent to market under that size. As a rule the small fish when caught are thrown away with the offal, and become a total loss. They do not keep as long in nets as the larger fish, but often get injured and become bad much more quickly than the immature fish.

Q. What would you call an unsaleable or undersized whitefish?—A. The whitefish vary in size in different places; the average weight is from 4 to 5 pounds. Many of them weigh as high as 15 and 16 pounds. A whitefish of 2 pounds would be an immature fish.

Q. Do you think that if a regulation were established prescribing a mesh that would allow salmon-trout and whitefish of 2 pounds and under to escape, it would be beneficial to the fisheries?—A. Yes, unquestionably, and then there would be more fish in the lakes and of better quality. A 5-inch mesh should be the lowest size licensed for whitefish and salmon-trout. By that means the small and immature fish would escape. I saw pound-nets with small meshes in the neighbourhood of Cornell and Thessalon, from which large quantities of small fish were thrown away.

Q. Is that carried on pretty extensively?—A. Yes.

Q. Do you know about the Duck Island fisheries?—A. I know the island, but do not know much about the fisheries.

Q. Have you any knowledge as to the time salmon-trout are ripest for laying eggs?—A. From the 5th October to the end of November.

Q. With regard to whitefish, what is the ripest time?—A. In November; all the month of November.

Q. Do they approach the shore to lay their eggs?—A. They come in from deep to shallow water to lay their eggs.

Q. Do you think it wise and judicious that they should be properly protected at such times?—A. Yes, they should be properly protected.

Q. Have you any knowledge of the spawning time for herring?—A. In September, continuing more or less to the latter part of November.

Q. Are you acquainted with the fish called "ciscoes"?—A. I know the fish, but have never seen them caught. They are not numerous in Georgian Bay. They are generally mixed with whitefish. In size they run between herring and whitefish, but are little larger than whitefish.

Q. Do they spawn about the same time as herring?—A. Yes.

Q. Are pickerel caught to any extent in Georgian Bay?—A. In the spring of the year, when they are spawning, they are frequently caught.

Q. In what month?—A. Just as soon as the ice leaves.

Q. Do they spawn in the rivers?—A. Principally at the mouths of rivers. The largest quantity I ever saw was on the Whitefish River.

Q. Do you know anything about black bass?—A. They spawn in the spring.

Q. When you say spring, do you mean May and June?—A. May is the only time I have seen them.

Q. Do you know anything of the habit of the bass as to taking care of its young?—A. I know that they cover up their eggs.

Q. Do they come in near shore?—A. They come right into all the little bays, and every crevice where it is possible for a fish to get into.

Q. What is the value of salmon-trout per pound?—A. 3 to 3½ and 4 cents per pound.

Q. Will that apply to whitefish?—A. To either salmon-trout or whitefish.

Q. Do you mean dressed or undressed?—A. Just as they are taken out of the water.

Q. Where are the fish caught in Georgian Bay principally sold?—A. They go into the hands of fish companies, principally American companies; some carried on by Canadians with American capital. The Buffalo Fish Company is the principal one. Most of the fish caught about Duck Island go to Detroit.

Q. Is not one Gauthier principally interested in the fishing going on at Duck Island?—A. It is not under his name.

Q. Do you know whether he has a license from this department?—A. I could not say; I was never furnished with a copy of the license.

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Q. Is there any winter fishing going on in Georgian Bay to any extent?—A. I really could not tell you. I know there are parties who have been speaking about getting licenses to fish through the ice. Some fishing had been done in Lake Huron.

Q. Do you know whether any quantity of bull heads or catfish are caught in Georgian Bay?—A. I am aware there are a great number caught, but do not know much about them. They are caught with bull heads and fike-nets.

Q. Where are these nets principally used?—A. I have seen most of them on the other side of Parry Sound, near Cornell; right in among the islands.

Q. In your experience, which is the most dangerous month for the fishermen to continue fishing; when do they lose most nets?—A. In October and November; rather more in November than in October.

Q. If they were prevented fishing in November, would it be a serious injury to the fishermen?—A. I do not think so; in that season, however, most of them use old nets and take their chances of having them destroyed.

Q. If they were prevented from fishing in November, no great harm would result to fisheries or fishermen?—A. I think not.

Q. At present, Capt. McGregor, the law says that all nets shall be taken up on Saturday night and kept up till Monday morning?—A. There may be contrary winds on Saturday and it could not be done.

Q. Do you think it would be pretty difficult for the fishermen to carry that out?—A. I think so.

Q. Would it be easier to carry out with gill-nets than with pound-nets?—A. It would be very expensive to lift the pound-nets without leaving the bag and lifting the pot out altogether.

Q. Could it not be so arranged that the mouth of the pound-net might be closed so as to prevent the fish from going in until Monday?—A. I do not think they could do it with gill-nets.

Q. Then, upon the whole, do you think that such a close time would be impracticable to carry out?—A. Yes; it might be along the shore in fair weather; most of the fishermen fish with so many nets; they leave them in the water two or three days.

Q. Do you think that a close season to protect the fish at the spawning time would be beneficial to the fisheries?—A. Yes; catching fish at the spawning time must result in serious injury to the fisheries.

Q. How early do fishermen generally set out their nets in the spring of the year?—A. Just as soon as the ice and weather will permit.

Q. In the summer months in what depth of water is fishing carried on?—A. From 50 to 60 and 70 fathoms.

Q. Would that be some distance out in the bay?—A. In some portions of the bay it is very deep close to the shore.

Q. Is fishing carried on out in the middle of the bay?—A. All over the bay in every direction, 10, 15 and 20 miles out.

Q. What is your idea with regard to the practice of spearing?—A. It is most barbarous, as many fish get hurt and escape in a wounded state as are taken. The fish caught are more or less mangled and torn. The part in which the spear enters is always torn.

Q. Do you know anything of the habit of shooting fish in the spring on the spawning grounds?—A. I never saw it done.

Q. What is your view with regard to the industry of artificial fish culture?—A. I think it is beneficial to the interests of the fisheries. I also think that if certain portions of the inshore places along the rocks were reserved, it would be beneficial also.

Q. What in your opinion has brought about the falling of the fisheries in a general way?—A. Overfishing and improper fishing. As an instance, a few years ago some nets were set at the commencement of the close season in the neighbourhood of Club Island and Lonely Island. Bad weather prevented their being lifted, and the fish in them decomposed. The result was that the fisheries in that section were injured for 2 or 3 years. Another cause of injury is allowing men to use more

nets than they are capable of taking care of and handling properly. I cannot tell in what proportion the fish have fallen off, but I am quite satisfied they have done so. In my young days we used to think nothing of getting up into a tree near the shore and watching the men catch fish and load boats in from 10 to 15 minutes, and haul them on shore. Very frequently they could not get in to shore at all on account of the number of fish.

Q. What is your opinion with regard to the comparative destructive qualities of the seine, the pound-net, and the gill-net; which, if used, would bring about the greatest amount of destruction?—A. I rather think the pound-nets would.

Q. Do you think that the seine would be a very destructive engine if hauled over the spawning grounds?—A. Of course, it takes everything with it.

Q. In taking the grade of fish as to quality, how do they stand?—A. Whitefish first, then trout, pickerel and bass, sturgeon and catfish.

Q. What is the size of the sturgeon caught in Georgian Bay?—A. I do not know the average size.

Q. Do you know whether they are sold whole, or do they cure them and take the eggs to make caviare?—A. They use the eggs principally; also that portion of the fish from which isinglass is made.

Q. Do the fishermen cure the eggs themselves to make caviare?—A. Yes.

Q. Are the eggs the most valuable part of the fish?—A. I think so.

Q! What are the principal kinds of boats used by fishermen in Georgian Bay?—A. Large fishing schooners, about 28 or 30 feet long, and manned by two or three men. I think the boats should all be numbered and licensed, so that it would be known to whom they belonged.

Q. Do you think the boats should be regulated as to the quantity of fish they should carry?—A. I should think so. Some regulation should be established which would prevent excessive fishing.

Q. Are there any tugs used?—A. Quite a number; 16 or 17 hail from Goderich.

Q. Are they not principally under the control of the Buffalo Fish Company?—A. Yes. They hire them out to the fishermen, most of whom they pay by the month. The Detroit Fish Company also hire a great many. A very close supervision will have to be kept over the freezing establishments. The fish are caught in close season and after they are in the freezers a few hours, you could not tell them. There is an establishment at Collingwood, and one at Warton; one at Meaford and one at Duck's Island. Last November there were from five to six hundred tons of fish at the Warton establishment, which is the principal one; 80 or 90 tons were shipped out in November.

Q. You think these freezing establishments are a means of advancing the desire of the poacher to catch fish out of season?—A. Yes, that is my experience. A good, close supervision should be kept over them, and especially during the close season.

Q. Do you think it advisable that the freezing establishments should be closed up to all intents and purposes during the close season? Would that prevent the catch of the fish?—A. Yes, it would.

Q. Have you any suggestion you would like to make yourself as to the protection of the fish?—A. The principal thing would be to reserve certain portions along the shore at all seasons of the year. I am strongly of opinion that the fishermen ought to have their licenses taken out in advance of their fishing. Their boats should have corresponding numbers with the licenses. Then you could always reach the parties who violate the law.

Q. Have you any knowledge of Americans fishing in Canadian waters?—A. They certainly do fish. They send their boats and fishermen over to fish in our waters.

Q. Do you know of this being practised anywhere in Georgian Bay?—A. Near the lower end of St. Joseph's Island; they run the fish into Detour with their tugs.

Q. Do you know of its being practised in Lake Huron, at Candle Island?—A. I believe it is, but do not know of my own knowledge.

Q. This fishing that you speak of is wholly in Canadian waters?—A. Yes. There is no close time on the American side; they carry on fishing at all times. If

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the present close season were properly kept it would be very beneficial to the fisheries; but if it were extended for a longer time it would be of greater service in certain places.

Q. Do you think that because the Americans have no close seasons or regulations on their side, it affects our fisheries at all?—A. I cannot say that it does; the only thing is that they come over here and fish.

Q. Is it not reasonable to conclude that if we protect our fish we will have them longer on our shores than the Americans will on theirs without protection?—A. Unquestionably.

Q. Do you think that the fish bred on one side of Georgian Bay ever go across to the American side?—A. No, only when they are taken over in boats.

Q. In order to prevent the destructive work of catching small and immature fish, do you not think there should be some sort of inspection at the ports to which they are brought for shipment and sale?—A. Yes, that would be a check.

Q. Do you not think a penalty should attach to the buyer as well as to the seller for handling illegal fish?—A. Yes, the fishermen would not catch what they could not sell. A severe penalty should be attached to catching fish and then throwing them away. I have seen some magnificent pike thrown out on the rocks.

Q. Upon the whole, do you think there could be any valid excuse for the fishermen on the Canadian side finding fault with our having a close season, because the Americans have none?—A. I do not think so.

Q. Do you think it is in the interests of our fishermen that we should have close seasons though the Americans have none?—A. I think so.

Q. Do you know anything of the practice of killing fish with dynamite?—A. I do not.

Q. Do you think the depositing of saw-dust from mills in the rivers is injurious to fish life?—A. I think so. There is no question about it. The fish will not breed in such water. It becomes filled with foul gases. To preserve the fish the water should be kept as free from impurities as possible.

Q. Are you aware that large quantities of saw-logs are floated across the bay to the American side?—A. Yes, large quantities of them. A good many nets are destroyed by them.

Q. What extent of water do these large floating bodies of saw-logs cover at a time?—A. Some of them I think are about half a mile, to three-quarters of a mile long. They are kept in sack booms, about a quarter of a mile wide. They are loose in the boom, and the action of the waves keeps constantly working them about and the bark gets rubbed off, and sinks. A great many of these logs come over from French River to Midland, then get into Lake Huron and go by Cape Hurd to Saginaw.

Q. Do you say that the working motion of these logs causes the bark to come off, what effect has that upon the fisheries?—A. I think it has more effect on the nets than on the fisheries.

Q. Do you think it possible these particles get into the nets?—A. It cannot affect the fish.

Q. Fishermen say that this is one of the causes of the fish becoming scarce? On account of this stuff falling off the logs?—A. I do not think that is the cause at all.

Q. Many of the fishermen in Georgian Bay say that there are four or five different kinds of salmon-trout there. Is there any difference except as to size in your opinion?—A. They are all one and the same kind.

Q. Are their habits the same?—A. Yes.

Q. Do you think that all these fish come in from the deep waters to spawn?—A. Yes, I think they all come in from the deep water at certain times of the year to spawn.

## No. 11.—MIDLAND.

MIDLAND, ONT., 8th December, 1892.

The Commission met at the Public School Hall, at 10 a.m., pursuant to notice.

*Present :*

Mr. Commissioner Wilmot and Mr. Commissioner Harris.

Mr. ALBERT HUTCHINS was duly sworn,—lives in Midland—has been a fisherman since 1850—is a British subject since then, though born in the United States. Has fished here and in the Georgian Bay for fourteen years—balance of the time in Lake Ontario.

Witness examined by Mr. Wilmot.

I have carried on a fishery for whitefish and trout in the Georgian Bay, but formerly carried on whitefish fishing in Lake Ontario. The locality in which I fish is out in the bay in deep water here, and it was the same also in Lake Ontario. I fish here with gill-nets, but it was with seines in Lake Ontario, at the Wellington Beach. I do not fish with pound-nets but with gill-nets wholly, except the last two seasons. The size of the mesh I use is  $4\frac{3}{4}$  to  $4\frac{5}{8}$  inches for gill-nets; I do not like the small mesh for summer fishing; fall fishing and winter fishing I use a 6-inch mesh. A  $4\frac{3}{4}$  and  $4\frac{5}{8}$ -inch mesh will let two-pound fish pass through, a 6-inch mesh will let four-pound fish pass through. A 3-inch mesh will take whitefish of one pound weight. The above sizes of mesh are the correct ones and the best for the fishermen. I would prefer a  $4\frac{3}{4}$ -inch mesh—some fishermen fish with mesh of all sizes, as small as 4 and  $4\frac{1}{2}$ -inches; these meshed nets are injurious to fishermen and fish dealers—they destroy too many small fish, before they are useful, and before they are able to reproduce their species. Salmon-trout and whitefish are best during May, and up to September, after that they are preparing for spawning and they are not in as good condition. All fish are not as good in spawning time as before and after. I sell my fish on the ground when I catch them to the dealers—they are taken from the pound, and delivered at the fish stations on the islands and the mainland. I get about four cents for whitefish and trout dressed, pickerel the same undressed. The salmon-trout will average about six pounds as caught—whitefish will average about  $4\frac{3}{4}$  pounds, and will average about 4 pounds dressed. Fall salmon-trout average from about 12 to  $12\frac{1}{2}$  pounds when caught, the fall trout are taken around the islands and shoals and rocky bottoms, depth of water about six feet; they go there to spawn about the end of October and during November. They used to go earlier, about the 20th of October, but I cannot say this is so now—all trout go to spawn about the same time, and all are one and the same fish, appearing differently at different times—as a rule they spawn all about the one time. The heat of spawning is about from the 15th to 20th of this month (November) for whitefish. They come on the shoal waters generally to breed—they come there very thick, and close together, and if caught when spawning, it is very injurious to the fishery. Pickerel spawn in the spring, but I do not know exactly at what time. The boats and nets receive the greatest injury in the fall, in October and November and December—more nets are lost in these months than the profit made from the fish—a greater loss is sustained in these last months than the profits from the quantity of fish we catch—fishing in the fall months is not profitable to me or any other fisherman. With regard to the small and immature fish, they are caught in pound-nets and seines and hoop-nets—all these nets are very injurious to the fisheries as they catch all—large and small. These nets, under proper regulations, would not be more injurious than gill-nets, if

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the mesh were made large enough—then these nets might do, and the mesh should be the same as the gill-nets. With regard to keeping the Sunday close season from Saturday night till Monday morning, it would be impracticable for me or any fisherman to carry out, especially in the outside fishing in the deep water.

Q. What about the propriety of having close seasons?—A. Close seasons are most beneficial, if made at the right time. For whitefish, 10 days would be enough; the same for salmon-trout. I do not think the close season should be given to salmon-trout, as they destroy so many other fish. Winter fishing is done under the ice for pickerel; they are not very numerous now, as they are played out by over-fishing.

Q. Is there any spearing or shooting of fish done here?—A. Spearing and shooting is carried on by Indians up along the north shore; the Indians spear fish at all times.

Q. What are your views regarding artificial culture of fish?—A. I believe artificial fish culture is good and should be carried on in the interests of both the fishermen and the fisheries. Whitefish are the most valuable fish in the Georgian Bay—that is for the fishermen—and should be husbanded more than any other, for they can be destroyed more quickly than any of the other kinds of fish by reason of their innocent nature; they are not greedy or voracious, while salmon-trout feed largely upon them. Whitefish are not half so plenty now as they were fourteen years ago, because by overfishing with small mesh in nets, catching small fish in nets and seines, and killing them in spawning time, they have become very much cleaned out. Salmon-trout have also been very much reduced to what they were, but not so much as whitefish.

Q. What description of boat do you fish with?—A. I use a boat of 18 feet keel, and employ two men to work it. I fish with 90 feet of web as it is brought from the factories. Nine pounds of this web will make one net of about 100 rods of about 6 feet deep. A big rig would run about 18 to 22 of these hundred rod nets. The big rig boat would be of about 30 feet keel; this would take three men to work. They license for big rigs and little rigs. The license for big and little rigs is the same, that is \$5 each. I find it more profitable to fish the small rig than the big one, for when a big rig is used you cannot attend to it properly; a very great many fish are lost by the nets being out too long and the fish get spoiled—a great many of these are useless—some are salted. These big rigs will have four gangs of nets, that is four strings, but they can only as a rule handle one gang of nets a day, the others are left over, and if it is stormy for several days at a time they are obliged to be left out until the weather moderates. The longer they are left out the more they fish, and consequently the more dead fish in them. Fish dealers from the United States will only take the live fish; local men will take the dead fish if they are not too bad. Dead fish are salted, some are thrown away; these will run up to considerable quantities in the season with the big rigs. I have fished in Lake Ontario about thirty years for whitefish and trout, the great majority was whitefish, and were caught at Wellington Beach. They were caught very numerously with seines; as many as from 5,000 to 10,000 in one haul during a night; this was in the summer time, in June and July. These were salted or sold on the ground to dealers. I have caught as many in a season as would allow the owners of the seine for their share about \$2,000, the other \$2,000 would go to the fishermen. Even more than this number were caught sometimes. Fishing was carried on in the fall of the year also. Whitefish were thick also everywhere in Lake Ontario at that time, I have known as many as 90,000 to be taken in one haul in one night; I was present and saw them counted. I have often known of from 5,000 to 10,000 being taken, and have taken 40,000 myself in a seine several times; this was in July, at Wellington Beach. Those that were saved of the 90,000 hauled were salted, many of these were lost because they could not be taken care of. There was another haul as large as this taken at West Lake Beach; the net was a 175 rod seine, it was then called "the sou'-wester." When I left Lake Ontario, some fourteen years ago, there were no whitefish to be had by the fishermen where these great hauls had been made before, in fact the whitefish fishery had ceased to exist, there was no more of it. I left Lake Ontario to fish here, and a number of other fishermen also left there for the same cause.

The witness then made the following suggestions:—

The proper way to carry on fishing here is to have a short close season to protect the whitefish. If money is to be expended, put it in hatcheries. Trap-nets, pound-nets, and seines are destructive, because they catch too small a fish; licenses for fishing should be taken out by every one alike, but a great many do fish here without licenses; these men fish only in the plentiful season; a great many fish without licenses; Indians and half-breeds do this, and other parties also. A close season for herring is useless, as these fish destroy all the whitefish fry they can get; they eat their own fry also as well as other small fry.

Witness in answer to a question by Mr. Commissioner Harris:

I would not catch many trout from the 15th of October to the 1st of November, when fishing for whitefish. Fishing for whitefish would not interfere with trout fishing; they do not mix together when spawning; they are not generally on the same grounds; salmon-trout feed on other fish, and whitefish feed on worms generally, which are on muddy bottoms. Nine pounds of web will make from 125 to 130 rods of net; we never want to fish more than sixteen bags; if more is fished it cannot be done properly, and many fish are lost and spoilt; the bags are of six pounds each; nine pounds of web will make about 150 rods of net, as the twine is now very fine that we use, it being No. 60 to 64.

Mr. CHARLES W. PHILLIPS was next sworn:—Lives in Midland; is a fisherman, and has been so for the past thirty years; a British subject and a native-born Canadian.

*By Mr. Witmot:*

Q. What kind of fishery do you carry on?—A. I carry on a bullhead fishery; bullheads, catfish, and mudpouts are one and the same fish. These are distinct from the channel catfish. In catching these fish, pike, sunfish, rock fish, yellow bass, some black bass and dogfish are caught. In fishing for these fish they are not found in waters frequented by salmon-trout or whitefish.

Q. What waters do you catch the coarse fish in?—A. Bullheads are always found in marshy places, and on muddy bottoms in water from eight to ten feet deep.

Q. Do you fish with hoop-nets, if so, describe them?—A. The hoop-nets in which they are caught are round nets with five hoops, two tunnels, and two wings, as described on back shore plan of this sheet (referring to manuscript) is a sketch of the net used; this is the original net as introduced in the Bay of Quinté, and used by me there and in the Georgian Bay. They were got up in Albany, N.Y., as a bullhead net; since then they have been extended to greater sizes, and with more destructive powers, by putting more hoops; some with three tunnels, and with meshes of all sizes; nets are now made as long as twelve feet, with leaders from twenty-five to forty rods long, and eight feet deep, with long leaders from the shore, and sometimes with a hoop-net at each end of the leader; these may be called trap-nets, but they get licenses for them only as hoop-nets. With a 3-inch and a 2½-inch mesh in the hoop-net, we calculate to catch bullheads that will weigh a quarter of a pound after being dressed; originally the fish would weigh half a pound and a pound, their length would be about ten inches. Taking bullheads under this size will not pay to catch them. They vary in size according to the bottom they are on. A blue clay bottom fish is always the largest. They feed upon the clay in a manner. I do not believe catfish eat the spawn of any other fish. They are not found where other fish do spawn. Catfish spawn in June as a general thing, by going to clay or muddy bottoms. They make holes in these places and grounds, and lay their eggs and stay there watching them until they hatch out. These holes are from four to six inches across and about eight to ten inches in depth. They

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settle in these holes, resting, as it were, on their tails. This is done by the female. The male is generally near by, and if the female is disturbed he approaches for her safety. The eggs of the female are let out from the body like other fish. The males have milt like other fish, and no doubt impregnate the eggs like other fish. The eggs will take from five to ten days to hatch out. When the young fry come out of the hole, the female guards them till about the 1st of September, when the young fish will be from two to three inches long, perfect in shape, and the brood will consist of several thousands. During summer, and after hatching out and until September, the parent fish are guarding their young. In September they separate from the parent fish, when the old catfish appear to school together in large numbers for feeding. Their winter quarters will be in the mud, where they remain covered up during winter, except in warm, open weather, when they come out. The young fish grow slowly, taking about four years to grow full size. Catfish fishing lasts from 1st of March to about the 15th of May, and then again from 20th of September till freezing up. Therefore the time for catching them does not interfere with the hatching out of the young, or while the parent fish is with young. This applies both to the Bay of Quinté and here (Georgian Bay). Catfish are not saleable, and should not be caught in the warm weather. These fish were caught in great quantities years ago all throughout the Bay of Quinté, and in Weller's Bay, Presqu' Isle and in all other bays and marshy grounds. Ten of the single nets will make five double nets with the leader. Catfish were caught by me from 17th of March to the 14th of May, during which time I caught seven tons, worth about 5 cents a pound dressed. This was twenty years ago, in the Bay of Quinté. In the same time when I left, four years ago, only about two and a half tons could be caught with the same gear. I was almost alone at first, but soon after many people entered into bullhead fishing. Mudcat fishing is not as good here as it was on the Bay of Quinté. The water is colder and the bottom not so well adapted for them. Catfish should be protected from 15th of May to the 1st of September. Catfish are always best for food in the months of October and November. All these fish caught here go to the United States in a dressed state, that is, with the head, skin and entrails taken off. The average price received is about three and a half cents per pound dressed. Regarding spawning times of fish, the perch spawn in the early spring, the pike at the same time; catfish spawn in June, maskinongé a little later than the pike; bass spawn from about the 15th of May to the 15th of July; pickerel spawn in May; the spawning time of herring I do not know; salmon-trout spawn from the 1st to the 15th of November, whitefish during the same time. Stormy, rough weather helps bullhead fishing by stirring up the water and starts them to move about, otherwise they are dull and very stupid creatures. To obey the Sunday close time would be most objectionable. The Americans fish largely for the mudcat in Canadian waters, about Presqu'Isle, Bay of Quinté and South Bay, by coming over with their nets and gear and fishing there. They come over and get a Canadian to get out a license, and get up a sham sale with the Canadian, and then go on fishing as if they were Canadians. This interferes seriously with the true and genuine Canadian fisherman, and it should not be allowed. Close seasons for all fish should be adopted and carried out. The Americans are great for protection in their own way. They passed a law if fish were caught by Americans or with American capital, they should go into the United States duty free. That is very unjust to the Canadian fishing, as they compel the Canadian to pay this duty. To meet this all Americans fishing here, or employing others to fish for them, should be obliged to pay an export duty, on all fish caught, of one cent per pound. This would cause the Americans to take off their duty on fish caught by Canadians. With regard to artificial fish culture, I cannot say I know anything about it. Whitefish are the most valuable fish in these waters, salmon-trout come next and pickerel next, then the coarse fish, but whitefish have fallen off most in these waters, and in Lake Ontario they are all gone. The other fish have declined also, with the exception of herring. The decline is caused by over fishing, too many nets, too many boats, sizes of mesh being too small has also helped the falling off. The non-observance of close seasons has also done a good deal to lessen the numbers of fish. I would suggest that a limit be made to the number of yards of net to be used. This applies



to all kinds of fishing, and they should not use less than 5-inch mesh. For coarse or bullhead fishing not more than ten single nets should be allowed to any one person, that is, hoop-nets, with the meshes to be from  $2\frac{1}{2}$ -inches to 3-inches. This fishing would require one boat and about two men to fish. Fish seldom die in hoop-nets. Sometimes when too many fish are in the net catfish will injure themselves, but not to any great extent.

The witness then retired.

SAMUEL FRASER, was duly sworn and examined, by Mr. Wilmot.

Has resided at Midland since 1840, engaged in farming, has been reeve of the Townships of Tiny and Tay, and reeve of Midland; has also been practically an official in connection with the fisheries of the Georgian Bay since 1875, and a justice of the peace for 30 years; has been known particularly as a fishery guardian, and observer of all matters connected with the fisheries, particularly with herring, pike, salmon-trout and maskinongé. Is particularly acquainted also with all fishery matters on the east side of the Georgian Bay from Point Pratt to Moosegun Point, and, generally speaking, is well acquainted with the whole of the bay.

#### *Mesh of Nets.*

The gill-nets used here are from  $4\frac{1}{2}$  to 5-inch mesh for salmon-trout and whitefish for the summer and fall fishing. The bullhead net or hoop-net is used for coarse fish and sometimes for small fish which are destroyed by their being thrown upon the ice and upon shore; thousands of the fry of these and other fish are also destroyed. They will use a net of about  $1\frac{1}{2}$  to 2 inches, which I do not think is large enough to use on grounds frequented by salmon-trout or whitefish, but rough fish, such as bullheads and other coarse fish are taken on the marshy and swampy grounds.

#### *When are Fish in Best Condition ?*

With regard to the best season in which fish should be caught, I would say that salmon-trout and whitefish are best in the spring months and also good in September and October; pickerel are best in winter; herring are best from December to May. These fish are generally shipped to the United States; some are peddled throughout the country, as the Canadian demand for these fish is not very great.

#### *Average Price of Fish.*

As to the average value of fish, I would say that for salmon-trout and whitefish, they will sell at from 4 to  $4\frac{1}{2}$  cents per pound; pickerel from 3 to  $3\frac{1}{2}$  cents per pound; herring, 75 cents to \$1 per hundred fish; bullheads,  $3\frac{1}{2}$  cents per pound dressed; as for pike, not many are taken. Other coarse fish, such as perch, sunfish, &c., are sold at  $3\frac{1}{2}$  cents a pound.

#### *Spawning Time of Fish.*

As to when fish are ripest for spawning, I would say for salmon-trout, from 15th October to 15th November; whitefish will spawn somewhat later—the 1st to 30th November. Bass will spawn during the months of May and June; maskinongé the same time. Herring will spawn largely in November, but they will be about the

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same time as the whitefish. Pickerel will spawn in April, it depending largely upon the time of the breaking up of the ice. I agree with the statements given by Mr. Phillips, that mudpouts spawn in June.

### *Time when Nets are Lost.*

With regard to the most dangerous month for nets, that is when the nets will get the most damaged, the fall, particularly the latter end of October and during November is the worst time. Then many nets will be lost on account of the rough and stormy weather, as at this time the winds will be very prevalent and strong. As to the small and immature fish, small fish are not caught much unless in bag-nets; not many small fish are caught in the 5-inch gill-net. The pound-net is most destructive to small and immature fish.

### *Sunday Close Time.*

Regarding the Sunday close time, I do not think it could be carried out, and it would be quite valueless to do so.

### *Americans Fishing.*

With regard to the United States citizens fishing in Canadian waters, I think they do not fish at the end of the bay as poachers, but the Americans are almost the principal dealers, and may be called the owners of the largest quantities of nets and gear in use in Georgian Bay, and they generally take all the fish from the fishermen. The local dealers are, as a rule, simply agents for the United States dealers and companies. The Buffalo Company is the one doing the greatest amount of business here.

### *Close Seasons.*

As to protection being given to fish or close seasons being abolished, close seasons are sound in principle; but from the manner in which they are carried out, they become neutralized from a lack of ability to enforce them by reason of the extensive areas the fishery officers have to supervise and their want of necessary boats and other appliances to carry out the law. Curtailing the expenses necessary to perform this important duty has proved to be very injurious to the fisheries.

### *Time of setting Nets.*

As to the time of setting nets in the bay, they are set out in the beginning of May, and are kept down till the close season sets in; they are only taken up from time to time during the summer to clean and mend.

### *Winter Fishing.*

As to winter fishing, I think winter fishing very little done, except in the Midland Bay—there is what is called "long line fishing" in winter—that is set lines with hooks. These are used for salmon-trout from Saw-log Point to Morris Point. These salmon-trout, so-called, are the largest fish, they will run from 15 to 30 lbs.

### *Bass Fishing.*

Regarding bass fishing, it is carried on largely by tourists and anglers, who catch them in great numbers and throw a great many on the rocks to spoil. This

is done by campers out principally. Bass fishing is not carried on here for sale or export to my knowledge. These fish should require a close guardianship; they are taken amongst the islands, where they are not observed so easily by the officers. Bass are fished for by hook and line and trolling; an angler may easily get from 40 to 50 a day, if he applies himself. I do not think these tourists are of much service to the localities to which they come; they generally bring all their supplies with them and camp out.

#### *Spearing Fish.*

The spearing of fish is done in the summer, and then by Indians generally. Spearing pickerel is largely done by the settlers. This is done as soon as the ice leaves with torchlight and spear; they are also caught through the ice with bait, and by artificial minnows. The practice of spearing is a vicious one, and active measures should be taken to prevent it, licenses or liberty of any kind has never been given here to spear fish.

#### *Artificial Culture.*

Artificial fish culture, in my opinion, is good, and should be carried out with more local hatcheries, some should, I think, be built at this bay, there are some fine sites for them here in Midland.

#### *Comparative Value of Fish.*

The comparative values of the different kinds of fish are that salmon-trout come first, pickerel next, whitefish next, with herring next, and the coarse fish will follow these last, but they are becoming pretty scarce.

#### *Falling off of Fish.*

The greatest falling off is experienced in whitefish and salmon-trout, this is very apparent from what they were in former years. The falling off has been caused by over fishing, and the fact that there are too many engaged in the work; the use of a too small mesh in the nets has also helped to bring this state of things about. The regulation mesh should not be less than five inches for all nets.

#### *Limitation of Nets.*

A regulation as to the quantity of yards of net is also necessary; they should be limited to not less than 30,000 yards to the thirty feet keel boat. Steam-tug fishing should be stopped, or if tugs are allowed, limit the yards of net and increase their license fee, but all this will be of no use unless the officers are fully empowered to carry out laws of this kind in an efficient way.

#### *Fish Dying in Nets.*

Regarding the loss of fish by overfishing, I might say that large quantities of trout and whitefish are caught in gill-nets, when, by reason of stormy weather and neglect on the part of the fishermen, the nets are not lifted and the fish gilled in them die; in this case they are unfit for food, but they are, nevertheless, sold in a deceptive way out through the country; some are thrown away on the shore; some are seen floating on the water; these have fallen out of the nets; sometimes the gill-nets may be out a week and longer and some of the nets are never found at all; I have seen them out in the bay with fish rotting in them. There is a very considerable loss of nets and fish in this way late in the fall, when fishermen are fishing

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along the shore during the close season. The nets used in the close season are generally sunk, which makes them difficult to find out, and this can only be prevented by the presence of the officers and grappling for the nets with boats.

### *Illegal Fishing.*

This illegal fishing should be suppressed by a more perfect supervision by the officers, but to do this an officer should not have more territory assigned him than he can well and successfully oversee. Regarding the usual size of fishing boats, the largest are about 30 feet keel, other sizes run down to 20 feet keel, and others even less, generally they take three men to work them. The limit of the net should not exceed six thousand yards, and no one should be allowed to have more than this quantity in the water at any one time.

### *Speckled Trout.*

Regarding the speckled trout, they are diminishing rapidly, not so much from excessive fishing as from the shrinking of the streams from the clearing off the land and the consequent increased temperature of the water. I would like to make the following suggestions to the Commission:—

### *Suggestions.*

There should be a reduction of the extreme limits now given to fishery officers to oversee and supervise. There should also be furnished to the fishery officers a small steam barge, so that they could run into almost any point or bay where illegal fishing was being carried on. This would aid most materially in preserving the fisheries from the present illegal fishing now extensively carried on.

Officers should also be given more discretionary power in the performance of their duties, and as a requisite more money should be allowed them, and a better lot of men should be selected and employed than are now engaged.

Witness in reply to Mr. Harris :

Small fish are thrown away on the ice below Waubaushene; they are caught in the bag-nets; and seines, gulls and crows feed upon these small fish when thrown out. I have lifted the hoop-nets with pickerel in them during the close season. Hoop-net fishermen prefer to fish only where salmon-trout and whitefish are not taken. These hoop-nets will catch pickerel now and then, but as a rule they are not plentiful, where these nets are set fishermen say they turn them out. Hoop-nets should not be set between the 1st of April and the 15th May, because pickerel are on the ground at that time on their way up to their spawning grounds and up the rivers. Hoop-nets set between the 1st of April and 15th of May would catch pickerel, pike, bass, and the ordinary coarse fish, mudcats, &c. The proportions would be of the catch thus: one mudcat to two pickerel; the number of pike would be small, but the pike and pickerel would be at this time ready to spawn, and the balance taken at 10 per cent would be coarse fish. I have lifted the hoop-net and found the fish all alive; they were lifted to see what they were, and they were generally alive; the fish would be mixed, large and small. In point of fact, pickerel might possibly be put back alive if the fishermen would do it, but I think they would not do it, because they are fishing for profit, and of course they want all the saleable fish they can get, right or wrong, and as the pickerel would be the most valuable fish caught they would not be afraid of the law, because officers are not at hand to enforce its provisions; the price of the pickerel is 3½ cents, mudcats about the same; pickerel are sold whole at 3½ cents; catfish at 3½ cents, dressed; pickerel will weigh about four pounds, that is 14 cents each fish; the usual size of the mudcat will be about half a pound; that will be 1½ cents each. The fish caught in close season are sold to farmers and others by dealers. I do not think it would be any protection to the fisheries to cause pedlars and dealers to take out licenses. Every

man here thinks the fishery laws a fraud; they are not in sympathy with the law. Gill-nets are generally taken out of the water at the commencement of the close season. The regulations are adhered to by the regularly licensed fishermen. The large amount of poaching, however, during the close season is done by settlers, half-breeds and Indians. Black bass are not caught in sufficient quantities by the fishermen to make it pay, and they cannot very well fish for the bass, as the bottom is too rough and rocky, that is for gill-nets, but hoop-nets can catch bass very largely. I do not know when bass are in their best condition. The setting of hoop-nets in September and October might interfere with anglers by diminishing the supply of catchable fish. I do not know anything particular about tug-fishing, only from hearsay. A great many fish are lost during the stormy weather with the gill-nets. This is principally during the close season and in nets fished by poachers and others along the shore upon the spawning ground.

JAMES A. SMITH appeared and was duly sworn, lives in Midland, is now a shipwright and boat builder, but has been a fisherman and fish dealer some 35 years, is a Canadian by birth.

Examined by Mr. Wilmot:

I have been engaged in fishing for trout and whitefish in Lake Ontario and have handled all kinds of fish for the Canadian and United States markets; herring, salmon-trout, pike, bass and other rough fish, also ciscoes. The particular waters in which I have fished and traded in fish, are in Lake Ontario, and at Meaford and Collingwood on the Georgian Bay.

*Description of Net used.*

The description of net used in Lake Ontario were gill-nets of  $4\frac{1}{2}$ -inch mesh, also seines for whitefish with a mesh of  $2\frac{1}{2}$  inches, and for herring 2 inches in the bag. I have been buying fish from the pound and other nets, and have also manufactured nets; I have used as many as 75 hoop-nets at a time and made them myself also; these were used in Presqu' Isle Bay, Lake Ontario and at Waubushene and Sturgeon Bay in the Georgian Bay. I have used the hoop-nets round and square with from 9 to 17 hoops, two tunnels and pockets, the wings were from 7 to 25 yards long; these were called double-nets and round, with a single leader between, varying from 5 to 30 rods according to location; in the hoops the mesh would be 2 inches, in the wings and leader it would be larger. These nets were set in muddy marshy bottoms, where bullheads resort to. The square-nets were set off points leading from the shore outwards. These nets were set with from 10 to 50 rods of leader from the shore with corks and sinkers, the pot or trap at the outward end in deep water—after this, two tunnels, with hollow net bag with double wings, as shown here on the plan. (Witness here referred to a sketch of a hoop-net shown by Mr. Commissioner Wilmot.) This net is used to catch coarse fish, or in fact really any kind of fish that might be coming along the shore; the mesh of the net, pound, and wings were  $3\frac{1}{2}$  inches, leaders ran from  $3\frac{1}{2}$  to 6 inch mesh, no kind of fish could escape from these nets; these were used in Lake Ontario and the Georgian Bay; they are called a "fike" or bullhead-net, yet we have had them filled with herring, catching 25 half barrels at one time in them.

*When Fish are in best Condition.*

With regard to the months in which the fish are in best condition, I would say salmon-trout are best in April and May, whitefish the same, pickerel are best in October and November, pike from October to January, maskinongé the same, herr-

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ing are best in September and October; bullpouts are best in September on to January, bass from end of July till January, sunfish and perch from June to September, speckled trout are best from June to September, mullet and suckers in September and October; the red sided mullet is a good fish; red finned suckers are good from June till January.

### *Size of Mesh.*

With regard to the size of meshes: the size of the mesh for salmon-trout should be from  $5\frac{1}{2}$  to 6 inches; this would also suit for whitefish, and is the proper standard for these waters, that is the Georgian Bay. Salmon-trout of 2 pounds and under will pass through this mesh, whitefish of  $1\frac{3}{4}$  pound and under will pass through the  $4\frac{1}{2}$ -inch mesh, and pickerel of 1 pound and under will get through this mesh—some herring will readily pass through a 3-inch extension mesh; this will catch the largest and most merchantable fish, that is herring.

### *Different Kinds of Salmon-trout.*

Salmon-trout consist of three or four kinds of families—the large family are deep water fish, bright in colour, though dark in the fall, and when going to spawn becomes almost black—the male fish of this kind come first on shore from the 15th to 20th of October. In buying these fish by the ton, three-fourths of them would be males, then five or six days later these fish would be about equal, male and female—they all come to spawn—they will run about 9 lbs.—some will even reach 30 lbs.—they begin to spawn about the 1st of November, sometimes earlier—the spawning time is for about ten days, or perhaps a little longer, but not much—they then leave the shores—there is also another kind called “potguts”—they are also deep water fish and live in muddy sections—their average weight is about 5 lbs., and they run pretty much about the same size—they are a very soft fish and have a fine flavour, but they will not keep so well or remain so marketable as the others. The eggs in these fish leads one to believe that they spawn about the same time as the others—they are never caught on the shoals, when they spawn I am unable to say—they are principally caught in the summer months, and are best for food in May. The other big trout are in the best condition from April to September. There is another trout that will weigh from about 5 to 6 lbs., having a very thin skin on the belly, very perishable, and very difficult to put on the market, as they spoil so quickly—they are caught at Meaford. Yet another trout is caught in Parry Sound Bay—they resemble brook trout, and are caught in large quantities in the months of September, October and November—they spawn at the same time as the other trout—they are red fleshed and spotted all over like the brook trout, on a dark coloured body—their average size would be about  $1\frac{1}{2}$  lb., but they are not known as a marketable fish.

### *Market Price of Fish.*

When I lived on Lake Ontario, I shipped principally to the United States, though also to Canadian markets. From this place I ship to New York—that is the large rough fish. As to the prices of fish on Lake Ontario, the whitefish each sold for from 6 to 7 cents; salmon-trout,  $2\frac{1}{2}$  to 3 cents per pound; salmon-trout and whitefish were  $3\frac{1}{2}$  to 4 cents dressed per pound; pickerel the same; coarse fish will average about 2 cents; bullheads will bring 3 cents per pound. On Lake Ontario it will be 4 and 5 cents for bullheads. Herrings sold there for 50 cents per 100; they are a larger and better fish than the herring here. Here they are worth 75 cents per 100 fish. Black bass 4 cents per lb. I do not know much about green bass, they run the same in price as rough fish.

*Spawning Time for Fish.*

The spawning time for fish is as follows:—Salmon-trout are ripest from the 10th to 12th of November; some later; some earlier; the greater number will spawn in November. Whitefish will spawn from the 10th to the 12th, being later than trout—they are longer spawning than trout—this applies alike to the Georgian Bay and the Lake Ontario fish. These conclusions of mine are drawn from personal experiences of fishing for over thirty years. Herring are ripest to spawn in November, and drop their eggs in groups in mid-water and on sand beds, the same time as whitefish. Bass will spawn in April and May, not so much in June, they may watch their beds and young in June and July, and this would lead to the impression that they were spawning then. Pike and maskinongé spawn from the middle of April to the middle of May. Pickerel spawn in April, in rivers and streams, and in some instances in the bays, as soon after the ice leaves as possible. Mudcats spawn in the same time and manner as black bass, also watching their young for some time after hatching out. Speckled trout spawn in October and November. About perch, I do not know particularly, but I think they spawn in April. Mulletts and suckers spawn early in the spring. As to eels, I cannot say. Ling come from a salt water species. In catching 500 whitefish in 1879, the proportion of ling would be only 8 or 10 out to the 500 whitefish. Four years later it was reversed by their catching 8 or 10 whitefish to every 500 ling. The ling is a good eatable fish, and should be made as much a marketable commodity as mudcats. I have sold them in Rochester the same as mudcats, at 4 and 5 cents a pound. There is a fish called the "grey back," a species of the whitefish, caught in Lake Ontario, they spawn in the month of February, and are a very good eatable fish. They are used in place of whitefish largely, and are about 2½ lbs. in weight, they originally came from salt water, and have become known only during the past 15 years. Ciscoes are another fish, and are caught some in these waters, they are a fat, nice fish, and spawn about the same time as the other herring family; they are caught here in very deep water.

*Most destructive Time for Nets.*

The most nets are injured here in the months of October and November during the year; November is by far the worst time, in this locality it is colder, and this added to the windiness makes it bad for fishing and also of course for the nets.

*Small and Immature Fish.*

Regarding immature fish, there are small fish in Lake Ontario caught in great numbers; I have seen 25,000 whitefish on the beach in one evening's catch, not one in 20 of which would weigh 2 pounds, this would be in June—some were salted, others rotted on the shore and were made into manure; they were so plentiful that 100 could be bought for 25 cents.

*Abundance of Whitefish.*

Whitefish were so plentiful in Lake Ontario, that with one seine—I owned half of it, and it was a 50 rod seine too—we put up in one month 180 barrels for our net's share. The other men, 8 in number, would get the equivalent to 180 barrels amongst them; this was in the month of June, in 1869 or 1870, and was on Consecon Beach. There were other seines fishing also, but probably not so large in extent as ours. The same year, in November, the fish were very numerous, and all larger fish than usual, weighing about 2¾ pounds; as many as we could barrel we caught and salted, but a great many besides were lost. Whitefish were so numerous that they were hauled away for manure for use upon the farms; the whitefish were so plentiful that in hauling the seine they could not pull it in on the shore, they had to simply dip out what they wanted of the fish with small nets and let the rest go. The fish were

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miraculously numerous, when I left Lake Ontario some 15 years ago, whitefish were almost exterminated. Four thousand whitefish were many times taken in a haul in one night; salmon-trout and whitefish in Lake Ontario were vastly more numerous than they have ever been in the Georgian Bay.

### *Sunday Close Time.*

Regarding the Sunday close time, I think it would be impracticable to carry it out in the outside fishing.

### *Americans fishing in Canadian Waters.*

With regard to Americans fishing in our waters, I have often seen it but do not know particularly about it. I believe, however, that from Point aux Barques Americans have fished in Canadian waters for years past, that is, in the Georgian Bay. With regard to the close seasons, I believe they are right if properly selected at the spawning times, in order to keep up the supply of fish food for the people of Canada. As a British subject and fisherman, I would recommend that the Government take action to induce the United States authorities to make similar laws for the preservation of fish as we do ourselves.

### *Artificial Fish Culture.*

I consider that artificial fish culture is desirable to be carried out in Canada, and fish hatcheries should be established here on the Georgian Bay as a means of sustaining the fisheries of the country.

### *Black Bass.*

Regarding black bass some of the tourists that come over are injurious. I have on my books some 27 clubs, amounting to 152 persons, coming here to fish, and I have furnished them with boats and equipments of all kinds, including fishing gear. I have found that they catch more bass than they can consume, and that fish were left upon the rocks to spoil, sheer, wanton waste. The law in 1892 stopped this somewhat; they were informed that they could catch all they wanted to eat and no more. The bass fishing was better this year than they had before. The Ontario Fishery Laws allowing 12 bass for one person, would create unnecessary slaughter if there were 6 in a camp. If printed cards were placed on the islands notifying the anglers that they could not catch more than they could consume or send to their friends, it would be in the right direction, or if they could sell the surplus fish to dealers, and if they allowed the fish to spoil, heavy penalties should be enforced.

### *Comparative Value of Fish.*

The comparative values of the fish are thus: whitefish first, trout second, pickerel third. Pickerel are becoming a very important fish, that is the yellow pickerel, caused by the firmness of their flesh and the consequent ease with which shipments of them can be made with safety.

### *Falling Off of Fish.*

The fish have fallen off in this manner: whitefish, mostly brought about by over fishing. There were a thousand miles of gill-nets used last year from Manitoulin to Midland, and around the bay north and south shores, and some 1,170 fishing crafts, large and small, used in connection with the industry; 585 men were



engaged, besides boys employed, in the fishing; that is, the cause of the falling off is that too much net is set in the water and the fishery cannot stand it; it is vastly too largely fished and must be reduced, otherwise the fishermen will lose their industry.

*Suggestions.*

I would like to offer to the Commission the following few suggestions:—

The sail-boats engaged in fishing above 20 feet keel and up to 30 feet should be limited in the amount of net they should fish, and it should not exceed 5,000 yards of gill-nets. A sail-boat of 18 feet keel and up to 20 feet should not exceed 3,000 yards of gill-nets, and all sail-boats of less than 18 feet keel should not be allowed to carry an excess of 2,000 yards of gill-nets. With regard to "fike" or hoop-nets, they should be permitted to fish from the 15th October to the 1st of April in grounds not frequented by whitefish, salmon-trout, or black bass. Another matter: There are lakes in the country where there are no inhabitants, that are full of the very best fish. These lakes, I think, might be fished by fishermen from the 15th of October to the 1st of April, if not inhabited by whitefish, salmon-trout, or black bass; gill-net fishing or angling only might be allowed under special limitations.

Witness in reply to Mr. Harris:

*General Remarks.*

The facilities of Midland as a fishing centre are fairly good for the shipping of fish caught at Copperhead Island, Giant's Tomb, Christian Island, and sundry other places, by capture with gill-nets. These islands are from 15 to 40 miles from Midland. The value of fish shipped from this place and caught on the above grounds would be about \$35,000, of which the larger proportion would be for Canadian consumption and markets. Last season I saw three large lots or shipments of fish, principally pickerel, that were not more than nine or ten inches long; this indicates overfishing and the catching of too small fish. About speckled trout—there are several trout streams in this section that are now fished out; they are not natural trout streams; the waters are not able to properly raise these fish here, as the streams are not good waters for trout; they get very low in the summer and the water gets soft and warm and unsuitable for speckled trout. Fishermen would be well satisfied if the close seasons were well chosen. As to the sizes of bass: a 10-inch bass is not too small to be taken by anglers, none should be caught under 1½ pounds in weight. No law could be made to limit the number of fish taken, as it would be broken constantly. Hoop-nets should not be fished or allowed in the water between the 1st of April and the 15th of October in each year.

• The witness then withdrew.

FRANK BONTER, duly sworn:—Lives in Midland; has been a fisherman for from fifteen to twenty years; a Canadian by birth.

Witness examined by Mr. Wilmot:

I carry on a fishery for rock fish and herring, pike, pickerel, bullheads, perch and other coarse fish, with gill-nets of three and a half inch mesh, number forty-five to fifty twine. I fish for them, the herring, in the Midland Bay. The coarse fish are caught up on the north shore, as far as Point aux Baril, about eighty miles from here.

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## *Hoop-Nets.*

I use hoop-nets, or rather did use them till stopped, and with which I caught bullheads and other coarse fish. I was stopped by the inspector last year. My nets were seized and burned by the inspector, F. Fraser. I use round hoop-nets, the same as are used in the Bay of Quinté. The mesh in the bowl is three inches, in the remaining part, wings and lead, six inches. From four to six hoops are used, and two tunnels. The wings are about ten feet long, and the leader from seven to eight rods long. My nets were "single leads," one "bowl," and were not used where salmon-trout or whitefish frequented. There would be a few bass taken. The 3-inch bowl would catch catfish, pike, perch, suckers, &c., by the ton. Three-inch mesh is the right sort to catch catfish.

## *Markets and Price of Fish.*

I sell all my fish to home markets. Bullheads are worth from four to five cents; pickerel, three to three and a half cents; pike, two cents; bass, coarse fish, suckers, are worth three-quarters of a cent a pound.

## *Spawning time of Fish.*

The time for spawning is: For bullheads, in June; pickerel, from the 15th of April to the last of the month; pike, very early, as soon as the ice goes out; bass spawn in June; perch spawn in April; sunfish in May and June; suckers and mullets spawn early in the spring, up rivers and streams. The hoop-nets are sometimes injured by storms. Hoop-nets only take fish that cannot get through a three-inch mesh. The close seasons should be adopted for certain kinds of fish. Pickerel and bass should by all means be protected. I cannot say about bullheads; however, they might be too. Hoop-nets are generally set early in the spring, and then again about the 15th of September, and often they can be fished in the winter time under the ice.

## *Artificial Culture of Fish.*

With regard to artificial culture of fish, I am not just now prepared to say anything about it.

## *Bullheads most Valuable.*

The most valuable fish to me are bullheads. I will get as many as \$400 worth in a season here. In the Bay of Quinté I got \$700 worth. They are generally sold to the dealers at 4 cents a pound, dressed. I have got at the Bay of Quinté and in Buffalo as high as 5 cents a pound. Bullheads, like all other kinds of fish, can be reduced by overfishing.

## *Boats and Bullheads.*

I use flat boats, not the ordinary fishing boat, but much cheaper. I fish from ten to fifteen single hoop-nets. They will cost complete from about twenty to twenty-five dollars. The twine used is numbers 9, 12 and 16. Two men fish a boat. A boat will cost about from ten to fifteen dollars. I fished hoop-nets for about twelve years in the Bay of Quinté. I left there about three years ago. I have to suggest that it would be advisable to allow hoop-net fishing where it will not interfere with salmon-trout and whitefish. In inland waters, which are alive with bullheads, hoop-nets should be allowed to be used. Mudpouts and bullheads are the same fish, and are also known as catfish, but the real catfish is another fish altogether, much larger, and by its proper name is known as the "channel catfish."

*General Remarks.*

Witness in reply to Mr. Harris:

A 3-inch mesh will catch the average sized mudpout, and that is the proper mesh for the hoop-net. Hoop-nets are set up all round the points on the main shore and in marshy bottoms in dead water.

I have a receipt for the money which I paid to get my license, but I got no notice of an intention on the part of the Government of disallowing these nets. Whitefish and trout are not benefitted by the killing of bullhead and coarse fish, because they are not found in the same waters. A few black bass only are taken, and the time to take bass is only before they spawn as they rush to the shore. You may get four or five at a lift. But black bass do not pound well. They will not lead or gill. I do not know if there were any anglers around where I fished. I saw some boats travelling around and persons camped out. They would be fishing for bass or pickerel, but I did not take particular notice about it.

The witness then retired.

JOHN YATES, duly sworn, states he lives in Midland, and has been a fish dealer for about eleven years; is a Canadian by birth.

Witness examined by Mr. Wilmot:

I deal in all classes of fish caught in the Georgian Bay, salmon-trout, whitefish, herring, pickerel, pike, bullheads, bass, perch and suckers—no ciscoes, but there were ciscoes in the bay some time ago, and a few are occasionally taken. The limits where my fishing is carried on are from French River to Midland, along the east shores of the bay.

*Description of Nets.*

The nets used are principally gill-nets for whitefish, trout and pickerel. I do not buy fish caught in any other nets except gill-nets. I have tried to use seines, but they are not successful. I use no pound or trap-nets. I object to them, because they catch so many fish that are not mature. The "pot" of the nets generally is the killing part, and meshes there are smaller than those used in the gill-nets. A pound-net would require a mesh one inch larger than a gill-net, to let the small fish out. The twine used in gill-nets is No. 50 and 60. In the spring and the fall, No. 40. Pound-nets are made of No. 12 and 16 cotton. This is much larger than the former. Fish are more liable to be gilled in fine twine than in the coarser kind of twine. Hoop-nets, "fike" nets and trap-nets are not used here illegally. The hoop-nets, except for catching bass, should be allowed. The place to use them is so far inland that bass would not be affected to any extent. Some bass will, however, be caught in the nets.

*Size of Mesh in Nets.*

The proper size of mesh for salmon-trout and whitefish is  $4\frac{3}{4}$  inches. The best and most profitable mesh for the autumn fishing is a  $5\frac{1}{2}$  or 6-inch mesh, and this should be then used. For salmon-trout and whitefish the present regulation is  $4\frac{1}{2}$ -inch mesh. It should be  $4\frac{3}{4}$ , because the  $4\frac{1}{2}$ -inch mesh takes too small a whitefish, and one which is not as acceptable in the market. Many would also be immature fish. For fishing in the autumn the meshes should be  $5\frac{1}{2}$  inches, and the reason why they should be larger in the fall than in the summer is because in October the trout

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are then on the shoals for purposes of spawning. There is no difference in the sizes of fish in the summer or fall. We catch more in the fall with a 5½-inch mesh than in the summer. The large mesh takes more fish in the fall.

### *When Spawning Fish come on Shore.*

The sexes are about the same in numbers. The male fish come about the 18th or 20th of October, and the females come in about the 25th of October. Both come in for spawning purposes only. The present close season of November covers only about ten days of the actual spawning. Whitefish come in about the 8th or 9th of November, and are done spawning about the 15th, or from that to the 20th. They spawn very quickly.

### *Condition of Fish when Best.*

As to the time when fish are in their best condition: Salmon-trout and whitefish are best in the spring, and continue good till the 1st of October, they are not as good at the spawning time as before or after it.

### *Market Value of Fish.*

The whole of my market is in Canada, but I cannot supply the Canadian demand. Salmon-trout and whitefish are sold at from 4½ to 5 cents per lb. in the summer season and autumn; in the winter, from 5½ to 6 cents. These are wholesale prices. They are shipped as far east as Montreal, and are also sold in many towns in Ontario. Herring are sold at \$1 per 100 fish. Pickerel during last season were selling for the same price as trout and whitefish. We have no blue pickerel here. I would buy about one ton of bass during a season. The best prices for these fish are from 5 to 6 cents; suckers are worth about 1 cent; perch, 1 cent; pike, 2½ cents, and sunfish, 1 cent per lb.

### *Spawning time of Fish.*

Regarding the spawning times of fish: Salmon-trout are ripest for spawning between the 20th October and the 1st of November; some spawn as late as the 10th of November. Whitefish are ripest from about the 10th to 20th November, a few days perhaps before and after, but generally speaking, they are over by about that time. Black bass are ripest from the 1st to the 10th of June; they hover about their nests to watch their young for a fortnight after they are hatched out.

### *Black Bass—their Destruction.*

Bass are caught numerously by anglers from both Canada and the United States—they are caught by rod and line, and by trolling, and are taken for amusement—and some are shipped away to their friends. My agents have purchased from the anglers their surplus fish, as high as 150 tons. There has been great waste by persons leaving the fish on the rocks to spoil. Bass are fish that spoil very quickly unless iced at once. They are caught principally between Parry Sound and Midland, the average weight of these fish would run about two and three-quarters of a pound. Bass are very numerous indeed on the limits just mentioned, they can be seen there by the thousands on the main shore down to the Nottawassaga River, Christian Islands, and the Giants' Tomb. Anglers resort here very largely to catch these bass. A close season for bass and all other kinds of fish should be thoroughly enforced.

*Destruction of Nets.*

We lose most nets in October from rough weather, and also in part of November.

*Sunday Close Time.*

With regard to keeping the Sunday close time, it would be impossible to carry it out properly. I do not know of United States citizens fishing in our waters. With regard to close seasons, they are certainly beneficial if properly chosen.

*Artificial Culture of Fish.*

Regarding the artificial culture of fish, I cannot say, but until it is ascertained that artificial culture can fill the blank, the close seasons should be continued and enforced.

*General Remarks.*

My nets are set in the summer as soon as the 27th of April, and are kept set until the 1st of November, when the close season sets in. My experience is that a 3-inch gill-net mesh will catch whitefish of say about one pound and under—a seine mesh of 3 inches will catch whitefish largely as they run. Winter fishing is carried on, and quite a lot of fish caught, consisting of pickerel, pike and trout—no whitefish—ninety per cent of the trout are caught with hooks during the winter. Pickerel and pike are taken with gill-nets, and 10 per cent of the catch would be whitefish. No bass would be caught in the winter. Indians spear without any limit as to territory, and they catch all kinds of fish. With regard to the quality of fish, whitefish stand highest; pickerel stand equal to them; trout next; pike and other coarse fish afterwards. The catching of rough fish would not benefit the better fish, such as whitefish and trout. Pike do not inhabit the same waters as whitefish and salmon-trout. Whitefish come in shore to spawn in November. The catching of coarser fish is not advantageous to the whitefish and trout. There are places within twenty miles of Midland where the coarse fish could be caught with pound-nets. The bass close season, if extended to the 1st of July, would make no difference whatever to the fishermen.

*Storms Destroying Nets and Fish.*

There are some nets carried away annually in stormy weather in October; storms effect the gill-nets more when they are full of fish. The fish are not as good at the spawning time as for some time prior to that time, and there is no objection to the buying of them by the public if caught after that time. No fish were put up here during that period. It was understood that November was the close season but not for pickerel or pike. The pickerel close season is from the 15th of April to the 1st of May, and this I consider the proper time for these fish.

*All Fish have Fallen Off.*

All kinds of fish have fallen off very much in recent years, especially whitefish and trout, by reason of the general use of a small-sized mesh in the nets, and there being more fishing than formerly. If the sizes of mesh had been kept up as formerly, the destruction of fish would not have been so great. Killing fish at the spawning time is injurious always and everywhere. I fished with a sail-boat—sizes 22 and 32 feet keel. I did not fish with tugs. Tug fishing would be more beneficial if fishermen could afford to buy and use them.

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Witness in reply to Mr. Harris :

Pike, pickerel, and suckers are taken in the bay ; the most of these coarse fish are pike. Pike are not caught on whitefish grounds ; pickerel are as valuable as whitefish and trout. The " pots " of the pound-nets were one and one-eighth inch, but I do not approve of them at all. If the mesh were larger they might do ; the mesh for the " pot " should be  $4\frac{1}{2}$  to 5 inches extension measure. There is no doubt that some fish become lost to the fishermen by the gill-nets being out during storms. In the summer season this is unusual. A good many fishermen do not land their fish at this port ; about half land their fish here ; some at Victoria Harbour ; some at Penetanguishene. No steamers or tugs are used here ; steamboats do our freighting. Our fishing grounds are convenient to the freighting stations. I do not think there should be any close season for the herring.

The witness hereupon retired.

CAPT. S. WHARTMAN, of Waubaushene, was duly sworn. A fish dealer for four years ; previous to that time was in the fishing business about twelve years ; a native Canadian.

Witness examined by Mr. Wilmot :

I have been fishing for salmon-trout, whitefish, and all other kinds : herring, pickerel, pike, bullheads, bass, perch and coarse fish. I have been fishing largely in the Georgian Bay. I fish with gill-nets and fike-nets or hoop-nets.

### *Size of Meshes.*

The sizes of the mesh I use in my nets for salmon-trout and whitefish are  $4\frac{1}{2}$  to 5 inches in summer fishing—in the fall fishing  $5\frac{1}{2}$  and 6 inches extension. I use the same kind of net for pickerel and bass. I find that a  $4\frac{1}{2}$  or 5-inch mesh will let  $2\frac{1}{2}$  pound trout pass through. A 4 pound trout and under will pass through a 6-inch mesh. The fish are much larger in the fall, which is what causes us to use the larger mesh at that time.

### *When Fish come in to Spawn.*

The salmon-trout come in the fall for spawning purposes, about the 20th of October, and they will stay there about two weeks or a little longer. Whitefish come in on or about the 1st to 5th of November, and will remain for spawning purposes about two or three weeks ; the time, however, for these fish coming in shore to spawn will vary from five to ten days, according to the locality.

### *Fish when Best for Use—not Good in Spawning Time.*

I find that these fish are the best in the spring of the year ; they are also good in the fall after the water gets cold, say after the 1st of November. This applies to salmon-trout and whitefish ; they are not so good in the spawning time as they are for the month previous ; this, of course, in a general way applies to all kinds of fish, none are so good just at the spawning times.

### *The Price of Fish and their Markets.*

Montreal is my principal market for fish, but other towns also buy from me ; some of my fish also go to the United States. During the last two years the

Canadian market have consumed my supply of fish. The average prices of fish are:—Salmon-trout,  $3\frac{1}{2}$  cents, and whitefish, 4 cents per pound; both these are for the fish dressed; pickerel,  $3\frac{1}{2}$  cents; pike,  $2\frac{1}{2}$  cents; bass, 5 cents; herring, 90 cents per 100 fish; coarse fish, about 1 cent a pound.

#### *The Spawning time of Fish.*

Regarding the spawning time of fish, salmon-trout are the ripest about the 1st of November; whitefish commences about the 10th or 12th of November; herring spawn later; pickerel spawn from about the 20th to the 25th of April; pike spawn early in the spring; bass, in May and June; maskinongé, in May: all these fish may spawn some days earlier or some days later. Catfish spawn in the month of June. I find October and November the worst months for breaking up our nets. The damage is done also a good deal in May; that is in the outside fishing.

#### *Small Fish destroyed by Seines.*

With regard to small and undersized fish, many small pickerel are brought in as low as a quarter of a pound; they are caught with seines; no small whitefish or salmon-trout are taken. Seines with a 3-inch mesh will bring almost all kinds of small fish ashore. Three-inch meshed gill-nets will take a medium sized whitefish. Seines should not be allowed in the interests of the fishermen, unless the mesh is at least  $4\frac{1}{2}$  inches in the "bag." Pound or trap-nets will take fish more plentiful than gill-nets, and will take any kind of fish, small as well as large. In the best interests of the fisheries pound or trap-nets should not be permitted to be used in the Georgian Bay; they might be used in the small bays where trout and whitefish do not frequent. Hoop-nets might be used in such waters as catfish frequent; the mesh should be 3 to  $3\frac{1}{4}$  inches, otherwise too small fish will be caught; seines should not be allowed, except with restriction as to the size of mesh—that it should not be less than  $4\frac{1}{2}$  inches. Herring seines might be fished with  $2\frac{1}{2}$ -inch mesh, if not fished where salmon-trout and whitefish frequent. Fishing in the winter is carried on by gill-nets, and with seines under the ice. Seines catch a number of small pickerel, bass, sunfish, &c. Spearing is done by the Indians and half-breeds, generally speaking.

#### *Artificial Culture of Fish.*

The artificial culture of fish would be a great thing. In order to keep up the supply there should be a hatchery on the Georgian Bay, this is necessary to keep up the standard of fish here. The comparative values of fish are that whitefish are best, salmon-trout next, pickerel next, bass next, maskinongé next, bullheads, then herring, after that the coarse fish.

#### *The Falling off of Fish.*

In reply to the question as to which fish has fallen off most, I would say that whitefish have diminished most by overfishing. Salmon-trout and other predaceous fish feed largely upon the young whitefish, which are very innocent in their nature. Whitefish have fallen off fully one-third during my period of fishing. Salmon-trout appear to me to be about the same in numbers as formerly.

#### *Salmon-Trout of Different Kinds.*

I may say there are three kinds of salmon-trout—one, known as the salmon-trout proper; another, the "potgut" found in the deep water, and the "sisquahits"—all known from one another by their difference in colour, shape and quality

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of flesh. The salmon-trout proper are best, the "potguts" next, and the "sisquahaits" last, and very fat. The salmon-trout will average about eight pounds, the "potguts" about four pounds, and the "sisquahaits" about the same. The "potguts" and "sisquahaits" spawn in deeper water, if they spawn at all, and it will be in the fall of the year, later than the other ones.

### *Description of Boats used.*

I fish with a sail-boat, 30 feet keel—2 and 3 men fish in this boat with about 200 rods of net. The net will be about five and a half or six feet in depth. The average catch the last one or two years has been small to what it was formerly, caused, no doubt, by overfishing. I fished in Lake Ontario in 1874 at Presqu'Isle and Brighton, principally for trout of large size—the mesh used for them would be 6 inches. The fish were quite plentiful then, but I left there in 1878 to come to the Georgian Bay fishing, because I found that it was better than in Lake Ontario. The rough fish and whitefish in Lake Ontario have fallen off very much. I have understood from late residents that the fishing in Lake Ontario years ago was very good, wagon-loads of whitefish were sold there at one time for \$1; that, is all done now.

### *Fishing by Tourists.*

I would suggest that fishermen, tourists and anglers should not be permitted to destroy fish as they do. I have seen thirty or forty bass rotting on the shores, caught by tourists, and this within four years ago on Jibley Island. I have caught as many as 75,—25 would be a fair catch in a day. Fishing is done by rod and line and trolling, and the fly sometimes; bass take the fly well about the end of June and July. Taken altogether, the tourists are not objectionable, the better class of them having some little money to expend—most of them bring their tents and live cheaply. Some of them have built cottages on the Islands. In legislation the tourists should not be considered with regard to other fishermen, as the tourist can take care of himself. Bass spawn about the 15th of June—they protect and look after their young for a time—catfish and dogfish do this also. It would be better to extend the close season for bass till the 1st of July. Fishermen can make good wages fishing for bass with a rod and line, he might make \$2 a day readily from his fish.

### *General Remarks.*

It would be advisable to allow hoop-nets to catch bullheads in the marshy waters. When any changes are made by Order in Council or otherwise, previous notice should be given of this announcement for some little time, so that the fishermen may prepare for it. The right size for the mesh of herring seines should be  $2\frac{1}{2}$  to 3 inches—the herring are smaller here than they are in Lake Erie or Ontario. I have seen the roe and milt in the "potgut" salmon-trout. A fisherman can handle 1,200 or 2,000 rods of net with a 30-foot keel boat with three men.

### *Illegal Fishing.*

There is a good deal of net set in the Georgian Bay that the department does not know of. It would be far better for all if they all fished alike as to quantity of net. It is very difficult for a fishery overseer to cover such a large territory and properly attend to it. It would be better to put letters and numbers on the boats that are licensed to fish in order that they might be known. It would be advantageous to have the rougher classes of fish caught as well as the better kinds.



Witness in answer to Mr. Harris:

Salmon-trout come to the top in the summer months after herring for food and therefore are not caught so largely as in the spring and fall. The larger run of the fall fish are just the same fish as in the spring, but we do not get many of these large fish in the spring. Seines are used at Change Beach and Matchedash Bay, and a couple of seines are used at Point Aubrey. The mesh in the centre of these seines is  $2\frac{1}{2}$  to 3 inches. Herring frequent the deeper bays amongst the islands, whitefish and trout are not plentiful there, they come in about the 1st of November.

The witness then retired.

WILLIAM J. HODGINS was then duly sworn. Witness stated he lived in Midland and had been a fisherman for about 12 years; on Lake Ontario for 2 years, and for 10 years here in the Georgian Bay; also that he was a native Canadian.

Witness examined by Mr. Wilmot:

I fish for salmon-trout, whitefish, sturgeon, pickerel, bass and coarse fish. My fishing grounds in Lake Ontario were around the Main Ducks for 2 years, and since then for 10 years in the Georgian Bay along the north shore.

*Size of Mesh used.*

I use gill-nets for salmon-trout and whitefish with a mesh of  $4\frac{1}{2}$  to  $4\frac{3}{4}$  inches, that is for the summer fishing; I use  $5\frac{1}{2}$  and 6 inches for the fall fishing. In the summer, fishing a  $4\frac{1}{2}$  to  $4\frac{3}{4}$ -inch mesh will let fish of 2 pounds and under pass through. A 3 pound fish and under will pass through a  $5\frac{1}{2}$  and 6-inch mesh. A 3 inch gill-net will catch fish from  $\frac{3}{4}$  of a pound to a pound in weight, or about half sized fish. I use both descriptions of nets during the summer and fall. The  $5\frac{1}{2}$  and 6-inch mesh in the summer will catch large whitefish from 4 to 5 pounds each, the smaller fish will not take so readily in this sized mesh.

*When Fish are best.*

As to the time in which fish are best, I would say that salmon-trout and whitefish are good at all times, there is no time when they are very much better than another. I market my fish at Mink Island, where an agent of the fishing companies buys them; I sell them to the Buffalo Fish Company, and sometimes sell some salted for local use.

*Price of Fish.*

The prices of the salmon-trout and whitefish are generally  $3\frac{1}{2}$  cents all round, cleaned. Bass and pickerel the same, but pickerel are the most valuable in the opinion of the buyers.

*When Fish are ripe to spawn.*

As to the spawning times of fish, the salmon-trout are ripest for spawning purposes from the 25th of October to the 10th of November; the whitefish spawn more freely from the 10th to the 25th November, both of these fish will spawn earlier and later than the above dates. Pickerel will be found to spawn in the months of April and May, bass spawn during the months of May and June.

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### *Loss of Nets.*

The loss of nets by fishermen is more particularly in the fall, in November and October. Fishermen would be able to make something more if they were allowed to fish in November.

### *Dealers buy all sizes of Fish.*

I do not catch any small fish myself, but all fish are bought by the dealers, large and small, fish of  $\frac{3}{4}$  of a pound are not saleable, however, not many are caught here.

### *American Fishermen and Sunday Close Time.*

It would be impracticable for the fishermen to keep the Sunday close season, particularly with the outside fishing in the bay. I do not know of Americans fishing in our waters, but Americans are, however, said to fish at the Bustard Islands; they fish with gill-nets and sail-boats.

### *Close Seasons are Desirable.*

I would most certainly say that close seasons are beneficial, and if hatcheries are built up here they will help keep the fisheries up. Fish will always breed on certain shoals that fishermen cannot get to; these places should be set aside for the fish to breed upon. I do not carry on winter fishing; it is, however, done by other parties with gill-nets through the ice for catching pickerel, salmon-trout and whitefish, and a sturgeon or two at times.

### *Hoop-nets take Bass.*

I do not think bass fishing is carried on with nets; they are caught with the gill-nets; they are, however, now I think of it, caught with hoop-nets a good deal. Nets are set in channels between the islands in shallow waters; they are set with leaders to take in a part of the channel; other fish, such as pickerel, bullheads, and in fact any fish that comes along are likely to be led into the tunnel and taken. I do not know the size of the mesh usually in use. The sportsmen catch bass with rod and line about the islands situated about sixty miles from here. The islands are very numerous. Gill-nets cannot be set back of these islands.

### *Artificial Breeding of Fish.*

I would say that whitefish fish breeding is very beneficial to the fisheries of these great lakes and other waters and should be extended to this place, that is, I mean that a hatchery should be established here, and I know very well it would be of the very best assistance in sustaining the fisheries; something should be done to keep up the fisheries, as they are now falling off very much.

### *The Grading of Fish.*

I would grade the fish in this way: whitefish first, salmon-trout second, pickerel third, herring fourth, pike fifth, bass sixth, and then coarse fish. If any effort is made to keep up the standard of fish, whitefish and salmon-trout should take the lead by all means.

*Fish have decreased.*

Generally speaking, fish have decreased a great deal during my time here, the cause of which is overfishing, and catching them at the spawning times makes also a great difference. This applies to salmon-trout and whitefish in the summer and fall fishing.

*When Fish Come on Shore to spawn.*

Fall trout come on the shore about the 15th of October; whitefish about the 10th of November; both of these fish come on the shore to spawn, and I do not think it is wise to catch these fish when they are spawning.

*Size of Fishing Boats.*

I use a sail-boat 18 feet keel, with one man and a boy, and fish from 10 to 12 nine pound-nets. In 1891 I caught 10 tons, in 1892 seven tons, that is with a single rig; formerly, with my 30-foot boat, I would use 18 to 21 nets with two or three men, and would take 14 or 15 tons of fish. A single rig is most profitable, because it is easier on the nets, needs less men and less nets. Fish are now one-third less than formerly in my time, but the size of fish is about the same. In 1891 about six tons out of the ten tons would run three to five pounds each in the 6-inch mesh. I cannot say positively what change there is (if any) in the sizes of fish, but I know they have fallen off one-third in quantity. The price now is 3½ cents dressed; formerly they were sold by the piece at 7 and 8 cents each fish; whitefish and trout, large and small fish, all drew the same price. It is better now, because they are sold by the pound.

*Some Fish are Lost because Bad and Rotten.*

Some quantities of fish are lost, a good many by their having too many nets out and leaving them in the water too long and the fish become drowned and die, dealers only buying the drowned fish as culls; they are kept separate because the company wants these culls kept apart. Culls will not sell anywhere unless salted; I would not eat a culled fish myself. Culls salted here may be fit to eat, but I would not care to eat them; they are soft and flabby and I have no stomach for them. Yes, sometimes there would be a good many culls. I have known as many as 1,400 rotten fish thrown away at one time; they are not thrown in the water, but are brought on shore, where the gulls eat them. I know that if dead fish are thrown in the water it pollutes the fishing ground. I fished in Lake Ontario from 1875 to 1877, and caught whitefish and trout there. Whitefish had become very scarce there when I left, and they were very plentiful there before 1877. In 1856 and 1857 whitefish were very plentiful indeed, and they were then caught in very great numbers.

*Nets—Quantity used.*

Regarding the quantity of net used, I would say that 10 and 12 pounds of net would be used in one boat with three men. I would put up about 100 packages or 50 barrels in the month of November. In 1876, near Christmas, I set 5 pounds of nets and caught 500 whitefish. Whitefish were more plentiful then in Lake Ontario than I have ever seen them here—that was in 1876. Whitefish within my own knowledge were as plentiful in Lake Ontario as they have ever been here. I left Lake Ontario to come here to better my fishing and other fishermen have come here also with the same intention.

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### *Suggestions—Using too many Nets.*

I would respectfully offer the following suggestions:—I would say that a great many fishermen are fishing too many nets to their boats. A single rig with an 18 foot boat should fish from 10 to 12 nets of 700 yards each. A double rig, or 32 foot boat should not fish more than 21 nets of 700 yards each, but the double rigs now do fish 28 and 29 nets and some of them even 30 nets. There should certainly be a limit to the number of nets or yards of net fished by single as well as double-rigged boats. A single rig should be limited to 10 or 12 only and the double rig to 20 or 21 nets and no more. Large companies with tugs should be limited to not more than 30 nets—some tugs, however, fish as high as 40 nets and even more than that. I pay a fee of \$5 for a small boat and the big boats do not pay any more. Tugs pay only \$10, which is a very unfair rate proportionately with us. Keep the month of November closed, and keep out some of the big rigs and tugs and the fishery will hold good for all time.

Witness, in reply to Mr. Commissioner Harris:—

The sturgeon are not taken numerously in the Georgian Bay—the best place is in Nottawassaga River. I have caught them there myself and have seen 100 of them taken in one haul of a seine; these would weigh from 30 to 100 pounds. I have seen them all along there from one foot in length upwards. Quite a few rock sturgeon are caught and the small sturgeon are taken out in deep water in gill-nets, but very few in number, and they ought to be thrown back alive as being of no commercial use. Sturgeon under 3 feet in length should not be allowed to be taken or marketed. Sturgeon spawn in April and May in the rivers. The whitefish spawn principally from the 10th to the 25th of November; some may spawn earlier and some after that time. They spawn principally at Mink Island and Byng Inlet. Heavy winds stop the sail-boats as well as the tugs. There is not much difference in the ability of sail-boats and tugs to lift nets. If the tugs could lift more frequently, it would prevent the waste of fish, such as now goes on.

The witness hereupon withdrew.

W. W. CHURCH was then sworn. Lives in Midland; is a fisherman, and has been so for the past forty years, thirty-eight years in Lake Ontario, and the balance in the Georgian Bay.

Witness examined by Mr. Wilmot:

I have fished for whitefish, salmon-trout, and all kinds, including pickerel, bass, mullets, and coarse fish. Formerly I fished in Lake Ontario, and latterly in the Georgian Bay.

### *Description of Nets used and Size of Mesh.*

I fished with gill-nets of  $4\frac{3}{4}$ -inch for salmon-trout and whitefish; in Lake Ontario with a  $4\frac{1}{2}$ -inch mesh, and in the Georgian Bay with a 4, and in the Georgian Bay with  $4\frac{3}{4}$  mesh. The herring gill-nets would be  $2\frac{1}{2}$ -inch mesh. I have used hoop-nets in Lake Ontario, and for one year or so here. These nets catch bullheads and sometimes pickerel and pike, and now and then a bass, but not often. A  $4\frac{3}{4}$ -inch mesh will let a pound and a half fish go through. This will apply to all fish. A  $4\frac{3}{4}$ -inch mesh is about the right thing.

*When Salmon-trout and Whitefish are best.*

Salmon-trout and whitefish are best during the months of June and July; they are poorest just after spawning time, and are not very good to eat at the spawning time.

*Markets and Price of Fish.*

I sell my fish—part of them in Midland, some of them are put up in barrels, but I cannot say where they are shipped to. Fish were generally salted in barrels when I fished in Lake Ontario. Fresh fish were not in demand, as there were no freezers at that time, the fish were taken over to the United States for sale generally. Salmon-trout and whitefish and pickerel are worth 4 cents a pound at Midland. Whitefish in Lake Ontario formerly sold at \$5 a barrel. Salmon-trout from \$8 to \$10 a barrel. In the Georgian Bay the coarse fish, such as pike, are worth 2 cents a pound; perch and mullets are worth about 1 cent a pound; herring bring 75 cents to \$1 for every 100 fish. None of these latter fish were saleable in Lake Ontario when I fished there.

*Spawning Time for Fish.*

The spawning time for fish is:—Salmon-trout begin to spawn here about 20th of October, and remain on their ground spawning about ten days; some might spawn later than this. In Lake Ontario it is about the same. Whitefish are a little later, say ten days later. Herring spawn in November, generally from about the 10th to 20th, and they are the same in Lake Ontario. Pickerel spawn in Lake Ontario from 25th of April to the 10th of May; bass spawn in the month of June; pike in April; maskinongé about 10th of May; catfish spawn in June.

*When Nets are most injured.*

The hardest month on nets is September and October, but November is somewhat worse on account of its being colder in conjunction with the storms. With regard to small fish being thrown away in Lake Ontario in quantities, there might be 200 or 300 thrown away in one night, but I never saw that done here.

*About Close Seasons.*

As to the Sunday close time—from Saturday night till Monday morning—it would be impracticable for the fishermen to carry it out—that is, I mean for the true fishermen out in the bay. I consider it practical to have a close season, but not to have it too long—it is proper to have a close season for say ten days, but not much longer. This would apply to salmon-trout and whitefish—ten to fifteen days should be sufficient for all kinds of fish to do their spawning in. During this time which is set aside, no person should be allowed to fish for them in anyway whatever.

*Time of Setting Nets and Spearing Fish.*

We set our gill-nets about the 1st of May, and keep them set until the close season sets in in November. Winter fishing is carried on by gill-nets, catching pike, pickerel, and an odd salmon-trout and whitefish, but no bass, and a few herring. With regard to spearing, I do not think this is done much, but it is done, principally by Indians on the north shore of the Georgian Bay. About Shamagonit Bay a good deal of this kind of thing is done.

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### *Hatcheries and Fish Culture.*

I would say in regard to artificial fish culture that I consider it a good thing, and I think so from what I have heard of its good results in other places. As to establishing a hatchery here, I consider that Midland City ought to be as good a place as any other for a hatchery.

### *Comparative Standards of Fish.*

With regard to the difference in fish, I would say that whitefish would be best, trout next, pickerel next, herring and bass next; bass are not a profitable fish to the net fishermen. Fish are getting scarcer every year in Georgian Bay.

### *Seines Destructive to Fish.*

In Lake Ontario, whitefish years ago were caught by the thousands in seines, from the 10th of October to the 1st of November, along the beach at Weller's Bay and the Consecon Bay. At Presqu' Isle, along the shores of the lake, I have known every forty rods of the beach for five miles to have a seine. A seine would haul from 1,000 to 6,000 fish at a haul. These fish were cleaned and salted in barrels. Seine owners would have some times as many as fifteen persons cleaning and salting fish, and sometimes many of the fish would be spoilt, they were taken so numerously. It was about thirty years ago when they began to drop off. When I left thirty years ago it was not worth while going out with a boat, they were so scarce; this was caused by catching too many in the summer season. I have known as many as forty thousand caught in one seine in July. They cleaned what they could, distributed as many as possible, and great quantities were thrown away on the beach. These would include all sizes, young and old. They were caught with a seine with a back of 2½-inch mesh; the wings were about 3 inches, and the other parts 4 inches. The length of the seine was from eighty to one hundred and ten rods, and was generally worked with from six to eight men. This would make a great number of men to be working at the seines, while as many more, farmers and others, would be waiting to get a haul. That business is all gone now, not being worth carrying on at all. As the fish were done out in Ontario, we came up to the Georgian Bay to fish, and quite a few other fishermen came up here also for the same reason and purpose that I did. Fishing may not decline so fast here as it did down there, as there are no seine grounds. Seines are very destructive kinds of nets, more so than gill-nets. If you surround a school of fish with a seine you catch them all, but with gill-nets you will not do this, only taking such as will gill themselves. One boat is used by me, of 30 feet keel, and worked by two men with thirty pounds of web of net; nine pounds of web will make about 100 yards of net.

### *Loss of Fish in Nets.*

With regard to fish dying in the nets, I must say that sometimes fish are brought in in a softer state than in others. These are cleaned and salted. Sometimes nets will be out three or four days; they are though generally lifted every other day. I fish with a boat under license, and pay \$5 for the latter. I do not know what amount of net is mentioned in the license, that is the amount of net to fish with. When I fished in Lake Ontario the fishing there was very good, and I have never seen fishing as good, or even half as good as it was in Lake Ontario. I know this of my own knowledge from having fished in both places.

### *Suggestions.*

I would offer the following suggestions:—I think that fish became scarcer in Lake Ontario, first, because so many young fish were caught in June and July, and

on account of overfishing during the spawning time. Whitefish and salmon-trout keep pretty well apart while spawning—their grounds are different. Salmon-trout spawn in deeper water than whitefish. I do not know anything about these “pot-gut” salmon-trout they speak of. They appear always to be taken in the summer, though they tell me in the fall they are larger when they come in to spawn. There are no freezing establishments here, and I do not know anything about them. It would be beneficial to clean out the rough fish by some process. Pickerel bring 4 cents; pike, 2 cents; bass, 4 cents; green bass, 2 cents; bullheads,  $3\frac{1}{2}$  to 4 cents. Bullheads, mudpouts and catfish are practically one and the same fish. Small meshed nets would not gill all fish. Herring would be in the locality where trap-nets would be set. The mesh to catch herrings should be  $2\frac{1}{2}$ -inch mesh. Herring are smaller here than in Lake Erie. If pound-nets were set in suitable ground where salmon-trout and whitefish do not resort, they would not be objectionable. No illegal fishing is going on here; no poaching, and all are pretty honest fishermen; in fact there are so many officers and cruisers about here that we cannot fish without a license. In the close season the non-licensed fishermen fish just as they please—there is no law to prevent them.

Witness in reply to Mr. Commissioner Harris:

Whitefish were more numerous in Lake Ontario than any other kind of fish. Pike, pickerel, bass and trout eat young fish, and some kinds of fish destroy the spawn. Whitefish nevertheless, held their own in the old days of fishing and salmon-trout were plentiful at the same time. When whitefish dropped off, salmon-trout were gone into more fully, and then they likewise dropped off. It would be a benefit if pike and pickerel, bass, eelpouts and dogfish were taken out—it would benefit the whitefish. The only way to catch the rough fish to make it profitable, a hoop or trap-net is required. Salmon-trout begin to spawn about the 20th of October—some whitefish will be mixed with them at that time but not plentifully.

The witness then withdrew.

CHARLES HILL, duly sworn, lives in Midland, has been a fisherman for above forty years and is a naturalized Canadian.

Witness, in reply to Mr. Commissioner Wilmot, said:

I catch mostly coarse fish, and fish for mulpouts principally, of which I have handled sometimes in one week, as much as twelve tons—this was in Prince Edward County, on Lake Ontario. I have also caught other coarse fish, such as bass, pike, pickerel, and latterly for the past four years, I have been taking the same fish here in the Georgian Bay. I fish with hoop-nets almost wholly.

*Corroborates Evidence of Former Witness.*

I have heard the evidence put in by Mr. Phillips, and his description of hoop-nets, with which I agree, but when fishing them myself, sometimes I use a short leader with a pair of nets—the leader will be from 5 to 6 rods long. I have fished an eight foot hoop at the entrance, but think a four foot hoop will do equally as well. With regard to the size of the mesh for the hoop-nets, I corroborate Mr. Phillips's statement as being correct. I also corroborate Mr. Phillips's statement as to the time when catfish are in the best condition. I sell my fish here to dealers and get the same price as given and stated by Mr. Phillips. As to the time and mode of the spawning of catfish, I also fully endorse the statements made by Mr. Phillips. The reason why I endorse Mr. Phillips's statements are that we have often fished together and know each others' views on the subject of the hoop-net and catfish

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fishing thoroughly. With regard to the Sunday close time, I think it would be seriously objectionable to carry out the law to take up our nets from Saturday night to Monday morning, in fact it would be almost impossible to do so.

### *Americans Fishing.*

With regard to Americans fishing in our waters, being an American citizen when I first commenced fishing and before moving into Canada, I may say that I then used to furnish net gear to the Canadians who fished, and I took their fish from them. At that time there was not much of a market on this side, and I marketed them in the United States. I first came into Canada to live about 20 years ago, and have lived in Canada permanently for the past 6 years, 4 years of this time in Midland, carrying on hoop-net fishing. Some call them trap-nets but they are of the same description as those described by Mr. Phillips, except that they are square instead of round and are made of ropes instead of hoops. They are set in the same manner as told by him, being raised with corks and leads, for ordinary coarse fishing they are better, but for catfish the hoop-nets are equally as good.

### *Close Seasons are Right.*

I am of the opinion that it is very wise indeed of the Government having close seasons for the preservation of coarse fish, and the time for these seasons has been fully described by Mr. Phillips and which I fully endorse. I set my nets about the 1st of April and keep them in the water until the last of May; I then take them up and set them again in September and keep them in then until it freezes up.

### *Hoop-nets take Small Fish, &c.*

In these hoop-nets we take some small fish, such as sunfish and perch, rock bass, but hardly any of the black bass. As to winter fishing, I do not carry on hoop-net fishing in the winter, it is not profitable, but I fish gill-nets under ice for catching pickerel, now and then a whitefish may be taken, but no bass, though some pike occasionally.

### *Mesh and Gill-nets, and Size of Fish.*

The mesh for gill-nets used is a 6-inch mesh. The pickerel we catch will run about 5 to 5½ pounds each; pike from 6 to 8 pounds; maskinongé are very seldom taken. Whitefish will average from 5 to 9 pounds but they are very scarce. The quality of fish run thus: Whitefish will be best, salmon-trout next, and pickerel then next.

### *Falling off of Fish.*

About the falling off of fish, I have not taken much notice of it, as I have not been here long enough to notice it, but I have noticed that bullheads are not so plentiful here as they were in Prince Edward County on Lake Ontario. The bullheads and the coarse fish have fallen off a good deal in Prince Edward County to what they were at the time I came away.

### *Size of Boats.*

I fish with one boat of 18 feet keel. It takes 2 men to work it. I took on an average about 3 tons a year since I came here. I would make the following suggestions: In my experience bullheads appear to be more numerous than the other coarse fish, they come to maturity quicker and it does not seem that they get any scarcer, but I think they should have a close season as referred to.



Witness in reply to question by Mr. Commissioner Harris :

The hoop-net is prohibited in these waters in the Georgian Bay; outside they catch a good many small fish during the season. The officers seized some of my nets and burned them, and I paid a license fee in the spring for the nets. The officer said he had authority to seize all hoop-nets, officer Fraser seized some and Captain Dunn did so also, and one McDermott did so too. Those McDermott seized, I paid overseer Fraser \$10 for a license to fish them. Hoop-nets are the only correct nets to fish with for coarse fish, equally as it is to allow gill-nets for salmon-trout and whitefish in the outside waters of the bay. The catching of the coarse fish does not effect the salmon-trout and whitefish fisheries as they are not on the same grounds at all. Mudcats are caught in the marshes more than anywhere else. Perch and sunfish feed upon other fish—perch are very destructive.

*Coarse Fish require Regulations like other Fish.*

Coarse fish fishing should be put under proper regulations as well as fishing for other kinds of fish. The coarse fish industry will compare favourably with the other fisheries outside in the bay.

*Difference between Hoop-nets and Trap-nets.*

Herewith is a plan of the net: This net has an advantage over the ordinary bullhead net by having a leader to turn fish in. This is what is called a trap-net, as used in the Georgian Bay for catching rough fish. The difference between this and the hoop-net, so called, is that this net is made without hoops, but stretched in its shape by three stretchers, as shown in the plan, the entrance or mouth of the tunnels being from top to bottom, whilst the hoop-net entrance is from the centre of the hoops.

This concluded Mr. Hill's evidence.

WILLIAM GEROW was then duly sworn. Witness stated he lived in Midland and is a fisherman of about thirty-five or forty years' standing; a Canadian by birth.

Witness examined by Mr. Wilmot:

I fish for salmon-trout and whitefish, and my locality where I do my fishing is from Moss Point to Point au Sprat, in the Georgian Bay. I use gill-nets of the following descriptions:—I use a 4 $\frac{3}{4}$ -inch mesh in the summer and fall for salmon-trout, and a two-pound and under fish will pass through this mesh. A whitefish of the same size will pass through. Salmon-trout are in good condition for all purposes, except when spawning. This applies also to whitefish. I sell all my fish in Midland to Mr. Yates, the fish dealer, who buys on his own account.

*Value of Fish.*

The value of salmon-trout and whitefish dressed is four cents a pound, and the average weight of the salmon-trout dressed is three pounds; in the summer fishing, four and a half pounds undressed. The whitefish are three cents dressed, and will weigh four pounds fresh. The fall catch of the salmon-trout will run from seven to thirty pounds dressed. Whitefish will run from three to four pounds undressed.

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### *When fish come on the Shore to spawn.*

Salmon-trout in Lake Superior come on shore about the 10th of September, and on the south shore of the Georgian Bay about the 19th of October, and on the north shore of the bay about the same time. They come on the shores from the deep water for spawning purposes. They will remain there from about ten to fifteen days, and then leave the shore. All will spawn in about that time. In Lake Superior they will get through by the 20th of September, and in the Georgian Bay about the 1st of November. No spawning of any consequence is done after the 1st of November by salmon-trout. Whitefish go on the shore about the 1st of November in the Georgian Bay for spawning purposes, and they remain about ten or fifteen days at the longest. Some will spawn a little before or after the dates above mentioned. Herring spawn in November, and black bass spawn in June. Pickerel spawn between the 25th of May and the 1st of June. Catfish spawn in June.

### *When Nets are most injured.*

The worst time for our nets while fishing is in September, October and November. In these months it is almost useless to fish, as we make nothing on account of the stormy weather injuring the nets. I do not catch any immature or small fish as a rule.

### *Sunday Close Time Impracticable.*

It would be impracticable for me or any fisherman to carry out what is called the Sunday close time, that is to take up our nets on Saturday night and leave them up out of the water until Monday morning. Protection should be given in one way or another for fish during the spawning times. At least ten days should be set apart for this purpose. Pound-nets are fished in Michael's Bay and along to Thessalon River by many persons, as many as sixty, so I was told by Captain Dunn. I do not know of any pound-nets being fished in the Georgian Bay, except at Christian Islands and Sunday Islands, three or four years ago, fishing for salmon-trout and whitefish.

### *When Nets are set, &c.*

The nets are generally set as soon as the ice leaves, and are left down until they are ordered to be taken up at the beginning of November, which is the beginning of the annual close season. Some fishing is carried on for salmon-trout and whitefish in the secluded bays. A few herrings are also taken, too—always late in the fall.

### *Artificial Fish Culture.*

I would say on the subject of artificial fish culture that I believe fish hatcheries to be good things, and we would like very much to see more of them and less officers. A hatchery should be built at the Giant's Tomb Island, some sixteen miles from this place. Salmon-trout and whitefish are both alike as to their values.

### *Fish Decreasing.*

There has been a very big falling off of fish, generally speaking. I have seen the time, some eighteen years ago, when I caught six thousand eight hundred whitefish in three weeks, from the 21st of November to Christmas, but we are not allowed to fish in November now, we are allowed to fish in October and December; formerly there were fewer fishermen, now there are a great many.

*Boats should be numbered.*

Every fishing boat should have a proper license, and it would be a very good thing to have the boats numbered so the officer might see whose they were. I have to suggest that the close season should be between the 20th of October and the 1st of November for salmon-trout. Salmon-trout and whitefish do not spawn in November or in September—they are all spawned out between the 20th of October and the 1st of November.

The witness then retired.

JOSEPH CUNNINGHAM was duly sworn:—Lives in Midland, and has been a fisherman for about thirty-two years, ten years of which have been on the Georgian Bay and the balance on Lake Ontario; is a native Canadian.

Witness examined by Mr. Wilmot:

My fishery consists of whitefish fishery and trout, and it has been the same in both places—both in the Georgian Bay and on Lake Ontario. I catch some pickerel and some bass in Lake Ontario, but I do not get any here. Herring and sturgeon are also taken around here—my fishing has been done both in Lake Ontario and the Georgian Bay.

*Meshes of Large Size pay Best.*

I fish with gill-nets only that are of  $4\frac{3}{4}$  to 6-inch mesh. I use both at the same time in the same waters; the 6-inch mesh pays best—they do not catch so many fish, but what they do catch make up in size and weight for their lack of numbers. They are of the same value per pound, that is, for summer and fall fishing. A  $4\frac{3}{4}$ -inch mesh will let three-pound fish, that is, salmon-trout, bass and whitefish pass through—these fish would be saleable fish. In October, I use a 6-inch mesh, because we get larger fish and more of them.

*Potgut Salmon Trout.*

There is a fish called "potguts" caught in about sixty fathoms of water, average size about three pounds. These fish used to be caught numerously, they are not at all so numerous now. Some whitefish are caught along with the "potguts." The greatest quantity of whitefish are caught in the shallow waters at all times; they are most numerous in the months of June and July, few are caught in October.

*Whitefish Spawn in November.*

In November they gather on the shoals to spawn. Salmon-trout come on the shoals in the latter part of October and through November, and these all come to spawn. I think the "potguts" spawn in deep water. I have caught some with spawn in them about 3 to  $3\frac{1}{2}$  pounds in weight. They spawn in from 30 to 40 fathoms of water. They are caught with meshes of  $4\frac{3}{4}$  inches. "Potguts" are always good and fat, the other trout are best, except at the spawning time, but after that are not so bad—not so fat and flabby and soft, that is, the female fish, the male fish are always better. The whitefish in June and October are the same in appearance. When they come to spawn the scales are rough, some are called "bow-backs." Whitefish and salmon-trout are always better at any other time than the spawning season. I market my fish in Midland, they are for home consumption in Canada. The value of the "potgut" and other fish is the same, also for whitefish; the price for all is the same, about three to four cents. In Lake Ontario the trout are what

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we call a deep-water trout, the others are fall trout. The fall trout are always the best, and it is the same way in the Georgian Bay. I fished in Lake Ontario for about ten years, but could not get enough there to make a living out of it and consequently came up here to carry on fishing. With regard to the small fish in Lake Ontario, Seth Green put in what he called menhaden or shad, and these fish ate up all the fry of the whitefish and salmon-trout. I caught whitefish in Lake Ontario off Amherst Island—I caught a good many, something like 1,900 in a haul when first I commenced fishing there, but got very few when I left there.

### *Overfishing ruined Lake Ontario.*

The whitefish became scarce from the same cause as the salmon-trout, and I was compelled to come up here to fish. This also applies to other fishermen besides myself. These fish became scarce there from overfishing. I have seen immense numbers of small fish along the shores dead.

### *Spawning Times of Fish.*

About the spawning of fish, I must say that salmon-trout are ripest to spawn about the 1st of November; whitefish from the 10th to 15th of November. I do not think they should be caught then, so that they may be allowed to spawn. Herring spawn most freely throughout November; black bass spawn in May and June; pickerel in April and May; pike and maskinongé, I really do not know when they spawn. I fish with a sail-boat and gill-nets. I find that September and October are the worst months for losing nets; November weather is rougher and colder and also bad on the nets. The Sunday close time from Saturday night to Monday morning, I consider it would be quite impracticable for the fishermen to carry out.

### *Close Seasons are Desirable.*

I do think that it is desirable to have close seasons, and it is also essential to set off special grounds for fish to spawn in where they should not be molested. With regard to artificial fish-breeding, I think it is very good and it should be extended, but if proper grounds were set aside for the natural spawning of fish a hatchery would not be required for the great lakes or for the Georgian Bay.

### *Quality of Fish.*

I would call whitefish the first and most valuable fish, because the most of these are caught and they are the best fish. There are more fish caught now in the bay than there were formerly, but there are ten boats fishing now where there was only one ten years ago, therefore it would be apparent there is no falling off in the fish; this applies to the salmon-trout and whitefish. I fish with one boat, size 20 feet keel; employ two men to work it, and use about 7,000 yards of net.

### *Many Fish become Bad in the Nets.*

A good many fish are lost by drowning in the nets by their being out too long. If these fish are found too soft to ship they are salted and they thus go to market, but otherwise they could not be used. The fishermen would not make as much if all the nets were taken out on the 1st of November; the poor man could not stand it; the fishermen would not make any money. There are 50 or 75 per cent of the nets taken up on the 1st of November anyway, but there are lots of people who could not live if all the nets were taken up on the 1st of November; but if the law compels one man to take up his nets all should do the same thing. I may say that as a rule fish are more plentiful now in appearance than they were ten years ago, but it is because there are more boats, more nets, and more men fishing for them.

ARCHIBALD CAMPBELL was then duly sworn, lives in Midland, is a fisherman, and has been for over ten years, is a native of Scotland.

Witness examined by Mr. Wilmot:

My fishing consists in catching whitefish and trout—no other fish, but herring and some pickerel occasionally. I fish in the neighbourhood of Moss Point in the Georgian Bay. I fish with gill-nets and nothing else—I formerly used hoop-nets but gave them up a year ago. I use a  $4\frac{3}{4}$ -inch mesh for small fishing, also a 6-inch occasionally, but I use a 6-inch mesh in the fall for my fall fishing. A  $4\frac{3}{4}$ -inch mesh is used in deep water for whitefish and trout though in seldom less than 15 fathoms, and fall fishing in from 5 to 18 fathoms—we catch the same fish in both the summer and fall—both alike. The salmon-trout average about 8 pounds dressed, but 10 pound fish are also caught. This average is greater than other places. Whitefish of about three pounds are caught. Whitefish are somewhat larger in the fall on the average. The large ones come on earlier than the small ones—that is for spawning purposes.

*When Fish come near Shore to spawn.*

Salmon-trout come on about the 25th of October, working towards their spawning grounds—the best catch of these fish was on the 15th of November, and they would spawn about a week later, though some were spawning at that time. Whitefish come on the shoals about the 10th of November to spawn—they get there quicker than the trout, they spawn principally between the 15th and 20th November, then leave and go to deep water.

*Size of Mesh.*

A  $4\frac{3}{4}$ -inch mesh is the right one for salmon-trout and whitefish. Smaller mesh would be injurious because it would catch too small fish. The small fish will not stand handling like the larger fish. Salmon-trout of 2 pounds and under would be immature—a less size would apply to whitefish. Three-inch mesh would catch small sized whitefish; that is to say, half grown.

*Salmon-trout and Whitefish best in June.*

Salmon-trout are best in the month of June—whitefish are also best then—they are very fair all summer, but they are not in prime condition at the spawning time and some are not fit for use at that time.

*Markets for Fish.*

My catch of fish is sold in Midland, to go on the Canadian markets as a rule. Some go to the United States markets—the markets for both kinds of fish are the same. Salmon-trout and whitefish are sold at about the same price, that is four cents a pound; pickerel the same; herring are not used till the fall when they are soft and worth about  $2\frac{1}{2}$  cents a pound. Bass are sold for the same price and pickerel also.

*Spawning time of Fish.*

As to the spawning time of fish, salmon-trout are ripest to lay their eggs about the beginning of November. Whitefish are ripest from the 10th to the 15th of November, but some will spawn before this and some later. About one-third of the

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whitefish and salmon-trout will spawn as late as December—These spawn in the deep waters. Herring spawn through the month of November. Pickerel spawn in the spring before May, and bass may be in May and June.

### *When Nets are most injured.*

I lose my nets and receive more injury in September and October—November is a very bad month, being generally rough weather and colder. To take up our nets from Saturday night to Monday morning would be impracticable to work. There is no occasion for taking up our nets if the Sabbath is kept otherwise.

### *Americans fish in Canadian Waters.*

Regarding Americans fishing in our Canadian waters, I would say that I have heard of them doing so along the north shore near Killarney and Bustard Island—they fish with tugs and gill-nets during the summer, but I do not think it is right for the citizens of the United States to come and be permitted to fish in our waters—they should be reserved for our own people.

### *Close Seasons are right.*

I believe in close seasons, for they are right, if properly selected. It would be in the best interests of the fishermen and others interested directly, as of the fisheries themselves, if the close seasons were maintained, and maintained rigorously. The setting aside of certain limits for spawning grounds would be a correct thing, if there were no close seasons. I would prefer this, however, to the close seasons. I set my nets about the 1st of May, and I keep them down generally always till about the 1st of November, and fish more or less through the whole season. Winter fishing is carried on through the ice with gill-nets for the catching principally of pickerel and pike—an odd salmon-trout and whitefish are now and then taken.

### *Indians spear Fish.*

I know that the spearing of fish is carried on in the fall and winter—it is carried on by Indians, and the fish caught are sold to the public. I am strongly of the opinion that the artificial culture is good. Artificial culture of fish is a good thing, and it should be enlarged and encouraged if the success and results of the work are as good as they are reported to be. There is good water, I consider, for a hatchery here on the Midland Bay—fall and spring—all round, and I would say the fry should be planted out as far as the Giant's Tomb. The whitefish is the most desirable fish for the fishermen in our waters, and should receive the most care to retain them in good numbers.

### *Falling off from Overfishing.*

I have noticed the falling off of fish. Formerly we used less nets and got as many fish as we do now with more nets. This statement applies to the salmon-trout and whitefish alike, and this falling off has been caused by overfishing and the use at the present time of more numerous and better gear than formerly. I would place the falling off fully at one-third.

### *Number of Boats and Nets.*

I have fished in about the same grounds as formerly, and I fish with a sail-boat of about 28 feet keel, and it takes two men to work it. I fish sixteen nine-pound-nets ;

each will have about 240 corks of three yards each to the cork, or about 7,000 yards. I set my nets in water over 15 fathoms deep; the net is about five feet deep. I have caught about eight tons of fish, which is about the average caught by the other fishermen. There are about twenty or twenty-five fishermen that hail from this port and fish like myself. All boats should be numbered and the names of the owners put on them. This would enable the officer to tell the legal from the illegal fishermen, and which is a very necessary thing. I do not know of any steam tugs that fish from this port. They did about five years ago; at that time there were two, but they found that it did not pay. I am of the opinion that they (steam tugs) should be prohibited. I lose only a few fish from my nets remaining out long in stormy weather. An ordinary fishing boat could fish about twenty-nine pound-nets; that would make about 250 corks to each net. Each cork is equal to three yards. Yes, I have thought out a few suggestions that might improve matters, and would suggest as follows:—

*Suggestions.*

That it is right to have a close season of about the month of November, and to take in the month of November. This would benefit the fishing and the fishing interests generally. Herring are only caught in October and November, and they are very numerous—they are of no benefit to anybody only at that time. Herring will feed on small fry of their own, as well as any other kind of fish. Herring should not, I think, have any close season, as they cannot be killed off. Pound-nets should not be allowed, as it would create a monopoly and only a few would get the benefit from them.

Witness, in answer to query by Mr. Commissioner Harris:

Fike-nets are set off the shore. I gave them up and went in for gill-net fishing. They took pickerel principally. I have caught a salmon-trout or so and a few whitefish, and have taken pike and suckers. I have also caught an odd bass, sturgeon and maskinongé. The fike-net is about ten or twelve feet long. I used to go to them with my sail-boat, and fished three of them at one time. These nets do not interfere with the salmon-trout or whitefish, although these fish could be taken by them. A steam tug could attend to about thirty or forty of these nets. In fact there is no limit to what they can attend to. It would not be fair to use these nets, because they are like the pound-nets—they enable a monopoly to be established. They can be set in twenty feet of water, but I do not think they are of any use. I think the nets should have  $4\frac{3}{4}$ -inch mesh, and at much above that as may be. The 5-inch mesh is too large for gill-nets. With two men and a boat I can catch about sixteen tons of fish. If the fishing goes on as at present, fishermen cannot live. If pound-nets were introduced it would interfere most disastrously with the fishermen. I fish about forty miles from here, in from 18 to 24 fathoms of water. The fish out in 60 fathoms might be in 5 fathoms a few days afterwards. They change about very fast.

The witness then withdrew.

Mr. THOMAS H. ELLIOTT examined:

*By Mr. Wilmot:*

Q. What is your occupation?—A. Fishery overseer.

Q. For what section of the country?—A. From Otter Head, Lake Superior, to French River, Georgian Bay, including all the islands.

Q. Have you been engaged in practical fishing at any time?—A. No.

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Q. Then your knowledge is from your observations of what you have seen as an officer of the department?—A. Yes, since the time I was appointed overseer.

Q. What is your nationality?—A. Canadian.

Q. What are the principal kinds of fish caught in the section over which you have control?—A. Whitefish, salmon-trout, pickerel, sturgeon and pike. The trade in catfish has not been opened up; there are none caught in my division.

Q. How is it with regard to herring?—A. There are none caught in my division.

Q. How far south from the north channel in Lake Huron do you go?—A. To the boundary line south of Cockburn and Manitoulin Island.

Q. What description of nets is principally used in your division?—A. Pound-nets and gill-nets; very few seines. Seines are used on the lower division. An illegal form of pound-net, called trap-nets, are used very extensively from Algoma Mills east.

Q. What is principally caught with these?—A. Pickerel and pike; not many whitefish or trout.

Q. Then with proper pound-nets are the principal kinds of fish caught salmon-trout and whitefish?—A. Yes, and sturgeon on the north channel of Lake Huron.

Q. Is the pot in the pound-nets a perfect trap, that is inclosed all round, top and bottom?—A. They are open on top, where used legally; those that are illegal are a complete case, and set completely under water.

Q. Are those illegal nets largely used in your division?—A. They have been, previous to my taking charge of the division; there has not been many since.

Q. Are pound-nets numerous in your division?—A. I had altogether about 52 pound-net licenses last year; a Mr. Reeves got 16 for his company direct from the department.

Q. With regard to the gill-nets, are they used very numerously in your section?—A. Yes. I have no idea of the number of yards used. The license calls for 6,000 yards; but they sometimes use from 16,000 to 24,000 yards. These nets are divided into four gangs; three gangs will be in the water and one on shore.

Q. So that the licensee is using 18,000 yards more than his license calls for, and fishing this excess all the time?—A. About that.

Q. Has that system prevailed long?—A. It has for the last few years. The fishermen say it is necessary to do this in order to keep up their catch. They have to increase their plant to catch the same number of fish each year. Where 6,000 yards might have answered some years ago, it takes 18,000 yards now to catch the same quantity of fish.

Q. What is the size of the mesh in the gill-nets?—A.  $4\frac{1}{2}$  inches, extension measure.

Q. Will that actually be  $4\frac{1}{2}$  inches in the water?—A. I have always found it so. The twine used is so fine it does not shrink.

Q. Do you believe the  $4\frac{1}{2}$  mesh a proper size mesh for the welfare of the fisheries?—A. I believe the mesh should be 5 inches for the keeping up of the fisheries.

Q. Do you think 5 inches should be the minimum size?—A. Yes.

Q. Would that 5-inch mesh take a marketable whitefish or salmon-trout freely?—A. I believe it would.

Q. Would anything under 5 inches kill the young and immature fish?—A. Yes.

Q. Are you quite of the opinion that there should be nothing less than a 5-inch mesh used in gill-nets?—A. Yes. The average size of salmon-trout caught in the  $4\frac{1}{2}$ -inch mesh gill-nets would run to about 2 pounds. I do not think a 2-pound fish could pass through a  $4\frac{1}{2}$ -inch mesh. I do not think a 2-pound fish would gill in a  $4\frac{1}{2}$ -inch mesh, but it might possibly get in far enough and get caught. The fish caught in gill-nets are divided into two classes, No. 1 and No. 2. The No. 1 run from 1 pound to  $1\frac{1}{2}$  pounds and upwards. Anything under 1 or  $1\frac{1}{2}$  pounds is No. 2.

Q. What is the proportion of No. 1 to No. 2 caught?—A. Along about Spanish River there is about one-third No. 2 to No. 1 caught. One firm handled 22 tons No. 2 fish last summer.



Q. What is the difference in value between No. 1 and No. 2 whitefish?—A. I don't think No. 2 brings half as much in price as No. 1.

Q. What size of salmon-trout is called No. 1?—A. They call 2 pounds and upwards No. 1; under that, No. 2.

Q. What is the proportion of No. 2 to No. 1 salmon-trout caught?—A. The proportion is a great deal less than whitefish; there are not so many small salmon-trout caught. The No. 2 salmon-trout bring about half as much as the No. 1.

Q. With regard to the mesh used in the pot of the pound-nets, what size are they?—A. From  $2\frac{1}{2}$  to  $3\frac{3}{4}$  inches extension measure.

Q. Will that size mesh catch a great number of small and immature fish?—A. It will.

Q. Do you think that this sized mesh is very injurious to the fisheries?—A. I think it is very destructive. It kills off the young and immature fish. A  $4\frac{1}{2}$ -inch mesh should be the minimum size for the pot of the pound-net. The mesh should be  $4\frac{1}{2}$  inches when in the water. After purchasing them the fishermen tar them, as they call it, a process which shrinks the mesh. After it is tarred three times, a mesh shrinks to 4 inches. In order to have it  $4\frac{1}{2}$  in the water, it should be at least 5 inches when purchased.

Q. Is the twine in a pound-net much larger than in a gill-net?—A. Yes, larger and coarser.

Q. Then the twine that makes the mesh of the pound-net is many times larger than the twine of the gill-net; is it 4 or 5 times?—A. About that. It would take about 10 strands of the gill-net twine to make one of the pound-net twine.

Q. Will the 5-inch mesh of the gill-nets shrink at all when put in the water?—A. I have never known it to do so, with the fine twine they use now. They tan the gill-nets with a liquid which prevents shrinkage.

Q. And your view of the matter is that all meshes of all nets should be calculated upon what they would measure in the water?—A. Yes.

Q. The measure when dry would be no criterion unless the shrinkage was added?—A. No.

Q. How are sturgeon caught in your division?—A. In pound-nets. They catch them from 50 pounds to 150 pounds in weight; from about 3 feet and upwards.

Q. Would a 3-foot sturgeon be capable of reproduction?—A. I believe it would.

Q. What is your idea with regard to the limit in size of sturgeon that should be caught?—A. No sturgeon should be caught under 3 or  $3\frac{1}{2}$  feet in length.

Q. When are whitefish in best condition for eating or marketable purposes?—A. In the spring of the year, about May and June. Along in November they are a different fish altogether, they become flabby and soft.

Q. Is this brought about by their advanced stage towards reproduction or spawning?—A. I think so.

Q. When are salmon-trout in best condition for eating?—A. About the same time as whitefish.

Q. When do you think is the principal spawning time of the whitefish?—A. November.

Q. Would that apply to salmon-trout as well?—A. They spawn in October and November.

Q. And the whitefish principally in November?—A. Yes; they commence to spawn about the 12th November.

Q. Then the month of November, which is set aside as a close season for salmon-trout, would not altogether cover their spawning time?—A. No. They commence to spawn in October.

Q. Then do you think the close season for salmon-trout should be the latter part of October?—A. Yes. From all the information I can gather from fishermen I believe they spawn in October.

Q. When are fish caught most numerously in pound-nets?—A. In the months of May and October.

Q. How about the months of July and June?—A. Part of June there is very fair fishing; in July and August there is not much fishing.

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Q. Is it because the fish are scarcer, or because the fishermen take a holiday?  
—A. Fishermen say there is a fall and spring run; when the weather gets warmer the fish seem to go out into deeper water.

Q. Have you seen many very small whitefish caught in pound-nets and thrown away? Have you heard of this being done?—A. Yes, I have heard of it; I have seen them at Thessalon packed in barrels like herring. The barrels were the size of pork barrels; the fish were from 8 to 10 inches in length, perfectly immature fish. That sort of business has been carried on pretty extensively for the last 10 or 12 years.

Q. Are they disposed of in any other way than being packed in barrels?—A. They are thrown away with the offal.

Q. Does that apply to salmon-trout as well as to whitefish?—A. To both salmon-trout and whitefish.

Q. Are they mostly caught in trap-nets?—A. In trap-nets and pound-nets.

Q. Is it your opinion that the department should establish a description of net to be known as a pound-net; establishing its shape and make, the fishermen to use that kind and no other?—A. Yes. Trap-nets should be abolished altogether. A trap-net complete costs from \$40 to \$60 and a pound-net from \$300 to \$350 and \$400.

Q. Then the proportion of cost of a trap-net to a pound-net is as \$50 to \$400?—A. Yes, about that.

Q. Are the trap-nets licensed from the department?—A. No; all fishing done with them is illegal.

Q. Is the regulation with regard to pound-nets, that they shall only have one head, carried out?—A. There are no double-headed pound-nets in my division.

Q. Where are the small and immature fish shipped to from your division?—A. On Lake Superior they ship to Chicago; the Buffalo Fish Company ship to Buffalo. None of the trade is done in Canada at all.

Q. Are pound-net fishermen and gill-net fishermen generally the owners of their own plant?—A. I think a great many of them own their own plant.

Q. Would some of them be influenced by American capitalists?—A. Yes; I think there is a tendency for American capitalists to endeavour to get hold of our fisheries.

Q. Is it a fact that a large number of fish die in the gill-nets during stormy weather, when the nets cannot be lifted?—A. Yes; I have heard the fishermen say so.

Q. Do you know anything about a trout called the "potgut" trout?—A. No.

Q. Is there more than one kind of salmon-trout, to your knowledge?—A. Yes, in the deep waters of Lake Superior there is a fish called the ciscoette salmon-trout.

Q. Is there two kinds in the north channel of Lake Huron?—A. I have never heard of any other kind than the one.

Q. You know only one kind of salmon-trout in the waters of Lake Huron?—A. Yes, that is all.

Q. Have you heard fishermen speak of two kinds, one the "potgut" and the other the "black" salmon-trout?—A. No, not with me.

Q. Are the salmon-trout caught in the summer months smaller than those caught in October, or do they run about the same?—A. They run about the same.

Q. Are they caught the whole season through about the same size?—A. Yes.

Q. Is there any difference in the size and appearance of whitefish?—A. Yes; some claim that there are two, and some three different kinds of whitefish.

Q. Are there many seines used in your division?—A. No. There are some.

Q. What size mesh is used in the seines?—A. From 3 to about 4 inches extension measure.

Q. Have you ever received any decided instructions as to the proper sized mesh for seines?—A. Not that I know of.

Q. Will the mesh be the same on its wings as in the bag?—A. The one I saw at Rattlesnake Harbour was all alike.

Q. What is the usual number of pound-net licenses granted to fishermen up in your section?—A. Reeves has 16, but the usual number granted to other parties is from three to four.

Q. Are these fishermen who get from two to four not allowed to go beyond four?  
—A. Five is the limit. This restriction breeds great dissatisfaction amongst the fishermen. Reeves calls himself a British subject, but represents an American fish company.

Q. Has this company been in the habit of getting these licenses for any length of time?—A. They got them last year; I do not know how it was before I was appointed.

Q. How many boat licenses do you issue?—A. Fourteen. These 14 boat licenses would represent about 84,000 yards of gill-nets, each boat being entitled to 6,000 yards, but I believe they fish about 280,000 yards. Then there are three tugs licensed, entitled to 25,000 yards each, but they fish at least 175,000 yards.

Q. Do you think it wise on the part of the department to have a close season for the preservation of the fish at spawning time?—A. I do.

Q. In your opinion have the fisheries fallen off or improved?—A. They have decreased; at the present rate of fishing they are decreasing very fast. Stringent laws will have to be enforced, or in about six years from now the fishermen will have to quit fishing; in fact, some of them have quit now, on the north channel of Lake Huron. In every case where I have asked the fishermen, they have said that the fisheries had decreased.

Q. How do you think this falling off has been brought about?—A. By improper fishing; catching the small and immature fish, and catching them during spawning time. I would suggest that in addition to a regulation as to size of mesh in pound-nets, there should be a restriction with regard to selling, that the buyer should be equally responsible with the seller for buying small and immature fish; he should be prosecuted for buying illegally caught fish, and the penalty should be very severe on both.

Q. With regard to bringing a new law into force regulating the size of mesh, would twelve months' notice be sufficient to cover the requirements of the fishermen to do that?—A. Twelve months will give them ample time to make any necessary change in the size of the mesh.

Q. What would be the probable cost of putting in a new pot or crib in a pound-net?—A. \$25 to \$40. If any new regulations went into force, they would not fall very heavily on the fishermen. They could easily make it up in one catch in the spring of the year.

Q. What would you consider a fair average catch in the spring of the year?—A. From  $\frac{1}{2}$  to  $1\frac{1}{2}$  tons of whitefish or salmon-trout.

Q. What is the value per pound of these fish when caught?—A. Two and one-half cents on Lake Superior;  $3\frac{1}{2}$  on Lake Huron.

Q. Then, according to that, one catch in a pound-net in the spring of the year would more than pay for the outfit?—A. Yes, that net I seized last summer, when they lifted it, every night, they got from 1,200 to 1,600 pounds of fish.

Q. These fish would average about what weight?—A. From  $1\frac{3}{4}$  to 2 pounds.

Q. Are salmon-trout and whitefish sold at the same rate per pound?—A. Yes, about  $3\frac{1}{2}$  cents.

Q. Have you any information or any knowledge with regard to artificial fish culture?—A. I believe it is the proper means of assisting and keeping up the fisheries.

Q. Are you of the opinion that the natural and artificial mode of producing fish should go together?—A. Yes; one will assist the other.

*By Mr. Harris :*

Q. Are there any gill-nets under  $4\frac{1}{2}$ -inch mesh used in your division?—A. Not in my division.

Q. What effect would it have on the fishermen if the small fish caught were seized?—A. They would not catch them, I suppose.

Q. What do they do with these small fish?—A. Sell them for whatever they can get.

Q. Would it make any of the fishermen stop fishing, if they were prevented from selling the small fish?—A. I believe it would not. Some of them would stop.

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Q. Do you think it right to prevent the handling and marketing of these small fish?—A. I do.

Q. How much territory do you supervise?—A. Probably about 1,600 miles of coast line.

Q. What duties do you perform?—A. I have to prevent illegal fishing; see that the fishermen fish no more nets than they have licenses for; sign licenses and deliver them to fishermen; watch that the gill-net mesh is of the proper size, &c., &c.

Q. Do you see that the regulations of the Fisheries Department are obeyed?—A. Yes.

Q. What means have you at your disposal to go about this 1,600 miles of territory?—A. I have a sail boat, which belongs to the Government.

Q. Can you supervise all that territory?—A. Not so thoroughly as if I had a small steam launch; then I could do the work a great deal better.

Q. How many points are there in your territory where they land fish?—A. About fifty.

A. At how many of these points is there railway communication?—A. They get the fish away from the other places by boat; they do not ship any fish by rail.

Q. Where do they go to when shipped by boat?—A. The Lake Superior fish go to Chicago; the other fish go to Buffalo, I understand.

Q. Are there several points where the young and immature fish could be seized?—A. Yes.

Q. If seizures of these small fish were made, do you think it would stop the traffic?—A. I do.

Q. Have you ever had any orders to seize them?—A. No.

Q. Have you ever heard of its being done by anybody?—A. No.

Q. If the small fish now caught were seized, would the fishermen continue to fish with the nets that caught them?—A. No.

Q. What fish would they fish for with trap-nets?—A. Pickerel and pike.

Q. Are there many localities where these illegal trap-nets can be used where there are no whitefish or salmon-trout?—A. Yes, a great many; they are fished to a considerable extent on the broken shore of Lake Huron, near Spanish River.

Q. Do they call them rough or coarse fish where no salmon-trout or whitefish are caught?—A. Yes.

Q. Would this fishery be of considerable value, if properly regulated?—A. Yes, I believe it would, if properly regulated.

Q. Are these rough and coarse fish the spring spawning fish?—A. Yes.

Q. Would these rough and coarse fish be in best condition when the salmon-trout and whitefish were in bad condition?—A. Yes.

Q. Would trap-nets be better than seines for that business?—A. You could not fish with seines or that broken bottom; there are very few places where they could use seines in my division.

Q. Are the trap-nets usually lifted when boats come along to receive the fish?—A. A great many of them are lifted in the night. They are lifted at night when fishing illegally; if fishing legally, they would be lifted to supply the boats.

Q. Do you think it possible that one man with a sail-boat can supervise 1,600 miles, so as to stop illegal trap-net fishing?—A. There is no trap-net fishing done on Lake Superior.

Q. It might be if legalized?—A. No, the water is too deep. They are few bays, and the shores are too bold.

Q. How much do you get for your services as fishery officer?—A. \$300 a year.

*By Mr. Wilmot:*

Q. Do fish within your knowledge have certain resorts which they generally come to more numerous at certain seasons of the year than at others?—A. Yes, when they come to spawn.

Q. In places where fish have been very numerous at one time, can the fishing be wholly destroyed in a few years by overfishing and improper fishing?—A. It can, and has been done.

Q. Can you name an instance?—A. Yes, at Batchewan, around Sandy Island Shoal.

Q. How do you know it has taken place there?—A. Fishermen all tell me that some 12 years ago they caught whitefish there as high as 16 pounds in weight, of an average from 10 to 15 pounds, and they could fill a boat in one night with a couple of pieces of net; now with 4 or 5 pieces of net they cannot catch the same quantity, and the fish weigh only from 2 to 3 pounds.

Q. It is then within your knowledge that some sections have been almost denuded of fish by overfishing and illegal fishing?—A. Yes.

Q. Can this be done by legal fishing as well?—A. Yes.

Q. Have the fishermen any device they put the pot of the pound-nets by which they can catch all the small fish?—A. Yes, they have what is called an apron. It is a piece of net the same size as the back of the pot, of about 2-inch mesh. They drop that down into the back of the pot, and afterwards work the fish on it and then draw them up.

Q. Would this 2-inch mesh in these aprons lift all the small fish from the pot?—A. Everything.

Q. Will these small fish, when they get in the pot in the first place, remain there if not molested, but when they begin to lift the pot the small fish run out?—A. Yes; they run out; and to avoid this they use the apron with small mesh to catch them. The penalty for using this apron should be very severe; the license of the fisherman found using it should be cancelled.

Q. Do you believe that the contemplated change in the mesh of gill-nets to come into force in 1894, will result to the benefit of the fisheries and fishermen?—A. In the long run I believe it will benefit the fisheries and fishermen.

Q. Do you think the expense attending the change would be serious to the fishermen?—A. No.

Q. Do you believe that the fishermen would be benefited and the fisheries improved by the change?—A. I do.

#### No. 12.—BARRIE.

BARRIE, 5th December, 1892.

A meeting was held in the office of C. H. Ross, P. M., on Monday, by Messrs. Wilmot and Harris, Dominion Fish Commissioners, who were appointed by the Department of Fisheries at Ottawa, for the purpose of making investigations into the fresh water fisheries of Ontario. The object of their visit was to obtain as much practical information as possible concerning the close seasons, and the regulation for nets, as now in force in the province of Ontario. Many of the leading sportsmen of the town gave evidence and stated it as their opinion that the close seasons were not long enough, and that protection against poachers should be enforced by the Dominion Government by giving the fishery officers sufficient remuneration to enable them to devote their whole time to the enforcement of the law, and provide a steam yacht for that purpose to protect the waters of Lake Simcoe.

The following evidence was voluntarily given under oath by the following gentlemen for the benefit of the Commission:—

Mr. Huggard was chosen as secretary *pro tem*, who took the evidence by stenography.

ALEXANDER B. McPHEE, sworn, deposed as follows:—

*By Mr. Wilmot:*

Q. Where is your residence, Mr. McPhee?—A. Here in Barrie.

Q. And your occupation?—A. Well, I am a clerk in the registry office.

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Q. What residence have you had here, how long?—A. About 35 years.

Q. What is your nationality?—A. A Highland Scotchman.

Q. Are you engaged in any description of fishing yourself now?—A. No, sir.

Q. Are you acquainted with the description of net regularly used here?—A. I don't know anything about them.

Q. Have you had any experience with regard as to when fish are in their best condition; take, for instance, salmon-trout for edible and marketable use?—A. The spring months, I think.

Q. What do you give your opinion from; what months in the spring?—A. April, May and June; May and June is the time we used to catch them here.

Q. What is your opinion with regard to the whitefish?—A. I don't know much about whitefish.

Q. Have you bass in the lake here?—A. We have.

Q. When are they in their prime condition for eating?—A. In the month of August.

Q. Are you quite certain of what you say about that?—A. To the best of my knowledge.

Q. Now, what do you say about herrings?—A. I don't know about them; I have never fished for herrings.

Q. What other fish have you a knowledge of?—A. Maskinongé.

Q. What is your idea as to maskinongé?—A. Well, I think in the fall of the year; September is their best time. I have caught them in the spring of the year, but those in the fall of the year were in their best condition.

Q. Is there any particular market for fish caught here in this lake?—A. I think now the market is principally local; I don't know anything about that; I never sold a fish in my life.

Q. Have you any idea of what the fish may be worth here in the local market?—A. Well, it depends upon its size; the only salmon-trout I see now comes from Lake Huron.

Q. I am speaking of your own fish in Lake Simcoe?—A. I have no knowledge.

Q. What about salmon-trout, whitefish, bass and herring?—A. I have seen them selling at about 20 cents a dozen, that is the herring and salmon-trout that would weigh  $3\frac{1}{2}$  pounds at 35 cents, and I have seen herring at 25 and 20 cents a dozen.

Q. What are salmon-trout sold at?—A. Salmon caught in the lake here sell for 7 cents a pound.

Q. What about the bass—are they saleable in the market here?—A. I have not seen any sold.

Q. Can you give us any information when your fish are what we call ripe for spawning—take for instance salmon-trout?—A. I don't know anything about that.

Q. Do you know anything about whitefish in that respect?—A. No.

Q. Nor herring?—A. No.

Q. Do you know anything about bass?—A. All that I know about bass is that the close season is from the 15th April up to the 15th June.

Q. What is your idea as to when they lay their eggs?—A. I have no idea.

Q. Do you know if it is the habit to catch small immature whitefish here in the lake, or black bass and salmon-trout?—A. I could hardly answer that question because there are small fry caught here for fishing with, and they may be herrings or whitefish.

Q. Do you know anything about the period for spawning of the speckled trout?—A. Well, I think they spawn in the month of September—it depends upon the water; some spawn earlier than others.

Q. In the month of September you say?—A. Yes, in the fore part of September; I have caught fish in September that were not fit for food.

Q. What is your idea with regard to the protection of fish by close season—do you think it is a good thing?—A. I do.

Q. Do you think protection should be given by fixing a proper close season?—A. Yes.

Q. Do you know whether the close season here is obeyed or not, as a rule with regard to the taking of fish in the streams?—A. I have seen fish taken during the close season.

Q. Do you believe the close season has been violated and is still violated?—A. Yes, I think so.

Q. Do you think it advisable to set apart any portion of the lake for the spawning season in which no person should be allowed to fish?—A. I believe if a close season is properly looked after by an efficient officer and properly paid for doing so, it would be of value, but the paltry sum now given by the Government would not pay them and they cannot do the work properly.

Q. Is there any winter fishing carried on here or not?—A. Yes, there is fishing done through the ice with a hook and line.

Q. Is hook and line fishing through the ice practised?—A. Yes.

Q. How is this done: is it with live bait, dead bait or imitation bait?—A. Well, I suppose some use live bait if they can get it, and others use dead bait.

Q. What kind of fish are caught here in the winter, principally?—A. I believe the principal kind of fish caught here in the winter are herring; there may be an odd salmon-trout and now and then a whitefish.

Q. Any bass caught in the winter months at all through the ice?—A. No, never to my knowledge.

Q. Do you know of any bass fishing being carried on to any extent by anglers in the lake or otherwise?—A. Well, I don't know of any, with the exception of anglers only that go up the bay fishing.

Q. The object is to know whether there are bass to any extent in the lake, and if there are any caught here we want to ascertain—we would like to know whether bass fishing is carried on by regular fishermen or by anglers only?—A. Well, there is a good deal of bass fishing done, but it is just for their own use, it is for their own domestic use.

Q. Is this bass fishing worthy of the attention of the department for its protection—that is, in proper close seasons?—A. Oh, yes, I think so; I think it ought to be protected.

Q. If bass were more plentiful here, would it be any inducement for visitors and tourists to come here for the purpose of catching them for sport?—A. Oh, yes.

Q. Would the people derive any benefit from their presence here?—A. Yes.

Q. In what way?—A. Well, I think the hotel men in the first place, and all other people besides.

Q. Then you think these people render assistance to the place by the expenditure of money?—A. I do.

Q. Which is the most valuable description of fish you have got in this lake?—A. Well, I suppose the salmon-trout are the most valuable.

Q. How do you place the whitefish, commercially, or for domestic use?—A. Well, for domestic use, I would rather have bass than either of them.

Q. Now, have you any knowledge with regard to the decrease of fish from former times in this lake?—A. Well, not outside of this bay.

Q. What knowledge have you of any part of the lake?—A. Well, in this bay some years ago, the fish were very plentiful.

Q. When you say fish, what kind do you mean?—A. Salmon-trout and whitefish.

Q. Salmon-trout, whitefish, and what other kinds?—A. Well, I won't say about whitefish, but we used to be able to go out and get whatever fish we wanted.

Q. What is the position as to the quantity of the fish now?—A. Well, last spring I was out trolling, and I could not get one at all.

Q. Then they have greatly fallen off, have they?—A. Yes.

Q. When you speak about their being formerly plentiful, what do you mean?—A. There was no netting allowed in the bay at that time.

Q. What quantity would you call plentiful?—A. Well, my recollection some years ago is that I would go out in the morning, from daylight up to about half-past seven, in April, and catch as many as sixteen in the morning. That was in 1862.

Q. Well, what about netting?—A. I don't know anything about netting; there was a license for netting.

Q. Have you tried the lake this last year to catch any that way?—A. No, not within the last two years.

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Q. What was your success then?—A. Oh, you might troll five or six days and not get perhaps one fish.

Q. Then you say the falling off has been very great?—A. Yes.

Q. What do you attribute the falling off to?—A. To illegal netting—netting the fish on the shoals when they were spawning on their beds.

Q. What time of the year would this illegal fishing be principally carried on?—A. In the latter part of October, and in the month of November.

Q. Would this be their spawning time?—A. Yes, I think so, because I have seen fish coming from the nets full of spawn.

Q. What are the remedies that you could suggest for this state of things?—A. I told you that before.

Q. Then you would go back to the question of artificial breeding, do you think that artificial stocking would be beneficial?—A. I do think so.

Q. Stocking from hatcheries would assist in replenishing the fish?—A. Yes, I think so.

Q. What is your idea with regard to speckled trout—have you fished them much in this neighbourhood?—A. Yes, I have a great deal.

Q. What is the state of the streams with regard to the speckled trout now, and what they were formerly?—A. Well, they are nothing to what they used to be formerly.

Q. What do you attribute that to?—A. Well, in some respects the country is getting cleared up and the retreats of the fish being cut off; and in some of the streams by dams and mill-ponds, and the chubs and suckers have become very numerous.

Q. Is that the cause you attribute to the falling off of the trout?—A. In part—and parties catching them within the close season for commercial purposes.

Q. Was the close season violated in those days altogether?—A. Yes, sir; that was years ago.

Q. Do you think it is possible to renew these places with fish again?—A. No, I don't—the streams have become slushy and foul, and chubs and suckers have got in, and the trout won't stay where they are.

Q. Is this principally on account of the changes of the climate?—A. Yes, the climate is one cause, and the filthy, dirty water is another.

Q. Have you any suggestions to make yourself, Mr. McPhee, with regard to anything for the improvement of the supply of fish? Have you any suggestions to make with regard to this lake in bringing about a more satisfactory state; I suppose it is all embodied in the evidence already given?—A. Yes, sir, I think so.

Q. Do you feel disposed to make any special suggestions yourself?—A. Well, the only suggestion I would make in regard to speckled-trout, I would like an open season from the 1st of May to the 1st of September, and a close season from 1st September to 1st May.

Q. Have you any suggestion to make with regard to the salmon-trout of this lake?—A. No, I don't think so.

Q. Nor for bass?—A. Well, I would like to see the close season for bass extend to the 1st of July, because the fish if you catch them, as I have often done, are sluggish and not as good for food till after that time.

Q. Well, what do you think about a close season for herring?—A. I think the herring ought not to have a close season, that is for angling.

Q. Would you say anything should be done, in the interest of the fishery in your lake, towards hindering netting?—A. I would like to see a close season for herrings, that is for netting, but not for angling.

Q. Anything further?—A. No; I am done.

*By Mr. Harris :*

Q. What do you understand the present close season is?—A. I understand the close season is from the 1st November till the 1st December.

Q. Yes, that is right, because there was an order put out making it from the 15th October.



Q. What is your idea generally with regard to proper close seasons for preservation of fish?—A. Well, I can't say as to all kinds of fish.

Q. Can't you say anything about the close season for salmon-trout and white-fish?—A. No, I cannot say anything about this. I have caught some very good salmon-trout here in the bay in the fall.

Q. What time in the year do the sporting men generally come around this locality to fish?—A. In July and August.

Q. What time do the strangers—the Americans—come?—A. July and August too.

Q. Do these tourists leave a good deal of money here when they come around?—A. Yes.

Q. Do you know any owners of property in this locality who preserve game for these streams?—A. There is a pond on the other side of the lake owned by Mr. Burton—I understand he has stocked it.

Q. Do you know the country pretty well all around here for say 30 miles?—A. Yes, I do. I know other points where there are speckled-trout, where the owner will hire you a privilege at so much a day for fishing, but Mr. Burton's is, I understand, a private pond.

Q. Are there many streams suited for trout if they were supplied again?—A. There are a great many. All the headwaters of the lake are good. The Coldwater River ought to be good for speckled-trout. There are ponds in the country that ought to be good. Mr. Hough has a little pond where he used to allow nobody to fish there except what he invited to come and fish.

Q. Were there speckled-trout at one time in this lake?—A. Yes, I have caught them myself. In the springs leading into the lake we have caught a good many. There is a spring on the other side of the brewery. There is another near Dyment's mill, and another near the station at Allandale, and in the spring of the year I used to catch any amount of speckled trout in them.

Q. Do you think there are plenty of places that fish would thrive in now?—A. No, I don't think so now.

Q. Why? Is it on account of the sawdust?—A. No, but the water has got sluggish and warm and dirty.

Q. Are they dried up altogether?—A. No. I don't say dried up altogether. I don't attribute the disappearance of the speckled-trout altogether to illicit fishing. I am of opinion that the chubs and suckers are the greatest enemies of the speckled-trout.

Q. Were you speaking of catching speckled-trout at the mouths of the streams leading into the lake?—A. Yes.

Q. Do you know much about bass?—A. I have caught a good many.

Q. Did you ever catch them on their spawning beds?—A. No, I never did; I have caught them just afterwards, but I never caught them on their spawning beds.

Q. What condition are these fish in just after spawning?—A. Well, on the 1st July the fish are soft and flabby immediately after spawning. I do not consider they are in good condition the 1st July. I have caught them, but don't consider them good.

JOHN STEVENS was sworn, and deposed as follows:—

*By Mr. Wilmot:*

Q. Are you a resident of this place, Mr. Stevens?—A. Yes, sir.

Q. Of how long standing?—A. About twenty years.

Q. May I ask your occupation?—A. Photo artist.

Q. And your nationality?—A. Irish.

Q. Are you engaged in any fishery of any kind?—A. Yes, for amusement, and as an angler.

## Ontario Fishery Commission.

Q. Do you fish throughout the whole of the lake or the bay only?—A. Well, I fish in both Bay and Lake Simcoe.

Q. Do you ever fish with a net of any description?—A. No, sir.

Q. What do you fish with?—A. A rod and line, and I troll sometimes.

Q. With live minnow or imitation?—A. With live minnow and with imitations both.

Q. What fish do you catch in that way? Herrings, whitefish and salmon-trout?—A. No, I catch salmon-trout sometimes; I sometimes catch them trolling in this bay, but mostly with a rod and line for bass.

Q. Do you fish with a gang of hooks, or how many?—A. Well, the ordinary troll spoon has three hooks.

Q. Do you catch them to any extent in that way?—A. Well, no, very few.

Q. About what number would you get in that way?—A. Well, if I caught a dozen or two herring I would think I was doing well.

Q. Would that occupy a whole day?—A. No, sometimes half an hour in the morning, and perhaps half an hour in the evening. We generally take about a week's fishing in the summer time at Strawberry Island.

Q. Do you catch bass in any quantities?—A. I do not think this year that we done any better than any other year. We have not had as good success the last five or six years as formerly. There are generally four of us go together, and the four of us last year caught about 50 bass.

Q. That is at the present time?—A. Yes.

Q. What might have been your success years ago when the fishing was more plentiful?—A. Well, we never made such good fishing as that before. These 50 or 53 bass were among ourselves.

Q. Was that in a single day?—A. Yes, but you would not get that every day; you might go out and not catch any at all another day.

Q. Can you give me any idea about what you know as to the exact spawning time of this fish?—A. I don't know anything about the spawning of fish at all; I am guided by the law; I observe it when it comes in, and that is about all I know about it.

Q. Are there many of the little small immature bass caught here in fishing as a rule?—A. We never see any small bass.

Q. What might these 53 bass you caught average?—A. Two, three, four and five pounds.

Q. Are they the black bass?—A. Well, as near as we could say they were the black bass, that is, what we call the black bass. We never get any here, but get them at Strawberry Island.

Q. What is your idea as to the "close season," do you think it correct that a proper close season should be upheld?—A. I think it is right to have close seasons in the proper time.

Q. Do you think it is wise to kill fish when they are spawning?—A. No, sir, I do not.

Q. Well, then, the close season would be a protection, would it not?—A. Yes, sir.

Q. Do you think fish should be killed at spawning time?—A. No, sir, I do not.

Q. Are you prepared to give any idea as to when that close season should be?—A. No, I don't know.

Q. Do you know whether any fishing is carried on through the ice?—A. Some herring fishing is done.

Q. How do you catch the herring, is it through the ice by spearing, or netting, or what?—A. By hook and line; we never see anybody spearing here; they all fish with a hook and line.

Q. What do you bait with?—A. Dead and live minnow both; sometimes throw them a perch; when we cannot get a minnow we catch them with a bit of meat about the size of a pea, and sometimes use a bit of a perch and sometimes a bit of fat pork.

Q. Well, in fishing through the ice is it done by sportsmen or fishermen?—A. Yes, by both.

Q. What would be the average catch of fish caught in this way?—A. Oh, I don't know, some persons stop at it all day.

Q. What would be the average catch in the morning?—A. I don't know. I do not think they would catch more than 3 or 4 dozen in a whole day.

Q. Do those people that catch them, that is, the poor class, sell them in the market?—A. I think they do sell them around at the houses.

Q. What are they worth?—A. About 20 or 25 cents a dozen.

Q. Your bass fishery I think you said was more particularly at Strawberry Island?—A. Yes, at Strawberry Island.

Q. Is there none particularly in the bay here?—A. Oh, there is an odd one. I have heard tell of them being caught, but I never caught any of them.

Q. Do you know anything of shooting or spearing fish being practised here?—A. I never saw any one shooting fish in my life.

Q. Have you no suggestions to make of your own as to what you think would be beneficial to this lake?—A. Nothing more than I know of, only to enforce the law and establish hatcheries.

Q. If I am not mistaken, you said something about the close season?—A. Oh, I am of the opinion that the close seasons are all right during the spawning season. I think it is not right to use the net at all.

Q. Do you think net fishing should not be allowed?—A. I think not; I think it should be abolished.

Q. Do you think angling and trolling should be the only way of fishing allowed on this lake?—A. I think so.

*By Mr. Harris :*

Q. What is the best month in the year for salmon-trout?—A. Well, we start to fish as soon as the ice gets off; generally about our time for trolling is in May, that is all we ever do; we do very little in the fall; about May is the time we generally troll here.

Q. Is October the best time to catch fish?—A. No, they do very little. I went up to Strawberry Island in the fall of the year, but the fish up there at that time began to get on the shoals and we cannot do any fishing then and have to quit. The close season used to be from the 1st to 30th of November, but the last few years they have extended from the 15th October to the 30th November.

Q. Did you ever catch salmon-trout with a fly?—A. I have heard tell of it.

Q. Do you believe it?—A. I do; I have caught a good sized bass with a fly.

Q. But you have never caught a salmon-trout with a fly?—A. No, I didn't. (Mr. Samuel Lount interrupts and says that he himself had caught a salmon-trout with a fly).

Q. What do you bait with for black bass?—A. I told you that before, at least I told Mr. Wilmot; we go down for a week, four of us, and generally have a good time.

Q. I suppose you generally eat what you catch?—A. Sometimes we bring some home.

Q. When are they in their best condition for edible purposes?—A. Well, I could not tell you that, but the time we went to fish is about the middle of July.

Q. Do you never fish before the 1st September, that is, in all August?—A. I have myself for a week, but the fish are stupid and poor till in the latter end of August.

Q. Have any artificially hatched fish ever been put in Lake Simcoe?—A. I have heard tell of it being done; we always get an account of it in the papers.

## Ontario Fishery Commission.

SAMUEL WESLEY, sworn, said as follows:—

*By Mr. Wilmot :*

Q. Do you reside here, Mr. Wesley?—A. Yes.

Q. And your occupation?—A. Publisher.

Q. Are you a resident here for any length of time?—A. Yes, about 42 years.

Q. Are you a native of this place?—A. Yes, a Canadian, I was born here.

Q. Have you anything to suggest yourself, Mr. Wesley, or shall we pick out some of these questions for you to answer?—A. Well, I guess you had better ask the questions.

Q. Do you carry on any fishing yourself?—A. Yes, just as a sportsman and in the summer time for amusement down the lake.

Q. Any particular portion of the lake?—A. No, just wherever we can catch any fish.

Q. What description of fishing gear do you use?—A. Well, just trolling and hook and line.

Q. What do you generally catch?—A. Perch.

Q. In trolling what do you catch?—A. Salmon-trout sometimes; the last I caught is about three years ago.

Q. Well, what other kind of fish do you get?—A. Catfish, bass and perch.

Q. Have you ever taken notice as to when fish are in their best condition for edible purposes?—A. I find that in the month of May they are better; our ice don't go off here until about the 25th April or the 1st May, and our trout here are hard and good then.

Q. What about the bass?—A. The bass I find best in September.

Q. Is bass fishing or trout fishing ever carried on by parties here for commercial purposes?—A. Yes, there was a man by the name of James Windsor, and he had a license here, and I think a man by the name of John Boon had a license here also for quite a while.

Q. What did these men that fished for commercial purposes catch?—A. Whitefish and trout.

Q. To any extent?—A. Well, Windsor supplied himself and supported himself and family.

Q. Did he catch them in any quantities?—A. Yes.

Q. What would be his possible catch?—A. Well, he would bring up a boat load.

Q. Then, they were caught in considerable quantities at one time?—A. Yes.

Q. What we want to show is the comparison between former years and the present time. Was this catch only in certain portions of the bay?—A. Yes, principally around the mouth of the bay.

Q. Would that be at the head of this bay?—A. Yes, about nine miles down at the outlet of this bay and at Carthew's Bay, about 14 or 16 miles from here.

Q. Would this apply more particularly to what kind of fish?—A. Trout and whitefish only. Herrings at that time, I remember, were caught by Collingwood Harris, and we never had herring to catch in this bay until Collingwood Harris died; he used to catch the small herrings by the hundreds of barrels.

Q. About how long ago was this?—A. About ten years ago, and he sold them on the market here.

Q. What would they bring per barrel at that time?—A. I don't know.

Q. What is done now in the same locality: are there any caught there now?—A. No, there is none caught there now.

Q. What is the reason?—A. Well, I think it is poaching in the close season.

Q. Do you think the great scarcity is brought about by poaching?—A. I know that fishing is done there now, because I smashed a fishing reel there myself in Carthew's Bay this fall. I think it is on account of poaching in the close season.

Q. The object we want to arrive at is this, if the fish were plentiful at one time, and they are scarce now, what has brought this about?—A. Well, I might say that when the License Commissioners were around here, they looked after poachers and looked after the close season, and there were more fish then.

Q. Do you know anything about trout, when they are most free for laying their eggs, when they drop them freely?—A. No.

Q. Do you know anything about whitefish?—A. No.

Q. Do you know anything about the spawning of black bass?—A. No; I understand they spawn in the spring.

Q. What do you think about herrings?—A. I don't know; I think they spawn in the fall.

Q. Can you designate any particular month that they spawn in?—A. No; they are caught now, I think, with spawn in them when the close season is over. I think, in this lake it would be a benefit to extend the time of the close season from the 1st October—extend it both ways from what it is at present. It should be extended from the 1st October to the end of December.

Q. Will that apply to salmon-trout, whitefish and herring?—A. Well, particularly trout and whitefish; I don't care about herrings.

Q. Have you pickerel—do you know anything about pickerel?—A. No, there is none in this lake.

Q. Have you embodied your ideas so that you think the close seasons are beneficial?—A. Yes, I do.

Q. Have you any remarks to make as to how close seasons should be carried out?—A. Well, I think the Government ought to pay a man to look after it, so that he could devote his whole time to it, and supply him with a steam yacht to enable him to look after the fisheries during the close season, and I believe until that is done it will never be properly looked after, and the fine or penalty should be \$50, especially with a net. I would also recommend that Lake Simcoe be made a closed lake against nets entirely.

Q. Do you say that Lake Simcoe should be made a close lake for nets?—A. Yes, closed against nets at all times.

Q. Have you anything further to say with regard to protection to this lake?—A. No, I have not.

Q. What have you got to say with regard to artificial culture of fish?—A. Well, I think it would be very beneficial and should be extended to this lake.

Q. Do you mean to say more largely than it is?—A. Yes.

Q. Have you any idea what would be the most valuable fish for the waters of this lake?—A. No, I don't know anything more valuable than those formerly pointed out.

Q. That is why I asked you what about sturgeon; do you think they would thrive here? How long is your bay here?—A. I guess it is about 12 miles long. It is about 12. I guess this kind of fish would thrive here.

Q. What is your idea with regard to the speckled-trout, is the close season as at present established the proper time?—A. I think so; the close season as at present is correct, I think it would be a hard thing to deprive poor people when fish are highest in the market.

Q. Now, have you any other remarks to make?—A. No, I don't think so. I think the only way to preserve the fish in this lake is to have the law thoroughly carried out.

Q. Do you think the great requisite for this lake is to have the close season rigidly enforced?—A. I think if that was done, in the course of 4 or 5 years we would have the old time fishing. There was not a morning that I could not go out at one time and get 2 or 3 or 4, and now I might go out and ply clean around the lake and not get a single bite.

*By Mr. Harris:*

Q. Any dogfish here, Mr. Wesley?—A. Yes, any amount of them. Of course they used to be caught and killed, but now they have things all their own way.

Q. Have you any idea how they could be destroyed?—A. I have not.

Q. Any perch?—A. Yes. A great many.

Q. Any pike?—A. No; no pike.

Q. Any pickerel?—A. No.

Q. Have you any sunfish?—A. Yes.

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Q. What do you know about maskinongé, Mr. Wesley?—A. Not very much.

Q. What do you think about black bass up to the 1st of July?—A. Well, I think that would be a benefit. If there is anything that is going to make our fishing grounds better, I am willing to advance it, because, as a general thing, our bass here in this lake won't bite at a hook and line before the 1st July, and if you do catch them then they are sleepy and poor.

Q. Do you know anything about the maskinongé?—A. No, the only thing I know is that they are plentiful down in Cook's Bay on account of their being so close to this river.

Q. Is that the Holland River?—A. Yes, and they would be more plentiful if the law was enforced. They begin spearing them there in the spawning season, when they go up the river with their jack lights. Mr. Lennox, I guess, could tell you more about that.

Q. What time of the year is that when you catch them in shallow water?—A. In the spring.

Q. Does this mode of catching fish refer to pike as well as maskinongé?—A. No, there are no pike in this bay. We have a little mud lake up back of Barrie that has plenty of pike in it, though.

Q. Does this mud lake connect with this water?—A. No, it empties into the Georgian Bay.

Q. Then do you think that the Government ought to be more particular to carry this scheme of protection through?—A. Yes, that is the point.

Mr. STEVENS desires the Commission to note that he wants to endorse Mr. Wesley's views with regard to the payment of a proper inspector, and if not properly paid the laws cannot be properly enforced, as no man can properly attend to his business and look after that too.

JOHN HINES, sworn, replied as follows:—

*By Mr. Wilmot:*

Q. Where is your residence?—A. Here in Barrie.

Q. What is your occupation?—A. Labourer and fish warden.

Q. Are you a resident here, and for what length of time?—A. Well, with the exception of about three years, I have been a resident here for about thirty years.

Q. Is your nationality a Canadian?—A. Yes, Canadian.

Q. Have you been engaged in fishing yourself?—A. No, nothing more than for pleasure.

Q. Where have you been fishing?—A. On the Georgian Bay.

Q. What kind of fishing used you to carry on there?—A. Trout, whitefish, pickerel and sturgeon.

Q. What part of the Georgian Bay did you fish in?—A. At the mouth of the Muskoka River and Blind River.

Q. Are they on the north shore?—A. Yes, sir.

Q. Where?—A. About sixty miles from the Sault.

Q. What description of net did you fish with up there?—A. We fished with the gill-nets altogether.

Q. What size of mesh did you use in your gill-nets?—A. Well, now, I am not positive. It was the usual size, I think.

Q. Was it 4 or 5 inch?—A. I could not say. I cannot make a net myself.

Q. What size fish would you catch in your nets?—A. I don't know. I know we used a smaller net for the pickerel, and we had a larger net for salmon-trout and whitefish.

Q. For pickerel, what would be your size of mesh?—A. I think it was 2½.

Q. Was that extension measure?—A. Yes.

Q. How long ago is it since you fished?—A. It is about nine years.

Q. When do you consider fish in their best condition—that is, salmon-trout and whitefish, for instance?—A. We consider the latter the better.

Q. What time of the year do you consider them the best for eating purposes?—A. October and the beginning of November.

Q. What about May and June?—A. I never caught any salmon-trout or whitefish in May or June. I have caught whitefish here in April.

Q. At what time?—A. In April.

Q. Where did you generally dispose of your fish in those days?—A. We sold them to Talsman & Co.

Q. Did they take them to the States?—A. Yes. He kept a tug running constantly.

Q. Do you catch any fish here for the market too?—A. No, I have never fished much here. I have never put a line out here in my life.

Q. When do you think the salmon-trout are ripest for spawning?—A. I think the last of September and the first of October, you will get them on the spawning beds in hundreds, and perhaps you could not see one a week before. You might go along on the sandy shoals in the Muskoka River and you would not see one, and go along again in a week and get a terrible catch, about that time of the year. About the 15th October you could get them thick. Often you might fish these shores the end of September and the first week in October and not get any fish, and then the end of October and beginning of November come on in great quantities. I have been with the lumbermen the most of my life. I have always noticed about the middle of October you would always see the Indians striking for the spawning beds, and down here in this lake. I wonder some of those gentlemen never spoke about the Rama Indians and Snake Island Indians. They follow fishing all the year round on the other side of the lake for salmon-trout and whitefish. They catch a terrible lot of fish, and there are parties at the other side of the lake that do nothing else but fish.

Q. Do these Indians catch them during the spawning times?—A. Yes, the Indians do, and the whites do it too during the spawning times. It is too far away for the officers to go with their present remuneration. I know parties myself that come down here to get-fishing tackle and nets, and an old man out in the country makes it his business to make nets for them.

Q. During the close time?—A. Yes, to fish generally, as well as at close times—this lake is closed to net fishing all the time. They have a way of getting their nets under the ice and fishing, that is catching fish all the time in the winter.

Q. What do they catch then?—A. They catch salmon-trout, whitefish and maskinongé, and they spear a great many maskinongé, using little woodeu fish to lure them.

Q. Have they houses built on the ice?—A. Yes, sir. This fishing is extensively followed on the north shore of the Georgian Bay, at Thessalon and Bruce Mines. I was up there with the lumbermen three years, and you could buy them at 2 cents a pound or less; we used to change with them and give them pork for fish; we get them from the Indians and half-breeds there. I have bought lots of them myself in the middle of winter.

Q. Have you seen any pound-net fishing carried on there?—A. Oh, yes, very extensively. A few years ago half of the inhabitants lived by fishing on St. Joseph's Island and in the neighbourhood of Bruce Mines.

Q. Have you any knowledge of what sized mesh was in their nets?—A. No, I could not say, they were usually pound-nets, and I suppose they were about the same mesh.

Q. Do you suppose they took many immature small fish?—A. Not so many. I was up there and saw Talsman have lots of pickerel and small whitefish.

Q. Have you any idea what the size of these pickerel and small whitefish were?—A. They were down to a pound and a half pound, very small.

Q. Are these as marketable as the others?—A. Well, they all go, they are all put together, and are packed in a case.

Q. Are they shipped away?—A. Yes, shipped to the other side.

Q. What port do they go to?—A. They go to Chicago and other ports. He had a tug and done nothing else only transport them.

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Q. When they were taken from the fishermen, where did they go to first?—A. They went to Cockburn Island and Killarney. He had buyers at Killarney, and then there are other fishermen that bring them to Collingwood. There is extensive fishing going on now by parties living up here at Midland, Waubaushene and Penetanguishene—they fish a great deal, and they don't stop at all, and didn't stop, to my own knowledge, this year in the close season.

Q. Do you think the close season is generally fished right through as a rule?—A. Well, the settlers up there on the Severn River stated that they had been fishing there for fifteen years, and nobody interfered with them, and all the claim I had on them was for fishing in inland lakes from the local authorities.

Q. Did you seize the nets for fishing on inland lakes?—A. No, they stated that they had been practical fishermen there for fifteen years, and had never been interrupted. The settlers and lumbermen claimed that there is a lake there called the Six Mile Lake.

Q. Did you take any steps to fine them for this?—A. I took them before a Justice of the Peace, and they were fined \$5 apiece and costs.

Q. Under the Dominion law?—A. Yes.

Q. Couldn't they be tried under the Ontario law?—A. Well, I was under the instructions of the Ontario law, but the two magistrates claimed that they had a right to refer back to the Dominion law if they saw fit—this was to let them out easily.

Q. Was the penalty higher under the Ontario law?—A. It is not less than \$10 for the first offence, nor more than \$30 for the second offence.

Q. What was your excuse for trying them under the Dominion law instead of the Ontario law?—A. This was done because the fine was lower, and I think they were quite able to pay the fine—I would have had 32 cases of fish.

Q. Did they pay you your fees?—A. I got half the fine—hardly enough to board me while up there. I understand from the settlers up there and others, that the tourists there comprise several clubs of Americans—one called the Buckskin Club from Buffalo, and they come up in the summer and catch large quantities of bass. They come up to the Severn River. There is one place there that is about 5 miles long, and there are several islands on it.

Q. How do they fish there?—A. They fished principally with hook and line. The settlers said they caught them in piles and let them lie on the rock, left some places where they were stinking with fish—just caught them for sport.

Q. Do you say these men had licenses?—A. Oh, yes, the Americans have license for hunting.

Q. Well, license for hunting would that cover fishing too?—A. No.

Q. Had they no license for fishing?—A. No.

Q. Did you inquire if they had license for fishing?—A. No; they said they were not fishing. I saw no signs of any reels or nets there.

Q. There were fishermen there from Port Hope, you say?—A. Yes, they were there fishing with nets in this little lake for salmon-trout, that is, Six Mile Lake.

Q. Did they get many?—A. I could not say how many they got, I believe they sent several boat loads—some in cases and some in boxes were shipped out to Waubaushene to go down on the train, but I could not say where they would go to from there.

Q. Had these fishermen licenses?—A. No, they were Canadians.

Q. Had they nets there?—A. Yes, they had nets out drying around their tents.

Q. Couldn't you seize them?—A. No; I had no authority to seize any nets, only what I could catch in the bay. They were there, and signs of fish such as heads and scales. The justices said that unless I could find the nets in the water I had no business to seize.

Q. Do you know their names?—A. One of their names was Mr. Kitchin.

Q. And who was the other?—A. Mr. Lovering, both of the township of Matchedash. I wanted to go back and seize their nets; but they ruled and would not let me.

Q. Is the Severn River the outlet from Lake Simcoe into the Georgian Bay?—A. Yes, sir.



Q. How far would that be from Midland?—A. Well, it is only a short distance from Midland. The mouth of the river is only 3 miles from Waubaushene, and I think Midland is only about 3 or 4 miles further, or something like that.

Q. What do you think about protection of the fish—do you think it is right?—A. I think the close season is not long enough; I think there ought to be a longer time; I think it should commence for salmon-trout and whitefish about the 1st of October.

Q. And run till when?—A. Till the 1st December.

Q. Do you say fish are then spawning freely?—A. Yes, sir, that is, in October. We bought some last season in October from the Indians, and they were full of spawn.

Q. What time in October?—A. About the 9th of October.

Q. Do you say that you saw fish speared on the 9th October?—A. Yes, sir, and on the 10th that the spawn was running out of them. When we opened them we found lots of spawn in them.

Q. Was the spawn ready to lay?—A. I think they were. The Indians were there then catching them on the spawning beds—you know that is the only time you can spear them there.

Q. Is this the reason why the fish become depleted with such work?—A. It makes a big difference here.

Q. What do you know about Lake Simcoe years ago?—A. I know that fish pedlars have made a business peddling from this lake, and fishermen could make lots of money in former years. I have seen old John Boon and Summerset come in with a wagon load right here in Barric, about fourteen years ago.

Q. What fish were these?—A. Trout and whitefish and maskinongé. The maskinongé are about the mouth of the Bradford River.

Q. What time in the season would you see these brought in here?—A. In the fall of the year.

Q. How are they now? Do you see the same thing nowadays?—A. No, not at all. There are few trout and whitefish caught now. I see a good many whitefish speared when the ice is going out.

Q. How are the whitefish and trout caught nowadays?—A. Any that I see now are speared down about Big Bay Point.

Q. Do you say the fish have fallen off very much, then?—A. Yes, very much here. Fishermen that used to be here and in the Georgian Bay are resorting to the inland lakes. There are parties up the river who told me themselves that they had been up since the last week in August. They didn't know what I was, and they told me they had been fishing since August until the 20th of November.

Q. Were these principally Americans, you say?—A. Not that were fishing.

Q. But these men coming down on the train?—A. Oh, they were from Port Hope and men from Mount Albert.

Q. What do you think about the close season?—A. I think it commences too early for speckled-trout.

Q. What do you know about brook-trout?—A. Well, I know we cannot catch as many as we used to.

Q. Do you say brook-trout are gone?—A. Very near. I heard Mr. Wesley speaking of their being in the streams here, and could not account for it unless it is the muddy water. What has brought about the reduction a great deal is the filth of the streams, saw-dust in the streams by shingle mills and saw mills.

Q. Do you think fishing through the close season assisted it too?—A. Yes, that has done quite a bit too.

Q. Do you think the close season should be kept?—A. Yes, by all means. I think the close season for brook-trout should commence the 1st of September, because I have caught them on the spawning beds, and I think speckled-trout should commence the 1st September and run till the 1st May.

Q. I think you have told us about salmon-trout and whitefish?—A. Yes, sir.

Q. What about bass here?—A. I never went fishing for bass.

Q. Is there very much of this spearing and shooting of fish going on here?—A. I don't think so here. There is at Bradford and at Cook's Bay.

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Q. Have you formed any estimates of the benefit to be derived from artificial fish culture?—A. No, sir, I have not given it a thought.

Q. Which do you consider the most valuable fish in this lake to preserve?—A. I think it is about at par between the whitefish and salmon-trout. I think there are more whitefish than trout by about fifty to one.

Q. Do you say there are fifty whitefish to one trout?—A. Down about Sandy Cove there is a lot of spearing there in the spring. I went down there myself one day three years ago and we caught sixty-four whitefish and only one salmon-trout. There were four of us, and that was all the trout we saw.

Q. Were you spearing them?—A. Yes.

Q. What time of the year was that?—A. It was very early, I fancy about the last of March.

Q. Could you do that now?—A. Well, they catch great quantities there every spring and bring them right in here and peddle them. They are whitefish principally.

Q. Have you any suggestions to make about anything yourself?—A. Well, I think it is very necessary that something should be done in the line of protecting the fish by paying some inspector proper wages. This is most necessary to prevent poaching and illegal fishing, and I think the lakes up north are in need of protection more than this. Of course here at home is where they are doing their great slaughtering, but we could go there in season and catch them. There are a great many caught on the opposite side of the lake; there is a terrible lot of illegal fishing going on there.

*By Mr. Harris :*

Q. What other occupation do you follow besides fish warden?—A. Oh just a labourer go-as-you-please.

Q. Have you been in these localities where illegal fishing is carried on?—A. I have been a lumberer most of my days, and a bush ranger.

Q. How recently?—A. Well, I have not been in the lumber trade for the last seven years.

Q. Then, are you speaking largely in reference to what took place seven years ago?—A. I saw a good deal of it this fall.

Q. What month?—A. In the month of November and the last week in October.

Q. Then I suppose you were deer shooting?—A. Well, I was looking after them that were deer shooting.

Q. Did you shoot any yourself?—A. I shot one this fall; two years ago this fall I shot five in one day.

Q. Did you give any evidence before when the Ontario Commissioners were in the country?—A. They didn't come here; we only had a lot of papers sent here to fill up by the sportsmen.

CHARLES H. ROSS was sworn, and replied as follows:—

*By Mr. Wilmot :*

Q. What is your occupation, Mr. Ross?—A. I am a broker.

Q. Do you merely wish to corroborate Mr. Wesley's views?—A. Yes, they are exactly with mine.

Q. You say you are a broker here, and your residence, how long?—A. I am a resident here since 1846.

Q. Now, do you wish to state that you corroborate exactly the views expressed by Mr. Samuel Wesley, the editor of the *Advance*?—A. Yes, with one addition to it that I might suggest, and that is in relation to a certain question put to Mr. Wesley regarding the fisheries. I have one suggestion that I would like to add to it, and that is, that the fine imposed for poaching be not less than \$50 for the first offence

nor more than \$100, and that the informant get the one-half of the fines after conviction.

Q. Have you anything more to express?—A. No; nothing more; my views were expressed from the beginning to the end by Mr. Wesley. We have both been here about the same time.

Q. I desire to ask you this question, Mr. Ross, as you are an old resident here: Do you know of the salmon-trout being pretty plentiful in bygone days?—A. Oh, yes, you could go out here in the morning and stop out a couple of hours and catch from 10 to 15; it was no trouble to catch them at all.

Q. Were they, as compared with the present time, more plentiful then?—A. There are none to be had at all now; you might catch one now if you fish a whole day.

Q. Would you give your views as to whether the falling off has been gradual or not?—A. Oh, I attribute a great deal of it to overnetting; I think netting is principally the cause of it.

Q. By overfishing and netting?—A. Yes, by overfishing with nets.

Q. Was that done at all times?—A. Yes, at all times, and there is any amount of fishing going on at the present time. In the spring of the year there is a good deal of spearing done about Big Bay Point. In fact, about two years ago, we had a man up for spearing, but could not prove it. They were fishing with light jacks around that cove, what they call Sandy Cove.

Q. How far is that from here?—A. It is about 13 miles from here.

Q. Is it quite clear to you that the fish were plentiful here formerly?—A. There is no doubt of it.

Mr. HINES says there is one man willing to pay a license of \$50 to be allowed to fish for dogfish in the lake, that is, Lake Simcoe.

That will do, Mr. Ross.

### No. 13.—TORONTO.

The Dominion Fisheries Commissioners, Messrs. Wilmot and Edward Harris, met this 16th day of December, 1892, at the Queen's Hotel, Toronto, to take evidence.

WILLIAM MONTGOMERY was called and made the usual solemn affirmation to answer all questions put to him by the Commission, to the best of his knowledge and belief.—He replied to questions as follows:—

Q. Where is your place of residence?—A. Eastern part of Fisherman's Island, Toronto.

Q. What is your occupation?—A. Fisherman.

Q. For what length of time have you followed that occupation?—A. I have been fishing now on and off since the time I have been a boy, 26 years ago.

Q. What is your nationality?—A. Canadian born.

Q. What kind of fishery have you carried on?—A. Salmon-trout, whitefish, ciscoes, blue back herring, pike, pickerel. I have caught every kind of fish that has been caught in the lake here.

Q. What localities have you fished in?—A. Lake Ontario and Toronto Bay.

Q. Have you fished at all in Lake Erie or Lake Huron?—A. No, never fished there.

Q. What description of net do you use at the present time?—A. Two and a half and 2½ mesh, extension measure.

Q. What is that for?—A. For the ciscoe fishing.

Q. Is it for ciscoe and herring both?—A. Yes. Then on in the summer we fish 3 and 3½ mesh, that is for large ciscoes and large blue back herring.

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Q. Do you catch any whitefish at all?—A. I do in the summer; I use a dragnet or seine for that.

Q. Do you mean seines?—A. Yes. Seines are used in the summer during May, June and July for catching whitefish.

Q. Do you ever use a pound-net?—A. No, never owned one.

Q. Hoop-nets or anything of that kind?—A. No.

Q. When do you find that the fish that you are catching are best conditioned for table use; we will say when the whitefish are in their best condition?—A. We don't catch whitefish only in the months of May, June and July.

Q. Are they best in those months?—A. Yes, that is the only time we catch them.

Q. The ciscoes, when are they best for table use?—A. I couldn't tell you that, it is a thing we hardly ever eat.

Q. The market would be your criterion, then; when are they most acceptable for market?—A. It doesn't seem to make much difference once we start; we generally start about the 1st of September. There seems to be a good demand for them all the time right up till May.

Q. What about the herring?—A. We never catch many herrings proper, we catch the blue back herring. The large ciscoes we don't get a great quantity of them.

Q. When do you think they are best?—A. Best in May.

Q. Do you ever catch any salmon-trout?—A. No, not of late years.

Q. In former years when you did fish for them, when did you consider the salmon-trout were in best condition?—A. I couldn't say, the fishermen did not catch a great quantity of them.

Q. Do you think generally that fish are better away from the spawning time?—A. I think away from the spawning season they are a great deal better than through the spawning season.

Q. Generally speaking, are all fish better at a distance from their spawning time?—A. I think so.

Q. Where is your market for your fish?—A. All to Mr. Bray, the fish dealer here. He has handled all our fish for the last three years.

Q. Are none sent to the United States?—A. I can't tell where he sends them.

Q. What might be the average price of the fish to the shippers; whitefish, what are they worth?—A. We have got from 10 to 15 cents apiece for them.

Q. Do you not sell them by the pound?—A. No. Sometimes we have got more. They average about 20 cents apiece.

Q. What might the average weight of these whitefish be?—A. I never weighed any, perhaps about three pounds. Some of them are very large, and others quite small. We sell them just as they come out of the net.

Q. Are whitefish, ciscoes and herring your principal fish?—A. Yes.

Q. How do you sell your ciscoes as a rule; what do you get for them?—A. Smoked ones \$1 a hundred; and if we make kippers sometimes we get 2 and 2½ cents apiece for them.

Q. Are the kippers the larger ciscoes?—A. They are large ciscoes, a mixture of large ciscoes and large herring.

Q. Do you think herring and ciscoes are the same fish?—A. There is a difference between the blue back herring and ciscoe herring.

Q. Are the ciscoe proper and the ciscoe herring one and the same?—A. I don't hardly know.

Q. What do you call the blue back herring?—A. They frequent the shallow waters, they are not the same sort of fish at all. There is the small ciscoe and the large ciscoe; they are both the same fish.

Q. Is there a large and small ciscoe herring?—A. That is what we call them. They are called the ciscoe herring. Before they started to smoke them, they used to be called here "creek herrings."

Q. Then there are two kinds called large ciscoe herring and small ciscoe herring?—A. Yes. They run together.

Q. What will be the average size of what you call the large ciscoe herring?—A. I suppose the large ones will go from a pound and a half, up to two pounds, as taken out of the nets, and the small ones will run about from 7 inches upwards.

Q. What will a hundred of them weigh?—A. I don't know; I never weighed them. We sell them by the hundred, we never have to weigh them.

Q. Now, your blue back herring, what is their size generally?—A. They are very small here and would be about the size of the small ciscoe herring. The ciscoes are worth about a dollar a hundred fish, and the kippers or the larger ciscoes from 2 to 2½ cents apiece, and the blue back herring, in the summer fishing, large ones run from 3 to 6 and as high as 8 cents each; it depends on the market, sometimes the market is up and sometimes down.

Q. When are whitefish ripest for emitting eggs from their body?—A. I couldn't tell you anything about that; at the time they come there is no sign of eggs in them; in the months of May, June and July they do not have eggs in them; they spawn in the fall.

Q. With regard to your ciscoe herrings, large and small, when are they ripest to lay their eggs?—A. Eggs are in them all the year around, but I know there is a time when the spawn runs out of them freely; that is generally in the fall, in November, and in January the same way.

Q. Did you say you were not engaged in salmon-trout or bass fishing?—A. No.

Q. When do the bass spawn?—A. I would say it would be in the spring.

Q. When do pike spawn?—A. It depends greatly on the spring; if it is an early spring it is early, if it is a late spring it is late when they spawn.

Q. Do you know when bass lay their eggs?—A. I think it is in the spring, and catfish spawn in the spring, too.

Q. In what month do you lose your nets most or receive most injury in fishing?—A. More nets are damaged in the fall, and November is about the worst.

Q. Which do you consider the most valuable fish within your fishery for your business?—A. Of course the whitefish, but they don't stand any length of time; after the whitefish, then ciscoes and herring.

Q. Which of the kinds of fish that you are acquainted with have fallen off most in your recollection here?—A. As I told you here yesterday, when we were speaking of it, these ciscoes about 15 or 16 years ago went away as they have done now.

Q. Do you say that ciscoes were plentiful years ago?—A. They were plentiful years ago and they fell off, just went away to nothing the same as they have done this while back here, and then came on again and as thick as they could be, and they are now off again.

Q. How long have you been fishing here for ciscoes particularly?—A. I suppose 21 or 22 years or more; I have taken a license out for myself for 21 years.

Q. What would be the probable catch of your ciscoes, say 15 or 20 years ago?—A. We did not use as much nets; we used to get from 2,000 to 2,500 at a lift; that would be two nights.

Q. During 48 hours?—A. Yes.

Q. What have you caught during the last year or so, what would you get with the same nets now and in the same time as 15 years ago?—A. Of course we are fishing more nets now, but never reckon on picking up our nets now as often as we did then.

Q. What will be the catch now in 48 hours?—A. I don't take them up in 48 hours; we leave them out about four nights; the catch would be about 4,000. Three years ago this fall we used to pick them up every two or three nights and used to catch six or seven thousand.

Q. Have they fallen off in your estimation in quantities?—A. Yes.

Q. Does that apply to the herring, too?—A. It applies to the herring, too.

Q. Have they fallen off in size?—A. No; just about the one size; the size doesn't seem to change.

Q. What sort of a boat do you fish with, what keel?—A. A 28-foot boat.

Q. How many men do you require to work that?—A. Only my brother and me this year on account of the way the fishing is.

Q. What quantity of net do you use?—A. About 4,200 yards of net.

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Q. How much do you keep in the water as a rule all the time?—A. Keep 2,100 yards, keep one-half in the water all the while.

Q. Do you at times lose your nets, fish and all in stormy weather?—A. Sometimes lose the nets; fish and everything would go with them.

Q. Is this frequent?—A. No, that is only in case of heavy stormy weather.

Q. Have you any suggestions to make yourself besides the replies you have given with regard to the fishing and nets and all that sort of thing?—A. I don't know; I don't think it could be made much different. Of course, there might be made a little difference in the mesh of the nets.

Q. What do you say about the mesh?—A. I don't think there ought to be anything smaller than  $2\frac{1}{2}$ -inch mesh. That is for gill-nets.

Q. What about your seines, what do you think the mesh ought to be?—A. A mesh of 4-inch in the bag, I think, it gives no chance of getting any fish at all; our nets stretch all the time. Four inches is rather large. They ought to allow it to go at  $3\frac{1}{2}$ -inch mesh. You see with our drag-nets it isn't all the one size. The drag-net I have is 5 inches in the wings, and the sheets are  $4\frac{1}{2}$  inches.

Q. What size whitefish will pass through a 3-inch mesh freely?—A. Quite a large one. I think a half-grown whitefish would go through with very little force.

Q. Now, have you any other suggestion to make?—A. Not for the outside fishing, I haven't.

Q. What about inside fishing?—A. I would like to see if we could get the inside fishing.

Q. Do you think fishing should be allowed in the bay?—A. Yes; it was allowed a few years ago, with drag-nets or seines.

Q. Fishing, you say, should be allowed in the bay with nets, to catch what?—A. Pike and suckers, and other coarse fish.

Q. By what authority are you forbidden?—A. I got a letter from headquarters—it was sent to me.

Q. Are the people forbidden to catch fish with hook and line?—A. No, they can catch all they like with a rod and line.

Q. Why do you suggest that net fishing should be allowed in the bay?—A. It is this way: the fish come to the top of the water dead. I don't know why it is. It would be a great deal better for some one to catch them and sell them, than to see them floating on the top of the water dead.

Q. Have you any idea what is the cause of these fish dying?—A. I don't know just what; there doesn't seem to be any serious disease; whether it is that the fish are so plentiful or not, I don't know.

Q. What kind of fish principally?—A. Suckers and pike.

Q. What time of the year is this principally?—A. They come on just in the summer months, say in June, July and August, and September and October.

Q. Have you any other suggestions that you would like recorded?—A. No.

Q. What time does your seine drawing begin?—A. Last year it began on the 6th of May, and the year before that it was on the 19th of May, and kept on till 20th July, and we wouldn't have stopped then but the fish stopped. That was for whitefish only.

Q. What is the extent of the seine fishery around here—how many use them?—A. Ward has one, Charley Nurse has another, and I have another. They are from 300 to 350 yards in length.

Q. How far down the lake is it before there is another seine?—A. Frenchman's Bay—I think the first seine is at Frenchman's Bay, between 20 and 22 miles from here.

Q. Westward, towards, Hamilton, where is the first seine that way?—A. After you leave Toronto, the Humber is the first. I don't think there are any more till you get to Hamilton. This only refers to whitefish nets.

Q. What gill-net fishing is there here besides yours in these waters?—A. Mr. Macdonell here is fishing, and I think Charley Nurse is fishing. Ward isn't fishing this year at all. All told in the Toronto fishery, I suppose there would be about six or seven thousand yards; I don't know exactly.

Q. Now, what was the extent of this fishery formerly; how many nets were used in former years, within your experience?—A. There is as many nets now as ever there was. Just as much twine, if not more than years ago.

Q. Is winter fishing the best now?—A. It has been all the time the best for ciscoe fishing.

Q. Was there any time since you have been a fishermen when the summer fishing was good?—A. There was a time we never bothered with the ciscoe fishing at all after May. We then start on the whitefishing and as soon as we get through with that we would start in again with the ciscoe fishing. About the 1st of October the ciscoe fishing starts and is kept up till the 1st of February. We never depended on the ciscoe fishing at all when there was other fishing that paid better.

Q. Now, you say the summer fishing is all done?—A. Yes, only what we get of these ciscoes and these whitefish at the time they are on.

Q. Do you catch ciscoes in the summer, too?—A. Yes, catch large ciscoes in the summer. There are three months we follow the whitefishing; it is the principal fishing for the summer.

Q. What was the most whitefish you ever caught in a season in former days?—A. I wasn't running a net for myself then, but I suppose there would be perhaps \$100 or \$150 worth in the week at that time. You had to catch a great quantity of fish to make a hundred dollars worth then; I never counted them; they were all sold by bulk; it is different entirely now the way the fish are sold to what it was then.

Q. In those days when the whitefish were so plentiful would they bring 3 or 4 cents each on an average?—A. I don't know as they would. They used to haul them in, large and small ones. It is so long ago; it is as much as I can mind of. There were five boats in all coming into market. The fish were very plentiful at that time.

Q. What are the same fish worth now?—A. The same fish are worth now 15 or 20 cents.

*By Mr. Harris :*

Q. How long ago is it these large whitefish catches were made; how many years back?—A. I suppose about 18 years ago.

Q. How do you account for the falling off in the whitefish?—A. I could not account for it.

Q. All you know is they have disappeared?—A. Yes; but they are more plentiful within the last two years than they have been for some years. The only reason I could give is, they have been putting in the fish again, the fry from Newcastle and Sandwich hatcheries.

Q. The fry has been put in from the hatcheries?—A. Yes.

Q. About these seines in the bay, what fish would you catch there?—A. Pike and suckers now.

Q. No black bass?—A. No.

Q. Were there black bass in the old days?—A. There have been a few caught with a rod and line. I have seen what they call green bass. Pat. Gray, he used to catch quite a few of them. That was in Block House Bay, opposite where Hanlan's house was.

Q. Are there any mudcats in the bay?—A. Yes, any amount of them.

Q. Are they good fish?—A. I don't care about eating them.

Q. Would they be saleable if you caught them here?—A. One could sell them.

Q. What would be the best season of the year for drawing in the bay with seines?—A. If I had the doing of it I would like to have in the spring and fall when we can't go to the lake on account of the rough weather.

Q. What time does the ice go off, as a rule? You say you begin fishing out in the lake after May?—A. In the winter we fish for other fish.

Q. I am asking about seines?—A. We never use seines only for the whitefish.

Q. How early could you begin fishing in the bay with seines?—A. I could have fished in the bay this last year in March.

Q. Would it pay you to fish with a seine until the 15th of April?—A. Yes.

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Q. And then stop?—A. Yes.

Q. And then begin again on the 15th of September?—A. Yes.

Q. And fish the fall?—A. Yes. I would be satisfied to pay a license for it.

HECTOR MACDONELL called and made his statement:—

*By Mr. Wilmot:*

Q. Will the statements you are going to make be as true as if you swore to them?—A. Yes.

Q. And do you consider them as binding upon you as if sworn to?—A. Yes, I do.

Q. Where do you live, Mr. Macdonell?—A. 427 Front Street East, Toronto.

Q. Are you a fisherman?—A. Yes.

Q. For how long?—A. Pretty near ever since I was able to walk. I have been knocking around with fishermen all my life.

Q. Are you a Canadian?—A. Yes.

Q. Where have you been engaged in fishing?—A. I have been engaged in the Georgian Bay, salmon-trout fishing only.

Q. Have you fished here?—A. I never caught any fish here, only ciscoes and whitefish in Lake Ontario.

Q. Then your principal fishing has been salmon-trout in the Georgian Bay and ciscoes and whitefish and herring in Lake Ontario?—A. Yes.

Q. What sort of nets do you use?—A. I use the same sort of nets as Mr. Montgomery, with gill-nets and seines.

Q. What sort of meshes do you have in your gill-nets?—A.  $2\frac{1}{2}$  and  $2\frac{3}{8}$ , extension measure.

Q. What did you use in the seines?—A. I think it was a  $3\frac{1}{2}$  bag, I wouldn't be positive.

Q. And the wings would be, what?—A. The wings would be 4 inches.

Q. Do you recollect the size of the twine you used in the gill-nets, do you know anything about that?—A. I think it is No. 60, 2 cords, and the seine twine of No. 12 cotton. Some make them out of 12 and 16.

Q. Now, what is your experience in regard to the time in which fish are in the best condition. You say you formerly fished for salmon-trout in the Georgian Bay—what about them?—A. I thought they were best in the middle of the summer, I always found them the hardest and firmest then.

Q. Did you catch large quantities of them there?—A. Sometimes we would catch quite a large quantity of them. I have seen us bringing in from 150 to 200 at one haul. It is a good while ago, about 12 or 14 years ago, and they would generally run from about 4 pounds up. This I guess would be 14 or 15 years ago, and it is about 12 years since I was there.

Q. Were the fish getting any less at the time you left there?—A. No; they seemed to be as plentiful, but I got a roaming notion in my head and came here.

Q. With regard to these ciscoes, when do you think they are in the best condition, ciscoes and herring?—A. I think they are in good condition all the time, as far as my knowledge goes; I never saw any difference in them.

Q. Do you think they are as good in the spawning time as any other time?—A. Yes, no matter when you catch them they are full of spawn.

Q. When do you find the eggs run most freely from them?—A. I don't know; I think about November.

Q. Is yours a local market; do you sell them altogether in Toronto?—A. Sell them all in Toronto to Mr. Bray, a dealer here.

Q. Is the average value about the same as your friend gave there?—A. Yes, just the same.



Q. With regard to this Sunday close time, what do you think about that?—A. I think it is an impossibility.

Q. Did I hear you speak at one time about Americans fishing on our shore?—A. No, I don't know only what I have heard other people talk about. They say it was in neutral waters, that is, both get the fish where they like.

Q. What do you think about close seasons—do you think it is correct to have proper close seasons for the protection of fish when spawning?—A. Yes, if properly carried out, and make all obey it. Some do fish and some don't, and it is not proper to stop one man and let another man fish. They should all be put on the same footing.

Q. Have you formed any estimate about the artificial culture of fish, whether it is beneficial or not?—A. I don't know. I never took much interest in it.

Q. Is it correct what Mr. Montgomery says, that fish are more plentiful now, and he assigns a cause for it that it may be from the fish hatcheries; what is your opinion about it?—A. I think he is about right as far as the whitefish are concerned, that they may have increased, and it may be attributable to the fish hatcheries.

Q. What sort of boat do you fish with?—A. The same kind of boat as Mr. Montgomery, a 30-foot keel boat, and there are three of us to man it.

Q. What quantity of net do you use in that?—A. 3,000 yards.

Q. How much do you keep in the water all the while?—A. Keep 1,500 yards.

Q. Do I understand from that that you start out in the morning, we will say with 1,500 yards of net, and you take up the 1,500 yards that you set out the day before, and you bring the 1,500 yards home, fish and all.

Q. Have you any suggestions that you would like to make yourself with regard to your fishery?—A. Nothing more than Mr. Montgomery, only something about the bay. I would like to fish in it.

MICHAEL DOYLE sworn:

*By Mr. Wilmot:*

Q. Is your residence in Toronto?—A. Yes.

Q. And is your calling a fish dealer?—A. Yes.

Q. How long have you been engaged in this occupation?—A. Thirty years, all of that, or over.

Q. Are you an Irishman?—A. Yes.

Q. What kind of fish business are you engaged in?—A. All kinds.

Q. What is your principal business; with what sort of fish?—A. In summer time, whitefish, salmon-trout, sea salmon, codfish and haddock, those are the principal kinds.

Q. Do you do anything in the line of ciscoes and herring?—A. Yes; I deal in fresh herring; in bass, when I get them, and all kinds of fresh water fish.

Q. Now, where do you principally get your whitefish from?—A. Well, I got the biggest part last summer from Collingwood, both salmon-trout and whitefish. I also get some from Southampton and from Goderich, and from Manitoba or Lake Winnipeg in winter time.

Q. Have you any knowledge of the description of nets?—A. No, sir, I don't know anything at all about them. I have a knowledge that they are catching unlawful fish and have been for years.

Q. You say you don't know about the nets otherwise than that they catch illegal fish?—A. Yes, Mr. Wilmot, you have been busy putting in the fry and they have been busy taking them out. I would prohibit them now for three years fishing.

Q. Is it your opinion, with regard to the nets, that they must be too small meshed?—A. Yes; if they are lawful nets they won't catch those small fish.

Q. Do you ship from here?—A. No; they are all used for home consumption and go to the hotels and saloons and other customers.

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Q. About the value of these fish; take, for instance, salmon-trout and whitefish, what is their value here on the market?—A. We cannot sell them profitably less than 8 cents a pound to the retailers. Wholesalers get them at 7 cents.

Q. What, with regard to the coarse fish, that is including pike and pickerel?—A. I don't handle many of them.

Q. What are bass worth?—A. Bass are worth 5 and 6 cents a pound wholesale; we pay that for them. We sell them at 9 and 10 cents, which is the regular price in retailing them. If they come in bad order they are not worth so much.

Q. What about your sea salmon, what do they retail at here?—A. I am retailing at 18 cents for Restigouche. I got three boxes this week, two from Quebec and one from St. John.

Q. What is the usual price of herring?—A. 25 cents a dozen, that is the average price, and the same for the ciscoes too, when fresh.

Q. Do you get your ciscoes and sell them fresh, or do you get them smoked?—A. I haven't done anything this couple of years with them. There are the blue back herring, or common run of herring, we sell them at 25 cents a dozen wholesale.

Q. With your experience you will have some knowledge when fish are ripe to spawn, can you tell me when you think salmon-trout spawn?—A. That is just what I was thinking of myself; I don't think they spawn at the one time all over, nor do the whitefish.

Q. What months do you think their spawning season would cover?—A. I can't tell you. You see we have caught no fish here this long time to signify anything. They have their time of spawning in different places, just like the sea salmon. When they begin to come in thick, they come to the spawning ground.

Q. Do you get any whitefish or salmon-trout in the months of October and November?—A. November is the close season.

Q. Do any come into the market in October?—A. Yes.

Q. What state are their eggs in then?—A. I never saw any spawn in them, as they are dressed before they come in.

Q. Have you formed any estimate about when the herring spawn?—A. No, but I think they kill the herring when they are spawning.

Q. Have you formed any idea about the bass when they spawn?—A. No, I can't say.

Q. Can you give an opinion of when it is the most dangerous month for the fishermen to be engaged fishing, when they lose most nets and fishing?—A. No, I can't tell you.

Q. What about the quantities of small immature fish that are brought into the market from the western lakes?—A. There are a good many small whitefish, and I don't think they are caught in lawful nets. Southampton is a great place for them.

Q. Does this apply to salmon-trout?—A. Yes.

Q. Do they arrive here frozen?—A. No, fresh.

Q. Do these small whitefish come here fresh?—A. Yes, and dressed.

Q. Are they packed, in ice?—A. Yes, all packed up together. There are more small ones than big ones. I forget the name of the place where these fish are sent from; the same stock come from Southampton.

Q. Do they come largely from Southampton?—A. No, but the same stock does; the small ones, last summer came from there, from Donald Macdonald. They catch the same quality at Southampton.

Q. What would be the probable size of these salmon-trout—what would you call the small ones?—A. From a pound to a pound and a half; the whitefish do not weigh that much, nothing more than a good-sized herring.

Q. Then, they are not as saleable as the larger fish?—A. No; they are not fit to be killed, they should not be caught. They should prohibit their catching them.

Q. Now, about these whitefish, you say they are small?—A. They are small. Some of them caught in some places show that they must be fished with very small nets, nets smaller than the law allows.

Q. What would you say the size of these might be?—A. A pound and a half, that would be an average weight. Two, and a half pounds is little enough for a whitefish, that is a good fair weight.

Q. What do you say about these ciscoes and herrings with regard to their size?—  
A. They have been catching ciscoes for years past not fit to be sold, some lawful ones, but more unlawful ones.

Q. Do you consider them marketable?—A. No; some are not more than four inches long; they should not be allowed to come to market; they should not be killed; the man that catches them ought to be fined for it; there will be nothing done until these unlawful nets are put a stop to; take their nets from them and they will be more careful.

Q. Are any of these fish thrown away on account of their smallness?—A. I don't know; I don't suppose they will throw them away if they can sell them.

Q. Are they brought to you sometimes?—A. No; I have bought them and kicked against paying for them; they were so small.

Q. Do you think it is unwise to allow these small fish to be brought into market?—A. Yes, and unwise to allow them to be caught at all. I think if there was a heavy fine for catching them with these small nets it would put a stop to it, but nothing else will; I think they ought to have a man to go around and measure the nets.

Q. And you think a proper officer should be appointed to go around and inspect the nets and fish?—A. Yes.

Q. Are you prepared to say anything about Sunday fishing?—A. I don't think they do anything like that.

Q. Have you any knowledge of Americans fishing anywhere within our territory?—A. No; they are fishing in the upper lakes; they own Squaw Island; they bought the boats and nets and everything, so that the fish are their own; they take them in free of duty to the States.

Q. Do you say the Americans have bought out the boats and nets at Squaw Island, on the Georgian Bay?—A. Oh, yes, we all know that.

Q. Are you of the opinion that there should be proper close seasons to protect the fish while they are spawning?—A. Yes; the only trouble is to find out when they are spawning in these different places; when fish are spawning they are not fit to be eaten; it is like killing a cow in calf; they have neither taste nor flavour.

Q. Can your customers detect the difference between spawning fish and others?—A. We haven't handled any of them.

Q. Then you don't keep them on hand?—A. No.

Q. And wouldn't you buy, then?—A. No; I don't keep them; I keep those that are caught in season.

Q. Do you know whether there is any winter fishing carried on here of any consequence?—A. No, without these ciscoes, there are no fish running here; ciscoes are the chief fish that are here until the seine fishing comes on; I think it sometimes lasts into June and July.

Q. Is winter fishing carried on, catching ciscoes by gill-nets?—A. Yes.

Q. Do you know anything about bass fishing here?—A. No; I don't think they do anything at it here.

Q. Do you know anything about this system of spearing and shooting fish in the marshes?—A. I think they spear some through the ice down at Ashbridge's Bay and those places; they are poachers; there is a man paid for looking after them, a Mr. Ward.

Q. You have been speaking of this artificial breeding of fish, what is your opinion of it?—A. I think our lakes must have been benefited by it.

Q. Do you think artificial breeding is good?—A. Certainly; I think our lakes must have been well supplied with these fry; I know them by their size, and I saw them brought in just like herring.

Q. Do you think the artificial breeding of fish is a good thing so far as the work is concerned, but they are not preserved afterwards?—A. There should be a law to prevent killing these fish for three years until they attain their regular growth, their full growth.

Q. Do you think it is a desirable work to carry on?—A. Yes, if they are protected, if not it is in vain.

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Q. With regard to the fish business in which you are engaged, what do you consider the most valuable fish in Canadian waters which you purchase?—A. I pay more for whitefish and salmon-trout.

Q. What will stand next after them?—A. Bass, if we get them. They are the dearest.

Q. What is the next fish?—A. Herring.

Q. Come down to what other fish, you have coarse fish, pickerel?—A. We get an odd pickerel not worth mentioning.

Q. Which of the kinds of fish have fallen off most to your knowledge?—A. Whitefish and trout have both fallen off. When I came here fishermen would bring in boats loaded down to the gunwale with them.

Q. Are you relating this of the fish on Lake Ontario that they used to catch?—A. Yes, on the island here. They don't catch any except the small whitefish that you breed from the hatchery.

Q. Then at the island here the large fish have fallen off altogether?—A. Yes, they have fallen off altogether.

Q. Could you give us a description of what you have seen in former times of the quantities caught?—A. They brought in so many we couldn't get room in the market for them. We used to pile them outside. They glutted the market. There were piles outside on the board walk on the street, they were that plentiful here at one time. Boats came in loaded down to the gunwale. We had so many brought in here at one time that we had liberty to sell till Sunday morning at 10 o'clock, the fish were that thick here.

Q. Did this apply to the whitefish particularly?—A. Yes, and they used to catch a good many salmon-trout with gill-nets. They were all sold by the piece.

Q. What were the fish sold at at that time?—A. Half a dollar a dozen, 4, 5 and 6-pound weight each.

Q. What was the value of salmon-trout at that time when they were so plentiful?—A. Fifty cents apiece.

Q. What would these generally weigh?—A. Eight, 10 and 12 pounds—some more.

Q. What is the state of things now?—A. None of these fish are at all to be had now. They have disappeared or have been killed off, or something has happened to them.

Q. What do you think, in your judgment of the matter, has caused this great falling off?—A. I can't tell.

Q. Can't you form some idea how it is this great change has taken place? Is it from overfishing and using too much net?—A. I guess it is, a good deal of it. I know the catching of salmon-trout here is done by parties fishing with small meshed nets.

Q. Would it be safe in saying it was caused by overfishing also?—A. I think so.

Q. Would you add by improper fishing and fishing at wrong times?—A. Well, I don't know. There was no hindrance at that time, but they fished with nets with small meshes at all times.

Q. Were these whitefish caught in seines?—A. Yes, all at the lighthouse and the point.

Q. Were the salmon caught in gill-nets there too?—A. No, out in the open lake.

Q. Do you think a stop should be put to the use of seines?—A. Yes, and drag-nets too for three years.

Q. What do you mean by drag-nets?—A. There are some that put unlawful bags into them when they are fishing. If you come along they put the lawful one in. If you are not there they put the unlawful ones. I wouldn't let them put a net in the water for three years. They catch young fish that are unfit for use or market.

Q. Have you known any quantities thrown away in those times?—A. Large quantities have come in here; I sold them myself; there was no hindrance; they were not fit to be sold.

Q. Were these young whitefish about the size of herring?—A. Yes, of good-sized herring.

Q. Did you ever furnish nets or boats yourself to the fishermen?—A. No.

Q. What do you think about the speckled trout, have you had any experience with them?—A. I have handled some.

Q. What do you mean by handled?—A. They were sent to me.

Q. Handled them for sale?—A. Yes.

Q. Where did you get them from?—A. Down east, from Peterboro'.

Q. Did you ever get any from the province of Quebec?—A. Yes.

Q. Was this in former times?—A. I get some mostly every winter from Quebec now.

Q. What are they worth here, in price?—A. Twenty cents—15 and 20 cents a pound.

Q. Do they come here in considerable numbers?—A. I used to get a barrel or two at a time from Quebec in the winter time.

Q. What size will these trout be?—A. They are a good size.

Q. Would they be the size of herring?—A. We get both kinds, what we call brook trout and sea trout. The sea trout run large: the brook trout are small, like any common brook trout.

Q. What time of the year do you generally get them?—A. I can hardly tell you now.

Q. Would it be the winter months?—A. I think so, when ours are out of season, I think the Quebec trout come in. I haven't got any for a long time.

Q. Do you get ready sale for them?—A. Yes, I generally sell what I get, to the chop houses.

Q. Now, do you wish to make any suggestions of your own, or will what has been taken down answer all purposes?—A. I think so. I would like to see Lake Ontario get a chance to see if the fish would not accumulate again, and there is no way of doing that excepting prohibiting fishing altogether for three years. If they do not accumulate in that time, they never will; I would let them go ahead. I think the worst place is Niagara and Toronto. They should shut off seine fishing for three years, and all unlawful nets, and fishing with small meshes.

Q. Would you go further than that and say, they should be protected during the spawning time?—A. Yes, all over. Find out from the fishermen when these fish are spawning. I would strictly protect all kinds of fish during the spawning season. When fish are spawning they have neither taste nor flavour. I think the laws should be strictly enforced; there may be plenty of law, but it is not stringent enough.

Q. Then fishing is no doubt carried on illegally and the fish are sold?—A. Certainly.

Q. Do you say that fish are caught and sold during the spawning season?—A. They have been; I am telling you what I know is true, I have done it myself.

Q. Have you any other remarks that you would like to make?—A. No, sir, not any more.

*By Mr. Harris :*

Q. When does the greatest supply of herring come into market, what month?—A. I couldn't tell you. I have sent for herring now; they are not here yet. I expect them every day. These fishermen are commencing to fish and will catch herring now.

Q. Can you say what month the largest supply comes?—A. No, I haven't been handling those fish lately.

Q. When they come in, are they mostly full of spawn?—A. Sometimes, I can't exactly tell you the time.

Q. What months are these small whitefish brought in?—A. I think it is in June, the latter end of June and July; they catch them here off the island; the small immature fish are Mr. Wilmot's fish, they won't stand, they won't keep; they are too young and delicate.

Q. When you speak of 2½-pound whitefish being about the market size, do you mean cleaned or round?—A. Cleaned, inside out, that is a good fish.

Q. Would that be equal to 3 pounds round?—A. Yes, I wouldn't complain of 2 pounds dressed.

## Ontario Fishery Commission.

*By Mr. Wilmot :*

Q. Do you mean heads off?—A. No.

*By Mr. Harris :*

Q. You spoke of some very large catches of whitefish in the past, what locality was that in?—A. Right at the point of the island and at the lighthouse.

Q. Could you tell us about what time that was?—A. I suppose 35 or 37 years ago. Stroger fished there, and the Ports fished there; Ward fished there also.

Q. Do you handle any black bass?—A. Yes, when I get them.

Q. What season of the year are they a good marketable fish, when they are in season?—A. I handle them at times when they are in season. I get some bass from Peterboro'. I cannot fix the month when they are in first-rate condition.

Q. Do the general public, your customers, as a rule, understand that spawning fish are unfit for food, or do they trust wholly to you?—A. They trust a good deal to myself. I leave fish at the Queen's Hotel first, and then at the Rossin House.

Q. Would you expect to lose their custom if you sent them spawning fish?—A. I wouldn't send it; they don't want it themselves. They are very exact, but not half as exact as the club houses.

Q. Do you consider it an injury to the fish trade to have spawning fish put upon the market?—A. Yes, I wouldn't handle them if I knew it.

Q. Do you consider that it is an injury to the honest trader to allow gravid spawning fish on the market?—A. Yes, I do.

Q. Do you think the business of the fisherman and fish dealer will soon be at an end if proper regulations are not made to preserve fish and prevent the destruction of them at improper times, and when spawning?—A. Yes.

DAWSON W. PORT sworn :

*By Mr. Wilmot :*

Q. Are you a resident of Toronto, Mr. Port?—A. Yes.

Q. And are you a fish dealer, and were you formerly a fisherman?—A. I was in Collingwood and carried on fishing there, and had men and boats under me.

Q. Of how many years standing?—A. Thirty years, operating in Lakes Huron, Erie, Michigan, Superior and the Georgian Bay, and British Columbia.

Q. Did you operate in Lake Ontario also?—A. Well, yes, I handled some there. We don't get many from Lake Ontario now.

Q. What is your nationality?—A. I am Irish.

Q. What kind of fishery have you carried on?—A. Salmon-trout, whitefish, herrings, ciscoes, bass, pickerel, pike and other cearse fish.

Q. Do you also get fish from Lake Winnipeg?—A. Yes, and also deal in salt water fish, such as salmon, codfish, haddock, herring, mackerel, smelts and so forth.

Q. Are the smelts coming in at this time?—A. They are now sending a few by express, caught principally in the rivers in the lower provinces.

Q. Do you deal in sturgeon at all?—A. A little. There is not much demand for them here in this city.

Q. Do you know anything about the description of nets that are generally used in fishing?—A. The fish are caught principally with gill-nets, pound-nets and trap-nets.

Q. Before we go any further, can you describe the difference between the pound-net and the trap-net, or do you know the difference?—A. The way I understand it is that the trap-nets are anchored and not staked down, and they are a smaller kind than the pound-net, yet they are the same description of net, only a smaller contrivance. There are pound-nets, trap-nets, seines and hoop-nets and fike-nets we get to fish with. The hoop-nets and fike-nets and night lines are used on the north shore.

Q. What do you call night lines. What do you mean by the hooks?—A. They fish through the ice sometimes with hooks and night lines.

Q. Have you any knowledge with regard to the meshes that are used in these nets—take, for instance, the gill-nets?—A. For trout and whitefish they are using as small as  $4\frac{1}{4}$ -inch mesh, and for herring and ciscoes,  $2\frac{1}{4}$ -inch, all extension measure.

Q. How are these pike and coarse fish caught?—A. With seines, gill-nets, hoop-nets and so forth.

Q. Do you know what the mesh is in the seines that they use for this purpose?—A. No, I couldn't say. The ordinary seine mesh, I suppose.

Q. Is this  $4\frac{1}{4}$ -mesh the right mesh for catching for the market, the proper standard of fish?—A. No, I think it is too small, as it catches the half-grown fish that have not yet come to maturity.

Q. Have you concluded from your long experience and observations of these matters, what mesh would be a fair sized one to take fish for the market?—A. I would recommend at least  $4\frac{1}{2}$  or 5-inch. I would say  $4\frac{1}{2}$ , that gives a little for the shrinkage in the mesh. I mean from knot to knot.

Q. What about the herring and ciscoe mesh; what do you think about it?—A. For herring and ciscoes I would recommend 3-inch mesh, which will take a fish of the size of half-pound weight, either herring or ciscoe; they can't run through it.

Q. Speaking about gill-nets now, will a 3-inch mesh gill-net catch an ordinary medium sized whitefish?—A. No; only a very small one.

Q. How small would that be?—A. A pound and a half, I should judge, and will take salmon-trout from one pound upwards; they generally run in and are caught with their teeth in them.

Q. Now, with regard to the times in which you think fish are really in the best condition, when do you think salmon-trout are really in their prime condition?—A. When we can get a quantity of them in the fall they are in about the best condition, sometime before spawning.

Q. Are they best always before spawning?—A. Yes; the run of trout we get in the fall are in prime condition, previous to the 15th of October.

Q. How will that apply to whitefish?—A. Whitefish are in good condition up to the 1st of November, which is before their spawning; say from the 10th to 30th of November. They are in good condition all summer.

Q. When do you think the bass are in best condition?—A. Through the winter they are the best, as are also pike and maskinongé; the bass, and pike and maskinongé are in good condition also in September and October.

Q. How are they in the spring of the year when they are spawning?—A. We don't consider them good in spawning time. I don't think any fish are good at spawning time.

Q. What about the ciscoe and herring, what do you think is the time they are best?—A. I think they are good all through the season except spawning time.

Q. Where are your markets principally for fish?—A. Principally in Canada, here in Ontario. From London down to Kingston. We used to send a great many to Montreal. Now they generally go from Lake Superior on the C. P. R., as the express charges are the same to Montreal as to Toronto. We cannot get them here and re-ship them to advantage.

Q. Do you ship any to the United States of any consequence?—A. Only a few, principally salmon now.

Q. Would those be British Columbia salmon?—A. Yes.

Q. What might be the average value of fish, salmon-trout and whitefish, are they about the same?—A. Yes. From 6 to  $7\frac{1}{2}$  cents per pound.

Q. How do you sell the British Columbia salmon?—A. British Columbia salmon vary in price a good deal, from 13 to 20 cents a pound, herring sell from \$2 to \$2.50 per hundred fish; ciscoes from \$1 to \$3, according to size.

Q. What is the material difference between the herring and the ciscoe as a fish for consumption here?—A. The herring are principally used fresh, they are not so fat as fish as the ciscoe, but when fresh are more valuable than the ciscoes.

Q. Are the ciscoes more valuable when smoked?—A. The ciscoes being very rich or fat are more valuable if cured or smoked, and they are greatly in demand.

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They send from Ottawa and Montreal up here for them. The herring, when smoked, are dryer and are not liked as well as the ciscoes.

Q. What are bass worth with you here?—A. From 7 to 9 cents per pound, and pickerel from 6 to 7 cents. Pike would be from 4 to 5 cents. Blue pickerel, we get them from Lake Erie and sell them from 2 to 4 cents, according to the supply of them. They are quite inferior to the yellow pickerel. The other coarse fish are worth from about 2 to 3 cents.

Q. Do you know anything with regard to the regular spawning time of fish. Take salmon-trout, when do you think they are in the heat of spawning, that is when the eggs flow most freely from their bodies, as that is the time when their eggs are ripest?—A. Well, from the 25th of October to the 5th of November, I would say. Some are later and some are earlier, according to the locality. Whitefish spawn from the 15th of November, and in some places earlier, up to the 10th or 15th of December.

Q. When do you think the herring or ciscoes spawn?—A. It is pretty hard to state that. I should say from the 15th of October to the end of November.

Q. Could you not state it any closer than that?—A. No.

Q. Now, what is your time for bass spawning?—A. They spawn in May and June; I could not give you the exact time though. Pickerel spawn a little earlier, in April and May. Pike and maskinongé are spawning about same time as pickerel.

Q. As you have had a good deal of experience, can you state the time in which fishermen experience the most loss with their nets and the greatest injury in their fishing gear?—A. There is greater risk during the equinoctial storms in September; as a rule after the 1st of December it is risky fishing; there is very little money made; the losses are equal to anything they catch.

Q. How is November with regard to stormy weather?—A. It is generally a stormy month.

Q. We would like to learn from you, if possible, about these immature fish that are so largely taken; are you aware of the small, immature fish coming into the market?—A. Yes; there is a large quantity of small half-grown fish caught and shipped to the market, salmon-trout and whitefish principally.

Q. What do you mean by half-grown fish; what size might they be; take a half-grown salmon-trout, what would be its weight?—A. They would be from two pounds to two and a half; from one to three pounds is a small trout.

Q. What about a half-grown whitefish?—A. Well, pretty near the same, one to two pounds.

Q. Would you consider these to be immature fish?—A. Yes, and they are soft and easily bruised; they are easily injured in keeping or handling.

Q. Are they to a certain extent unmarketable?—A. They are not as saleable as full-grown fish and are brought into the markets largely, principally from the Georgian Bay and Lake Erie for the whitefish, and the head of Lake Superior for the salmon. A great many of the salmon-trout and whitefish are from Port Arthur. They come dressed and packed in ice with the larger fish.

Q. In what state are they when they arrive here, as a rule?—A. Often crushed by reason of the weight of the ice, from their softness.

Q. With regard to the prices of these small fish, what proportion in value do they bear to the full-grown fish?—A. Sometimes if they are not in good order they are not saleable at all; they are not as acceptable on the market as the others; if saleable, we sell them from one to two cents less per pound.

Q. How is it with regard to your ciscoes and herrings; you say a great many are brought in?—A. The small herring are not saleable; if sold at all, it is at greatly reduced prices; very small ciscoes are not in demand; they are not saleable; they will not bring a good price.

Q. What is your impression with regard to these small fish—should they be caught or marketed?—A. No. They should not be caught or allowed to be sold, as it causes great waste of the fish, the small fish not having come to maturity and not having spawned, causes great diminution to the fisheries.

Q. Would you recommend, to prevent this, the use of any special nets or anything else; how could this be overcome?—A. I have given my recommendation



here (produces document). It should be overcome by the use of larger sized mesh in the nets, and prohibiting their sale; I think that will have to be done.

Q. Are you aware that quantities of these are caught sometimes by the fishermen and thrown away, because they cannot sell them?—A. Well, I am aware of herring being thrown away, I could not say about trout or whitefish. They try to ship all sizes when they get them. Most of the small salmon-trout and whitefish are mixed in with the big fish and sent to market.

Q. What is your opinion of this—is this a crying evil with regard to the fish industry and fish trade generally?—A. I think it has largely destroyed our lake fish.

Q. And do you go further than that, and say that there ought to be stringent measures introduced to prevent it?—A. Yes.

Q. Do you mean on behalf of the fish industry and fisherman and fish dealer combined?—A. Yes, and the community at large, because if the supply is cut off it will affect them too.

Q. Do I infer from what you have said, Mr. Port, that this killing of small fish and killing fish at the spawning season are the two great evils we have to contend with?—A. Yes, I think so. I don't go for a long close season.

Q. Killing at the spawning time, I mean?—A. Yes, it is.

Q. Could you give an opinion with regard to this Sunday close time business?—A. For gill-nets, it is impracticable; with seines or drift-nets, I think it should be enforced.

Q. How does that apply to pound-nets?—A. They couldn't apply it to pound-nets.

Q. Have you any knowledge about this reported statement which goes the rounds pretty largely, that the Americans come and poach in our waters with their tugs and nets?—A. I know the bulk of our fish are taken to the United States by Americans, or men supplied with American capital, and thus taken in without paying the duty.

Q. That is three-quarters of a cent a pound, isn't it?—A. Yes.

Q. What I wanted to know much more particularly is this: are you aware of any American fishermen that come across and fish in our waters?—A. Yes, they do, the Americans fish in Canadian waters all along the lakes.

Q. This you consider is an interference with the Canadian subject and the Canadian fisherman?—A. Yes, as the Canadian fishermen are charged a license for fishing, and have to pay duty on their fish going to the American market.

Q. As to the general subject of protection, are you of the impression that close seasons are beneficial for the preservation of the fisheries?—A. Close seasons are good if properly selected and enforced.

Q. Do you know anything about winter fishing here; is it of any consequence?—A. There is very little winter fishing, I might say, in the lower lakes. There is a good deal done at Port Arthur and Lake Superior; they fish there all winter through the ice.

Q. What do they get there?—A. Get a large quantity of the small sized whitefish, a few trout, but not many.

Q. Do you think this is injurious to the trade?—A. Catching the small fish.

Q. Is there any bass fishing of any consequence carried on here?—A. In the inland lakes, back of Peterboro', there is. They are brought to the market here. They are caught more especially in the neighbourhood of Peterboro'.

Q. What time are they brought here, principally?—A. Principally in the winter, and are good black bass of fair size; but none of any consequence are caught here.

Q. Are you aware of anything like spearing or shooting being practised here in the marshes in the spring of the year?—A. Well, I don't think it amounts to much here.

Q. What are your views then about the artificial culture of fish?—A. I think it is a good thing; it is required, for there are so many fish caught that they should be propagated artificially.

## Ontario Fishery Commission.

Q. Is artificial culture good and should it be extended?—A. Yes; more particularly where there are large fisheries and a great many fish taken out; especially in the large fishery stations.

Q. What sort of fish do you consider best for the market or for general purposes?—A. Salmon-trout and whitefish stand No. 1. Herring are greatly used. I would put herring next, then ciscoes, yellow pickerel, and black bass are certainly good, but they are not so plentiful; then blue pickerel, pike and maskinongé; then the coarser fish.

Q. What do you say about the bullpouts?—A. There is a great demand for catfish in the American market; they are not used so much in Canada.

Q. Which of the kinds of fish that you have been dealing in for a long period of years have fallen off most in Canadian waters; which shows the greatest decrease comparatively from what they were formerly?—A. Whitefish, by all odds; and salmon-trout are not so plentiful as formerly, but they do not show so much of a decrease.

Q. And with regard to the general preservation, which would you recommend should receive the greatest attention?—A. I think whitefish principally. I think salmon-trout can take care of themselves better. Whitefish should receive the greatest amount of attention by the general public for preservation.

Q. Can you give us any description of the possible falling off in your memory with regard to the whitefish in Lake Ontario; what quantities have you known to have been caught in Lake Ontario in years back?—A. Lake Ontario principally supplied the Toronto market in years past, and also the Canadian market east with whitefish and trout.

Q. To what extent were they caught, can you give us a rough estimate?—A. They were caught in large quantities with seines along the shores of Lake Ontario about Weller's beach, and on the Toronto Island they were largely taken at the eastern and western ends of the lake, but now there are only a very few brought to this market from Lake Ontario.

Q. Are you depending wholly on the western lakes now?—A. Yes.

Q. What is your idea with regard to the principal cause of this falling off?—A. I think the principal cause is catching small or immature fish and overfishing in some localities, and taken too numerously when spawning. They caught them in spawning time principally. Perhaps caused by navigation to a certain extent, navigation increasing on the lakes. I think that has had something to do with it. I know that fish run a great ways from steamers.

Q. Do you do anything in the speckled trout line at all?—A. I handle a very few.

Q. Where do you get them from principally?—A. From Lake Superior, about the only ones. They are the same class as the Nepigon fish. They come here through the summer months and the fall, but only in small quantities. They are more of a sporting fish. These speckled trout are worth here from 15 to 20 cents a pound.

Q. Have you any knowledge of the loss of many fish by nets being carried away, and fish being left out too long in the nets and becoming half decayed?—A. There are large quantities of fish destroyed by them dying in the nets when left out for three nights, I would say. This is caused by men trying to handle too many nets, and by stormy weather.

Q. When fish die in that way what becomes of them?—A. If not altogether spoiled they are generally salted. They are cured with salt as they are unfit to sell, as we get them for fresh fish, and they are sometimes frozen and sent to the market, but they are worthless. Sometimes they are sold at reduced rates, but lately the people won't touch them. They are not saleable.

Q. Have you any suggestions to make that you would like to have recorded?—A. From the full knowledge of the fishing business, being connected with it for thirty years, and knowing most of those engaged in it on our great lakes, I would recommend as follows: First, that larger sized mesh for catching trout and whitefish, herring and ciscoes be enforced as soon as practicable, say by the 1st of November, 1893; that after that date the minimum size of mesh allowed for catching salmon-trout and whitefish be  $4\frac{1}{2}$  inches, extension measure, and for herring and

ciscoes 3-inch extension measure. This to apply to gill-nets of all kinds, and to the pots and pounds of trap-nets and to the bag or the centre of seines or hauling nets. Third, to bring this about without unnecessary hardship or loss to those engaged in the business, and having smaller nets on hand, I would recommend that all nets for trout or whitefish under  $4\frac{1}{2}$ -inch mesh, and for herring and ciscoes under  $2\frac{1}{2}$ -inch mesh be at once declared illegal and their use prohibited, and that all parties having such illegal nets in their possession be notified to surrender them to the proper officers before the 1st of May next, and that such nets be valued by experts, and the Government compensate the owners thereof. Fourth, that after the 1st of November, 1893, all nets for catching trout or whitefish be at least  $4\frac{7}{8}$ -inch mesh, and for herring and ciscoes, 3-inch mesh, and all else be prohibited and considered illegal. Fifth, after the 1st January, 1894, no salmon-trout or whitefish weighing less than two pounds, or herring or ciscoes weighing under half a pound before dressing, be offered for sale, and all under that ought to be liable to seizure.

*By Mr. Harris :*

Q. Are black bass a fish your customers will take when in good condition?—A. Yes, and I regard it as a good fish that ought to be preserved for the public by having proper regulations.

Q. About ciscoes, ought they to be put under regulations to preserve them?—A. Yes; they are a very saleable fish and largely in demand, and much inquired after by the public.

Q. Do you handle many speckled trout?—A. No; it is a fish that is nearly gone as far as the public is concerned, for it is not generally sent to the market for sale, but some small quantities may come to market.

HORATIO JOHN BRAY sworn :—

*By Mr. Wilmot :*

Q. Where do you reside?—A. In Toronto; I am a fish dealer. I really can't say I am a fisherman, but I am interested in the fishing business; I supply nets and am interested in fishing generally, and have been engaged in this business about 20 years in Toronto. I am an Englishman by birth.

Q. What description of fish have you been engaged in?—A. I handle fish of all descriptions, whitefish, salmon-trout, herrings, ciscoes, pickerel, bass and all kinds of fresh and salt water fish. I am a general merchant as far as the fishing trade is concerned; the principal portion of my business during the season of open water is the whitefish and trout and ciscoes.

Q. What particular waters do you get your fish from, as a rule?—A. The whitefish and trout I handle, I get from Port Arthur mostly, and from Midland, but not so largely. The principal portion of my fish come from Port Arthur, that is whitefish and trout. Herrings, I get from all points on Lake Erie, from Leamington through to Port Colborne. There are very few herrings caught in Lake Ontario for this market. Ciscoes are exclusively confined to Lake Ontario.

Q. Where do you get your bass principally from, or do you deal in bass?—A. I get quite a number of bass during the winter season—in fact we get very little during the summer—I get bass from Lake Scugog and those smaller lakes back of Port Perry, Lindsay and Peterboro' and the back lakes; there are so many little places it would take a sheet for me to tell them all.

Q. Do you know anything about the nets in which fish are caught, the gill-nets?—A. Oh, yes, there are different sorts of nets. As far as the nets are concerned, I believe they are fishing with smaller meshed nets than they did in former years. They now use  $4\frac{1}{2}$ , I believe.

## Ontario Fishery Commission.

Q. Have you an idea with regard to what would be the proper measurement?  
—A. I have a very decided opinion about that. Personally, I wouldn't like to see a mesh anything less than 5 inches used, extension measure.

Q. Is that for salmon-trout and whitefish?—A. Yes. I will explain my reason: The fish we are getting now—I am alluding to the trade generally—are fish that are not saleable; they are too small for use; they are too small to be merchantable—that is, with the exception of a few odd ones. We have to apply to Manitoba for our whitefish, which are really marketable fish.

Q. Are you acquainted with the pound-net at all? What is your idea with regard to the difference in the quality of fish caught in a pound-net or a gill-net—any kind of fish?—A. There is some distinction. My idea as to pound-nets for salmon-trout and whitefish is that the bag should be the same; the pound-net pots should have 5-inch meshes also; the mesh should be large enough to give the smaller fish a chance to get away and give us the older fish for market.

Q. What do you say about the gill-nets for ciscoes and herring?—A. As far as my opinion is concerned you will have to take the herring by itself. The tendency has been for the last 3 or 4 years to decrease the size of the mesh for herrings which is a great mistake. My reason for saying so is that when the herrings are below a certain size they are unsaleable.

Q. What might you call that size of the herring?—A. I can hardly tell you. I can explain it to you in this way: A barrel of herring—a sugar barrel—running 350 fish would weigh about 250 pounds; that would be saleable fish. I receive many barrels with 600 or 700 herrings, and they won't pay the freight or express charges when they come to my place; they are perfectly unsaleable, I can't do anything with them. Take a barrel of 350 and sell them for \$2 or \$2.50 a hundred, and the 600 or 700 herring to the barrel you can't sell at all. You may possibly get 50 cents a hundred and you may not. You may sell a few, but we have to dump the rest.

Q. Now, what about the ciscoes?—A. My suggestion would be that nothing less than a 3-inch meshed gill-net should be used for catching herrings.

Q. Will you take up the ciscoe question, and will you make a similar statement with regard to the ciscoe?—A. I was the first man on Lake Ontario to handle ciscoes smoked. That will be 16 or 17 years ago. At that time the mesh was 2½ extension measure. In later years they have got the mesh down as low as 2¾.

Q. When they had the 2¾ mesh were the ciscoes caught then good and saleable?  
—A. Of good size, but now the mesh is reduced and my men don't fish anything but 2¾. The fish are getting so small it is hard work to sell them. If they were anything else but ciscoes they wouldn't sell at all.

Q. What would you recommend for the ciscoe mesh?—A. As to ciscoes, it is impossible for a large fish to get in a small mesh. If the mesh would be nothing less than 2½ inches, the fish would be better, more saleable and more profitable for the fishermen.

Q. Wouldn't it be the means of keeping up a better standard of the fish?—A. Yes, it would virtually preserve the small fish until they get sufficiently large to be caught, suitable for market.

Q. With regard to salmon-trout and whitefish, when do you consider them in the best condition for general consumption—what month?—A. My experience is they are not good when they are getting soft and are preparing for spawning. Fish do not all spawn together, it takes one or two weeks.

Q. Well, what about the ciscoes, when are they in best condition, do you think?—A. Ciscoes appear to be in condition all the year around. They are always full of spawn when they bring them in fresh.

Q. Would a ciscoe be in as good condition in its spawning time as before or after?—A. Yes, I have handled many and many tons of fresh ciscoes, and at all seasons of the year, and they always seemed to be spawning, they are always full. I would wish you to understand there are no ciscoes fished for from about the 1st of June until about the 1st of October; the dealers, by mutual consent, close the fishermen down, they won't handle them. They are a delicate fish to handle, and they spoil too quickly during the hot weather. They are not caught during that season—not fished for.

Q. They evidently do not spawn then, do they?—A. We can't tell what they are doing; we don't catch them. You will find all through the season, one portion of them, the female portion, always seem to be full of roe.

Q. What do you say about herring, when are they in the best condition?—A. In the spring of the year.

Q. That would include what months?—A. That would include from the commencement of the fishing season until about the 1st of June, and in the fall as soon as the weather gets cold again. It depends altogether on when the water gets cold.

Q. Do you know anything about black bass, when are they in the best condition?—A. They are in the best condition in the spring of the year, if you can catch them.

Q. What do you mean by the spring of the year, April and May?—A. Yes, just as soon as the ice leaves, and they catch them by hook and line.

Q. Do you know anything about their quality in September, October and November?—A. We don't get any black bass then. I presume that I handle more black bass than all the dealers in Toronto put together.

Q. Where are your markets principally?—A. They are confined now to the city of Toronto and smaller places outside. I used to have a large market on the American side previous to the McKinley tariff, but now, on account of the discrimination in favour of the American dealer, we can do nothing.

Q. Take the salmon-trout and whitefish, what does the selling price average?—A. The selling price in Toronto is  $6\frac{1}{2}$  to 7 cents a pound, that is for whitefish and salmon-trout; I am alluding to wholesale prices strictly.

Q. Well, what are herring worth?—A. Herring are worth from 2 to  $2\frac{1}{2}$  cents each; that is for saleable herring. Unfortunately there are more poor herring come into the market than really good herring.

Q. Is what you mean by poor, undersized?—A. Yes, unsaleable fish.

Q. Bass, what are they worth?—A. Wholesale, they are worth from 7 to  $7\frac{1}{2}$  cents, and 10 cents is the retail price.

Q. What is the retail price of salmon-trout and whitefish?—A. Eight cents, express charges are 2 cents a pound, bringing fish to Toronto; and the contract price for ciscoes is \$1 per hundred smoked. The fishermen sell me their catch for the season. It is a recognized price between us all. They are sold by dealers to the trade for \$1.25.

Q. With regard to the spawning and breeding: when do you think the salmon-trout are actually engaged in laying their eggs—when are they ripest for spawning?—A. The close season as it is at present seems to be the nearest approach to perfection that you can get.

Q. Do you think that salmon-trout spawn through November?—A. Yes. I would be an advocate of extending it for two weeks longer at the end of the season, two weeks in December. I got fish this morning from Midland. The whitefish hadn't spawned at all; just ready; they were jammed full.

Q. What about whitefish?—A. The whitefish and salmon-trout spawn about the same time. I got some trout; they were thin; if they swam for two or three weeks more they would be fat again.

Q. When do you think the herrings spawn?—A. Like the ciscoes, nearly all the time.

Q. Is there any special time when they are riper than others?—A. No, I don't think there should be a close season for them; they spawn like ciscoes, apparently, at all seasons of the year, neither should have a close season, according to my opinion. I would alter the size of the mesh in order that the smaller ones would be allowed to get out. I have seen at Port Stanley tons and tons of little bits of herrings they had dumped out on the ground. A larger sized mesh would be the best preservation for these fish, say 3 inches at least.

Q. What is your idea about the spawning of yellow pickerel or doré?—A. About April or May.

Q. What about pike and maskinongé, do you get any maskinongé?—A. Very few maskinongé; pike, I get many tons of them. Pike spawn very early in the

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spring. Pike, in my judgment, should not be preserved at all; they eat everything they can get hold of.

Q. Do you know anything about catfish?—A. Yes, but I couldn't tell you when they spawn.

Q. You said you had men actually engaged in fishing with nets? Now, when do you think the greatest losses occur to the fishermen, that is, with nets?—A. The fall of the year, as we get the equinoctial gales in September, October and November. After that the weather gets more settled.

Q. Do you know of any quantities of immature fish being caught?—A. Yes, and destroyed. I am alluding to herrings; they are caught in pound-nets and small sized gill-nets and dumped. Some are used for manure and the rest thrown away; but this does not apply to whitefish.

Q. Where is this destruction done principally?—A. Principally where the pound-nets are worked; where the fish are caught. This is done sometimes by the receiver; they are unsaleable in consequence of their size being too small. This does not apply to the ciscoes. Ciscoes are never lost; they are always used. The trouble with respect to ciscoes is, they are getting too small to be saleable.

Q. Are ciscoes generally sold fresh, or how?—A. All smoked, I might say. Sometimes they bring in fresh ones. That is how I know about the fresh ciscoes. The ciscoe is intended and actually is used as a smoked fish.

Q. Are herrings sold fresh?—A. Yes; the smoked herring are not as saleable as ciscoes.

Q. You spoke about the ciscoe being large in former years?—A. Yes; what we call large ciscoes, running from a pound to a pound and a half, but we don't get them at all now.

Q. Now, with regard to these fish that you say are dumped or thrown away, what would you call large quantities?—A. Two or three tons to a lift. This is principally in Lake Erie. We have no pound-nets on Lake Ontario for herring fishing.

Q. Does the remedy for the preservation of these small fish, salmon-trout, whitefish, herrings and ciscoes, being taken lie in the size of the mesh?—A. Yes, in the size of the mesh.

Q. Do your fishermen keep Sunday close season; are the nets taken up from Saturday night to Monday morning?—A. It is understood that they always do that, but it is impracticable with pound-nets, of course.

Q. How does it apply to gill-nets that are set out for salmon-trout in deep waters?—A. If they can they take the net up, and if they can't they leave it there. It is almost impossible for them to do it always. I believe the fishermen comply with the law as near as it is possible for them to do so.

Q. Do you know anything about the Americans fishing in our waters or poaching?—A. Yes, they are fishing in our waters by their capital. It is a pretty hard thing to explain; I should say, by subsidizing the Canadian fishermen, nominally taking possession of boats and nets, and virtually not doing anything of the kind themselves. This is done with a view to avoiding the duty, and also preventing Canadian dealers from being able to continue their business.

Q. Do you consider this a crying evil so far as the Canadian fishermen are concerned?—A. It is an injustice to Canadian dealers, and it is of no benefit to Canadian fishermen. I might also say that the Canadian fishermen received as much money for their fish ten years ago, when it was exclusively in Canadian hands, as they do to-day when it is monopolized by American fish dealers.

Q. Do you mean they dictate the market prices?—A. Yes; they dictate the market prices altogether to Canadian fishermen.

Q. What is your opinion with regard to the close seasons; do you think they are properly selected and are judicious?—A. Yes; with the exception, as I stated before, that I think two weeks longer in the winter season would be better for whitefish and salmon-trout.

Q. Is winter fishing principally the ciscoe business here?—A. On Lake Ontario, yes.

Q. Is winter fishing carried on anywhere else excepting Lake Ontario?—A. Yes; it is carried on very largely in the back lakes, principally for bass and some pickerel; in Lake Superior, whitefish and trout.

Q. The whitefish and trout caught in the winter, how do they compare with the summer fish?—A. Exactly the same.

Q. Are they not smaller?—A. No; just caught in gill-nets; they are, if anything, better in the winter than in the summer; of course the weather is colder.

Q. Is the bass fishery principally confined in the winter to the back lakes?—A. Yes; the smaller lakes in the back portion of the province.

Q. Do you know if spearing or shooting of fish is practised at all?—A. I don't think at all in this district.

Q. What is your view with regard to the artificial breeding of fish?—A. I am quite an advocate of it as being very beneficial to the maintenance of the fisheries.

Q. Which of the fresh water fish that you deal in do you consider the most valuable for general purposes?—A. Whitefish, though black bass is really the most valuable.

Q. Taking them both as to value and as to quantity?—A. Whitefish is the most valuable all-around fish, the next is salmon-trout, then herrings and pike, and pickerel are really the best for future protection or improvement.

Q. How do ciscoes come in?—A. They are valuable in a way, but they are not a marketable fish if they are caught in large quantities.

Q. How do the bass come in?—A. They are more valuable than whitefish; they don't enter into the composition of a man's business.

Q. Which of the kinds of fish which you have been dealing in have fallen off most from the former catches?—A. Whitefish and salmon-trout have fallen off considerably, not in respect so much to quantity but in respect to quality and size; we used to get really good large fish.

Q. How is it in Lake Ontario?—A. Lake Ontario fishing has been better the last three years; Lake Ontario whitefish are only half grown.

Q. Take them all around, have whitefish, in your memory, fallen off in the waters of Lake Ontario in numbers?—A. In Lake Ontario, yes.

Q. Have salmon-trout fallen off?—A. Yes; I am alluding now to Lake Ontario.

Q. Have the western lakes shown a falling off also?—A. Not in respect to quantity, only in respect to quality and size.

Q. What do you say is the cause of this falling off in Lake Ontario?—A. As far as I can judge it is to indiscriminate use of seines; yes, the indiscriminate use of seines or drag-nets. I am referring now to 14 or 15 years ago.

Q. Do you attach anything to improper fishing at the close seasons?—A. No, not in reference to whitefish or trout; they do not fish but very little for whitefish and trout. I remember some years ago they put a lot of whitefish in over at Niagara from the hatcheries, and some seasons after the men about Niagara dragged in whitefish with drag-nets. I was handling all the fish that was shipped over here, and we started to sell at \$8 a hundred, but they shipped so many we couldn't get that long. They caught as many as from 40 to 50 barrels a day with seines. These whitefish were in size about  $\frac{2}{3}$  of a pound, from that perhaps to a pound. They glutted the market to such an extent that they were almost valueless. It might have been two seasons or more after the fry were put in.

Q. What has been the consequence since?—A. They haven't had any since to speak of.

Q. Do you know anything about the loss of fish in nets that are set and kept out too long, and the fish die?—A. It would depend altogether on the men that would catch them. Fish that are dead in nets they split and are generally salted and cured; the reason for salting them is because they are not fit to eat fresh. They are unsaleable fresh, they wouldn't carry. A dead fish may be all right when it is split where it is caught; it would not carry to the market. They are unsaleable as fresh fish, because they are soft.

Q. Have you any suggestions to make or is there anything you would like to state yourself, we would be very glad to receive it?—A. I would like to make one suggestion in reference to the method in which the American Fish Companies are doing business in Canada. My suggestion is this: It would only be in common justice to the dealers in Canada that an export duty should be charged on all fish caught by Americans, and by American nets fishing in our waters, and that the duty

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be equal to the McKinley tariff, and as an offset to the duty charged to Canadian exporters of fish.

Q. Have you any other suggestion you would like to make?—A. Nothing else I know of particularly.

*By Mr. Harris :*

Q. Do you deal wholesale?—A. Both wholesale and retail.

Q. What should be the smallest weight of a yellow pickerel for marketable purposes?—A. Two pounds should be the smallest.

Q. Would a 3-inch mesh do to catch ciscoes?—A. Two and a half should be for ciscoes.

Q. Well, then, if they fished with 2½-inch mesh for ciscoes, would they not catch undersized herrings?—A. No, because the ciscoes and the herring do not swim together; the ciscoe nets would be set in deeper water, further out. They never do; they fish for blue back—that is the herring—in near the shore, and they fish for ciscoes outside of a certain limit.

Q. Do you think the ciscoe is worth preserving and protecting? Do you regard it as a valuable marketable fish?—A. Yes. Just as much worth preserving as any other fish. They should not be destroyed by small meshed nets.

Q. How is it you don't deal in black bass in the fall?—A. We can't get it. My opinion is that the fish get into places where they lie dormant. They are not caught in the fall.

Q. Are they caught during the summer months, during July and August, and are the fish good for anything at that time?—A. No. They eat them.

Q. Do you regard them as a proper fish to handle in June?—A. No, we are not allowed to handle them then.

Q. Yes, you are after the 15th?—A. We do not get any after the close season. I don't get 25 pounds of bass a day here then, but during the winter I will handle as much as half a ton a day.

Q. How are they caught in the winter? Is it by spearing or nets?—A. Through the ice by hook and line. I know a speared fish when I see it.

Q. You begin to get them as soon as the ice gets firm?—A. As soon as the ice gets hard enough. They are not caught by gill-nets under the ice.

Q. What do you think is the right close season for salmon-trout?—A. The close season dates, I think, are about right now, from the last day of October until the 1st day of December, with the exception, I would extend it for two weeks longer at the end of November. I don't think all the fish get spawned out and fit for use afterwards, by the 1st of December.

Q. Should it be the same with the whitefish?—A. Oh, yes, the close season might run to about the 10th of December, as it would tend to the preservation of the fish.

Q. Still you regard the most important thing of all is regulating the size of the mesh?—A. Yes, that is the most important. It depends on that a great deal more than anything else.

*By Mr. Wilmot :*

Q. When you say that ciscoes should be protected, do you mean by that there should be a close season for them?—A. No, but I mean that ciscoes should be preserved by proper meshed nets, and that a right sized mesh should be used to prevent the over destruction of the ciscoes.

*By Mr. Harris :*

Q. About speckled trout, do you handle many?—A. Some. We get them all from Quebec, from dealers. We get some from Ontario occasionally, very few.

Q. As a fish for the public it is about extinct?—A. Yes.

Q. If capitalists were to preserve trout, raise trout, do you think it would be a profitable thing?—A. Yes, if they could preserve the ponds that the fish are in.

Q. Do you think there would be less difficulty raising the fish than in preserving them afterwards?—A. Decidedly.



Q. Do you mean on account of the weakness of the law?—A. No, it would be more owing to the fact that parties knowing there were speckled trout there, they would go and get them.

Q. And is the law not sufficiently strong to keep the public off?—A. I don't know what the law is, in other words, I don't think the capitalists could invest their money in raising trout; because the boys and others would steal them.

#### No. 14.—HAMILTON.

The Dominion Fishery Commissioners met this 13th day of December, at the Royal Hotel, Hamilton. Mr. Samuel Wilmot and Mr. Edward Harris, Commissioners, present.

Mr. WILMOT, as Chairman, explained to those present the nature and importance of the work to be done.

DANIEL MCGWYN sworn:—

*By Mr. Wilmot:*

Q. Where is your residence?—A. Burlington Beach.

Q. Your occupation?—A. Fisherman and gardener.

Q. How long have you been engaged in fishing?—A. Fishing since 1857.

Q. What is your nationality?—A. Irishman.

Q. What kind of fishery have you been engaged in?—A. We have different kinds of fishing done on our lake, whitefish, salmon-trout, ciscoes and herring.

Q. Have you been engaged in whitefish fishing, salmon-trout, ciscoes and herring in Lake Ontario?—A. Yes, and in Lake Erie I fished a little also, and a few sturgeon and other coarse fish and pickerel.

Q. What particular waters have you fished in?—A. Burlington Bay and Lake Ontario.

Q. What kind of nets have you used?—A. I have used draw-nets and seines for herring and whitefish, and also gill-nets for both purposes. I do not use pound-nets, or fike or hoop-nets.

Q. Could you give me the size of the mesh you have used in your herring, trout and whitefish nets?—A. Whitefish, 5-inch mesh; trout, 7-inch; for seines, 4-inch, all extension measure.

Q. In your kind of fishing, what size fish will pass through the 5-inch gill-net?—A. Two-pound fish and under, and one pound and under will pass through the 4-inch mesh.

Q. In your gill-nets what size twine do you use?—A. In seines we use from 12 to 16; the seine is cotton and our gill-nets is linen. Our nets are imported from Scotland.

Q. In your fishing when do you consider the fish in their best condition, that is, for table use?—A. Well, it depends on the fish; salmon-trout are good at all times, except spawning. In summer months we consider them the best of any. It depends a good deal on the water; if we get cold water they are good at all times; they are best in May and June.

Q. With regard to whitefish, when are they in best condition?—A. I should say at all times. Some people like them at all times; they are the same as salmon-trout; best in May, June and July, they can't be beat. Herring in September and October are good, and most any month, excepting in warm weather; in August and July I should say they are not so good; they are best in spring and winter.

Q. Ciscoes, when are they best?—A. Ciscoes are counted a good fish at all times of the season as a cured fish, that is, corned and smoked.

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Q. The bass family, what do you think of them; when are they best, in the spring or in the fall?—A. From now out till the month of May; when the water gets warm they are no good; they are not fit to use in July and August, they are soft. No fish in the bay in those months are fit to use.

Q. What do you think about pike and pickerel?—A. There is none of the big yellow pickerel now. There are a few blue pickerel. We call them sand pike.

Q. What do you think of them as a fish?—A. They are very good, but not numerous.

Q. Where do you usually market your fish?—A. In Hamilton, for home consumption, a few of the ciscoes are shipped, but not by me. Smoked herring and ciscoes are shipped, but the particular fish for home consumption is herring.

Q. Did other fish abound here formerly?—A. We had them quite numerous, but not for 12 or 13 years; our fish have been falling off.

Q. What is the average value of your herring?—A. The market value a hundred, fresh or cured, is \$1 to \$1.20, and ciscoes average from \$1 to \$1.50.

Q. As far as you are concerned, do you say the salmon-trout and whitefish are out of the question now?—A. It don't pay a man to fish for them, nor for sturgeon, nor pickerel. They spear a few in winter time if they are allowed. I deal in them if I can buy them. These will cover all the fish I deal in, that is in my business, whitefish, salmon-trout, ciscoes and herring, and some bass and pickerel.

Q. The bass, what are they worth, sir?—A. Bass are worth about 6 cents a pound.

Q. Can you give us a little information on the following questions:—When do you think the herring are most free to spawn?—A. I can answer that question if anybody can; I have had a good experience. They spawn most freely from the 18th till the 27th of November.

Q. With regard to your ciscoes, when do they spawn most freely?—A. That is a question that I can hardly answer satisfactorily; but from the 25th of December I should say, till the middle of January.

Q. When do you think the salmon-trout spawn?—A. I think from the middle of October till the end of November; during the month of November, and whitefish are most free to spawn about the same time; and bass spawn in the spring of the year during the months of May and June, and pickerel and pike, I should say in April and May.

Q. When do you find that it is most unprofitable for you to use your nets; at what period of the year is it hardest upon the nets?—A. Well, I should say January and February is the hardest months we have. That is when we fish in the winter. But in our summer fishing, taking it from April to December, November and December are most likely to injure our nets.

Q. Have you any knowledge whether many immature young fish are caught, making it injurious to the fishery?—A. They have been; certainly it is an injury to the fishery, but the mesh we have at the present time I should say we could not better it.

Q. Do you think it is an injury to catch the small or immature fish?—A. Yes, certainly, but the nets we have will let the small fish get through. The nets we use are regulated not to catch these fish, and they let these small ones get through.

Q. There is a law that nets are to be taken up on Saturday night and kept up till Monday morning; is it kept?—A. Well, it stops us of two nights' fishing, and it is impracticable to be carried out, in the interests of the fishermen.

Q. Upon the general principle of the preservation of the fisheries, do you think it advisable that there should be properly selected close seasons for the spawning times of fish?—A. Yes, I think it is right, and I should say from the 15th of November to the 1st of December; 15 days is sufficient.

Q. When do you generally set your nets out here, how early?—A. About March or February, in fact we fish all the year around when the weather permits, winter fishing is carried on here by gill-nets running from 8 to 18 miles out in the lake; we take ciscoes and herring, and those are the only fish up this part of the lake that we make a living by.

Q. Are there any quantities of bass of importance caught here?—A. No, they are caught in the summer fishing when they are not fit to use; we have speared a few of those mud bass in the winter.

Q. Is shooting or spearing fish practised much here?—A. Spearing is done when allowed, and the water is clear; very little shooting is done.

Q. Have you any knowledge with regard to this new system of supplying the waters by artificial breeding?—A. Really I could not say; I don't know as it is helping us any.

Q. How long since you got as many as 200 and 300 fish at a haul, that you spoke of?—A. In 1860 we would catch that many in a haul; I caught, I think, it was 680 we counted; in 1866 we got as many as 680 trout and whitefish at one haul of the seine on Burlington Beach—that was on the 18th of June, to the best of my knowledge. This was pretty common at that time; whitefish were taken pretty generally then, as many as 100 and 200 and 300 in a night.

Q. What would you catch now?—A. None at all, at present time no whitefish are taken, the nets have been laid up for the last five years, I haven't wet them in five years.

Q. Now can you tell us the cause of this falling off of whitefish?—A. I can't give you any reason unless they are caught off.

Q. Have you no idea in your own mind?—A. These little shad, as they are called, that we have in our lakes, eat the food of the whitefish and they have taken some other route and don't come to our shores. There is a few caught, but nothing to signify.

Q. Are these little shad fish plentiful?—A. Yes. The township has to pay for removing them, the stench from them is so great in the month of July and August they have to be shovelled off the shore or buried.

Q. Do you say this affects the salmon-trout and whitefish alike?—A. I can't say for certain, but that is my opinion.

Q. Now, do you think there has been any other cause, such as overfishing and fishing at the spawning time, which has helped to produce this?—A. Certainly. In time gone by, overfishing has helped to do this; yes, I should say so.

Q. Do you think the use of too small nets of any kind would have that effect also?—A. We had a regular net since '57, that is since we first began to pay a license.

Q. Do you use gill-nets for salmon-trout or whitefish?—A. Yes, sometimes we use 4-inch mesh now.

Q. Well, then, you do think that catching them on their spawning grounds had something to do with diminishing them?—A. Certainly, it would help. We often caught them in close seasons 25 years ago.

Q. When you speak about the falling off of fish, how is it with regard to ciscoes?—A. They are not as numerous as we have had them. Ciscoes have fallen off considerably during the past four or five years. I think they are caught off with too many nets and too many fishing for them. Some have got three gangs of nets, or two or three miles, not in our part, but at Bronte. That is what I have been told. I think that overfishing would tend towards bringing them down.

Q. With regard to ciscoes, as to size, is it what it was in former years?—A. No; the size of the ciscoe is now about the size of the herring, and it was the size of them in former years.

Q. Have they not reduced in size at all at the present time?—A. Oh, no. The size of the ciscoe at the present time is about the size of the present herring. We sometimes get a herring that weighs 2 or 3 pounds, but the general run of ciscoes is about the usual size of herring.

Q. Have they fallen off either in number or size?—A. No; I could not say about the size, we don't get as many at once now; in fact, we don't get as many of any kind of fish.

Q. Well, what is your view of the ciscoe, is it a separate species?—A. Ciscoe is a family by itself I should say, it is different from a whitefish and from a herring. They are a superior fish to a herring.

Q. Are they a better fish than a herring?—A. Yes, in a cured state, but they are not better when fresh.

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Q. They cure better on account of being a fatter fish?—A. Yes; much more so than a whitefish or herring.

Q. Well, is the herring not put up in the same manner as the ciscoe?—A. Herrings are smoked principally, the biggest part of them, and bring as much in the market as ciscoes when ciscoes are not in. Herring are also cured and smoked, and are also sold at the same price in the market as the ciscoes.

Q. Then the loss of the ciscoe is not so very great if the herring fills up its place?—A. Well, they have to take something, and the herring takes the place of the ciscoe largely.

Q. Where do you catch the ciscoes principally?—A. From 6 to 18 miles out in the lake, sometimes we go out about 6 or 8 miles, sometimes 10.

Q. When are they principally caught?—A. Principally from 1st November to 1st May.

Q. When do they come along the shore for spawning purposes?—A. Ciscoes do not go near our shore at all, they spawn in deep water. They must spawn in deep water as you don't see them on the shores, if they did we would catch them; they act like the herring, which go from three to six miles out and spawn on the weedy bottom. Our shore is clear sand bottom. That would be something like the same place as the ciscoes spawn, only I think the ciscoes go further out, for we don't catch a ciscoe within three miles off shore.

Q. Which is your most valuable fish here, is it herring or ciscoes?—A. We depend more on herring than any other fish generally for home consumption; some are shipped by dealers.

Q. Now, in former years, when the whitefish and salmon-trout were plentiful, were the herring of much account?—A. No, not much; we caught them numerously. We used to handle a good many herring.

Q. Which do you think was the most valuable fish in Lake Ontario formerly?—A. Whitefish and salmon-trout; we used to make no reckoning on herring; still we used to catch them; our main fishing was whitefish and salmon-trout.

Q. Do you say that whitefish and salmon-trout are practically gone for fishing purposes now?—A. Yes, it does not pay for one to follow it up; salmon-trout and whitefish are all gone, and now we have to resort to herring and ciscoes to take their place. I have been at it now 33 years, and these last two falls are the best I ever put in for herring; our herring gill-nets are 2½ and 2¼ mesh; that will catch all good-sized herrings, and all small herring will pass through that, and all we catch are saleable fish.

Q. Do you fish with a sail boat or any other boat?—A. We use a sail boat for outside fishing; an open boat for shore fishing. My boat is 22½-foot keel; it is manned with two or three men; and the small boats or skiffs are about 16-foot keel, and can be used with one or two men.

Q. How many yards of net can you fish with your 21-foot keel boat?—A. Two men can handle 2,000 yards; that would not be too much for a boat; some use a good deal more and carry four men and use double that quantity of net.

Q. Should there be a limit as to quantity of net used?—A. Yes, I think some boats should be shortened; we set a gang of nets and lift one and set out another at the same time; 2,000 yards are kept down all the time by some; others won't have so much; some will have more; some keep in the lake three gangs, and 2,000 yards is what we call a gang; then they would have out 6,000 yards.

Q. Is 2,000 yards sufficient, do you think, for two men or a boat?—A. Yes, I should say so; a man may have 10,000 yards if he is fishing at home, but I think 2,000 is all he can attend to.

Q. What depth do you have your net, as a rule?—A. About three to four feet, about 25 meshes deep, with about 1½-inch bar, or 2¼ extension measure.

Q. How long after a net is set out before it is taken up?—A. When set in November or December, usually from two to three nights out. Generally we leave them two nights, but sometimes more on account of the weather. They are usually taken up every third day if the weather permits.

Q. If they stay out longer than that what is the consequence?—A. I have had them out twelve nights, and the fish were still good.

Q. I suppose those caught first would be dead?—A. They live quite a while if not strangled in the net; one-third of them might be dead. Sometimes nets and fish are lost altogether.

Q. Have you lost any of any consequence?—A. Oh, yes, I have lost whole gangs, but not of late; I have lost whole nets, fish and all; we have some very severe storms here. As I said before, the herring don't spawn on the shore where we catch them, but they go out from two to six miles. They leave the shore about the 15th of November; out till the 20th they are gone from the shore.

Q. What do they come along the shore for?—A. For to feed; they keep outside during the spawning time, and October and November are our two months for fishing along the shore; our herring fishing is done in them two months; if we are deprived of them we might as well quit; in the close season we are deprived of quite an item; in fact, it is the only month we have to fish; the two months is the only two months that we do anything; I only fish in those months.

Q. Ciscoes, do you fish them all the year around?—A. No, in hot weather in May, June, July and August they are too oily; we commence in September and fish all the year round, except May, June, July, August and September.

Q. Which is your best month for the ciscoes?—A. December is about as good a month as we have; it is the best month.

Q. December and January are best fishing for ciscoes?—A. Yes, I should think that would be the best.

Q. Have you any suggestions to make?—A. As far as herring is concerned, that is all. But I was going to speak about this spearing up here.

Mr. WILMOT.—This Commission has no instructions about this spearing business; other parties will attend to that hereafter; but do you think spearing should be allowed?—A. Yes.

*By Mr. Harris :*

Q. I want to find out about these black bass: do you say they are not fit to use in July and August?—A. They are too soft.

Q. And is not that the time they are pretty much all caught?—A. Yes, you can buy them in our market for 2 cents a pound; sometimes we have to hire carters to take them away. They are not good; they are not fit for table. There is what we call the big mouth bass and mud bass; those black bass will hardly ever catch a spoon; they keep in weedy bottoms where they catch with the trolling; it is on a clear bottom these big mouth bass are caught.

Q. Do you say none of them are good in July and August?—A. You would not eat them, sir; you would not. You would sooner eat a sucker out of the lake water than a bass out of the bay water.

Q. Are those bass when caught in September or October good fish?—A. The best time is from November up to the month of May; the other months they are not so good.

Q. Then, as a fisherman, do you regard this catching of black bass from the 15th of June until the middle of August as wasting the fish?—A. It is really; it is not the fishermen who catch them, it is the sports; people who catch them with trolling spoon, and sell them for 4 and 4½ cents a pound; I have seen them sold for 1 cent a pound. They ought to be protected in these months above all others, because they are not fit for use.

Q. Do they sell readily among the class of people who use these fish when they are in a good condition?—A. Yes, in the winter at 10 cents a pound; in fact I have known them 12½ cents a pound.

Q. Are they a good fish; and do you regard it as a fish that is well worth preserving for the public?—A. Yes, but in the summer season they are useless.

Q. Have you any business connection with Buffalo or the States with your fishery?—A. No, sir.

Q. And is there no sale for mud fish in Canada?—A. Of course you know they sell in the States, but we have no connection with them. The local demand here is sufficient to take all we have, and more too.

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Q. How are those black bass to be caught in the autumn?—A. The only way we can catch them is with a spear; we can't catch them by net; they won't bite; I never caught but one in my life with a hook. Sometimes you catch a little one, but no large ones; the big mouth bass will catch with a hook and line, but not the mud bass.

Q. Have you fished for the whitefish and salmon-trout, too, with gill-nets?—A. Yes, with gill-nets and drag-nets, both.

Q. Have you seen those fish exterminated?—A. Yes, they are a thing of the past.

Q. Is it your conclusion that they have gone somewhere else?—A. No, I think they have gone to market, they have been destroyed, they have been caught off with the nets all through the whole lake.

Q. What I was leading up to was, whether you consider the present reduction in numbers of the ciscoes as if they were going the same road as the whitefish, just a repetition of the others?—A. Yes, sir, I do, and herring is our principal fish; I have known herring leave here for a year or two, and very likely ciscoes may do the same; ciscoes are falling off.

Q. Do you fish for ciscoes all winter, from November till May?—A. Yes, when weather permits we fish them about six or seven months, until May.

Q. Why don't you fish for the ciscoes after that in the summer months?—A. We have to go a long ways out and when we would get home they would be spoiled, and if we would have to take ice that would not pay, we have to go so far out in the summer.

Q. Do they begin to go on shore in November, the time you begin to fish?—A. They don't go to the shore at all, sir.

Q. For ciscoes, in how many feet of water do you fish?—A. About 50 fathoms, 300 feet, and the nearest we get the ciscoes to the shore is about from 5 to 6 miles, I should say, sir, in about 100 feet of water.

Q. Have you no idea when they spawn?—A. Oh, yes, I have an idea; about January is the principal month, but some say they spawn the year round; more at that time of the year than any other.

Q. Do you think that is the general opinion among the fishermen as to the spawning of the ciscoes?—A. Some of them seem to think that they spawn the year round, but I do not, for that is a little too much for me to believe.

WILLIAM DEPEW sworn:—

*By Mr. Wilmot:*

Q. Do you live in Hamilton?—A. No, sir, on Burlington Beach. I am a fisherman for thirty years, and a Canadian.

Q. Have you carried on ciscoe fishing?—A. Yes, sir, ever since I have been able, and I fish for all kinds of fish; whitefish and trout, when there are any. I fished in Lake Huron at Goderich, and in Lake Erie.

Q. What kind of nets did you fish with?—A. Seines and gill-nets, no other kind.

Q. What is the size of mesh you use to gill fish?—A. Five-inch for salmon-trout up to 6 or 7 inches, and for ciscoes, 2½ inches, all extension measure, and for herring, the same.

Q. Do you get your nets made that way?—A. Yes, we get them from Scotland. I do not fish with pound-nets as well.

Q. What size whitefish would pass through a 5-inch mesh?—A. A two-pound fish would pass through quite handy, and a 3-inch gill-net would let through a pretty good sized fish, a fair marketable whitefish that will weigh about a pound, and it will catch them about a pound and a half.

Q. When do you consider your ciscoes are in best condition?—A. Any time in the winter. I never can see any difference in them then. In the summer, May and

June, they begin to get soft. They are to be caught in May and June in deep water just the same, and sometimes in shallow water, but not very often, from 10 to 15 miles from our shore and 6 to 8 miles from the main land. One fall, the only time I ever remember, I caught them within 200 yards of shore. Along in July we never catch them near the shore in November.

Q. Do the ciscoes frequent the same places and waters that the whitefish do?

—A. No, they keep out in deep water. They are a deep water fish.

Q. When do the herrings spawn?—A. From the 22nd November to 1st December, perhaps a little longer.

Q. And when do you say the ciscoes spawn?—A. The biggest part of them in February.

Q. Don't you fish for them now, your nets are out now?—A. Yes, at Burlington Beach. We expect to take them up to-morrow if we can.

Q. And you never see spawn in them in November and December?—A. Only in November and December.

Q. And you say the eggs are very plentiful in the boats in January?—A. In the latter part of January, not in the first part; the latter part of January and February.

Q. Therefore, you think that is the principal time for them to spawn?—A. Yes, I am pretty sure of it, I have noticed it every year yet.

Q. And you say you have seen eggs in them in November and December?—A. I have seen them in May, but not ripe.

Q. Well, then, you have seen eggs in them at all times?—A. Yes.

Q. What do they resemble most, a whitefish or a herring?—A. They resemble a whitefish more than a herring; they are a good deal better fish than a herring when they are cured.

Q. You say the herring are better fresh?—A. Yes. But the ciscoe is best when cured. The ciscoe is a soft fish and don't eat well fresh at all; they require to be salted to make them harder and then smoke them.

Q. How do you compare the ciscoes and herring in size and weight?—A. Herring and ciscoes are about the same size.

Q. Which is the most numerous of the two?—A. Herring are the most numerous here. They are both worth about the same price when cured.

Q. Which brings the most when fresh?—A. Ciscoes can't be sold in the fresh state; they are too soft to keep.

Q. Take them as they are, which is the most valuable fish, ciscoes or herring?—A. Ciscoes I think would be, but take the herring and the ciscoes as we catch them now, the herring is, because they are more numerous; they are more numerous than ciscoes now, and because they can be sold fresh and the others can't.

Q. Are the ciscoes as numerous as they were formerly?—A. No, sir, not nearly so numerous. The reason of that is they have been overfished.

Q. What size mesh do you use for them in your nets?—A. Two and one-fourth-inch mesh, which is not too large—it is just right.

Q. Have they not been reduced by the size of the net mesh?—A. No, only by overfishing; we catch them the most numerously in December, January and February.

Q. When is their spawning time?—A. I should say about February; they do spawn some in January, but not to much extent; February is their principal spawning month.

Q. Don't you think then that fishing at that time must help to reduce them very much?—A. I don't see why it would not.

Q. You say you fished for salmon-trout and whitefish in Lake Ontario and they were plentiful, when was that?—A. Not over 10 years ago, and they were plentiful 15 years back.

Q. Where did you principally catch them?—A. Down towards Winona; just this side of Grimsby; down by the south shore; close in the rocks; along the main shore, with gill-nets, and with seines along the beach in July, and with the gill-nets along in September, October and November; a few in the summer, but that was the biggest part of the fishing.

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Q. What were they doing along the shore in November?—A. Spawning; whitefish and salmon-trout spawn in November.

Q. Have you ever formed any idea of what has become of all the whitefish and salmon-trout?—A. They were caught out; these fish are actually gone; a few of course are left, but nothing like they used to be.

Q. Do you say these fish are actually gone at the present time, so that nobody could make anything out of the fishing?—A. Yes, sir, the falling off, I think, is caused by overfishing at all times, including the spawning time.

Q. What size mesh did you fish the gill-nets with?—A. Inch in the centre—that did for whitefish and everything, and we would catch young whitefish, too.

Q. Did you catch the young whitefish numerously?—A. Oh, yes, by the thousands, and piled them up on the beach and left them there to spoil, and the pigs ate what they wanted of them.

Q. Do you think that fish during the spawning time should be protected?—A. I think so.

Q. Do you think the herring spawn in November?—A. Yes, in November, about the 20th November, and ciscoes in January and February, the latter part of January.

Q. Well, now, if you fish for ciscoes in November, would you catch herring?—A. Yes, certainly; but I don't think there should be a month for close season on the herring, 10 or 15 days is plenty; I think it would be plenty; I am quite certain of it.

Q. If preservation was to be extended to the ciscoe or the herring, or if any close season was established, should it be in favour of the herring or the ciscoe?—A. Well, I don't know.

Q. Is the preservation of the herring of greater importance than the ciscoe?—A. Well, yes, it is to us; they come closer to the shore. The preservation of the herring is of more importance to the fishermen than the ciscoe.

Q. Are you quite sure that the ciscoe spawn in January and February?—A. Perfectly sure of it. They spawn more freely then than at any other time. February is the principal month.

Q. Have you formed any idea at all about the artificial culture of fish, whether it is beneficial or not?—A. I don't know; I don't see much benefit from it; there were quite a few more whitefish last summer than the summer before, but I don't know whether it was due to that or not. This was along the Burlington Beach.

Q. Have the whitefish been planted there from the artificial hatcheries?—A. Yes, I think so. Whitefish and salmon-trout have been put in these waters for some time past, and I think this will no doubt in time render service. I don't see why it should not.

Q. What sort of a boat do you use in fishing?—A. A Mackinaw boat of 22 feet keel, and I take three men to it, and use 2,000 yards of net at a time, or about one gang or 2,000, and I use this 2,000 yards of net for catching herring and ciscoes just the same.

Q. In setting your nets in stormy weather, do you meet with many losses?—A. No, I have not had any losses for the last three or four years, but losses do occur with nets and fish at stormy times. Sometimes the whole gang is carried away—fish and all.

Q. What is the usual time for taking up your nets?—A. The usual time for taking up nets is about three days, if the weather will permit, but frequently it runs to five or six nights, sometimes more.

Q. Now, in this case, what state are the fish in?—A. They are all right at this time of the year.

Q. But would these fish be all right to sell now?—A. Yes, just as good as one night out; that is, at this season of the year; but it would not do at all in summer, they would be all spoiled.

Q. Can you give us any idea about the bass, do you catch any at all?—A. When we are allowed to spear them; in the winter we get mud bass, or black bass as we call them, but not a great many. The black bass here are the large mouth bass.



Q. What other kind of fish do you spear through the ice?—A. Pike and a few sunfish and perch. We get no pickerel, nor maskinongé, nor eels, nor suckers in the winter.

Q. Are the black bass caught here in the summer?—A. Yes, in deep water, out in the bay. That is, the small mouth bass; they are caught in the summer, with rod and line and troll. The quantity depends on the season; quite a few sometimes.

Q. What about spearing the herring through the ice?—A. They don't do that; the herring are speared through the bay in the fall here.

Q. Would you like to suggest anything yourself?—A. Yes, about the herring. I think from the 15th November to the 1st December is plenty long enough for close season.

Q. Would that apply only to the outside in the lake?—A. We have nothing to do with the bay; we are not allowed to fish in the bay.

Q. But there are herring in the bay, are there not?—A. Oh, yes, there always have been.

Q. Then you mean the herring should be preserved from the 15th November to 1st December in the lake?—A. Yes, I think that is plenty long enough.

Q. What number of boats are there engaged in the ciscoe fishing here?—A. There are only four of us engaged in the ciscoe fishing; only two of us are of any account. There are only four boats that fish for ciscoes from this place.

Q. How many would there be engaged in the herring fishery?—A. Well, I can't tell you; there are a great many more in that. Yes, four times as many; about 18.

Q. What were there in the ci-coe business formerly?—A. About ten or twelve boats at one time. All the fishermen here were ciscoe fishermen at one time, but they have all dropped out of it and now it is reduced to about four, because they find it unprofitable on account of the ciscoes being so scarce.

Q. Will they run out altogether pretty soon?—A. I don't know. One winter we do not catch any, and the next winter they were quite thick.

*By Mr. Harris :*

Q. In fishing for ciscoes in November and December, what proportion of the catch would be herring?—A. Sometimes one-third of them. A very considerable number of them would be herrings, one-third herrings and two-thirds ciscoes.

Q. Would there be other localities at that time where more herring could be caught, where herrings would be in greater numbers?—A. Not up here. Sometimes we would happen to get them and sometimes we would not. You could not depend on them.

Q. Are black bass caught in July and August?—A. No, not at all, nor are the green bass caught in July and August.

Q. Are they wormy?—A. I never noticed that. From a fisherman's point of view we count catching black bass in July and August simply a wasting of the fish. They are not fit to eat.

Q. When do they spawn and watch their young?—A. Some time in June, but I don't know how long they guard their young.

Q. When do you think the close season for black bass ends?—A. The 15th June, I think, and that is about right. The close season should begin along in May.

JONATHAN COREY sworn and examined :—

*By Mr. Wilmot :*

Q. We have certain questions which we ask, or if you would prefer giving some statement yourself, do so. In the first place we would like to know your residence and calling?—A. Burlington Beach is my residence, and my occupation is as a fisherman for some 25 or 30 years, and I am an Englishman.

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Q. What kind of fishery have you been engaged in?—A. Mostly in herring, and I have caught whitefish and salmon-trout; have fished for pike and bass in the winter, and pickerel once in a while, and also get some coarse fish, such as sunfish.

Q. Do you do anything at all in the way of catching ciscoes?—A. Yes, sir, we fish for ciscoes.

Q. Which are the particular places that you fish in, what waters?—A. Lake Ontario altogether, off Burlington Beach.

Q. What kind of nets do you fish with?—A. Gill-nets altogether now, but about five years ago I fished with seines. I never use the hoop-nets or pound-nets.

Q. What size of mesh do you use in your nets?—A. Inch and one-quarter to inch and three-eighths, bar measure, that is  $2\frac{1}{2}$  to  $2\frac{3}{8}$  mesh extension for herring and ciscoes, the same mesh for both.

Q. In fishing for whitefish and salmon-trout, what mesh did you formerly use?—A. I never fished for them.

Q. Well, now, at what time of the year do you find the herring and ciscoe in best condition for general use?—A. Herring are best at the present time, December or any time along in the cold weather, but in the hot weather they are not so good.

Q. How are they in November?—A. They are all right in November, December and through the winter.

Q. Does this apply to the ciscoe as well?—A. Yes, the ciscoes are the same.

Q. Where do you sell your fish?—A. Mostly in town, here.

Q. What prices do you generally get for them—what do you get for herring, for instance?—A. \$1.10 and \$2 a hundred, and ciscoes the same price.

Q. When have you found that the herring are in a ripe condition to spawn; when do the eggs flow from them most freely?—A. Well, about the middle of November.

Q. The ciscoes, when do they spawn?—A. Well, I think about the same; when we are catching them they seem to be full of spawn but not ripe enough. I think they both spawn some time in November.

Q. What about bass, have you been catching any bass of any consequence?—A. No, not for some time.

Q. Have you any idea when the bass spawn?—A. No, I don't know exactly; in the spring, I think.

Q. Have you ever taken notice when the catfish or mudcats spawn?—A. In April.

Q. What month do you find the most ruinous to your nets in fishing?—A. About the middle of winter and in October, November and December; it is hard on them then. The most loss is in October.

Q. Now, do you catch any very small fish in your nets that are unsaleable?—A. No, sir, all the fish we get we sell.

Q. Do you know of any fish being thrown away from being too small or spoiled?—A. Not from being too small, but some are spoiled.

Q. What do you think about the law that requires you to take up your nets on Saturday night and keep them up till Monday morning?—A. I think that is all right.

Q. What is your idea with regard to having proper close seasons; do you think it is wise to have good close seasons?—A. Yes, I think it is right.

Q. When do you generally put your nets out?—A. We fish all the year round if we can, if the weather will let us, except the close seasons. I generally quit about New Year's and Christmas. The winter fishing is intended for ciscoe and herring; we don't catch anything else at that time.

Q. When do you catch the herring most numerously; when do you find it best for your fishing?—A. September, or along there, and October and November.

Q. Is it the same with the ciscoes?—A. Yes, but we have not got many ciscoes nowadays, just about the same; we have to go a long ways for them.

Q. Do you know of any quantity of bass being caught in any way here?—A. No, sir, not in the bay, but they catch the most right along in the summer time, but I don't know what months exactly, with trolls.

Q. Who are the parties that generally fish for them?—A. Mostly city people; our net fishermen hardly ever fish for them; they are caught in the summer time when the weather is warm; they are not good to eat in June and July.

Q. Is spearing carried on to any extent here?—A. Well, yes, when we used to spear it was carried on quite a bit; fishermen used to make a very good living out of it; it was carried on pretty largely in the winter through the ice in the bay.

Q. What other fish do you principally catch then?—A. We catch pike and bass, sunfish and perch.

Q. What do you call speckled bass; what are they like?—A. Like black bass, only not so large; the black bass will go to five, six and seven pounds each; pike run a pretty good size, from twenty pounds down to five, six and seven, all sizes between that; the speckled bass ran about a pound and larger, I guess.

Q. Now, what are these bass worth in the market in the winter when they are in superior condition?—A. Well, from five, six and seven cents; the average market price for bass and pike is about six cents.

Q. By whom do you say these fish are caught principally?—A. By all, by city persons and fishermen.

Q. What sort of a building do they fish in through the ice?—A. Just a small house, from five to six feet square, placed on runners or wheels and some on sleighs; they have a sort of bunk and a stove in it, all covered in, dark, no light let in; a hole is cut through the ice a couple of feet across or more.

Q. How do you entice the fish to the hole?—A. By a wooden decoy fish, when they are caught with a spear.

Q. Have you any particular kind of spear?—A. Most of them have seven prongs.

Q. Some of the fish are lost sometimes?—A. A few will escape from the spear, some of them are cut up pretty well with the spear.

Q. When you sell them do they reduce the price when they are cut up much?—A. No, sir, they are never cut up enough for that.

Q. In what months is the spearing done most?—A. Well, I could hardly say—whenever it freezes up; some years it is later freezing up; it is done during the winter when the ice is good, usually in January or February, and up to March.

Q. What would be the usual catch of a man per day in the winter season?—A. Well, he might get five or six pike, and the same of bass, and perhaps more than that.

Q. Take a season through, what will a man catch, what quantity?—A. Well, I could hardly say.

Q. How many actual fishermen do you suppose are engaged in this work in the winter; I don't mean the town people?—A. About 12 or 14, I suppose, real fishermen.

Q. How many houses may there be on the bay at a time in the winter?—A. A couple of hundred or more. The rest of the fishing beyond the 12 or 14 fishermen is done by the townspeople and farmers around.

Q. Are you one of the members of what they call the Spearmen's Club?—A. No, sir, that is some kind of a club that is got up for spearing, I suppose.

Q. Have you heard about this artificial breeding of fish—do you think it is a good thing to have done?—A. Well, I don't know much about it; I don't see any difference since it has been started; I haven't seen any of the fish.

Q. Has there not been a few more salmon-trout and whitefish caught here than formerly?—A. Well, there has been a few more whitefish, but not much more salmon-trout caught during the last two or three years. More last year than the year before, but still some five or six years ago there was far more caught than now. There were more than usual caught last year.

Q. Don't you think that is a pretty good sign that there is more now. Do you know whether there has been a lot of young whitefish put here in the lake and bay?—A. Well, I don't know whether they were whitefish or not, but a lot of young fry from the hatcheries were planted here during the past years, and there were some put in this last summer.

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Q. Which do you call the most valuable fish for your purposes as fishermen at Burlington Beach?—A. Well, if there were whitefish and trout, they would be the most valuable fish.

Q. As it is at present, which are the most valuable?—A. Herring—the ciscoe and herring are the most valuable, we can catch the most of them.

Q. Which of those two are the most valuable?—A. Well, the ciscoes sell more freely than the herring; they seem to take the best in our city and around other places, they both bring the same price, but still the ciscoe is the best fish.

Q. Which is considered the best fresh, herring or ciscoe?—A. Herring are best as a fresh fish, better than the ciscoe. The ciscoes are best salted and smoked, yet they both bring the same price, and are just about the same size; some ciscoes run large like our large herring.

Q. Are the herring more plentifully caught than the ciscoes?—A. Yes, sir, and these two fish are the dependence of the fishermen here principally.

Q. Under these circumstances, don't you think they should be maintained and preserved as much as possible?—A. Yes, same as whitefish and trout. I mean by that by having a proper close season, same as salmon-trout and whitefish; but the whole month of November is a little too long—12 and 15 days is long enough.

Q. Do you think then from 12 to 15 days will be enough for them to spawn in?—A. Yes, sir.

Q. Now, which of the kind of fish that you have been engaged in catching have fallen off most?—A. Whitefish and trout have fallen off most; they are about done. When I was about 15 and 16 I could catch any amount of fish, from 500 to 600 at a haul with a seine; that was off Burlington Beach. Now you can haul, and if you get 40 to 50 at a haul, you think you are making big fishing.

Q. What time of the year was it you caught this 500 or 600 at a haul?—A. That would be about May or along there; they used to fish them days with 1-inch mesh in the bar, or 2-inch extension; large and small were taken; the small were so numerous we had to throw them away; have seen 300 or 400 small fish thrown away. The small ones were so numerous they were thrown away in piles on the beach. That would be from 20 to 30 years ago.

Q. And now do you say, comparatively speaking, there are none?—A. Ever since they put in the 2-inch bar mesh they catch none of these small fish at all.

Q. The meshes at present, what size are they?—A. Four inch extension; 2-inch bar; they don't catch any small fish, nothing unless what we can sell. There may be some small ones.

Q. What do you think is the cause of this falling off of the whitefish at the present time?—A. Well, I could not say whether they have been caught off or whether they have gone to other parts of the lake.

Q. Do you think the falling off may have been caused by overfishing?—A. Well, I think with the whitefish it was, and catching in spawning time, overfishing and killing too many small fish.

Q. What sort of boat do you fish with?—A. My boat is 24-foot keel and 10-foot beam, and worked with two to three men, using about 2,500 yards of gill-net.

Q. Would you have that much in the water all the while?—A. No, sir. We had about half in the water all the time. We would lift one gang and set another at the same time.

Q. When fishermen use too much net and get too many fish, are they not wasted?—A. Yes, when they set so much they can't get rid of the fish they lift. From 15 to 20 pounds is enough for any man to set out. I think that 1,500 to 2,000 yards is quite enough for one boat to fish. A boat could fish 3,000 yards, but some fish might be spoiled and it would not be as profitable. A great many fish would spoil before they got them out of the net.

Q. Are many fish lost by the nets drifting away in storms?—A. Yes, sir, there must be quite a lot. We lose often quite a few. Quite a lot of fish are lost, nets and all, along in January and February, and I have lost two gangs, about 2,000 yards of net, fish and all.

Q. How long do the fish remain sound in the net in good weather?—A. They will remain in the net about six or seven days good, that is in cold weather. In

warm weather they won't remain there long. They would spoil at once in the summer if left out two or three nights, but our nets have been left out 12 to 14 nights in the winter time and fish would be good then. If the fish are in too long they swell up, and when they get swelled up they are not so good.

Q. Now, have you any suggestions to make yourself that you would like to put down with regard to your fishery?—A. I don't know as I have. I have embodied all that in what I have answered.

*By Mr. Harris:*

Q. What do you regard as the best fishing month?—A. November and December, that is, for quantity.

Q. When did you first hear the ciscoe spoken of as a good fish?—A. Thirty-three or thirty-four years ago.

Q. Was it shortly after the whitefish played out?—A. A long while before the whitefish played out. My father was about the first one who caught ciscoes; he was fishing for whitefish and trout then, and he used to get these ciscoes in the whitefish nets.

Q. About how many more herrings than ciscoes do you catch now?—A. Considerably more herring than ciscoes; herring are twice as numerous as ciscoes.

Q. Have you seen the whitefish and trout fished out, and do you think the ciscoes are going the same road?—A. Well, there are plenty ciscoes, but we have to go out further for them, and I can't say whether the ciscoes will play out like the whitefish and salmon.

Q. How often do you lift your gill-nets?—A. Lift them at from three to four nights out, that is if it is not too rough.

Q. Do you know anything about the Port Dalhousie fishery at all?—A. No, sir.

Q. Have you ever seen any tug fishing done?—A. No, sir.

Q. Are you wholly employed in fishing?—A. Yes, sir, and no other occupation.

Q. Do you fish during the summer months, that is, July and August?—A. Yes, sir.

Q. Have you an icehouse?—A. Yes, sir.

Q. Have you a single or double gill-net?—A. Double.

Q. Are the black bass good for food in August?—A. No; hardly good then, but first-rate fish in September, October and November.

Q. Do you think they should be supplied to the public as food before September?—A. No, sir, I don't think they should; the water is too warm in our bay here to get good fish before September.

Q. Are these fish houses run, as a rule, for profit or for sport, that is, the fishing through the ice?—A. Well, the fishermen are fishing for profit; they fish to make a living. The proportion of fishermen's houses will be about 12 or 14 and the rest are town people or farmers.

Q. Have you a good opportunity of knowing the facts about spearing on the bay?—A. Well, I have speared on the bay and used to make a very good living in the winter time; got from 5 cents to 6 cents a pound for the fish.

Q. Did city people ever go down and offer you money to be allowed to spear for half an hour or so?—A. No, sir; but some of them troll in the summer and then throw away the fish.

Q. Do you say that winter fishing is now stopped, but the city people catch these fish trolling in the summer?—A. Yes, sir, and they throw them away; some are put on the market, but most of them are thrown away.

Q. Then you think there should be no trolling for bass until September?—A. Yes, sir; no fishing for bass or pike should be allowed until September. Then the fish are good until March.

Q. What months in the year do the fishermen generally spear on the bay?—A. Just as soon as the ice gets hard. That would be about January.

Q. When you spoke of a 2-inch mesh in your evidence, do you mean bar or extension?—A. Extension all the time. In whitefish I mean 2-inch bar.

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JOHN DAVIS sworn :—

<sup>1</sup> *By Mr. Wilmot :*

Q. Are you a resident of Hamilton?—A. Yes, sir, and a fish dealer for some 38 years, and my nationality is English.

Q. What kind of fishery have you carried on, what description of fish have you been dealing with?—A. Every kind of fish, including salmon-trout, whitefish, herring, pickerel, bass and all other coarse fish, and ciscoes.

Q. Have your transactions covered the waters of Lakes Ontario, Erie, Huron and Georgian Bay?—A. Yes, sir, and now we are getting fish from Lake Superior, and some from Manitoba in the winter.

Q. Have you any knowledge of the description of nets that these fish are caught with, or is that in your line at all?—A. Not a great deal in my line, but I think their mesh is too small, altogether too small. Why, these fish are getting down low in Lake Superior, where the fish are abundant; they send us down small fish.

Q. Then do you conclude the mesh is too small on account of the small fish brought on the market?—A. Yes.

Q. With your experience, when do you think fish are in their best condition; we will take, for instance, the salmon-trout—when are they in best condition for table use?—A. Well, they start anywhere in the beginning of the year, from the spring until the middle of October, or 1st October if you like, because as quick as they begin to get full of spawn they get soft and flabby, and that is my experience with regard to the whitefish also.

Q. What is your experience about the bass—when do you think they are in best condition for consumption?—A. Just right through the winter; bass and pike too; on till about March or so, and pickerel come in the same list. We can use them most any time except their spawning time.

Q. What about these ciscoes, when are they at best?—A. Ciscoes are good at most any time; I hardly know when their spawning time is, for my part; they are getting played out—fished out.

Q. Do I understand you that at present ciscoes are only salted, cured and smoked?—A. Yes, they are so small and soft, there is no use trying them fresh.

Q. Do you ever have any sturgeon?—A. I don't handle them much.

Q. Are your sales principally for home market, or American market?—A. My sales are all home market—all for home consumption.

Q. Could you in a rough way state the probable amount of sales in a year that you make?—A. I suppose I sell about 30,000 pounds a week, take the year through, sometimes more.

Q. Do you extend your market as far as Montreal?—A. No; sometimes to London, Brantford and Paris; the market is almost a home one for this part of Ontario.

Q. Would you object to tell what the average price of the fish may be—would you place salmon-trout and whitefish in the same list?—A. Certainly, just about the same money, and worth about 8 cents retail.

Q. When you come down to bass, and fish of that kind, would you call those under the heading of coarse fish?—A. Yes, bass and pickerel, and pike, sunfish and rough fish, are worth about 4 cents a pound.

Q. What about herring and ciscoes?—A. They sell by the hundred; they average about \$1 a hundred, from Lake Ontario; and from Lake Erie and Huron, \$1.50, because they are so much larger. The ciscoes are more particularly caught in Lake Ontario, and are worth the same as the herring.

Q. Have you taken any particular notice, in your experience, about when these different kinds of fish are ripest for spawning; take, for instance, the salmon-trout and whitefish, are they the same time spawning?—A. I don't think there is much difference at all. They spawn principally in the latter part of October and all through November.

Q. What about bass, do you know when they spawn particularly?—A. Not much about them, but I think along about April, I should judge, or May.

Q. With regard to your herring, will herring and ciscoes spawn about the same time?—A. I could not tell you; about ciscoes, they are brought in cleaned, but herring, I think, spawn about November as a general thing.

Q. Do you do anything in the catfish line at all?—A. No, sir.

Q. There is rather an important question about immature fish; do you say you deal largely in these fish, where from?—A. Lake Huron and Lake Superior, Georgian Bay; that is all from the west; that is where we get the principal fish from now; we get nothing from the east.

Q. Do you find great numbers of what you call small, immature fish sent to you?—A. Sometimes quite a number are shipped to us; they consist of small salmon-trout chiefly, and small whitefish, and these small salmon-trout are unsaleable to a certain extent; they don't command as high a price as the large ones; less than a three-pound salmon-trout is not wanted; a three-pound salmon-trout should not be caught.

Q. What do you say about the size of whitefish?—A. Whitefish run a little smaller; you can go down to two pounds for whitefish, and under that should not be caught.

Q. Do you say this in the interests of the fishermen and dealers and all concerned?—A. Yes, sir. Whitefish two pounds and under should not be caught or sold.

Q. Where do you principally get these small fish from?—A. From all over pretty much, Georgian Bay, from all the western fisheries, from the fisheries in Lakes Huron, Superior and Georgian Bay.

Q. And are they principally sent in the summer months?—A. Yes, sir, in June and July.

Q. Now, what would you say in your view would be a remedy to prevent this excessive catching of the small fish?—A. Well, I can't see any remedy except having a larger mesh; that is all I know, by establishing a larger mesh both in gill-nets and pound-nets.

Q. What is your idea if this is not done, what will be the result?—A. The fish will play out; nobody will be able to live in the fishing line; I mean by that, that both the business with the dealers and the fishermen will become so very much lessened.

Q. Did you say that during your experience of 30 years Lake Ontario has been depleted almost entirely of fish?—A. Yes; 30 years ago you could not put a net in the wrong place to catch fish, and now you can't put one in the right place to get fish. Fish were very numerous formerly in Lake Ontario, principally salmon-trout and whitefish.

Q. Salmon-trout and whitefish, you say, were numerous in Lake Ontario; could you give us any idea of what quantities were taken, or where they were taken?—A. Anywhere on the south shore, and on the north shore down as far as Cobourg; to my knowledge there was an abundance of fish on either shore, all along the beach.

Q. Could you give any sort of idea of what you would call abundance in the way of catches?—A. Well, no, I never kept account.

Q. What is the state of the whitefish and salmon-trout now?—A. There are none, not worth speaking of.

Q. What is your idea why they have fallen of?—A. I can't tell you that.

Q. Well, have you not formed in your own mind some idea how it is these fish have fallen off in Lake Ontario?—A. Well, I don't know, I am sure; overfishing, I think, and killing the young and immature fishes—killing the young fry.

Q. And catching them in the spawning season?—A. But that was a long time ago, and that has brought about this result now.

Q. Do I understand you to say that if the same reckless system is pursued in the western lakes there would be the same result?—A. Oh, yes, it is getting that way every day; the cause is overfishing, killing the young fry and catching them during the spawning time; this will bring about the same result in western waters, and it is being felt in many of them already.

Q. What is the price of fish now to what it was formerly?—A. It is double to what it was 20 or 25 years ago, but a good deal of them is shipped on to the American markets. It is now double the price, brought about by the greater demand

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and the scarcity of fish. A. I don't know that the demand here is so much greater; but the price is so high the poorer class can't buy them; when they get up to 8 and 10 cents per pound, poor people can't use them.

Q. Do you state that the views you have given here are merely in the interests of the industry and of fishermen; but not from any desire to make any special restrictions, but in the general interests of the industry?—A. Yes, sir.

Q. What are your views with regard to proper regulations and for close seasons to protect the fish? Do you think it is necessary to have close seasons and that they are desirable?—A. Oh, yes, I think that close seasons are desirable to protect fish at their spawning times; the fish are not good any way at that time and should not be caught then, for it not only prevents their reproduction, but because the fish are not in a proper state for food at that time. The people don't want fish then, they are too soft.

Q. Is that what your customers say: Don't give us fish at the spawning time?—A. Yes, sir.

Q. Do you know if winter fishing or spearing is carried on to any extent here?—A. Only a little spearing. There is nothing else that will pay, but it is amusement for them more than anything else; those who have nothing else to do.

Q. Then you think spearing is carried on in the winter more as an amusement, as it will not pay?—A. They don't get enough to make wages out of it, that is what I mean. As far as the sales go, it don't amount to much; not in this bay.

Q. What kind of fish do they catch spearing?—A. Principally pike and bass; there used to be any amount of pickerel here, but they are not here now; they are gone like the rest of them.

Q. Do you say there was at one time plenty of pickerel, but are all gone now?—A. Yes.

Q. Did salmon-trout and whitefish at one time frequent this bay?—A. Not to any extent.

Q. Did herring and ciscoe formerly frequent this bay?—A. Herring in any quantity, but not ciscoes.

Q. Do you know of any bass fishing carried on here to any extent, by trolling or otherwise?—A. In the summer time a little, not much, principally by the town people, not by dealers at all; there are quite a few pike caught in the summer time, trolling.

Q. Have you formed any estimate, in your reading or practical knowledge, about the artificial culture of fish; is it desirable or otherwise?—A. The hatching of fish, oh, yes, I think it is a good thing; I don't know where the fish go to just the same.

Q. Is it a fact that more whitefish and salmon-trout have been caught here this last year or two than usual?—A. No, I don't think so. Some of the fishermen say they have caught more than usual, they may a little, but the numbers are very small and the fish also, if they are caught.

Q. What do you consider the most valuable fish in the waters here?—A. The whitefish first; next, salmon-trout; next, pickerel; next, bass.

Q. Would herring and ciscoes come in?—A. I guess so, and also some coarse fish.

Q. Are the fish that have fallen off most whitefish and salmon-trout?—A. Yes, sir; 20 to 30 years ago we got 10,000 to 15,000 pounds of salmon-trout. That was at Port Credit.

Q. And now what is the consequence, what is the catch now?—A. I have not had a fish for five years from there, but they might catch a few and send them to Toronto; they can get better prices there; but the catch don't amount to anything.

Q. What is the position of the ciscoes here now; are ciscoes decreasing, or have they decreased?—A. They are decreasing in numbers and size greatly.

Q. And do I understand that the ciscoe and the herring are about the same value?—A. Per hundred, yes; that is the herring they catch here on the beach; worth about \$1 a hundred, both of them, and that has always been the case, about the same value, not much difference.

Q. What do you attribute the falling off of the ciscoe to?—A. I don't know, unless it is the amount of net that is put in and overfishing, I suppose. I don't know anything else.



Q. Did all the fishermen engage in ciscoe fishing here a few years ago; there seems only a few engaged in ciscoe fishing now?—A. There are a good many here now.

Q. Is there no other fishing of any account carried on here except ciscoe and herring?—A. Fishing of all kinds except ciscoe and herring has really become out of date.

Q. How are the fish shipped to you generally from other places?—A. In barrels and boxes. They are generally frozen. Fish received by us from the Upper Lakes are generally packed in ice until the close season commenced, and then they take some out of the freezers and send them over.

Q. You say you don't know anything much about the nets; the only opinion you express to prevent the small fish coming into the market so numerous would be to have larger mesh nets?—A. Yes, the proportion of these small fish generally in the receipts by me are pretty considerable; they run as low as one-half pound, both trout and whitefish.

Q. Do you have to give them away or sell them for lower prices?—A. A good many of them don't go for anything; they are unfit for sale when they come here; the big fish mash the little fish, and we need a spoon to take them out of the barrel: they are unfit for use when they get here, they get so mashed up in the ice boxes.

Q. Now, would you like to make any suggestions of your own with regard to any matters relating to the fisheries that would be conducive to the good of the fishing industry generally?—A. I don't know, unless you make a proper size mesh for nets and a right close season; I don't know anything else to say about it.

Q. Now, will this cover your views: to prevent this destruction and to maintain the fisheries, that proper sized meshes should be established, and that close seasons should be made to protect the fish at their spawning times?—A. Yes, sir.

Q. Have you formed any preference in your business between fish taken in gill-nets and pound-nets?—A. Well, I can't tell much about that.

Q. You say the gill-net catches the fish by the gills, and he dies in the water, and the pound-net is supposed to keep them alive until they are taken out of the water?—A. Well, I hold to the pound-net; there are a great many fish destroyed in the gill-nets, and then these fish are not fit for food that have been lying in those gill-nets for four or five days, whether they are herring or whitefish, or anything else; and I say that spearing should be done here in the bay, because it is the only season fish is any good in the bay.

*By Mr. Harris :*

Q. Where does the greatest quantity of small fish come from?—A. I could not exactly tell you that; they come from Collingwood and Wiar-ton.

Q. Is it likely these small fish are the fish that the dealers at Collingwood consider unmarketable in American ports and therefore ship them here?—A. I don't know; they catch a tremendous lot of small fish in Southampton, and they must have small mesh nets.

Q. Do you think it is worth while to preserve the black bass?—A. Yes, they are a good fish; any month after 1st July, and then on again till 1st March.

Q. Are there perch in the bay here?—A. Very few now; there used to be considerable caught in the herring nets formerly.

Q. Do you ever buy any blue pickerel?—A. Oh, yes. I first began to know that fish 30 years ago; there used to be lots here; they called them then only pickerel.

Q. Do you look upon them as an entirely different fish from the wall-eyed pike?—A. Oh, yes; I never saw any large ones; they were caught in the lake and the bay as long as 30 years ago. I think the pike did away with them.

Q. There are a great many in Lake Erie, is there not?—A. Yes. The usual size of the blue pickerel here is about 2 pounds. They are a marketable, very sweet fish, worth about 6 cents a pound, and keep well.

Q. You regard it as a very good marketable fish?—A. Yes.

Q. Do you say the yellow pickerel are gone from here?—A. Yes, and the blue pickerel, too.

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Q. Are your customers as a rule quite ignorant of the habits and conditions of fish?—A. Oh, I think so, and they depend on the dealer. As a rule, they don't know anything about when they spawn or are fit for use. And the reputation the dealer has for supplying good fish is better than his capital.

Q. Do you think it is the duty of the Fishery Department to make regulations to prevent the public from getting fish out of season?—A. Certainly, and everybody will be the better for it in the long run.

Q. Has the curing and smoking of the ciscoe tended to make the demand for cured herring greater?—A. No, I don't think so. Ciscoes are preferred salted to herring. The ciscoe trade has fallen off very much, but it might not fall off if we could get them.

Q. Do you think it possible to make any improvement in the curing of the herring and smoking of them?—A. No, I don't think so; I think there is only one way to do them, and that is the way they have now.

Q. Do you think the ciscoe is distinct from the herring or whitefish?—A. Yes.

Q. Do you know anything about the salmon-trout caught up in Lake Huron?—A. That is just the trout, not the salmon.

Q. Don't you know the salmon is a distinct fish from the salmon-trout and were caught at Bondhead, Newcastle and Cobourg, in Lake Ontario?—A. Yes; they were caught in the early spring months.

Q. What quality of fish did you call them, a No. 1?—A. They did not run very large, from 5 to 15 pounds, they resembled the salmon of the sea, but they were a lighter colour; readily sought for; in great demand; but there are none whatever to be had now.

FREDERICK COREY sworn:—

*By Mr. Wilmot:*

Q. Where is your residence?—A. Burlington Beach; my occupation is a fisherman of 60 years, and I am a Canadian.

Q. What sort of fishery have you been engaged in?—A. Whitefish, trout, herring, ciscoes, bass and pike, and other coarse fish, suckers and pickerel.

Q. Where have you fished for these principally?—A. Well, in Burlington Bay for the rough fish, but we are deprived of that now.

Q. Do you fish in Lake Ontario, too?—A. Oh, yes, and in Lake Erie, and a short time on the peninsula in Lake Huron, at Stokes' Bay.

Q. What kind of nets have you been using?—A. Draw-nets, or seine-nets in former years, not lately.

Q. What is the size of the mesh you use in your gill-nets?—A. Four-inch extension for catching whitefish.

Q. What do you use for catching salmon-trout?—A. Well, I haven't fished for salmon-trout for a good while; we used to fish with hooks and night lines for salmon-trout; we set them down at Port Credit on the rocks.

Q. What did you use for ciscoe and herring?—A. Two and three-eighths inch extension mesh.

Q. And for your coarse fish that you fished for, such as bass, pike and pickerel?—A. We catch them with the draw-net or seine, same as whitefish net; we used to catch thousands of them; we used to catch 1,000 pickerel in one day, in 1840, in the bay, but there are none now, only a few sand pickerel, but I don't fish for them.

Q. What sort of a net do you fish with in Lake Huron?—A. Gill-nets with meshes  $5\frac{1}{2}$  and 6 inches for trout; for herring  $2\frac{1}{2}$ -inch, both extension measure.

Q. When do you consider the salmon-trout as being in the best condition during the year?—A. All seasons of the year, except from 1st October to 1st November. October is their spawning season.

Q. What about the whitefish, sir; what time do you think they are in best condition?—A. I think through the summer season, from May till July, and at spawning time not so good.

Q. When have you found the pickerel to be best?—A. Well, I never had much experience in them, though we used to catch them in thousands in the spring—spawning time—about the last of March or middle of April. Pickerel were always caught at the spawning season in the bay during that time, and it will also apply to bass, as that is the time of the year to catch them, and that is the time we catch pike also.

Q. What about the ciscoe?—A. Well, the ciscoe we catch them in the winter season; we commence about now for the ciscoes. We consider they are best for curing purposes just about now; they are best from October out, and that is the only time we catch them. The ciscoe fish are always cured, not used fresh.

Q. Do you ever deal in the catfish line at all?—A. Well, we used to catch them in thousands. We get about a dollar for them a hundred. There are no catfish caught here now of any consequence.

Q. Where do you generally market your fish?—A. In Hamilton, all here, to Dixon Bros., who market them in Canada principally, as the market value of the fish is about the same here as in the United States, generally speaking.

Q. Do you get any whitefish now?—A. Yes, we get whitefish and we get 6 cents a pound wholesale.

Q. Do you think you are catching some of them now from those planted from the hatchery?—A. Yes, sir, and their size will be from 2 to 5 pounds. We catch them starting about the latter part of May to 15th July, in seines with 4-inch mesh, along the shore at Burlington Beach.

Q. Are other people catching them there besides yourself?—A. Only one other man; more fishing for whitefish with the seines.

Q. Now, when you are in the habit of catching salmon-trout, when do you consider they are ripest for laying their eggs?—A. They commence about the 1st October and finish about the last of it. I don't think they spawn much in November, there may be an odd one, but not many.

Q. What about whitefish, sir, spawning?—A. They commence about the 20th November and finish about 10th December. I think this is the same in Huron as here and in all fresh water lakes.

Q. Have you any idea when the bass spawn?—A. Yes; they make their beds about the 20th May and spawn about the 1st June. They watch their young until they come out of the bed.

Q. What about herring spawning?—A. They spawn about the same time as whitefish, 20th November to 10th December.

Q. What about the ciscoe's time of spawning?—A. Ciscoes commence later, about the last of this month, December, and spawn on till April.

Q. Have you taken any notice when pickerel spawn?—A. Yes, about the last March or 1st April; only ten days.

Q. Do you know anything about the catfish spawning time?—A. Yes; when they spawn, they make their holes in the latter end of May and spawn in June and the young ones run along with them until they get a couple of inches long before they leave them; this will be about the last of July before they leave them.

Q. Now, with your experience of fishing, what about the loss of your nets; when do storms affect you most?—A. In the months of October, November and December, and we have lost them all through the winter with the ciscoe fishing.

Q. Have you lost to any extent?—A. Oh, yes, we have lost all our nets sometimes at once. These losses are great at times, losing nets and fish together. Our farmers along these shores injure us a good deal by throwing apple brush and grape trimmings in the water.

Q. Now, with regard to the small and immature fish, I want you to go back to the time when you caught salmon-trout and whitefish; were there many of these small fish destroyed then by being brought to shore?—A. Yes, young whitefish. There was no law to prohibit us fishing with any sized mesh, and we did not know the harm we were doing catching small fish, and we caught many thousands that

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we never used. These thousands were unfit for use. We let them lie on the beach. I am speaking of 50 years ago. The size of the little whitefish we threw away would not weigh over a quarter of a pound, some half a pound.

Q. What would be the average size of the parent fish in those days?—A. The size of the mature fish would run up to 4 pounds.

Q. Where did you sell them?—A. In Hamilton we got for our whitefish in those days about \$3 a hundred fish, and we peddled them through the country in the back townships, too. They sold at the same rate.

Q. With regard to this law about Sunday close time, how would that affect you?—A. I will just tell you how. There were quite a few of these summer residents on the beach, and they would come every night and want me to have one more try of the seine.

Q. With regard to a seine the law does not now affect you at all?—A. We are not allowed to fish at all on Saturday evening, nor on Sunday, or until early Monday morning.

Q. How would the Sunday close time affect you with regard to gill-nets?—A. If we had to lift them on Saturday night that would affect us, they are so far out. We could not lift our gill-nets to comply with the law without suffering great loss.

Q. What is your view with regard to close seasons for the protection of fish?—A. I think it would do to have close seasons if we could get them just the right time.

Q. How early do you begin to set your gill-nets in the spring, and seine-nets also?—A. I don't commence with seines until the last of May; the gill-nets we commence earlier in the spring and keep on till June or the latter end of May. Then we don't set them down again until the 1st October or latter end of September, and fish on during the winter.

Q. Your winter fishing consists of catching what?—A. Ciscoes, and a few common herring, but ciscoes principally in the gill-nets out in the lake from 5 to 20 miles.

Q. What is the state of the ciscoe fishing now to what it was some few years ago?—A. Very few caught just now; very little caught this fall so far; this is about the time though they commence; there was very little caught last fall; very few caught last fall and so far none this fall.

Q. What might you have caught in former years?—A. Ciscoes; we used to get from 200 to 300 with a pound of thread, that is 300 feet of net; I have known 800 and 900 to be caught in 100 yards of net. Well, we have not set our nets yet, but of late years they have fallen off very much; if we get 50 to a net we do well to the 100 yards.

Q. What do you think was the cause of this falling off?—A. I think they have been caught off; too largely caught, with too much net and too much fishing. I don't think the size of the mesh would have anything to do with getting the fish away too fast, but catching them in the spawning time would have the effect of reducing them.

Q. Do the herring hold out as well as ever?—A. They have been pretty good this fall; herring hold out pretty well.

Q. You spoke of catching salmon-trout in former days with hooks and afterwards with gill-nets, what do you say about them, are they in here now at all?—A. Well, not to make much of a business of, not worth while fishing for; formerly I have seen 250 caught from 300 hooks set out; the size of those salmon-trout would be generally from six to twenty pounds each.

Q. Were these salmon-trout caught all along the lake at that time?—A. Yes, sir, all the year round; they were caught during the whole fishing season with hooks set out in the lake; they were not caught in those days with gill-nets; the first gill-nets we used was in 1853; gill-nets were introduced in 1853 for whitefish and salmon-trout. There was not a large business done catching with gill-nets at that time; there was just the farmers who introduced them.

Q. The farmers used these nets, did they, and what would they catch with their nets?—A. They had about  $4\frac{1}{2}$ -inch mesh and they caught whitefish, and good

sized ones, too; they caught lots of whitefish; they did not catch salmon-trout at this time.

Q. When were those whitefish caught, about what time of the year?—A. About the 20th November on the rocks when they were spawning.

Q. Is this all done away with now?—A. Nothing of the kind is done; the fish are all gone, and this applies to salmon-trout also.

Q. Is there any bass fishing done here of any consequence?—A. Nothing only just in the bay. We used to catch a few through the ice. The fishermen never get any only through the winter.

Q. The actual fishermen, do you mean?—A. Yes, sir; there are not many, just those on Burlington Beach. There would not be over 20 or 25, 20 probably. Of course there was no great profit in it, and it was sport as well as gain. The rest of the fishing is done by town people here, who fish in the winter, also in the summer by trolling.

Q. Have you taken any observations with regard to artificial breeding; do you think it has done any service?—A. I think that is the only way to replenish our lakes. I have thought these last few years that it has done good. The method produces a greater percentage of fish than is produced by natural means.

Q. What do you call the most valuable fish, all round, in this lake?—A. Whitefish, then salmon-trout, and the third would be ciscoes, then herring, and then pickerel will come in. They are a saleable fish because they are large, and of all these fish whitefish and salmon-trout have fallen off most.

Q. What do you fish with, what sort of a boat?—A. We have two different boats, one 16 feet and one 25 keel. They use three men and various quantities of nets.

Q. What would you say to 25-foot boat, what net would you use in it?—A. 45 pounds, or about 4,500 yards. This is fully more than we can conveniently work. The fair thing for our 24-foot boat would be about 40 or 45 pounds of net, or 4,000 yards.

Q. Have you any suggestions to make yourself?—A. What we want is the close season for the whitefish and herring and trout about the time I have mentioned. I know that time is about right, which time for salmon-trout is from the 1st October until the 20th, and for whitefish from the 20th November till the 10th December, and herring, same time as whitefish, and I think the ciscoe don't want a close season as there are so few of them.

Q. Have you any other suggestions to make? What about the mesh of nets?—A. I think our herring nets ought to be 2 $\frac{3}{8}$ -inch mesh; whitefish, we don't use them; we don't try for whitefish only with the draw-nets or seines, with 2-inch mesh in the bars or 4-inch extension. Less than this size will kill young fish.

*By Mr. Harris:*

Q. Did you say that the close season for whitefish should be the 20th November to 10th December; don't you think that is a little late?—A. No, sir, I don't. I have tried it so often that I know just when to put my nets down for whitefish; if I want to catch the male fish, I went there about the 10th and set them down, then about the 20th the female fish come in, and we catch them from that till the 10th December. That was at the Beach; and that was yearly.

Q. Would the fishermen make it pay to fish for herring in December alone, if there were no ciscoes?—A. Not the way it has been this year; our principal month is October and till the middle of November; those are our herring months.

Q. Are the nets more easily carried off and affected by the storms when they are full of fish?—A. If the nets are on the rocks they are sure to get cut to pieces.

Q. Were there ever any maskinongé in this bay?—A. No.

Q. Did you ever come in contact with the blue pickerel when you were fishing in the old days?—A. I don't understand these blue pickerel; I have seen 50 years ago, in March, catch from 50 to 200 and 300 in one haul, and there would be some of them as blue as ever they could be, and others yellow, but I did not see any difference in the flavour of the fish; they were just the same, only one blue and the

## Ontario Fishery Commission.

other yellow; we caught another pickerel we called sand, about 1 pound; those wall-eyed pickerel I would call them all wall-eyed.

Q. Where have you seen pickerel caught?—A. Burlington Bay and Lake Ontario.

Q. Do fish change their colours from the water they are in?—A. Yes, sir, they do.

Q. If proper close seasons had been established in former years, do you think we would have plenty of fish yet?—A. Yes, sir, I think so.

# REPORT

OF THE

# DOMINION FISHERY COMMISSION

ON THE

# FISHERIES OF THE PROVINCE OF ONTARIO

# 1893

## PART II.

*PRINTED BY ORDER OF PARLIAMENT*



OTTAWA

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EXCELLENT MAJESTY

1894





Ontario Fishery Commission.

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N. B.—Appended will be found full minutes of the evidence taken October and November, 1893, together with an index to witnesses' names.

Ontario Fishery Commission.

REPORT

OF

MR. SAMUEL WILMOT AND MR. EDWARD HARRIS.

Fishery Commissioners

*Appointed by the Dominion Government to inquire into and report upon the description of nets used, the spawning periods of fish, and other matters connected with the Fisheries in the various lakes and other waters in the province of Ontario.*

To the Honourable

Sir CHARLES HIBBERT TUPPER,  
Minister of Marine and Fisheries,  
Ottawa.

SIR,—Your Commissioners submitted a report on the 1st March, 1893, Part I., on the fishery matters referred to in the general preamble, which contained the evidence of numerous fishermen and others taken by your Commissioners up to the closing in of fishery operations in November and December 1892.

The first report, Part I., besides giving the full minutes of all evidence taken up to that time, also contained a synopsis of that evidence for a more ready reference.

There will also be found in the first Report of March, 1893, Part I., under certain headings numbered one to fourteen inclusive, matters of considerable importance to which attention is directed, as the several clauses bear in a large degree upon vital subjects regarding the welfare of the fishing industries generally throughout Ontario.

The work of the Commission at the setting in of winter in December 1892 was indefinitely postponed. In October, 1893, the investigations were again resumed by first visiting parts of the Bay of Quinté under directions from the Department. After completing the evidence submitted there, the Commissioners proceeded to Lakes Superior and Huron, and held meetings of which timely notice had been previously given, at the following places: Port Arthur, Thessalon, Gore Bay, Little Current, Killarney and Sault Ste. Marie.

The full minutes of the evidence taken from the fishermen at each of these places are hereto appended; being somewhat voluminous, a synopsis is given of the statements made by each fisherman examined for more ready comprehension.

Your Commissioners have also attached to this report a précis of the evidence given by each fisherman regarding his views as to the spawning times of the several fishes referred to. It will be found in this summary that the variations of time given by the several witnesses are not so wide apart as to prevent ready conclusions being come to for establishing proper close seasons for the several kinds of fishes under consideration.

Your Commissioners now submit this their final report framed upon the additional evidence taken in Lake Superior, and the North Channels of Lake Huron, and the Georgian Bay, Sault Ste. Marie, Manitoulin Islands and the Bay of Quinté. The evidence tends throughout to confirm the views of your Commissioners as expressed in their first report of March, 1893, Part I.

## 2.—CLOSE SEASONS, EVIDENCE OF.

Based upon the general evidence contained in Parts I. and II. of this report certain close seasons for the several descriptions of fish are recommended as being well adapted for their protection at their spawning times. The conclusions are come to from the epitome of the evidence herewith, which gives numerical data in relation to the amount of evidence given in each case, as to the periods in which each of the species of fish named are engaged in their spawning operations.

This epitome of the evidence regarding the periods in which the several kinds of fishes deposit their eggs, is here given to substantiate the suggestions which are offered for the adoption of certain close seasons, as asked for in the letter of instructions of 29th September, 1892.

### *Close Season for Sturgeon.*

Of the eleven witnesses who gave testimony with regard to sturgeon spawning, there were :—

4	gave the period between the 15th June and 15th July.
3	do to be in June alone.
3	do do July do
1	do do May do

The Order in Council of May 5th, 1891, which was suspended for the time, established the close season for sturgeon between the 15th May and 15th July.

If it be considered advisable to re-establish this Order in Council it would not be far out of the way for covering the spawning time of sturgeon.

If on the other hand any change be considered necessary, then an Order in Council might be framed for the close season of sturgeon between the 1st of May and 15th of July.

### *Close Season for Herrings.*

Of the 50 witnesses who gave testimony with regard to the periods in which herrings spawn, the times are as follows :—

42	gave the period for the month of November only.
4	do November and December.
1	do November and January.
1	do November and February.
1	do October and November.
1	do during winter.

The Order in Council of September 22, 1891, which was suspended for the time, established the close season for herrings between the 15th of October and 30th of November. The date of the 15th of October was then fixed to correspond with the close season for salmon-trout, and whitefish established by Order in Council of September 29th, 1891, it being considered advisable that the same period, 15th of October to 30th November, should take in these three descriptions of the salmonoid family, whose characters and habitat were very similar; more especially as the one could not be fished for without taking some of the others.

## Ontario Fishery Commission.

The herring are becoming a very valuable fish for domestic uses, and commerce, and are therefore entitled to receive thorough protection at their spawning time, else their final extermination will sooner or later be reached in like manner as experience has shown the same result in other cases.

The protection of the herring family will be found to be more far-reaching in its beneficial results than the mere application of such protection for the maintenance of the herring itself for domestic and commercial uses. The herring is the staple food for the sustenance of many other and larger kinds of fishes, which, if cut off or lessened, will materially affect the growth and condition of the salmon-trout, pickerel, and other voracious species which invariably frequent the same waters as the herring.

Under such circumstances it is recommended that the close season for herring should be established to cover its breeding time, which is so conclusively shown to be during the whole month of November by the evidence referred to, as well as by former recommendations from officials in the department.

### *Close Season for Whitefish.*

Of the 104 witnesses who were examined and gave testimony in relation to the spawning times of whitefish; taken in the waters of Lake Erie, at Port Dover, St. Thomas, Leamington and Detroit River; and of Lake Huron, at Sarnia, Goderich, Southampton; and of the Georgian Bay, at Owen Sound, Meaford, Midland; and of Lake Superior and north channel of Lake Huron, at Port Arthur, Thessalon, Gore Bay, Killarney, Sault Ste. Marie; and of the Bay of Quinté, at Belleville, Napanee and Hay Bay,

93	gave the spawning time to cover the month of November.		
7	do	do	parts of October and November.
3	do	do	do November and December.
1	do	do	to take place in October only.

---

104

The close season as at present established by Order in Council, for protecting whitefish at the spawning time, is from the 1st to the 30th November, both days inclusive.

It will therefore appear from the mass of evidence given, and from former recommendations, that the month of November has been properly chosen for the close season for whitefish, and should be continued; with the further recommendation that the month of November should be set aside to include whitefish, herrings and ciscoes.

### *Close Season for Salmon-Trout.*

There were sixty-five persons who gave evidence as to the spawning times of salmon-trout, they were fishermen and dealers in fish hailing from the following fishing centres on Lakes Huron, Superior, Ontario, Simcoe, and the Georgian Bay, namely: At Sarnia, Goderich, Southampton, Owen Sound, Meaford, Collingwood, Midland, Barrie, Hamilton, Toronto, Belleville, Napanee, Port Arthur, Thessalon, Gore Bay, Killarney, and Sault Ste. Marie. Of these sixty-five witnesses, the evidence was that

31	gave the spawning time between 15th and 31st October.		
26	do	do	15th October and 10th November.
7	do	do	for the month of November.
1	do	do	for the month of September.

---

65

The Order in Council of 29th September, 1891, which was suspended for the time, established the close season for salmon-trout between the 15th October and 30th November, both days inclusive.

The close season at present in force for salmon-trout under consolidated Orders in Council for Ontario of 18th July, 1889, is between the 1st and 30th November, both days inclusive.

This Order in Council is evidently incorrect and useless for the protection of salmon-trout at their spawning time, as it is clearly shown by the evidence of the fishermen themselves, and by previous recommendations, that the actual spawning time of salmon-trout is almost wholly from the 15th to the 31st of October, and in some cases running on till the 10th of November.

From this it will appear that for many years past, and prior to the Order in Council of 18th July, 1889, there has been no proper close season whatever to cover the spawning time of the salmon-trout which stands second to none other of the commercial fishes of the great lakes of Ontario; and the fishermen have been killing this valuable fish indiscriminately at the very time when they were most busily engaged in laying their eggs; and from this cause may be reasonably attributed the great falling off in the general catch of salmon-trout in localities where they were formerly very numerous.

From the evidence as shown and the views above enunciated, it would appear to be wise to have the Order in Council of 29th September, 1891, now under suspension, re-established, making the close season for salmon-trout between the 15th October and 30th November, both days inclusive, in order that this highly esteemed fish shall receive proper protection during the spawning time.

#### *Close Season for Pickerel.*

Of the thirty-five fishermen who gave testimony in relation to the spawning times of pickerel ("doré") in many of the principal waters of Ontario, the following was the result:—

24	gave the spawning time to cover the month of	April.
7	do	do
4	do	do
—		
35		

The present close season for pickerel ("doré"), as established by Order in Council, is between the 15th of April and the 15th of May.

This Order in Council does not take in a sufficiently early period, for pickerel commence their spawning operations, as stated by some of the evidence very correctly, "just as soon as the ice breaks up," in order then to meet this case, the close season should commence for pickerel ("doré") on the 1st April and end on the 15th May.

#### *Close Season for Bass.*

The present close season, established May 13th, 1893, for the protection of bass at the spawning times, is between the 10th of May and 30th of June, both days inclusive. This appears to be the proper close time for these fish, and should so remain.

#### *Close Season for Mudcats, Bullpouts, Catfish.*

This hitherto somewhat despised fish has of late years come into great demand for the American markets, and the mudcat fisheries have in many localities reached considerable magnitude and commercial importance.

This class of fishes have not hitherto received any consideration or protection during their spawning times. The general opinion given by those fishermen engaged in this description of fishing was, as shown by their evidence, that with the view to a maintenance of the mudcat industry a close season should be established for their protection at their spawning time. The weight of evidence went to show that a

## Ontario Fishery Commission.

close season for mudcats, or mudpouts or bullheads commonly called catfish (which are all one and the same fish) should be fixed between the 1st of May and the 31st of August in each year; as during this period these fish are either nesting, laying their eggs, or guarding their broods of young; and it was agreed by all fishermen engaged in the mud cat business that these fish at this time were unwholesome and unfit for human food.

It is therefore recommended that the close season for mudcats be established by Order in Council between the 1st May and 31st August, both days inclusive.

### 3.—SYNOPSIS OF EVIDENCE TAKEN IN OCTOBER AND NOVEMBER, 1893.

#### BAY OF QUINTE.

*Daniel Bellknapp.* Whitefish spawn from 1st to 10th November. They come into the Bay of Quinté for that purpose about the 15th or 20th October. About the 15th of November they then leave in a body for the lake. They are not in the bay at other times. Bullheads spawn in June, also bass. All the coarse and predaceous spring spawning fish are numerous and preponderate largely over whitefish. They feed upon the eggs of the whitefish for six months.

*Peter Weese.* Fishes seines. Begins to catch whitefish about 12th October; used to fish a good deal on the bars, and found that was the time they were there. Herring come to spawn after the whitefish; they spawn about the end of November. Pickerel and mudpouts spawn in May, also pike; bass in June. Whitefish come into the bay to spawn; think the fisheries should be preserved for the people; caught about 500 pounds weight of fish last season.

*Wesley Weese.* Fishes with seines and hoop-nets, catches whitefish and herring, 15th to 31st October. Whitefish are most plentiful about 10th November, when spawning; they come in the bay from the lake expressly for that purpose; they spawn from 1st to 11th November; herring later; no salmon-trout; pike spawn as soon as the ice leaves; pickerel, 1st May, or as soon as ice leaves the rivers; mudpouts in June. His fishery only worth about \$8 or \$9 a year profit; wants the department to give longer time to fish to make more money.

*Robert McDonald.* Fishes seine, gill, hoop and bullhead nets; catches whitefish, herring, sunfish, pike, perch, and coarse fish; whitefish are in the thick of spawning 1st to 8th November; never saw them spawn before that date; but has seen them playing by the hour on the bars; they come up from the lake to the bay to spawn; they come straight for the bars: there are thirty miles of spawning grounds, and the whitefish come right to the shore; we fish on the breeding grounds; herring come after the whitefish; whitefish do not remain long after spawning.

*George McDonald.* Spawning time for whitefish 1st to 10th November; fished with a seine forty years ago: no close season then; whitefish were scarce forty years ago and plentiful now.

*Samuel Geddes.* Fishes, seines and farms; whitefish and herring come into the bay to spawn about 1st October, and we continue catching them until 1st November; they begin to spawn (whitefish) 1st November and end 10th November; whitefish and herring are as plentiful now as thirty years ago. The department should make proper regulations to preserve the fish. My fishery produced between \$200 and \$400 last fall. Fishes three seines, and the men employed get half.

*Henry B. Brickman.* Whitefish ready to spawn end of October; whitefish and herring come into the bay once a year, and then to spawn. Thirty-five dollars was the value of my catch last season. The nearest point towards the lake that whitefish are caught in the spring and summer months, is the Gaps.

*Nicholas McDonald.* Whitefish close season should be from 1st to 10th November; best catch of herring is in November, their spawning time, and there should be no close season; uses hoop-nets to catch mudcats, pike, suckers, &c.

*David Gerow.* Fishes seines and hunts at Massassaga Point. Whitefish the most valuable catch, both in money and quantity; but catches herring, pike, pickerel, perch, suckers, and some bass and mudcats; herring come next to whitefish; whitefish spawn 1st to 10th November; previous to 1st November they are running up the bay hunting for spawning places; they leave the bay after spawning, and they cannot be caught after that. The herring come on to spawn after the whitefish leave. Pickerel spawn as soon as the ice goes. There should be close seasons for fish at the spawning times; whitefish are as numerous as twenty years ago. It is the gill-nets, not seines, which destroy the whitefish coming to spawn. Gill-nets follow them to the bars, but seines cannot. His fishery netted \$4.80 last season after supplying his family and hands paid; has nothing else to do but hunting, so he fishes.

*William Black,* fish dealer and fisherman. Whitefish spawn 10th November; some earlier, some later; herring a little later; they are not increasing; whitefish begin to come in to spawn 12th, 15th and 18th October; pickerel spawn in May; bass in June; pike increasing; also eels.

*Thomas McDonald,* fisherman, fished five summers, dating from 1845. The small and large whitefish run together in July and August. After August the immature fish go to deep water; and the mature fish collect to spawn, and begin to spawn 1st November. After the 30th November the whitefish leave for deep water.

*Felix Mellow,* fisherman and farmer, fishes hoop-nets, catches bullheads, eels and pan fish. Mudcats spawn in June.

*James Pollard,* fisherman at Long Reach, fishes gill-nets for whitefish, herring, pike and pickerel; whitefish come into Hay Bay 1st October, and remain until 30th November, when done spawning. They come from the lake. Herring are only in the bay in November, they come to spawn. Whitefish were never gilled in herring nets, with mesh  $3\frac{1}{2}$  inches. There is a smaller size run of whitefish which spawn later than the larger ones, and thinks they are a different species.

*James Sharpe* fishes gill-nets; thinks they should be allowed to catch pickerel and pike from 15th May to 15th June, as well as at other times, except when spawning.

*Seth Benson,* fish dealer, handles about 75 tons; caught in Bay of Quinté;  $\frac{1}{4}$  whitefish;  $\frac{1}{4}$  pan fish, such as perch, rockfish, sunfish and suckers; the balance, herring, pike, pickerel, coarse fish, &c. There are other shippers, but handles most of the whitefish. In July and August pickerel are caught in the lake; whitefish begin to come into the bay 1st September, and keep moving up the bay until they leave about 15th November, after spawning. Whitefish sell just as well when caught spawning; medium-sized fish sell for the best prices, but whitefish, large and small, sell the same. Thinks good regulations should be made to protect fish in Canadian waters.

*Nelson Instant* fishes whitefish and salmon-trout, gill-nets. Thinks there are three kinds of whitefish—large, medium and small. The fish 2 pounds and over begin to come in 1st September to spawn in the bay; the small kind stay out and do not come into the bay. Begins to catch whitefish and trout as soon as the ice goes out. Fishes in Lake Ontario. Thinks whitefish and salmon-trout should not be caught going to and coming from their breeding grounds.

*Thomas Howard.* Fishes a  $4\frac{1}{2}$ -inch mesh for whitefish only; whitefish come in the upper gap, and then go up and down the bay to spawn; these fish should not be caught in spawning time, and the present close season is correct. The month of November.



## Ontario Fishery Commission.

*George Lindsay.* Fishes hoop-nets; catches pickerel and bass, also a full line of coarse fish, bullheads, eels, suckers and pan fish, &c.; mudcats average three to the pound cleaned and dressed. Sets nets in January and stops 15th April; begins again in October and fishes to end of the year. Mudcats are in best condition from middle of March to 1st May; they spawn in June and eggs hatched out in July; the male and female make a nest, guard the eggs until hatched and protect the young until August; the horns are then grown and the young are safe from predaceous fish. There would be 150 to 200 to a nest. The black water snake is their worst enemy. Where the water is warm the spawning fish are not fit for the market until October. The close season should begin 1st May, not 15th April, for these fish. One man can attend to five or ten hoop-nets. Bullheads, catfish and mudcats are the same fish; the channel cat is a different fish, they go in deeper and cleaner water.

*William Davey* gives the same evidence as Lindsay.

*Thomas Vanorder* fishes whitefish gill-nets and pickerel nets. Pickerel spawn as soon as ice leaves, in April; and we catch them in March going to spawn. Whitefish spawn about 15th November, and are done by the 25th. After spawning they leave. Salmon-trout do the same; about three weeks after spawning they are caught in the gap going to the lake; coming from the lake they get to the gap about the middle of July, and then work up into the bay to spawn. There is 100 feet to 150 feet of water in the gap, and whitefish congregate there intending to spawn. They are all in the bay for spawning 10th or 15th October; they then look for the bars and shallows, spawn and return to the lake. There are three kinds of whitefish—the whitefish proper or large sort which come in to spawn, and two smaller kinds which if they spawn at all spawn in deep water. It will be to the interest of the fishermen to have fish protected during spawning. If the 5-inch mesh as a minimum comes in force for whitefish, fishermen could not live.

*Milo Parks.* Fish are not as plentiful, barely half. Killing the fish while spawning has much to do with it.

*Charles Parks.* Blackbass and pickerel are about extinct, as compared with former years.

### PORT ARTHUR, LAKE SUPERIOR.

*W. C. Dobbie*, merchant, formerly fishery overseer. The larger salmon-trout and whitefish come to the shores about the close of navigation. The medium and smaller fish are caught during the summer, a 4½ to 5-inch mesh is then used, and from 5-inch to 6-inch in fall. The 10-pound and 12-pound fish are usually taken in October, November and beginning of December; most of the salmon-trout spawning is done from 15th October to 10th November. The red salmon-trout come in later. The close season for salmon-trout in Lake Superior should be from 15th to 20th October until 1st November. They begin to congregate and are in the most concentrated form about 15th October. Whitefish spawn from 25th October until 10th November. It is contrary to the laws of nature that fish should be fit for food while spawning. The fishing is getting further off all the time from here. The fishermen keep moving to new grounds. Herrings are plentiful but are of no account in this lake.

*John Maloney.* Fishes pound and gill-nets. Whitefish are caught in pound-nets in June and July, and salmon-trout in September and October in gill-nets. The trout then average 10 pounds or 12 pounds. Whitefish begin to come in about 20th to 25th October, and move out from the shore 10th to 12th November. Trout come in to spawn during the months of September and October. Both salmon-trout and whitefish are in better condition before the spawning time. After spawning they are soft and flabby. There is, however, no difference in price, they sell just as well,

they are sent to the United States. Yellow pickerel (wall-eyed pike) are caught. Catches suckers, they eat the trout eggs, but we let them go, we can't sell them. Fish have fallen off from over-fishing and the close season not being the right time. The close season for whitefish should be from 20th October to 10th November. Trout are ripe for spawning 20th September and spawn to 30th October. Lake Superior pound-net pots have  $3\frac{1}{2}$ -inch mesh. A 2-pound trout will go through, and a  $1\frac{1}{2}$ -pound to  $1\frac{1}{2}$ -pound whitefish. Pound-net fish are always good and fresh. If gill-net fish are stale they are salted. The drowned fish from the gill-nets are sold at a reduced price, when prevented from lifting the gill-nets, there are a lot of bad ones which are thrown away. Prefers pound-nets as there is no waste as in gill-nets.  $4\frac{3}{4}$ -inch mesh is the largest that can be used in gill-nets for whitefish. Does all his gill-net fishing in December. Has seen a number of hoop-nets but does not use them. This is a good fishing bay but there are too many suckers eating the spawn.

*Henry Servais*, fishes pound-nets  $3\frac{1}{2}$ -inch, pot and gill-nets  $4\frac{3}{4}$ -inch, and a 6-inch mesh trout net for late in the fall. There are three runs of trout from 15th September to 1st November. Catches whitefish in June and July in pound-nets. No gill-nets are put down in the summer months; that fishing is done in the fall and winter. Very few whitefish are caught in a 5-inch mesh, it does not seem to work. We do not fish our 6-inch trout nets at the same time we fish a  $4\frac{3}{4}$  whitefish net. The December fishing is done with a  $4\frac{1}{2}$  and 5-inch mesh. The trout come in earlier than whitefish and begin to spawn 1st October. For the Thunder Bay section whitefish come in to spawn 20th to 25th October and are engaged in spawning until 10th or 12th November—that is the bulk of them. Has caught whitefish having eaten spawn and mixed up in their stomachs with gravel. Salmon-trout concentrate for spawning 15th to 20th September; they go out again and return to spawn from 1st to 10th October, the bulk of them at the end of October. June, July and August are the principal months for catching pickerel. They are caught on muddy bottoms in Black Bay, Nepigon Bay and such places. They spawn in the early months. Pickerel average 3 pounds to 4 pounds. Whitefish have fallen off, not trout. The great destruction of fish and waste took place several years since when much irregular fishing and waste was permitted. Gill-nets are more destructive than pound-nets. There is great waste in gill-nets. Deep water fishing in Lake Superior does not pay. Sturgeon spawn before June, they are caught in June, July and August. Herrings are in great numbers, they spawn in November, it does not pay to fish for them. A 2 pound whitefish will pass through my  $3\frac{1}{2}$  pot net; a  $1\frac{1}{2}$  pound fish would get through without hurting himself. A  $2\frac{1}{2}$  pound trout would get through this mesh; a  $1\frac{3}{4}$  to 2 pound whitefish will pass through a  $4\frac{3}{4}$  gill-net mesh; a gill-net catches a smaller fish than a pound-net with same sized mesh for it catches herrings and a pound-net will not. A 2 pound fish will pass through a 5-inch gill-net mesh if not tangled up. Trout are often caught by the teeth. Thinks a 3 pound trout would pass through a 5-inch gill-net mesh; our pound-net pots are  $3\frac{1}{2}$  inches after tarring, the effect of tarring by shrinkage is greatly exaggerated. Whitefish and trout as a rule do not frequent the same localities. It would not pay to fish these waters with a 4-inch pot. All our pound-nets are out of the water by 1st November, the weather forces it. There is a resistance in a pound-net which allows a large sized fish to pass through. Gill-nets hang loose. A 4-inch pot would not catch enough in this lake to pay the license;  $4\frac{3}{4}$ -inch is as large as this lake will stand for gill-nets.

*E. J. Nuttall*. Fishes pound-nets in summer; gill-nets in fall and winter; pound-net mesh  $3\frac{3}{4}$  inches, and some 4 inches in pot. The 4-inch is useless;  $3\frac{3}{4}$ -inch is too big;  $\frac{1}{2}$  of an inch makes a big difference in a pound-net. Was a new beginner and overseer recommended those sizes; would not now take out a license for a 4-inch pot; uses  $4\frac{3}{4}$ -inch gill-nets in December, January and February for whitefish; very few trout; also catches pickerel, sturgeon, suckers, pike, ling, &c. Salmon-trout spawning is about done last week in October; whitefish come in to spawn end of October; cannot set nets before pickerel have spawned; close season for salmon-trout should be 15th to 30th October; whitefish 20th October to 15th November;

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would like a close season from 15th October to 15th November; herrings are a curse to us in the gill-nets; we have an awful time with them; they are worthless and a nuisance; there is no sale for them, and the lake is full of them; sells everything to the American fish company; we have to take just what they have a mind to give us.

*J. R. Walker.* Fished as far back as 1848, first in Lake Ontario, then in Georgian Bay and Lake Huron, and finally here. In November we used to catch three tons of whitefish at a haul of a seine in Lake Ontario; the fish were then concentrated for spawning; fish are perfectly good within twelve days of spawning; they feed up in ten days after spawning; seines are the most destructive on immature fish. The great increase in pound-nets in these waters began after the opening of the Canadian Pacific Railway, about five years ago; the decrease in the fish was very apparent before that.

### THESSALON.

*Thomas Strain.* Fishes pound-nets, 4-inch pot, gill-nets  $4\frac{1}{2}$  and  $4\frac{3}{4}$  inches; catches whitefish, trout, pickerel, sturgeon, and some coarse fish; all fish taken to the States in tugs and steamers. Whitefish spawn middle of November; some earlier; some later. Salmon-trout come on the shoals 1st October to spawn. Pound-nets are best for fishermen and the public; approves a 4-inch mesh in pots. Close season for whitefish should be 15th November to 15th December. The close season for trout should be in October. Suckers are plentiful. Coarse fish are taken in hoop-nets here.

*Laurie King.* Pound-net mesh of 4 inches large enough; could not make a 5-inch pay. The fishing has been ruined within twelve years. Fished twelve years ago with  $4\frac{3}{4}$  and 5-inch mesh, and the  $4\frac{3}{4}$  inch would catch double the number the 5-inch would. Formerly there were but ten days' close season. No close season is required for salmon-trout, as the winds will protect them. Pound-nets are now all out of the water; would not take out a license if the pot was  $4\frac{1}{2}$  inches.

*James B. Dobbie.* Formerly a fisherman; fished pound-nets, 4-inch pots. Fish taken to States. No entries made on departure or arrival of boats. No duties paid. Whitefish spawn about middle of November; some earlier; some later; salmon-trout about middle of October. The old close season of ten days was pretty nearly right. The great catch of fish is in the early summer months; they are then better for food and more marketable. Gill-nets are hardest upon the fisheries. There is room for more fishing in certain localities. Fish are driven away by refuse of pulp wood and rafting logs. No effort is made to catch coarse fish. Herrings are plentiful, but fishermen do not want them.

*John Sullivan.* Fishes pound and gill-nets. All fish caught sold to Americans. Whitefish spawn largely about 15th November, taking ten days. Salmon-trout from middle to end of October. There is no occasion to change mesh in pound or gill-nets—that is 4-inch pots,  $4\frac{1}{2}$ -inch gill-nets.

*David Bellrose.* Fishes pound-nets, 4-inch mesh. Whitefish come on the shore for spawning about 15th November. In former days the great catch was while spawning. Salmon-trout spawn latter part of October; some in November. Fish have fallen off, but whitefish most.

*Stephen Fourchette.* Fishes gill-nets in Lake Huron, and pound-nets in the North Channel. Gill-nets have  $4\frac{1}{2}$ ,  $4\frac{3}{4}$  and  $4\frac{7}{8}$ -inch mesh. Whitefish spawn in two runs, 1st and 15th November. Salmon-trout come into the bay beginning of October and spawn in ten days. Another run of outside trout spawn 15th to 30th October. Pound-nets are best for the fishing industry;  $4\frac{1}{2}$  or  $4\frac{3}{4}$ -inch pot in Lake Winnipeg is about the same as a 4-inch in Georgian Bay. They fish with a 5-inch mesh in Winnipeg, and the fish are largely gilled. If the whitefish are gilled in a pound-net they spoil sooner than in a gill-net. A  $4\frac{1}{2}$ -inch pot in Winnipeg would be about right.

The best catch of whitefish is about beginning of May. A larger mesh than 4 inches would not do for pots here.

*Abraham King.* Fishes for Reeves, of Grant Island, who has fifteen boats, four tugs, and a great number of pound and gill-nets. There should be no close seasons. The Government should build hatcheries and not have cruisers; we are too near the Americans; they can fish right along and we can't; American fishermen used to come to our waters and set sixty or seventy gill-nets and catch 6,000 pounds to 7,000 pounds at a haul in our close season, and we are not permitted to fish. This was three or four years ago.

#### GORE BAY.

*William W. Holden.* Fishes pound-nets, 4-inch pot. Sells to the Buffalo fish company, who call for them with their tugs. The principal whitefish spawn in November. Salmon-trout come in to spawn 5th to 10th November, and leave for deeper water about the 25th. They sometimes come in the end of October. Herrings are plentiful, but not fished for. They are smaller than in Lake Erie; could not use larger than a 4-inch pot; a trout of 3 pounds or  $3\frac{1}{2}$  will go through a 4-inch pot, also a 2-pound whitefish, but many will be taken. The average size of whitefish is  $2\frac{1}{2}$  pounds; salmon-trout average 4 pounds; pound-nets are best; in gill-nets many fish die, and are unfit for the market. Nets all out by 1st November; would not fish a  $4\frac{1}{2}$ -inch pot.

*Angus Matthewman.* Fishes gill-nets for Reeves of the American company; has seen six or seven nets catch more fish in 1886 than are caught with thirty-five in 1893; no need of a close season if hatcheries are built.

*John Lapointe.* Fishes by the month; whitefish come in to spawn always in November; salmon-trout somewhat earlier, towards the middle or end of October; both fish are much scarcer than they were ten years ago; gill-nets are much more destructive than pound-nets; there were a couple of hundred gill-nets lost this fall, and all the fish in them wasted.

*James Purvis.* Fishes in North Channel at Duck Island and south side Manitoulin; sells to Buffalo company; whitefish spawn 10th to 28th November; salmon-trout end of October and in November; herrings are plentiful, but not caught: no market for them. Whitefish are not plentiful as in former years; would prefer pound-nets to gill-nets; would want fifteen to twenty pound-nets to give up his 15,000 yards of gill-nets. The expense of lifting 10-pound-nets about the same as lifting two.

*James Noble.* Fisherman and fish dealer; fishes gill-nets; a whitefish of 2 pounds will pass through a  $4\frac{1}{2}$ -inch gill-net mesh, and a salmon-trout of 3 pounds. Whitefish spawn in November; salmon-trout a little earlier, but nearly the same. Herrings are plentiful, but not caught; whitefish have fallen off; salmon-trout, pickerel and sturgeon are about the same; pound-nets are less destructive than gill-nets; recommends 4-inch for pots, and  $4\frac{1}{2}$  for gill-nets.

#### KILLARNEY.

*Thomas Boyton.* Fished gill-nets,  $4\frac{1}{2}$  inch mesh. The Buffalo Fish Company do almost all the trade here. Whitefish come in to spawn from 8th to 20th November; they then leave. Salmon-trout come in to spawn from 25th of October to 15th of November; pickerel spawn from 15th April to 15th May; herring spawn in November; bass about June. These fish come into the bays and on reefs and shoals at the times above mentioned to lay their eggs. They are not found at these places at any

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other time, except an odd one. Fishermen do not fish for any of the above fish at the places mentioned, in the summer time. In 1857 there was no close season. The 5-inch gill-net mesh is of no use in the summer.

*Ned Fourcheau.* Fishes gill-nets, 7½-inch mesh; some larger. Present whitefish close season is right. Salmon-trout spawn a little earlier; prohibited from fishing trap-nets, which he fully describes.

*James Noble.* Fish dealer; firm of J. C. Noble; fishes gill-nets. The 5-inch mesh was not sufficiently profitable. The 4½-inch takes more of the smaller fish. Catches trout and whitefish; ships to the Buffalo company, but supplies the Canadian Pacific Railway steamers. The Buffalo company have two tugs which they send around to gather the fish from other companies in these waters. We gather our own; acts as a general supply house for the fishermen; does not expect a continuance of their business, as there is a considerable decrease in the fisheries; thinks strong measures should be brought to bear to protect the fisheries, otherwise the formerly great fisheries in this section must soon pass away. Fishing might be judiciously diminished. Shore whitefish lay their eggs early in November; what are called gill-net whitefish spawn on muddy bottoms in deep water at the end of November into December; salmon-trout come to the shore and reefs about 15th October, and lay eggs until 20th November. Trout are sometimes caught in considerable quantities on these shoals in December. Herring should have a close season in November. The trade in this fish is just commencing; even the coarse fish require protection. Trap-nets might be used under licenses, as they will be fished with any way. Pound-nets should be more generally fished in the Georgian Bay. Fishermen could not stand a 5-inch mesh now, not if they were given three years to make the change. They would not take out licenses. Four-inch is the proper pound-net pot mesh. As fish become scarcer many fishermen will be obliged to give up fishing; in that case the fisheries will get into better hands; those persons will then take greater interest in preserving the fisheries.

*Nelson Harman.* The fishing trade was at its height on the north shore of the Georgian Bay in 1885, the fisheries had then been depleted in Collingwood Bay, and the fishermen came north. Whitefish come in to spawn about 11th November, and continue on the shoals about ten days. Salmon-trout come on about 15th October; pickerel 15th April. It is of the greatest interest to all gill-net fishermen to preserve the fisheries by all judicious means. If the fishermen on the south shore of the Georgian Bay were restricted to their own side, they would give up fishing altogether. There was good fishing on the south shore at one time, but it was fished out. Whitefish close season should be the whole of November; October fishing is for trout, not whitefish. Trap-nets might be introduced into these waters to catch coarse fish. Traps would become numerous if they were licensed. Twenty or more have been taken or burned during the past season. If a man got a certain district, he would look after it and prevent others from fishing his grounds.

*George Larouche.* Fishes gill and pound-nets, gill-nets, 5 inches and 4½ and 4¾-inch meshes; pound-net pot 4-inch. Whitefish spawn from the 17th to the 20th of November; some earlier; some later. Pickerel spawn from April to June. Fish are scarcer; they and the suckers destroy the spawn; the present close season for whitefish is right; salmon-trout spawn 15th to 20th October; fish die in gill-nets in considerable numbers and are thrown away. The pound-net is the best and safest for the fishermen, the fish are taken alive and go to the market in better condition; they are beginning to sell herring now; they are caught at Bad River and should now be protected at spawning time; it would be all right if the 5-inch mesh were put in force; were two years, time given to use up the 2½ web; licenses should be granted for pound-nets wherever practicable to fish them; does not know any place where trout and whitefish have increased.

*Joseph Rocque,* fishes gill-nets 4½ mesh, whitefish begin to spawn early in November; salmon-trout about one week earlier; pickerel spawn in April, bass in June,

herrings spawn same as whitefish. For catching coarse fish the trap-net is the best, the mesh should be  $2\frac{1}{2}$  inches; two men could fish 20 trap-nets; should be allowed to fish present gill-net mesh for two years to use them up before any change is made.

*Adolphus Martin.* Fishes gill-nets  $4\frac{1}{2}$  meshes; whitefish spawn about the 15th November and come into the shoals about 25th October; salmon trout about two weeks earlier; they only come to spawn and are not on the reefs and shoals at any other time; pickerel spawn about 25th April and in some places not until May; if the 5-inch mesh comes into force two seasons should be allowed to use up the present nets; salmon-trout and whitefish do not spawn on same grounds; gill-nets are usually set on the bars where whitefish spawn and just before the close season begins.

#### SAULT STE. MARIE.

*Nelson Couture.* Fishes pound-nets in North Channel, Georgian Bay; sells for shipment to the States; the fishermen were frightened this season and did not catch immature fish; whitefish are best in June, July and August: when spawning in November, they are soft and lean and feverish; they are not good, whitefish spawn from 1st to 15th November, some before some after; salmon-trout spawn 20th October to 10th November, pickerel begin to spawn 15th April and another run 1st May till about 15th May; a 4-inch pot will allow a 2-pound whitefish to escape, same with salmon-trout; a penalty should be inflicted on dealers for purchasing and selling immature fish; fish dealers will not buy our coarse fish so long as they can get whitefish and trout of any size; sets out pound-nets 15th May, best catch of whitefish end of June to middle of July; this year the fishing failed, September and October are the best fishing months for salmon-trout, only a few are caught in the spring months; the coarse fish here are pike, mullet, suckers, ling perch, channel cats, mud-pouts, &c., does not fish for them; poor people with families should be allowed hoop-nets to catch fish for food and sale.

*William Kimball.* Fishes gill-nets,  $4\frac{1}{2}$ -inch mesh, in Georgian Bay and North Channel; all fish go to the States; the large whitefish spawn 10th to 20th November, some earlier, some later; the smaller fish about 20th November; the largest run of salmon-trout (and the largest fish) begins 15th October; they have done spawning and leave about the 25th October, some earlier, some later; the smaller salmon-trout come in later and spawn until 15th November; herrings are abundant in Lake Superior; there is no demand for them and they are not worth catching; they spawn in November; the smaller salmon-trout will spawn in 10 and 15 fathoms; fish have fallen off, caused by waste improvidence and irregularities of former years; certain fishery reserves might be set apart (see evidence); thinks the department should prevent American influence controlling the fisheries; if the 5-inch mesh were enforced it would do much harm;  $4\frac{3}{4}$  would be about fair.

*Joseph Ganley,* of the firm of Ainsworth & Ganley, fishermen and dealers; fishes in Lake Superior; pound-nets, 4-inch pot; gill-nets,  $4\frac{1}{2}$ ; the smaller whitefish come on to spawn in two to 20 fathoms of water, about 5th December; spawn about 20th December and then scatter out; the larger whitefish come on the shoals about 20th November and lay eggs until end of November and then leave; the large fish are the more valuable.

There are two runs of salmon-trout, 20th to 25th September, in shallow water, and smaller trout 18th to 28th November, and spawn in 25 to 40 fathoms of water; recommends a close season for whitefish and deep-water trout, from 15th November to 1st January; the large salmon-trout should have no close season; if a hatchery is established there should be no close season for large whitefish; suckers destroy vast quantities of eggs; gill-nets more destructive than pound-nets; nothing larger than a 4-inch pound-net pot can be fished; in gill-nets  $4\frac{1}{2}$  is right; Americans fish and trespass in our waters and laugh at us.

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*Angus McLeod.* Knows 100 miles north shore Lake Superior; fishes gill-nets, mesh  $4\frac{1}{2}$  and  $4\frac{3}{4}$ ; sells to Ainsworth & Ganley; deep-water salmon-trout spawn 1st November and on for ten days; the big salmon-trout spawn near the shores the last ten days of November; Americans trespass in our waters and fish during the close season.

*James Garratt.* Fishes in Lake Superior; has also fished in Lakes Huron and Michigan; fishes gill-nets; brought the 5-inch mesh from Lake Huron; it did not answer in Lake Superior, the fish being smaller; sells wholly to Ainsworth & Ganley; whitefish spawn 20th November, some earlier, some later; salmon-trout the same as whitefish, except the large trout, which come in earlier; they only come to the shoals and shores for spawning purposes; they are only caught in those places in the fall; if the same practices are carried on in Lake Superior as were done at Alpena and Lake Michigan, the fisheries will play out; the American waters being fished out we all came up here to try our luck; we must have close seasons, proper sized mesh and hatcheries.

*Joseph Wilson.* Was fishery overseer twenty-five years, customs officer forty-three years; attributes the decline in the fisheries largely to irregularities and improvident fishing in the past; wherever the fishermen found the fish, there they went in a body; the Georgian Bay fishermen fished wherever they pleased; it is much easier for an overseer to watch pound-nets than gill-nets; any competent overseer should be able to watch pound-nets and prevent illegal fishing; it is very difficult to watch gill-nets; pound-nets take coarse fish and they should be caught as well as the finer sorts; this would be beneficial to the fisheries; the Canadian fishermen cannot, as a rule, afford to send their fish to the American market, unless they fish on a large scale; the Americans have done the carrying trade as well as furnishing the supplies to Canadian fishermen.

*William McLeod.* Fishes at Pilot Harbour; uses gill-nets  $4\frac{3}{4}$  mesh, finds it answer his purpose quite as well as the  $4\frac{1}{2}$  mesh; a 5 inch mesh is too large; the finer twines have a tendency to catch the smaller fish. The large rock trout are taken when they come on the shoals in September and October to spawn, and are caught in the summer-time in 20 or thirty fathoms or more; sells his fish for  $2\frac{1}{2}$ c per lb. dressed; the large trout bring  $\frac{1}{2}$ c less, being caught late in the fall coming to spawn; sells to Ainsworth and Ganley, their tugs take them direct to the American Sault for distribution in the States; whitefish and salmon-trout only come in from deep water to lay their eggs. The fishermen are in danger of having their industry ruined. Hatcheries; better guardianship; regulation of meshes; and proper close seasons must now be attended to. If these things are not done and quickly too, the waters will be fished out; our fishermen not only sell their fish, but sell themselves and their licenses to benefit American dealers.

*Thomas H. Tretheway* is a mining engineer; gill-nets usually measure  $4\frac{1}{2}$  inches in the mesh, this is about right if adhered to; fish are all sold to American dealers. American boats take all the Port Arthur fish to Duluth, and at the end of the lake to the American Sault.

Whitefish spawn latter end of October and in November. Salmon-trout begin to spawn 15th October. Fishing should be permitted in winter in any reserves. Pickerel, pike, perch, suckers, and the general run of coarse fish should be caught, they live on the young of other fish; suckers are spawn-eaters.

*James Gauley.* Fishes in Lake Superior with  $4\frac{1}{2}$  gill-net, and  $4\frac{3}{4}$  at Lizard Island for whitefish and the small deep water salmon-trout. Whitefish came in to spawn, about the 25th November and spawn up to the 10th December; the smaller whitefish come in the middle of December to spawn and lay eggs for two weeks. At Lizard Island trout come to the shore about the 25th October and lay eggs to 5th November; they all come from the deep water and return after spawning; herrings are abundant, we do not catch them.

*Michael Neville.* Fishes in Lake Superior with 4½-inch gill-net; salmon-trout are ripe for spawning 25th September; whitefish 25th November to 15th December. The fish have fallen off in size and numbers.

*Frank Scott.* Fished a 5-inch mesh, but now fishes a 4½; it will catch more and smaller fish; fishes in Lake Superior; whitefish come in to spawn 18th to 20th November, and spawn until 10th or 12th December. Salmon-trout begin to spawn 5th October, and keep on for three weeks. There are too many nets fishing through the whole of the spawning time; honest fishermen had no protection until of late; fishermen feel the reduced catch very severely; gets the same price for large and small fish; we fish on the shoals for trout and whitefish while spawning, about three miles out; if the 5-inch mesh is introduced, we will have to give it up, as we can barely live now using a 4½-inch. It won't be long, if the fisheries go on decreasing, before we will have to go somewhere else.

*James Glanville.* Fishes on Fresh Island, North Channel, with pound-nets, 4½-inch in pot; catches sturgeon, whitefish, trout, pickerel, bass, suckers, mullet, channel cats, pike, &c.; all go to the States. Whitefish spawn all through November; they are easily caught there; salmon-trout come in earlier, about the middle of October, but mostly spawn at the end of October; they spawn in three or four feet of water; all the various kinds of salmon-trout mentioned by fishermen are one and the same kind; pickerel spawn about 1st May. Fish have decreased in numbers; the mischief was done in the past. The fishery regulations are better enforced now. Takes pound-nets out of the water last week in October, when the gill-net fishermen come to the shoals in October for trout; they do not catch whitefish; the whitefish are then in deep water.

*Peter Calgiosie (Indian.)* Fifteen or twenty years ago could catch plenty of whitefish in the Soo rapids; they are nearly all gone now; a few small ones left; hardly worth fishing for. Formerly the whitefish caught here were very large; whitefish spawn the whole of November; salmon-trout begin to spawn 15th October, and spawn till 15th November.

#### 4.—SPAWNING SEASONS.

A synopsis of the evidence given by the fishermen and others in relation to the spawning times of fishes—collected from the minutes of proceeding taken in November and December 1892, also in October and November, 1893.

##### LAKE ERIE—PORT DOVER.

*W. H. Ansley.* Whitefish, ripe in November; herrings, 15th November to 15th December; sturgeon June and July.

*Frank Jackson.* Whitefish, 15th October to 1st December; herrings, June and February; bass, between 1st and 15th June.

*Captain E. S. Allen.* Whitefish, 1st to 10th November; herring, later on; bass in June, pickerel in April.

*W. F. Tibbits.* Herring spawn in winter, whitefish end of November.

*David Low.* Whitefish in November.

*James Low.* Whitefish, 10th to 15th November.

##### ST. THOMAS.

*C. C. Bates.* Whitefish and herring in November.

*William Cudney.* Whitefish and herring in November.



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*A. C. Brown.* Whitefish, latter part of November ; pickerel in April.

*W. G. Emery.* Whitefish and herring spawn in November ; blue pickerel in April and May.

*Daniel Lang.* Whitefish, 10th November till December ; herring, end November till January ; pickerel in April.

*William Backhouse.* Whitefish, end of November ; herring the same ; blue and yellow pickerel in March and April, according to season ; sturgeon spawn chiefly in July and June.

*Henry Swan.* Whitefish latter part of October and in November ; herring the same ; blue and yellow pickerel in April.

*John Ellison.* Whitefish, 15th to 20th November ; herrings later, until January ; pickerel spawn in April.

### LEAMINGTON, ESSEX COAST.

*W. H. Black.* Whitefish and herring, 15th November ; pickerel March or April.

*W. D. Bates.* Whitefish and herring are in the height of spawning 25th November ; bass 24th May to 15th June.

*Ira Loop.* Whitefish, 20th November to 1st December ; herring same ; sturgeon 20th June to 1st July ; bass same.

*Gilbert DeLaurier.* Whitefish commence 15th November ; herring the same ; sturgeon early in July ; pickerel end of March or early in April.

*William Grubb.* Whitefish 20th to 30th November ; herring the same.

*Phillip DeLaurier.* Bass spawn June 20th through July.

*Henry Hébert.* Whitefish 18th November or earlier ; sturgeon in May.

*Henry Smith.* Black bass spawn 1st June through July.

*John DeLaurier.* Whitefish 18th to 26th November and before and after ; herring, October and November ; black bass 1st June ; pickerel in May ; sturgeon in June.

### DETROIT RIVER.

*Noah Jolie.* Whitefish, 15th November ; some after, some before ; herring later than whitefish ; sturgeon, in spring ; spawn mostly in June.

*Remi Laframboise.* Whitefish in November.

*Daniel Maloche.* Whitefish, 12th to 20th November.

*J. W. Post.* Whitefish, 20th November. Herring, 13th to 17th November, and on to December ; pickerel as soon as ice leaves ; maskinongé in spring ; sturgeon more freely in June and July.

*John A. Burton.* Whitefish, 1st November ; herring later ; sturgeon latter part of July ; pickerel done by 1st April.

*Joseph Maloche.* Whitefish commence to run to Detroit River 10th October ; spawn in November ; herring spawn same time as whitefish.

*Joseph Allen.*—Whitefish, 10th November; some before, greater part after. The bulk from 18th to 20th November; herring the latter part of November; sturgeon particularly in June.

*Charles Gauthier.*—Bulk of sturgeon spawn 15th June to 15th July; whitefish from 1st November; herring, later.

## LAKE HURON.

*Sarnia.*

*Marquis A. Hitchcock.*—Pickerel, 15th April; herring, ripe in November and December; sturgeon in July.

*John Lang.*—Salmon-trout in November, ripe latter part of October; whitefish in November; herring, October and November, spawned out in November.

## GODERICH.

*John Cragie.*—Whitefish, 10th November; salmon-trout, 1st November.

*James Clarke.*—Salmon-trout, beginning of November, some earlier; big trout 15th October; whitefish in November.

*Capt. James Inkster.*—Salmon-trout from September until November; herring from 15th November until 15th December.

*H. W. Ball.*—Herring, 1st November till December; pickerel done by 15th May; bass done by 15th June; salmon-trout ripe 27th October; whitefish ten days later.

*Malcolm McDonald.*—Whitefish, 15th to 20th November; salmon-trout, earlier.

## SOUTHAMPTON EVIDENCE.

*Donald McCauley.*—Salmon-trout came in to spawn through October, and earlier, and later about 15th October; and spawn to 8th or 10th November; whitefish spawn all through November.

*Malcolm McKenzie.*—Whitefish and salmon-trout spawn all through November.

*Daniel McCauley.*—Salmon-trout in November; whitefish later in November.

*Finlay McLennan.*—Herring in latter part of October and November.

*Dougal McAuley.*—Salmon-trout, 10th November; whitefish later in November.

## GEORGIAN BAY.

*Owen Sound Evidence.*

*Captain Dunn.*—Salmon-trout latter part of October and in November; whitefish later in November.

*James Telford.*—Whitefish and salmon-trout spawn end of October.

*Robert McKnight.*—Whitefish throughout November.

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*John McKenzie.*—Salmon-trout, 15th September to 15th October.

*James Pilgrim.*—Salmon trout, ripest time 10th November; whitefish, 20th November to 1st December.

*Gilbert Peter McIntosh.*—Salmon-trout and whitefish spawn 10th November, the hottest time.

*Adam H. Stephen.*—Salmon-trout 28th October to 5th November; whitefish 20th November through December.

*John Nelson.*—Salmon-trout, first run 1st October to 20th October.

*John McCrae.*—Salmon-trout. 20th to 25th October.

*Alexander McPhee.*—Speckled-trout, some as early as September.

### BARRIE.

*John Hines.*—Salmon-trout ripest 1st October; close season for salmon-trout and whitefish should begin 1st October; brook-trout 1st September.

### MIDLAND EVIDENCE.

*Albert Hutchins.*—Whitefish, heat of spawning 15th to 20th November, congregate about 20th October; salmon-trout, end of October.

*Charles W. Phillips.*—Catfish spawn in June; close season should be 15th May to 1st September; maskinongé spawn a little later than pike; bass 15th June to 15th July; pickerel in May; salmon-trout, 1st to 15th November; whitefish same time.

*Samuel Fraser.*—Salmon-trout 15th October to 15th November; bass in May and June, also maskinongé; herring largely in November about the same as whitefish, which spawn later than salmon-trout; pickerel in April, as soon as the ice breaks up; mud-pouts in June.

*J. A. Smith.*—Salmon-trout, 15th to 20th October, on into November; large black trout ripest 10th 12th October; pot-guts about the same, but spawn in deeper water, not on the shoals; whitefish, ripest 10 to 12th November, a little later than salmon-trout and take longer to spawn; herring in November; bass in April and May and on into June, they guard their spawning beds and young in June and July; pike and maskinongé, middle of April to middle of May.

*Frank Bonter.*—Bull-heads in June; pickerel from 15th to end of April; pike earlier; bass in June; suckers and mullet early in spring up the rivers and streams.

*John Yates.*—The male salmon-trout come on 18th to 20th October, females follow 25th October, the month of November would only cover ten days of their spawning time; whitefish 8th to 9th November, done spawning 15th to 20th, they spawn very quickly; black bass 1st to 10th June, and watch their nests for two weeks.

*Captain Whartman.*—Salmon-trout, 20th October to 5th November; whitefish, 1st to 20th November, ripest 10th to 12th November, with variations of five days, according to locality; herring spawn later; pickerel, 20th to 25th April; pike earlier; bass in May and June, the bulk 15th June, and then watch their young fry; mud-pouts in June, they also watch their young.

*William Hodgins.*—Salmon-trout ripest 25th October to 10th November; whitefish, 10th to 25th November, but both species spawn earlier and later; pickerel, April and May; bass, May and June.

*W. W. Church.*—Salmon-trout, 20th to 30th October, some later; whitefish ten days later; herring in November, 10th to 20th. Same dates for Lake Ontario; pickerel in Lake Ontario from 25th April to 10th May; bass in June; pike in April; maskinongé, 10th May; catfish in June.

*W. Gerow.* Salmon-trout in Lake Superior come in to spawn 10th September, and on south shore of the Georgian Bay 19th October; north shore about the same; they remain about fifteen days and then leave the shore; in Lake Superior they have done spawning by 20th October, and in the Georgian Bay about 1st November; no spawning of any account is done by salmon-trout after 1st November. Whitefish come to the shore to spawn about 1st November in Georgian Bay, and remain ten to fifteen days, some spawn before, some after; herring spawn in November; black-bass in June; pickerel between 25th May and 1st June; catfish in June.

*Joseph Cunningham.* Whitefish gather on the shoals to spawn in November; ripest 10th to 15th. Salmon-trout come in latter part of October and through November; ripest about 1st November; herring throughout November; blackbass in May and June; pickerel in April and May.

*Archibald Campbell.* Salmon-trout begin to work towards the shore to spawn 25th October, ripest 1st November; best catch 15th November; whitefish come on 10th November; they take less time to spawn than trout, and spawn principally between 15th and 20th November, ripest 10 to 15th, and then leave for deep water; herring spawn in November; pickerel in early spring; bass in May and June.

## LAKE ONTARIO.

*Hamilton Evidence, Burlington Bay.*

*Daniel McGwyn.* Herring spawn 18th to 27th November; ciscoes, 25th December to 15th January; salmon-trout, middle of October to 30th November; whitefish about the same; bass in May and June.

*William Depew.* Herrings spawn from 22nd November to 1st December, perhaps a little longer; ciscoes, latter part of January and in February; whitefish and salmon-trout spawn in November; bass in June; proper season for herring, 15th November to 1st December.

*Jonathan Corey.* Herring latter part of November.

*Frederick Corey.* Salmon-trout in October; pickerel, March and April; whitefish, 20th November to 10th December; herring the same; bass, 1st June; ciscoes, December till April; catfish, end of May and in June.

## BAY OF QUINTE.

*Daniel Bellknapp.* Says whitefish spawn from 1st to 15th November; bullheads in June and July; bass also spawn in June.

*Peter Weese.* Whitefish come into the bay and spawn in November; herring spawn about the end of November; pickerel and mudpouts spawn in May; pike and bass spawn in June.

*Wesley Weese.* Whitefish spawn from 1st to 10th November; herring spawn later; pike as soon as ice leaves; pickerel in May; mudpouts spawn in June.

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*Robert McDonald.* Whitefish spawn freely 1st to 10th November; herrings come in after whitefish.

*George McDonald.* Whitefish spawn 1st to 10th November.

*Samuel Geddes.* Whitefish spawn 1st to 10th November.

*Nicholas McDonald.* Whitefish spawn 1st to 10th November; herring, should be no close season.

*David Gerow.* Whitefish spawn 1st to 10th November; herring spawn after the whitefish; pickerel as soon as ice leaves.

*William Black.* Whitefish spawn 10th November, some earlier, some later; pickerel spawn in May; bass in June.

*Thomas McDonald.* Whitefish spawn 1st to 30th November.

*James Pollard.* Whitefish come into the bay 1st October, and remain till 30th November, when done spawning; herring come to spawn in November.

*Seth Benson.* Whitefish come up the bay, and leave about 15th November after spawning.

*Nelson Instant.* Whitefish and salmon-trout should not be caught going to or from their spawning grounds.

*Thos. Howard.* Whitefish should not be caught in spawning time; the present close season (of November) is right.

*George Lindsay.* Mudcats spawn in June.

*Thomas Vanorder.* Whitefish spawn about 15th November, are done about 25th November; salmon-trout the same; pickerel as soon as ice leaves.

*Milo Parks.* Killing whitefish at spawning times has much to do with their reduced numbers at present time.

### LAKE SUPERIOR.

#### *Port Arthur.*

*W. C. Dobbie.* Salmon-trout spawn 15th October to 10th November; whitefish from 25th October to 10th November.

*John Maloney.* Salmon-trout, 20th September to 30th October; whitefish from 20th October to 20th November.

*Henry Servais.* Salmon-trout spawn 10th October to 31st October; sturgeon spawn in June; herring in November.

*E. N. Nuttall.* Salmon-trout spawn 15th to 30th October; whitefish from 20th October to 15th November; whitefish from 20th October to 15th November.

*J. R. Walker.* Whitefish spawn in November.

### LAKE HURON—NORTH CHANNEL.

#### *Thessalon.*

*Thomas Strain.* Whitefish spawn 15th November to 15th December; salmon-trout spawn in October.

*Laurie King.* No close season wanted.

*James B. Dobbie.* Whitefish spawn middle of November ; some earlier, some later ; salmon-trout middle of October.

*John Sullivan.* Whitefish spawn about 15th November to 25th ; salmon-trout from 15th to 30th October.

*David Bellerose.* Whitefish spawn middle of November ; salmon-trout latter part of October.

*Stephen Fourchette.* Whitefish spawn from 1st to 15th November ; salmon-trout from 1st to 30th October.

*Abraham King.* There should be no close seasons.

#### *Gore Bay.*

*Wm. W. Holden.* Whitefish spawn in November ; salmon-trout from 5th to 25th November ; sometimes in October.

*Angus Matthewman.* No close season required.

*John Lapointe.* Whitefish always spawn in November ; salmon-trout from 15th to 30th October.

*James Purvis.* Whitefish spawn from 10th to 28th November ; salmon-trout end of October and beginning of November.

*James Noble.* Whitefish spawn in November ; salmon-trout spawn earlier.

#### *Killarney.*

*Thomas Boyton.* Whitefish spawn 8th to 20th November ; salmon-trout from 25th October to 15th November ; pickerel from 15th April to 15th May ; herring in November ; bass spawn in June.

*Ned Fourcheau.* Whitefish, month of November ; salmon-trout spawn earlier.

*James Noble.* Whitefish spawn in November ; salmon-trout from 15th October to 20th November ; herring in November.

*Nelson Harman.* Whitefish spawn from 11th to 25th November (should be the whole of November) ; salmon-trout from 15th October till November ; pickerel 15th April.

*George Larouche.*—Whitefish spawn 17th to 20th November ; some earlier, some later ; salmon-trout, 15th to 20th October ; pickerel from April to June. Herring should be protected.

*Joseph Rocque.*—Whitefish spawn early in November ; salmon-trout about a week earlier ; pickerel spawn in April ; bass spawn in June ; herring spawn same as whitefish.

*Adolphus Martin.*—Whitefish spawn about 5th November ; salmon-trout about two weeks earlier ; pickerel from 25th April to May.

#### SAULT STE. MARIE.

*Nelson Couture.*—Whitefish spawn from 1st to 15th November, some earlier, some later ; salmon-trout from 20th October to 10th November ; pickerel spawn about 15th April to 15th May.

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*William Kimball.*—Whitefish spawn 10th to 20th November; some earlier, some later; salmon-trout, 15th to 25th October; some earlier, some later; herring spawn in November.

*Joseph Ganley.*—Whitefish spawn from 5th to 20th December; some spawn 20th to 30th November; salmon-trout and whitefish close season should be from 15th November to 1st January.

*Angus McLeod.*—Salmon-trout spawn 1st to 30th November; whitefish, same.

*James Garratt.*—Whitefish spawn 20th November; some earlier, some later; salmon-trout somewhat earlier.

*William McLeod.*—Salmon-trout in September and October.

*Thomas H. Rethanay.*—Whitefish spawn end of October and in November; salmon-trout begin to spawn 15th October.

*James Gauley.*—Whitefish begin to spawn 25th November and on till 10th December: salmon-trout, some begin 25th October and end 5th November.

*Michael Neville.*—Whitefish are ripe from 25th November to 20th December; salmon-trout are ripe 25th September.

*Frank Scott.*—Whitefish come to spawn 18th November till 12th December; salmon-trout begin 5th October, and last three weeks.

*James Glanville.*—Whitefish spawn all through November; salmon-trout from 15th to 31st October; pickerel spawn 1st May.

*Peter Calgiosie (Indian).*—Whitefish spawn whole of November; salmon-trout begin 15th October and on till 15th November.

### 5.—PROPOSED RESERVATIONS FOR THE NATURAL BREEDING OF FISH, AND FOR ANGLING PURPOSES ALSO.

Reference being made in the body of this report for the reservation of spawning grounds in certain localities, the following limits for that purpose are herewith suggested: They are somewhat extensive in their limits, the area will take in the narrower parts of the east and north shores of the Georgian Bay and North Channel, which are studded with countless small islands, forming innumerable small bays and inlets, to which nearly all the various species of fishes indigenous to the waters of the Georgian Bay go for spawning purposes. It may, and no doubt will, be considered by many a somewhat drastic measure, particularly by those who have been continuously using all kinds of fishing engines of an illegal character, and killing fish in season and out of season within these limits. Amongst these numerous groups of islands every facility is afforded for illicit fishing on the most extended scale, and whilst net fishing of any description is permitted under the regulations amongst these islands, it will be almost an impossibility to stop the poaching now so extensively carried on. But if these limits are wholly set apart as a reservation for spawning grounds of fishes of the various kinds which frequent these naturally adapted places for their reproduction, and net fishing prohibited therein, no pretext could be set forth by any one found fishing, or in possession of fish or fishing gear within these limits, that because he had formerly obtained a license to fish in the Georgian Bay waters he might also be entitled to fish in these natural spawning grounds as now proposed to be reserved.

The proposed reserved limits are as follows: Commencing on the shore of Matchedash Bay at the south eastern extremity of Georgian Bay, thence in a north-westerly line taking in the easterly shore of the Bay with all the islands up to Black

Bell Island; thence easterly to Point Aux Baviile; thence north-westerly in a straight line to the north side of the main Bustard Islands; thence easterly in a straight line to Fox Island; thence in a straight line to Killarney,—and from Killarney across Frasers Bay to Point Mary on Cloche Island; thence following the north shore of Cloche Island to its extreme north-western points; thence in a straight line to the south-eastern extremity of Aird's Island; thence following the north shores of Aird's Island, and John's Island to the most westerly point of John's Island; thence in a straight line to Bassett Island; thence to Sandford Island; thence to the east end and along the north shore of Hennepin Island to its western point; thence in a line to the extreme end of Thessalon Point.—All the waters, bays, inlets and islands east and north of the above described lines and limits, and reaching the main land, are hereby recommended to be reserved from any description of fishing whatever, except for angling purposes only with rod and line, or trolling, provided that such means of fishing by angling only, shall not be allowed during the periods which are now or may be hereafter set aside as close seasons for the protection of all or any of the kinds of fish frequenting the waters within these limits proposed to be reserved.

A reservation for Lake Huron to commence at the south end of French Bay below Sable river, on the east shore of Lake Huron thence north in a straight line up the line to Greenough Point, taking in all the waters and islands between the said line and the mainland.

## 6.—INJURY TO THE FISHERIES FROM THE EXPORTATION OF SAW LOGS.

### SYNOPSIS OF EVIDENCE GIVEN THEREON.

*James B. Dobie, of Thessalon*, said: There is a serious obstacle to the fisheries here from the rafting of saw logs across the bay; another injury is the loading of vessels along the shore with pulp wood for the United States; they dump the refuse stuff in the water which pollutes the bottom and drives away the fish and destroys the fishing nets. This is done by American vessels coming here for cargoes of pulp wood; this is extensively done all along the shores at the mouths of rivers; this is a general complaint of fishermen as seriously affecting their nets; the pulp wood is mostly spruce in the rough state. It is shipped to Detroit; it is also rafted in some cases.

*David Bellerose, of Thessalon*, said: When I fished gill-nets, I lost out of seventy-five nets thirty-nine from bark and fibre which clung to them in such a manner that I had to throw them away. This bark and fibre comes from the pine logs which are towed across the bay; they are towed in large rafts or booms, and when rolling about in these booms by the action of the water, the bark and fibre is rubbed off and settles upon the nets and ruins them. This stuff also spoils the breeding and feeding grounds of the fish. It ought to be stopped in the interests of the fishermen. This great loss has only been felt by fishermen since the logs and pulp wood have been taken across the bay to the United States free. If it is continued our fishermen will be ruined.

*Stephen Fourchette, of Thessalon*, said: Have fished for thirty years; the saw log towing is not injurious here; there was a fishing ground in Massasagua Straits that was actually ruined, it was at one time a first-class ground; I went to fish there this year, but got no fish; the fishing ground was covered with bark which drove the fish away; these logs came from the north shore rivers and are towed to Bay City in the United States. I have seen rafts half a mile long by a quarter mile wide, some eighty acres, principally pine logs; the bark and fibre are rubbed off by the rolling of the logs together when being towed, this falls upon the nets and ruins them, so they cannot be fished again; these rafts are sometimes anchored on the fishing grounds for three and four days, during this time they are constantly rolling



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together, rubbing off the bark and fibre wood which sinks to the bottom, fouling the fishing grounds and making the nets useless.

*Abraham King, of Thessalon*, a fisherman of thirty years, said: A great injury is felt by fishermen and much damage done to the fisheries by the rafting and floating of saw logs across the bays and lake; I have seen twelve sets of gill-nets destroyed by the bark and other stuff which comes off the great tows of logs going to Bay City, in Michigan, from the Spanish and other rivers on the north channel. The logs are got out on the north shore, floated down the rivers, and then boomed together and towed by steam tugs over to Bay City and other American ports. These tows or booms in some cases will cover a space of five and ten acres and more. These logs keep constantly rolling together by the action of the water which rubs off the bark and fibre and stringy parts, it floats about for a while and then sinks and collects on the nets, tangling them and turning them, the nets cannot be fished or cleaned again, and are thrown away. It should be the duty of the Government to have the export of saw logs in rafts across the fishing grounds stopped. If the Americans want the logs, they should be compelled to take them across our fishing grounds in tugs or steamboats, and not float them in rafts or booms. If this is not done another great injury will fall upon the fisherman and add further to the destruction of the fisheries.

*William W. Holden, of Gore Bay*, fished for ten years, said: The export and towing of saw logs is becoming most injurious to the fisheries; the gill-net fishermen complain most as their nets are injured by the bark and fibre wood; these logs are towed across the bay in booms by tugs. They travel slowly from one to two miles an hour; these rafts are very large, some three and four millions of feet.

*Angus Matthewman, of Gore Bay*, a fisherman for 25 years, said:—There is great injury done to the fisheries and to fishermen from the bark, and fibre wood from the saw logs which are towed across the bays; These logs came from White-fish, Spanish, and Serpent rivers, and are taken to the American side at Bay City, Saginaw and other places; they are towed during the whole season in rafts from ten to fifteen acres each, principally pine logs; When towing these logs roll about and rub off the bark, and the fibre next to the bark, these settle to the bottom, get into the nets and destroy them. It hurts the gill-nets most; Whitefish will not stay where this bark and dirty stuff is. It is destructive to the fisheries in every way; The rafts travel slowly from  $1\frac{1}{2}$  to 2 miles an hour, during head winds they have to turn back and take shelter, they are still grinding off the bark, all the while; I have experienced this injury at Saginaw Bay, in the United States, and it is the general opinion of fishermen, there as well as here, that this log rafting business will ruin the fisheries completely if it is allowed by the authorities to be continued.

*John Lapointe, of Spanish River*, has fished for 25 years, said:—Whitefish and salmon-trout are much scarcer than they were 10 years ago; in 1882, I took 100 tons with six nets; 40 tons would be a large catch now, as by the same number of nets; this falling off has been caused in part by too much fishing. The bark from saw logs has done great harm.

*James Purvis, of Gore Bay*, fished all his life, about 24 years, said:—We find the saw log business very injurious to the fisheries from the bark and soft wood which is rubbed off in towing the logs to the American ports; these rafts are very large, covering sometimes 10 acres and more; the constant rolling caused by the action of the water, rubs these logs together and grinds off the bark and soft wood which fall to the bottom, when the currents and winds drive this stuff into the nets making them worthless. This is a great evil to the fisheries; this bark from the logs does not work up on the shore.

*James Noble, of Cook's mills*, fisherman and fish dealer 12 years, said:—This year whitefish are scarcer by reason of the bark and stuff from the saw log rafts and booms which seem to drive them away. This stuff also effects the nets and prevents

their catching fish as well. The meshes get clogged up with this refuse, and fish wont enter them as freely as they otherwise would ; it is next to impossible to get this stuff off the meshes of the nets, it is actual ruination to the gill-nets. This stuff comes from the saw logs when being towed across the bay ; the constant rolling together rubs off the bark and fibre and causes the damage to the nets ; these rafts are very numerous, the logs come from different rivers on the North Shore, they are put together in large booms and towed by tugs. They go slowly, they are all sizes, they may be a quarter to half mile in length and nearly the same in width ; they are taken to Bay City, United States, this is done since the duty has been taken off logs ; it is causing rapid destruction to the fisheries here and is also keeping thousand of men out of employment in working in the mills as they are now nearly all closed up ; if this is allowed to continue the whitefish fishery will be destroyed very soon.

*Edward Fourcheau*, of Little Current, fisherman for 10 years. Whitefish and salmon-trout have fallen off during my fishing operations ; it is caused by the changed state of the water, and from the effects of towing saw logs, and pine refuse from mills ; the sawdust has done a great deal of harm, but latterly saw logs are doing a very great injury. In towing them across the bay in rafts they roll about from the action of the water and the outer and inner bark is ground off when it becomes water soaked and settles to the bottom and catches upon the meshes of the nets, and when the winds blow it is also stirred about and is washed into the nets ; this besides destroying the nets, also drives the fish away ; some nets become perfectly useless ; a great many have to be thrown away, the corks and leads are the only part of the net than can be saved ; this damage is general in the north channel ; these saw log rafts will take 2 tugs to tow them, and are so large as to cover 50 and 100 acres of the surface of the bay ; they have to remain some time on account of head winds ; all this time the grinding of the bark and softs parts is going on, this stuff gets water soaked it wont float to shore but sinks and becomes distributed all over the bottom, and is driven into the meshes of the nets ; this damage to the fisheries was not felt in former years nor before this saw log towing took place. The taking of the duty off saw logs has largely interfered with labour about here, most of the saw mills are closed up, and the saw logs are towed over to the United States. If the duty were put again on the logs, more saw mills would be built here to cut up the logs in our own country ; American tugs and labour take saw log rafts across to the United States.

*James Noble*, of Killarney, engaged in fishing and dealing in fish for 17 years, said :—If this excessive fishing goes on, and this new calamity from the saw log business is not stopped the fishing industries in the Georgian Bay and north channel cannot last long ; unless some strong measures are brought to bear to protect the fisheries, the formerly great fisheries in this section of the Province must be soon done away. The way to remedy these difficulties from the saw log question is to put an export duty on the logs, this would stop the great outlet of logs from this section into the United States ; This would also give employment to thousands of Canadian hands, and open up again the saw mills, which are now shut up ; and also stop the great evil to our fisheries which come from the refuse matter off the saw logs in their transport in rafts to the United States ; these rafts cover 15 and 20 acres taking 2 large steam tugs to tow them, they go very slowly only from 1 to 2 miles an hour. The logs are continually grinding together, rubbing off the outside and inside bark, which sinks to the bottom getting on the nets and destroying both the nets and the feeding and breeding grounds of our Bay fisheries.

*Nelson Harman*, of Collingwood, fishing off and on for 20 years, said :—Fishing is greatly injured from the rafting of saw logs in such great numbers which are now towed across the lake to the United States. This injury is caused by the outside and inside bark ground off the logs which forms a sort of stringy substance which settles upon the nets and clogs up the meshes making the nets useless. Nothing will clear this stuff off the nets except pushing off the particles with your fingers, this causes so much expense and time as to make it better to throw the nets away

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and get new ones ; this rafting is very great, they are towed by tugs, covering 4, 5 and more acres. Their motion in the water works off the outer and inner bark which settles to the bottom, and besides injuring the nets it also destroys the fishing grounds by driving the fish away ; this log difficulty has been noticed by me some years but only these in small spots caused by the local towing of logs for home work, of some saw mills, but since the duty has been taken off logs, this evil has grown to great magnitude and threatens the fishing industry most seriously ; the rafts are generally towed by two large tugs, which are owned by Americans. The nets would last about two years before this bark difficulty came up, but now the whole net will only last one year with this stuff. The rafting of these saw logs across to the United States employs hardly any Canadian hands. The United States dealers bring their men and tugs with them ; if these logs were sawn in our own mills in our own country a large number of Canadian workmen would be employed. As it is these mills are shut up and this labour to our people is lost ; many of our former mill hands now follow these logs to the United States to work in the mills there.

*George Larouche*, of Little Current, fisherman for 7 years, said :—The towing of saw logs is destructive to the nets and the fishery, but this did not occur in Mudge Bay, it is felt in the North Channel and in Georgian Bay ; the bark and the rind next to the bark is ground off by the rolling and rubbing of the logs together when towing. This stuff falls to the bottom and catches on the meshes of the nets, it is most injurious ; these rafts cover a surface area of as much as ten acres at a time ; since this injury to the fishery by saw logs has taken place, I do not know where the fish have been driven to, it certainly is a great injury to the fishermen. The rafting of logs did not exist here some time ago, it is only since the duty was taken off logs.

*Joseph Rocque*, a fisherman of 14 years' experience, said :—The present rafting and towing of saw logs, which casts off the bark and rubbish has had the tendency to injure and reduce the catch of fish and to destroy the nets ; I have had my nets destroyed by the bark and soft wood inside, which is rubbed off these logs when being towed ; some of these rafts are about three-quarters of a mile long, some of them when boomed will cover 3 or 4 acres. Before this rafting commenced the nets were not injured, but now the nets become useless and are destroyed for fishing purposes ; if this rafting goes on the fisheries will become almost ruined. The feeding as well at the breeding ground of the fish are most seriously injured, by this stuff.

*Adolphus Martin*, fishing in Georgian Bay and at Killarney, for 6 years, said :—Whitefish and salmon-trout have fallen off at the present to what they were in former years caused by the injury derived from saw logs being towed over the lake covering the spawning ground with bark, and the small wood next the bark which is ground off by the rolling of the logs together while being towed by American tugs ; these logs come from all parts of the Georgian Bay and are towed to the American side ; the bark and stuff ground off settles on the feeding and breeding grounds of the fish, and collects on the nets ; this drives the fish away and starves them off their feeding places, so that they cannot be caught here as they used to be. I lost seven pieces of net last season with this stuff getting fastened to the meshes and making the nets useless. I lost 300 yards of net, other fishermen lost nets in the same way ; the rafts are quite numerous and very large sometimes covering five acres square, at other times  $\frac{3}{4}$  to 1 mile long ; they are towed by tugs about 2 miles an hour. They are sometimes delayed by winds and shelter in bay or behind islands ; all this time the rubbing and grinding is going on, and the bark and soft parts settle to the bottom, it won't drift on shore, it gets water soaked and sinks ; this rafting has been going on for past 6 years, but more largely of late ; this was not done much before the duty was taken off saw logs ; this sending the logs to the United States does great harm to the working people, as the saw mill owners have shut down, that stopping a great trade here ; the government should take early steps to stop this evil which is doing so much harm to the fisheries and the fishermen, and to the inhabitants

generally, this is the general opinion amongst all fishermen and the public on the North Shore.

*Nelson Couture*, of Spanish River, a fisherman for 22 years, said:—Whitefish are more scarce than they were; the water has become dirty and their feeding grounds are injured from the bark and fibre wood ground off the logs that are rafted across the bay; these rafts will cover 10, 15 and 20 acres of water; they are towed about 1 mile an hour, all this time the logs work and rub together grinding off the bark, and sappy wood parts in great quantities which settles to the bottom spoiling the feeding ground of the fish, and lodging in the meshes of the nets destroying them. This log rafting has been going on for some 5 years, and is increasing every year very largely, and destroying the nets of a great number of fishermen; these logs come down all the rivers and are rafted and towed across to the United States.

*James Glanville*, of Sault Ste. Marie, fisherman for years, said:—Bark and the soft wood on the logs which has been found to be very plentiful in the water, since the exportation of saw logs, has taken place is injurious; this stuff rubs off by the motion of the logs while being towed across the bay to the United States. The rafts are very large and great damage is done to the meshes of the nets it is much more injurious to gill-nets than pound nets. If these logs are allowed to be towed over our waters this difficulty will increase, and the prospects for the fisheries in the future will not be very encouraging to the fishermen.

*P. Sullivan and Sons*, of Spanish Station, write as follows:—In regard to the number of rafts which left here this summer of 1893, there was two hundred and ten millions logs came down the Spanish River; out of that there were about 30,000,000 manufactured in this district and there are still on hand about 20,000,000 rafted up in store-booms, to leave here the first thing in the spring; that leaves 160,000,000 which were rafted and towed to the other side (United States) this season, as near as can be ascertained these logs left here in about 40 or 45 rafts and would cover from 20 to 25 square miles of water.

The above facts have been ascertained respecting the number of logs passing between Spanish River and the Georgian Bay. There are eight different streams and each one is used for the flowing of logs; the French River I am told passed even more logs than the Spanish, and my opinion is that the bottom of the whole lake from Georgian Bay to Missasaugua is teeming with bark; it is 18 miles across to the Manitoulin and rafts pass in three different directions so that the bark is spread every way; this bark in the course of time forms into a kind of slime, and fish will not stay on that ground; there were five boats fishing from here four years ago, since then they have left as fish got so scarce, and in a very short time I believe there will be no fish at all;

On September 26 "last, I had 36 pieces of nets utterly destroyed by this bark, each piece of net was 180 yards long (in all 6,480 yards) and was loaded so heavily with bark as to break the web; I had also six other pieces similarly loaded with bark the last week in October. I am sending a sample of net as we took it out in October."

#### 7.—CLOSE SEASONS RECOMMENDED.

The following code of regulations is recommended for adoption based upon the evidence obtained from the fishermen examined, as shown in the foregoing epitome, and in the full minutes of evidence appended to this report:—

##### STURGEON.

Between the 15th of May and the 15th of July, both days inclusive.

##### HERRINGS, WHITEFISH, CISCOES.

Between November the 1st and November the 30th, both days inclusive.

## Ontario Fishery Commission.

### SALMON-TROUT.

Between the 15th of October and the 30th of November, both days inclusive.

### PICKEREL, DORÉ.

Between the 1st of April and the 31st of May, both days inclusive.

### BLACK BASS.

Between the 10th day of May and the 30th day of June, both days inclusive.

NOTE.—This close season for bass is already established.

### SPECKLED TROUT.

Between the 15th day of September and the 31st day of March, both days inclusive.

### MASKINONGE AND PIKE.

Between the 1st day of April and the 15th day of June, both days inclusive.

### MUDCATS, BULLPOUTS, CATFISH.

Between the 1st day of May and the 31st day of August, both days inclusive.

NOTE.—Commissioner Harris thinks the close season for sturgeon should be from the 15th June to the 15th July ; and the close season for herring should be from the 15th November to the 15th January.

## 8.—MESHES OF GILL-NETS.

Further evidence has been obtained from practical fishermen and fish dealers relating to the  $4\frac{1}{2}$ -inch extension mesh used in gill-nets for capturing whitefish and salmon-trout. This evidence may be condensed as follows:—

Should the present  $4\frac{1}{2}$ -inch mesh be enlarged in size, a number of fishermen will be somewhat affected by it, in consequence of not being permitted to catch the smaller, under-sized and immature fish ; and on the other hand unless the  $4\frac{1}{2}$ -inch mesh is condemned and the 5-inch mesh re-established as the regular minimum size, whitefish and salmon-trout will in a few years become extinct, and the public will be deprived of that valuable fish food.

## 9.—RESERVATION OF SPAWNING GROUNDS FOR FISH ; ALSO FOR ANGLING PURPOSES ONLY.

On this subject very little information could be obtained from the witnesses examined. Suggestions were however given by Capt. Dunn and others from which by examining the map or chart of the east and north shores of the Georgian Bay and North Channel thereof, it will be found that the whole of this coast is studded with innumerable islands which form immense numbers of bays, inlets, channels and intricate passages ; all of these are the resort of various kinds of fishes for breeding purposes ; and the feeding grounds also of the young of many of the more important commercial species. These latter kinds when matured roam throughout the water of the Georgian Bay and Lake Huron for feeding purposes when away from their spawning grounds.

The reservation of the limits which have been described will cover a very large area of the breeding grounds of the fish which inhabit the Georgian Bay and North

Channel thereof. Within this limit it has been suggested that net fishing of every description, as well as the use of spears, or any other fishing gear, except angling with rod and line, shall be wholly prohibited. Within this limit angling shall only be allowed under licenses to be first obtained from the Department of Marine and Fisheries on the payment of a fee for each rod, or troll, with a discrimination in the amount of the fee as between the British subject and the foreigner.

#### 10.—CONCLUSION BY COMMISSIONERS.

While various explanations are given to account for the depletion of the fisheries, your Commissioners can arrive at no other conclusion than that, the prime causes for it are (1) Fishing in the spawning seasons, and while fish are congregating for that purpose, going to and returning from the shores, bars, bays, reefs and rivers which are their breeding haunts; (2)\* The great destruction of immature fish in pound and gill-nets and seines; (3) The waste of great quantities of fish in the use of unlimited lengths of gill-nets; (4) The use of too small meshes in all nets; (5) The great deposits of refuse matter from sawmills, and from the towage of immense rafts of saw-logs across the fishing grounds into the United States. These causes each, or combined, are in direct violation of nature's laws in not giving to all fish full freedom to replenish the waters at their spawning times, and killing them before reaching maturity for reproductive purposes.

SAMUEL WILMOT,  
*Chairman.*

EDWARD HARRIS,  
*Commissioner.*

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\*NOTE.—In section (2) Commissioner Harris thinks "Pound and gill-nets and seines" should not be mentioned.

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# EVIDENCE

## PART II.

TAKEN OCTOBER AND NOVEMBER, 1893

1. BELLEVILLE.—2. NAPANEE.—3. PORT' ARTHUR.—4. THESSALON.—5. GORE BAY.—6. KILLARNEY.—7. SAULT STE. MARIE.

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# DOMINION FISHERY COMMISSION

FOR THE

## PROVINCE OF ONTARIO.

No. 1.—BELLEVILLE.

Evidence of DANIEL BELLKNAPP taken before Fishery Commissioners WILMOT and HARRIS, at the city of Belleville, the 9th day of October, 1893.

Mr. WILMOT.—Have you any statement you desire to make?

Mr. Chairman and gentlemen:—We, the fishermen of the Bay of Quinté, wish to protect the fish and there seems to be some mistake in the department that we want to fish during the spawning season. We claim that the time for close season for whitefish in this bay, which is 30 days, is too long, as the fish do not come into these waters before the spawning season. For my part, I think that the fishery overseer should be the one to determine the spawning time. We claim that whitefish spawn in these waters between the 1st and 10th of November inclusive, and we have to fish for same with  $3\frac{1}{2}$  extension meshes at present, which is altogether too large. We think  $2\frac{3}{4}$  should be the extreme size. We think a close season of ten days would be plenty for whitefish to get through spawning. After they get through spawning they leave the bay and we see but very few. There are plenty of herring caught in gill-nets after the whitefish are through spawning, but very few of the whitefish. We claim that we should be allowed to fish for herring during the month of November, but now, when the close season comes, we have to hang up our nets, for the first man we see is Overseer Clarke. I may say here that we consider him one of the best officers, and what is more, he is fair to all and treats all alike. It does not make any difference who it is that is fishing out of season he is punished. As regards the fish hatcheries, I believe it is a grand success and is money well expended. As regards the whitefish, if Mr. Charles Wilmot informs me right, it requires six months to hatch.

Q. I might ask you Mr. Bellknapp, when do the whitefish come in this bay or are they here all the year round?—A. No, sir, they are not here all the year round. They come in about the 1st November or about the 20th October.

Q. What do they come here for?—A. I think they come here to feed and that during the time they are here they lay their spawn.

Q. And also spawn, is that right?—A. Yes, sir, also spawn.

Q. When do the herring come into this bay?—A. About the 1st November or last of October.

Q. What do they come here for?—A. I suppose the same as the whitefish come for.

Q. To feed and spawn?—A. Yes, sir.

Q. Is there any feed in this bay during the rest of the year?—A. That is a question I cannot answer here. They feed upon something or they could not live.

Q. Your impression is they come in during this time merely to feed and spawn?—A. Yes, sir

Q. Where are they at the other times?—A. Out in the lake.

Q. Then the result of all is they come to spawn?—A. Yes, sir.

Q. When is the time they are more plentiful, schooling together?—A. I speak the whitefish. About the 5th and 10th November. I think from the 1st to the 10th November would cover the whole thing.

Q. You think all whitefish come from Lake Ontario?—A. Yes, and spawn in ten days.

Q. In any year do they spawn before or after those dates?—A. I never remember them spawning before the 1st of November.

Q. The whole of their spawning is done between five or ten days?—A. Yes, sir.

Q. Do they remain here in the bay after that?—A. No, they leave directly after.

Q. They all leave after the 10th November?—A. Yes, sir, in a body.

Q. What about the herring, do they leave at once?—A. No, sir, they stay until it nearly freezes up.

Q. At what season do the herring spawn?—A. I do not remember.

Q. You do not know anything about herring spawn, is that what you mean, sir?—A. Yes, sir. I do not know what time they spawn.

Q. What style of net do you fish with?—A. Hoop-nets.

Q. Do you know anything about gill-nets?—A. No, sir.

Q. Do you catch whitefish?—A. I think it is 1888 since I have fished for them. I fished for them before there was any close season.

Q. When they were caught very numerous here?—A. Yes, sir.

Q. Were they caught very numerous here about eight years ago?—A. They were not. I don't think there has been as many whitefish for the last 20 years. We were not allowed to catch them last year in November. The whitefish come here for feeding and breeding and other purposes and the time they spawn in is between the 5th and 10th of November and consequently are done in November.

Q. Could there have been as many caught in the bay if you had fished?—A. Well, the fish were here last fall.

Q. How did you know they were as numerous here?—A. You could walk along and see them, and the whitefish plays upon the top of the water when it spawns.

Q. It was in the month of November you saw them on the top of the water, which indicated they were spawning, is that what you mean?—A. Yes, sir.

Q. What do you fish for principally?—A. Bullheads.

Q. When and where do they spawn?—A. In the month of June. I can prove that.

Q. In marshy ground?—A. In very shallow water.

Q. I suppose you are aware there is no close season for bullheads?—A. There is a close season for bullhead-nets.

Q. What do you call a bullhead-net?—A. A hoop-net.

Q. Are you forbidden to catch bullheads in June?—A. No, sir.

Q. Do you think you should be?—A. Yes, sir. A close season for bullheads should be from the 1st May to the 1st September. They should be protected as well as the pickerel and bass.

Q. Do you know anything about bass?—A. Yes, sir.

Q. Are they a gamy fish?—A. Yes, sir. And they are caught for domestic use and sell well in the market.

Q. When are they in the best condition?—A. I should say about the 1st of May and again in September, and they spawn in June.

Q. Do you know the habits of the bass?—A. Yes, sir.

Q. Are they like other fish?—A. Not very much. They go on gravelly places and deposit their eggs during the month of June.

Q. Do you know what fish takes care of its young?—A. I don't think any fish takes care of its young except the bullheads.

Q. Well, then does a catfish or bullhead take care of its young?—A. They take them out in deeper water.

Q. What close season should there be for the bullhead?—A. The month of June. I would give them a full month for their spawning.

Q. Do they take care of their young after that?—A. I don't know anything about that.

Q. There is another fish called the sturgeon. Do you fish for them at all?—A. No, sir.

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Q. Do you know anything about their habits?—A. I have fished for them in years gone by.

Q. What other fish do you catch in your hoop or bullhead-nets?—A. Perch, suckers, sunfish and bass.

Q. A spawning season from the 1st of May to 1st September will cover perch, bullhead, bass, suckers, mullets and sunfish?—A. Yes, it would cover pickerel as well as the others.

Q. How soon does the River Moira open up here?—A. About the latter part of April. As soon as the ice is out the pickerel make for the river.

Q. What other kind of fish do you have here?—A. Bass, perch, suckers, mullets, herring and whitefish. These are the principal fish in these waters.

Q. When should the close season for whitefish and herring be?—A. I am not going to inform you regarding whitefish, but I think from the 1st to the 10th of November.

Q. How long since you did any fishing for this fish?—A. I have not fished for this for 15 or 16 years. For 19 years I have fished bullheads with hoop-nets.

Q. What part of the bay do you have your nets in?—A. In Mosquito Bay, and I fish with ten sets.

Q. What do you mean by a set of hoop-nets?—A. Two nets and a leader, and the length of the leader is thirty yards.

Q. What is the size of mesh?—A. A 2½ inch pot, and the end is larger. The leader is three inches.

Q. Now, what quantities may you catch? Give a rough estimate? What would be a catch of bullheads in a haul?—A. The season's catch is from 1½ barrels to 3 or 4 barrels a week.

Q. What will half a barrel weigh?—A. One barrel weighs 300 pounds.

Q. Have you any idea what the catch during the season amounted to?—A. I have never made an estimate.

Q. What is the size of twine you use?—A. Nine, twelve and fifteen thread. Some use eighteen. I use fifteen; twelve for the wings and fifteen for the bag.

Q. What is the length of the hoop part of it?—A. I suppose about 9 feet.

Q. Now, do I understand you to say that whitefish were as plentiful here last season as they were twenty years ago?—A. Yes, sir. I got this from fishermen, too.

Q. A new era is coming on here surely with whitefish?—A. I think it seems to be that.

Q. Do you really say whitefish were as plentiful here last season as twenty years ago?—A. You understand fishing is like farming, it is not always the same. Some might only catch a few, and some three times the quantity the year following. It is owing to the weather.

Q. But were they as plentiful last year as twenty years ago?—A. Yes, sir. There has been no gradual falling off of whitefish here. I don't think so, not to amount to anything.

Q. How is it we get any amount of evidence to the contrary?—A. We know the fish were here.

Q. What is the value of whitefish here?—A. I do not catch them.

Q. What is the value of bullheads?—A. Four and one-half cents a pound.

Q. Is that the average?—A. No, about four cents is allowed us. Bullheads is my fishing.

*By Mr. Harris:*

Q. Do you draw seine in these localities?—A. No, sir.

Q. You use hoop-nets?—A. No, sir.

Q. What kind of nets do you use?—A. Gill-nets.

Q. Are they herring-gill?—A. No, sir, herring and whitefish gill-nets will not catch them.

Q. Do you catch any mooneyes here?—A. I don't know anything about them.

Q. Or eel pouts?—A. Yes, sir

- Q. Sheepsheads?—A. Yes, sir.
- Q. Gar pike?—A. We catch very few.
- Q. Suckers and perch?—A. Yes, sir, full of them.
- Q. Do you know whitefish to run in these waters?—A. No, they do not stay here.
- Q. You never catch them in herring gill-nets?—A.—No, sir.
- Q. Now I notice here in the report that you catch 3,800 pounds of bass. Do you catch any other kinds except black bass?—A. Yes, sir, there is one called swamp, and another rock bass.
- Q. 3,800 pounds covers the whole bass tribe?—A. Yes, sir.
- Q. Now, by what nets are these bass caught?—A. In the seines.
- Q. Do they go in the hoop-nets much?—A. No, sir.
- Q. Now what length of seine do you fish with here?—A. I suppose about 30 rods. That would cover the average.
- Q. Give the size of meshes in the centre.—A. Two and a half inches for herring and coarse fish.
- Q. What mesh do you use in herring-nets?—A. Three inches, most of the fishermen 2½.
- Q. The usual length of haul is what?—A. Some more or less. Some 10 and some 40 rods each. Not more than 40.
- Q. About the season for black bass, does it extend from the first May to the 15th June, is that right?—A. I think that is right.
- Q. Now, when are black bass in the best condition for food?—A. When the water is cool. They are in good condition in May and in September.
- Q. Are the whitefish caught in gill-nets?—A. No; principally in seines in this bay. I am speaking of the locality where I live.
- Q. Are they in these waters all the year round?—A. It is a rare exception.
- Q. What season of the year are they caught at all?—A. About the 15th or 20th October, and the latter part of October they do the seine fishing. The heft of it is done then.
- Q. Are there any spawn in fish caught in that season?—A. None.
- Q. When do they come?—A. 15th October. I might be safe in saying about the 15th November they are all gone.
- Q. And you do not see them until the next year?—A. No, sir.
- Q. About the catch of fish in this bay—it is put down at \$17,000 in report of 1892. Do you think that is about right?—A. I cannot give you any information about that.
- Q. Well, you catch about \$9 worth of other fish to \$1 worth of whitefish?—A. I think that is what it would be. We catch a lot of coarse fish here.
- Q. Then you could not live if it was not for the coarse fish?—A. We want them, but still we do not want you to think we do not want a close season.
- Q. Then you could not live at all in these waters if you were not allowed to catch the coarse fish?—A. Yes, sir.
- Q. And they are in the best condition in November?—A. In good condition from September to the spring.
- Q. Among these coarse fish are what is called bullheads?—A. Yes, sir.
- Q. And they make a pretty large quantity of your coarse fish?—A. Yes, sir.
- Q. Do you skin them here?—A. Yes, sir.
- Q. Where do you send them to?—A. Buffalo. Worth about 4½ cents when we started, I don't know whether they will stay up or not rest of season.
- Q. Who do you send them to there?—A. The Buffalo Fish Co.
- Q. Do you catch your maskinongé in the spring or fall?—A. Mostly in September, but sometimes during the spring.
- Q. Do you catch quite a number of pickerel here?—A. Yes.
- Q. Yellow kind, or blue?—A. Yellow. Never heard of the blue except in Lake Erie.
- Q. Pickerel, I suppose you catch right up to the time the ice comes?—A. Yes, sir.
- Q. Ever draw seines under the ice?—A. They do in the lake but not in the bay.

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Q. Taking the entire fishing here, do you regard November fishing the best available month?—A. Yes, sir, for coarse fishing, such as suckers, pickerel, herrings and bullheads. October and November is a good time for bullheads.

Q. Are there any gar pike here?—A. Quite a few.

Q. Any large kinds?—A. About 4 or 5 pounds is the average, but have some that go to 10 pounds.

Q. Are they a fall fish?—A. They stay with us all the year around.

Q. All these coarse fish we speak of except the bullheads, are they in the best condition in the fall of the year?—A. Yes, up to the spring, and the bullheads from November to spring.

Q. Where do you catch catfish here?—A. Around the bay in different places. We call them channel fish.

Q. Is not a channel cat like a catfish?—A. It is a different fish altogether.

Q. Do you regard them as different fish?—A. Yes, different in colour and they are larger.

Q. Do you consider there is any difference between the bullhead, mudpout and channel cat?—A. Yes.

Q. Is the bullhead and the catfish the same fish.—A. No, I have caught catfish that when they were dressed they weighed 22 pounds.

Q. Then the bullheads, you think, are there in the fall?—A. They stay with us all summer.

Q. Will they average about half pound when clean?—A. Hardly that.

Q. Are there any salmon-trout caught in this bay?—A. Not one in a year.

Q. With regard to the pike, when is the season you think the pike in the habit of spawning?—A. The same as the pickerel. I think in June.

Q. When do you think the maskinongé?—A. I think the month of June.

Q. Has it been the habit in years past to shoot the pike and maskinongé when the ice goes out of the marshes?—A. No, sir.

Q. Do you know anything about the salmon proper?—A. I have heard of their being caught here, in the Salmon River, Trent River and Belleville River. I cannot recollect the year, but since the mills were built they have not been seen.

Q. With all these coarse fish you speak of here, do you think they prey upon the whitefish, or do you think they could live in this bay along with the coarse fish here?—A. I think not. These waters swarm with coarse fish, and as it takes six months for the whitefish to hatch, they prey upon these eggs for six months. We have a pike here that will fill himself with spawn clear to his chin from morning to night. The pickerel feed upon the eggs of coarse fish.

PETER WEESE sworn:—

*By Mr. Wilmot:*

Q. Your residence?—A. Rossmore.

Q. What is your calling?—A. Merchant and fisherman.

Q. How long have you been engaged in fishing?—A. I have fished all my life.

Q. Where is your fishery?—A. Zwick's Island.

Q. Any other locality?—A. Nowhere else.

Q. What nets do you use?—A. Seines altogether.

Q. What size of mesh is your net?—A. Two and a half extension bag, and then 3 and 4 inches.

Q. What is the size of the twine?—A. Twelve is the average, probably we put on a little this fall of 9 to make it a little cheaper.

Q. What kind of fish do you catch?—A. We catch all kinds in the bay; principally whitefish, herring and pickerel, and bass sometimes.

Q. To whom do you sell your fish?—A. Generally to Mr. Black, in the town here.

Q. What is the usual price for fish?—A. Of late years 4 cents, and for herrings 50 cents per 100 pounds; as for bass, we do not have them; for our coarse fish, half a cent a pound.

Q. When do you think these fish are in their best condition for consumption?—A. When they are going up the bay.

*By Mr. Harris:*

Q. What do you call coarse fish?—A. Suckers, mudcats, sunfish, perch, pike and all such fish as that.

*By Mr. Wilmot:*

Q. Are there parts of the year in which these fish are in better condition than others?—A. I suppose there are. I think in November they are in good condition. I find the male whitefish are better than the she ones.

Q. Why do you think the male fish is in better condition than the female?—A. He is generally plumper than the female. We never catch a great many fish there when they are spawning. Our grounds are in deep water, and what fish we generally get is after that. They catch some on the other side of the bay.

Q. When do you catch your whitefish principally?—A. From about the 12th of October we begin to catch a few, and we end when the law shuts us off; we never catch whitefish in November there.

Q. Your fishing then is from the 12th of October to the end of October?—A. Yes, and it is after that to the middle of November we generally catch herring.

Q. When do you think that whitefish are in the act of spawning?—A. I should think from the 1st to the 10th of November. I used to fish a good deal on bars, and found that was the time they were there, and herring spawn somewhere along the end of November.

Q. When do you think pickerel spawn?—A. In the spring, along in May.

Q. When do you think the black bass spawn?—A. In June, and pike in May. I don't know anything about maskinongé, we very seldom get hold of one. The mudpouts spawn in May.

Q. Do you think they spawn in June at all?—A. I don't think so. They might. I see them going up the marsh in May.

Q. Why do these whitefish and herring come up this bay?—A. To deposit their eggs; they don't remain long, they generally get up here about the 12th October and remain about a month, and they leave immediately after spawning.

Q. What is the position of the whitefish and herring now in numbers to what they were a few years ago?—A. If there were not more nets in the water now than 30 years ago, there would be 10 fish to one in my opinion, because there are 20 nets now to one then.

Q. You mean to say that if there were no more nets now than 20 years ago the fish would be taken more plentiful?—A. Yes, sir.

Q. Would that apply to all kinds of fish?—A. I don't think there is as many pickerel as there used to be. There are as many pike and fully as many suckers.

Q. Do you think the nets below stop them from coming up largely?—A. Yes, if they catch a thousand there they cannot come up here.

Q. Do you not think there should be proper close seasons established for the preservation of fish?—A. Yes, sir, and the close season for whitefish should be from the 1st to the 10th of November.

Q. What about herring?—A. If there is any at all it should be about the last of November. They do not spawn until the last of November or first of December.

Q. With regard to these other fish, pickerel, bass, pike and mudpouts, should they have their close season at any time?—A. Yes, I think they should, and I think all coarse fish should have a close season.

Q. What is your impression in regard to fish generally in the act of spawning, are they in as good condition before as after?—A. I don't think the whitefish are, as I think they are fatter before than after spawning, and it applies to almost everything, fish or animals of all kinds when breeding.

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Q. Now in regard to applications for licenses, do you think there should be an increase of licenses in this bay?—A. No, I think there is fully plenty now, the present number of licenses is sufficient.

Q. What effect would it have if the number were doubled?—A. It would be injurious to the fishermen, they would not get as many fish.

Q. Now, with your experience in fishing, what kind of net is the most injurious to the fisheries?—A. I do not know. The gill-net is the worst net there is for bass. Any one is bad enough, but pickerel is a fish pretty hard to gill. I think seines are more destructive for gilling fish, that is, we catch more fish with them.

Q. The seine then where the fish are would be more destructive than the gill-net?—A. Yes, it would get what fish there are where it is hauled.

Q. Now are you of the impression that it is proper for the government to have these fisheries protected in the interests of the fishermen?—A. Yes. I think they should be preserved for the fisheries and the people; don't believe the protection laws should be abandoned.

Q. What is your opinion now in regard to fishing some years ago, are the fish as plentiful now as then?—A. Forty years ago, fish of all kinds were very plentiful.

Q. Do you think they are equally as plentiful now?—A. Yes, I think they would be if there were not so many caught in the lower part of the bay.

Q. Then your conclusion is, that they would be as plentiful now if they were not caught below?—A. Yes, if they were not taken out by the thousands there; were they were not taken out at all in former years—I mean down near the Gaps and lower part of the bay, where they catch them by the thousands before they can get here—they don't allow us fellows to get them here at all now.

*By Mr. Harris :*

Q. Is your seine license in your name?—A. Half is, and I work it on shares with my brother; we employ the men and give them half for their share; we sell altogether and get a half all round; we don't get very much, as we fish only about a month.

Q. How many pounds of fish do you think you catch?—A. I cannot remember, but I know it was very small last year; I think about 500 pounds of whitefish.

Q. When they were catching so many whitefish 40 years ago, did they catch many coarse fish then?—A. I think as many as they do now.

WESLEY WEESE sworn :—

*By Mr. Wilmot :*

Q. Your residence, Mr. Weese?—A. Rossmore.

Q. What is your calling?—A. Well, I do a little of everything, a little fishing, soldering and farming. I am a jack-of-all-trades and making money for my living.

Q. How long have you been engaged in fishing?—A. 15 or 16 years. I fish at Rossmore across from the town.

Q. What do you fish with?—A. With seines and hoop-nets.

Q. What is the size of mesh in the seine you use?—A. 2½, 3, and 4 inches, and with hoop-nets the mesh is 2½ in the bag and 3 for the leaders.

Q. What kind of fish are you in the habit of getting?—A. Bullheads, sunfish, perch in the hoop-nets and in your seines. Not much of anything of late years, for when the law allows us to use them, the fish were not here the last years.

Q. What do you use your seines for then?—A. For catching all kinds of fish, for catching whitefish and herring only in the fall of the year.

Q. What time in the fall do you fish for these herring and whitefish?—A. About the 15th October till 31st October.

Q. Have the fish gone away pretty much then?—A. No, sir; they are plentiful at the end of October, generally until about the 10th November, when they are most

plentiful here and they are spawning then, and they come in the bay expressly for that purpose.

Q. When you say they come in the bay you mean from Lake Ontario?—A. Yes, sir; I mean from Lake Ontario.

Q. What is your experience in regard to the condition of the whitefish and herring, when are they best for eating purposes?—A. Well, of late years they have not been caught in spawning season, but I think before they spawn they would be better than in the spawning season. And I should think they would be better after spawning than when spawning. Our fish are very fat here when spawning.

Q. When do you think whitefish spawn?—A. From 1st to 10th November. I don't know so much about herring, but I think later.

Q. Are there no salmon-trout here?—A. No, sir, and only very few pickerel and a black bass once in a while, also a few pike, no maskinongé.

Q. When do you think the pike spawn?—A. Just as soon as the ice leaves, and the pickerel I think spawn about the 1st of May, just as soon as the ice leaves the rivers.

Q. Well, about these mudpouts, when do they spawn?—A. In June. There is a pretty large trade carried on here in these mudcats, they are shipped generally to Buffalo, I think all go to American markets.

Q. Have you any idea what the value of these mudcats are?—A. About 5 cents a pound here, I think.

Q. Now, in your experience do you think the catfish and the whitefish and herrings are less numerous now than they were 20 years ago?—A. I don't know about 20 years ago, but I think they are as plentiful, as I can remember when I commenced fishing about 15 years ago.

Q. Have the other kinds of fish fallen off?—A. No, sir, I think they have increased if anything.

Q. Do you think there should be a close season for fish?—A. Yes, sir, at their spawning time.

Q. And you have told us that fish when they are spawning are not in good condition?—A. I do not think they would be as good as at other times.

Q. What do you think about granting more licenses than there are at present in your immediate neighbourhood?—A. I say there are enough for the fisheries. I would like to see every man who cares to fish allowed to do so.

Q. Do you think the grounds are all taken up now?—A. I think the fishing grounds are all taken up now and if more licenses were issued it would be injurious to the other fishermen.

Q. How is it with the grounds generally. Do you own the ground you fish upon at Rossmore? A. No, sir, I buy my license of the government, and I have the sole right to fish in that as most every one else does who has lands.

Q. Does that license run into the bay?—A. Yes, sir. It does not say how far.

Q. And suppose a man goes out and sets a gill-net upon your seine-net?—A. I would catch him and prevent him.

*By Mr. Harris:*

Q. Is there about 20 feet of water where you draw your seine in?—A. Yes, sir, that is deeper than it is anywhere else.

Q. On your limit is there also a license granted to another party?—A. No, sir, I am on a point.

Q. Where is your limit, sir?—A. Front of lot number 60, township of Ameliasburg.

Q. Any fishing on 61?—A. No, sir, there is no fishing.

Q. Your lot is number 60, and your license runs out into the bay?—A. Yes, sir.

Q. Now, do you fish to Cow Island?—A. No, sir, I run straight north.

Q. How far down the bay from your station to where you come to the next man's?—A. Cow Island, about a mile.

Q. How many are there between Massissauga and yours?—A. Three, besides mine.



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- Q. Is there any seine license beside you?—A. Yes, sir.
- Q. Now you say between the station you have on lot 60, in Ameliasburg, and the point there are four stations?—A. Yes, sir.
- Q. All east of you?—A. Yes, sir, all to the east.
- Q. Then you say from your station to Massissauga Point all the stations put together will amount to four. Is that it?—A. There will be six.
- Q. All seine licenses?—A. Yes, sir.
- Q. Do you think there should be any more between these two points?—A. I don't think so.
- Q. Could any more be worked?—A. No, sir.
- Q. Now would it be unwise to grant any more licenses between these two points?—A. I suppose it would hurt the other fishermen. I don't think it would be right.
- Q. Would you think it wise to have any more licenses between your point and Massissauga Point?—A. I don't know whether it would or not.
- Q. Well, now, is it possible to use fike-nets or hoop-nets in these two limits, between your point and Massissauga Point to catch all kinds of fish?—A. Yes, sir, there are licenses in there now; only one I think.
- Q. Are these seines and one hoop-net enough between these points?—A. Yes, sir.
- Q. If any one who never had a license before should get one, how would that affect you?—A. I cannot tell until I see.
- Q. What is the distance from your point to Massissauga Point, how many miles?—A. Four miles, and in the limit there are seven licenses, six seines and one hoop-net.
- Q. Then your reply to my question is there should not be an increase of licenses within the limit, all other persons applying should not be allowed to get them?—A. No, sir, every one should not be allowed to get them.
- Q. Should the department take care of the fisheries with a view to protect them or should they be abandoned?—A. There should be a protection force when they are spawning.
- Q. What probable quantity of fish did you catch during the last few years?—A. I don't know exactly; about \$8 worth a year.
- Q. Do you pay for your licenses? What amount?—A. Five dollars.
- Q. Now you are not giving me this statement fearing to come in contact with the returns already made; have you really only made \$8 or \$9 a year out of your fishing?—A. Yes, sir; that was everything I got; the whole gross amount.
- Q. You say you want to continue this because you want to fish?—A. No; I hope the Government will give longer time to fish.
- Q. Have you anything to suggest yourself, sir?—A. I don't know as I have. Last year was an exception to the rule, and we never get the whitefish until the last day.
- Q. Did you ever see whitefish caught in a seine?—A. Yes, sir.
- Q. Would there be any difficulty throwing them back into the water without injuring them?—A. No, sir, they can be handled and thrown back in the water without being injured.
- Q. If that is possible. Do you think the fishermen could be trusted to do that?—A. I don't know why they would not; if there was a severe punishment, such as absolute cancellation of license, I think it would be followed.
- Q. If the regulations were made, do you think the rules would be obeyed?—A. Yes, sir.
- Q. Do you mean to say that the cancellation of licenses for the breaking of the rules and regulations would be beneficial?—A. Yes, I think it would.
- Mr. WILMOR asked Overseer Clarke at this stage of the proceedings, if he knew what the grievances of the fishermen were.
- Mr. CLARKE.—I suppose you are aware of what the general complaint is here, and what they wish to have redressed. I think they would like the privilege of fishing the last 15 or 20 days in November. They claim that the whitefish have spawned and gone by that time.

*By Mr. Wilmot :*

Q. They ask the privilege of fishing the last 20 days in November, on the grounds that the whitefish have spawned and gone by that time, is that all?—A. As near as I know of.

Q. Is it with reference to whitefish fishing only?—A. For whitefish fishing only; as herring have no close season, they ask the above privilege to catch herring and other fish at that time.

Q. Then they are embodied in the above two paragraphs?—A. Yes, I think so.

ROBERT McDONALD sworn:—

*By Mr. Wilmot :*

Q. Your residence?—A. Point Ann.

Q. Your calling?—A. Fisherman.

Q. How long?—A. Forty-six years.

Q. Where have you fished principally?—A. I have fished now for 44 years on lot 16 and 17, township of Thurlow, Point Ann.

Q. What description of net do you use?—A. I have a seine and bullhead-nets, hoop-nets and gill-nets.

Q. Size of mesh in seine is what?—A. Two and a half is for the bag; 3 inches for the wings; 4 is the outside.

Q. With regard to the hoop-net, what size of mesh do you use?—A. The same as in the seine and in gill-nets, from  $2\frac{1}{2}$  to  $2\frac{3}{4}$ .

Q. Do you buy your nets  $2\frac{1}{2}$  inches from the makers?—A. Yes, sir.

Q. When it is put in the water what size will it be?—A. It does not shrink any, I think, it is linen.

Q. What will the  $2\frac{1}{2}$  inch in the seine be; will it contract in fishing?—A. It will stretch with the heft of the fish.

Q. Will it stretch all the meshes in the nets at once?—A. Yes.

Q. What kind of fish do you catch principally?—A. Whitefish, herring, sunfish, perch and coarse fish.

Q. Are your hoop-nets used principally for catching bullheads?—A. Yes, sir, and eels.

Q. Where do you sell your fish generally?—A. In Belleville. They are sold for the American market, but our herring are for home use.

Q. What do you say, with your knowledge and experience, when are the whitefish in the hottest of their spawning time?—A. From the 3rd to the 6th November. They will begin about the 1st and are through by the 8th.

Q. Do any spawn before that?—A. I have never seen them on the bars before that, for I have stood and watched them play for an hour.

Q. Then, they all come up in a body to spawn, but where are they before the 1st and after the 8th do you suppose?—A. In the lake, I suppose.

Q. Do they remain outside their spawning bars any time before they go on them?—A. No.

Q. Where you fish you say they come on the bars to spawn from the 1st to the 8th November; now, where are they before that time?—A. I suppose on the edge of the bars before the 1st of November, and outside these bars in deeper water.

Q. What is the size of these spawning bars they come upon?—A. Some places right upon the shore—half a mile long and some places three or four miles long.

Q. How many miles would the whole spawning ground cover?—A. Over 30 miles.

Q. Then you fish on a breeding ground. You say the whitefish come there and breed from the 1st to the 8th of November. What is the extent of this breeding ground you fish upon?—A. It is only a small part—about an acre.

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Q. Then you don't fish on the whole ground you speak of?—A. No, sir.

Q. You say the whitefish spawn in your estimation from the 1st to the 8th November, and you never saw them before or after that time as they are in deeper water outside the bar before this?—A. Yes, sir, and the extent of the bar is about 10 miles. Some places, is about  $\frac{1}{2}$  mile and some places about  $\frac{1}{4}$  mile wide.

Q. How large is the property you fish upon?—A. The width of 200 acres. There is no spawning ground upon that place.

Q. Is it a spawning ground at any time?—A. I don't know, there is from 60 to 70 feet of water.

Q. Now what about the time for herring spawning?—A. I never saw a herring spawn in my life. I don't know anything about them.

Q. When do they come near the shores?—A. All I know is when they come up the bay is after the whitefish, which is from the 1st to 5th or 6th of November. The herring come up after the 8th.

Q. How long do the whitefish stay after they are done spawning on the grounds?—A. Not very long.

Q. Do you believe there should be close season for the protection of the whitefish?—A. Yes. About the 1st to the 9th or 10th of November.

Q. What about a herring close time?—A. Well there never was any close season on herring.

Q. Now what condition are the fish in generally speaking at the heat of spawning?—A. They are fattest at the time of spawning.

GEORGE McDONALD sworn :—

*By Mr. Wilmot :*

Q. Have you anything to suggest, sir?—A. In regard to close season for whitefish, I think about the 1st to the 10th of November is about right.

Q. Why do you say that? Is that their spawning time?—A. I think it is.

Q. Do you suppose any spawn before or after that time?—A. That is about the time.

Q. What about herring? Do you know anything about them?—A. Not particularly. There were as many whitefish in the bay last fall as any previous years or 40 years ago, as I fished on the same grounds then, but I did not have a seine.

Q. How did you catch them 40 years ago?—A. With a seine. There was no close season at that time.

Q. How do you know they were not as plentiful then as now?—A. I have tested. That year we did not see them until the 27th October. That was the first whitefish.

Q. Did you say they were more plentiful 40 years ago?—A. No, I say they were scarce 40 years ago.

Q. But now they are plentiful you say?—A. Yes.

SAMUEL GEDDES sworn :—

*By Mr. Wilmot :*

Q. Where do you reside?—A. Tyendinaga.

\*Q. What is your occupation?—A. I fish part of the time and farm part of the time.

Q. How long have you been engaged in fishing?—A. About 35 or 36 years. And farming the same time.

Q. In what part of the bay do you principally fish?—A. I fish two or three different stations. One at Salmon Island, one down near the lighthouse and one at Bluff Point. About three miles apart each. Six miles would cover the whole of it.

Q. What nets do you fish with?—A. Seines wholly.

Q. What is the size of the mesh?—A. The centre is about  $2\frac{1}{2}$  inch mesh and the wings are from  $2\frac{1}{2}$  to 4 inches, and the other parts run  $2\frac{3}{4}$  and 5 and 6 inches.

Q. Now what kind of fish do you catch with these seines?—A. Herring and whitefish are about equal, also pike, pickerel and some bass and sometimes bullheads.

Q. What is the usual size of the whitefish?—A. About two pounds. And the herrings run about half a pound, a little under half; 100 will weigh 45 pounds.

Q. What would be the size of the pickerel?—A. From  $\frac{3}{4}$  to 7, 8 and 10 pounds.

Q. Do you know the pickerel of  $\frac{3}{4}$  of a pound are incapable of spawning?—A. Yes, sir, and I never saw any of a pound weight spawn.

Q. Where do you generally sell your fish?—A. Some I sell home, and some I ship. About as much one place as the other.

Q. The whitefish and coarse fish go to the States?—A. Yes, sir, and the herring are sold at home.

Q. What is the usual price you get for whitefish?—A. About 10 cents a pound. Herring I sell by the 100 in count, they average 50 cents a 100.

Q. What do your coarse fish bring?—A. Pike brings about  $2\frac{1}{2}$  cents, pickerel 5 cents and bass 5 cents. Other coarse fish 1 cent.

Q. Have you made any observation when the different kinds of fish are spawning?—A. Yes, sir. The herring and whitefish come in the bay from the 1st October to the 7th and 10th, sometimes 15th, pretty near the 20th, and we continue catching them until close season, the 1st of November.

Q. What do they come in the bay for?—A. I suppose to spawn; they begin to spawn about the 1st of November, terminate spawning about the 10th November, that is close season.

Q. How do you know they spawn between the 1st and 10th of November?—A. If you catch them before the 1st they are full of spawn. If they are caught after there is no spawn in them, I never noticed any spawn in them after the 10th.

Q. And do I understand you to say that you never caught any fish after the 10th that had any spawn in them?—A. Not that I remember.

Q. Why did you pay this particular attention to them that they did not have any spawn in them after the 10th and before the 1st?—A. Just to see if they had any spawn in them; they had none before and none after, and in nine-tenths of cases I did not notice any, they stay after spawning just a short time.

Q. Do you mean to tell me no whitefish get in the nets after the 10th?—A. Yes, sir. There may be an odd one, probably in a haul you catch 100 herring, and one whitefish.

Q. How do the whitefish stand in regards to numbers, and herring also in regard to former years?—A. There are as many as 30 years ago.

Q. What kind of net did you fish with 30 years ago?—A. A seine, and we caught quite a few, sometimes 40 or 50, and sometimes none. Sometimes we would catch 100 and 200. I don't know as I ever caught 300.

Q. So you don't know what you might catch now, as you cannot fish?—A. No, not when the whitefish are plentiful.

Q. How do you know they are just as plentiful now as then?—A. I think they are, but then you see the time we used to catch them we are prohibited from now.

Q. Why do you make that statement?—A. Because we catch a hundred at a haul before the close seasons.

Q. When do you catch as many as 40, 50 and 100 at a time like what you caught 30 years ago?—A. Yes, at the same time fishing and they are all caught in a seine.

Q. What is the size of the seine now?—A. About the same. About 30 rods is the general size.

Q. Are there as many fishermen engaged in fishing now as then?—A. I think and as many more, double the number.

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Q. What was the size of the mesh 36 years ago?—A. About the same nets and size of mesh as now.

Q. Do you think it desirable to have a close season for whitefish and herring?—A. Yes, for whitefish, I don't know for herring.

Q. Why should there be a close season for whitefish?—A. I think they should be protected while spawning.

Q. And do you say there should not be one for herring?—A. I do not say that. They seem to be as numerous as other years.

Q. Should there be a close season for herring when they are spawning?—A. I don't know that they are diminishing any or not. Well, I suppose they should be protected.

Q. Should pickerel be protected during their spawning season?—A. Yes, sir, and I think bass should be protected, and I suppose maskinongé should be protected. I don't know about pike they seem to live on other fish.

Q. Now you go in for protection for whitefish, pickerel, bass and maskinongé? What about mudcats, should they be protected?—A. Yes.

Q. Of all these classes of fish which do you catch the most of?—A. The most are herring.

Q. And the very fish you catch the most of, you don't want protected?—A. They seem to stand it.

Q. What time should pickerel be protected?—A. At the time the close season is now, from the 15th April to 15th May.

Q. Maskinongé and pike, what about them and mudcats?—A. I have never caught any maskinongé, but mudcats spawn in the last of May. Sometime in May anyway.

Q. What condition are the fish when they are in the spawning time, are they as good then as before?—A. Not much difference, I think.

Q. Do you think any animal is as good at that time?—A. Yes.

Q. Do they sell as well in the market at the spawning time?—A. There is no difference that I know of.

Q. Do you think there should be any additional licenses issued in your neighbourhood?—A. I think there is quite sufficient.

Q. You don't think they should be unlimited?—A. I don't think that every one who comes along should have one. There should be discrimination in favour of the old licensees.

*By Mr. Harris :*

Q. Well, when you say in favour of the old fishermen, are there not a class who fish in your section fishermen and farmers?—A. I don't own a farm, sir, I rent one. But it is customary to both farm and fish together.

Q. When is fishing carried on?—A. Generally about 1st of October, from that time out.

Q. Do you think the department should take steps to preserve the fish for the fishermen generally?—A. Yes, sir.

*By Mr. Wilmot :*

Q. Do you think the department should protect the fisheries by additional regulations?—A. Yes, sir, in regard to close time and nets.

*By Mr. Harris :*

Q. I want to ask you the quantity of fish you disposed of this year?—A. I cannot tell you. It was between \$200 and \$400 last fall.

Q. Well, did you get the whole of this amount?—A. No. The men got half. We fish with three seines and the men get half; it is the rule to give them half.

Q. How far do you draw your seines?—A. On from 120 to 240 fathoms.

HENRY B. BRICKMAN sworn:—

*By Mr. Wilmot:*

Q. Have you something you would like to mention yourself?—A. I have fished since 1881, and I think the fish more plentiful now. In 1881, I got 400, in 1887, I got as many as 2,000, 1882, I only got 5 whitefish.

Q. Can you give any cause for this increase in 1887?—A. The artificial hatcheries are the cause of this increase.

Q. Can you not think of any other cause besides the artificial hatcheries? You caught 2,000 fish in 1887, and 5 in 1882. Did you use the same nets?—A. Same nets, and in the same waters at Nigger Island.

Q. Where you caught these 2,000 fish in 1887? There was no close season in 1887?—A. They were caught in October.

Q. In what state were they then as far as spawning was concerned?—A. This was from the 15th to the last of October when they had not spawned.

Q. When you cleaned them was the spawn far advanced?—A. About ready to spawn at the time we quit. Some were ready to spawn at the end of October, they generally spawn most freely about the 1st to the 10th of November. There might be a few spawn before, and a few spawn after.

Q. What kind of fish do you principally catch after the 10th of November?—A. We do not fish after the 1st, but some do for coarse fish.

Q. Are herring caught in your fishing ground?—A. They do not seem to get up the bay that far.

Q. Are herring not caught in any quantity about Nigger Island?—A. No, not like they are in some places, such as down the bay. I have seen them from here to Rednersville. At the lower parts of the bay they catch some.

Q. Can you tell me what the fish come up for?—A. To spawn. They only come once a year.

Q. Do you think fish ought to be protected while they are spawning?—A. Yes, all fish such as herring and whitefish during the spawning time. If one should, they all should.

Q. Now do you catch any other kind of fish except whitefish and herring?—A. Oh, yes, pike and suckers.

Q. What is the usual weight of the whitefish you catch?—A. About 2 pounds is the average, sometimes a little under and sometimes a little over.

Q. Have you any idea about what size fish would not spawn? Should they be 2 pounds before they spawn?—A. I think so.

Q. Now, do you think that 2 pounds and under would not be spawning fish?—A. I would not be certain about that.

Q. Do you think the department ought to protect fish generally in the interests of the fishermen and fisheries?—A. Yes, sir.

Q. Am I right in saying then, it is the duty of the Government to protect the fish with proper regulations as to the close time and description of nets, is that it?—A. Yes, sir.

*By Mr. Harris:*

Q. What was the quantity of fish you caught last season?—A. \$35 was last year's catch, \$35 was the total proceeds of my fishing.

Q. What was the cause of that small amount, do you suppose?—A. I cannot tell, unless it was a difference in the running of the fish.

Q. Where is the nearest point to this that they catch whitefish in the spring and summer months?—A. It is in the Gaps, about 42 miles below, towards Lake Ontario.

## Ontario Fishery Commission.

NICHOLAS McDONALD sworn :—

*By Mr. Wilmot :*

Q. Now, sir, what statement do you wish to make?—A. I want to say about the close season and for what kind of fish.

Q. What fish do you say there should be close seasons for?—A. For black bass, whitefish and maskinongé, but pickerel destroy others.

Q. What about the other kinds of fish, what of herring?—A. No close season for herring, I know no difference between them to-day and years ago.

Q. When would you have the whitefish close season then?—A. From the 1st to the 9th or 10th November.

Q. When do you catch herring most freely? When are your best catches of herring?—A. In November.

Q. Therefore you don't want a close season for them at their spawning time, is that it?—A. That is it. We catch some in November, but not very many.

Q. Now, what about the size of mesh you use?—A. About 2½ for the seines in the bag, 3 inches is the next, and the outside is about 5 inches.

*By Mr. Harris :*

Q. Do you use fike-nets at all?—A. I use the hoop-nets.

Q. Hoop-nets are used by you to catch what?—A. To catch mudcats, pike and suckers.

Q. What size mesh do you use?—A. About 2-inches in the hoop.

Q. What in the sides?—A. Two and a half in the wings.

Q. And what in the leader?—A. Three inches.

Q. You use double nets?—A. Yes, sir.

DAVID GEROW sworn :—

*By Mr. Wilmot :*

Q. Your residence, Mr. Gerow?—A. Prince Edward.

Q. What is your occupation?—A. Fishing and hunting.

Q. How long have you been engaged in fishing?—A. Off and on, 40 years.

Q. What particular part of the bay do you fish in?—A. Mississauga Point.

Q. Is there many other fishing stations alongside of you?—A. There is one on top of me; he gets the most; he is on the west side of me.

Q. How many nets are there within half a mile of you, on each side of you?—A. There are two, two above me, but none below. They are within a space of about half a mile; three within half a mile, near Mississauga Point.

Q. What sort of nets do you fish with?—A. Seines, and nothing else.

Q. What is the size of your mesh?—A. Centre is about 3 inches, and the sides 4, about 4½ and 5 at the end.

Q. What is the length?—A. Twenty-eight or 30 rods long, and about 11 feet deep when fishing.

Q. Are the other nets the same in your neighbourhood?—A. Largely the same mesh, but some of the other nets have smaller meshes.

Q. What kinds of fish do you generally catch?—A. All kinds, whitefish, herring, pike, pickerel, now and then perch and suckers, and bass very seldom.

Q. During the season do you catch a number of mudcats, how many altogether?—A. I don't suppose I catch 100.

Q. Of those fish you have enumerated which are the most valuable to you?—A. Whitefish are the most valuable, both in money and quantity in my fishing.

Q. What comes next to the whitefish?—A. The first yield is whitefish, the second, herring, and the coarse fish come last.

Q. The value of the whitefish is what?—A. Four or 5 cents a pound; for the herring, we sell them for 60 cents a hundred.

Q. And the coarse fish, what do they average a pound?—A. Pickerel are a valuable fish, and we get for them the same as whitefish, 5 cents a pound; and for coarse fish we get  $\frac{1}{2}$  cent a pound; 3 cents for pike and 5 cents for bass.

Q. Your suckers and mudcats, what do you get for them?—A. One-half cent for mudcats; we don't sell mudcats generally, we put them back in the bay, to eat up other fish.

Q. Where do you sell your fish principally?—A. Right on the ground to dealers. Sold from the nets to Canadian dealers, who send them to the States.

Q. Have you any idea what these Canadians get for their fish in the States?—A. I have not, sir.

Q. Is there any difference made in the price of your fish?—A. No, sir. All are bought at any time irrespective of quality, except in close season.

Q. Have you any knowledge relating to the time these fish are spawning? When are the whitefish spawning?—A. Generally from the 1st to the 10th of November, I have seen them on the bars. I have seen the spawn after they have laid it.

Q. What is the usual size of the spawn?—A. About the size of a pin head.

Q. And you say you have seen the eggs in the water after their spawning?—A. Yes, when they are there on the bed.

Q. Are the fish on the top of the water or the bottom when spawning?—A. Bottom, sir. They drop their eggs on the bottom. Always on the earth near the bottom. They come to the top and give a flip on their belly and go to the bottom, and I have seen the eggs on the bottom.

Q. You don't know, then, whether they lay their eggs near the top or on the bottom?—A. I have seen the eggs at the bottom.

Q. Then you think whitefish spawn between the 1st and 10th November?—A. Yes, sir. We know they do not go on bars and shoals until that time.

Q. Then the reason they spawn from the 1st to the 10th is that they are only seen by you on the bars at that time, is that what you mean, sir?—A. That's it, and previous to the 1st of November they are running up the bay, and hunting for these places I suppose.

Q. When they find their spawning ground do they go immediately upon it, or do they not?—A. I think they do. They come upon the ground and spawn between the 1st and 10th November, and they leave the bay and we seldom catch one after that.

Q. Do I understand you to say you want to have from the 10th to the 30th November to be allowed to fish?—A. Yes, for herring, as we very seldom catch any whitefish at all at that time, and we never catch any herring at all until the whitefish have left us.

Q. Then the reason you ask to fish 20 days in November is to catch herring?—A. Yes, to catch herring here, and we fish suckers and such kinds of fish after that.

Q. Do you catch many whitefish before the 1st of November?—A. We don't catch a great many, 50, or 60 at a haul, sometimes we only get 2 or 3, sometimes 5, 6, 10, 12, 14, along there.

Q. Have you ever caught, before the 1st October, one hundred or two hundred whitefish.—A. Yes, sir, about two years ago. I don't know as I ever got more in this bay, but I have caught 1,000 at Weller's Beach, 25 or 30 years ago.

Q. Have you known other fishermen to catch many more than that in the fall, in October?—A. In November, that was the month.

Q. What were they supposed to be there for at that time when you caught these?—A. I cannot say, but they spawn here now from the 1st to 10th November.

Q. Do you know more about the fish now than then?—A. Yes, sir.

Q. Did you never observe whether they were spawning at that time?—A. Yes, the spawn was loose in them. In November, when they were spawning, the eggs were running freely from some of them.



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Q. Those fish you caught in former years at Weller's Beach would be in November?—A. Along the 1st of November. I cannot say exactly. About the 1st November, and we caught them all through November, that was about 20 or 22 years ago.

Q. Then you used to catch a thousand fish at a haul, in November, when they were spawning, eggs running freely from them about 1st November, and caught them all through November about 20 or 22 years ago?—A. Yes, sir, I think about then.

Q. And now you say the fish come up on the bars here about the 1st November. And they leave on the 10th and they are all done spawning then you say?—A. I never saw whitefish caught after that. They are through spawning.

Q. How would you know that, sir, if the close season says they are not to be caught in November?—A. Because we used to catch them then when there was no close season.

Q. Then you are not prepared to say positively there are no eggs in the whitefish after the 10th of November?—A. I won't say that, but I never saw any.

Q. Now come down to the herring. Do you know anything about the spawning of the herring?—A. I don't, sir. I don't know when they spawn. I catch quite a few herring, principally along about the 12th to 15th of November, they are in the heft of spawning and when the ice forms they are spawning yet.

Q. Then you commence your herring fishing about the 10th November and continue until the ice forms?—A. Yes, sir, and they are full of spawn all this time.

Q. When do you see this spawn running out of them like you do the whitefish?—A. I cannot say. I never saw it running out of them like the whitefish anyway.

Q. When do you think they spawn?—A. I cannot say, sir.

Q. You say that in some of them the spawn will run out?—A. Once and a while the spawn will run out of them.

Q. You cannot say when they principally spawn?—A. I cannot, sir, nor where they go to spawn.

Q. How is it you know where the whitefish go to spawn and the herring you know nothing about?—A. I have seen them.

Q. When they come on these places you saw them?—A. I suppose coming up the bay.

Q. Do you catch them all the year around?—A. No, in the fall principally.

Q. Do you pretend to tell me you do not know what they come there for?—A. No, sir, I cannot say.

Q. Did you ever see herring eggs in the water?—A. No, sir.

Q. Ever try to see them?—A. Yes, sir, but you cannot see them in deep water. That is the only place I ever see herring in deep water.

Q. Is it correct when all these other fishermen say that the herring come in the Bay of Quinté to spawn?—A. I cannot say, sir.

Q. Do you not know whether the herring come for that purpose or not?—A. I do not know, sir.

Q. Do they all come in together as a rule?—A. I cannot say that.

Q. Do the herring come in later than whitefish?—A. Yes, sir.

Q. Now what about the pickerel spawning?—A. They spawn just as soon as the ice goes out. I have not seen the spawn running out of them. I do not know anything about them, only they spawn in the spring. They go in the rivers, but I never fish in the rivers.

Q. Now what about the bass spawning time?—A. I think they spawn along in June, the last of May and 1st of June. I have seen their beds many times. On the bars along the shores in shallow water.

Q. Do you think it right to destroy them when they are spawning?—A. No, sir; I do not, nor any fish when spawning.

Q. Therefore do you think there should be close seasons for fish?—A. Yes, I do, and always did at the proper time when spawning.

Q. What is the state of the fishing at present in the Bay of Quinté in regard to whitefish, and herring as to quantity, as formerly?—A. I cannot say as to that.

Q. Are they as numerous here as years ago?—A. I think they are and more so.

Q. Whitefish are as numerous as formerly?—A. Yes, as many here as 20 years ago.

Q. Now the impression is that whitefish are falling off everywhere. Can you give a reason why you say they are so plentiful here?—A. Close seasons, and putting the fry in here from the fisheries, I suppose.

Q. Now in your locality you say there are three licenses?—A. Yes, sir. One of them is a little nearer than I would like to have it.

Q. Do you think it would be advisable to grant any more licenses for that neighbourhood?—A. I do not, sir; I think there are more licenses issued now than there ought to be.

Q. In your own section or in the bay generally do you mean?—A. The whole bay, and I think it would be wise to decrease instead of increase the licenses of the bay.

Q. Are there many persons who get licenses that should not?—A. I think there are, and the farmer that has land and farms should not be entitled to his licenses as well as the fisherman.

Q. You say "you cannot fish your seines where the whitefish come to spawn"?—A. No, and I don't suppose there are three seines in the Bay of Quinté that can, because the fish spawn on the bars.

Q. Can gill-nets catch fish right outside the bars where they come to spawn?—A. Yes, sir; and the whitefish are captured before they can get over them to spawn.

Q. Can gill-nets also get them on bars?—A. Yes, sir, I have seen them go in among them on bars.

*By Mr. Harris :*

Q. If you did catch them in the seines at that time couldn't you return them to the water without injury?—A. Just as easily as black bass.

Q. And if the gill-nets catch them at the same time will they be drowned and dead?—A. Yes, sir, and they cannot get them out without destroying the gills.

*By Mr. Wilmot :*

Q. If you caught in gill-nets do they all die?—A. Yes.

*By Mr. Harris :*

Q. If the gill-net men catch fish they are in boats are they not?—A. Yes.

Q. They could smuggle these fish away better than you can?—A. Yes.

Q. Would it be possible to ascertain whether the fish were thrown back or not, I mean for the fishery overseer?—A. No, it could not be. He could not be all over at one time. I know that by experience.

Q. Then you say it would be impossible for any fishery overseer to see that the whitefish or other fish taken are returned to the water?—A. He could not see it all over his district at one time.

Q. His limits are so large he could not do it?—A. Certainly not.

*By Mr. Wilmot :*

Q. In your experience of fisheries generally do you think the fishermen would be honest enough to turn them loose if they caught them?—A. I cannot say.

Q. Can you say that fishermen could not be relied upon to return all fish?—A. I cannot say for all, I could say for some of them.

Q. Fishermen are not all to be relied upon, to return the fish generally to the water?—A. Yes, that is what I mean.

Q. What quantity have you taken during the season, what was your catch last year?—A. Last year about 250 whitefish and about 3,000 herring, I guess, and I caught about one dozen pickerel, and all the other coarse fish put together. I might have got 100 to 150.

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Q. How many seines do you fish with?—A. One.

Q. Now, what probable receipts did you get for all you fishing?—A. \$9.60 were the profits received after supplying my family with fish. That is what I sold, after paying the hands and all.

Q. Would the hands receive half?—A. Yes.

Q. Have you any idea what the receipts of your hands were?—A. Yes, \$1.50 a piece.

Q. You only sold \$9.60 and the helps got half of that?—A. Yes, my own children got it.

Q. What keeps you on fishing for this small catch?—A. No other way to make a living.

Q. Those that fish with you what do they do?—A. They work out in the summer time.

Q. You say Mr. Black comes to buy your fish. How much do you get from him daily or weekly?—A. Sometimes 20c., 30c., 50c. and \$1, and sometimes I have nothing from him.

Q. Does this man Black do any other business except getting fish?—A. Nothing, I guess.

Q. You say you have 3-inch centre in your seine?—A. Yes, mostly; all have the same, but some have 2½-inch mesh.

*By Mr. Harris :*

Q. Is a 3-inch mesh quite small enough?—A. No, 2½ is small enough.

Q. You would rather have a smaller mesh would you?—A. Yes, 2½ is small enough and large enough.

Q. You say the herring is the most valuable fish next to the whitefish?—A. Yes, and I sell them for 60 cents a hundred, and I find this more profitable to barrelling them.

Q. Do you catch any black bass or other fish?—A. Very seldom a bass, one or two maskinongé and very few bullheads. The herring is my principal catch.

Q. Do the bulk of the fish here go to the Buffalo Fish Company?—A. I suppose their agent here, Mr. Black, buys them, and I think Thomas McDonald buys, but he does not live in Belleville; but he does his shipping and packing in Belleville. But Black lives in Belleville.

Q. Do any American boats fish in the waters off here in the lake?—A. I don't know. Yes, there is a tug, and that tug could take fish from the gill-net men very easily. Yes, and there is quite a lot done no doubt.

*By Mr. Wilmot :*

Q. Does Mr. Black take from you the duty that goes to the United States? Does he ever say he gives you less on that account?—A. No, I know nothing about that.

Q. Are you aware there is a duty on fish going into the United States?—A. I have heard there was, but it does no affect me.

*By Mr. Harris :*

Q. Do the fishermen here make contracts for the season's catch?—A. I never contract my fish to any man, but many of the fishermen do that I think.

Q. Do you know of any case here where the agent has paid the money for the licenses here?—A. No, I do not, all the fishermen here take out the licenses and pay the fees themselves.

Q. The fee for a seine is \$7 is it not?—A. Yes, some are not, they are different prices here. I pay \$5.

Q. What is your business besides fishing?—A. Well, nothing except hunting.

Q. Are you what they call a sport?—A. I am Robinson Crusoe, as I live on an island.

WILLIAM BLACK affirmed :—

*By Mr. Wilmot :*

Q. Do you reside here, sir, and what is your calling?—A. Yes, sir, in Belleville, and I am a mariner and fish-dealer.

Q. How long have you been engaged in the business?—A. About 28 years, something like that. I cannot tell exactly.

Q. What sort of business are you doing in the way of fish dealing? Do you catch fish yourself? What kinds?—A. I catch bullheads, and other kinds of fish, suckers and coarse fish, but no whitefish or herring of late years.

Q. Where are you fishing, what part of the bay?—A. In Mosquito Bay, and there are nets near mine, hoop-nets above and below the island, all are in the same bay.

Q. How many nets are set in that fishing ground?—A. I could not say how many are set, but I set two double sets with two hoop-nets, and a leader between them. The length of the leader is about 30 rods.

Q. Do you fish with any gill-nets or any other kind of nets?—A. No, sir.

Q. And the fish you catch are what?—A. Bullheads and rough fish, such as perch and sunfish. No bass. The nets are set where black bass and pickerel do not frequent that water at that time of the year, nor while I am fishing.

Q. Do you say you are a fish-dealer, and do you buy from other fishermen in this section, and do you generally take out all their catch?—A. Yes, about all their catch, all I can get.

Q. Is there no other person buying besides yourself?—A. Yes, Mr. McDonald is in the same business. Without interfering with my business, I think I do the largest.

Q. How do you buy the fish? Are they brought into you and delivered to you here? Do you go after them?—A. I go for some, and some are taken at the fishing stations, and some are brought to me in Belleville.

Q. In what condition are they brought?—A. Bullheads are dressed, the other fish are not. I buy by the pound, all but the herring and we buy them by the count.

Q. What is the usual price for bullheads as you buy them?—A.  $4\frac{1}{2}$  cents for bullheads, pike 3 cents, bass and pickerel 5 cents, herring 60 cents a hundred by the count, sunfish and suckers and perch and sheepsheads  $\frac{1}{2}$  cent a pound, they all go to the American market, we send them in ice, we furnish the ice and pack them ourselves for the Buffalo markets.

Q. Do you go there with them?—A. No, sir, we send them, sometimes by express and sometimes by freight, there is no middleman between us and the Buffalo people, we consign them to the Buffalo Fish Company, they pay all charges and they pay the duty also, I suppose, I pay no duty.

Q. Have you ever had any conversation with the Buffalo Fish Company about the duty?—A. No. I understood there was  $\frac{3}{4}$  per cent duty on Canadian fish going into the United States, I express them to the Buffalo Fish Company, and I know nothing about paying the duty.

Q. Do they pay you here on delivery of the fish?—A. I draw on them and any charges they pay them and I get so much a pound for buying them.

Q. Then you buy on a commission, you are actually their agent here. You buy for them and are paid a commission by them, and you never had any conversation with the company in any shape or manner with regard to the duty?—A. I would not answer that question.

Q. Did they ever tell you if you bought these fish for them you would be free from the duty?—A. I would not answer that question.

Q. So you won't say whether the company has made any offer to you about the duty or not?—A. I won't say.

Q. You have got 10 sets of nets you say. Are you the actual owner of these nets?—A. Yes, I own them myself.

Q. Have the Buffalo Company or their agents any claim on them in any way?—A. I am the owner of the nets.

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Q. No understanding between you and the company?—A. I won't answer that question.

Q. You don't know what I am going to ask you. You own the nets, and you say there is no understanding between you and the company about these nets?—A. I won't answer that.

Q. You won't say there is no understanding about these?—A. I won't answer that.

Q. Do you know whether there is any understanding between the company and any of the other fishermen about their nets?—A. I don't know.

Q. Do you deliver any of these fish to any tugs or vessels belonging to the company that come here?—A. They have no tug on this lake, they all go by train.

Q. And the company have no tug by which they carry away fish on this bay, and are you prepared to say that McDonald sends his away the same as you do?—A. I cannot say, but all my fish go by express and freight.

Q. Do you know if they were your own fish and you shipped them direct, you would have to pay duty on them?—A. I never paid any duty on fish.

Q. Have you any idea of the quantity of fish shipped by yourself over there?—A. No, I cannot just now, not very well.

Q. Could you give it to Overseer Clarke any time, so we might ask for it for last year?—A. Yes.

Q. Is there any other American company dealing here besides the Buffalo Company?—A. I don't know. Yes, there is the Cape Vincent Company, and McDonald buys for them. They ship by Grand Trunk to Buffalo.

Q. Do you get fish up from Hay Bay?—A. No. My district is around here. All in Mr. Clarke's division.

Q. Do you catch many eels?—A. Yes, quite a few. Some in hoop-nets, but not a great many eels. They are worth 4 to 4½ cents a pound, just as they are caught.

Q. Is there a pretty big trade in eels among the other fishermen here?—A. Yes. There is a large fishing for eels by night lines. Eels are caught largely by night lines, by a number of the fishermen.

Q. Are you catching more eels now than formerly?—A. Yes. It is on account of the trade demand for them, that is why they are increasing, but I think they come through the Murray Canal now.

Q. Then you are not interested in whitefish fishing lately, only that you buy them?—A. No, I am not fishing for any.

Q. Are you prepared to say what you get for your fish in each class from the Buffalo people?—A. I don't think I ought to. Yes, I can tell you.

Q. Does the company make any difference with you as to the quality you send them, or do they take all fish, at all times, in all conditions?—A. Yes, as long as they are good sound fish.

Q. What do you mean by the words sound fish?—A. Not spoiled.

Q. Do they make any difference between fish that are heavily laden with spawn or not?—A. They don't get them, but it makes no difference with them, no matter in spawn or not, it never has.

Q. Well, have you any idea whether fish are in better condition sometimes than others?—A. No, I don't know as I have. I don't think there is. I don't see any difference. I have eaten them when they were full of spawn. In my choice I never noticed any difference in the flesh.

Q. You ought to know something about the spawning time of fish. When do the whitefish spawn in your estimation?—A. I don't know, as I do not handle them during spawning season.

Q. There is a season in which they do spawn?—A. I think the bulk is over by the 10th of November. Some spawn before and some after. I never ship fish during illegal times.

Q. Well, what is your idea about the herring? When are they in spawning season? Do they spawn about the same as whitefish?—A. A little later. The whitefish are about through when the herring are commencing, sometimes before the herring are ready.

Q. Are herring like other fish sent to Buffalo?—A. No, the herring is kept here and sold around these parts of the country. Sold here in the country to the city people or farmers.

Q. The herring come then the same time as the whitefish?—A. Yes, the whitefish come ahead, about the 12th and 15th October, about the same time but nothing to speak of.

Q. What do the whitefish and herring come in the bay for?—A. I suppose for shelter, feeding and spawning.

Q. Why don't they come in earlier for food and shelter?—A. I suppose the later it gets the rougher it gets, and I suppose they come for to spawn.

Q. Do you know anything about the pickerel spawning?—A. Yes, they spawn in May and the bass spawn in June. They run together in May sometimes and pike as near as I know, spawn in May, and mudcats spawn about the last of May and in June.

Q. How long do the whitefish generally remain in the bay?—A. Till after they leave the bars, about the 10th of November they leave then for the lake, and the herring they stay until the winter sets in, sometimes 1st December.

Q. What is the state of the fisheries now compared with former years?—A. I think it is about 28 years since I commenced fishing, and the whitefish are thicker now than the first fall I fished.

Q. What is the reason of this do you think?—A. The hatcheries and by protection and by the close seasons.

Q. What about herring, are they as plentiful. Are herring less numerous than 28 years ago?—A. 28 years ago. I did not know anything about them.

Q. Are they falling off or increasing?—A. They are not increasing any that I can see.

Q. What do think about the pickerel?—A. Just now they are nearly gone. They were caught very numerous years ago in May both in the river and bay: they came to the rivers to spawn and were caught very numerous and the great catch was when they came up the rivers.

Q. Do you know anything about how it is with the bass? Are they as plentiful or are they scarce?—A. Bass are not as plentiful, my opinion is they are not.

Q. Are there a good many caught by anglers?—A. Yes, some got as many as 40 a day with a hook and line.

Q. What about your pike and maskinongé, are they falling off too?—A. No, the pike were thicker last spring than for years. I don't know anything about the maskinongé.

Q. What about the mudcats?—A. They are not as plentiful as they used to be. We used to fish by the ton for them. I think that was a mistake, as we were allowed to fish too long in the spring for them.

Q. Was it the over catch that brought them down?—A. Yes, and fishing at the spawning time.

Q. In regard to the other coarse fish, are they increasing or decreasing?—A. Eels are increasing. Sunfish and perch I don't think they are decreasing. Suckers are about the same as they were.

Q. What do you think about these licenses, should there be any increase or decrease?—A. I think there is enough. Some of these men now don't make very much.

Q. Are you of the impression there should be a decrease?—A. I don't want to say.

Q. What is your private opinion?—A. I would not want to say.

Q. Do you think the bay at present is over-fished?—A. I would not say. I don't think it is. Bass and pickerel should not be fished in the summer.

Q. The bay is over-fished for pickerel you say?—A. Yes, with nets in the summer season.

Q. You say they should not be caught by nets at all? You cannot catch them except by nets?—A. They should not be netted for in the summer months, not until the 1st October. These pickerel were plentiful not a great many years ago, you could count a hundred shanties on the ice fishing for them, and these men got a living out of it. Now they cannot get any to speak of. I know they don't get one-tenth what they used to. These pickerel are not in this bay.

## Ontario Fishery Commission.

Q. Are they about one of the best marketable fish you have got here?—A. Yes. They are a firmer fish and at the New York market the choice seems to run on this fish, we have no blue pickerel here.

Q. Of the different kinds of nets, there are seines, gill-nets, fike-nets used here, which of these three kinds of nets are most destructive in catching fish; most destructive towards the fishing interests?—A. I don't know. I cannot say which is the most destructive net.

Q. Do you think it desirable that there should be a close season for fish during the spawning season?—A. Yes, I do on certain kinds of fish, on pickerel, whitefish and salmon, but not for herring, pike and bullheads.

Q. Should there be any close season for bullheads?—A. Yes, I think it would be of benefit for the fishermen.

Q. You want no close season for herring, suckers, eels, sunfish and perch?—A. Yes. It is herring we want to catch for our people here.

Q. Do you think the department should take care of the fish in the interests of the fishermen as well as the fisheries?—A. Yes, I think the fishermen all want to protect the fish. The department should care for the fish in the interests of the fish and fishermen by close seasons and proper regulations.

*By Mr. Harris :*

Q. What commission do you get on your work buying fish?—A. One-half to three-fourths of a cent. I cannot tell what proportion of the catch I handle.

Q. Are many of the fish sent direct across the lake to the American States in boats?—A. Yes, a great many of these boats are around here to take these cargoes all summer.

*By Mr. Wilmot :*

Q. Do they come into the bay?—A. Yes, around Bath.

*By Mr. Harris :*

Q. Do they come within reach of the fishing by the Bay of Quinté fishermen?—A. Yes, they come to the gap in the summer, in August.

Q. What class of fishermen do these American boats get their fish from in greatest quantities—the gill-net or the seine men?—A. The gill-net men supply them with a good many fish. I think they get all the catch.

Q. I suppose that catch would hardly be reported by the inspector here?—A. By the inspector in that district, one at Bath and one at Prinver.

Q. Do you think these boats would report and make an entry with their cargo?—A. They would have to enter and clear. We enter all fish here that we ship.

Q. In the interests of the fishermen what do you think would be the best plan of fishing in this bay; which nets?—A. Well, seines, and gill-nets for whitefish, and herring, and pickerel.

Q. Is there any way the bay could be improved to increase the profits of the fishermen?—A. I cannot say without it is to enlarge the hatcheries.

Q. Have you any idea the hatcheries could be made so as to keep up the fisheries altogether?—A. I think they could get along with close seasons being kept. I want protection and the hatcheries.

Q. Would the majority of the fishermen here be better off if they followed other vocations? Are any of the fishermen making a living by their fishing only?—A. Oh, yes, they all make a living by it, but there are some who have small farms. As a rule they are all pretty rugged men.

Q. Do you make most by your fishing or by your commission?—A. It just depends on what I get.

Q. Are herring largely bought by the people here?—A. Yes, sir; we regard them as the poor man's fish. The people look for a supply of these fish when the winter commences here in the fall, and a good many are distributed among the farmers.

Q. Are the black bass generally caught in seines?—A. Yes, sir, and many in hoop-nets. In some localities they go in these hoop-nets.

Q. What is the greatest number of bass you ever saw caught in a seine in one haul?—A. I cannot answer; I never saw more than five or six caught. A man may make a haul an hour and might not get any bass in a week.

Q. What number of bass do the sportsmen catch here in a day?—A. I have heard of 40, but I never saw them. There are a good many sportsmen around here catching bass.

Q. Do you think more are caught with the rod than the seine?—A. Yes, sir; double as many more; a fishing rod can go anywhere and the seine cannot.

Q. What month do sportsmen generally fish for bass?—A. Just as soon as close season is over they commence and they obey the season pretty well, they fish in July and August and part of June.

Q. Are the seines drawing at that time?—A. No, sir; not here, the seines begin to draw about the 1st of October, and some commence in September.

Q. In former years did you ever hear of fishermen transferring their licenses to the American companies?—A. I cannot answer that question or whether transfers are made to the Americans now.

The Commission then adjourned to meet at Napanee on the 12th inst., and to make an inspection of the fisheries there and at Hay Bay.

THOMAS McDONALD, fisherman, submits the following to the Commissioners by letter under his signature of 14th October, 1893:—

In the year 1845, the first fishing was done in Lake Ontario. I fished there for five summers. The small whitefish and large whitefish run together in July and August: after August the young whitefish keep out in deep water and the large whitefish strike for the spawning grounds and commence to spawn about the 1st of November in Lake Ontario on the shoaly rock bottoms, and they also spawn in the Bay of Quinté at the same time, on the same bottoms. They spawn between the 1st and 15th and the 30th November, and after the last of November the whitefish all make for deep water.

I have fished all over the lakes and bays, and the whitefish spawn between the first and last of November. They spawn in Lake Ontario the same time they spawn in the Bay of Quinté. They are the whitefish which Mr. Wilmot put in ten years ago. We cannot fish our seines during the month of November without catching some whitefish. Since Mr. Wilmot commenced breeding and planting fish they are getting more plentiful. The close seasons for whitefish are all right. The bar whitefish spawn between the 1st and 15th of November and the deep-water fish spawn between the 15th and 30th November.

(Signed.) THOMAS McDONALD.



## Ontario Fishery Commission.

### No. 2.—NAPANEE.

Evidence taken before Fishery Commissioners WILMOT and HARRIS at the Town Hall, Napanee, the 12th day of October, 1893.

Mr. WILMOT, chairman; and Mr. DIAMOND, acting stenographer.

Evidence relating to the fisheries in the Bay of Quinté, was asked for when

Mr. FELIX MELLOW came forward and was sworn:—

*By Mr. Wilmot :*

Q. Do you desire to make any suggestions yourself, sir?—A. Well, yes, I might say I have followed this vocation about 10 years, and I find the business just as profitable now as when I began. The first trouble that arose was the orders in council. The first order that troubled us was an order that we should use a mesh of  $3\frac{1}{2}$  inches extension measure.

Q. Are you referring to hoop-net fishing?—A. Yes, sir. It is a well established fact the mesh is too large. The fish in the bay are smaller than the fish from the lake.

Q. The fish are smaller in shallow water?—A. Yes. When that order was passed in council, we had a stock of nets that were  $2\frac{1}{2}$  inches in extension and the order wanted them made  $3\frac{1}{2}$ , and therefore we had to throw away our nets and get new ones. We cannot follow that vocation for the bullheads with  $3\frac{1}{2}$  inches, they drop through it like pease through a sieve. Then, I think about that time we got up a petition and sent it to the Minister asking the mesh be changed back to  $2\frac{1}{4}$  inches, which was allowed. Then, the next order in council was we should not use a leader to our bags. Well, that would be useless to set a net without a leader, and finally that was changed and we were allowed to use a leader. This last fall we got word that we could not set our nets as our licenses had run out. Since then that has been rectified and we are fishing at present, some of us who were fortunate to secure our licenses. I think that is about all. We have another grievance. We think the close season on pickerel is too long, and our nets should be licensed to catch bullpouts and eels. There are no eels there. I don't think we catch 100 pounds of eels during the season. The close season on pickerel begins, I think, the 15th April and extends to the 15th of May. Well, then the close season on bass begins on the 15th of April and extends to the 15th of June. That bars us out of catching any eels at all. We would like to have the close season on bass did away with entirely and the close season on pickerel we would like to have it shortened some. We think it necessary to have a close season on pickerel, but I don't think it necessary to have a close season on bass in the waters of Hay Bay, in the eastern parts. We would like to have an established law to fish and know whether we are going to be able to fish one year after another.

Q. Do you say you want no close season in Hay Bay for fish?—A. We don't want close season for bass at the west end, and we would like to have the close season on pickerel shortened up some.

Q. Your residence?—A. In South Fredericksburg, and I have a small farm. I think my chief calling is fishing.

Q. Are you a fisherman and a farmer?—A. Yes, sir, I farm in the summer season, and fish when they let me. I have been engaged in fishing in the eastern part of Hay Bay with hoop-nets altogether, with a double set of hoops and leader.

Q. What is the size of the mesh you use in the hoop-nets?—A. Body  $2\frac{1}{2}$ , and  $3\frac{1}{2}$  in the other part. The first hoop  $3\frac{1}{4}$ , and the second 3, and the other  $2\frac{1}{2}$ , that is the body, and the wings  $3\frac{1}{2}$  and leaders  $3\frac{1}{2}$ .

Q. What kind of fish do you catch?—A. Bullheads and eels and pan fish, that is rockfish, perch, and we catch pickerel in those nets, and pike. We catch occasionally a bass, the black bass.

Q. Do pickerel get gilled there too?—A. No, mostly pike and perch.

Q. Where do you principally sell your fish?—A. I sell them direct to the Buffalo Fish Company. I am their agent here.

Q. Do you buy generally from other fishermen in your neighbourhood?—A. I do, but I don't buy all the fish caught in Hay Bay. I buy about one-half as near as I can come at it. I buy on commission, or rather I get a commission on all I buy, and I buy on my own account also.

Q. What charges or duty do you pay on your fish going to the Buffalo Company?—A. I don't have anything to do with the charges or duty.

Q. How do you get your fish into the United States when there is  $\frac{3}{4}$  per cent duty on them, smuggle them in?—A. I don't understand that part of it. I don't attend to that part of it.

Q. Do you send the fish there direct yourself, for if you did you would have to make some entry. Do you ever make an entry?—A. I make out the invoices and get out outward reports, but I don't pay any duty or carriage fees, and get my commission on the amount. And now, I would like to make a statement here why we don't catch pickerel. Pickerel would be caught in these nets if they were in the bay, but close season commencing the 15th of April we don't get any pickerel. You cannot get a whitefish in a hoop-net as they won't go in it. Pickerel will run in a hoop-net.

Q. Then all these fish will run in hoop-nets?—A. Yes. I mean all these fish will run in the hoop-net, and all the fish that run in the hoop-net we catch them, that is what I mean.

Q. You principally catch all these fish you have enumerated and if other fish run in you take them also?—A. Yes. I mean the hoop-net will catch all these kinds of fish.

Q. If the pickerel get in at the proper season what do you do with them?—A. We keep them. Yes, I want to explain a point here. About the first run of pickerel in the waters of Hay Bay is when the ice is about leaving or breaking up, and sometimes it is impossible to fish without getting a few pickerel in, which are out of season, and these fish I let loose.

Q. All such fish you catch you let them out?—A. Yes, sir. We set where there is no pickerel. Where they do not certainly come. We set on what is called the mud flats.

Q. When do you think the fish caught in your nets are in the best condition for the market?—A. The bullheads and bass any time after the 1st October, as soon as the water gets cool, and pickerel also, and I think when the water is cool they are in better condition. I think that will apply to all cases. They are all best in winter, but I have not much experience about pickerel and bass as I have with some of the other fish. Let me make a statement here. The pickerel come in Hay Bay in two seasons of the year, if I understand it right. I never fish gill-nets, I only fish bullhead-nets. The pickerel come in the spring and they return again in June. I would rather not give evidence in regard to pickerel or bass.

Q. When do the pickerel come in your nets first?—A. About the 15th April, but very few indeed, and they are most numerous about 25th April, and the second time they come is about the middle of June and some are taken then with the gill-nets, not with hoop-nets.

Q. That is your conclusion about the pickerel?—A. I think so.

Q. When is your greatest catch of bullheads? When are the coarse fish, such as bass, perch and sunfish caught?—A. Well, I would say in April. The best catch of the coarse fish in the bullhead-nets is in April. The month of April would cover it. Pike in April. No bass at all. It is pretty hard to cover three classes of fish within one month.

Q. Now it is your opinion there should be close seasons for fish in the interests of the fishermen and the fisheries generally?—A. It is.

Q. Well, are you prepared to give your opinion when these close seasons should be? When should the close season for mudcats be?—A. From the 1st June to the 1st of October. They spawn in June. I would not let them be caught in June.

## Ontario Fishery Commission.

Q. When should the close season for pickerel be?—A. I think it should begin the first of October?—A. I think hoop-nets should be pulled out from 20th April until the first of May for a close season for pickerel, and then be allowed to fish during May for eels.

Q. When do you think the close season should be for black bass?—A. None at all in Hay Bay, in the eastern end.

Q. Might there be anywhere else?—A. I don't know anything about the other waters anywhere. I never fished in any other waters in my life.

Q. Do you know anything about the whitefish?—A. I don't. I never caught but one whitefish in a hoop-net in my life.

Q. Now do you think it is in the interests of the fishermen generally that the Government should take care of the fish for the benefit of the people?—A. I do.

Q. You say you have fished here about twelve years. Now, is there any falling off at all between now and that time; have fish fallen off in any way; are they less in number than when you first commenced?—A. The mudcats, I think, are just as plentiful to-day as they were twelve years ago.

Q. What about pickerel?—A. I think the pickerel are becoming more plentiful. I am speaking of the run in Hay Bay.

Q. What about the bass?—A. I think they are pretty much the same. I don't know, there are very few of them netted. Bass seem to want a hard bottom if I understand them any.

Q. What is your opinion regarding the fish when spawning. Are they as good when spawning as before or after?—A. I think they are better before and after spawning and this refers to all the fish.

Q. Do the purchasers or your company make any difference in regard to the price of fish when they are in condition or not?—A. No. When the fish are spawning they are more plentiful, and I think from the quantity of fish caught then, the price may go down some.

Q. Do you think fish should be taken when they are engaged in spawning?—A. No, I do not.

Q. What quantity of fish have you taken this year altogether, caught by yourself and bought?—A. That is a pretty hard question to answer. I would say about \$3,000. All my sales would amount to about \$3,000 and these all went to the United States. Principally to the Buffalo Fish Company. Yes, all.

Q. What price do you get for the fish you sell here, mudcats and all?—A. I get 4½ cents, that is cleaned, and for pickerel about 5 cents for what we catch; for bass, we don't handle any.

Q. What about the coarse fish generally speaking, pike, &c.?—A. About 5 cents for the pike and from 1½ to 2 cents on an average.

*By Mr. Harris :*

Q. Have you two hoop-nets or more?—A. I have five sets.

Q. Do you ever have any trouble with the government about your license?—A. No.

Q. What time of the year do you put these hoop-nets in?—A. 1st of October, and we leave them in all winter, we set them under the ice and leave them in all winter.

Q. Tell us about the value of the catch in your five sets, gross value?—A. About \$300. That is about what the fish were worth at the price given for fish here.

Q. How much license do you pay for each set?—A. \$5 a set. That is \$25 a year.

Q. Who looks after these nets all winter?—A. I look after them myself.

Q. You have a farm besides, you say?—A. I have, and I look after the farm myself also; but I have to hire some help.

Q. Do you fish from 1st October to 1st April?—A. Yes, 15th April.

Q. Only these months, and do you lift every day?—A. No, we don't; we lift sometimes twice a week, and sometimes once a month. These nets last about six years.

Q. Now, what do you think is the actual profits of these hoop-nets, altogether? Is it enough to support you and your family?—A. I have no family. It is enough to support me; just enough. I think a dollar a day.

Q. The sales to the Buffalo Fish Company are \$3,000?—A. I think so. The commission I get is  $\frac{1}{2}$  cent a pound.

Q. For how many pounds do you sell?—A. I don't know.

Q. Do you probably get 10 per cent commission on them; or do you make more on them?—A. We don't make anything on them, but indirectly in this way. Suppose a dozen men set their nets on the 1st of October, and there are half a dozen buyers, sometimes we pay all they are worth and they sometimes catch more fish than we can handle.

Q. With your commission business, what is a fish commission business worth here?—A. I think it is worth \$200 a year. I want you to understand we have lost on these fish sometimes. I have lost \$50 a day buying fish.

Q. If you had your choice of giving up your fishing business with your five hoop-nets and the commission business, which would you give up?—A. I would rather run the nets.

Q. Now, what kind of fish do you catch with your nets?—A. We catch bullheads. The weight of the bullheads during the winter is about a pound weight. The gross weight, I can't say; I do not keep any books about those weights at all.

Q. How many years have you been in the business?—A. Ten or twelve years.

Q. And keep all your business in your head?—A. Yes.

Q. Well, there let us have it out now?—A. I cannot give you an answer. I want you to understand the fish in October are more plentiful than in April.

Q. I want to know the amount of fish you get in your nets from 1st October to the 15th April, in your five hoop-nets?—A. I should think about two tons, or 4,000 pounds—that is my bullhead catch principally.

Q. What comes next to the bullheads?—A. I think perch.

Q. Do you catch eels there?—A. No. I want you to understand we cannot catch eels on account of the close season on bass.

Q. You want the close season taken off black bass, why?—A. We want to catch eels. We cannot catch eels on account of the close season on bass.

Q. They don't make you take your nets up on account of the close season on bass?—A. That is just what they do.

Q. Would you fish here in the summer months if you could with your hoop-nets?—A. I would fish in May if I could—the whole of May. I would not fish in June.

Q. That is the month the bass are protected?—A. The close season on pickerel is from the 15th April to the 15th May. We have to take up our nets and do not put them in again.

Q. You would not fish in June, July, August or September if you could?—A. I would not. I think it would be better for the interests of the fish on account of the warm water, particularly if the weather is warm.

Q. Then, if you had the right to fish with your hoop-nets you would not put them in?—A. I would to secure my position. I would rather not fish in September.

Q. Well do you want to leave your nets in for one month in the spring so as to catch bass?—A. I did not say that. I want to leave them in to catch eels in May.

Q. You want to be able to do that without catching the bass and pickerel too?—A. That would be it.

Q. Why don't you leave them in?—A. The Inspector compels us to take them up.

Q. Do you say the bass and pickerel are just as plentiful now as before?—A. I think the pickerel are more plentiful.

Q. And the bass just as plentiful?—A. I cannot see any difference.

Q. Are they fished for by sports here?—A. By American sportsmen principally.

Q. Do they spend much money when they are around here?—A. Spend quite a bit in drinking, they are not desirable to encourage. They leave the fish sometimes, when they catch a lot on the shore to rot.

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Q. How do you account that all this catching by the sports and all those catching with the nets, still leaves fish about even, or as they were before, or might it be the result of judicious protection?—A. I think so. It might be some hold. I believe the law is very well carried out.

Q. When you fished first with 3¼ inch meshes did the fish escape or gill?—A. The perch gilled numerously and the bullheads got free, and we never could get an eel in them.

Q. Now what is the value of a hoop-net, one hoop-net?—A. About \$25.

Q. Did you throw the whole net away or part?—A. We throw them away, the whole thing, except the leader.

Q. About this bass business. Do the Buffalo Fish Company still take these bass in June and give you a fair price for them. Do they want these bass?—A. They have written to me it was close season, and I think they said it was close season there.

Q. Don't you know that the Americans say that the bass are fit to eat, and they want them in June, July and August?—A. I don't ship bass.

Q. You said the bass do go into a hoop-net?—A. Very seldom and they don't get out. They are not all caught in hoop-net fishing.

Q. Do you like the license system of this country instead of the American system, of letting everybody fish?—A. I do, and I approve of our system.

Q. And that it becomes the Government's duty to make regulations useful to the whole of the country, and make fishing a continuous business?—A. I do.

Q. Do you think that could be done without giving every fish protection when it is producing its young?—A. I think not. They would get very scarce if not protected.

*By Mr. Wilmot :*

Q. You said you paid \$5 a license for your hoop-nets and you had 5 sets of them, and you set them on the 1st October and leave them in until the 15th April. Are you not breaking the law after the 1st of January?—A. We get a new license in January generally.

Q. You say you lost \$50 a day on some of the fish. Explain how you lose \$50 on the fish?—A. Sometimes the fish barrel would be held too long and the fish would spoil and other times the fish would drop in price.

Q. How would the fish spoil?—A. Through decay and being kept too long in the barrel.

Q. No injury to the fish by the fish being kept in the net?—A. No. I want to explain. In the bogs surrounding the shores during the winter there is bad water starts out from them and when it gets to the fish it destroys them, and it will do that in an hour's time if they are kept in the hoop-nets.

Q. Do you leave them in the water and not go to lift them and attend to them for a month?—A. Yes. That is in the severe weather.

Q. You say the Americans come here and catch fish and throw them away. How do you know that?—A. They keep them on board the boat without ice and they spoil and they have to throw them away. That is the reason. There has been hundreds of pounds lost that would not have been if they were fished properly.

Q. Do these Americans fish under a license here?—A. They don't, not that I know of.

Q. Do you think they should be licensed for fishing?—A. I think they should be kept out entirely if it is possible. The anglers should be kept out of our waters.

Q. Should this apply to the commercial buyer from the States also?—A. No.

Q. Is it your opinion if the American angler wants a license he should be allowed to fish here?—A. No. You understand what I would like represented to our Minister. I would like it to become a Dominion law to set out nets on last of April and be allowed to fish for eels in May, as we cannot catch them any other time of the year. I think May would be enough.

JAMES POLLARD sworn:—

*By Mr. Wilmot:*

Q. Your residence, Mr. Pollard, and occupation?—A. Adolphustown. I am a fisherman altogether for fifteen years at the Long Reach, and the mouth of Hay Bay.

Q. What sort of nets do you use?—A. Gill-nets, and fish for pickerel, pike, whitefish and herring.

Q. Have you any remarks you wish to make?—A. My complaint is that in 1894, as my notice reads, we will be compelled to fish five inch meshes for whitefish.

Q. You are talking about the license to be issued for next year. You say the meshes are to be 5 inches extension measure?—A. Yes. The mesh is too large, the whitefish will not gill in them. I think the present nets we are using to-day are plenty large enough, the size is  $4\frac{1}{2}$  inches extension.

Q. Do you only use  $4\frac{1}{2}$  inches mesh now?—A. Yes, and if we put on another  $\frac{1}{2}$  inch we won't catch anything.

Q. What is the average weight of your whitefish here?—A. About  $2\frac{1}{2}$  and 3 pounds is the average weight of whitefish in lake Ontario.

Q. Do you fish here in the autumn only?—A. I fish all the year around and I generally go below and fish in the lake about the middle of August.

Q. The average weight of your whitefish run from  $2\frac{1}{2}$  to 3 pounds. What is the average fish you catch in the bay of Quinté?—A. About 2 pounds.

Q. Do you ever catch any about 8 or 9 pounds?—A. Never caught one in my life that size, but I saw some that catch from the west.

Q. Where do you sell your fish principally?—A. At home for local consumption, and some are shipped by the tug and some to Mr. Benson, who ships them to the United States.

Q. Are they principally for the Cape Vincent market or Buffalo?—A. I don't think he ships to any company.

Q. What do you get for your fish?—A.  $5\frac{1}{2}$  cents for whitefish and 7 cents for pickerel now.

Q. What do you get for herring?—A. We don't catch many, when we do, we get 2 cents and  $2\frac{1}{2}$  cents a pound.

Q. When do you think the whitefish are in their best condition for eatable purposes or for sale?—A. Any time after they are spawned until they spawn again, only during the hot weather in summer. I never handle them in summer.

Q. Are they better before than after spawning, or at the spawning time?—A. They are not so good at the spawning time.

Q. When do you generally get your whitefish and herring in the bay here?—A. About the middle of August. The whitefish come in sometime about the 1st September, and they remain in the bay until done spawning, about the last of November. They all come from Lake Ontario.

Q. What do they come in the bay for?—A. To spawn, I suppose, and the herring do the same thing.

Q. The month of November being a close month, as it is the spawning month, yet you think you should be allowed to fish then?—A. I don't think we should fish the whole month, but I think it should be shortened, as 30 days is too long.

Q. How do you compare the quantity of fish now to years ago?—A. I caught as many fish last fall as I have caught any year I have fished. More pounds and better prices.

Q. What quantity of net do you fish?—A. 200 rods in the water, and 200 rods out, 200 in at one time. I use two gangs at 200 rods each.

Q. Do you recollect the quantity of net you fished some years ago?—A. Yes, sir. We fished about the same amount then as now, and fished in the same place.

Q. What is your exact location for fishing? Do you cover much of the bay?—A. From the Bay of Quinté to Hay Bay down.

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Q. What might be the quantity of fish you have taken in the last year or so?  
—A. Last year myself and my partner, putting all our fish together, got about \$600 worth; we got 5½ cents for whitefish.

Q. Then whitefish is not the whole amount of your fishing?—A. About \$300 worth of whitefish, and the same of pickerel. The catch of herring was very small. The reason was that we were not allowed to put any nets in the water during the month of November, and that is the only month we can catch herring in the Bay of Quinté, and I think this is a grievance.

Q. Are they only here in the month of November?—A. That is the only month; they come here to spawn.

Q. Don't you think that would be injurious to take them then?—A. We cannot catch them at any other season, as they don't come here any other month.

Q. When do you think the pickerel spawn?—A. I think about the 20th to 25th April in these bays, and they generally get through about the 1st of May, they go to spawn principally on the hard bottoms of the bay, close to the shores.

Q. Don't they go up the rivers to spawn?—A. I don't know, but I have heard they spawn in these rivers largely.

Q. And are they caught as numerously by you as formerly?—A. Yes, I make more in money during two months now than I used to.

Q. Is it the big price now? How much did you used to get?—A. 3½, 4 and 5 cents. Sometimes then I got 400 pounds a day.

Q. What is your impression in regard to close seasons?—A. I think there should be close seasons for fish during their spawning time. When I say there should be close seasons for fish, I mean generally. I believe there should be a close season for all kinds of fish during the spawning time.

Q. Are fish in as good condition when spawning as before or after?—A. They are not.

Q. What is your opinion in regard to the increase of licenses? Should they be increased or granted as any man wants them?—A. I think there are enough nets licensed now to cover the fishing in this bay. I think it would be injurious to issue more.

Q. Do you only fish with gill-nets?—A. That is all.

Q. What is the usual depth of the fish-net you use?—A. The top of the net is 12 meshes. That is extension for the body.

Q. How long is your net?—A. 200 rods, and I pay for that \$6.

Q. Is that for whitefish?—A. That is for the whitefish and pickerel net only. The herring net will be 3-inch extension mesh with about the same body as the other.

Q. What size fish can you catch in 4½ inch mesh, and how small a fish will it let through?—A. It will let through any whitefish that will weigh 1¾ pounds.

Q. And what size fish will 3-inch extension mesh catch?—A. It will catch herring, but it will not catch a 1¾ pound whitefish. I never caught them in it.

### *By Mr. Harris:*

Q. You said you are a fisherman wholly?—A. Yes, sir.

Q. You begin when?—A. I begin all times of the year, sometimes April, for catching pickerel and pike. I don't fish for mudcats at all.

Q. What kind of nets do you begin to fish with that early?—A. Gill-nets. The size mesh for them is 4½ inches and I go out in boats with one man.

Q. What length of net have you got?—A. 200 rods.

Q. Would you like to have more net than that? Would it pay you to have more net than that?—A. I could not handle much more than that.

Q. Would it pay you to have a gill-net crew?—A. I do not know that here. I do not go in Lake Ontario at all.

Q. You say the department has increased the size from 4½ to 5 inches, and you don't like that?—A. No, I don't like that.

Q. Would you catch as many fish with the 5 inches mesh?—A. I never fish that mesh.

Q. If you did you would not catch them. When the department made that order increasing that mesh they ought to allow the gill-net men to have more length to even up?—A. No, that would not even up, even if they had given more twine we would not be satisfied.

Q. Then you think 5 inches is too big for your fishing?—A. I don't think so, I know it. There is no plan they can make to equalize it at all.

Q. Have they stopped your fishing for herring in November here?—A. Yes, sir, they have done that and I don't know why.

Q. Are there any whitefish to be caught where you catch the herring?—A. No, sir, the whitefish are on the shoals in the spawning season, and they are not where the herring are.

*By Mr. Wilmot :*

Q. Where do the herring spawn?—A. In Hay Bay in the mud.

*By Mr. Harris :*

Q. Do the whitefish gill in the herring-nets?—A. Never caught any. The net we fish with  $3\frac{1}{2}$  inches; never have whitefish caught in them.

Q. Do you know whether any fish that are caught here are put in boats and shipped direct to the United States without being landed here at all?—A. Not that I know of, only by the dealers and anglers.

Q. You never saw any American boats come over here to buy fish in a commercial way?—A. I think they do.

Q. Do you know whether they ever get fish from the fishermen without the fish being landed on our side and they are taken direct over to the States?—A. I could not say whether it is an American or Canadian boat that runs. The Lake Ontario Fish Company has a boat that comes here and takes fish.

*By Mr. Wilmot :*

Q. Now, is there more than one kind of whitefish in this bay and lake?—A. Yes. I think two or three kinds. Two kinds anyway.

Q. What is the difference between them?—A. There seems to be a winter whitefish. A kind of small round whitefish. Those that come in the fall are a larger size. These come from the lake. Cannot describe them any better.

Q. How do you know there is more than one kind; how do they differ?—A. They are smaller than our kind of whitefish, and all come in the fall of the year. The winter fish are smaller and round in shape, and the fall fish are deeper through and longer, but both are the same quality, they never run larger than two pounds.

Q. Your opinion is there are two kinds of whitefish?—A. Yes, sir. The winter fish are caught in the winter and in the spring. From the time the ice goes out up to June, in the bay, down near the gap. They don't catch them up above in the bay. The average weight of the winter fish would not run over  $1\frac{1}{2}$  pound; not any more, and the others average 2 pounds.

Q. Now, are you sure they are not the same kind, only one larger and one smaller?—A. They don't look alike. They are of a different shape. One is more up on the back. That is the larger kind.

*By Mr. Harris :*

Q. Did you ever have any difficulty getting your license from the government?—A. No, sir.

Q. Is there any difference between the male fish and the female fish in the latter end of October?—A. The male fish is rougher in his scales and the nearer the time comes to spawn the rougher he gets.

Q. Has he a larger hump on his back?—A. I don't know, I never noticed that. I know the scales are rougher.

*By Mr. Wilmot :*

Q. Have you anything else to say?—A. No, sir.



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JAMES SHARPE sworn:—

*By Mr. Wilmot:*

Q. Give your residence and occupation?—A. South Fredericksburg. I am a fisherman, altogether for about eight years, I think.

Q. What kind of fishing do you carry on?—A. Gill-net fishing, my license specifies beside the Flats, in Hay Bay.

Q. What size of mesh do you use in your gill-nets?—A. I use  $3\frac{3}{4}$  and  $4\frac{1}{2}$  inch, the  $3\frac{3}{4}$  is for pike and pickerel, and the  $4\frac{1}{2}$  inch I got for other fish this fall. I never have fished for whitefish before.

Q. Have you any suggestions to make about the bay fisheries?—A. Well, only that I think from the 15th of May until the 15th June in which we have been barred during the last few years from catching maskinongé, that is not right, and the reason is we do not catch any. I don't, and I say it should not be. There is no bass or maskinongé to be caught there in that time of the year. I claim it is not a spawning ground for them.

Q. And you say they are not there at that time?—A. If they are I don't catch them. It hinders us from catching pickerel or pike from the 15th May to the 15th of June, and all we catch after then is black suckers. There are no pickerel there to be caught. We could catch pickerel after their close season is over to the 1st of June, and we are now barred out for pickerel all through bass and maskinongé season.

Q. You say there should not be any close season in these waters for bass or maskinongé as they are not there to be caught?—A. That is it, and the principal fish we catch are pike and pickerel, and some coarse fish, such as perch, rock fish and suckers.

Q. What other remarks do you want to make?—A. I think that is all.

Q. Have you noticed two kinds of whitefish here?—A. I never fished for whitefish. I do not know anything about the whitefish.

Q. What is the value of your pike and pickerel?—A. Well, their value differs in price, the average price for the pickerel and pike is somewhere about 4 cents,  $3\frac{1}{2}$  cents for pike and 7 cents for pickerel.

Q. Do you ever get what is called the large red fin sucker?—A. No, sir, I have not, but I have seen them caught, not to any extent, but not in our bay.

Q. Are you aware that they were plentiful in these rivers at one time?—A. I know nothing about these rivers, but if I remember, they were at one time. There does not seem to be many of them in this bay where I am fishing.

Q. When do you find your pike and pickerel in the best condition for food or sale?—A. I would say about this time of the year. I should say about this time of the year, October or in June the pickerel is good. They are very fat in June.

Q. How are they at the spawning time?—A. I don't know very much about them then, but I don't think the fish when spawning would be a good fish then. I have not fished for them in the spawning time.

Q. You say you do not know anything about whitefish, well then, have you ever fished for herring?—A. No, sir. We have never been able to get a license. I think we should get them here.

Q. Are the fish as numerous in your fishing station as they were years ago?—A. I don't know but they are. I cannot see very much difference.

Q. Should there be any close season for fish at all, sir?—A. Yes, I think there ought to be.

Q. When should there be a close season for the fish you catch, such as pike and pickerel?—A. I should think about ten days. Pickerel spawn along our shores from the 20th to 30th of April and then they are gone. I think pike spawn earlier, I do not catch mudcats.

Q. Do you know anything about bass? When do they spawn?—A. I do not. I simply think they spawn on hard bottom, and this Hay Bay is a mud bottom. But I don't know very much about them.

Q. What do you think about this question of licenses?—A. I don't know, because I do not want to interfere with any other man. The waters are fished enough without any additional licenses for my benefit. I should think there are enough licenses.

Q. What quantity of fish do you catch? What is your year's catch?—A. I can hardly tell you that. The tug comes and gets my fish generally, and the fish dealer comes also. We vary in catches from 100 to 200 pounds.

Q. Is this the system observed generally "the fish dealer comes to the fishermen and gets the fish"?—A. Yes, sir; always so.

Q. Have you anything more to say?—A. I don't know of anything, I am through, but there is one thing that I care about, and that is the month of close season. I think this is unnecessary for this bay.

*By Mr. Harris :*

Q. Have you any whitefish in your fishery in the spring and summer months?—A. No, not any.

Q. Do you fish with a whitefish net?—A. Yes, sometimes about now, in the mouth of Hay Bay.

Q. Are there any restrictions here about catching coarse fish in November?—A. We have no right to catch them, they stop our fishing altogether in that month, but we can fish right on to December now.

Q. These whitefish, I suppose are spawning in your grounds are they?—A. Yes, sir.

Q. Now, if you put out your gill-nets, what will you be fishing for?—A. Pike and pickerel.

Q. Do you not think you will come in contact with these whitefish when spawning?—A. No, not where I fish.

Q. Won't they gill in your pickerel-nets?—A. Very seldom, once in a while.

*By Mr. Wilnot :*

Q. Then they will gill in your 4½ inch nets, will they?—A. Yes.

*By Mr. Harris :*

Q. Those pike and pickerel you fish for, are they in good condition for food?—A. Yes, sir.

Q. Do they prey upon the young whitefish?—A. I suppose any fish they can get hold of.

Q. Have you ever had any difficulty with the Government about getting your license?—A. No, sir. The only grievance I have is stopping us from fishing in the month of June, and this is the very best time of the whole year for to catch pickerel after the spawning time, and they stop us on account of this being close season for bass and maskinongé.

*By Mr. Wilnot :*

Q. How would it affect you if you could fish in June, that is the close season for bass?—A. I have not fished after the 15th of June for 2 years.

Q. How would it affect you if there was no kind of net fishing from the 15th June to the 1st September?—A. That means the business of the fishermen would be baulked. I live wholly on fishing, for I have no other way of making a living, and if they stop me and only allow me to fish a month at the spawning season to make a living, I have only got two months to support my family.

Q. Suppose you were permitted to fish freely and generally from the 15th September to the 1st April, how would that affect you?—A. I don't think so. We have July and August now.

Q. Do you do much fishing in these times?—A. Yes, sir. I catch pike and coarse fish. Our fishing time for a man to make a living is very short anyway, two months in the former part, and one in the fall.

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Q. But how would it affect you and others generally?—A. I think it would. Take two months off, the most fishing I have is in June.

Q. I am asking now, if May is the spawning month for pickerel, should they be destroyed at their spawning time?—A. But I cannot see why they want to stop us in July and August.

Q. If you fished from the first September to the 15th April with your nets? You also want part of May when the pickerel spawn, and after which the fish are not fit because of the warm water?—A. Then I think this must be asked for by some man who does not fish for a living if he says this. Pickerel was worth 7 cents a pound, I don't want any other price. In July we got 7 cents for pickerel and that is a good price for fish, and if they are through spawning they might just as well be caught in July as in September. I cannot see what benefit it is to be stopped two months.

SETH BENSON sworn:—

*By Mr. Wilmot:*

Q. Where do you reside, and what is your occupation?—A. At Deseronto. Dealing in fish.

Q. How long have you been engaged in this work?—A. About 5 years. I am selling on my own account and we distribute to different points, Buffalo principally.

Q. Do you ship to the Buffalo Fish Company or is it on your own account?—A. What fish we ship to the Buffalo Fish Company we act as agent.

Q. You say we. Are you in partnership with any one?—A. No, sir.

Q. Do you ship to any other company besides the Buffalo Fish Company? Cape Vincent Company and Rochester?—A. We ship to other people who are dealers.

Q. Do you do any of your work on commission?—A. We do some with the Buffalo Fish Company.

Q. In shipping your fish do you pay the freight and duty in going over to Buffalo?—A. No, sir. They attend to that part of the business. The consignees attend to this.

Q. Do you know at all that the duty is paid on all the fish?—A. We don't always know in regard to that.

Q. Do you not know if your fish pay duty there?—A. I understand this Commission is here to ascertain something in regard to fish instead of dealing with this question. We are here to explain all in regard to fish, but we decline to answer how these charges are arranged.

Q. I am not asking about these charges at all. Do you know about any of your fish paying duty upon going to the United States?—A. We decline to answer your question. I cannot see how that affects the Commission at all.

Q. Do you know there is a duty upon fish going in the United States?—A. Yes, sir.

Q. On Canadian fish you mean, sir?—A. Yes, sir.

Q. Is this duty payable by the sender or by the buyer?—A. By the consignee.

Q. Where do you purchase generally, in what section?—A. Well, between Belleville and the gap is the limit, including Hay Bay.

Q. Then, you buy principally throughout the whole of the Bay of Quinté? From Belleville down. Between Belleville and the gap, including Hay Bay?—A. Yes, sir.

Q. Are the fish brought to you or do you collect them?—A. We collect them with a small steam vessel, the "Hydria."

Q. Where does she hail from?—A. Trenton, and is owned by myself, and she is not engaged in any other trade besides the fish business.

Q. What are the principal ports she goes to in the United States? With her fish?—A. She does not go across the lake, the "Hydria" delivers them in Deseronto.

Q. And how are they taken to the States from Deseronto then?—A. By express and by freight principally, we have no cold storage, we ship fresh in ice.

Q. Might I ask you the probable quantity you shipped this last year?—A. Perhaps about 75 tons.

Q. What proportion of these would be whitefish?—A. Well, perhaps one quarter. The rest may be herring, pike, pickerel and coarse fish. About a quarter are pan fish and suckers I should judge. By pan fish, I mean perch, rock fish, sunfish and suckers.

Q. Are there any other persons engaged in this work that ship from Deseronto besides yourself?—A. Mr. Mellow and Mr. Perry, they ship also, in what quantities I cannot say. They ship at times.

Q. Can you approximate the quantity they ship from there?—A. I cannot give any estimate what the other ship.

Q. Do you suppose their proportion of the coarse fish, and whitefish would be about the same?—A. I don't think they would handle nearly as many of the whitefish.

Q. What is the usual price for whitefish? What do you usually pay for whitefish?—A. About 5 cents for whitefish; pickerel, from  $4\frac{1}{2}$  to 7 cents, it depends upon the season; they are worth 7 cents through July, August and September, and  $4\frac{1}{2}$  cents earlier in the season.

Q. Why are they only worth  $4\frac{1}{2}$  cents earlier and 7 cents later?—A. Owing to the markets entirely, I suppose. The western fish come in quite largely at these times and this is at that season of the year. That is the only reason I can give.

Q. Do you get far more in the spring than you do in the fall for the pickerel?—A. We get the most in June. The pickerel seems to be a sort of transient fish. When we don't get any here the lake fishermen get them.

Q. And they seem more plentiful here in the spring than in the fall?—A. Through June they are more plentiful. July and August they usually go out in the lake, and are taken by the lake fishermen.

Q. How early do you catch them in the spring?—A. A few weeks before close season.

Q. How early is that?—A. We formerly got them the 15th April.

Q. Don't you get them now before that time?—A. Sometimes when the ice breaks up.

Q. When do you get the whitefish principally?—A. Whitefish are caught from about the 1st September and last of August, and mostly move up the bay until the 10th and 15th November. They leave about the 10th and 15th November.

Q. What do they come up the bay for, do you know, sir?—A. Spawning, I suppose.

Q. Do you find fish as good at that season of the year as before? When do you find the whitefish in the best condition?—A. I don't see any difference in regards to fish, only in the spawning season they are softer at that time.

Q. Then the whitefish are not in good demand at the spawning time?—A. Yes, sir. Especially the females.

Q. Do you think this applies to all kinds of fish generally?—A. I should judge so, especially after they have spawned.

Q. Is the fish improving or decreasing in quantity?—A. They are decreasing. Our business fluctuates. Some years they are more plentiful and some years they are scarce. As I said before, at certain times of the year the business here is not good but it is outside.

Q. On the whole during the five years you have been here has it been increasing or decreasing?—A. I cannot say. There is no difference in the supply of fish. The average is fully as much now as when we first began our business. Two years ago we had a very large run of pickerel, and in June and July the fishing outside was very poor. Since then the lake fishermen have taken more pickerel than the bay fishermen.

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Q. Do you furnish nets to the fishermen?—A. At times, yes, sir, and we usually sell them to them trusting them for the pay.

Q. Do you claim the fish caught by these nets are yours? Are any arrangements made with these men? When you give them their nets that they give you all the fish?—No, sir.

Q. If an execution were issued against these men for goods and chattels would you claim the nets?—A. We should not, we have no lien upon them, neither are they bound to give us all the fish.

Q. Do you ship them as Canadian fish or American fish?—A. Before we go any further I may say, I am perfectly willing to give you any information in regard to fish, but I decline to give any information in regard to these affairs.

Q. Are these fish shipped as Canadian or American fish?—A. They are all Canadian fish. They are shipped as Canadian fish and marked as fish taken from Canadian waters.

Q. Do any of the shipments go to the United States as American fish or all Canadian fish?—A. I do not understand how you can make any fish taken in Canadian waters an American fish.

Q. Are these fish all caught with Canadian nets?—A. I don't say whether they are or not.

Q. Do they at times transfer them to you?—A. To Americans but not to me.

Q. Why do they transfer them to Americans?—A. We decline to go any further.

Q. Do you know what for?—A. Yes, I do.

Q. What is it?—A. I decline to tell you what it is for.

Q. You know what for, but you won't tell?—A. Yes, sir.

Q. Do they do it for the purpose of avoiding the duty?—A. I suppose they do.

Q. Are you a Canadian subject or American?—A. British subject, sir.

Q. Now there is no harm in answering this question. Do you furnish money to the fishermen to enable them to get their license?—A. I do not, sir.

Q. In the transaction of fish buying which you are engaged in, do you think it advisable to have close seasons at the spawning time?—A. I do, sir.

Q. Are you sufficiently acquainted with the habits of the fish here to give us your ideas when the close seasons should be?—A. From 1st to 10th November should be the close season on whitefish and I should say from the 10th to 25th of April on pickerel.

Q. What do you think about herring?—A. Well I would not venture any information on herring as I cannot say.

Q. Have you any knowledge of the bass then?—A. Well, no, we don't pretend to know much about the bass.

Q. Do you get any bass at all?—A. Very few. I should say the bass can take care of themselves. It is a brighter fish than most of them and a difficult fish to take in nets. We have handled the fish from the waters of Hay Bay through June, and I think the average catch all told would be from 1,500 to 2,000 pounds of pike and pickerel, and we don't get 8 pounds of bass.

Q. I think you told me that a fish in spawning time is not as good as any other?—A. Yes, but I don't know that it affects the price of fish in any way.

Q. How for your own eating?—A. I would prefer fish out of spawning season.

Q. Otherwise you say fish in the spawning season sell as well as any other?—A. Yes, for foreign markets. At least the price is not lower at that time because they are spawning. The price is regulated entirely from the quantity and supply.

Q. Is that because the people don't know it?—A. I presume so.

Q. Have you any opinion to give us as regards the class of nets that should be used? Does it make any difference in the price of fish whether they are caught in one description of net or another?—A. The size of the fish affects the price.

Q. Well are the small fish less valuable?—A. The extremes are less valuable than the mediums. The very large pickerel is worth less than the medium, and the very small are worth less.

Q. Then the extremes in size are worth less than the mediums?—A. Yes, in the rough fish, such as pickerel and pike.

Q. How is it in regards to the whitefish?—A. Well a whitefish is a whitefish the whole world over. Whitefish large and small are worth the same.

Q. Do you mean to say they are worth the same price per pound or apiece? Do they grade yours one and two?—A. The Lake Ontario whitefish all go at one price, but the Lake Erie fish are divided in two classes. We ship to dealers who say the Erie fish bring a larger price, because they are larger.

Q. Do you know the usual size of the Erie whitefish? Have you dealt in them at all?—A. No, sir, we have not dealt with them.

Q. What is the usual size of the whitefish caught in Lake Ontario that you purchase?—A. About 2 pounds or  $1\frac{3}{4}$  is the average size.

Q. What is the average of whitefish in the Bay of Quinté?—A. In my judgment perhaps they may run larger.

Q. Do you think there are two kinds of whitefish that frequent this bay?—A. I am not well enough posted to answer that.

Q. Do you think there are two kinds or do you think they are one family?—A. I have been told there are three kinds.

Q. In purchasing do you make any difference?—A. No, sir. In purchasing whitefish we make no difference as to kinds, which the fishermen allege to be three kinds. Lake fishermen claim that, I never heard the argument used here.

*By Mr. Harris :*

Q. Do you prefer gill-net fish, or seine fish, or pound-net fish?—A. We make no difference in the price of fish no matter how it is taken.

Q. Do you know that they are classed when they get on the other side on account of the size of them?—A. No, sir, they are not classed. I don't know as they are. They may be. The retailer makes no difference. I think it makes a difference in New York. It don't affect our fish here.

Q. Do you know whether there are any fishery regulations in the United States across the lake?—A. Yes, sir. They have had them there, but with regard to whitefish, I cannot say. I think not in regard to whitefish.

Q. Do you think it judicious to have good regulations to protect the fish in the Canadian waters?—A. Yes, I do.

NELSON INSTANT sworn:—

*By Mr. Wilmot :*

Q. Your residence and occupation?—A. Amherst Island. I fish myself and my boys farm. I have been engaged in fishing all the days of my life. Since 35 years ago.

Q. Where do you fish, what places?—A. In the Bay of Quinté and Lake Ontario. My license covers the Bay of Quinté, and out in Lake Ontario four miles.

Q. What sort of nets do you use?—A. Whitefish-nets, and salmon-nets, all gill-nets.

Q. What is the size of the mesh for your nets?—A.  $4\frac{1}{2}$  for whitefish and 7 inches for salmon.

Q. What length of net do you fish with?—A. About 100 rods I generally use.

Q. What is the depth of your net?—A. Twelve measures, that will be bar size of the mesh measured from.

Q. Does bar measure mean the square of the mesh measured from corner to corner diagonally?—A. Yes, sir.

Q. Have you anything you wish specially to say to the commission?—A. Mr. Pollard gave good evidence here, only he did not class the fish properly.

Q. Then you agree with Mr. Pollard's evidence?—A. I do, except the fish, we have a certain kind of fish in the Bay of Quinté that follows the channel, and the white-

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fish differ. I say channel whitefish weigh about  $1\frac{1}{2}$  pounds and you get them always the same size. We never get them of any account off the shoals. Then we have what we call the Huron whitefish. They will go through a 2 inch mesh.

Q. What other kind have you got?—A. The Lake Ontario whitefish. A fish that will go 2 pounds and over at its best and we have caught them as high as 8 pounds, but that is an exception.

Q. Then you think there are 3 kinds of whitefish?—A. I do, sir, these fish that are 2 pounds and over, are caught outside in the lake. They come in during August and 1st September and come through the upper gap.

Q. What do they go through there for?—A. To spawn in the Bay of Quinté.

Q. What becomes of these little fellows, the  $1\frac{1}{2}$  pound whitefish?—A. They are always there in the channel. We call them dipper bellies. They are not the same kind of fish, they are a fish with a very small head. From the back to the side fins they seem to swell out, and then taper off towards the tail.

Q. Well that is no distinctive difference. What colour are they?—A. Almost the same as the other fish but a little lighter in colour.

Q. The other kind, the Lake Huron fish, what about them?—A. The Lake Huron whitefish looks almost like a sucker.

Q. Are you sure it is not a sucker?—A. I know that all right, we catch them amongst the rest. They are about 2 pounds. We don't get them very often.

Q. Do they go up the bay the same as the others to spawn?—A. I won't say that. We catch them down among the other whitefish.

Q. Are you prepared to say the others come up to spawn?—A. Yes, sir.

Q. But you cannot see whether they come up to spawn or not?—A. No, not these round bellies.

Q. Now when are these Lake Huron fish seen by you mostly?—A. It is like this, you see them generally when a good run sets in off the lake in August and September. They are mixed up with the other fish.

Q. Then this is your history of these three kinds of fish?—A. Yes, and I think I can prove it by men here.

Q. What do you think about the close seasons for fish?—A. I think there should be close season and they should be well enforced too. Principally for whitefish and salmon-trout and all other kinds, because I am a great hand to defend the fish.

Q. The fish you catch, do you catch them in May, June and July, that is whitefish and salmon-trout?—A. We will catch them as soon as the ice goes out.

Q. Where is your whitefish fishing carried on?—A. It is along Lake Ontario. All through the summer season and fall months until the close season sets in. Our men make it a business of fishing all through until 1st November.

Q. Where do you think the fish you are in the habit of catching go to spawn?—A. Whitefish go up the bay some place. I cannot tell you exactly. I never fished up there.

Q. Where do your salmon-trout spawn?—A. On our bars around Nut Island, and Amherst Island.

Q. If the whitefish were caught in November up the Bay of Quinté how would that affect your fisheries?—A. Well, of course there would be no fish. It is like this, a hundred fish will pass over a gill-net where there will be two caught.

Q. If the male and female fish are caught, when they go up the bay to spawn, will it not affect your fishing?—A. I think it will. In regard to the net business. With our gill-nets when the fish pass in outside of Grape Island, there will be a thousand fish pass over the nets and there won't be one caught if the current is going out.

Q. Do you think the present close season is right?—A. I do as far as I know about our salmon and whitefish.

Q. Do you fish for herring?—A. No, sir, only whitefish and salmon-trout.

*By Mr. Harris :*

Q. Do whitefish stay longer than three or four months. How long do they stay?—A. Until April or May.

Q. Do you ever fish any in December with gill-nets or the end of November?—  
A. Never did. I have heard men say on the upper end of the Island they have caught them in December, off their spawning grounds then.

Q. But they would not catch them in that locality in the spring and in July and August?—A. Yes, to a certain extent, but not so plentiful as in September and so on.

Q. Then what you mean to say is this, that at the time you get your salmon-trout and whitefish they are either on their breeding grounds or going on their spawning grounds, and they should not be caught then?—A. Yes, I think they should not. All kinds of fish should be protected then.

Q. Where do you sell your fish?—A. Part at home, and part at Bath to Canadian dealers.

*By Mr. Harris :*

Q. Never had any difficulty in getting out your license?—A. No, sir.

THOMAS HOWARD sworn:—

*By Mr. Wilmot :*

Q. Give your residence and occupation?—A. At Bath, and I am a fisherman for 38 years, and I fish just in the upper gap, and in the bay, and up the bay sometimes.

Q. What sort of net do you use?—A. Gill-nets for whitefish, I do not fish for salmon-trout, the meshes are  $4\frac{1}{2}$  extension.

Q. Where do you sell your fish mostly?—A. I sell them on the grounds to Canadian buyers, and got 5 cents a pound this season.

Q. Do you corroborate what this gentleman, Mr. Instant has just said, or do you wish to relate it?—A. Yes, I corroborate what he says.

Q. As you corroborate what Mr. Instant has said, do you wish to say anything more?—A. No, sir, no more, except when the fish come up to spawn. They come through the upper gap, all I can say, is that the whitefish come in the upper gap, and then they go up and down the bay to spawn.

Q. Are you satisfied with the present close season?—A. I am, and believe it to be correct.

Q. Do you think it right to catch fish at the spawning time?—A. No, sir, I do not.

Q. Have you anything further, you want to say?—A. Nothing more.

GEORGE LINDSAY sworn:—

*By Mr. Wilmot :*

Q. Where do you reside?—A. About four miles from here on the Napanee river, my occupation is a fisherman only, and have fished four years in the Napanee river with hoop-nets, two double sets with 4 hoops and 2 leaders.

Q. What is the size of the mesh?—A.  $1\frac{1}{4}$  in the bag,  $2\frac{1}{2}$  all through wings, and leaders the same.

Q. What kind of fish do you catch?—A. Bullheads, eels, suckers and pan fish or coarse fish. We don't include pickerel and bass as the coarse fish.

Q. What is the average size of your mudcats?—A. About 3 pounds to the dozen, about 3 to the pound, some where about that, that is cleaned and dressed.

Q. What do you get for them?—A. Well, some times  $4\frac{1}{2}$  cents, some times 5 cents and some times 6 cents.



## Ontario Fishery Commission.

Q. When do you usually set your net?—A. In January, and stop 15th April, when we take them up until the month of October, when we set again and fish on until the end of the year.

Q. What do you pay for them, what license fee?—A. \$5.00 a set.

Q. Who do you sell your fish to?—A. Sometimes to Mr. Benson and sometimes to Robert Perry, both local dealers.

Q. Do these dealers ever furnish you with money to get your license?—A. No, sir, no agreement is made between us and the buyers in any shape or manner, we can sell to whom we like.

Q. When do you think these mudcats are in the best condition?—A. About the middle of March up to the 1st of May, after that we do not fish any you see. They are spawning then and in June, and in July, the egg is hatched out in July.

Q. How do they spawn? What sort of nest do they make?—A. They go and dig a hole in the mud and go in the hole and lay their eggs and stay in the hole until the eggs are hatched they dig a round hole, about 1 foot,  $1\frac{1}{2}$  to 2 feet deep about 4 inches across.

Q. What position do the fish get in there to lay their eggs?—A. They seem to lay in there backwards with their head towards the hole.

Q. Do they lay their eggs while standing on their tails?—A. Pretty nearly, the hole is a little slanting.

Q. How long are they in that hole or nest?—A. I think about 3 weeks, between 3 and 5 weeks, the female is relieved by the male, the little fish come out then and the parent fish male and female stays with them until along about August, when they get to be  $1\frac{1}{2}$  inches to 2 inches long.

Q. What would be the probable number of the young fellows?—A. I would say there would be 150 to 200 to each clutch.

Q. Do they take special care of the young if anything comes near them?—A. Yes, sir, they do. There is no other fish that eats them on account of the horns, on the little ones.

Q. Are they bred in the form of the old fish?—A. Yes, sir. The only thing that will destroy them is the black water snake.

Q. Where do the little fish go when they separate from the old ones?—A. Among the weeds and grasses. The older fish go away from them.

Q. What condition are the old fish in at this time?—A. Well, they are not in very good condition I think, they are in good condition again in about 3 months.

Q. Do you mean it takes about 3 months to get them fit for the market?—A. That is the meaning of it.

Q. Then do I understand you to say the water being warm they should not be caught until the 1st October?—A. No, sir. I say October altogether.

Q. Then you catch no other kinds of fish worth mentioning, but now and then a few other kinds of fish?—A. I get no bass, no pickerel.

Q. Do you say that the catfish are not fit to eat from the time they lay their eggs until the 1st of October?—A. They may be in condition but not good.

Q. Well, would these dealers buy them during that time?—A. I don't think so, dealers don't care about buying them.

Q. Have the catfish of late years been falling off in quantity?—A. I don't know as they have, they are about the same as they were then.

Q. Should close seasons be established for them? What should be the close season from them?—A. I don't know that a close season is right for them, a close season from the 1st October is about right.

Q. The present close season from the 15th April to the 1st October is correct, but you would like to have it commence the 1st of May, is that it?—A. Yes, sir. The ice is so late going out of this river.

Q. Do you think there should be any more licenses granted for mudcats in the river than at present or do you think there are enough?—A. I don't think it would matter particularly, I think there is enough in the river for the size of it.

Q. What quantity of fish did you take last year?—A. Well, I can hardly tell you. I did not keep a memorandum of it. Somewheres about \$150 to \$200 at 6 cents a pound.

A set of hoop-nets is what? What do they cost?—A. They consist of 2 hoops and one leader and 4 wings, and will cost about \$20 all told.

Q. What is your grievance? What do you complain of?—A. About my license. I paid \$10 to Mr. Sills and have not received any license since the 1st of April.

Q. Have you fished at all during the season?—A. We fished up until we paid our money. From the 1st of January to the 1st of May; the time was extended.

Q. Then you fished from the 1st of January until the 1st May without a license?—A. Yes, but we had paid our money.

Q. Did you pay your license on the 1st of April?—A. Yes, sir, we could not pay it any sooner.

Q. Did you offer to pay before that?—A. Yes, sir, in the fore part of February, but it was refused. Refused by Mr. A. D. Sills, the former overseer.

Q. Why was it refused?—A. Because he did not know, there was some dispute and he could not take it.

Q. You may say that Mr. Sills said he was suspended and could not take the money, and that you afterwards paid the money to the young Mr. Sills about the 1st of April?—A. Yes, sir.

Q. You paid Sills, the younger, what did he do with the money, did he send it to Ottawa?—A. I think not, sir; he put it in the bank.

Q. Did he inform you that he put it in the bank to the credit of the Government?—A. Yes, sir.

Q. Did he tell you he informed the department, and that he put the money in the bank?—A. No, only lately.

Q. You say he informed you he paid the money into the bank for the Receiver General for your license?—A. He told me he paid it into the bank.

Q. You say the license has never come to hand?—A. No, sir.

Q. And you now ask for the money or the license?—A. I don't care about the money, I want the license.

Q. And if it cannot be granted do you want the money back?—A. Yes, sir.

Q. Any further grievances to make?—A. Not that I know of.

Q. And that is as near correct as you can give it to us?—A. Yes.

*By Mr. Harris :*

Q. Can one man attend to more than one set of hoop-nets?—A. Yes, sir, 5 or 10.

Q. Would you be glad to fish with more if you had them?—A. If I was able to get them.

Q. Do you think it better for the fisheries if the department encouraged men to devote themselves to fishing wholly like yourself?—A. I don't know.

Q. How far apart should the nets be between them?—A. The length of the leader, about 70 feet.

Q. Are bullheads and channel catfish the same fish?—A. Different fish altogether; quite different fish.

*By Mr. Wilmot :*

Q. These fish are commonly called mudcats, bullheads and catfish?—A. Yes. They are one fish except channel cats.

*By Mr. Harris :*

Q. What depth of water are your hoop-nets in?—A. Six feet, but seines could not be drawn in that water, it is weedy bottom.

Q. Mudcats, bullpouts, and catfish are the same fish, but there is another fish like the catfish, called channel catfish, which is a different fish altogether?—A. Yes, sir, but channel cat is a different fish altogether.

Q. Where are these large channel cats caught?—A. In the same place we catch the small catfish on hard bottom sometimes, but they go in deeper and cleaner water generally.

## Ontario Fishery Commission.

WILLIAM DAVEY sworn:—

*By Mr. Wilmot:*

Q. Are you residing in the same place, fishing in the same way as Mr. Lindsay, and in the same position?—A. Yes, and there are some other men in the same position. Their money has been paid and sent, and the license is held back.

Q. You paid your money in the same way?—A. Exactly.

Q. And do you corroborate all that Mr. Lindsay has said in every respect?—A. Yes, sir.

THOMAS VANORDER sworn:—

*By Mr. Wilmot:*

Q. Give your residence and occupation?—A. South Fredericksburg. I have lived there nine years. A fisherman, only for part, 20 years about.

Q. What sort of net do you fish with?—A. Whitefish gill-net, and pickerel nets, fishing in the main part of the Bay of Quinté from the upper gap up. I have had a license to fish in the lower gap also, up to Thompson's Point.

Q. Then you are in Finkle's division, are you not?—A. No, sir, in Mr. Sills's. Finkle comes half way to the upper gap.

Q. What size mesh do you use in your net?—A.  $4\frac{1}{2}$  and 6 inches,  $4\frac{1}{2}$  for whitefish and pickerel, and 6 for pickerel also, we fish both kinds for pickerel. If we want to catch the small ones we use  $4\frac{1}{2}$  mesh, some seasons we use  $4\frac{1}{2}$  and some 6 inches mesh.

Q. When do you use the  $4\frac{1}{2}$  mesh?—A. About the middle of September, and we use the 6 inch after the close season and in the spring; after the 15th of May we use this large mesh to the last of July.

Q. How do you account for the fish being smaller when you use the  $4\frac{1}{2}$  mesh?—A. We formerly fished in the lower gap from the 1st of May up to the last of July, then we come in the bay and fish for pickerel, and we catch a smaller class in the bay than in the lake.

Q. Where do you use the 6 inch mesh after the 15th May?—A. In the lower gap, in Keil's division, and the  $4\frac{1}{2}$  mesh in the bay here.

Q. Do you fish all over then?—A. Yes, wherever we get a license.

Q. And do you get a license from both Fishery overseers?—A. Mr. Finkle and Mr. Keil made arrangements between them if I took out a license in Finkle's division and one in Keil's, I have a right to fish in each. I take out a license in this division and also in Keil's.

Q. How many licenses have you?—A. I have two and I fish in two divisions.

Q. I think you said you went down to Keil's for a license?—A. No, I got a license from Mr. Finkle to fish in Mr. Keil's division.

Q. You fish for salmon-trout and whitefish?—A. Whitefish and pickerel, very few salmon-trout.

Q. The fish you catch with the 6 inch mesh what size would they be?—A. About 7 pounds a piece.

Q. When do you think these pickerel are in their best condition?—A. I never fish for them until after the 15th June, from that until it freezes up or until they spawn. Pickerel are good except at spawning time.

Q. When is their spawning time?—A. They spawn in April. I claim that pickerel spawn just as soon as the ice is out of the bay, and it is generally out of these bays about the 15th of April, and from that until the 1st of May will take in the spawning time. You will find the pickerel on the shore about the time the ice is out. We catch them along in March and they are going up then.

Q. What about the whitefish spawning time?—A. About the 15th November they start to spawn in the Bay of Quinté. They generally get through their work all in 10 days, from the 15th to the 25th.

Q. Do they return immediately then to the lake?—A. That is a question I cannot answer, but when they leave the bars they are gone. You cannot catch them and salmon-trout are the same way. After they get through spawning they are gone. They come into the bay out of the lake.

Q. Then they must go into the lake after spawning?—A. Yes, in about three weeks you catch them in the gap.

Q. Is there 100 feet of water in the bay here, is it deep?—A. Yes, 100 to 150 in the gap, and at the stone mills. The stone mills are from Picton about 5 miles. There is 150 feet in the channel. They cannot be caught after they leave the spawning bars until about three weeks after, when they are caught in the deep water in the bay and lake.

Q. You say they come in this bay from the lake about when?—A. About the middle of July, they get in the gap first.

Q. Then they come in from the lake, and are caught in the upper gap?—A. About the middle of July. They are first caught there. They come up the bay, as far as the deep water comes and are there three months. There the deep water ends, about 5 miles below Picton. They go from there. Take it on an average the 10th or 15th October, on up the bay in shallower water as far as Trenton.

Q. Then after they reach there what then?—A. They turn around and come back again and spawn all along on these bays here and points on the shoals and reefs in the shallow water about four feet deep, but in the lower gap you won't catch them in that water. They spawn in deeper water. They spawn there from 15 to 20 feet.

Q. What is the time they do this?—A. From the 16th to the 25th November or along the last of November. They do not spawn before the 15th and that is the end of them for that year.

Q. Have you any idea how long the eggs are hatching out? Do you know?—A. About 90 days, and all I know is from what I have read.

Q. What is your opinion with regard to the quantity of the whitefish now and what they were 15 or 20 years ago?—A. They are just as thick this fall as 20 years ago.

Q. What do you call a good lot of fish at a haul?—A. 150 to 200 at a haul, I call that good fishing. In the gap from Indian Point up.

Q. Do you ship your whitefish fresh?—A. All fresh to Lake Ontario Fish Company, at Cape Vincent, U. S.

Q. You get how many at a good haul did you say?—A. 200 whitefish. This was about the 1st September this year and right along until there came a wind which drove them away.

Q. They do not come back again you said after leaving the grounds?—A. Yes, they are coming back and we catch about 60 or 70 at a haul.

Q. What is the average weight of these whitefish?—A. About 2 pounds apiece. Some hauls you will get some that will run a little over but on an average they run 2 pounds.

Q. Do you say there are 2 or 3 different kinds of whitefish?—A. I say there are more than one. I know there are several different whitefish but cannot tell you exactly the difference. There is the Lake Huron whitefish, and lake whitefish.

*By Mr. Harris :*

Q. You say there are three kinds of whitefish. What do you call them?—A. The Lake Huron whitefish is a round whitefish and longer than the others generally and is a light colour.

Q. What will it weigh generally?—A. A pound and a half apiece.

Q. What is the quality of this Lake Huron whitefish?—A. I would not have it at all. You cannot get any price for them. The most are caught at Point Traverse. They spawn around in November and December, they are not plentiful now, they were plentiful formerly.

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Q. Where have they gone to? When do they spawn?—A. I don't know where, they tell me they catch them at Point Traverse about the 1st of December, and they spawn then.

Q. The other kind called lake whitefish?—A. Is a deep water fish. They go deep in the lake and bay, they are a light yellow colour. The usual weight of these, is about one and a half pounds.

Q. And are these round?—A. No they are not round like the Lake Huron whitefish.

Q. When do they spawn?—A. That is something I cannot tell you. I never caught them on the bars. I have seen the spawn in them in the summer time. I suppose they spawn through the summer, in the deep water, out in the lake and in the bay.

Q. They bring about what price?—A. As much as lake whitefish. About 5 cents a pound, they are plentiful at certain seasons of the year. Generally speaking they are plentiful.

Q. Then they ought to be taken care of at the spawning time?—A. Yes, if a man can find their spawning time right. They are like the bass. I think the bass close season is not when they are spawning.

Q. Now, what are these other fished called, the third kind?—A. I call them lake whitefish; the true whitefish; they come in from the lake about the middle of July, and spawn in November, about the 15th November. I don't think there are any spawn before that season; from the 15th to the end of November is the right time.

Q. What will these weigh, the third kind?—A. 2 pounds apiece, and the colour of these is pretty black, pretty dark.

Q. Is there any difference in the appearance of these fish, the male, from the female?—A. Not that I can see, only the roughness of the scales on the he one, and he don't get rough until about 3 weeks before the time they spawn.

Q. Then of these three kinds number three is the best?—A. Yes, but number 2 is just as good for sale. They are not the same size, number two is about 1½ pounds, and the other is about 2 pounds, but I cannot say that they spawn the same time.

Q. Are you of the opinion there should be a close season for whitefish and all other kinds of fish when breeding?—A. Yes, sir.

Q. Do you know anything much in the herring line?—A. No, I can never get a license to fish for herring. I fished for them with a license years ago. Lately they won't grant a license to fish for herring.

Q. Are fish in as good condition at spawning time as before or after?—A. I don't think they are. They won't keep as long they are softer.

Q. With regard to licenses are you of the impression there should be a greater number of licenses issued than at present?—A. That is providing the men who are generally fishing have got their licenses then there are enough licenses in the bay. What I mean to say the number of licenses heretofore granted is quite sufficient for the bay.

Q. Do you think the Department of Fisheries should use what exertions they can to protect the fish from being over-fished and destroyed?—A. Yes, I think they should. The close season should be looked after and care given to the fish at the spawning season; this would be in the interest of the fishermen as well as the fisheries generally and the general public.

Q. Can you give us an idea of what quantity of fish you may have caught last year altogether?—A. I suppose about 800 pounds a week while we fished for whitefish, which was about 4 weeks in the spring from the time when the ice goes out.

Q. And you caught about 800 pounds a week from the 1st of April to when?—A. Yes, to the last of June, then we catch again from the 15th July to the 31st of October. We averaged that right straight through last season.

Q. With regard to your pickerel, what catch did you get of them?—A. We averaged about 600 pounds a week while we fished for them.

Q. And you commenced fishing for the pickerel when?—A. Along about the middle of June, to the last of July, and then we commenced again the next spring; our pickerel fishing is from the 15th June to the 31st July.

Q. How do you dispose of them? To whom do you sell?—A. To the Lake Ontario Fish Company at Cape Vincent, New York State, U. S., they have a man here and a boat that picks them up from where we take them ashore, and he takes them over to Cape Vincent and he brings the money back from the company to us.

Q. Do you pay any charges or duty on them?—A. We have nothing to do with that. They pay us five cents a pound when we bring them ashore and we don't see them any more and this is the system carried on with the other fishermen in this neighbourhood.

Q. Then they are sold as they are taken from the net?—A. Yes, sir, except in the summer months, from the time we start in the spring up to the middle of August or 1st of September.

Q. What size mesh do you use?—A. A 4½ and 6 inch mesh, but if the 5 inch mesh comes in force the fishermen would have to quit, it would ruin the fishermen, they would not make their salt.

Mr. MILO PARKS, of Hay Bay, one of the oldest inhabitants, 80 years of age, had lived all his life on Hay Bay, made the following statement:—

*By Mr. Wilmot :*

Q. Do you think fish are as plentiful now as years ago?—A. I don't think the fish are as plentiful. We had two to one then easily enough. I can remember when we could go out and get all the fish we wanted without any trouble.

Q. What kind of fish were they when you first fished here?—A. Pickerel, bass, maskinongé, pike, suckers and a very few whitefish in this bay, herring were not very plentiful.

Q. I suppose at the time you speak of you did not have all the appliances to fish with that they have now?—A. No nets at that time. We could go out and in a little while we could get 10 or 12 pickerel and that was all we needed.

Q. Do you know if whitefish were plentiful up the reach at that time?—A. I am not well posted in other parts of the bay. About the head at Adolphustown, they used to set nets, and get some whitefish there.

Q. When did you settle here?—A. I was born and brought up here.

Q. One of the old stock then?—A. One of the youngest of 18 of a family.

Q. Where are they all scattered over now?—A. They are all gone but myself.

Q. Then you must be how old?—A. 81 past. In those days the fish were plentiful where I fished.

Q. The principal fish were pickerel, bass, maskinongé and suckers?—A. Yes, and pike and red-fin suckers. There was plenty of red-fin suckers.

Q. Were black bass pretty plentiful?—A. Yes, in an hour we could catch 10 or 15 black bass, in fact all we wanted.

Q. And how did you catch the fish in those days?—A. With spear and hook and line, very little netting done.

Q. But there might have been whitefish here and you could not catch them with the hook and line?—A. I never heard of them being here. The principal kind of fishing was hook and line and spear. They used to come in the spring of the year and draw seines and catch hundreds of pickerel. In the spring, about the time they were spawning, about the 1st of May.

*By Mr. Harris :*

Q. Can you place the time at all when seine fishing was first began here?—A. Occasionally they came up here with seines some 50 years ago.

Q. Was it about 20 years ago, seine fishing was commenced here for commercial purposes?—A. I think it was about that time.

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Q. When you first came here did you care for mudcats at all?—A. No, sir. Mudcats as a rule were not caught here for any purpose at all until the last 10 or 15 years.

Q. You think the fish you have referred to, at least the maskinongé and bass, are very small in numbers to what they used to be?—A. Very few to what there used to be.

*By Mr. Wilmot :*

Q. Have you formed any idea yourself how this falling off has taken place?—A. I cannot tell you unless it is on account of the number of nets in the bay. Boats come up here every day catching fish and selling them, and I think killing the mother fish while spawning has had much to do with it, it has been one of the principal causes.

Q. Your opinion is just the same as we have heard from all other intelligent persons, that it is the excessive and over-fishing of fish at the spawning time that has brought the fish down so low in numbers at the present time?—A. That is my opinion, sir.

CHARLES PARKS, son of Milo Parks, made the following statement :—

*By Mr. Wilmot :*

Q. How many years do you recollect back?—A. About 30, and I should judge the first net we hauled was about 10 rods long, and we could catch all the fish we wanted for family use. All the fish that we needed of pickerel, pike and bass. We caught them right along any time during the spring and in May, June and July, and in the fall of the year also.

Q. Would you be able to catch plenty of black bass?—A. Yes, 8 or 10 in a little while, that is all passed by now. Sometimes we catch a few, but not as many as there used to be years ago, there were no hoop-nets, none then. I don't think the hoop-nets were fished until about some 20 years ago, there were no gill-nets then. Fishing for export commenced about 20 years ago.

Q. Are you convinced in your own mind that there are not as many fish here as in former years?—A. Not one-third. They were then so numerous that we caught all we wanted, but now it is difficult to get any, we could have made our fortunes if we had had the nets then that they use now.

Q. With regard to Hay Bay, what little you know of the bass were they more plentiful then?—A. Yes, we used to go out along the shores any where and get from 50 to 60, but you cannot catch one at all now. I have not caught more than 2 or 3 in five years past.

Q. What is your view regarding this falling off? Of bullheads?—A. Hoop-nets every where.

Q. Are these fish numerous yet at the head of the bay?—A. No. They cannot catch one now where we caught a dozen then.

Q. Have you got the whitefish here now?—A. No, they do not come down this far now, not further than the Island over there, quite a number were taken there some years ago.

Q. Were the nets they used then anything like the nets they use now?—A. Yes, gill-nets, but there are 10 times the nets used now as there was twenty years ago.

Q. Was it not known that in former years the whitefish frequented here for spawning purposes?—A. Only once and a while you would hear of one being caught, but my impression is the whitefish are nothing now, to what they were formerly, not one now where there would be three. I don't know much about the whitefish.

Q. Were herring here at all in your early time?—A. We used to catch a few, I think they are all cleaned out now by over-fishing at the spawning times, I think all hoop-nets should be taken out of the water.

Q. Do you think the fish should be protected at their spawning time?—A. Yes, sir.

Q. Do you think pickerel spawn in this bay?—A. Yes, sir, I think they do.

Q. Never knew of any salmon-trout being caught here?—A. Not of late years. Once and a while at the reach.

The Commission then adjourned *sine die*—with the view of going westward to hold meetings at Port Arthur, Sault Sainte Marie, and other important fishing points on the shores of the great lakes.

### 3.—PORT ARTHUR.

The Fishery Commission met at Port Arthur this 26th day of October, 1893, at 2 o'clock in the afternoon, according to previous notice.

Members present: Samuel Wilmot, Esq., Edward Harris, Esq., Thomas Marks, Esq., and Miss Kittredge acting as stenographer. Mr. Wilmot, as chairman, opened the meeting, and the following proceedings took place.

The purport of the Commission was explained by Mr. Wilmot, followed by a few remarks from Mr. Harris.

Mr. W. C. DOBIE was called and sworn:—

*By Mr. Wilmot:*

Q. Where is your residence?—A. Port Arthur.

Q. Your calling?—A. I am a merchant.

Q. How long have you resided here?—A. Twenty-one years.

Q. Be good enough to give us any information you can regarding the fisheries?—A. The reason why my name has been mentioned here I presume is owing to the fact that three years ago I was fishery overseer. While in that office I had the pleasure of meeting you. I made investigations and know something of fishing I presume, I hope I filled my office intelligently.

Q. Do you prefer having questions asked you?—A. Yes, I think that the better way.

Q. Do you know the description of nets used here?—A. Yes, gill-nets and pound-nets.

Q. What size of mesh do you use in gill-nets?—A. From 4½, to 5, and 6 inch mesh.

Q. Why the difference in size?—A. Owing to different localities I believe, that is to catch different sizes of fish in different localities.

Q. It is not to suit different periods of the year?—A. Well, I really think sometimes larger fish are caught at some parts of the season than others.

Q. Well, what season are the larger fish caught?—A. In the fall.

Q. Are they more numerous then than at other times?—A. Generally speaking I think they are.

Q. When are the medium size trout particularly caught?—A. During the summer season.



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Q. What description of net and mesh do you use there?—A. From 4½, to 5, and 6 inch in the fall, 5 or 6 inch mesh. I am speaking in regard to my remembrance at the time I was overseer.

Q. The 4½ mesh in summer, catch medium trout, and 5 to 6 inch mesh for large ones?—A. Yes.

Q. Is there any perceptible difference in them as trout?—A. They are all one and the same fish, the trout that comes late in the season here, is called the genuine salmon-trout, a very large one coming about the close of navigation.

Q. What are the others?—A. The others are called lake-trout.

Q. When are these lake-trout taken?—A. About the end of November towards December. There are very few caught because of the stormy weather at that season. Pie Island is a good place for that species of fish.

Q. What do they generally average?—A. From 8, to 15 and 25 pounds, average say about 10 and 12 pounds, caught as high as 25 pounds, in fact the average is 12 pounds.

Q. Now, about the lake-trout, what is the average size of the lake-trout?—A. The summer-trout, about 7 or 8 pounds. I don't know whether that is too high or not for these trout in the fall.

Q. No perceptible difference only one is larger than the other?—A. Yes, they seem to be the same species.

Q. Where are the summer-trout caught?—A. Along the shores of the bays, not in deep water. There is very little deep fishing done. It is not practiced so much. There is greater danger and expense I presume fishing in deep water.

Q. Where are the 10 or 12 pound fish principally taken?—A. In Thunder Bay under the lea of Thunder Cape. When I was overseer there were licenses granted there on ground not fished before. We found they caught large fish there and no other part of Thunder Bay. The large fish were taken under Thunder Cape and down by Ross Point to Cape Caldwell.

Q. What part of the year in particular?—A. In the close season, and I presume a little before. In the months of October and November and the beginning of December.

Q. Which particularly?—A. The end of October, and from the 1st to about the 20th November.

Q. What do you suppose they come along the shore for?—A. I presume they come to spawn.

Q. Have you any idea of the time they spawn more particularly?—A. From the 15th October to November. Most of the spawning of salmon-trout is done from the 15th October to 10th November.

Q. What size mesh is principally used to catch the large fish?—A. They have a net called the trout-nets with large mesh.

Q. When do the trout called the red salmon come in?—A. Later, in December I believe.

Q. Do they seem to be a different species?—A. They have an arched shoulder and some scales, a larger, plumper fish like salt water salmon, and the meat is quite red in colour. The others are generally only a slightly reddish colour.

Q. These salmon are not so largely taken as the others are they?—A. No, they don't seem to be so plentiful. They come in later and seem hard to get at.

Q. Should they not increase more largely than others?—A. They should, but so far as our locality is concerned they come near Pie Island which is reserved and has been for three years by Order in Council. It was done while I was overseer.

Q. Are they not caught anywhere else?—A. That is their ground. The fishermen have no chance to go there.

Q. They should be the most numerous fish here?—A. They come in at that season to spawn but don't remain long there, they are not molested there. I could not say if they are increasing in quantities, the fishermen could tell. There are two kinds of trout here.

Q. You have no other kinds?—A. I presume there are, but cannot give their names.

Q. Where are the fish generally sold that are caught here?—A. I think they are sent to the American side by our dealers.

Q. Is there any more company than one?—A. The Port Arthur Fish Company.

Q. Are the salmon-trout sold for foreign countries from here?—A. Yes, for the States. The steamer "Dixon" calls and takes them away. The Port Arthur Fish Company are the particular parties. The representatives are here.

Q. Do the Booth Packing Company have anything to do with them?—A. I think that the Port Arthur Fish Company sell to them.

Q. Do the Booth Company engage in fishing personally?—A. Not that I know of. They are simply fish dealers.

Q. What is the usual price of salmon-trout as brought in for sale?—A. The fishermen get 2½ to 3 cents a pound, cleaned that is. The entrails are always taken out, sometimes the heads are taken off. They are called dressed fish. A very large trout has a very large head and they take it off.

Q. What is your idea with regard to the present quantities of fish taken here. What is the comparison between now and say 10 years ago?—A. Fish are not so numerous now, and, generally speaking, are smaller in their average size.

Q. What do you attribute this to?—A. There are several reasons. In the first place, fishermen are more numerous now than when I first came here. Then, as to size, the same thing would apply, as the larger fish have been caught.

Q. Have the nets smaller mesh now?—A. No, but more fish are caught, because there are more fishermen engaged in the work. Another reason is, I think, the close season is at the wrong time. I think this all helps to bring this scarcity about.

Q. What has been the close season?—A. It was, at one time, from the 1st November to the 10th, and now from the 1st to the 30th November.

Q. Why do you think it improper?—A. Because it is too late. It does not commence soon enough. It should commence about the 15th or 20th October.

Q. Have you any idea when the close season should end?—A. About the 10th November, the whitefish and trout are both through spawning then. So in my opinion, the close season doesn't begin till they are through spawning. I think the trout are principally spawning in October.

Q. Then do you think the remedy would be that the close season should be from the 15th or 20th October to say the 1st of November?—A. For salmon-trout, yes.

Q. What about whitefish, when in particular do they spawn?—A. They begin to spawn now, 25th October, or in a few days and continue till the 10th November.

Q. Do you think all whitefish perform that duty in that period of time?—A. I think the bulk of them do. They take about the same time as the others.

Q. How do you come to this conclusion?—A. From personal observation. I enquired into this when I had the position, and by talking with the fishermen.

Q. What is the evidence of fish being ripe for spawning?—A. When they hold it up the spawn will run clean out of the fish. So they come in with a boat load of fish, and half a boat load of spawn.

Q. Hardly as much as that?—A. Well, hardly, but in any case there is a great deal of spawn there.

Q. A large quantity of eggs is to be found in the boat?—A. Yes.

Q. What is your idea with regard to these fish after the 10th November, where do they go?—A. To deeper water and where they catch them in the summer.

Q. Is it your opinion there should be a close season?—A. I think so. But it seems almost useless for Canadians when Americans do not have any. If the American Government could only be induced to have "close season" at the same time as Canadians, then it would be practicable.

Q. You say there should be a close season but it should be done by the Americans as well?—A. I think it would be advisable.

Q. Suppose they don't do this, do you think Canadians should not have one?—A. I believe in close season, I think the Government should do everything to get the Americans to do it.

Q. You mean this to apply to all fishing?—A. Yes, during the breeding time.

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Q. Have you taken any notice when the salmon-trout are in the best condition for food?—A. I don't know as I could give any opinion, they are always good with us.

Q. Do you think them as good when laying their eggs?—A. No.

Q. Are the salmon-trout as good when spawning as at other times for food?—A. I cannot say, I leave that to the fishermen. They should not be as good in my opinion. I presume it is the law of nature, that is why I think they are not fit for food. This applies to all kinds of fish, salmon-trout, whitefish and all.

Q. Well, what about the whitefish, are they falling off in quantity to what they were some years ago?—A. I think so.

Q. In what proportion are they falling off; give a rough estimate; are there one-half as many or more?—A. Well, not a half, but at least one-fourth to one-third. This is caused by a larger number of fishermen.

Q. And catching them in November?—A. Yes, that would help. With regard to fishing in bays. I mean fish are driven out of such bays by the noise of boats, &c. I think that the noise of railways and vessels in the water drive fish out of the bays.

Q. Suppose we told you fish have no sense of hearing?—A. I would not accept the statement, for I know better. We had fish driven out of Thunder Bay by blasting.

Q. Where do they go to?—A. To the deeper water, and they come back again.

Q. Now what is your idea as to licenses. Do you think there are a sufficient number of licenses in this section of the lake. Should they be issued indefinitely?—A. I should say not, I mean to say that the issuing of an over number of licenses should be guarded against. Too many men should not be allowed to engage in it.

Q. What is your idea about granting licenses?—A. Well, when I was fishery overseer I had limits laid out and each man to be kept on his own limits. I thought it preferable.

Q. You say the limits should be given each fisherman in his license?—A. I think so.

Q. Have you had any knowledge or taken in any observation with regard to the breeding of fish?—A. I think it commendable and should be persisted in. I think hatcheries should be started.

Q. Is the fish known as the wall-eyed pike or pickerel sought for here, are they saleable?—A. I think so, and they go by the name of pickerel.

Q. Where do they spawn in your knowledge of these fish?—A. I really cannot say, I don't know anything about the pickerel, but I thought in June.

Q. Do you think they come to the bays at that time for any special purpose?—A. I presume they come in to spawn, but as far as pickerel go they are a side issue.

Q. What about speckled-trout, are they of any consequence here?—A. They are pretty well fished out in the immediate locality. They were very plentiful at one time in Carp river, 12 miles from here west, and in all the streams.

Q. What do you suppose was the cause of their falling off? Were they netted?—A. I don't think so, a persistent fishing with hook and line, but I have not known of their being netted.

Q. Do you think it a great want here? Is it considered a serious matter that they are caught out?—A. I don't think so. There is not as much sport as there used to be that is all.

### *Cross-examined by Mr. Harris :*

Q. Where do the principal fish come from?—A. From Rossport and Black Bay. About forty or fifty miles below here.

Q. Have you had many year's experience?—A. I have been in the place over twenty years. But have not fished much.

Q. When you first had knowledge of the fishing here, where was it then?—A. It was down in Thunder Bay, and out down towards Black Bay.

Q. Is the fishing getting farther off all the time from here?—A. Yes, they must get on the new grounds as much as possible.

Q. You speak of steamboats, &c., driving fish away, that could only apply to one or two localities?—A. Yes, to this bay and to this side of the bay.

Q. The 4½, 5 and 6 inch mesh is the gill-net mesh you speak of is it. Do you use the same twine?—A. No different for all.

Q. Is it necessary to use small twine or is it done for economy?—A. Principally that and there is a difference in the price of the web of about one-half.

Q. Are small fish caught by the teeth?—A. Not to my knowledge. No, I don't think so.

Q. Are there any salmon-trout in quantities brought in weighing 1 to 1½ pounds? A. No, the smallest brought in 4 to 5 pounds is the average.

Q. One of the large fish dealers in Toronto gave evidence to this effect: mature salmon-trout come to this market very flabby and usually bruised and not as saleable, from Superior, Georgian Bay and a good many from Port Arthur. Do you know if that is true?—A. I do not know anything about that.

Q. You say sometimes trout come in to spawn from the 15th of October to the 20th of November. Now, how do you notice they come in then?—A. I said that trout spawn between the 15th of October and the 10th of November. That covers the spawning time.

Q. You say they spawn from the 15th October to the 10th of November. Then on the 15th October they begin to get in a concentrated form?—A. Yes, with white-fish.

Q. How long do they stay here after spawning?—A. There are some fish all the time. A great many return after spawning to the lake.

Q. They come into spawn on the bars and pretty close to the shore do they?—A. Yes, on the reefs in four or five or six feet of water.

Q. I suppose the time they would be most concentrated would be after the 20th November. It would be on the return?—A. Both going and coming I should say.

Q. Then you think it likely they would stay in shallow water after it freezes up?—A. No, they would have to go pretty quick from shallow water.

Q. Do you think it likely they would be in a more concentrated form on the return than coming in?—A. I don't know, I wouldn't say that, I believe they would be more concentrated in coming in.

Q. Salmon-trout are 2½ to 3 cents cleaned, who gets that?—A. The fishermen.

Q. Where do they clean the fish?—A. On their fishing grounds, I believe they come into this dock clean. Sometimes they clean them on the dock. I think the bulk are cleaned away.

Q. Are they gill and pound-net fishermen?—A. Yes, the pound-net fish would not be cleaned before coming to the dock and it depends what kind of boat they have. Sometimes they clean them coming in.

Q. What about the offal?—A. They put the offal in barrels.

Q. You think it is pretty strictly adhered to?—A. I do think so.

Q. What is the usual mesh in pound-nets?—A. 3½ inches.

Q. Would that catch a two pound fish?—A. I think so.

Q. Will it hold a two pound salmon-trout?—A. I think so. I am not a practical fisherman and am not so sure of these things. These practical fishermen will give you better answers than I can in regard to that.

Q. Do the principal fish go to Duluth?—A. Yes, I think so.

*By Mr. Wilmot:*

Q. In regard to pound-nets, in the pot, the mesh is 3½ inches. They are larger in the hearts and leaders. Do you know the size of the twine used? Is it all the same?—A. I think number 15.

Q. What about herring, are they of any importance here?—A. No, I think they might be allowed to catch in the fall. They are not caught for general purposes.

Q. Are herring pretty numerous in the lake?—A. Quite, in the present close season in November.

Q. What do they come in for in November?—A. I cannot say, they are not here in the summer months, not in any quantity.

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Q. Are they very numerous in November?—A. Yes, we can form no estimate why they come? Herring are totally lost sight of, they are not taken account of. They don't seem to want them, they are not in general use here? I think they retail about 10 cents a dozen. I don't think they salt them, they don't ship them? I have never seem quantities shipped.

JOHN MALONEY called and sworn :—

*By Mr. Wilmot :*

- Q. Where is your residence?—A. Port Arthur.
- Q. Your occupation?—A. Fisherman.
- Q. How long?—A. Eighteen years.
- Q. Your nationality?—A. Canadian.
- Q. What sort of fishing do you carry on?—A. Pound and gill-nets.
- Q. What is the size of the mesh in your pound-nets?—A.  $3\frac{1}{2}$  hearts, and leaders 6 inch.
- Q. What is the size of your mesh in the gill-nets?—A.  $4\frac{1}{2}$  to 6 inches.
- Q. What is the principal kind of fish caught in the pound-nets?—A. Mostly whitefish, still I take other fish.
- Q. What time of the year are whitefish taken most numerously in the pound nets?—A. June and July.
- Q. When are salmon-trout caught most?—A. In September and October.
- Q. In catching whitefish in June and July, do you ever catch any quantity of salmon-trout?—A. Very few, we sort out every fish.
- Q. How long are the leaders of pound-nets?—A. 50 to 60 rods.
- Q. Where do you set the gill-nets? In Thunder Bay mostly. In a depth of water?—A. From ten to thirty fathoms. I don't fish gill-nets in summer, I fish them in September and October.
- Q. And in these gill-nets what fish do you catch?—A. At that time of the year mostly trout.
- Q. What is the average size of trout in September and October?—A. About 10 and 12 pounds, and I catch very few whitefish at that time.
- Q. When do the whitefish begin to come in?—A. About the 20th and 21st of October.
- Q. How long do they seem to remain inside? Is it until it freezes up?—A. They start to move out from shore about the 10th to 12th of November.
- Q. What do they come in there for?—A. To spawn, I believe.
- Q. You say salmon-trout begin to come in about the 10th September?—A. Yes, about the first part of September and are on and off all the month of September and October, they come to spawn I believe.
- Q. What is your view as to their condition when they come in to spawn?—A. In my opinion they are better before the spawning time.
- Q. Does that refer to salmon-trout and whitefish alike?—A. Yes.
- Q. What is the condition after spawning time is over?—A. They are soft and flabby, yet there is no difference made with the dealers.
- Q. What is the price you generally get for your salmon-trout?—A. Three cents this year and the whitefish are the same as the salmon-trout.
- Q. Who do you sell to?—A. To the Port Arthur Fish Company, the manager we sell to is Mr. Brimsen, who also sells some fish for home consumption.
- Q. But they are principally sent to the United States market are they not?—A. I think the whitefish are mostly sent away.
- Q. Some of the salmon-trout are sold here are they?—A. Yes, some of both kinds are sold here, but the whitefish are principally sent to the United States.
- Q. Do you catch any other kind than salmon-trout?—A. Some pickerel.

Q. What is the usual size of the pickerel?—A. They average about one pound,  $1\frac{1}{2}$  or 2 pounds, these are the yellow pickerel or wall-eyed pike, we have no blue pickerel here.

Q. Do you catch any maskinongé or bass?—A. Not worth mentioning.

Q. In your pound-net do you catch many suckers? Are they numerous?—A. Quite a few suckers, we let them go again.

Q. Are you under the impression that suckers eat the eggs of other fish?—A. I believe that suckers do eat trout eggs.

Q. Why do you let them go then?—A. We can't do anything with them.

Q. Why do the whitefish and salmon come in shore at this time of the year?—A. To spawn.

Q. Have the fish fallen off in quantities during the last years?—A. The whitefish have to what they were formerly.

Q. Well, now in what proportion from your own experience could it be?—A. I should think about one-fourth or one-third.

Q. What do you attribute this to?—A. I think it is on account of fishing too much.

Q. Would that also include fishing with too small mesh nets?—A. No, I don't think so. I think another thing is the close season is not at the right time.

Q. When is the close season now?—A. From the 1st November to the 30th, that is not the right time; it should be from the 20th of October to the 10th of November. It is whitefish we are speaking of now.

Q. How does this time apply to salmon-trout?—A. They start to spawn earlier, generally about the 20th September they start to spawn, they spawn right along to about the 20th October.

Q. What is the usual size of salmon-trout here?—A. They average from 10 to 12 pounds.

Q. What is the usual size of whitefish?—A. Average about 2 pounds.

Q. Is not that pretty small for them?—A. That is about the average size.

Q. What is the usual size of pickerel?—A. From one and a half to two pounds.

Q. Now with pound-nets with  $3\frac{1}{2}$  inch mesh in the pot, how large a fish will pass through?—A. A 2 pounds trout will go through and a whitefish from about  $1\frac{1}{4}$  to  $1\frac{1}{2}$  pounds. That is because of the formation of the whitefish being different.

Q. Is there any difference in the price of a  $1\frac{1}{2}$  pound whitefish or a 2 pound one?—A. They are all the same price, and a 2 pounds salmon-trout as a 10 pound one, are the same price per pound.

Q. Don't they designate them as No. 1 or No. 2 fish?—A. No, if not No. 1, they throw it out. A No. 1 fish is not according to size, it is if they are fresh.

Q. Have you Nos. 1, 2, or 3, of fish not fresh?—A. No, fresh fish only are taken by the dealers they must be perfectly fresh and firm.

Q. Are these from the gill-nets?—A. No from pound-nets.

Q. Do you ever find many dead in the pound-net pots?—A. No, sir, very few fish are found dead or in a bad condition in the pot of the pound-net.

Q. Is there no distinction between the fish taken in the gill-nets?—A. In gill-net fish, what won't pass as No. 1, we salt, as there is a company buys them here, it is the Port Arthur Fish Company.

Q. What do you get for these gill-net fish salted?—A. Two and a half cents a pound.

Q. When are the gill-nets set for salmon-trout?—A. About the 1st of September.

Q. How often do you take the nets up?—A. Three times a week generally. That is when the weather lets us.

Q. Now, if you only take them up twice a week what is the condition of the fish?—A. There are some drowned fish. These drowned fish we salt, and are sold at a reduced figure.

Q. What reduction will there be?—A. We get  $2\frac{1}{2}$  cents when salted.

Q. Are any taken out of the net after four or five days so bad they cannot be used?—A. There is an odd one, not many, but if the net is out for a week there are a lot of bad ones, not fit for use at all and are thrown away; we throw them away on shore. We generally throw them away in the bush.

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Q. What difference is there between the two modes of fishing gill-nets and pound-nets. Which is the safest for the fishermen and the fisheries?—A. I believe the pound-nets. There is no waste in pound-nets and the gill-nets have considerable waste.

Q. Have you instances here when the nets are out a week of the fish being bad?—A. There would not be more than half bad. The water is pretty cold, but in summer about one-half would be bad.

Q. Are you of the impression there should be a close season for fish?—A. Yes, I believe in a close season and that there should be a hatchery here.

Q. What do you think about licenses. Are there sufficient number granted in this section?—A. In some parts I believe there is enough.

Q. Do you think the licenses now issued in your locality are sufficiently numerous?—A. I think there is room for some more.

Q. How is your license granted? Is there a limit?—A. My limit is five miles square.

Q. Does this apply to other fishermen?—A. Yes, all the same, that is the gill-net fishermen.

Q. On this five miles, how many boats do you use?—A. It covers one boat with my three gangs, generally the three gangs are all in the water at once.

Q. How do you manage when you take up the net full of fish?—A. We set the same nets back again.

Q. What number of yards or fathoms in three gangs when set?—A. There are four boxes to a gang and 400 yards to each box, in all 4,800 yards; the size of twine in trout-nets is No. 25, and I use the same number of gangs for whitefish, and this twine is No. 40 to 50.

Q. Where do you get the twine?—A. In town here, it is Scotch make and it is white when we get it.

Q. Is the pound-net less injurious than the gill-net?—A. That is my opinion, and this is brought about by the fact that the pound-net does not kill the fish.

Q. What is the quantity of whitefish you caught last year, in 1892?—A. I suppose about 45 tons of both kinds, but more whitefish.

Q. Have you formed any opinion about the artificial breeding of fish?—A. Only from hearsay.

Q. In fishing your pound-net do you use any other except the actual pot, or do you use some artifice besides?—A. The plain pot is set down. I do not use any apron or bag to catch fish within the pound.

Q. Are you under the impression there are two or three kinds of salmon-trout in this lake?—A. There is two or three different kinds.

Q. What do you call one kind?—A. The salmon or red trout, and they average about 12 to 15 pounds.

Q. What is the next kind?—A. The lake trout, they average from 5 to 6 pounds.

Q. What is the third kind?—A. The deep-water fish, half-breeds, they will average about 3 pounds.

Q. Are you of the impression that these deep-water fish or half-breeds are large enough to produce their young by laying spawn?—A. I think so, all these of the above size are capable of spawning.

Q. How much smaller than these would have no spawn in them?—A. I cannot say. I have seen some about three pound weight of lake trout with spawn in them, but not prepared to give a positive statement.

Q. Are there more kinds than one of whitefish?—A. No, only a difference in their size.

Q. Do the deep-water trout or half-breeds ever come on shore to spawn?—A. I have never caught them on shore like the larger fish, the large ones come on shore only to spawn.

Q. Then, you think there are not two different kinds of whitefish?—A. I don't think so.

*By Mr. Harris:*

Q. Have you ever gilled any fish in the pots of your pound nets?—A. Very few whitefish, of about one and a half to one and three-quarter pounds.

Q. How, often do you lift your net?—A. Twice a week.

Q. What size mesh in the pot of a pound-net would gill a three pound whitefish?—A. About three and three-quarters mesh I should think.

Q. Now, for the gill-nets what is the largest mesh you should use profitably for whitefish?—A. Four and three-quarters inch mesh.

Q. If you used a five inch mesh what sized fish would go through?—A. Most of the two pound whitefish would escape.

Q. Did you ever fish with a five inch extension mesh?—A. Yes, but it did not pay, it is not suitable for these waters, four and three quarters is the largest used for catching whitefish, a five inch mesh loses most of the fish.

Q. Have you a tug?—A. Yes, and I am a practical fisherman, and in December I fish gill-nets all with my tug.

Q. Do you ever catch rough or coarse fish?—A. Very few. Also a few sturgeon, I use nine pound-nets.

Q. What does the sturgeon catch amount to? Have any of you caught 200 at a lift?—A. It would be a good one.

Q. From Pigeon River to Otter Head, Michipicoten, the returns say there are 31,000 sturgeon caught. Where principally?—A. Nepigon Bay, I think, is the best sturgeon locality. Black Bay, has quite a number of sturgeon.

Q. Do you catch sturgeon any months besides June and July?—A. There is sturgeon in the spring in Black Bay from the middle of May to the first of July, then it is over.

*By Mr. Wilmot :*

Q. Why are the sturgeon, there at that time?—A. I understand they go there to spawn.

*By Mr. Harris :*

Q. Do you make caviare?—A. No.

Q. Has fishing been as good here this year as last?—A. No, sir.

Q. Was it as good last year as the year before?—A. No, it has fallen off since, for most kinds, but not much difference in trout.

*By Mr. Wilmot :*

Q. Do you fish with nine pound-nets. What license fee do you pay?—A. Yes, and pay \$50 for each.

*By Mr. Harris :*

Q. Don't you catch bass on this bay?—A. Not at all, we catch some mullet, in the pound-nets.

Q. Are there no bays or marshes between Pigeon River and Michipicoten where rough fish could be caught?—A. There is some. But the bays are not large enough for any quantity to be had, for commercial purposes.

Q. Are there any catfish here?—A. An odd one.

Q. How about bullheads? Do you get any of them?—A. No.

Q. How big is the catfish?—A. About 6 or 8 pounds with a large head.

Q. Has he a square end to his tail or is it forked?—A. I don't know. Mr. Wilmot here informed the meeting that the fish known as the channel cat is not the same as the "bullhead" or "mudpout,"—the former grow to a large size, sometimes 40 to 50 pounds and frequent the deeper water, the latter never exceed  $\frac{1}{2}$  pound when dressed and live in shallow marshy places.

Q. Has there ever been licenses for fishing with a hoop-net here?—A. No.

*By Mr. Wilmot :*

Q. Do you know what a hoop-net is?—A. I have seen a number of them.

*By Mr. Harris :*

Q. What is the farthest point that fishermen go from here? Do they go as far as eighty miles?—A. No, about seventy miles.



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Q. Do they go farther off every year as fish get scarcer? I mean gill-net men of course?—A. No.

Q. Are the fisheries which are close at hand pretty well fished out?—A. These grounds right here by Port Arthur are about as good as any, and they have always been fished on for whitefish.

*By Mr. Wilmot :*

Q. Pretty well fished out here, are they?—A. There is not as many as there was.

*By Mr. Harris :*

Q. Do you hear of small or immature whitefish or trout brought to this market?—A. Very few. The most numerous would be whitefish.

Q. Do you know any beaches or localities where whitefish frequent in the summer months?—A. No, but I know there is one place in the mouth of Black Bay where they do come and some come into this bay in the spring.

*By Mr. Marks :*

Q. In speaking of the distance you go out, I think you misunderstood Mr. Harris. How far out do you go in the lake?—A. Not more than two miles. We can't fish near Isle Royal, the water is too deep.

Q. In speaking of the size of whitefish passing through the mesh, what size whitefish are marketable?—A. About one and three-quarter pounds.

Q. How do you throw them away?—A. In the water. A 2 pound trout will go through a 3½ inch mesh in the pot of a pound-net.

Q. Do you catch small fish in pound-nets?—A. What are caught are caught in pound-nets, not in gill-nets.

Q. Do you ever get brook-trout in your pound-nets here?—A. Sometimes, and these generally follow the shore, we catch an odd one when we fish for shoal-trout in the gill-nets.

Q. What about hatcheries?—A. From what I have heard, I think it would be good, and I think this is a good place. The feeding ground is good and other things. There is so many suckers who eat the whitefish spawn. I think it would be a first rate bay.

The meeting was then adjourned till the following day.

The Commission was declared open at ten o'clock this 25th day of October, according to previous adjournment.

HENRY SERVAIS was called and sworn :—

*By Mr. Wilmot :*

Q. Your residence?—A. Port Arthur.

Q. Your occupation?—A. Fisherman.

Q. How long?—A. Nineteen years.

Q. Where fishing?—A. Black Bay principally and Thunder Bay.

Q. What kind of fishing are you engaged in?—A. Pound-nets in the summer season, gill-nets in the fall.

Q. What kind of fish do you principally catch?—A. Whitefish, trout, pickerel, and sturgeon.

Q. What size mesh do you use in the pot?—A. 2½ inch, and hearts and leaders six inch.

Q. And in the gill-net?—A. I have been accustomed to use 5, I have used 4½ the last couple of years, have done very little, and for trout-net 6 inches for 4 weeks in the fall.

Q. At what time do you catch trout principally?—A. From the 15th September to 1st of November.

Q. Do you not catch them any other time of the year?—A. No, not in those nets. We catch them before then in pound-nets.

Q. These are the large trout are they?—A. Yes, sir, they run from ten to twelve pounds, at least there is a couple of schools of different trout. The black trout are a little smaller and what we call the large is the red trout, they come on and spawn late in October.

Q. Then there are two or three kinds of salmon-trout are there?—A. Yes, four or five.

Q. Well, how do you distinguish them?—A. The red trout by the red fins. They come on in the fall, about the 20th of October to the 1st of November. The black trout comes on about the 15th.

Q. And the salmon-trout come on when?—A. There are three runs of trout comes on between the 15th or 20th September to the 1st November.

Q. The salmon-trout are the rock trout or black trout are they?—A. Yes, and come on from the 15th September to the 1st November.

Q. What other kind have you?—A. The small lake trout caught in the summer time and they don't come on in the fall.

Q. What size are they?—A. From 2 to 4 pounds, average  $2\frac{1}{2}$  to 3. They are caught in pound-nets, far out in deep-water, from 20 or 30 feet. We never fish for them in the fall as we fish with 6 inches mesh, then they would not be caught in that net. There is the "puncher trout" caught in the fall.

Q. What is their character?—A. They seem to be a cross between the siskiwit and the red trout. They are fatter than any other except the siskiwit. They are from 3 to 5 pounds I should judge. They are only caught in deep-water about 50 fathoms, some times in 30 fathoms.

Q. Do you get many of these fish?—A. Not many persons fish for them. They are not a good marketable fish. They only sell when good fish are scarce.

Q. Can you give any reason for this?—A. It is on account of being too fat. The siskiwit we can't sell at all.

Q. Well, when do you get whitefish most?—A. In June and July, with pound-nets along the shores of Thunder Bay and Black Bay, all caught in pound-nets. There is no gill-nets put down in the summer months. They are also caught in December and winter fishing in gill-nets.

Q. What is the usual size of your whitefish?—A. I should judge they average 2 pounds, but not more than that.

Q. With what size gill-net do you get the whitefish?—A.  $4\frac{1}{2}$ , some with 5 inches but very few. It don't seem to catch them as well. The size of twine is from No. 45 to 50 for whitefish.

Q. At the same time you have gill-nets fishing for whitefish do you have a salmon-trout 6 inch mesh?—A. We do not have them fishing at the same time.

Q. Don't you catch some in the fall of the year along with whitefish?—A. Yes, in December, and these are caught in  $4\frac{1}{2}$  and 5 inch mesh.

Q. Do you catch salmon-trout at the same time?—A. Very few. They don't come in here much except around Thunder Cape.

Q. What kind are the trout, that is the few you do catch?—A. Some seem to be the deep-water fish, which we get before the close of the season.

Q. Where do you generally sell your fish?—A. To the Port Arthur Fish Company. Last year I sold through Canada. I shipped myself.

Q. Now, you spoke about these trout coming on shore at certain dates. Now, what do these whitefish and salmon-trout come on in the fall for?—A. They come to spawn, but I don't think that when the trout come on at first they spawn. They come on and go back. I don't think they settle down to spawn until the first of October. Whitefish come on in Thunder Bay from the 20th to the 25th October, and are engaged in spawning till about the 10th or 12th November. That is the bulk of them.

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Q. Do none spawn later do you think?—A. Well, I was authorized by the overseer some year ago to set a net on the 16th November and I caught 600 pounds, all were through spawning. The overseer was to send same fish to the department. They were all through spawning. The only spawn in them was what they had eaten.

Q. What kind of spawn was that?—A. It seemed to be small like herring spawn, I should judge, but can't tell whether it was herring or whitefish spawn. There was two dozen brought here to be sent to the department at that time.

Q. Now do you say that the spawn or other stuff you found in these fish at that time was in their stomach?—A. Yes.

Q. Where the eggs perfect?—A. No. I found it in their stomach. It was not as natural as before they spawn. It seemed to be mixed up with gravel and spawn.

Q. What size was the gravel? Was it the size of the spawn?—A. Well it might be fine or large. There was not as much gravel as spawn. I did not dress the ones I brought here. The overseer saw them. I was authorized to set these nets. It was about 7 or 8 years ago. It was 6 years ago.

Q. When do salmon-trout come on to spawn?—A. Well, they begin coming on from the 15th to the 20th September. But they don't remain on shore. They go out again and them come in again. If there is a big storm it will drive them away longer. I think they spawn from the 1st to the 10th October, and the bulk of them at the end of October.

Q. Do these fish leave the shore then?—A. Yes, sir.

Q. On what kind of ground do they spawn?—A. Shoals, rock and pebbles.

Q. Have you honey-comb rock here?—A. A little.

Q. Generally about what depth is the spawning ground.—A. From 2 fathoms to 10 and 15.

Q. From 10 to 15 fathoms?—A. Yes, sir. Is not that pretty deep for spawning purposes? Sometimes you get them in 25 fathoms.

Q. Where do whitefish spawn, is it on the same kind of ground as trout?—A. No, sir, they spawn mostly in sandy bottoms.

Q. On reefs and places of that kind?—A. Yes, if sandy and fine gravel. Sand and mud bottom is the principal kind.

Q. What depth of water?—A. They start in about 2 fathoms. From 2 to 10 and 15 I should say.

Q. And they come about when?—A. 20th or 22nd of October.

Q. How long are they engaged in this work?—A. I think about twenty days.

Q. Do they remain on the spawning ground about 20 days?—A. Yes, sir. Of course they may spawn earlier and some later. That is about the right time. They are never very much earlier or later than that around Thunder Bay.

Q. Now, what about your pickerel, are they caught in pound-nets or gill-nets?—A. In pound-nets as a rule, and August is the principal month.

Q. Where are they caught?—We catch them right along, but the principal months is June, July and August, in Black Bay.

Q. On what sort of ground do you catch them?—A. On muddy bottom, in Black Bay, Nepigon Bay, and all those places.

Q. When do they spawn?—A. Well, they seem to go up in the spring and don't come back till August.

Q. What size are the pickerel?—A. Well, I should think about 1½ pounds. They are the yellow or doré?

Q. Have you any blue pickerel here?—A. No, sir, I have never heard of them. Although what I catch resembles what Mr. Harris was telling me about yesterday.

Q. Is it when dressed? They average 1½ pounds?—A. Well, the pickerel I get don't average more than that not dressed. But there is different sizes. In Thunder Bay they average 3 or 4 pounds and in Nepigon Bay.

Q. Do you never get them weighing 10, 12 and 15 pounds?—A. I have never seen them.

Q. What is the value of pickerel?—A. 2½ to 2¾ cents.

Q. Do you calculate ½ and ¾ cents among your fishermen?—A. Yes, sir.

Q. Do you get any specked-trout at all in your nets?—A. I think I got one this year, but not worth mentioning.

Q. Now how long have you been fishing, how many years?—A. Nineteen years.

Q. What is your impression as to the number of fish you get now and when you commenced?—A. I fish with more nets now than formerly.

Q. What is the position of them now to what they were years ago? Have they fallen off?—A. Yes, except the big trout. The medium trout and whitefish have fallen off one-third. I have a mau getting the big trout, who has caught as many as he did years ago.

Q. Well, now with what quantity of net do you fish to catch. This refers to the same kinds of fish that have fallen off so much?—A. Well, between me and my brother we have eleven pound-nets between two of us.

Q. Well, these are the ones that you fish with now, what about ten or fourteen years ago?—A. Well, I had seven years ago, gill-nets particularly.

Q. What is the difference between the quantity of nets now and long ago?—A. There was no pound-nets used then. Only a few Americans used them.

Q. Suppose you used pound-nets ten years ago when you commenced fishing, same as you do now, what would be the quantity of fish as compared with now?—A. Well, I don't believe there would be very much difference.

Q. How do you come to that conclusion?—A. Well, I have my ideas.

Q. You say the fish are one-third scarcer now than then; what is the reason? You fish with pound-nets?—A. We catch more fish with pound-nets.

Q. Now if you had eleven pound-nets then the falling off would be greater now?—A. Yes. But I don't think pound-nets are good for fall fishing.

Q. What is the cause of the falling off?—A. I suppose through fish caught out of season a little, and a few years ago there was a lot of foreigners allowed here who monopolized the county with gill-nets and left the fish offal on the ice and in summer threw it off their boats. I don't think it has been done of late years though. The nets were left in the water that were never lifted. They had more than they could run. They bought them and couldn't pay for them. They bought them from Mr. Marks here, and the fish offal was left in stacks.

Q. Then you think it was a wanton destruction of fish at that time?—A. Yes, sir, and in late years there was a considerable lot of suckers. If we caught a lot of suckers we pitched them overboard. Of course they were alive, but some may have been dead too. I was no better than the rest of them.

Q. Who do you call the foreigners?—A. Principally Finlanders.

Q. Where do they come from, direct here?—A. Some had been around the States for a number of years. When they got fished out there they came away here.

Q. I suppose all the rest of you sat looking on and never said a word?—A. Yes, there was quite a bad set of them.

Q. This improper fishing brought this about?—A. Yes, sir, and the quantities caught in close season would decrease the fish; every thing helps.

*By Mr. Marks:*

Q. What year did they do that?—A. Five years ago, I think.

*By Mr. Wilmot:*

Q. This excessive fishing was when do you say?—A. About six or seven years ago.

Q. What is your idea with regard to the quality of fish. Are they in as good condition in spawning season as at any other time?—A. Well, just before they are spawning they seem to be quite firm and hard. After spawning there is very little difference that I can tell, unless fish get lighter in weight.

Q. But the quality of the fish, is it in a good condition to eat when spawning?—A. I can't say.

Q. Generally speaking, do you think fish should be taken when spawning as at any other time?—A. I think they would be as good eating as at any other time.

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Q. When then are they not good?—A. Well, of course when they are spawning.

Q. You said before spawning they were good. When are they not good?—A. I didn't say any time they were not good, I don't know when they are better at one time than other. They sell for the same price anyway.

Q. Now with regard to licenses, do you think the ground is sufficiently fished here, or would it admit of more licenses?—A. I don't think in my neighbourhood it would allow of any more fishing being done.

Q. What do you call your section?—A. Ten miles. Five miles each for myself and my brother. Twenty-five miles square.

Q. Do you think it best to fix each licensed ground on limits for fishing?—A. I think for gill-nets let them go freely wherever they choose. Pound-nets is a little different.

Q. Pound-nets should be limited as to their station you think?—A. Yes, sir.

Q. Which description of net do you think is most destructive in catching fish. Which of the two nets does the greatest amount of injury to the fish?—A. I think gill-nets do most harm: If the pound-net meshes are not too small they are best.

Q. Why?—A. Because there is many a gill-net left in the water and lost. The fishermen can't find them, with the rotten fish in them.

Q. Do the fish die and becomes lost with the net?—A. Yes, sir. I also think it would scare other fish away.

Q. How long do you think fish remain sound in gill-nets?—A. It depends on the time of season, in the fall longer than in the summer.

Q. Do you think the water is colder now than a month ago?—A. Not now, but it is in December.

Q. Do you think it changes in December from now?—A. Yes, sir.

Q. What difference in temperature in 50 or 60 fathoms than in summer?—A. We don't catch in 50 fathoms. We generally fish in 3 to 10 and 15 fathoms. We can't go down here any distance. We get nothing but siskiwit and they are not saleable.

Q. Pound-nets preserve the fish and keeps them alive?—A. Yes, sir.

Q. Now, is there any difference in the value of fish caught in gill and pound-nets?—A. No, sir, there should be, for those in pound-nets are always fresher, always alive as a rule.

Q. Are gill-net fish invariably dead?—A. Well, in the fall of the year after a storm, if the nets is left too long there is some dead.

Q. Where are your gill-net fish usually caught? By the gill or shoulder? Which principally?—A. Well, trout get caught by the teeth.

Q. What quantity of fish did you get last year?—A. 60 tons, which includes whitefish and salmon-trout, and it includes sturgeon and pickerel also.

Q. Can you give us an idea of the proportionate difference in the quantity of whitefish and salmon-trout?—A. Yes, sir, the whitefish are about one-third and the balance will be of the other fish.

Q. Then your greatest catch is the whitefish?—A. Yes, sir, of course we get more trout, pickerel and sturgeon combined than whitefish, but we got more whitefish than any of the others singly.

Q. What proportion of sturgeon do you get?—A. I forget exactly, about 6 or 7 tons.

Q. Do you catch sturgeon in the pound-nets?—A. We always get them in that way.

Q. Now what is the usual size of sturgeon?—A. From 20 to 40 pounds or 60, the average about 40 pounds.

Q. Well, do you take all sturgeon, little and big?—A. Well, the smallest ones we get are about 15 pounds, the smaller sturgeon, we don't get them. Only rock sturgeon, there might be one or two of those we lift. The smallest run about 10 pounds.

Q. Do you make use of the eggs of the sturgeon?—A. We did a few years ago. Sturgeon we sell by the pound and get one and a half to two cents cleaned.

Q. What do you mean by cleaned, do you cut the heads and tails off?—A. Yes, sir, a 40 pound sturgeon when cleaned will go about 30 pounds. Sturgeons are not

as plentiful as they used to be, I guess too many have been caught where I fish. There is other places where they are more plentiful.

Q. Have you any idea when the sturgeon spawn?—A. I think they spawn in the spring. I guess the latter part of April or May, I would not say they spawned all the year round, but there is spawn in them always.

Q. When have you found the eggs ripe in sturgeon? You know what I mean by ripe? That is separated free to run from the body?—A. Well, where I have been accustomed to fish, the fish are through spawning when they come there. They go into these bays before I set my nets and have very little spawn in them. That is the only chance I have of getting pickerel and sturgeon after they have spawned.

Q. When do you catch them?—A. Principally in August. But we catch them in June, July and August.

Q. Then the sturgeon all spawn before that time?—A. Yes, sir.

Q. Is there no traffic in selling eggs for caviare here?—A. No, sir, very little. It has been done a few years ago. We never use the eggs for caviare, not in large quantities. Probably a few hundred pounds of eggs manufactured. I don't think they could get sturgeon enough here to make it pay.

Q. You say they left and went where?—A. I think they went to the Lake of the Woods. I heard so.

Q. Did I ask you whether there should be close seasons for fish, what is your idea?—A. I think so. For the preservation of the fish, but not for my own interest. That is if we have got to have it. It is hard when the Yankees fish alongside, but my idea is that close season should be established.

Q. Do you think there should be a regulation as to the size of the mesh?—A. Yes, sir, in certain places, but not all alike; because of the suckers, but I am speaking from my own standpoint as formerly.

Q. What about herrings, are they numerous here?—A. Yes, sir, thousands, millions and billions; their usual size, I should judge, is about  $\frac{1}{2}$  pound, or I don't think they would average that, about three to the pound.

Q. Are they caught in quantities?—A. No, sir, there are a few who fish for them in the close season of November, because they cannot afford to be idle. But there are very few people who fish for them any way.

Q. Do you know when they spawn?—A. I think they spawn in the latter end of November and in December.

Q. Don't you think they deserve attention as well as other fish to have them preserved in the future?—A. I think herring will become valuable, and I would not like to see the fish cleaned out. There is a decrease from year to year.

Q. As your pound-net pot is  $3\frac{1}{2}$  inch mesh, what size whitefish will pass through that?—A. I think a 2 pound whitefish can work through it. Of course they work themselves through, but  $1\frac{3}{4}$  pound fish would get through without hurting himself. A big whitefish will work through a pretty tight mesh sometimes; a  $2\frac{1}{2}$  pound trout will run through a  $3\frac{1}{2}$  inch mesh; a trout will go through easier than whitefish.

Q. As your gill-net mesh is  $4\frac{3}{4}$  or 5 inch, now what size whitefish will get through it?—A. Well, I suppose a  $1\frac{3}{4}$  or 2 pound whitefish will get through a  $4\frac{3}{4}$  gill mesh. But they never go through freely. A gill-net catches smaller fish than pound-nets, because it catches a herring and a pound-net won't.

Q. What size fish will escape and pass through a gill-net of 5 inch?—A. Well, I should say 2 pounds, that is if they were not tangled up.

Q. With regard to salmon-trout will that apply in the same way?—A. Well, trout are often caught by the teeth.

Q. Your gill-net is set, and it is a 5 inch mesh and No. 50 twine, what size fish would pass through as a rule?—A. Well, I think about a 3 pound trout will pass through a 5 inch net, yes or  $2\frac{1}{2}$  anyway. Of course it depends if the net is newly set and tanned it would keep smaller fish from going through.

Q. Well, if you buy a 5 inch net, does it change when you set it?—A. I think so.

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Q. When you talk of setting a  $3\frac{1}{2}$  pound net mesh what is its size when you buy it?—A. It comes tarred.

Q. Is that the usual practice?—A. I have done it for three years.

Q. When you buy a  $3\frac{1}{2}$  inch mesh—pound-pot—and when it comes to you, you say it is tarred, ready for the water. Now will it measure  $3\frac{1}{2}$  then?—A. Yes.

Q. But if not tarred what will it measure?—A. If not tarred it will be stretched a little more, you can get it 4 inches, but when treated you can't stretch it. If green, that is not tarred, the fish will stretch it.

Q. Yes, but there is a trade in selling nets, and the fishermen engage to buy, and the Government establish a size. When the Government say you must use  $3\frac{1}{2}$  inch mesh for pound-nets what do you mean by that?—A. That is not the way we order it. If the net has been used for a year and thrown on land, it shrinks up. There is no difference scarcely.

Q. But if the Government say  $3\frac{1}{2}$  and you buy a net would it mean  $3\frac{1}{2}$  tarred, or green and untarred?—A. I would expect it  $3\frac{1}{2}$  tarred.

Q. One-eighth of an inch will make a good deal of difference, will it not?—A. Yes, sir.

Q. If you bought it  $3\frac{1}{2}$  green and tarred it yourself, what difference would there be?—A. Well, I don't think it would be very different. When green the fish would get through it, it would shrink on land but not in the water. It shrinks a little in the water by getting tarred up.

*By Mr. Harris :*

Q. Does cotton twine shrink more than linen?—A. I have never known gill-nets to shrink.

Q. Does your idea indicate that it shrinks the mesh when tarred?—A. No, sir, we have different ways of tarring nets.

Q. When do you give them the second tarring?—A. We never tar but once.

*By Mr. Wilmot :*

Q. We know in Georgian Bay and Lake Huron the fishermen say there should be a difference in tarred and green. It should be of such a size as not to be less with the original intention. But if you buy a  $3\frac{1}{2}$  inch net it won't stand  $3\frac{1}{2}$  when fishing?—A. Well, I get them tarred and everything.

Q. Well, if a regulation was passed that a net shall be  $3\frac{1}{2}$  inch mesh it meant  $3\frac{1}{2}$  inch mesh full in the water fishing. Now, we all know  $3\frac{1}{2}$  pound-net will decrease  $\frac{1}{8}$  of an inch when put in the water. Won't this make a wonderful difference in the catch and size of the fish?—A. Well, I don't think the difference is very much. It might be as you say  $\frac{1}{8}$ , but they are always big enough for me.

*By Mr. Harris :*

Q. You said you had some seines?—A. No, sir.

Q. Where do you think the principal spawning grounds are in this district for whitefish?—A. I think it is all along among these islands from Pigeon River down to Jackfish Bay.

Q. Where for trout?—A. On the outside of these islands; a different bottom.

Q. Then the two fish don't take the same localities?—A. No, sir.

Q. What class of net do you think most destructive to the smaller fish?—A. Well, I dare say the pound-net if the mesh were not big enough. At one time here the mesh was not more than  $2\frac{1}{2}$  inches. Some Americans used them, I think a good many small fish were destroyed by them.

Q. How long ago?—A. Up to six or seven years ago, and there might be some since, but I am not sure it is, the pot does the damage, but if you have small tackle, it will do damage as well as the pot.

Q. About six or seven years ago, do you think many small or immature fish have been caught here?—A. I guess there has been some but not in quantities.

*By Mr. Marks :*

Q. Don't you ever get fish not marketable?—A. Not many. I have often lifted my net having small fish in it.

*By Mr. Wilmot :*

Q. What effect would it have on you, if the pot was established at 4 inch?—A. It would stop my fishing I think. I would not fish where I am, because I could not catch enough fish.

*By Mr. Harris :*

Q. Are not licenses issued in this district from Pigeon River to Michipicoten, to Georgian Bay fishermen?—A. Yes, sir.

Q. Where is their home?—A. Port Caldwell, Peninsula Harbour, Jackfish Bay.

Q. Do they reside on the Georgian Bay or Lake Huron?—A. No, they reside here, but have fished down there. Some from Goderich. They live on Lake Superior now.

Q. Did they fish out their own waters and then come up here?—A. Yes, it looks like it.

Q. You have eleven pound-nets, have you?—A. Yes, between me and my brother.

Q. Have you a tug?—A. Yes, sir.

Q. What do you get for salmon-trout and whitefish?—A. 2 $\frac{3}{4}$  to 3 cents cleaned.

Q. Do you collect, clean, and deliver for this price?—A. Yes, sir. That is the price of all fish here.

Q. Have you a pound-net scow for driving stakes?—A. Yes, sir.

Q. How many pound-nets have you got in the water now of these eleven?—A. There is now two and probably none at all.

Q. When did you begin to take them out?—A. Eight days ago.

Q. Why do you do that?—A. We want them out for the first of November.

Q. Why by the 1st November?—A. It is the close season, we are not allowed to have them in the water.

Q. Is it necessary to begin to take them out eight days ago?—A. Well, I have only two men.

Q. Are you compelled to have your nets out by the 1st November?—A. Yes, sir.

Q. Would you like to fish up to the 1st November?—A. Yes, sir.

Q. But you cannot if you take the nets out?—A. I can't take all out in one day.

Q. You can lay down the tunnel, can't you?—A. Yes, sir.

Q. Would that damage the pot?—A. No, sir.

Q. Do you claim the order forces you to take up before 1st November?—A. Well, the order and the ice force me.

Q. Has the ice most to do with it?—A. Yes, sir.

Q. Are you frightened out by the weather?—A. Yes, sir. Each of my pound-nets is set out from a point, and inside this point there is a bay, and generally along about the 1st November or the 25th October we get ice. This goes through my net and cuts it.

Q. If there was no close season in November, would you begin to take nets out?—A. No, I would sink them.

Q. Would 4 $\frac{1}{2}$ -inch mesh answer in your pound-nets?—A. No, I would catch perhaps a few sturgeon, and  $\frac{1}{2}$  of the big trout.

Q. What size whitefish go through that 4 $\frac{1}{2}$ -inch mesh?—A. About 4 pounds; 3 $\frac{1}{2}$  any way.

Q. Would they squeeze through?—A. I think so; especially if green or untarred.

Q. That is caused by the resistance of twine?—A. Yes, sir, they can work out.

Q. Are pound-nets fastened down by a pulley, and set firm in the water, so the fish can squeeze through better?—A. Yes, sir.

Q. And would they not with gill-nets of the same mesh?—A. Yes, sir.



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Q. Then, you can work with a 4-inch mesh?—A. I don't think I would try it. I have seen it tried and they were glad to pull it out. It don't catch enough to pay the license.

Q. Would you be content to fish 5-inch mesh in gill-nets?—A. I would not be unless I had to. We might fish 5-inch, but  $4\frac{1}{2}$ ,  $4\frac{3}{4}$  are the best nets to fish with here.

Q. Have you ever seen any considerable take of small whitefish?—A. No, sir, there might have been one or two mixed up.

Q. How many have you on your tug when in fishing trim?—A. Generally four or five, it depends on the fishing. Some time, if calm two, some times three if rough.

Q. Well, about as near as I can make out  $2\frac{1}{2}$  cents a pound is the average that you get for all your fish?—A. We get more than that. We get 3 cents average all round, and  $3\frac{1}{2}$  in the winter

Q. What is the value of your tug?—A. \$5,000.

Q. Does fishing just about pays you and no more?—A. Well, it does not pay much this year.

Q. How much do you get?—A. I can't say. I got last year about 60 tons, this year not as many, it has fallen off.

Q. Could you attend to more pound-nets with that tug?—A. I have not had a tug attending to them. I have had my tug freighting.

Q. Then you are not collecting your own fish for that price?—A. Not myself. But that is the price I get. I pay freight.

Q. So you get an average of 3 cents delivered at the Company's dock. Delivered here at the dock?—A. Yes, sir.

Q. I thought the Company's tug collects that?—A. We allow  $\frac{1}{4}$  cents. This year I have had my fish freighted, but I got some other work for my tug.

Q. So the Fish Company have the tug boats in use you had formerly?—A. One of them.

*By Mr. Wilmot :*

Q. Besides the pound-nets, are there any trap-nets here, or are there nets used similar to pound-nets and anchored out without stakes?—A. No, sir.

Q. Then you are not aware of trap-nets being used?—A. No, sir.

Q. You say you have eleven pound-nets between you and a tug and boats and all machinery adapted for catching fish?—A. Yes.

Q. Are you the exclusive owner?—A. No, sir, owned by my brother and myself.

Q. Is there no lien on the part of any company?—A. No, sir, we are independent of any company.

Q. And do you enter into a contract with the Port Arthur Fish Company that you shall deliver to them all fish caught during the season?—A. Yes, sir, we must sell to the Company.

Q. Is that the arrangement with the rest of the fishermen?—A. Some of them.

Q. You make a contract in the beginning of the season with the Port Arthur Fish Company, that all the fish caught shall be given to them, and you will get so much?—A. Yes, sir, and they must take them, they don't refuse at any time, we don't salt any fish at all, no more than for our own use.

Q. Are there any fish styled as No. 2 salted by the Company?—A. No, sir. I probably salt a couple of packages myself.

Q. Are you aware that the Company salt No. 2 fish at all?—A. No, sir. I am aware they do salt fish to sell at a distance.

Q. What condition will they be in, to ship?—A. They ought to make pretty good fish out of some of them.

Q. Have you ever had any conversation with the Port Arthur Fish Company in regard to reduction of duty?—A. No, sir, I did not know whether they paid duty or not.

Q. Were you aware they had to pay duty?—A. I always thought they had to pay. But we are not supposed to know; if Booth buys from this Company and has to pay duty, it is nothing out of our pocket.

Q. Then there is nothing said about duty at all to you?—A. No, we have nothing to do with duty.

Q. Have the Company told you they must give you less because of the fish going to the States?—A. Yes, sir. On account of duty we get less price for our fish. Sometimes we strike for higher prices as at this time, and if the duty was paid by us there was nothing made out of them.

Q. If you ship direct from here would you have to pay duty of  $\frac{3}{4}$  cents?—A. Yes. But when we sell to this Company we don't pay duty, at least we don't know if they take it from us or not, but when I shipped on my own hook I had to pay this duty.

Q. Do you know whether directly or indirectly that the Company get their fish in free of duty?—A. I don't know how they do it, but our fishermen say hard things. When they can't sell their fish without duty, and these men can do it, well we think it unfair towards Canadians.

*By Mr. Harris :*

Q. You and your brother fish together?—A. Yes, and I do the financial business and pay \$50 each for our pound-nets.

Q. Does nobody advance the money?—A. Sometimes we borrow it just where we can get it. It has been advanced by the Company sometimes. I would not be sure there is no understanding now that they should advance money every year? the Company does not pay the licenses for us and never did.

E. J. NUTTALL called and sworn:—

*By Mr. Wilmot :*

Q. Your residence?—A. Port Arthur.

Q. What is your calling?—A. Fisherman.

Q. How long engaged in that work?—A. Eleven years.

Q. What description of fishing are you engaged in?—A. Whitefish and trout.

Q. Where have you principally fished?—A. Mostly in Thunder Bay.

Q. Have you any particular section laid out?—A. Yes, I have leases in the bay, three in the bay, we get the boat leases from the Fishery Overseer, the section is about five miles. I am one of a party of three or four. A whole section is not given to each.

Q. What sort of nets do you use?—A. Pound-nets and gill-nets. Pounds in summer and gill in the fall and winter season.

Q. What is the size of the mesh in the pound-nets?—A. Mine is 3 and  $3\frac{3}{4}$  and I have some that is 4 inches.

Q. That is a different size from your neighbours' pound-nets?—A. Well, there was a great talk of getting big mesh and I got it and tried it and never got enough fish to make it pay. I have been using 3 and  $3\frac{3}{4}$  and 4-inch, the 4-inch is proven to be useless.

Q. Did you catch any fish with it?—A. Well I caught big ones, big whitefish and big salmon.

Q. And you think a 4-inch mesh too large for pound-nets?—A. Yes, I don't want any more,  $\frac{1}{4}$  of an inch makes a big difference in a pound-net mesh; 3 and  $3\frac{3}{4}$  mesh is too large.

Q. Why did you start  $3\frac{3}{4}$  mesh?—A. I was a new beginner of pound-nets and the fishery overseer recommended that size, and I did not want to get a net I would have to throw away.

Q. Do you catch very fair quantity in  $3\frac{3}{4}$  mesh?—A. Yes, sir, out where there is no small fishing. Away out in the lake, not in the bay. Of course, outside, the nets can stand being bigger.

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Q. Well, what about gill-nets?—A. I have used nothing under  $4\frac{3}{4}$ . I don't use that in the same locality, I use that in the bay, that is Thunder Bay. I hardly ever set gill-nets outside the bay.

Q. What time of the year do you use the  $4\frac{3}{4}$ -inch mesh?—A. In December, January and February, not in September and October. I catch whitefish, but no trout caught then, perhaps a few. The whitefish are all large; the usual size in December and January we can count they will average about  $2\frac{1}{2}$  clean, uncleaned they will be 3 pounds I should say. There must be  $\frac{1}{2}$  pound wasted in cleaning.

Q. You say you also use 5-inch mesh in gill-nets in the same place and have tried the two different nets?—A. Yes, sir, used them in the same place and caught the same fish.

Q. What is the effect of the use of the two nets?—A. Well, I don't know. Of course we catch summer fish with the  $4\frac{3}{4}$  mesh and these average about 3 pounds, when dressed.

Q. With the  $4\frac{3}{4}$  and 5-inch mesh, what description of salmon-trout do you get with them?—A. I never did much salmon-trout fishing.

Q. Would you call a 3-pound whitefish a fair average?—A. Well, yes, I say about that, but I have caught them weighing 12 pounds, but these are exceptions, that is the winter run of fish. These big whitefish are different, they have a different scale on.

Q. Are they different for eating purposes?—A. I don't know as to that.

Q. Do you think the fish you get in December the same kind you get all summer?—A. Yes, sir, but one is a lean fish and the other is chunky. The summer one is lean.

Q. But those caught in summer should be best, should they not?—A. They are not all the same.

Q. Do you catch any other kind?—A. Pickerel, sturgeon and any amount of suckers.

Q. Do you catch these in the summer or fall?—A. Summer-nets, pound-nets.

Q. What is the usual size of the pickerel?—A. We get them large. The usual size is 3 or 4 pounds.

Q. And your sturgeon, what is the usual size of them?—A. Well, some are pretty large, they are about 35 pounds average, all cleaned, we sell them at  $3\frac{1}{2}$  to 4 cents. We don't cut the heads off any but big ones.

Q. Do you make use of the caviare or eggs at all?—A. No, sir, the sturgeon eggs are not used.

Q. Then you also catch salmon-trout, whitefish, pickerel and sturgeon?—A. Yes, sir.

Q. When is it your impression salmon-trout spawn?—A. Well, I think they are pretty well through now.

Q. Do you think the fish are done spawning now?—A. Yes, sir, and the fishermen are done fishing because the fish have left the grounds.

Q. If there was no close season in November would they keep on fishing for trout?—A. No, there is no more to be caught at this time.

Q. When do they come on shore?—A. About the 1st of this month, of October, but I am not well posted, I never did much trout fishing.

Q. Then you think they come about the 1st of October to spawn and remain on shore till the end of the month, and leave about the 1st of November?—A. I think so. Well, you see now the fishermen are coming in, they are quitting the shoals. There are no more fish on the shoals.

Q. Does this apply to whitefish also?—A. No, sir.

Q. Do they leave off fishing for salmon-trout because the fish have left?—A. Yes, sir.

Q. What kind of ground do they come on to spawn?—A. Shoaly ground, rocky ground, near the shore or near the islands and reefs.

Q. What kind of bottom? Is it honeycomb? You know what I mean by honeycomb? There are certain places in many other localities where the bottom of the lake is apparently covered with rock full of little holes like the comb in a bee-

hive?—A. No, sir, on rocky, gravelly bottoms that have a depth from 2 fathoms to 15, where they spawn.

Q. Now, when do you think whitefish spawn?—A. Well, they begin to come on shore, I guess, about the 1st of November or the latter end of this month.

Q. When you talk of coming on shore, do you mean on their spawning grounds?—A. Yes, sir, about the 20th or 25th October, I think they stay quite a while.

Q. During the whole of the month of November? What is the principal season of the year for catching whitefish along the shore?—A. We have to go to deep water in summer and the fishermen fish right up to the close season for these whitefish and they quit it then.

Q. Well, what condition are these whitefish in? Are they in as good condition now as in the summer months?—A. I think as good, because the whitefish are good at all times, but I don't catch them when they are spawning, only up to the latter end of this month of October.

Q. Then do you think there is no difference in the quality of whitefish at spawning than at any other time?—A. Oh, I think they are better in the winter than in the spawning time.

Q. Then what you mean to say is, they are better before and also after their spawning time?—A. Yes. Of course, but I can't say about whitefish in the spawning time, I don't know, as I don't catch them then.

Q. When do you consider your pickerel are spawning?—A. I can't tell that. But they spawn before we catch them in the spring. We can't catch them before they spawn. In April and March, we can't get the net set before they are all spawned. I never caught pickerel spawning.

Q. What about your sturgeon, have you any idea when they spawn?—A. I have no idea much about it, but we catch a few every lift from 2 to 15, but no great amount of sturgeon during the whole year, or in pound-nets in the summer months. I don't know when they spawn.

Q. Then what is your opinion with regard to all these fish coming on to the shores at this times of the year? What do they come for, is it for spawning purposes?—A. Certainly, I think so.

Q. In your fishing pursuits have you noticed any falling off of fish to any extent?—A. Well, I can't say as to that. Some years they are better than others, and to take it right through during the nine year's time, I would say that they have not decreased a great deal, they may have a little.

Q. Do you say they have fallen off somewhat during your time of fishing?—A. Yes, they may have fallen off some.

Q. Now, can you assign any probable cause for the fish being less in quantity now than in former years?—A. No, I don't know that I can.

Q. Do you think the close seasons should be kept thoroughly?—A. Yes, if put in the proper time. If they would have from the 15th of this month (October) to the 15th of next month (November) they would cover the right close season here.

Q. Well, what is your idea for a close season for salmon-trout, when?—A. Well, I should say from the 15th of October would catch them all right till the 30th of October.

Q. Well, now for whitefish?—A. Well, it ought to be from the 20th of this month of October, till the 10th of next month, November.

Q. Have you anything to say with regard to herring?—A. I know they are a curse to us in the gill-nets. We have an awful time with them. They bother us very much.

Q. Do you consider them worthless here?—A. I do, they are a nuisance, there is no sale for them and the lake is full of them.

Q. Suppose they were altogether out of the lake, don't you think it would affect your fisheries generally?—A. Well, they feed the trout, but the trout don't come here to catch them.

Q. What do you think trout live on principally?—A. Well, on the rest of the fish I guess.

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Q. Do you say you can't sell herring at all?—A. Oh, we sell a few, perhaps a dozen, but if we caught any quantity at a lift it would block the market.

*By Mr. Marks :*

Q. Don't the fish Company buy any?—A. Oh, a few.

*By Mr. Wilmot :*

Q. Do you think in the interest of the fisheries there are enough licenses issued in the fishing grounds now, or could they be increased to any extent?—A. I think there is enough fishing here at present.

Q. Which is the most destructive net used here? Which will kill or catch the most fish?—A. Well, the pound-net if set in a good place. The fish are better caught in the pound-net, than in the gill-net, they rub no scales off, or otherwise injure them.

Q. Are many fish lost in the gill-nets?—A. Some times there is. But now and then there are times a man can't lift his net there, there is too rough weather. Sometimes it happens you can't get out for three or four days and the fish, if not all dead, a good share of them will be.

Q. What quantity of fish have you caught, say in 1892?—A. Well, fifty tons including my sons with me, fishing five pound-nets, but not any gill-nets.

Q. Your five pound-nets caught about fifty tons—what were they composed of?—A. Whitefish, salmon-trout, pickerel and sturgeon.

Q. Which were the greatest quantity?—A. Well, most with us is the trout, as we are in the trout region; the next would be whitefish, then sturgeon and then pickerel.

Q. Then with these five pound-nets had you a tug to fish with?—A. Yes, a tug and a pound boat and five men.

Q. What is the tug worth?—A. Well, I could hardly say, \$700, or \$800, I suppose. The other boat is worth, about \$30, to \$35, and a pound-net is worth, the size use, about \$140, to \$160, they will average \$150.

Q. How long does the pound-nets last?—A. Not over three years with careful usage.

Q. Are you in partnership with any one else in catching these 50 tons?—A. Yes, my two oldest sons, they share with me and we manage all ourselves. There are generally five on board the tug; we go out about thirty-five to forty miles west from here.

Q. Your market is here, is it? To whom do you sell?—A. Yes, and we sell to the Port Arthur Fish Company.

Q. Do you make a contract with them to sell all?—A. No, I make no contract. We have got to do as they say, we have to take just what they have a mind to give us, they never make any offers in regard to furnishing money for carrying on the work, we do it on our own hook.

Q. Have they spoken about this American duty they have, or have not to pay?—A. Oh, yes, but it makes no difference in the value of our fish, they tell us they can't give us more, and they can't pay more than they are paying because of the duty.

Q. Do you know what the duty is?—A. Well, it is supposed to be half a cent a pound, but it is three-quarters. We have never tried to ship our own fish to the United States before dealing with this company; all business is done with this company, there is no chance. A man has either got to do it or quit. Their fish go in free of duty.

Q. Who told you this? How do you know they pay no duty?—A. Well, I know there was one time when to overcome this duty, the fishermen made an assignment.

Q. Some fishermen have been obliged to make an assignment have they to this Company?—A. Yes, an assignment to the American Company.

Q. Well, do you mean by the Port Arthur Company, the American Company?—A. Yes, the Booth Company.

Q. Then some have been compelled to make an assignment to the Booth Company?—A. Yes, or take three-quarters of a cent less.

Q. When you say you made an assignment, do you mean of nets and boats to the Company for that purpose?—A. Yes, we got out a bill of sale, it was not to be lasting, only temporary, and they took it at a nominal sum, not value. This was merely done in order to avoid paying duty.

Q. Well, in getting your licenses, you fished with five pound-nets, was the money furnished also for the licenses by the Company?—A. No, we have to pay that ourselves. The license money was paid by the fishermen.

Q. But the nets, boats and apparatus were transferred by bill of sale?—A. Well, I can't say about boats, perhaps they were not put in the assignment.

Q. Then you did not transfer nets and things to this Booth Company when they paid  $\frac{3}{4}$  cents less per pound?—A. I don't think so. I think there is many in this region that do not assign their nets over and get the same as those that do.

Q. I can't see what the object was unless that the Americans say the fish caught with American nets will go through without duty. Canadian fish caught with Canadian nets have to pay  $\frac{3}{4}$  cent. Otherwise speaking, they say you have made a transfer to us nominally of your nets and gear. This is done only that we may take them to the American market and call them American fish?—A. Yes, sir, that is the case.

*By Mr. Harris :*

Q. Is there any particular cause of complaint that you can tell me, no distress of any kind? Nothing you would like rectified? No suggestion you can give me?—A. Well there is one thing I would like, to change the close season a little. Start with the 15th of this month, October, and end with the 15th of November.

Q. Well, now I will tell you something that may be of use. I ship from my fishery about 70 to 80 perhaps 100 tons of fish. Now, I don't think there is any buyer shipping fish from this country to the States that pays one dollar of duty. I don't pay any duty, and the men that buy my fish don't pay any duty. So if a buyer tells you there is a duty, I can't say positively, but am pretty certain there is not a dollar paid on any fish going to the United States from Port Arthur. So if they tell you that, they should give you that much more. They would have to show me receipts for the money?—A. Another thing, I think they should reduce the size of meshes of these pound-nets.

Q. Would  $4\frac{1}{2}$  mesh answer?—A. No, sir.

Q. Would 4?—A. No, sir, I am done with fishing then, I would'nt take out a license.

Q. Are there good spawning grounds near you? Where is the nearest?—A. I think this bay is. I think where we are is, this side of Flatten Island is where whitefish spawn, but not for the trout, it is too deep water for the trout.

Q. Are pound-nets as a rule located along these spawning runs?—A. No, not as far as I know, the nearest pound-net is one I have got within  $1\frac{1}{2}$  miles, but we get nothing but trout except at a time in June, we also get a few of these big whitefish.

Q. How many pound-nets have you?—A. Two at present. I have no interest in any more.

Q. How do you collect the fish?—A. With a tug of my own, its value is from \$700 to \$800, it has a 30-foot keel, about 35 to 40 over all.

Q. When do you begin to take the nets in?—A. We had one up, and the other out the first of the week. We have a scow and pull them out. We take them out on account of the close season. They are no use there for the ice would shove around and cut them up.

Q. When fishing do you get suckers in the pound-net?—A. Yes, and a few pike and some pickerel, the other coarse fish are not of any amount; we get a good many ling; and some get ling pretty numerously.

Q. These ling what do you suppose they live on?—A. I couldn't say, I suppose the spawn of some kind.

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Q. Do the pound-nets catch these coarse fish? Don't you think they would be less destructive than if they just took out fine fish, as trout and whitefish?—A. I do. You may once in a while get a fish stuck by the gills and they die in the pound, but in the gill-nets lots are dead.

Q. These ling, suckers, pike and pickerel as a rule hug the shore, don't they?—A. I think lings takes deep water. We catch them in 20 fathoms of water, the most I catch is in that water. I never fish in Black Bay.

*By Mr. Wilmot :*

Q. If you were to propose yourself, what would you suggest as the proper way to keep up and maintain the fisheries for the benefit of the fishermen?—A. I should say fix the close season to the proper time, and put in hatcheries, and that would keep things in good shape.

Q. Then your recommendation so far as the preservation of the fisheries for the interest of the fishermen is concerned is a proper close season, with properly regulated meshes in nets not to catch too small fish, and the putting up of hatcheries?—A. Yes, that is what I say.

Q. Don't you think it is just as injurious to kill immature and young fish before they are capable of breeding as to kill the parent fish?—A. Oh, yes. Not until they are fit for use and able to breed.

Q. They may all be fit for use, but the question is to maintain the source of wealth of the fisheries. If you kill the small ones you are doing more harm than if you kill the big ones, because the small can produce their kind and you are exterminating them prematurely?—A. Yes, that is right.

J. R. WALKER called and sworn:—

*By Mr. Wilmot :*

Q. You reside here?—A. I reside here. I am a native Canadian.

Q. What is your occupation, sir?—A. At the present time I am a prospector, before that I was following the fishing business since 1848, more or less all the time and left off two seasons ago.

Q. When fishing where did you fish?—A. I commenced in Lake Ontario, also fished in Georgian Bay and Lake Huron, finally finished in Lake Superior.

Q. What description of nets were used in those days?—A. The gill-net. Nothing outside the gill-nets and the seine. The seines were used in Lake Ontario. Somewhere about 1852.

Q. What did you catch with seines then?—A. Whitefish and herring, no other kinds of fish. Very seldom, nothing else unless perch.

Q. Have you any recollection of the quantity of whitefish caught with seines in Ontario at that time?—A. They were very plentiful.

Q. Can you give me an approximate number of what you call a good catch?—A. Well, I have known as high as 50 or 60 packages. That would be 5,000 or 6,000 pounds at a haul; the time of the year would be in November, the latter part.

Q. Would you call that time the spawning season?—A. December is the proper spawning season there. But the fish were preparing for spawning in November.

Q. Can you recollect the localities?—A. Grimsby Bay, off Wellington.

Q. Was this catch pretty general among the fishermen?—A. Yes. At that season of the year and that would be the usual catch there.

Q. Have you any idea what sort of fish are there now?—A. I have not.

Q. Are the Lake Ontario whitefish the same as those here?—A. Well, some are the same, but we have three different kinds of whitefish here, some are similar to those in Ontario.

Q. The package of 100 pounds, you spoke of, what was the package worth?—  
A. Well, I couldn't tell. In those days you couldn't get cash for fish. It was all trade that you could get.

Q. Were herring of any value then? Were they plentiful?—A. Very little value, they were very numerous; a great many were got, most in June and July, more so than later in the season.

Q. You say they were very cheap, can you say what price?—A. In Wedding we got for a wagon load \$8, or \$9. There was no counting.

Q. What did you catch in gill-nets in Lake Ontario?—A. It was whitefish, we did not catch salmon-trout with gill-nets, we were fishing too near the shore for trout. The trout was taken with night lines.

Q. Were the salmon-trout a good size?—A. A nice size, about twelve pounds, we called them salt water salmon, they were naturalized.

Q. Well, you have given your experience in Lake Ontario, next you came to Georgian Bay did you?—A. Yes, sir, in order to take up land. I did not leave Ontario on account of the fishing. I went west and then came back to Georgian Bay.

Q. What did you fish with in Georgian Bay, gill-nets?—A. Yes, I used gill-nets, and caught whitefish, trout and pickerel, but not many.

Q. Were they caught numerously?—A. Yes, quite numerously at certain seasons of the year.

Q. What would you call numerously with gill-net fishing for whitefish?—A. An average of about 1,200 to 1,400 pounds with 4 or 6 boxes of nets in summer fishing. The four boxes are equal to 28 pounds of net or fifteen hundred yards in all.

Q. Then you fish with gill-nets which consist of 1,500 yards and catch an average of 1,200 to 1,400 pounds?—A. Yes, they average about that in summer fishing.

Q. Now, then you say you fished also in Lake Superior?—A. Yes, for nineteen years.

Q. Why did you leave the Georgian Bay?—A. I was wandering around, the mines brought me here, direct to Port Arthur, and fished in the bay here and up to Nepigon straits and fished with gill-nets and caught whitefish, trout and pickerel with 4 $\frac{1}{2}$  and 5-inch mesh nets.

Q. What would be the extent? How many boxes of nets?—A. Twelve boxes.

Q. If 4 boxes contained 28 pounds net, then 12 boxes would be three times as large as what you fished in Georgian Bay?—A. Yes. We used finer thread, the same quantity would make more net, in all about 5,000 yards.

Q. What was the usual catch with these nets?—A. A very heavy catch when I first commenced in the fall. I used to land 4 boxes, and bring in one ton to one and a half and two tons in one night's fishing, seldom less than one and a half tons. That was when I first came here. I have fished for seventeen years here.

Q. When you gave up at the end of the seventeen years, what was your catch?—A. It was very light to what it was when I commenced.

Q. Well, was fishing carried on pretty largely by all the others as well as yourself?—A. Yes, they used about the same amount of net, but had not as heavy catches as I had as a general rule.

Q. When you stopped fishing you say it was very small, can you approximate it? When you quit what was the number as compared with the former years?—A. With the same nets, and the same mode of fishing, the returns would not be more than one quarter of when I commenced.

Q. Why is this falling off, do you know?—A. In the first place at that time there was very little summer fishing done. Since then the pound-net has been established. This has helped the falling off; and the throwing of offal in the bay has done harm, using pound-nets in the bay and catching during the spawning season. I believe that is about all.

Q. The meshes of the nets used in the pound-nets, how large were they?—A. I did take the Inspector to measure a net in Black Bay. I think it was  $\frac{7}{8}$  of an inch on the square on the pot of the net. That would be 1 $\frac{1}{2}$  inch extension measure.



## Ontario Fishery Commission.

This mesh was ruinous in catching too small fish. They were no use. Even if thrown away they would die anyway and they were too small for sale or use.

Q. Then these are the most rational grounds for the falling off of the fish so far as your knowledge is concerned, and from the experience you have had in these lakes you consider the falling off has been every great, and that it has been brought about by using pound-nets in the bay, catching fish during spawning season; nets of 1½ extension mesh, taking fish too small for use or sale and if thrown in the water again would not live. This is the cause of the falling off you say?—A. I think so, and I think they will have no fish here in a short while if they continue as they have been doing these last years back.

Q. If this system is permitted the fish will be caught or driven away?—A. Yes, sir. It will reduce their catch here. If they throw the offal in it will drive them away from their breeding and feeding grounds, as fish will not spawn on dirty ground.

Q. From your experience do you think it correct to have a proper close season?—A. I do if our American cousins do the same.

Q. What do you think of the condition of fish in spawning time? Are they as good?—A. I think up to within ten or twelve days; they are better before spawning, than just shortly after spawning. There should be about ten days allowed for fish to feed up.

Q. In your experience, as you have fished with both seines, and gill-nets, and from your knowledge of pound-nets, which do you consider the most destructive net in the fisheries?—A. The seines. The pound-nets will take most fish, but the seines are the most destructive to the young and immature fish.

*By Mr. Harris:*

Q. Mr. Walker, you say you commenced here about seventeen years ago?—A. About nineteen years ago.

Q. Well, were there many people fishing at that time?—A. Quite a few, but as compared to now, nothing like the present day. Not one-fifth of the number. I suppose only twelve to thirteen or fourteen boats were fishing them.

Q. Had they as large nets then as now?—A. No, they didn't use as large as at present. That was with gill-nets.

Q. Where did pound-nets first begin to fish and when?—A. In Black Bay, about twelve years ago. The next year in the Nepigon Bay they were used. There were four, and I helped set them, and they increased rapidly. There was a few years after no increase in them, but they have increased of late years.

Q. There are now I believe about 50 or 90 pound-nets in 150 miles or so?—A. Yes, you will find 60 pound-nets within 75 miles if they were looked up.

Q. From the coast extending from Pigeon River to Michipicoten, there would be 160 miles. Now, how many pound-nets are there from Pigeon River to Michipicoten?—A. I don't know anything about from below Nepigon Bay. I can't say exactly, but I should judge about 70.

Q. Now in what year did the very considerable increase in pound-nets begin?—A. Was it after the opening of the Canadian Pacific Railroad?—A. Oh, yes, about five seasons ago, I think.

Q. Did the decrease in the amount of fish become apparent before that time?—A. Well, yes, it did.

Q. Now, the fish were pretty plentiful nineteen years ago. What did you do with them?—We salted them and sold them for about \$2.50 a hundred pounds, about the same price they get now. That included the package.

Q. They were all salted?—A. Yes, when I first commenced fishing.

PORT ARTHUR, 28th October, 1893.

SAMUEL WILMOT, Esq.,  
Chairman of the Fishery Commission,  
Port Arthur, Ont.

The fishermen of the Port Arthur Division have been much pleased by the impartial way, you have conducted the investigation just closed, and trust it will

be highly beneficial to the best interests of the fishermen and the industry in general. Our most urgent needs can be summed up in the following items, viz. :—

1st. We require a fish hatchery, to assist nature in the production of young fish to replenish our waters in this vicinity.

2nd. That our close season shall be changed to read from the 15th October to the 10th of November, and that it be strictly enforced by the overseer in charge.

3rd. That the mesh for pound-nets shall be  $3\frac{1}{2}$  inch mesh in the pots and no more, or no less when tarred, the other portion of the net shall be not less than 6-inch mesh.

4th. That the mesh for gill-nets shall not be less than  $4\frac{3}{4}$  inches extension measure.

5th. That the fee for pound-net leases be reduced to \$25.00 each net, the present amount (viz., \$50.00) is too high for the amount of fish caught. In many cases the catch will not pay for the lease, and wear of the nets; and that gill-net leases be reduced to \$10.00 in all cases.

6th. That we be permitted to fish for herring during the close season for other fish, as we have a very abundant supply, and by being allowed to catch them during prohibited seasons for other fish, in many cases poor fishermen are able to find employment and make a livelihood, whereas if not allowed to fish for herring would of necessity be idle.

Signed on behalf of the fishermen of the Port Arthur District.

ROBERT SMITH,  
JOS. SERVAIS,  
J. G. ASHFORTH,  
HARRY SERVAIS,  
JOHN MALONEY,  
J. BINN & SON.

The Commission was adjourned at five o'clock till ten the next morning, when no one appeared to give evidence, and proceedings were closed at Port Arthur, in order to hold meetings at Sault Ste. Marie, Thessalon and elsewhere on the North Channel of which previous notice had been given.

# Ontario Fishery Commission.

## THESSALON.

Evidence taken by the Fishery Commissioners at Thessalon, District of Algoma, Ontario, on the 3rd of November, 1893.

Present: Mr. Commissioner WILMOT, chairman, and Mr. Commissioner HARRIS.

Mr. THOMAS STRAIN was duly sworn and examined.

*By Mr. Wilmot:*

Am a Canadian, live at Thessalon, have fished for the past three years, fish with pound-nets at Grand Batture and gill-nets in the North Channel. Pots of pound-nets, four inches, hearts and leaders seven inches. Gill-nets formerly 4 $\frac{3}{4}$  inches, latterly 4 $\frac{1}{2}$  inch mesh.

I catch whitefish, trout, pickerel, sturgeon and some coarse fish. I sell to S. T. Reeves and Noble Brothers, deliver the fish to Noble and Reeves, some miles below. They take them away in tugs and steamers.

Size of whitefish usually for No. 1, four pounds, No. 2 would run about two pounds.

Salmon-trout usually run from five to fifteen pounds, dressed.

Pickerel, from two to three pounds whole.

Sturgeon run from thirty to sixty pounds whole.

Whitefish sell for 3 $\frac{1}{2}$  cents per pound, dressed.

Salmon-trout sell for 3 $\frac{1}{2}$  cents, dressed.

Pickerel sell at 3 $\frac{1}{2}$  cents per pound, undressed.

Sturgeon sell at 3 cents per pound, dressed.

Caviare is not obtained as the sturgeon are not numerous enough to gather eggs from.

Whitefish are best from early spring till the end of August.

Salmon-trout are good all through the summer months.

Pickerel. I don't know anything about.

Sturgeon are in the same condition all the time.

Whitefish spawn most freely in the middle of November, some come on earlier, and some continue into December.

Salmon-trout come on the shoals in October. About the 7th of October and get through about the middle of October, sometimes near the end of October.

Pickerel spawn in the spring.

Sturgeon, I do not know when.

All the above fish come in these bays and shoals to spawn, when caught they are full of ripe eggs. That is the eggs run out of the body. They leave after this for deep water.

Whitefish are less in number now than they used to be.

Salmon-trout, I cannot say.

There are enough licenses issued now in the interest of the fishermen and fisheries.

In regard to the difference between pound-nets and gill-nets, the pound-nets are best for the fishermen, and save most fish, and put them into the market in better condition. If a four-inch mesh is used in the pot the small fish would escape, both whitefish and salmon-trout.

My gross catch in 1892 was ten or eleven tons. Whitefish were in the greatest numbers. Whitefish are the most valuable fish here, salmon-trout next, then sturgeon and pickerel.

The Government should make proper regulations, but they should not make them in favour of too small a mesh.

The close season for whitefish should be from the 15th of November to the 15th of December.

The close season for salmon-trout should be in October.

I have seen quite a lot of small whitefish and trout that were caught in the pound nets, fished by Mr. Gauthier at Grant Island, these were thrown away in the gut tubs. This is most injurious to the law-abiding fishermen and to the fisheries generally. These were taken in pound-nets with  $2\frac{1}{2}$  and  $2\frac{3}{4}$  inch mesh, extension.

*By Mr. Harris :*

I fish two pound-nets. I buy my twine from Noble Brothers, I have no tug, only a fishing boat. Employ two men besides myself.

I have my headquarters at Grant Island, live in a shanty there. I lift my nets and deliver my fish to Noble, and Reeves. I keep no ice nor ice, house or fish boxes, carrying my fish in a fishing skiff. I lift nets every other day, weather permitting; Messrs. Reeves & Co., send the fish to Detroit. Nobles send their fish to Collingwood. All fish got here go to the American market. No local demand.

Pickereel not at all numerous. Suckers plentiful. The coarse fish are taken in hoop-nets here, not seines.

LAURIE KING was duly sworn and examined.

*By Mr. Wilmot :*

I am a Canadian, have fished for 17 years in the North Channel and at Duck Island.

I think the pound-net mesh of 4 inches is large enough if it is properly enforced, but it has not been kept in force. Some fishermen have fished with less sized mesh, I have myself in former years. A larger sized mesh would be injurious to the fishermen, because it is too large to take all of the marketable fish, too many fish would pass through. A  $4\frac{1}{2}$  inch mesh, in gill-nets is large enough. I could not make it pay if I fished with a 5 inch gill-net mesh. I fished here twelve years ago (before the fishing was ruined) with a  $4\frac{3}{4}$  and 5 inch mesh, and the  $4\frac{3}{4}$  inch mesh would catch double the number of fish that the 5 inch mesh would. At that time the fish were very plentiful to what they are now. This reduction has been caused by the use of pound-nets with small meshes in the pots. These pots will take all kinds of fish both large and small. Some of the pots used would not be more than  $1\frac{1}{2}$  inches extension. These nets were principally used by the Gauthier Company, and they slaughtered the fish in vast numbers. This fishing was carried on by Gauthier from Grand Batture down to Massissauga on the North Shore. These nets took fish as small as 8 and 10 inches, and smaller than herring, principally young whitefish. These small fish were thrown away as offal, and cast on the shore being unfit for market. This system has brought about the present great injury to our fisheries, and from allowing fish to be taken at their spawning times. In those days there were only 10 days close season. Some ten years ago when Gauthier set his nets at the places described, he loaded a large tug full of fish with 3 pound-nets at one lift, and with 100 pound-nets he would not do the same thing now. The small mesh has been the great ruination of our fisheries, I sold my fish to Gauthier & Company about 5 years ago. I think some of the close season should be taken off in November, and give us a hatchery instead, as lots of eggs can be gathered here. This refers to whitefish. No close season is required for salmon-trout as the winds will protect them.

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*By Mr. Harris :*

I fish two pound-nets, bought from Simms at Detroit, I generally set them in May. My nets are all out now this 3rd of November. I took the pots off on the 2nd instant, the tunnels are yet out. Stakes are not pulled out yet. My stakes are pulled out with a tug. I would not take out a license if the pot mesh was  $4\frac{1}{2}$  inches. I catch some pike, suckers, &c. No bass, no hoop-nets fished here.

Mr. JAMES B. DOBIE, was duly sworn, and examined.

*By Mr. Wilmot :*

Am a Canadian. Reside at Thessalon. Am a merchant. Have been in the fishery business for many years. I am a fish trader and dealer, and formerly leased a fishery.

I fished in the fishery opposite this place called Grand Sauble Station. I fished with pound-nets mostly 4 inch pot, 5 inch tunnel, 5 inch leader. I fished for whitefish and trout, I caught some sturgeon and a few pickerel. The price for whitefish and salmon-trout is 3 and  $3\frac{1}{2}$  cents per pound. Pickerel and Sturgeon from 2 to 3 cents per pound. Eggs of sturgeon are not used for caviare.

All fish were sold to American buyers. These buyers came here for our fish and took them from our sheds. The fish were taken away with sail boats to Detour, United States. No entries were made upon arrival or departure of these boats. No duties on fish when I fished. The same practice is carried on now by the fishermen.

Whitefish and salmon trout are best in early summer months. They are not so good in the fall, especially at spawning months.

Whitefish spawn-about the middle of November, some earlier, some later.

The old close season of ten days was pretty nearly right, salmon-trout are earlier, they spawn about the middle of October, both these fish come to the shores very numerous about these times for spawning purposes. A great many fish are caught in the early summer months, they are then better for food, and more marketable. I do not know when pickerel or sturgeon spawn.

Whitefish are not as plentiful now as they were, they have fallen off one-third or one-fourth at least. There is not much variation in the take of salmon-trout.

The number of the fishermen now is about the same as it was. But it was all gill-nets which were formerly used and now a large proportion are pound-nets. The gill-nets are hardest upon the fisheries. The pound-net is the best net for the fishermen and the fisheries, besides the fish are taken alive and in better condition. The pound-nets do not destroy or bruise the fish as the gill-nets do, that is if the pound-net pot is not less than 4 inches. A great many fish are lost in the gill-nets by storms, in which case the fish swell up and die, and become unfit for food and are not marketable. Yet numbers of these bad fish get into the markets, fish have fallen off here on account of illegal fishing, and the use of too small meshes in the pots. In the pound-nets they were used as small as 2 and  $2\frac{1}{2}$  inches meshes extension measure; also by many fish being killed and rotting in the water in the gill-nets. This drives the fish away and spoils the fishery.

There should be proper close seasons for protecting fish at their spawning time, especially where there are no hatcheries. If the fisheries were stocked with young fry from hatcheries, and the fishermen were compelled to put back all small fish from their nets, it might do away with the necessity of having a close season. If these methods are not adopted to keep up the supply, then there is a decided necessity for protecting the fish, at their spawning times. Fish are not in good condition at spawning time, they are flabby and inferior and should not be caught then. The whole of the north shore is a spawning ground for whitefish and trout and they come here to spawn in the fall months.

There is room for more fishing here in certain localities, but it would require more protection and better guardianship to sustain the laws if the fishing was in-

creased. The limit of five-pound nets to any one fisherman or any one company, is sufficient. There is a great monopoly of nets held here by an American company who fish at the Ducks and at Cape Roberts, that should not be allowed. This monopoly is most objectionable, and all fishermen complain of it and find fault with the department for making this discrimination in favour of this American company.

There is also a serious obstacle to the fisheries here from the rafting of saw-logs across the bay. Another injury to the fisheries is the loading of vessels along the shore with pulp wood for the United States; they dump the refuse stuff in the water, which pollutes the bottom and drives away the fish and destroys the fishing nets. This pulp business is done by American vessels coming here for cargoes of pulp wood. This is extensively done all along the shore at the mouths of the rivers and streams. This is a general complaint made by the fishermen as seriously affecting their fishing.

From a commercial standpoint whitefish are the most important fish, then salmon-trout next. The falling off of these fish here would be a most serious calamity for the country, and consequently should be looked after by the department with great care for their preservation.

Another great grievance is felt here by the fishermen who, from the great monopoly of the fishing grounds by this American company, which is managed by a Mr. Reeves, of Detroit, who obtains large numbers of pound-net and gill-net licenses from the department, while the resident Canadian fishermen cannot get but a few licenses. This company employs some of the men here who cannot get licenses, and by a system of shuffling and promises do not pay their fishermen their wages. The company should not be placed in this more favourable position by the department to the detriment of our loyal resident fishermen. If these extra number of licenses which are given to this American Company and to Mr. Reeves, were fairly distributed amongst our own Canadian fishermen, this great complaint here would be overcome.

In my reference to illegal fishing it referred to former years, but now the fishing is carried on here to comply with the law as nearly as can be.

*By Mr. Harris :*

The pulp wood is mostly spruce in the rough state. It is shipped to Detroit on vessels. It is also rafted in some cases. Fishermen are fairly prosperous. Complaints exist only when not paid for their work.

Coarse fish are not numerous; no effort is made to catch them except with gill-nets.

The only fishing is for trout and whitefish. Herring are not fished for here. They may be plentiful but fishermen do not care to fish for them.

Mr. JOHN SULLIVAN was duly sworn and examined.

*By Mr. Wilmot :*

Am a Canadian; I reside at Thessalon; have been a fisherman for eleven years; I fish opposite this place; I fish with two pound-nets; the pots are 4 inches; hearts, 5 inches; leaders, 6 and 7 inches mesh; and No. 15 twine.

I also fish with gill-nets with one boat, with only 600 yards of net; it is a small rig. I got the net from Mr. Simms in Detour, Michigan; he is an American. I can do better with him than here. We agree to give him all the fish caught with these nets. Mr. Simms comes here for the fish in a sail boat. I deliver the fish on his boat, and he goes right off to Detour with them, which is about twenty-three miles from here. He does not go to any Customs officer in Canada, but he goes direct to Detour. The size of Simms' boat is 30 feet keel. I pay no duty on my fish given to Simms. Simms fixes matters at Detour to blindfold the United States authorities, and they don't trouble us at all about duty. There are three gangs here that carry

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on their trade with Simms of Detour. If I took my fish to Detour, I would have to pay duty. Simms pays no duty.

Mr. Simms brings our twine or nets here, and enters them at Bruce Mines in his own name, and hands the nets over to me, and I fish them, and he gets the fish, we pay him from 40 to 41 cents per pound for the nets, and he gives us time, and we pay him in fish. There is no one here to supply us with nets. The fishermen have dealt with Mr. Simms in this way for some years past.

The size of mesh in gill-nets is  $4\frac{1}{2}$  inches. A 2 pound fish is about the smallest we get in our gill-nets. We get some smaller fish from the pound-nets if we get a large lift.

The price of salmon-trout, whitefish and pickerel is  $3\frac{3}{4}$  cents per pound. Sturgeon are 3 cents per pound, dressed. The usual size of No. 1 whitefish is 4 pounds. No. 2, few are caught. No. 1 are principally taken in October. The fish from this place are larger than those taken at Detour in the United States. This is caused by the Americans having fished out their waters. Before the fry from the hatcheries were put into the lake at Detour, their whitefish had given out, they did not then take enough to eat, but they have become more plentiful at Detour since the planting.

Salmon-trout run from 2 up to 5 pounds.

Whitefish come in to spawn about the 15th of November, some spawn before, some after that date; they take from seven to ten days to spawn.

Salmon-trout spawn most freely in October, and also early in November.

I have fished at the Duck Islands on the grounds which Mr. Gauthier said he leased from the department. Salmon-trout spawn there in November. I bought my rig from Mr. Gauthier and sold him my fish. I used  $4\frac{3}{4}$  and 5-inch mesh in my nets.

Mr. Gauthier used pound-nets and caught 13 tons of whitefish from one net, all No. 1 fish. The 4-inch pot mesh was used then. I also fished for Gauthier at Grant Island, inside Manitoulin Island, and caught whitefish and trout. My nets were  $4\frac{3}{4}$  and 5-inch mesh. Have seen great numbers of whitefish taken by Gauthier in his pound-nets. The No. 2 fish from 8 to 10 inches long would be frozen, and the smaller ones than these would be thrown into the gut tub or oil factory. The men would stand up to their ankles or knees picking out these small fish and throw them away. No. 1 were sold fresh. No. 2 were frozen. All under that were thrown away. I have seen a great many thrown away in that way.

The fishing was very good at that time, but it is very poor now, because everything was taken at that time, large and small.

Nine years ago I have seen at the docks there a boat with a capacity of twenty tons and a fish car of 2,000 pounds loaded with fish inside of one week. This season they did not catch there hardly any. With three fishermen they did not get enough to pay expenses there this season.

The fishing carried on by Gauthier was most ruinous to the fishery. Whitefish were caught by Gauthier principally off Grant Island in the latter part of October. Small fish were caught most in July. Fish taken during the past five seasons at this place (Thessalon) are about the same; previous to that they were very much more numerous. The cause for such a difference is from the use of small mesh nets and too much fishing done.

I do not think fish are as good at spawning time as before; they are softer. They won't stand the same handling. In June, July and August they are the best and firmest. There are many good spawning grounds for whitefish from Bruce Mines to Massissauga River.

I took between 35 and 40 tons of fish in 1892. Whitefish formed the greatest part of the catch, fully three-quarters; salmon-trout made up the rest.

Whitefish are the best and should be protected most. Whitefish are caught nearer shore than salmon-trout.

*By Mr. Harris :*

There is no occasion to change size of mesh in pound or gill-nets; that is, 4 inches for pound-nets and  $4\frac{1}{2}$  for gill-nets.

Mr. DAVID BELLEROSE was duly sworn and examined.

*By Mr. Wilmot :*

I am a Canadian; have fished for the past 28 years; I reside at Thessalon; I have fished in the waters opposite this place for the past eight years with pound-nets; I use a 4-inch mesh in the pot, 5 inches in the hearts and 7-inch mesh in the leaders. I catch whitefish mostly, also some trout, pickerel and sturgeon. I sell the fish to Thomas Simms, of Detour, in Michigan, United States. He comes for them here at my shed with a sail-boat and takes them direct to Detour. I buy my nets from him, and he delivers them to me here in the twine state, and I put them together to fish. I am allowed to sell my fish to whom I choose, but I find it to my interest to sell to him. I pay no duty; Mr. Simms attends to the duty that has to be paid. I get  $3\frac{3}{4}$  cents per pound for all fish, except sturgeon, in the dressed state.

Pickerel are not dressed; if anybody here in town wants fish he can get them by paying 5 cents a pound. The reason why I charge our own people 5 cents and sell them to Mr. Simms for  $3\frac{3}{4}$  is that our own people do not buy a sufficient quantity to make it worth while to sell under 5 cents.

Fish are in best condition when not spawning; they are softer then and do not keep as well for shipping.

Whitefish come on the shore about the 15th of November; they were taken most numerously at that time in former years, as we were then allowed to fish. Some whitefish will spawn before, some after the 15th November.

Salmon-trout will spawn in the latter part of October and also in November.

Whitefish will leave the shore about the end of November, and salmon-trout will leave the shore earlier.

Whitefish have fallen off most. They are not as numerous as they were ten or fifteen years ago, they have fallen off fully one-third if not more.

Salmon-trout have fallen off in the same proportion. They were so thick at one time they were killed with our paddles, but that cannot be done now.

I have heard of whitefish being caught up the Massissauga River in former times, but there are none taken there now.

Fish should be preserved and not killed at their spawning time, it is ruinous to do so. The present limit of five pound-nets is not enough for any one fisherman. I took upwards of 30 tons of fish with my partners with four pound-nets. These were sold to Mr. Simms, at Detour.

When I fished gill-nets three years ago, I lost out of seventy-five nets, thirty-nine from bark and fibre, which clung to them in such a manner that I had to throw them away. This bark and fibre comes from the pine logs which are towed across the bay. They are towed in large rafts or booms, and when rolling about in these booms the bark and fibre are rubbed off, and settles upon the nets and ruins them. This stuff also spoils the feeding and breeding grounds of the fish, and it ought to be stopped in the interest of the fishermen. This great loss has only been felt by the fishermen since the logs and pulp wood have been taken across the bay to the United States. If it is continued our fishermen will be ruined.

*By Mr. Harris :*

Whitefish and trout are dressed by taking out the entrails, only leaving heads and tails on. I fish four nets with my partners. We fish two nets each with four men. We have some extra help in the spring in setting the nets. I have no tug, I have a pile driver. We set our nets with a pound boat, and we work them with it also.

Five pound-nets are enough for any one fisherman. The Detour contractor comes here and takes our fish from our sheds in the river. Mr. Simms would not come here for my fish and take them to Detour unless he made money out of them. Mr. Simms buys fish from two fishermen that I know of, besides myself.

If a number of fishermen would join and take their fish in a lot to Detour, they might make as much as Mr. Simms does out of them, if they had not to pay the



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duty. I do not know whether Mr. Simms pays duty or not. If I could get more by taking my fish to Detour than Mr. Simms gives me, I would certainly take them there.

Mr. STEPHEN FOURCHETTE was duly sworn and examined.

*By Mr. Wilmot :*

I am a Canadian; live at Thessalon; have been a fisherman for 30 years; I fish pound-nets and gill-nets; I use gill-nets in Lake Huron, and pound-nets in the north channel.

I fished four nets about five years ago, and also used about twenty-five sets of gill-nets of 150 yards each, or in all 4,000 yards, catching principally whitefish, with some trout and a few pickerel.

The size of mesh of gill-nets was  $4\frac{1}{2}$ ,  $4\frac{3}{4}$ , and  $4\frac{5}{8}$  inches. The usual size of whitefish taken in the  $4\frac{1}{2}$ -inch mesh is about  $2\frac{1}{2}$  pounds, and the whitefish and trout in the  $4\frac{3}{4}$ -inch mesh is about  $3\frac{1}{2}$  all dressed. General average will be 3 pounds for whitefish and 5 pounds and upwards for salmon-trout.

I sell my whitefish and salmon-trout for  $3\frac{1}{2}$  cents a pound dressed. I sell to McLean and Belliere and Sullivan, here in town.

Whitefish are as good at the spawning time as before for domestic or marketable purposes.

Whitefish spawn in two runs. One comes in in the beginning of November. The other or larger fish come in about the 15th of November, they all come in to spawn.

Salmon-trout come in the bay in the beginning of October and spawn in about a week or ten days, and sometimes sooner. The other, or outside trout, spawn from the 15th to the 30th of October. These are the larger trout called rock trout. They are much larger fish. Same price is given for both kinds by dealers.

Herring are very plentiful inside the bay, and outside in the lake, and spawn in November, the same time as the whitefish. They are not fished for market here.

Whitefish are not nearly so plentiful as they were some years back, nor are the trout. This reduction has been caused by the small mesh in the pound-nets, and taking them, formerly, during close season or spawning time. There should be proper close times to protect the fish when spawning.

There is room for more licenses to fish in the bay and in the lake. If more licenses were given, more guardianship would be required.

Pound-nets are the best for catching fish with, and for the fishery industry, as the fish are taken out alive and in a healthy condition, but in the gill-nets many die, and become useless, more particularly in the summer time, when many spoil in the nets and are thrown away.

I was late in starting with my gill-nets, and have taken only about three tons this season. In 1892 I fished by the month for C. Gauthier & Co., or Reeves; I was sent to Winnipeg, and I fished for them there. I went there to make experiments with pound-nets, for the Manitoba Fish Company, or Gauthier & Co. The pot used was 5-inch, and we caught a very great many whitefish. The net would get quite full, but three quarters of them got out through the 5-inch mesh. A  $4\frac{1}{2}$  or  $4\frac{3}{4}$ -inch mesh in the pot there, would be equal to 4-inch mesh here; a great many fish were gilled and were spoiled and were thrown away. They fish with 5-inch mesh in gill-nets there, and the fish are all gilled. If whitefish are gilled in a pound-net they spoil sooner than in a gill-net.

A  $4\frac{1}{2}$ -inch mesh in a pound-net, in Lake Winnipeg, would be all right. The pound-net would be the best, and should be used in Lake Winnipeg. There were thrown away from the gill-nets at one time 15,000 whitefish, all large fish, many from 4 to 6 pounds, this was at the Manitoba Company's nets. Losses of this kind occur very often. The Fishery Inspector came out and saw the fish gilled in

the pound-nets. He said the 5-inch mesh in the pot was too big. (Laurie King, previously sworn, said that he saw four boat loads of whitefish thrown away; he was in one of the boats himself. These fish were all taken in the gill-nets by the Manitoba Company. They were all large fish which were taken in the gill-nets, and so spoiled were they, that some were dumped in the lake, and some cast away on the shore.) Many of the whitefish taken in the gill-nets in Lake Winnipeg are nearly rotten when taken out, but are nevertheless put in the freezers and frozen and put on the market.

The saw-log towing is most injurious here. There was a fishing ground in Massissauga Straits that was actually ruined, it was at one time a first class ground. I went to fish there this year but could get no fish. The fishing ground was covered with bark which drove the fish away. These logs come from the North Shore Rivers, and are towed to Bay City, in the United States. I have seen rafts half a mile long by a quarter of a mile wide, about eighty acres, principally pine logs. The bark and the fibre is rubbed off by their rolling together while being towed, and gets upon the nets and ruins them, so that they cannot be fished again. These rafts are sometimes anchored on the fishing grounds for three or four days, all this time they are constantly rolling and rubbing the bark and fibre wood off which sinks to the bottom, fouling the fishing ground and making the nets useless for fishing purposes.

Fishermen here are not served alike. Some get two licenses, some three, and Reeve's Company (American) gets twelve or sixteen or more, and some of the men raised and bred here, can't get a license at all.

If the limit is two or four nets to one native fisherman here, this American Company should not get twelve and sixteen. Sometimes storekeepers and others get licenses when the actual fishermen cannot. This is wrong. The Reeve's Company are allowed too much ground—they fish at the Ducks Island, Green Island, Barrie Island, Spanish River, Cape Roberts, Grant Island, Massissauga Straits, Thebo Island and Washburn Point. This company fishes 60 or 70 miles of ground. They buy no fish from us. They take all their fish to the Detroit market, paying no duty. It is understood that Charles E. Gauthier is the principal man in this company, and the company is composed of American citizens of Detroit. This company, under Mr. Gauthier, were the persons that used the small mesh pound-nets so extensively in our waters, and they were in the habit of throwing away great lots of young whitefish, the size of herrings and smaller.

One, Ray Hill, an American, now holds pound-nets license, using four here in our waters. This is unfair to Canadian resident fishermen.

When a limit of nets is fixed, we should all be used alike. Some new licenses were issued in 1893, when old fishermen were refused them.

*By Mr. Harris :*

Timber Bay runs from the east end of St. Joseph's Island, my nets were in Timber Bay. There are about seven nets in Timber Bay. On the American side there are thirty nets. The best catch of whitefish is about the beginning of May. A mesh of 4 inches is best for the pot in a pound-net, a few will always gill. A larger mesh than 4 inches would not do for pots in pound-nets. The Winnipeg fish were gilled around the gill, very few were caught by the body.

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Mr. ABRAHAM KING was duly sworn and examined.

*By Mr. Wilmot :*

I am a native Canadian; I live at Thessalon. I have fished for thirty years. I have fished at Ducks Island and in the north channel of Lake Huron.

I have only fished gill-nets of late years. I fish by the month for other parties, for Mr. Gauthier and Mr. Reeve at Grant's Island with two boats. I was running a boat for Mr. Reeves, at Grant's Island in 1893. Reeves fishes fifteen boats and four tugs, with a great number of pound-nets and gill-nets. More licenses were given to Reeves than to any other fisherman. Whilst our fishermen can only get three or four nets, Reeves can always get four times as many more pound and gill-nets than we can. Reeves should not be allowed to take out these licenses for his American Company in Detroit, when he will not pay those Canadian fishermen who work for him their wages.

There should be no close seasons. It would be better for the Government to build hatcheries and not have cruisers on the lake, as it would be better for the fishermen. We are near the limits of the Americans, and they fish right along and we can't. I have seen the Gauthier Company catching small whitefish in the pound-nets in large quantities, 500 and 600 at a time. These are thrown away along with the offal of the other fish. These fish would be about 8 or 10 inches long, even smaller than herring. They used nets with 1, 1½ and 2-inch meshes extension, in the pots. I fished with them in 1893, and the quantity of fish taken was very much less than in former years. Not one-half as many as when I was there before. This is caused by killing so many small fish before they could get to maturity.

American fishermen used to come on our waters and set 60 and 70 gill-nets, and I have known them catch 6,000 and 7,000 pounds of whitefish in our close season at a haul, when we were not permitted to fish. This was 3 or 4 years ago. These American fishermen were from Detour. They came with tugs, and sail boats, and went directly back with their fish to Detour. I have given this information to the Government before, but never got any consideration from them.

*By Mr. Harris :*

I do not know whether returns of fish are made by officer Elliott. I fish by the month sometimes.

Whitefish whole are worth about 4 or 5 cents. This is after the close season. In the summer when dressed, they are worth 3 to 3½ cents per pound.

A great injury is felt by fishermen, and damage done to the fisheries, by the rafting and floating of saw-logs across the bays and lake. I have seen twelve gill-nets destroyed by the bark and other stuff which came off the great tows of logs going to Bay City from Massissauga, Spanish and other rivers in the North Channel. The logs are got out on the North Shore and floated down the rivers, and then boomed together and towed by steam tugs over to Bay City and other American ports. These tows or booms in some cases will cover a space of from five to ten acres and more. These large bodies of logs keep lolling together by the motion of the water, which rubs off the bark and the stringy part of the wood fibre next to it and floats about for a while and sinks to the bottom, and also collects on the net, tangling it and ruining it, so that they have to be thrown away, as they cannot be fished or cleaned again, from this woody matter which clings to the meshes. It should be the duty of the department to use its influence to have this export of logs in rafts across our fishing grounds stopped. If the Americans want the logs they should take them across our fishing grounds in tugs and steamboats and not by rafts.

If this is not done another serious injury will fall upon our fishermen and add still further towards the destruction of our fisheries.

The commissioners then adjourned to meet at Gore Bay, previous notice of which had been given.

## 5.—GORE BAY.

Evidence taken by the Fishery Commissioners at Gore Bay, District of Algoma, Ontario, on the 6th of November, 1893. Mr. Elliott, Fishery Officer, in attendance.

Present.—Mr. Commissioner WILMOT, Chairman, and Mr. Commissioner HARRIS.

Mr. WILLIAM W. HOLDEN was duly sworn and examined.

*By Mr. Wilmot :*

I am a Canadian and live at Gore Bay. Have fished for ten years. I fish in the North Channel and use pound-nets. Pots, 4 inch mesh. Hearts, 5 inch, and leaders, 6-inch mesh, all extension measure (green), that is when purchased new. The nets will shrink about a quarter of an inch the first year, if tarred again will shrink a little more.

No. 15 cotton is my twine. It comes from Boston. I got it through the Buffalo Fish Company. They delivered it here, and we made it up ourselves. It is worth about 40 cents a pound; there is no duty on it.

I catch whitefish, trout, sturgeon, and a few pickerel. Very few coarse fish, I may say none.

I sell my fish on the docks here to the Buffalo Company, who come here for them in their tugs. They take them to Wiarton, packed in ice in fish cars. These cars hold about half a ton each. The Buffalo Company have freezers, &c., at Wiarton to carry on their business, which is very large. Mr. James Clarke is manager there. The company makes no deduction on account of the duty, they arrange the duty. I sell direct to them here on the dock.

The price of whitefish, trout, sturgeon, bass, and pickerel is 4 cents a pound, all dressed (except pickerel and bass). There is nothing done with sturgeon eggs or caviare here. I do not know of any trolling for bass here.

Fish, such as whitefish and salmon-trout are best in the early months of spring and summer. Fish cannot be as good when ready to spawn, or at the time of spawning, as they were before. They generally bring the same price all through the season.

Whitefish come on the shores after the 1st of November; they come to spawn. Their principal spawning time is in November, and after spawning they leave for deep water.

Salmon-trout commence coming on the shores from the 5th to the 10th of November. They come on then for spawning, and leave about the 25th of November for deeper water. They sometimes come in in the end of October. Pickerel spawn before May. They mostly go up the river to spawn—Spanish River and other rivers.

Herring are plentiful here, but are not fished for commercial purposes. Herring are smaller here than in Lake Erie.

I cannot tell when sturgeon spawn.

Whitefish and salmon-trout are getting scarcer than formerly, fully one-quarter less, caused by over-fishing and the effect of towing logs. This is felt by gill-net fishermen more than by pound-net fishermen. The small meshed nets that were used formerly were very destructive; they are not used now.

I could not use less than a 4-inch mesh in pots with any profit. A trout of 3 and 3½ pounds and under will get through a 4-inch mesh. A 2 pound whitefish and under will get through a 4-inch mesh, but many will be taken. The usual size of whitefish will average about 2½ pounds whole. Many are taken larger. Salmon-

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trout average about 4 pounds, undressed. Pickerel will run about 3 pounds. Sturgeon will run about 30 pounds.

Pound-nets always give the best fish for market, as they are taken out alive. With gill-nets many die, and are unfit for market.

The export and towing of saw-logs is becoming injurious to the fisheries. The gill-net fishermen complain most as their nets are injured by the bark and fibre wood. These logs are towed across the bay in booms by tugs. They travel at from 1 to 2 miles an hour. These rafts are very large, some 3 or 4 millions of feet.

My catch of fish this year is very small, not more than 15 tons. The weather has caused this, and heavy winds. The whitefish would be over ten tons. The balance would be salmon-trout and sturgeon.

I have heard by report of Americans fishing in Canadian waters, but do not know it myself.

*By Mr. Harris :*

A net of 4-inch mesh when green will shrink  $\frac{1}{4}$  of an inch when tanned and used. I have fished nets about ten years. A 4-inch gill-net mesh will catch smaller fish than a 4-inch mesh in a pound-net. Fish are not gilled to any great extent in the pots. If gilled it is in lifting the net, the fish being frightened they try to escape. A great majority of the gilled fish are alive. I would not fish if a  $4\frac{1}{2}$ -inch mesh was established.

I have not heard of any increased catch of salmon-trout or whitefish in the Georgian Bay this year. In this section of the North Channel the gill-net fishermen can fish anywhere within this division under his license. He naturally fishes in the best places he can get.

Black bass are very scarce here. Never saw many in former years.

I have never used 2-inch mesh in my pots, have heard of them being used by others. Have heard of small whitefish and trout being caught. The small fish run about the 1st July, I quit fishing pound-nets in August and September, no fish to be taken then. This is not general, other fishermen do not take up their nets then. My nets are all taken up on the 1st of November. I fish four nets, two were set after August, and these were taken up in one day on the 1st of November. The nets are about six miles apart. The four nets, run about three miles apart. The next pound-nets to mine are about seven miles. I never saw trap-net fishing.

Five years ago I fished with C. W. Gauthier & Co., at Duck Island with gill and pound-nets. I worked as book-keeper, I saw quite a few small whitefish caught, they were packed and shipped, the size of this fish was about  $1\frac{1}{2}$  pounds and under. I have seen young whitefish taken there the size of herring, all shipped in ice, I never saw any thrown away. But I have seen some put in the gut-tubs, when unsound.

ANGUS MATTHEWMAN was duly sworn and examined:

*By Mr. Wilmot :*

I am a Canadian and reside at Gore Bay; am a fisherman and a sailor. I have been fishing about twenty-five years. I have fished in Lakes Erie, Huron, Michigan and North Channel of Lake Huron. I fished at Duck Island in 1893. In 1892 I fished here in the channel. I fished Duck Island with gill-nets. I used about 100 nets of 40 fathoms each. I used from  $4\frac{1}{2}$  to 6-inch each. No. 60 and 41 twine.

I catch whitefish and trout. More trout than whitefish. The usual size of whitefish is three and four pounds.

The salmon-trout run in size from 4 to 15 pounds. The rock trout, or black trout are largest and most numerous on the shoals when spawning. All trout are the same, only one is larger than the other. All sell alike. I am furnished with nets by Mr. Reeves, of the American Company. I was employed by Mr. Holden to go

and fish for Reeves this fall, to be paid by the month as a fisherman. Whitefish and trout are taken by the Reeves Company. Their catch this fall was not very bad. They fish with pound-nets largely. I do not know the size of mesh. I have seen the fish caught in their nets. The fish this fall was very good fish. They fish with gill-nets largely for whitefish and trout. Quite a few fish are lost in these nets. Several gangs of nets here were lost, fish and all. A small boat gang is from  $1\frac{1}{2}$  to 2 miles long, using 4 gangs. A tug fishes from 5 to 8 miles length of net, and will use 4 of these gangs. I fished for the Gauthier Company in the years 1886 and 1889. Whitefish were then taken largely. The meshes then ran from  $2\frac{1}{2}$  to 5 inches in extension measure, but most of the nets used were of 3-inch mesh. There was a man came up from the department to see the nets, he was only shown the 5-inch mesh. Other nets were not shown to him. I took him out with Mr. Gauthier, this officer told Mr. Gauthier to put in a new back in the 5-inch mesh and make it 3 inches. I then went on fishing with the 3-inch mesh. In 1886 and 1887 they fished all November. After this a close season of ten days was made. We kept no close season before that. The  $2\frac{1}{2}$  and 3-inch mesh caught herring. They were herring nets formerly used in Lake St. Clair. When the herring were around we caught as many herring as whitefish, both large and small. I have seen whitefish caught there and at Cape Roberts that would weigh about  $\frac{1}{4}$  pound. I have seen quantities taken at several times at Cape Roberts, and thrown away by the barrel full, they were too small to freeze. Great numbers of them were so taken and thrown away at different times. This killing of young fish is most injurious to the fisheries. I have helped to scoop out of the nets small fish by the hour and throw them back into the lake, but none of them would live. They were lifted out of the pots in the nets and thrown into the boats, the big ones picked out and all small ones thrown away. This was done also at the dock sometimes. One year at the Duck Islands the fish were thrown on the shore and rotted. They were taken in big boats to the beach and thrown on the shore to rot. These were all first-class marketable whitefish and salmon-trout, they were too numerous and Gauthier's men did not take proper care of them, and they spoiled.

These whitefish are caught principally in the fall of the year, in October and November. Whitefish come there from the 10th to the 15th of November, and they come later to spawn. I have seen the spawn running from the fish when taken out of the nets.

Salmon-trout come in to the Duck Islands from the 15th of October to the 1st of November, they also come there to spawn. The Duck Islands are great spawning grounds for whitefish and salmon-trout, and also all along the south side of Manitoulin and Cockburn Island. Fish are not as good or firm at the spawning time as in the earlier months. The fish are soft and not good to eat at this time. In handling they are quite soft. Lots of herring were caught with other fish in the  $2\frac{1}{2}$  and 3-inch mesh nets. All these nets were brought up from St. Clair by Mr. Gauthier, and were called herring-pounds, and caught all fish large and small, but the small whitefish and the herring were always thrown away.

The quantity of whitefish and salmon-trout are now nothing like what they were at that time.

I have seen six and seven nets catch more fish in 1886, than are caught with thirty-five nets in 1893. The falling off is very great. This is caused by over-fishing, taking the young fish, and taking them when spawning.

Fishing with a tug gang means fishing with from five to six miles of nets. The same tug will use four of these gangs. In all, this tug will fish from twenty to thirty-two miles of nets. A sail boat gang is from one and a half to two miles, and it fishes four of these gangs, which amounts to six or twelve miles to the boat. I do not think there is any need of a close season, if a hatchery was put up here.

The American Commissioner from the State of New York came to Cockburn Island to gather trout eggs for their hatcheries. They came about the latter part of October. The eggs are taken from the fish as they are brought in from the gill-nets—about half a barrel of eggs would be taken.

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There is great injury done to the fishery and fishermen from the bark and wood from the saw-logs which are towed across the bays. These logs come from Whitefish, Spanish and Serpent Rivers, and are taken to the American side at Bay City, Saginaw and other places. They are towed during the whole season, and they are made in rafts from ten to fifteen acres each, principally pine logs. While towing, these logs roll about and rub off their bark and soft wood, this settles to the bottom, and gets on the nets and destroys them. It hurts the gill-nets most. Whitefish will not stay on the bottom, where this bark and dirty stuff is. It is, therefore, destructive to the fisheries in every way. These rafts are towed at a slow rate, from one and a half to two miles an hour. Some days, with head winds, these rafts will be obliged to go back and take shelter, and there, they keep grinding off their bark all the while. I have felt this injury when fishing at Saginaw Bay, in the United States, and it is the general opinion of fishermen at Saginaw as well as here that this log business will ruin the fisheries completely if it is allowed by the authorities to continue.

Mr. JOHN LAPOINTE was duly sworn and examined.

*By Mr. Wilmot :*

I am a Canadian and live at Spanish River. I have fished for twenty-five years. I have fished in Lake Huron, North Channel, and at Saginaw Bay, United States.

I have been fishing for other parties by the month. I fished nets for myself, but do not own the license. I have fished pound-nets for the past twenty years, catching whitefish, trout, pickerel, sturgeon, and a few coarse fish, such as suckers, perch, etc. I fished a 4-inch mesh in the pots, in the tunnels 4 inches, and leaders, 7 inches. This mesh has been used for the past four years. I also fished a 2-inch mesh in the pots. These nets, with the small mesh, were brought up from Saginaw Bay. I fished these small meshed nets for C. W. Gauthier. I acted as his foreman, and looked after from four to six of these pound-nets. I caught whitefish, trout and pickerel in these nets. I had no share; I worked as foreman. The fish were sent to Detroit by his steamers. It was said that he was connected with a Detroit Fishing Company.

The whitefish would average about 2 pounds for the 2½-inch mesh nets. These fish would run larger since a 4-inch mesh was used, say about 3 pounds.

All fish, large and small. The usual price was about 3½ cents. Salmon-trout and pickerel were the same price. Since I fished for myself during the past three years, I have used a 4-inch mesh, and sold the fish to Mr. Noble. I got 3½ cents, and delivered them to the Nobles at Newport. Whitefish are always in the best condition when they are not spawning. This applies to salmon-trout and all kinds of fish. They sell, however, at the same price.

Whitefish come on to the shores to spawn always in November; salmon-trout come in somewhat earlier towards the middle and last of October and in November. Pickerel spawn in the spring, in April and May, it depends upon the breaking up of the ice.

Whitefish and salmon-trout are much scarcer than they were ten years ago. In August, 1882, I caught a great many fish. I had six nets and took about 100 tons of fish for Mr. Gauthier. I could not get half that many now with the same number of nets, forty tons would be a large catch now with five or six nets. This applies to all kinds of fish. There are not nearly as many caught anywhere, now, as at the time I speak of about ten years ago. This falling off has been caused in part by too much fishing. The fish also may have been frightened away with the running of boats, and general traffic on the water. Small meshed nets may have helped also. Catching the fish at the spawning time has done great harm. The bark from saw-logs, and fouling the water with many things. The more you catch fish the less there will

be in the end. There should be a close season for protecting fish at their spawning time.

More fish are lost with gill-nets, than with pound-nets; pound-nets do not destroy any, or, at least, very few, but gill-nets, with all the fish in them, are sometimes lost. There must have been a couple of hundred gill-nets lost this fall, and all fish in them were wholly lost. This was caused by stormy weather. A great many fish are lost in gill-nets in the way above described.

I caught about fifty tons of fish last year with four pound-nets, using one tug, and employed on an average, about six hands.

I think the size of mesh in pots of pound-nets should not be more than the present size of 4 inches extension.

Mr. JAMES PURVIS was duly sworn :

*By Mr. Wilmot :*

I am a Canadian. I am one of the firm of Purvis Brothers. I live at Gore Bay. Have fished all my life—about twenty-four years. I fish in the North Channel, Lake Huron, at Duck Islands and south side of Manitoulin. I use gill and pound-nets. The size of mesh in gill-nets is 4½ and 5 inches, and in pound-nets the mesh is 4 inches in pots, and 5 and 6 in hearts and leaders. I use pound-nets and gill-nets outside the bay, and gill-nets inside. I catch whitefish and trout outside and the same inside. In fact, I take whitefish and trout altogether, but now and then a sturgeon. I sell our fish to the Buffalo Company, delivering them at the Burnt Island Station. We pack our own fish there in the usual fish cars in ice all season through. We keep no freezers there, only an ice-house. We fish with tug and sail boats using two pound-nets, and 150 gill-nets of 6 pounds each, of 100 yards, in all about 15,000 yards of gill-net. We sell the Buffalo Company all the fish we catch delivered at Burnt Island for 3½ to 4 cents, dressed. The company take these fish to Warton, and ship on to Buffalo. We have nothing to do with the duty, or anything else after we deliver to the company at Burnt Island. They attend to everything after that. Some fishermen ship their fish by steamer themselves, we do not. The Buffalo Company do all the fishing trade on the north shore. We do not sell any fish at home, or for Canadian markets.

The value of our tug is \$3,000 and our sail boats are valued at \$150 each. Our gill-nets are worth \$4,000, pound-nets \$350 each or \$700 for both. Employ, all told, about ten men.

Fish are about equal in quality all season through. Whitefish come on to spawn about the 10th of November, ending about the 28th. They spawn during the month of November,

Salmon-trout come in earlier and spawn in October and November.

Herring are plentiful here but are not caught by us. They are not marketable here. Or at least no market is yet opened to them.

Whitefish and salmon-trout come near the shores for spawning purposes, and soon leave after spawning for deep water again. Our nets are first set about the 1st of May, and we keep fishing until the close season sets in.

Whitefish are not as plentiful as in former years, caused by being too largely caught, and by this bark and wood from saw-logs which drives them away or kills them. Dead fish will seriously damage a fishery. The use of small meshes in the pound-nets which were used some years ago has helped to ruin our whitefish fisheries. If the mesh had been 4 inches as at present, the fishery would have been better sustained at the present time. I did not fish pound-nets until the last four years. I have known of great numbers of small whitefish and trout caught in these small meshed nets, they were taken at Duck Islands, and Cape Roberts. These were caught by the C. W. Gauthier Company in their small mesh nets. Lots of these young fish were caught that were not sent to market, they were thrown away as



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offal. I have seen baskets and baskets, which hold 100 pounds each taken out of these nets and cast on shore, these were nearly all young whitefish. This would be in July and August.

This company would use about 30 pound-nets as well as their gill-nets. C. W. Gauthier was at the head of this company. He has carried on illegal fishing in a great degree, ever since I have known the fishery. He fished with more nets than he had licenses for, and used small meshes and killed vast numbers of young whitefish. This company has done much harm to the fisheries here. At present, the same company with Mr. Reeves as manager, gets 16 licenses for pound-nets when native Canadians like ourselves can only get one. This is a great grievance to the Canadian fishermen, and the licenses should be more fairly distributed and the system changed.

I think there should be proper close seasons for protecting fish while spawning. A limit of five pound-net licenses is about right for one actual fisherman. The gill-net licenses might be unlimited. The present limit of 4-inch mesh for pound-nets and  $4\frac{1}{2}$  for gill-nets is also right.

I cannot say which kind of net is least injurious to the fishery. We caught in 1892 about 50 tons of fish. Salmon-trout were the greatest in number. Whitefish next, about one-third were whitefish. Our catch this year is about the same as last year.

We find the saw-logs business very injurious to the fisheries from the bark and soft wood which is rubbed off in towing them to the American ports. These rafts are very large, covering sometimes 10 acres or more. The constant rolling caused by the action of the water works these logs together and grinds off the bark, and soft wood which falls upon the bottom, and the current and wind carries this stuff into the nets and makes the nets useless. This is a great evil to the fishery. I would recommend that fish hatcheries be built to help to keep up the standard of fish which is now being much reduced.

*By Mr. Harris :*

Our two nets are five miles apart. The next nearest nets are about five miles. I think the pound-nets the most profitable and less expensive to run, when once got up. If we could get enough pound-nets would prefer them to gill-nets. We would want some fifteen or twenty pound-nets to give up our gill-nets of 15,000 yards. We could fish five or six pound-nets in our waters, which extend about 12 to 15 miles, it would depend on the nature of the shore as to how far pound-nets could be set apart. By the Beach line, the present twelve miles would make twenty miles. The expense of lifting ten pound-nets would not be any more than lifting two. The Reeves Company lift their pound-nets with sail boats. Their gill-nets with tugs. Their territory is so large that they keep men at different points to work their pound-nets. They do not buy from other fishermen. Reeves fishes eighteen boats and four tugs, one of these was fished under Mr. Holden's license. The bark from the logs does not work up on the shore. The salmon-trout that come in to spawn in the bay are the smallest. These trout are called red fins or rock trout in Lake Huron.

A 4-inch mesh in green nets will contract or shrink when tanned, and become less when dry, but it will become its full 4 inches again when wet and fishing.

Mr. JAMES NOBLE was duly sworn and examined.

*By Mr. Wilmot :*

I am a Canadian and reside at Cook's Mills. I am a fisherman and fish dealer for twelve years. I fish in the North Channel. I deal in fish at Newport. I have stores, ice-houses, freezers and other appliances for carrying on the fishing business. I catch fish with my own gear, and also buy generally from the fishermen. I take in a circuit of about forty or fifty miles of the North Channel. I reach from Thessalon down to Spanish River. I used to fish pound-nets but now only use gill-nets. The mesh of the gill-nets is  $4\frac{1}{2}$  inches. I catch whitefish and trout. Whitefish run about  $2\frac{1}{2}$  pounds, cleaned. Salmon-trout run about 4 pounds, cleaned. A whitefish of 2 pounds and under will pass through a  $4\frac{1}{2}$ -inch mesh. A salmon-trout of 3 pounds will readily get through a  $4\frac{1}{2}$ -inch mesh. I buy fish from the fishermen and pay  $3\frac{3}{4}$  cents per pound for whitefish, salmon-trout, pickerel and sturgeon. The proportion will be greatest of pickerel, next sturgeon, then trout. This year whitefish are scarcer by reason of the bark and stuff from the saw-logs, which seems to drive them away. This stuff also effects the nets, and prevents their catching fish as well, the meshes get clogged up with this matter and the fish won't enter them as freely as they otherwise would. It is next to impossible to get this stuff off the meshes, it is actual ruination to the gill-nets. Pound-nets are not so much affected by this bark stuff.

This refuse comes from saw-logs when being towed across the bay, the constant rolling together rubs off the bark and wood fibre and causes the damage mentioned. These rafts are very numerous and come from the different rivers on the North Shore, and are put together in large booms and are towed by tugs. They go very slowly, from a half to two miles an hour. These rafts are all sizes, some may be a quarter to a half mile in length, and nearly the same in width. They are taken to Bay City, in the United States, since the duty has been taken off. This is causing rapid destruction to the fisheries here, and is also keeping thousands of men out of employment in the working of the saw-mills, as they are nearly all closed up now.

If this is allowed to continue the whitefish fishery may be destroyed very soon. I do not catch or buy black bass to any extent. They are at present known to be very scarce here. If there is any angling for black bass here, it is done in the small lakes in the interior. I ship my fish to Collingwood, consigned to the Buffalo Company. This company takes them off my hands at Collingwood, and settles with me for them at that place. We get from \$3 to \$4.70 per 160 pounds. I have nothing to do with the duty, this company attends to everything after my delivery at Collingwood. This company handles almost the whole of the catch of fish on Georgian Bay and the North Channel; some of these fish go to Wiarton, thence to Buffalo. Mr. Montgomery is the agent of the company at Collingwood. From Newport I ship my fish by steamer to Collingwood, in the usual fish cars, which hold about half a ton each; they are packed in ice. All go as No. 1 fish, no distinction made as to size. Large and small go as No. 1. Whitefish under  $1\frac{1}{2}$  or 2 pounds are seldom caught, and salmon-trout under  $2\frac{1}{2}$  or 3 pounds are not generally caught or shipped. I do not notice any difference in quality of fish during the whole season.

Whitefish come in to spawn in November, and salmon-trout about the same, but in some places a little earlier. They are about alike.

Pickerel come here to spawn in the spring. The present close season is about right, 15th of April to the 15th of May. Sturgeon seem to have their eggs ripe at all times, but I do not know much about them. Herring are plentiful here, but are not caught for the market. Whitefish and salmon-trout come into the bay at the times mentioned, only to spawn. They leave the shoals and are caught in deep water in December, after spawning. There is a decided falling off in whitefish the last year as against former years.

Salmon-trout have also fallen off but not so much as whitefish. Pickerel remain about the same, and sturgeon are the same.

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Much smaller meshes in pound-nets were formerly used, and may have some effect on the falling off, by killing too many small whitefish, and trout. Some illegal fishing at spawning time will also have helped the falling off.

There should be close seasons to protect fish during the spawning time, and there should be proper regulations fixing the sizes of meshes in nets.

I think there are enough licenses issued now in the interests of the fisheries and fishermen.

Pound-nets are the best nets to be used as they take the fish alive, and they are more marketable. Gill-nets often destroy a great many fish, which become unfit for sale, and many have to be thrown away as useless. I took, between catching and buying about 120 tons of fish. Pickerel stood first, trout or sturgeon next, then whitefish, for the year 1893. In 1892 the greatest quantity taken were whitefish.

I would recommend that pound-nets meshes be 4 inches in the pot, which is the present size. Gill-nets should remain at  $4\frac{1}{2}$  inches, both extension measure.

*By Mr. Harris :*

There were much fewer whitefish this year than last year, and also than in former years.

The Commission then adjourned to meet at Killarney on the 8th November in accordance with public notice given.

## 6.—KILLARNEY.

Evidence taken by the Fishery Commissioners at Killarney, District of Algoma, Georgian Bay, Ontario, on the 8th and 9th of November, 1893.

Present:—Mr. Commissioner WILMOT, Chairman, and Mr. Commissioner HARRIS.

Mr. THOMAS BOYTON was duly sworn :

*By Mr. Wilmot :*

I am a Scotchman; live at Little Current; have been a fisherman for 38 years. I have fished at Meaford, Collingwood, Cape Rich and throughout Georgian Bay, also in the North Channel and in Lake Michigan.

I fished last at Little Current; I use gill-nets, the twine is No. 60, with 4½-inch mesh; I catch whitefish and salmon-trout, and sometimes pickerel.

I have sold my fish for the past five or six years to Noble Brothers, formerly to Davis, in Detroit, and to M. Doyle, in Toronto.

The price I got was 3¾ cents a pound for all dressed fish, except pickerel.

The whitefish run from 2 to 2¾ pounds; salmon-trout from 4 to 5 pounds; gray or deep water trout or "pot guts" are different from the others. They inhabit deep water, that is my reason for calling them a different family.

The "pot guts" spawn outside, about the month of August. This is something quite new to me, until some 4 or 5 years ago, when the fishermen catching them told me the spawn was running quite freely, but I do not know this myself as I have not fished in deep water.

The usual size of pickerel is 3 to 5 pounds, whole. I sold to J. and C. Noble of this place.

This company has stations, and I deliver the fish there. The company furnish the fish cars, ice and men to pack them, and they ship them to Warton and Collingwood, and then to the Buffalo Fish Company.

The Buffalo Company do almost all the fish trade here; Davis of Detroit does some also, dealing in the same way as the Noble Company.

Fish are just as good at spawning time as at any other because they are cold blooded.

Whitefish come on the shore to spawn from the 8th to the 20th of November, they then leave, as the spawning is done within this period.

Salmon-trout come in from the 25th of October to the 15th of November, they spawn within that period.

Pickerel spawn in the spring from the 15th of April to the 15th of May.

Sturgeon; I do not know.

Herring spawn about the same time as whitefish, in November.

Bass spawn about June.

These fish come into bays, reefs and shoals at the times above mentioned to lay their eggs: They are not found at these places at any other time, except an odd one or so. Fishermen do not fish for any of the above fish on the grounds mentioned in the summer time.

Fish have fallen off of late years to what they were, in some places more than in others. It is caused by seine fishing at the Sauble Beach, and other places on the east shore of Lake Huron, which are a natural spawning ground. This seining was done at the close time in former days, but it is not carried on there now to any great extent, and the action of the department stopping seining there is a good thing. Small meshes in the pound-nets have also been the means of reducing the

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quantity of fish. The 2 and 2½-inch mesh in the pots have destroyed the small and immature fish in great numbers. The killing of young fish is more dangerous than killing the parents.

The Americans grade fish as Nos. 1, 2 and 3, running from ½ to 2½ pounds; here, only one number is established. The market won't give as much for 100 pounds of small fish as for 100 pounds of the large fish.

If a proper close season as laid down by the department were kept up for some years, and hatcheries put up, a close season would not be required afterwards. There is quite enough fishing at present in these waters. There are enough licenses issued now.

The pound-net if used with a 4-inch mesh would stand on the same footing as a gill-net of 4½-inch mesh. The quality and size of fish from both these nets would be the same. Gill-nets will lose more fish by reason of storms, when there will be some dead ones taken.

I know of Lake Ontario fishing, at one time it was a great fishery for salmon-trout and whitefish. I have heard of 80 and 90,000 whitefish being taken at one haul. Another man took 70,000 at one drawing, both were seines at Weller's Beach. Now, they catch nothing there whatever.

This was over-fishing with seines. It cannot occur here as we have not the seining ground, and it is wise to stop seine fishing anyway.

*By Mr. Harris :*

I prefer whitefish as best, I eat them constantly. When there was no close season we shipped our fish in barrels, frozen. The first freezer put up was some twelve years ago at Meaford. In 1857 there was no close season; I think the present regulations as to meshes of nets should be changed. The 5-inch mesh is of no use in the summer, but it will do in the autumn for trout.

A 2 pound and under whitefish or salmon-trout will pass through a 4½-inch mesh in gill-nets, the same fish could not pass through the 4-inch mesh in pound-nets.

Licenses should not be issued to any other person but actual resident fishermen and a British subject. The pound-net limit of license should be five to any one person as it is enough. Trap-net licenses might be allowed under certain restrictions with a fee of \$10.00 for each net. I have never fished with pound-nets nor have I ever seen one lifted.

Mr. NED FOURCHEAU was dully sworn :

*By Mr. Wilmot :*

I live at Little Current, am an Englishman, a fisherman for some ten years; fished in the North Channel and at Detour, in Michigan, U.S. I use gill-nets with mesh of 4½ inches, some are larger—being old ones, got before the 4½-inch limit was passed.

I fish for whitefish and salmon-trout.

With regard to seine fishing, I quite agree with the former witness, Mr. Boyton, as to the stopping of seining.

I sell my fish to same parties, and in same manner as described by Mr. Boyton. My prices range the same.

The present established close season for whitefish will take in their spawning time. Salmon-trout spawn a little earlier than whitefish.

Both salmon-trout and whitefish come on the reefs and shoals and around the Islands to spawn in autumn, and are only caught at these places at these times. Only a very few fish are caught at these places at other times than when spawning.

Whitefish and salmon-trout have fallen off during my fishing operations. It is caused by the changed state of the water, and from the effects of towing saw-logs

and pine refuse from saw-mills. The saw-dust has done a great deal of harm, but latterly saw-logs are doing a very great injury. In towing them across the bays in rafts the action of the water rolls them about so that the outer and inner bark gets rubbed off, this being water soaked, settles to the bottom and catches upon the meshes of the nets, and when the winds blow this refuse matter is stirred about, and besides destroying the nets it also drives the fish away. Some of the nets are so filled up with this stuff they become perfectly useless. A great many nets are therefore thrown away, the corks and leads are the only parts that can be saved. This damage is general in the North Channel. These rafts will sometimes take two tugs to tow them, being very large, and will cover from 50 to 100 acres of the surface of the bay. They tow them very slowly, about one to one and a half miles an hour. Sometimes these tows have to stay in one place on account of head winds for some time, when the grinding of the bark off the logs is going on continually. This stuff is so water soaked that it won't drift on shore, but sinks almost immediately, and the motion of the water distributes it all over the bottom, and drives it into the meshes of the nets. This damage to the nets and the fisheries has been only felt since the duty was taken off saw-logs, when the lumbermen began to ship their logs across to the States. This damage to the fisheries had not been experienced in former years, nor before this same log towing took place.

Some years ago the pickerel were so numerous they could be seen quite thickly about the docks and other places about Mudge Bay, but since the saw-dust came down from the mills up the river scarcely any pickerel are to be found there, and therefore none are caught there now. This has most seriously injured the fishermen. The fisheries have no doubt been also injured from taking fish too numerously at spawning time.

I agree with Mr. Boyton as to the spawning time of fish and to having close seasons. I at one time fished at Detour with five pound-nets and fifty pieces of gill-nets. That was about five or six years ago. It was very hard to make a living by fishing there. The Americans started to breed fish in the hatcheries, and they planted them in the waters in the neighbourhood of Detour, and since then the majority of fishermen have done better.

Whitefish are all right till at and after their spawning time when they are not in as good condition as they are before. I think there is as much fishing going on now as the fisheries will properly sustain.

It is claimed by many that the gill-net fish go into the market in better condition than pound-net fish, but I know that sometimes fish are found dead in gill-nets and are thrown away.

I have 40 pieces of nets of 3 and  $3\frac{1}{2}$  pounds of web, in each about 1,200 yards. I fish with one sail boat and latterly a small tug. I employ two men all told. I set my nets as early as the ice will let me, about the 1st of May. I fish all through the season until the close time sets in.

I caught about \$500 worth of fish in 1892, and I got  $3\frac{1}{2}$  cents a pound, but with the same fishing rig I got much less in 1893. This year the fishery is considerably less than last year.

I started to fish with four trap-nets this year, and the officer seized them. I had a trap-net license in 1891 and paid \$15.00 for the license. In 1892 I put my nets in again without license, and some one pulled them out, and left them on the beach. I got the nets and set them again in 1893 and they were seized and burnt by the fishery officer. I think the department should have notified me that they would not grant licenses for trap-nets for 1893. A trap-net is made with a leader of from 6 to 20 rods, according to the water; at the end of the leader are hearts similar to the pound-nets, only smaller, a pot of about 8 or 10 feet square is put on this which is the trap. It is set without stakes, and fastened down by stones for anchors, all under water. The trap is covered with net, top, bottom, sides and all around; the meshes are 3 inches extension measurement. The leader has about 5 or 6-inch meshes, and the heart has 3-inch mesh, the same as the trap.

These nets should be allowed anywhere they can be set with the leaders from the shore. The license fee should be about \$10.00. They are used to catch pike,

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pickerel, bull-heads, some bass and coarse fish. These nets should be set after the close season for pickerel is over, and fished only until the close season for salmon-trout and whitefish sets in.

I give herewith a plan of this trap-net.

*By Mr. Harris :*

The taking of the duty off saw-logs has largely interfered with the labour about here, as most of the saw-mills are closed up, and the saw-logs go over to the United States. If the duty was again put on the logs, more saw-mills would be built to cut the logs in our country. American tugs and labour take these rafts of logs across to the United States.

My trap-nets are set in 14 feet of water, sometimes in 15. Don't know whether they would catch herring or not, they would catch herring if the mesh was small enough. A 3-inch mesh-net will catch some of the larger herring. I never fished with hoop-nets. If licenses were issued for trap-nets by the department, they could be put under proper regulations like other nets for catching coarse fish, pickerel and pike.

If these fish were caught it would be better for the finer qualities of fish. The trap-net can be fished under the ice in winter, but they would not pay then, as there would be no market for the fish if they were caught in the winter. I would only fish them from the 15th of May.

If we were allowed to catch whitefish and salmon-trout in November, we would also try to catch these coarse fish at the same time. We can't catch these coarse fish in October and November, it would be no use to set the nets then. We are willing to take up the trap-nets in October and November, and to fish trap-nets alone would not pay. The person getting pound-net and and gill-net licenses should also be allowed to get trap-net licenses.

Trap-nets would add to the business of the fishermen and be a benefit to the fishery; black bass are not plentiful in the outside waters, they are to be had in the small inland lakes.

Mr. JAMES NOBLE, of the firm of J. C. Noble, of Killarney, Ont., was duly sworn :

*By Mr. Wilmot :*

I live in Killarney; engaged in fishing for the past 17 years; I am a dealer in fish also, and carrying on fishing at Byng Inlet, the Bustard Islands and North Channel of Lake Huron, also at Squaw Island and other places.

We use gill-nets wholly; the size of mesh at present here is  $4\frac{1}{2}$  inches. In former years we used 5 and  $4\frac{3}{4}$  inches; the mesh was reduced in size in order to take more fish. The 5-inch mesh was not sufficiently profitable. The  $4\frac{1}{2}$ -inch mesh takes more of the smaller sized fish than the 5-inch mesh.

We catch trout and whitefish wholly so far as our own fishing is concerned, but we buy pickerel, sturgeon and all other kinds of fish from the fishermen. We ship our fish direct to the Buffalo Company, *via* Collingwood. We also sell in Canada to the Canadian Pacific Railway Company for their steamers. We pay for whitefish, trout, pickerel, and black bass the same price, *viz.* :  $3\frac{1}{2}$  cents per pound to the fishermen. We consign all fish, as before stated, to the Buffalo Company, and sell also about 600 pounds a week to the Canadian Pacific Railway, and about three tons to the line boats, the balance goes to the Buffalo Company, at Buffalo. We make contracts to furnish this company with about 600 tons and more if they will take them. Last year we sent the company 700 tons, but this year we ran about 75 tons short, as there were not as many fish taken as usual. No arrangement is made with this company regarding duties in the United States. They take our fish at a certain

price per ton on board of steamer, and we deliver them at Collingwood, our transaction ends then, except in getting our pay.

There are other companies on the Georgian Bay which sell to the Buffalo Company, namely, C. Duffy, of Byng Inlet, and Purvis Bros., at Gore Bay. The Buffalo Company have two tugs which they send round to gather fish from the other companies, but not from us. Our contract calls for 800 tons, including my son's take at Newport on the North Channel. Roughly speaking, the Purvis and Duffy sales to the Buffalo Company would be from 250 to 300 tons. Our sales would also include the fish taken in by Alexander Clark, of Collingwood. The fish taken by James Clark at Wiarton and Goderich are not included in our company's sale or the sale of the Georgian Bay district. We furnish the fishermen with such fishing gear as they may want, that is in boats and nets, and we sell them provisions also. Generally speaking we supply them with all they want. Our business was first commenced about fifteen or sixteen years ago, increasing every year since. The general business of our firm when we first began was with a Canadian Company, we sold to them for \$45 a ton. We then bought fish for  $4\frac{1}{2}$  cents each fish, that was for whitefish and salmon-trout; we dressed the fish when we sold them to the Canadian Company. We only traded with the Canadian Company for one year to the extent of 100 to 150 tons; they were delivered by steamer at Collingwood. This company sent fish throughout Canada and also to the United States. The trade then was comparatively small. The following year we contracted with the Buffalo Company, and sold over 50 tons. We bought fish from the fishermen at  $4\frac{1}{2}$  cents each. The Buffalo Company appointed a man to inspect all our fish on the docks at Collingwood, and all fish passing the inspector relieved us from any further responsibility. Our general business for some years up to the past three or four years did not exceed 300 tons. During these later years it has run up to 600 and 700 tons. This increased business has been produced by extending our business, employing more fishermen and catching more fish. We do not expect a continuance of this business, as there is a considerable decrease in the fisheries. We all know that well.

When we were selling the 50 tons and 300 tons supplies of fish in former years, the boats and fishermen were catching more fish than now per boat. It was the increased number of boats and fishermen that gave us the great increase in sales of 600 and 700 tons. It was not because the fish were actually more plentiful to make this large export sale, but it was because more fishing was done and more energy was given to obtain them, also better fishing craft and appliances of all kinds, and more expertness used in catching them, and more capital also brought to bear to capture them. If this excessive fishing goes on at the same rate, and this new calamity from the saw-log business is not stopped, the fishing industries in the Georgian Bay and North Channel cannot last long. Therefore, we think some strong measure must be brought to bear to protect the fisheries, otherwise the formerly great fisheries in this section of the province must be soon done away.

The way to remedy these difficulties, so far as the log question is concerned, is to put an export duty on the logs, which would, in a measure, stop the great outlet of logs from this section into the United States. This would be the means also of employing thousands of Canadian hands, and open up again the saw-mills which are now shut up, and also stop this great evil to our fisheries from the bark refuse which comes from the logs in their transport in rafts across our waters to the United States. These rafts will cover the water to the extent of 15 to 20 acres, which takes two large steam tugs to tow them. They tow very slowly, only from one to two miles an hour, and the logs are continually grinding together, so that all bark and inside soft wood is rubbed off and sinks upon the bottom and settles on the nets, destroying both the nets and injuring the feeding and breeding-grounds of our bay fisheries.

Another remedy to sustain our fisheries would be to have fish hatcheries put up on the bay, to help the natural production of fish, and to enforce the close seasons at the spawning times of fish, and to regulate the sizes of mesh to prevent the young and immature fish being taken.



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The pound-nets with 1 and 1½-inch mesh in the pots have destroyed immense quantities of young fish of all kinds. This should be prevented, as it is one of the greatest evils.

The fishing as now carried on should not be increased, but might be judiciously diminished, as fishermen die out or go away. If more yards of net are used than at present it will not be in the interest of the fisheries or the present fishermen.

Fish at the spawning time should be cared for, as they are not as good as at other times. In this state they become softer, with more slime upon them, and are not so suitable for transport or for packing; they spoil much more readily at this time. Whitefish come on the shore at two periods, one kind of whitefish called shore fish that are caught in pound and other nets used along the shores, come on early in November and lay their eggs in about 10 or 15 days in from 10 to 12 feet of water; they then disappear. The other kind are called gill-net whitefish, and do not come on the shore to spawn; they spawn in deep water on mud bottom, from 40 to 50 fathoms of water. These fish spawn from the middle of November into December, and are not generally as large as the shore whitefish; they will run from 2½ to 3 pounds, while the shore fish will run from 3 to 5 pounds.

Salmon-trout are of two kinds, one is called the rock or black trout, which comes on the shore or reefs about the 15th of October, and they lay their eggs until the 20th of November. Some on honeycomb rock bottom at about 10 to 15 fathoms, and some lay their eggs right on the shoals in water from 4 to 6 feet deep, they disappear after that, but trout are sometimes caught in considerable numbers in December on these shoals.

The other trout are called pot guts, or deep water trout. They do not come on the shores, they spawn in deep water the latter part of November, in from 40 to 50 fathoms. They never seem to come near the shores at any time. It is only the large rock or black trout that come on the shores. At any time these latter trout are found on the shores.

Pickereel spawn about the time now set aside by the close season; they spawn generally in rivers or rapids.

Black bass are scarce, the catch for the season not exceeding a ton; they spawn in June.

Herring are very plentiful here, and at Bad and French Rivers, they are taken in large quantities. The trade in this fish is only just commencing, a large lot are being taken this fall amounting to some 600 packages of 100 each. They are taken this season at French River. The herring generally spawn in November, and should receive protection by a close season like whitefish and other fish. Even the coarse fish require protection at their breeding time to keep up the great demand there is for fish food.

Whitefish and salmon-trout come on the shores almost wholly for spawning purposes, yet some are caught on these shoals at other times, but not generally speaking.

There should be a close season for all kinds of fish, and some effort should be made to induce the Americans to have close seasons as well, which would give more satisfaction to our fishermen.

Trap-nets might be used under licenses, as they will be fished with anyway. They can be put in such places that it is very difficult to stop them fully.

Pound-net licenses should be allowed on the Georgian Bay waters, as well as the waters west of the present prohibited line from Hurd's Head to Spanish River. It is discriminating too much to allow pound-nets to be fished at the Duck Islands so largely and not allow them to be fished in Georgian Bay.

The Duck Island fishery has been principally fished by C. W. Gauthier; I have known him to get a license for ten nets, and actually fish a great many more. I saw a tug with Officer Joseph Wilson take some of these nets, he washed them and stored them away in the Gore Bay storehouse. He gave the fish taken in them to the poor; they were principally pickereel and sturgeon. The meshes in these nets were only 1½ to 2-inches extension in the pots. There have been lots of young

whitefish and herring taken in these pound-nets so numerously that they were left to rot on the beach.

All fishermen should be served alike in getting licenses. One man should not get fifteen or twenty pound-nets when the rest are limited to four or five, which are enough for any one fisherman.

There is a serious complaint made by all fishermen against the Reeves Company getting these large number of nets, especially as he is manager of the Detroit American Fishing Company, this is unfair to the truly Canadian subject and to the fisherman.

*By Mr. Harris :*

Fishermen could not stand a 5-inch mesh now, not if they were given 3 years to make the change, they could not make it pay. It would drive fishermen away. They could not take out licenses.

The present close season for whitefish is correct for November. For salmon-trout it should be for part of November and part of October.

Whitefish cannot be fished without taking some salmon-trout. Whitefish are the most valuable fish; salmon-trout next, then bass, next is pickerel.

Pound-net pots were used with 1 and 1½-inch meshes about eight years ago, the mesh of the pots should be 4 inches. A 3-inch mesh was used on one side of the pot, this mesh would not catch any herring.

The Lake Huron or Georgian Bay license allows the fishermen to fish in those waters and also in the North Channel, numbers of those fishermen now come up here to fish. There should be no restriction for fishermen to fish anywhere under their licenses. As fish become scarcer many fishermen will be obliged to give up fishing, and therefore the few left may do better and then the fishing may improve. In that case the fisheries will get into better hands and the fisheries may then recuperate. These persons will then take greater interest to preserve the fisheries. The fishermen will then be in better circumstances and will protect their own interests.

*By Mr. Wilmot :*

Aprons or false pieces of nets are used as a device to prevent detection of illegal work by pound-net fishermen, these aprons have much smaller meshes than the pot and are put down very quickly when the pot is full of fish, small and large, and all of them are lifted out in order to separate the small fish from the large ones. The apron is then put aside so that when the officer or other persons are around inspecting the net, only the usual legal sized net appears. The aprons have much smaller meshes to lift in the small and immature fish. I never saw them myself, but I know this to be done from many fishermen who have seen them.

Mr. NELSON HARMAN was duly sworn.

Am a Canadian; live in Collingwood; have been fishing off and on for 20 years and upwards. My father was a fisherman and I have been almost brought up to fishing from my youth.

*By Mr. Wilmot :*

Have fished in Georgian Bay, Lake Superior, north shore of Lake Huron. I have bought and sold fish on Lake Ontario, at Rochester, United States, brought from the Canadian side, also handled fish brought from Georgian Bay and great lakes. I have only fished gill-nets in a business way, I have also hauled seines under the ice in winter at Waubashene, Georgian Bay.

I have dealt in and fished for whitefish and trout, and in this business have bought and sold all kinds of fish. Whitefish and salmon-trout were caught in

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such quantities in 1877-78 on the north shore of the Georgian Bay, and put on the market in such numbers, that they became almost valueless, and the fishermen could hardly sell them. The competition among wholesale dealers at Buffalo was so great, that they would often sell these fish simply to cover freight. Whitefish, and trout were sold as low as  $1\frac{1}{2}$  and 2 cents a pound, and if they could not sell them they would throw them away.

When in business I gave away a whole cargo of fish, consisting of several tons to the poor master for distribution amongst the poor. These fish were examined by the late Seth Green, who pronounced them as sound fish. This statement is given only to show how numerous fish were at that time, almost a drug in the market.

I sold out my business and came to the fishing grounds in Georgian Bay in 1880, and found that the fishermen were largely in debt, and they were only just then beginning to get something for their fish. Salmon-trout and whitefish were being bought at that time from 5 cents to 6 cents each, and not by weight but whole. Then at these low prices a fisherman could pay his debts on his fishing rigs in about six months. The fisherman with his catch of a season at that time and these prices would make from \$900 to \$1,600, and in some instances gill-net boats would make \$2,000. At that time there were few outfits to what there are now. Many of the young farmers and others then commenced to fish, and could get their tackle readily from the dealers. The consequence was that a large number of fishermen commenced fishing in the bay. Boats also came from Lake Huron into the Georgian Bay, and the fishing business began to be enlarged, and as the profits increased the number of fishermen also increased greatly, and the consequence the catch of fish began to lessen, and then in order to meet the demand for fish in the markets the fishermen's rigs, boats and gear of all kinds here, largely increased.

At this earlier period the twine or thread used was very heavy and coarse. Nets could then be run for 3 or 4 seasons without renewing. This heavy fishing greatly lessened the number of fish in these waters, and the fishermen getting more expert in fishing introduced a much finer twine, and began to use more nets and more boats.

In 1885 the fishing trade became very large, it was, it may be said, at its height in the Georgian Bay.

At this time very few fish were to be had in Collingwood Bay, as the excessive fishing before that time had depleted it, and the fishermen had gone to the North Shore to carry on their calling. As this trade enlarged during the previous years, the fishing industry became more general, and steamers were put on to further the trade in transporting the fish, so much so, that there was greater competition with dealers, prices became larger and caused over-production. Thus commenced a complete network of fishing to such an extent as to cause five or six gangs of nets to be across each other. The fishermen would have miles and miles of nets. In fact the Georgian Bay was completely covered with nets, so much so, that it is the cause of the present scarceness of fish which is now experienced.

With the then excessive fishing, which is now also continued, together with other causes, such as bark, small meshed pots in pound-nets, killing fish at spawning time has reduced the fishermen in Georgian Bay. I have, with twelve runs of nets, caught as many as 9,000 whitefish and salmon-trout in one month, seven-eighth of these would be whitefish, and as many as 3,000 in one week, and the nets would not be set more than five nights in the week. I made about four lifts a week, this with all gill-nets with meshes of  $4\frac{3}{4}$  inches, the twine was No. 50 and No. 60. Other fishermen at that time were using coarser twine generally, about No. 45. The gangs would consist of about five in number each. The length would be 6,000 yards, some rigs were larger and a great many less. 6,000 yards was the average rig then.

The fish at that time were all larger than at the present time. The whitefish would be counted at the rate of  $2\frac{1}{2}$  pounds, dressed, and salmon-trout would run about 5 pounds. Some trout were taken, which they called "mokers," that would run 30 and 40 pounds; they were scarce.

At the present time the same rigs of net of 6,000 would not catch more than 3,000 pounds in a month, and all fish would be of a smaller size, and the fishing in Georgian Bay has decreased in the same proportion generally.

Whitefish came on the shoals to spawn earlier in November in former years than at the present time, they come in about the 11th of November, and continue on the shoals about ten days. They were on much longer in former days; this would be caused by the greater number of fish frequenting the spawning grounds in former times.

Salmon-trout come on the shoals through the month of October to spawn about the middle of October.

Pickarel will come in about the middle of April to spawn. I have caught as many as 1,400 at a haul under the ice, just as the ice was breaking up.

Whitefish and salmon-trout come on the shoals from the deep water at the time mentioned above to spawn. They are never caught on these shoals only at spawning time.

It is highly necessary that a close season should be established to protect fish at the spawning time. The condition of the fish at spawning time is not as good as earlier, they won't stand shipping as well in the cars. They are softer and more slimy, and won't stand shipment as well.

Whitefish for eating purposes are altogether better in the summer, when in deep water, than when in the shoals and spawning.

From my experience I would not take 6,000 yards of net as a gift to fish with, and be confined to that amount, as it would not pay now, whereas in former years 6,000 was actually as much as a crew could handle, as the fish were then so numerous. They were then sold for 5 cents apiece.

If the number of fish were calculated at say 10,000 pounds, more fishermen would get a living from catching this number of fish than would be the case with the pound-nets. Gill-nets require some skill in fishing. Pound-nets do not require so much skill.

Fishing is greatly injured from the rafting of saw-logs in such great numbers, as they are now towed across the lake to the United States. This injury is caused by the inside bark which is ground off the logs and forms a sort of stringy substance, which settles upon the nets and clogs up the meshes, making the nets useless. Nothing will clear this stuff off the nets, excepting picking it off with the fingers, which would cause such expense and take so much time, as to make it better to throw them away and get new nets.

The extent of this rafting is very great; they are towed in large rafts, sometimes covering a space of four and five and more acres. The logs are constantly rubbing together by the motion of the water and working this inner and outer bark off when it settles to the bottom. Besides injuring the nets, it also destroys the fishing ground by driving the fish away.

This log difficulty has been noticed by me just about nine years ago, in small spots only, by the local towing of logs for home work of some saw-mills, but since the duty was taken off logs this evil has grown to great magnitude and threatens our fishing industry most seriously. These rafts are so large as to require two powerful tugs to tow them. These tug-boats are owned by Americans.

From 1880 to 1885 the greatest fishing was done on the north shore of Georgian Bay. The fish, before that, were quite as numerous, but fishermen did not enter into the fishing business so fully or have as complete a system to handle and catch the fish. The industry then became profitable and more people went into it, and as the fish decreased the fishermen increased in order to work up the supply of fish for the markets.

Then the mesh of nets was larger than now. I remember the time when no nets were used with less than 5-inch mesh; they began later on to fish the 4 $\frac{1}{2}$  and 4 $\frac{3}{8}$ -inch mesh. The catch of the fishermen at the present time at Byng Inlet had up to the middle of July, been only 8 or 10 tons. The fishery will amount to about \$700 or \$1,000 in a season, with their rigs, consisting of a sail-boat, 2 men, and from 15 to 20 thousand yards of net. The \$700 and \$1,000 is the price of the gross catch

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as sold to the dealers. Their fishing twine will last about two years. If the fishing keeps on decreasing the fishermen will have to give up the business; the two year's life of twine applies to the time before this bark difficulty came up. A man may lose his whole twine in one year with this stuff. If the fishing industry came to an end, the fishermen would go to lumbering camps or elsewhere to get a living. The rafting of saw-logs across to the United States employs hardly any Canadian workmen. The United States dealers bring their men and tugs with them.

If the logs were sawn in our own mills a large number of Canadian workmen would be employed, as the mills are now mostly all shut up and this labour is lost to Canadians. Many mill hands formerly employed here now follow these logs to the United States to be employed in the mills there.

I don't think if the fishing ceased here the fishermen would get any more work on the south shore of Georgian Bay than they would get here. It has followed that as the fishery decreased the fishermen must use more twine and smaller meshes to make up the difference, and consequently catch more small fish. The fishermen who are desirous of using pound-nets here no doubt think it more profitable or else they would not do so; this applies to them as individuals. The decrease in the fisheries will affect more gill-net fishermen than pound-net fishermen, as there are so many more gill-nets used.

It is of the greatest interest to all gill-net fishermen to preserve the fisheries by all judicious means. The gill-net fishermen of the Georgian Bay believe that pound-net fishing is the most injurious mode of fishing.

The fishermen of the south shore of Georgian Bay come here to fish, also the fishermen from Southampton and Goderich. If the fishermen of the south shore of Georgian Bay were restricted to the limits in which they live, they would have to give up fishing altogether. These men had good fishing at one time on the south shore, but they fished it out and are now obliged to come here.

Whitefish close season should be during the whole month of November because they come in in some places in the beginning, in other places at the middle, and other places the end of the month. All fishermen fish during the month of October and set their nets on honeycombed rocks along the shores. The whitefish do not come from deep water till the beginning of November. The gill-nets are set in deep water near the shoals in October for whitefish, they fish just wherever they can catch them till the close season sets in.

The fishermen lay their nets along the shores to catch fish when they are coming on their spawning grounds and catch them till the close season sets in.

All fishermen expect to take a large catch of trout in October; they do not expect as good fishing for whitefish in October, as the whitefish don't come in so freely in October as in November.

Trap-nets might be introduced in these waters to catch coarse fish, but it would be hard to regulate them. The regular fishermen would not apply for these nets, only the men who live on the shores, and every man would want to get a trap-net license, and consequently more fishing would be done by everybody, as the net is a cheaper one and easier worked than the other nets, and the fishery officer could not watch this trap-net fishing very well, as these nets can be set in nooks and corners where other nets are not, or cannot be set. A trap-net can be set in half an hour and can be fished in about three hours. A trap-net will make a bundle the size of a flour barrel. There are no stakes to set it with, it is sunk and set with stones, and can be lifted up in 20 or 30 minutes. There have been a considerable number of trap-nets set here, some 20 or more have been taken and burned during the past season. There have been a great many of these nets set in this section of the bay. They would become very numerous if they were licensed. Illegal fishing would greatly increase if the fishery officer did not prevent the use of these nets. If made legitimate it would take many more officers to look after them. If a man got a certain district he would look after it and prevent his neighbours from fishing in his grounds. By a district I mean a certain extent of the shore, but it would not be easy to lay out the districts on account of the numerous islands.

Fishermen get fair prices for their fish here. There are few fishermen capable of shipping on their own account, and the middleman is therefore necessary. A fisherman cannot well fish and ship his own fish from this shore. Shipping the fish in small quantities, as would be the case by a single fisherman, many fish would be lost. Fishermen might combine, but it is doubtful whether it would be done.

Mr. GEORGE LAROCHE was duly sworn:

I am a Canadian ; live in Little Current ; have been a fisherman for seven years.

*By Mr. Wilmot :*

I fish at Mudge Bay ; I fish with gill and pound-nets ; the size of gill-net mesh is 5 inches and  $4\frac{1}{8}$ , and  $4\frac{3}{8}$  inches ; size of mesh pound-nets 4 inches and  $2\frac{1}{2}$  inches. I caught whitefish, salmon-trout, pickerel, sturgeon, bass, pike and coarse fish ; the most fish were pickerel, then sturgeon, next whitefish, then bass and pike, and the rest were coarse fish, bull-heads and perch ; I took some herring, all were caught in Mudge Bay.

I sold my fish to Noble Brothers ; this company had a station at Mudge Bay, where they bought all fish they could. I dressed the fish and delivered them to the company, who packed them in ice, and shipped to Buffalo by steamer. I got  $2\frac{1}{2}$  and  $2\frac{3}{4}$  cents a pound dressed, except pickerel. The coarse fish were not bought from me as they were not considered marketable. The usual size of pickerel is  $2\frac{1}{2}$  pounds ; whitefish,  $2\frac{1}{2}$  pounds ; salmon-trout, 3 pounds (all dressed) ; sturgeon, 30 to 40 pounds ; caviare not used here.

Fish are different altogether at spawning time, not nearly so good as at other times ; they are soft and flabby when spawning ; this applies to all fish.

Whitefish come on shore about the 17th to 20th November for spawning purposes, some earlier, some later.

Salmon-trout come to spawn about the 15th to 20th of October, and will remain until early in November.

Pickerel spawn in the spring from April to 1st of June.

All these fish come in from deep water at the above period for spawning purposes only.

Fish have fallen off quite a lot since I fished in Mudge Bay. Caused by illegal fishing, and catching them at the spawning time. Suckers also destroy the spawn ; can't say what else, but I know that fish are actually much more scarce than they were.

I think fishing with too small meshes is injurious to the fishery. The towing of saw-logs is destructive to the nets and the fishery, but this did not occur in Mudge Bay. But it is much felt in the North Channel and in Georgian Bay. The bark and the rind next after the bark is ground off by the logs rolling and rubbing together. This stuff falls to the bottom and is caught in the meshes of the nets, this is most injurious. These rafts cover the surface of the water as much as ten acres at a time.

I think there should be a close time to protect all fish at their spawning time, the present close season is about right for whitefish.

There is quite enough fishing carried on now in this North Channel, more fish are destroyed by gill-nets than pound-nets during stormy weather. They die in these nets in considerable numbers, and I have known as many as 300 fish thrown away at one time from one net.

The pound-net is safest and best for the fishermen, the fish are taken alive, and go into market in better condition.

There are some well known spawning grounds for certain fish which might be set aside as beneficial to the fisheries.

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Herring are plentiful in some places here; they are not generally taken for marketable purposes, but this fall they are being caught at Bad River in great quantities by scooping them out, and also with gill-nets. They can sell herring now, they could not before. The price is now inducing fishermen to catch them; they are sold from \$3.50 to \$4 a package of 100 pounds; they should therefore be protected at their spawning time.

*By Mr. Harris :*

I fished gill-nets and used 5-inch mesh about 1885. Some use 5-inch, some use a less size. I have heard that the department intends establishing the 5-inch mesh again. I have talked with many parties here in Killarney who say they would not use anything less than 5 inches mesh. There are more nets used now under 5-inch mesh than over 5 inches. It would benefit the fishermen to have several years to reduce their twine, the webb will be used up in about two years. It would be all right to give a couple of years notice if the 5-inch mesh was to be put in force.

No. 60 thread is worth \$2.40 per pound. Pike are valued very low, only about 1 cent a pound. Bass are worth from 2½ to 3 cents a pound, the other coarse fish are not saleable.

Below a certain line on Georgian Bay, pound-net fishing is proscribed and licenses are not granted. Licenses should, however, be granted for pound-nets everywhere. Whitefish are caught in the prohibited limits by other nets in May, June and July. They are then in their best condition.

Pound net licenses should be granted east of this proscribed boundary in the Georgian Bay. There is plenty of ground where hoop-nets could be fished. I do not know where the small sized whitefish are found or where they go to. Some are caught as low as half a pound. Before this proscription was made, small mesh pound-nets were used there.

What I mean by illegal fishing is fishing at spawning time with improper nets and without licenses.

Since the injury to the fishery, by saw-logs has taken place, I do not know where the fish have been driven to. It certainly is a great injury to the fishermen. I do not know much about the Collingwood fishing, but there is very poor fishing done there now. Most of the fishing that was done on the south shore is now removed to this section. The rafting of logs did not exist there some time ago, only since the duty was taken off saw-logs. I do not know any place where salmon-trout and whitefish have increased.

Mr. JOSEPH ROCQUE was duly sworn and examined.

*By Mr. Wilmot :*

Am a fisherman. Have fourteen years' experience in the North Channel and in Lake Huron. I fish up and down the shore near the places mentioned.

I use gill-nets with 4½ inches mesh and fish 8,000 yards of net with one sail boat of 24 feet keel and two men all told. I set my nets in April and fish through the whole season until close season sets in. I fish the whole 8,000 yards of net in the water at one time.

I catch whitefish and trout, sometimes pickerel; the usual size of whitefish is 2 pounds and salmon-trout 3 and 4 pounds, all dressed. They fall off in weight by dressing by about ¼ pound. I sell my fish at 3¼ cents a pound to Noble and Jackman, they ship their fish to Collingwood and thence to the Buffalo Company in the United States.

Fish are about the same all the time, but fish caught in October are not quite so good.

The October trout are larger and are called rock trout. The large trout will run about 6 pounds; these are not caught in the summer, because they are then

swimming on the surface, they are to be seen at times on the surface, they are feeding on herring at this time.

The gill-nets which are set on the bottom in deep water being only five or six feet wide, do not catch these large trout that are feeding on top of the water. Only an odd one of these big trout is caught from April to September. In October they come on shore to spawn. The smaller salmon-trout that will run about 4 pounds in weight are caught in deep water from April till October.

These small trout do not come to the shores to spawn, but they do spawn somewhere. Sometimes we see a few eggs in these small trout beginning to grow about July, in September and October they are larger. We only catch them in deep water. I don't know where these small trout spawn. I never saw them spawning, yet they may spawn and I not see them.

Salmon-trout and whitefish come on the shores, that is on the shoals and reefs in shallow water to spawn. These fish are not caught on these grounds during the whole year except at their spawning time.

Whitefish spawn on their grounds from the beginning of November. They spawn during this time only, none before, none after.

Salmon-trout come in about a week earlier to spawn, both leave shortly after and go to deep water again.

I fish with trap-nets also, and catch pickerel, some bass and pike; and some channel catfish, which are larger than mudpouts, and weigh about 4 and 5 pounds; they are not the same fish at all as the small mudpouts.

Pickerel spawn in April and May in the rivers and also in bays.

Bass spawn in June.

Herring spawn the same time as whitefish, they are not caught here much, there is no sale for them at present, they are, however, quite plentiful.

Fish are not quite as plentiful as they were, particularly whitefish and salmon-trout.

Pickerel have not fallen off as much as the other fish, this is caused by over-fishing and too many fishermen. Also catching them too largely in small mesh pound-nets.

The present rafting of saw-logs which casts off so much bark and rubbish, has a tendency to injure and reduce the catch of fish and to destroy the nets. I have had my nets destroyed by the bark and the soft wood inside, which is rubbed off of these logs when being towed; some of these rafts are about three-quarters of a mile long and about 60 feet wide, some of the rafts are boomed around and will cover three acres or more. Don't know how many feet of lumber. They are very large. This rafting has been going on for three or four years. Before this rafting commenced the nets were not injured. The nets now become useless and are destroyed for fishing purposes. I am of the opinion that if this rafting goes on the fisheries will become almost ruined, the feeding grounds as well as the breeding grounds of the fish are being seriously injured by this stuff.

I think there should be a close season to protect fish when spawning, but we want hatcheries too, to keep up the fish in our fisheries. I think there are enough licenses issued now for the fishing, no more new licenses should be granted. I want to see trap-nets allowed. I fished four trap-nets but they were seized. Boat and all, and I was fined \$80 for this fishing. I caught quite a few fish with these trap-nets, probably about four tons, all pickerel and pike. It will cost about \$65 to make and set a trap-net, and the cage is from 6 to 10 feet square on the net.

For catching coarse fish the trap-net is best. Pound-nets are best to catch whitefish. Gill-nets are best for trout. I don't think pound-nets should be used.

There are many fish die and become bad when the gill-net is out too long in a storm.

I caught about ten tons of fish of all kinds in 1892. My catch this year is almost the same as last year. I find ready sale for all coarse fish, price  $1\frac{1}{2}$  cents per pound. Pike and bass bring  $3\frac{1}{2}$  cents, sturgeon the same. I can't sell the suckers. Sometimes they are put back in the water and sometimes put on the shore, those



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that are dead. I sometimes take 200 or 300 suckers. More are taken in the trap-nets. As many as 200 or 300 at one lift and let go.

Would like to have trap-nets, because I could set them after the close season of the pickerel, and take them up about the beginning of close time of salmon-trout and whitefish, but would rather fish them right through the whole season. The size of the mesh in the trap-net should be  $2\frac{1}{2}$  inches.

*By Mr. Harris:*

I use a boat to fish the trap-net and two men to set and work it, they could manage and fish 20 trap-nets. Sometimes they are set 100 feet apart, sometimes two or three miles according to the situation of the place. Nine or ten trap-nets might be fished in ten miles of water, the next net should not be nearer than one mile.

I notice the whitefish first come into the shore about the 1st of October, they come in thicker after this and get on their spawning grounds to lay their eggs in about 5 days from 5th to the 10th of November. After that they work out to deep water and after the 12th of December we get a few good hauls during this time, and after this they get away from us altogether, and I do not catch them again until spring.

Whitefish should have about ten days close season to suit me from 1st to 10th of November. I don't catch many whitefish in October. We set for whitefish in the shoals about the 28th of October, and fish until the 1st of November, then I quit.

I fish from the 1st of October to the 28th in deep water, and we catch salmon-trout also on the shoals in October.

The shoals where we begin to fish for whitefish about the 28th of October are about one-half to two miles from deep water. After fishing in deep water, we take up our nets, wash and dry them, and then set our poorest nets on the shoals to catch these fish which have come near the shores for spawning purposes.

The fishermen from some parts of Lake Huron, south of the Manitoulin Island, came over here to fish. They come here also from Meaford and Collingwood fishing. They would no doubt fish nearer home if there were any fish worth while to catch. I do not know anything about Collingwood, Meaford, or Lake Huron whitefish fisheries.

We should be allowed to fish our present gill-net mesh for two years before any change is made. I have nets that I have fished four years, and some are pretty good yet; it would be a loss to throw them away.

Mr. ADOLPHUS MARTIN was duly sworn and examined.

*By Mr. Wilmot:*

Am a Canadian, and have been fishing for six years. I fish on the north shore of the Georgian Bay and at Killarney.

I fish with gill-nets. Size of mesh  $4\frac{1}{2}$  inches. I catch trout and whitefish; average weight of whitefish,  $2\frac{1}{2}$  pounds; trout, 4 pounds dressed, that is all through the season. These fish are heavier, however, in the fall, being full of spawn.

The female whitefish are a half pound heavier in the fall than in the summer, as is also the female trout, when spawning.

I sell my fish in Killarney, to J. & C. Noble; price paid for my fish is  $3\frac{3}{4}$  cents clear, all dressed. There is a difference in the condition and appearance of fish at the spawning time and when they are not spawning.

The difference in appearance is by the roughness of the scales of the whitefish, and their flesh is better about two or three months after spawning. About one month before they spawn, the flesh seems to get softer. I can't say what they may be at the spawning time, but they must be much softer than the month before.

Salmon-trout are about in the same poor condition at the breeding time, as the whitefish just referred to.

Whitefish first come into the shoals about the 25th of October—only a few about that time, and they keep on increasing until their spawning time, which is about the 5th of November. On the 10th, there seems to be no more whitefish on the spawning grounds; they appear to strike for deeper water again.

Salmon-trout come on about two weeks earlier than the whitefish, and they lay their eggs about the 16th November, and they leave after that for deep water again.

Salmon-trout and whitefish only come to these reefs and shoals at the times above mentioned, to spawn. They are not found there at any other time.

I do not know anything about herring or their spawning time; neither do I know about sturgeon.

Pickereel will generally spawn about the 25th of April in most places. But in some places they do not spawn until the 1st of May.

Whitefish and salmon-trout have fallen off at the present time to what they were in former years. This falling off has been about one-eighth or more, caused by other fish eating the spawn, and also the injury occasioned by saw-logs being towed over the lake, covering the spawning grounds with bark, and the small parts of soft wood next to the bark, which is ground off by the rolling of the logs together while being towed by the tugs, which belong to Americans. These logs come from all parts of the Georgian Bay, and are taken to the American side. This bark and stuff settles on the feeding grounds and also upon the breeding grounds of the fish, and also collects on the nets. This drives the fish away, or starves them off their feeding grounds, so that they cannot be caught here as they used to be.

I lost seven pieces of net last season with this stuff becoming fastened to the meshes, which made the nets useless. This would be about 300 yards of gill-net. I know that other fishermen have lost nets from the same cause. These rafts are quite numerous and very large, sometimes covering a space of five acres square, at other times they are from three-quarters of a mile to one mile long, with a width of about seventy-five feet. These rafts are towed by steam tugs, at from one to two miles an hour. They are sometimes delayed by head winds, and they then go into the bays if they can, if not, they get in lee of an island, and remain there until they can go on again. All this time the rubbing is going on, and the stuff settles to the bottom. It does not drift to the shore; it is heavy and water-logged. This rafting has been going on for the past six years, but more largely of late. It was not known much before the duty was taken off the saw logs. This sending away of the logs does great harm to the working people here, as the saw-mill owners have shut up their mills, thus stopping a large trade in this part of the country. The Government should take early steps to stop this evil which is doing so much harm to the fishermen and the fisheries, and the inhabitants generally, this is the general opinion amongst all fishermen as well as the public on the North Shore.

Another cause of the falling off of the whitefish and salmon-trout is the quantities of pike, pickereel and suckers that eat the spawn, these fish should be caught by trap-nets, which the department should grant licenses for to such fishermen as might want them. The number of licenses should be limited to each fisherman, not to exceed ten apiece. The meshes should be  $2\frac{1}{2}$  inches in the trap, which should not exceed 12 feet square. Pound-nets have also helped this falling off of fish by fishing too many nets with too small meshes in their pots, which has destroyed too many small fish. The law which forbids their use at present should be continued, but wherever they are allowed the mesh of the pots should not be less than 4 inches extension.

Another remedy is required in having each fishing boat use the same number of yards of gill-nets, the limit not to exceed 15,000 yards, the mesh should not be under  $4\frac{1}{2}$  inches.

There should be a close season to protect fish when spawning, because at present there are no hatcheries here to help sustain the fisheries, and the close season should not be any longer than from 1st to 10th of November, and this law should be carried out stringently against every one.

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The licenses now granted are sufficient for these waters, more would over tax the fisheries in this section.

The price for these licenses should be in proportion to the rig they fish with. For a boat with 15,000 yards of net a fee of \$5.00 is plenty. A small boat fishing a quarter of that, should not pay as much. Each boat should have a number, or some mark upon it to show that they have been duly licensed.

I caught about 5 tons of fish in 1892. This year about 4 tons, fishing with the same nets and gear. I fished about 1,500 yards, this year about the same. I use one boat with 20 feet keel worked by myself and a boy.

*By Mr. Harris:*

The nets I have on hand will last me three years. If the 5-inch mesh comes into force it would injure me and make me cast the old ones away. At least two more should be allowed to fish them out.

Trap-nets would be generally applied for if the department allowed them; a \$10 seasons fee would be enough for them.

Pike, pickerel and other coarse fish frequent the bars where the whitefish and trout spawn.

Salmon-trout and whitefish do not spawn on the same grounds. I do not know how long the eggs of whitefish take to hatch out. I never saw the young fish when hatched, and I dare say the coarse fish may eat the young fish if they could find them.

The nets are usually set on the bars where whitefish spawn just before the close season, and the nets are frequently destroyed there and elsewhere by the refuse of the saw-logs.

I have fished in Lake Ontario, but never on the south shore of Georgian Bay. I have heard of no increased catch of salmon-trout or whitefish anywhere during this past season, and the bay is fished all over. I do not know where the fish have gone to that have left here.

The whitefish swim on top of the water and therefore cannot be caught with gill-nets. I have seen them by thousands on top of the water in August, they were swimming along. These fish were not herrings. They were whitefish. I don't know that a 5-inch mesh was ever used here, it would be too large during the summer season, but it would not be too large in the fall. The fish are too small to catch with a 5-inch mesh in the summer.

The Commission having closed its business at Killarney, adjourned to meet at Sault St. Marie on the 10th as per notice given.

## 7.—SAULT STE. MARIE.

Evidence taken by the Fishery Commissioners at Sault Ste. Marie, District of Algoma, Ontario, on the 10th of November, 1893.

Present:—Mr. Commissioner WILMOT, Chairman, and Mr. Commissioner HARRIS.

Mr. NELSON COUTURE was duly sworn and examined.

*By Mr. Wilmot:*

I live at Spanish River, North Channel. Have been a fisherman for 22 years. Fished in Saginaw Bay, United States, North Channel, Lake Huron, for eight years past, also two seasons cod fishing in the sea. I am a Canadian by birth. I fished pound-nets only at Turnbull Island and east end of John Island, in the north channel. I catch pickerel principally, also sturgeon, some whitefish, and trout. The whitefish and trout have been limited in quantity lately. I sell the fish to Mr. Noble, at Newport. I get  $3\frac{1}{2}$  cents a pound in the spring and afterwards  $3\frac{3}{4}$  cents, and this price is for all fish except sturgeon, which is  $3\frac{1}{2}$  cents; and for a few pike  $1\frac{1}{2}$  cents. Bass and maskinonge are not worth mentioning. These prices are for dressed fish except pickerel. The most fish taken were pickerel, next sturgeon, next salmon-trout, then whitefish, the rest are coarse fish, such as carp, suckers, &c. The usual average weight of the whitefish is  $3\frac{1}{2}$  pounds; salmon-trout, 6 to 7 pounds; sturgeon, 40 pounds and sometimes 100 pounds; pickerel, 3 pounds. Noble & Co. buy and ship them to Collingwood, and then they go on to the Buffalo Company. I deliver the fish on the dock to Noble & Co. They pack and ship them. We only sell to Noble & Co. the No. 1 fish, that is from  $1\frac{1}{4}$  to  $1\frac{1}{2}$  pounds and upwards; under these weights are No. 2, which are small in number on account of the large size of the mesh. The few we catch of No. 2 are used by ourselves. The Noble Brothers did not take No. 2 fish in 1893. They took nearly 20 tons of No. 2 in 1892. They also took them readily in former years. All the fishermen sold to Noble Brothers these No. 2 fish freely in former years. No. 2 whitefish are fish under 1 pound, sometimes as low as  $\frac{1}{2}$  pound. These young whitefish are too small to breed. No. 2 salmon-trout would be about  $1\frac{1}{2}$  pounds and under. Many No. 2 whitefish were formerly caught, but in 1893 the fishermen were frightened and did not sell them. I do not know what other fishermen did with their No. 2 fish in 1893. I put mine back in the water. No. 2 fish are sold for half the price of No. 1.

Whitefish are best in June, July and August. When spawning in November they are soft and lean and feverish; they are not good. Salmon-trout are in the same poor condition at their breeding time, in fact no fish are good in their spawning time.

There are very few herrings in the North Channel, but there is a fish known as black fin whitefish called ciscoes, but they are not numerous. They come in the bays to spawn about the same time as whitefish.

The whitefish spawn from the 1st to the 15th of November, some before, some after. The above is the hottest time of their spawning. Salmon-trout spawn earlier, coming in about the 20th of October and they spawn till about the 10th of November.

The first run of pickerel begin to spawn about the 15th of April. Another run commences about the 1st of May, and keeps on till about the 15th of May. Formerly spawned up the river, but of late the logs are so numerous in the rivers that they stay out in the bays, and spawn in very shallow water about one foot deep. They lay their eggs freely there. They collect close together in large quantities. Salmon-trout and whitefish also spawn on shoals right on the shore, and collect

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together in great numbers. If fished for then they can be easily taken in very great quantities. I have seen C. W. Gauthier catch from 5 to 7 tons in a pound-net at the spawning time and during the close season too, at the mouth of Spanish River. This was done regularly during 4 and 5 years past. All these fish come on the shores and shallows only for spawning purposes. At other times they are in deep water and are spread about more, whilst at the breeding grounds they all huddle together to spawn. After spawning they leave the shallows and go into deeper water. Whitefish are more scarce than they were. The water has become dirty and their feeding grounds are injured from the bark and fibre wood ground off the the saw-logs that are rafted across the bay. These rafts will cover a surface of 10, 15 and 20 acres of water. They are towed at the rate of 1 mile per hour. These logs so work and rub together as to grind off the bark and the sappy wood in great quantities which settles to the bottom and spoils the feeding grounds of the fish and also lodges upon the nets and destroys them. This log rafting business has been going on this last 5 years, and is increasing very largely every year. Great numbers of the fishermen's nets are destroyed in this way. These logs come down all the rivers and are rafted and towed across to the United States side.

The whitefish fisheries have also been seriously injured by killing the fish too largely by small meshed nets. The Gauthier Company formerly used from 2 to 3-inch mesh extension measure in their pound-nets. In 1893 the mesh was about 4 inches, less than a 4-inch extension mesh is too small for the safety of the fisheries, as these small fish are unable to breed and are unsaleable. A 4-inch mesh will allow a whitefish of 2 pounds and under to pass through. Salmon-trout the same.

There should be a close season to protect all fish at spawning time, and should be strictly kept.

The big fish dealers and companies should not be allowed to buy fish during the close season; nor to purchase at any time small, undersized, and immature fish. If they buy these fish or have them in their possession a heavy penalty should be inflicted. The fishermen would not catch these small fish at the close time if the large dealers did not buy them. This would protect the poor fishermen as well as the fisheries from running out.

Regarding licenses in former years, the fish dealers used to get the licenses. The fishermen did not get them. The limit should not exceed five pound-nets to a fisherman if he wants that many, and they should be given to the practical fishermen only. It is not fair that large companies or corporations should get the licenses instead of the regular fishermen. These companies and dealers get these licenses and sell or transfer them to the poor fishermen, and they sometimes give them or transfer them to Americans who live in the United States. These licenses should only be given to resident British subjects, who will use and fish the stations themselves.

There should be more hatcheries built by the government to help sustain the fisheries. There is a class of coarse fish which follow the spawning fish and eat a good many eggs. These coarse fish, such as suckers, &c., are caught with the whitefish and salmon-trout, and the fishermen let them go again, only keeping the better kinds; this helps to reduce the supplies of the better kind of fish. There is no inducement here to catch those coarse fish, as the dealers won't buy them. In the United States all these coarse fish bring a fair marketable price, but the dealers here won't take them, but if they did the fishermen here would catch these coarse fish; as it is now, they have to throw them back into the water again.

*By Mr. Harris :*

I fish four pound-nets, I have a hand pile driver. I work it on a small raft with a 200 pound hammer. C. W. Gauthier used a steam pile driver, but our fishermen do not. I have no ice-houses or fish-boxes. I have no tug, but hired one this season. It won't pay to have a big rig of the above kind to fish only four pound-nets. I can handle my fish on my grounds, but others have to get help. I could furnish all these things but find it better to sell outright, as I have only just commenced. I do

not think I would do as well by taking my fish to Detour, United States as selling them to dealers here. We get the same here for fish  $3\frac{1}{2}$  cents per pound as they get at Detour, but deliver them right here on our own grounds to the dealers.

The steamers "Atlantic" and "Pacific" take the fish down to Collingwood. We sell to Noble Brothers, a Canadian firm. They have a contract with the Buffalo Company to furnish about 700 tons a year. I did not fish in August. I took up my nets that month and set them again the first part of September. I fished in July. The fish have to be packed in ice all season through. I only know that they go to a Buffalo Company. I can't tell whether the Nobles are buying wholly for themselves or not. I never tried to sell to the Buffalo Company. My pound-nets are set in 15 miles of water all about Islands. My nearest fishing neighbour is about  $2\frac{1}{2}$  miles away. He has four nets. Some companies used to fish as many as forty pound-nets, now they cannot do it, as the present fishery officer prevents it. The outside limit is now, five nets. The company referred to as using forty nets was C. W. Gauthier's company, now changed to a Detroit company, with Mr. Reeves as manager. He has sixteen pound-nets and a good quantity of gill-nets. Gill-nets are fished alongside my fishing, by other parties. Gill-nets are decreasing in number in the North Channel, as the fishery is not as good as it was. The other gill-nets catch the same kinds of fish that I do, except pickerel and sturgeon. All the coarse fish are thrown back, and the dead ones are cast on gut piles or offal pits on shore.

Our fish dealers want to buy up all of the whitefish and salmon-trout they can get here, in order to supply the American market with these better kinds of fish, but they won't buy our coarse fish. They prefer buying these coarse fish at other places. They have to supply their market with both kinds, but will only buy the good kinds from us. Very little fishing is done in winter. There is not much to be made out of it.

I set my pound-nets out about the 15th of May. My gill-nets are out the 1st of May. The gill-nets are sometimes fished in December for a couple of weeks. My best catch of whitefish is from the last of June to middle of July. This year the fishing failed. The months of September and October are the best for salmon-trout. Only a few are caught in the spring months. I do not know that many small fish were caught this year. They could not take them very well as the mesh was made larger. In former years they used 2 or 3-inch mesh. Now it is a 4-inch mesh. Whitefish vary a little in coming into spawn, most years they come in about the 1st of November. This year a little later, about the 10th November. They won't get through before the 20th or 25th November. Have not heard of whitefish and salmon-trout being caught this year as numerous as last, or previous years.

The coarse fish here are pike, mullet, suckers, ling, a few perch, some channel cats and mudpouts. I do not fish for these coarse fish.

Poor people with large families should be allowed licenses to fish hoop-nets for themselves. In this way they could get some fish for their own use. What I mean by a hoop-net is one made by a funnel, about 10 feet long, and stretched into shape with several hoops, with a pocket at the small end with wings running out each side of the first set of hoops. Two of these form a set of hoop-nets, and are set some distance apart connected by a leader of some length to lead the fish into the nets.

Mr. WILLIAM KIMBALL was duly sworn.

*By Mr. Wilmot :*

I am a Canadian. I live at Sault Ste. Marie. I am a fisherman, and have worked at it for seven years on the Georgian Bay and North Channel.

I use nothing but gill-nets, with mesh of  $4\frac{1}{2}$ -inch this season. Formerly in the Georgian Bay I used  $4\frac{1}{2}$  and  $4\frac{3}{4}$ . I catch trout and whitefish in Lake Superior, which are the only really marketable fish. I caught whitefish, salmon-trout, pickerel and pike in the Georgian Bay.

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The usual size of whitefish in deep water will run 2½ to 3 pounds, dressed. The large whitefish in summer season are not taken plentifully, they will run from 5 to 15 pounds. The smaller kind are more profitable to us, as they are the most numerous. Salmon-trout run from 2 to 30 pounds. The general average will be about 5 pounds. I sell my fish to the firm of Ainsworth & Ganley. This company take the fish at the fishing station, where we deliver them. The prices of trout were 2½, and whitefish 2¼ cents per pound, all dressed.

Fish, when on the spawning grounds and when spawning, are not as good as at other times. They are softer and duller at the spawning time. This is also the general opinion amongst all fishermen and people.

The large whitefish come on the ground to spawn from the 10th to the 20th of November. Some spawn later—some earlier. The smaller whitefish spawn about the 20th of November, some may be also later, some earlier. The younger and smaller whitefish always spawn latest.

The larger run of the salmon-trout, which are the largest fish, come to spawn about the 15th of October, and leave about the 25th of October. Some of these may spawn earlier—some later. The smaller salmon-trout (the siscoette) come in after the larger ones, and won't get through spawning until the 15th of November. There are generally speaking two kinds of trout as described. They are all trout, they only vary in outward appearance, caused no doubt by the water they are in, and the food they take. And with regard to their age. When young it could not be told which class they belong to,

Herring are abundant in Lake Superior. There is no demand for them to make it worth while to catch them. The herring here are very large, they are a fine fish. They spawn in November, about the same as the whitefish. The salmon-trout, large whitefish and herring, come on the reefs and shores to spawn in the fall, viz., in October and November. The smaller salmon-trout will spawn on reefs out in deep water from 10 to 15 fathoms.

All fish of the better kinds have fallen off here considerably from what they were some years ago, caused by over-fishing, killing fish when spawning, catching the young fish with too small meshes in pots of pound-nets, seining fish on the shore and throwing dead fish and offal into the water. This used to be done very largely in former years. It is not now carried on.

There should be proper close seasons to protect fish when spawning. There are some places which might be reserved altogether, such as the shoal grounds at the end of Lake Superior, at Batchewana Bay, at Sandy Islands, and at Parisian Island; these were formerly good spawning grounds. If these places were fully reserved at spawning time a great benefit would follow. The establishment of a hatchery here would also be of great service to the fishermen, who would assist generally in stocking it with eggs free of cost. I would not say that more licenses should not be granted, but it is not right to let large American capitalists come in and make use of our fisheries; they come here and try to use our fisheries for their purposes. These companies come with their tugs and want the Canadians to fish with them in order to get our fish and call them American fish. These companies may buy our fish, but to allow them to come and catch our fish by underhand means is wrong and should be stopped. The Americans have got most of our pine out of the country, and are now using our fisheries (through the absorption of some Canadian companies) to take our fish away also. I use three 30-foot sailing boats, with two men to each boat. I use from 10,000 to 12,000 yards of net in summer months, a less quantity in the fall. I took with one boat in 1892, 25 tons of fish, which I sold as fresh and salt fish. In 1893 I took about 60 tons with my three boats.

I think every means should be adopted by the Department of Marine and Fisheries to preserve the fisheries for Canadian fishermen, and not allow them to be over-fished through American influence. Our fisheries should be maintained for our own people, not for Americans.

If the 5-inch mesh were enforced altogether it would do us much harm. The 5-inch mesh can be used in the fall fishing, but it would not do for summer. Between the two, say 4½ would be about fair.

*By Mr. Harris :*

The large and small whitefish are the same, only they differ somewhat in their appearance in scales and colours, and in shape somewhat, but I know that most animals change their appearance at breeding times. I have caught pike, pickerel and bass. Pickerel are very scarce in the waters of Lake Superior.

The Americans come over with their tugs and employ Canadian fishermen. An agent of the Booth Company will buy from Leckie of Toronto a lot of nets. These nets will be given by this agent to our fishermen, in order that they may be called Canadian nets. The Canadian gets out the license, but all is actually owned by the American company, and the fish go into the United States as American fish.

Mr. JOSEPH GANLEY was duly sworn and examined.

*By Mr. Wilnot :*

I am a Canadian; one of the firm of Ainsworth & Ganley, dealers, at Sault Ste. Marie, Ont., but ship from Sault Ste. Marie, Michigan. I reside at Collingwood in winter and at Sault Ste. Marie in summer. Mr. Ainsworth resided formerly at Cape Vincent, State of New York. I am a dealer in fish, and have fished during the past 22 years. I fish at the Lizard Island, Lake Superior, at Pilot Harbour, Goulais Bay and Batchewaning. I use pound-nets and gill-nets; five pound-nets at Lizard Island; fish with tug at Pilot Harbour. I use 4-inch mesh in the pots, the tunnels are  $4\frac{1}{2}$ , the hearts, 5 inches and leaders 6 inches. My gill-nets are  $4\frac{1}{2}$ -inch mesh for whitefish and for big trout I use 6-inch mesh.

I use one tug about 80 feet long, 19 feet beam, 58·60 horse power. I use about 80 boxes of about 600 yards each or 50,000 yards in the water, with about 20 boxes or 12,000 yards out of the water drying. This is fished from the tug. We fish six sail boats besides, with about 20 boxes each boat of 600 yards, that is 12,000 each, otherwise speaking there is between tug and boats in the water at one time 98,000 yards, or about 56 miles of fishing net. We employ on the tug, all told, ten of a crew, and for each sail boat two men and cook for six boats, in all there are twenty-three men employed fishing.

I catch salmon-trout and whitefish in the gill-nets. In pound-nets I catch salmon-trout, whitefish, sturgeon and pickerel, suckers and other coarse fish. The suckers we dump out again and bury the dead ones. We catch suckers sometimes to the number of 3,000 or more.

Usually whitefish run about  $2\frac{1}{2}$  pounds; salmon-trout run about 4 pounds, dressed. Sturgeon will run about 25 pounds, dressed. Pickerel will run about 2 pounds, undressed. For the above fish we pay about  $2\frac{1}{2}$  cents per pound in the summer, and 3 cents per pound in the fall. We sell the fish in Chicago. Ship them direct ourselves. All go by boats. We pay no duty on our fish; they go in as American fish, but all are caught in Canada by Canadian fishermen in Canadian boats and under Canadian licenses. The actual duty is  $\frac{3}{4}$  of a cent on Canadian fish going into the United States, unless got in by some arrangement by which the duty is taken off.

Fish are not as good in the spawning time as at other times; they are softer and do not stand transportation as well. Of whitefish there are two kinds. The large ones run from 8 to 10 pounds; the smaller ones about  $2\frac{1}{2}$  pounds. The large fish are called shoal fish, and the others deep water. The shoal whitefish come on the shoals about the 20th of November in water from 1 to 3 feet deep, and lay their eggs from the 20th to the last of November, and then go away.

The deep water or small whitefish spawn in water from 20 to 40 fathoms. They come on about the 5th of December and spawn about the 20th of December, they then scatter about.

Of these two kinds of whitefish, the large ones are the most valuable, and will bring from 2 to 3 cents per pound more than the smaller ones. They are more



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sought for than the small ones. It would be advisable if a hatchery were built to use these large whitefish, in stocking it.

The gill-nets used to fish for the large fish is of 6-inch mesh, for the small ones,  $4\frac{1}{2}$ -inch. The small fish are the most numerous, and are the kind we make our business out of.

Salmon-trout are of two kinds—one is called shoal or black trout, and come on the shoals and on reefs and on the shore from the 20th to the 25th of September; they come to spawn in water from 1 to 3 feet deep, some in the same way as the big whitefish.

These large trout will run from 7 to 9 pounds, dressed. They remain spawning until about the 8th of October and leave the shore. These would be the best fish to breed in the hatcheries. The other or smaller salmon-trout are called deep water or "pot guts." They come in water from 25 to 40 fathoms to spawn from the 18th to the 28th of November, after this they scatter away. These fish are more numerous than the others are. It is these that the fishermen depend almost entirely upon for their business. These bring  $1\frac{1}{2}$  cents per pound more than the larger trout. They will run from about  $2\frac{3}{4}$  to 3 pounds, dressed.

I would recommend a close season for whitefish and salmon-trout, that is for all whitefish, and the small deep water trout from November the 15th to the 1st of January.

The large salmon-trout, or rock trout, or black trout, called Mackinaw trout, should have no close season, because we cannot catch them in summer, and if we cannot catch them in October or November, when they come on the shores to spawn, they are no use to us whatever.

If we got a hatchery here the fishermen should be allowed to catch the large whitefish from the 15th of November to the 1st of December.

Whitefish are scarcer than they were in former times. Salmon-trout are the same. We have been killing them off, and there are no means of keeping up the supply by hatcheries or otherwise. The fish that spawn on the shoals near the shore, fully 95 per cent of the eggs are lost, destroyed by the winds casting them on shore, and the suckers eat them up, and the eggs laid in the deep water by the deep water whitefish and trout, are destroyed by the suckers; the large salmon-trout also eat the young fish.

Over-fishing in certain waters has driven them away. We fished at the Lizard Island seven years, and the fish were getting scarcer every year, when we gave up the fishing for three years, and then commenced fishing again, and we found fish plentiful again; this shows that fish can be caught out of a ground, which if let alone for a few years will replenish itself.

On general principles it is correct to have spawning seasons for the protection of fish at spawning time.

There are enough licenses issued at the present time, if more are issued it will be too much for the waters.

The gill-net is more destructive to the fisheries than the pound-net. In gales of wind the gill-nets with the fish in them are all lost. We have twenty-four gill-nets now in the bottom of the lake. Those nets were set over a month ago, and in a blow the men were lost going to fish them. These nets would have their average catch in them at the time, and fish and all were lost. When you take up a gang of gill-nets a number of fish will always be found dead, quite a number of fish bloated, and they burst the net, and drop out dead and remain on the bottom till they rot away. This is a great cause of fish leaving certain grounds, and has a certain tendency to destroy a fishery. This does not take place with pound-nets, as the fish are all taken out alive, only a few will sometimes be found in the leaders of the pound-net, but the quantity which die in the gill-nets and are lost is very great.

The present size of the gill-net mesh is  $4\frac{1}{2}$  inches, and 4 inches in the pot of the pound-net; these meshes are large enough, a large mesh would affect us injuriously.

I caught about 250 tons of fish in 1892 with our gear. This year there may be 250 tons. We used a tug in 1893 which allowed us to fish more than in

1892; of these two-thirds would be trout, next in quantity would be the small white-fish, next would be sturgeon and pickerel.

Whitefish are the most valuable fish taking them all around, in our waters, and therefore should receive the greater care and protection, in order that they may be sustained in the fishery.

We buy fish from about fifteen other fishermen, and also from Indian boats. The quantity got in this way would amount to about 100 tons, for which we pay about an average of  $2\frac{1}{2}$  to 3 cents. We collect them at certain stations where they deliver them, and we supply them with ice and cars, and men to pack them, and we take them, and all our own catch to Chicago, consigned to wholesale dealers, the principal one is Messrs. Booth & Company. We could not establish our own agency to send fish in a profitable way, as the other dealers are too strong for us to compete with. The trade is all in their hands.

These dealers say that their own fishermen furnish them with fish in November, from their waters, when they cannot get them from Canadian waters.

It is well known that the Americans fish with their tugs and nets in our waters generally, and they fish in our waters in the close seasons, when we are forbidden to do so, and they are inclined to laugh at us when they are fishing. With the protective powers at hand this illegal fishing by the Americans cannot be stopped, the only way is to provide additional means by cruisers to stop this. The present system by row and sail boats is quite useless, as no officer can check it by this means. These tugs are generally speedy crafts, some of them will run 14 miles an hour.

We complain of the differences of the fee on licenses, it should be universal. Now, the fee of \$10 for sail-boats, and \$50 for tugs in Lake Superior is charged, whilst in Georgian Bay and Lake Huron the fee for boats is \$5, and \$25 for tugs, and the season of Lake Superior is shorter by two months than in the other waters, and more subject to storms.

We would not be content to fish with a larger mesh than 4 inches in the pot, and I do not think that the men so far down as the Algoma mills would fish with less than a 4-inch mesh in the pots. I fish pound-nets in from 35 to 80 feet of water. I could fish a pound-net in 100 feet of water. As between the pound-net and the gill-net, if I had to give up one or the other, I would give up the pound-net. The gill-net gives a steadier supply of fish during the season. We catch on an average the same sized fish equally in both nets. The large whitefish spawn on the shore, and the small ones out in deep water, 30 or 40 fathoms. The small whitefish do not come where our pound-nets are set. This applies to salmon-trout also. I am informed by Mr. Bauset, of Ottawa, that I was not allowed to fish pound-nets around the Lizard Islands. My pound-nets are set so that the run of fish towards the reefs and the islands would not be interfered with and caught. Gill-nets can be fished by following the fish, and can be set anywhere. This gives the gill-nets a great advantage. If the two kinds of fish which I have described, which frequent different depths of water, are found to be the same fish only different in size, I would still want to use both pound-nets and gill-nets to catch them; in which case I would enlarge my gill-net mesh accordingly. This will never take place, as the small sized whitefish never grow any larger.

The nearest pound-nets to my nets is forty-six miles east of mine. To the west, the nearest one is eighty miles. The lake is about forty-five miles wide from Lizard Island to Whitefish Point.

We would not be content to fish with a 5-inch mesh in the gill-nets. The majority of the fishermen would not fish them.

We sell in Chicago to any dealer. I think we could have a better chance if the duty was off. On account of Chicago getting fish from Lake Michigan and a large portion of Lake Superior, they may not depend on the Canadian supply, yet they buy largely from Canadian waters. I do not know of any Canadian agents who buy or deal in fish in the United States. The Booth Company, of Chicago, a large American Company, are now going to establish their fishery business at Michipicoten, on the Canadian side of Lake Superior.

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It is advisable for the department to put up a hatchery at this place, as the conveniences are very great, and it would greatly please the fishermen and improve our fisheries, which now need most careful husbandry to keep them up. There is every facility for getting an unlimited supply of eggs of salmon-trout and whitefish here. The Corporation would furnish both site and water free. The fishermen would supply the eggs gratis.

Fish under  $1\frac{1}{2}$  pounds we sell as No. 2, the difference in value is about one-eighth less.

Mr. ANGUS McLEOD was duly sworn and examined.

*By Mr. Wilmot:*

I am a Scotchman. Live in Sault Ste. Marie. Have fished for the past 7 years on Lake Superior. Have fished on the north shore of Lake Superior between Batchewaning and Otter Head, have an experience of 100 miles of the north shore. I use gill-nets wholly, with meshes of  $4\frac{3}{4}$  and  $4\frac{1}{2}$  inches. I use the  $4\frac{1}{2}$ -inch mesh for the smaller sized whitefish which run from  $1\frac{1}{2}$  to  $2\frac{1}{2}$  pounds when dressed. I believe these fish do not grow any larger. They are just the same fish as the larger ones only differ slightly in shape. A stranger would not discern the difference. I use the  $4\frac{3}{4}$ -inch mesh for the larger whitefish, and salmon-trout.

I have one sail boat of 33 feet keel, worked by two men, sometimes three. I use about 20 boxes of net, each box is 600 yards, in all about 12,000 yards. About one-fourth out all the time mending and cleaning; the rest is in the water. I sell my fish to the Ainsworth and Ganley Company. One a Canadian, the other an American. The Company come for my fish with tugs to the station, where we deliver them. I deliver them dressed, and the company packs them in ice and ships them in fish cars as fresh fish. We got this year at Pilot Harbour  $2\frac{1}{4}$  cents a pound for trout and  $2\frac{3}{4}$  cents for whitefish, this ends my transaction with the company. The usual weight and size of whitefish caught is about  $2\frac{1}{4}$  pounds and the trout will run about  $2\frac{3}{4}$  pounds each, this is dressed weight. They will run about  $\frac{1}{2}$  pound more before cleaning. Fish are as good at spawning time as at any other time. Fish are more dull and stupid when spawning than at other times. Whitefish come on the shoals and shore about the 25th of November to lay their eggs, and go back to deep water.

Salmon-trout come in for this purpose about the 1st of November. They then lay their eggs during some ten days, and they go back to deep water, so that I do not catch them. Then salmon-trout and whitefish come to the shore at this time to lay their eggs. They are not found there at any other time of the year.

Fish may be a little less numerous here than they were years ago. This may be occasioned by catching them and not putting any in the water to replace those we catch. If hatcheries were established it would be a means of keeping up the supply. A fishery will be decreased by our fishing and catching them when spawning. A  $1\frac{1}{2}$  pound fish is marketable, and brings the same price as the larger ones. The proportion of the  $1\frac{1}{2}$  pound fish is small indeed, but if caught numerously it would injure the fishery.

It is advisable that close seasons should be established to protect fish at their spawning times, both in the interests of the country at large, and more particularly of the fishermen.

Any man should be permitted to get a license to fish if he obeys the law relating to fisheries. With my net, in 1892, I got about 23 tons; in 1893 about 28 tons with same boats and same amount of nets. Most fish caught were trout, about two-thirds, next were whitefish.

Whitefish are the best fish and most valuable, and therefore should receive the greatest protection to keep them up in our waters.

American fishermen, across the narrow neck of the lake, come into our waters during close season and take our fish while we are prohibited by our laws. This

should be stopped as it is a great wrong inflicted upon us. Every effort should be made to stop this unlawful and harassing work by the Americans.

*By Mr. Harris :*

The large whitefish will not gill in our gill-nets, but they will go into the pound-nets. These fish will run from 8 to 14 pounds, the largest one I have seen is 18 pounds. The smallest of these big run of whitefish would be about 6 pounds. Have seen lots smaller, but cannot say that they were the same fish. These large fish and the smaller ones are the same fish. When the two kinds get to be about the same size, that is about 9 pounds, no one can tell whether they belong to the big sized fish or the smaller sized fish.

I would like to see the American plan of fishing at any time and in any way introduced, and if we had hatcheries we could keep up the supply.

It is unfair to our fishermen in Lake Superior to pay \$10.00 for our gill-net license when the Georgian Bay and Lake Huron fishermen pay only \$5.00. The license should be equal.

I cannot pay for twine and carry on my fishing with 6,000 yards of net. It is too little, neither could I fish with any profit with a 5-inch mesh.

In explanation to my statement that when trout spawn from the 1st to the 10th of November, I meant the deep water siscoe trout at the time. The big salmon-trout come on the shore the last ten days of November to spawn. The American Government send men to collect eggs from the fish on the Canadian side. I saw them getting eggs about the 15th of October, but the eggs are not ripe then. They stayed there about ten days. He got a few salmon-trout eggs, he had no permission to do this, he got them from my fishery and took them away. The fish were caught on my ground. The Americans stripped the fish and carried the eggs away.

Mr. JAMES GARRATT was duly sworn and examined.

*By Mr. Wilmot :*

I am a Canadian; I reside at Sault Ste. Marie; am a fisherman; I have fished on Lakes Superior, Huron and Michigan for the past thirteen years; also on Baie de Chaleur. I have fished for the past eight years in Lake Superior.

I fished on the north shore of Lake Superior, from Michipicoten to Otter Head. I used gill-nets of 45 or 50 twine, mesh  $4\frac{1}{2}$  inches. Have used a larger mesh of 5 inches. I brought the 5-inch mesh net from Lake Huron. This mesh did not answer. The Lake Superior men were using the  $4\frac{1}{2}$ -inch mesh. The fish were a little smaller in Lake Superior than Lake Huron.

I caught whitefish and trout. The usual size of whitefish,  $2\frac{1}{2}$  pounds. Trout ran up to  $2\frac{3}{4}$  to 3 pounds, both dressed. I sold my fish to S. H. Davis & Co., Plummer & Co., and Ainsworth & Ganley. All the dealers come to my station for them with their tugs, and pay from  $1\frac{1}{2}$  to  $2\frac{1}{2}$  cents per pound for both kinds of fish, dressed. Since the competition arose between these dealers I got  $2\frac{1}{2}$  cents per pound, all round, dressed. The only company now buying here is Ainsworth & Ganley. Ainsworth lives on the American side all the time, and Ganley lives both on the Canadian and American sides. Their headquarters for business is at Sault Ste. Marie, on the American side. The fish are generally packed when bought from the fishermen's stations, put in the fish cars, iced, and carried to the American side of Sault Ste. Marie. There is a Canadian company dealing in fish on the Canadian side, but they do not come up to where I fish. I never noticed any difference in the quality of fish when spawning from any other time.

Whitefish come on the reefs and shoals to spawn about the 20th of November. Some earlier, some later. They remain spawning about two weeks, then go out to deep water.

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Salmon-trout begin to come in to spawn about the same time as whitefish. But there is a larger kind called rock trout, which come in earlier than the others referred to.

The whitefish and salmon-trout come to the shoals and shore only for spawning purposes. They do not remain long. We don't catch them there except in the fall.

Fish are not as plentiful now as when I first began to fish. When I left off fishing in 1884 on Lake Huron, at Alpena, the fish were very scarce from so many tugs and boats fishing. I then came to Lake Michigan, and fished there two and a half years, when the fish got pretty well cleaned out. I then came up to Lake Superior, on the Canadian side, where I have been fishing since. I found pretty good fishing, and did pretty well, and since then, the fishing in the summer has fallen off considerably, but not so much in the fall, as the fish come closer together in smaller compass in the fall, as they are then on the reefs and shoals spawning.

The cause of the falling off at Alpena, was the fishing by numerous tugs and nets, and no protection of fish at the spawning time; no regulation in regard to size of meshes, and the fish became almost fished out. The tugs and fishermen left there and went to Lake Michigan, and we all came up to Lake Superior to try our luck.

If the same over-fishing at all times is done in Lake Superior, the same falling off in the fisheries must follow.

The way to keep the fisheries up is to have proper close seasons, to have hatcheries, and to keep to a proper sized mesh, which should not be less than  $4\frac{1}{2}$  inches for gill-nets.

I know nothing of pound-nets as compared with gill-nets.

I use one boat, thirty feet keel, worked by two men. I use about twenty nets of 600 yards each, in all about 12,000 yards. I keep the whole of this net in the water, except to lift up fish, and mend. I set my nets as early as the ice will let me. I fish right on till the close season. With about two nets less in 1892, I got about 26 tons; in 1893, with twenty nets got 29 tons. Whitefish were the most, the trout next; the whitefish overrun the trout by 5 or 6 tons in the season. Whitefish are the most valuable fish for the fishermen.

From what I have heard since the hatchery was established at Alpena, the fisheries are showing better than when I was there. For this reason I would recommend a hatchery for this place.

Mr. JOSEPH WILSON was duly sworn and examined.

*By Mr. Wilmot:*

I reside at Sault Ste. Marie since 1843. Have been fishery overseer for upwards of twenty-five years, now retired from service; have been Customs officer also during the past forty-three years; am intimately acquainted with the fisheries here generally; have always taken a great interest in the protection and preservation of the fisheries.

The nets used in former years were gill-nets of about  $4\frac{1}{2}$  to 5-inches mesh, extension measure, these were the Hudson Bay nets, and fishing was then common, without any law or restriction. When I received the appointment from the department, regulations were then established and put in force, only gill-nets were used, no pound-nets then. Whitefish and trout were the only fish then sought for. These fish were numerous then. The Hudson Bay Company would bring down at times as many as 500 barrels of these fish salted, each barrel of 300 pounds. Fish could be taken then everywhere, and in every manner easily. The whitefish ran in those days from 8 to 20 pounds. Salmon-trout from 12 to 24 pounds. This sized fish prevailed at that time.

The market at that time was wholly on the American side. The demand was not great at that time; if it had been, an unlimited supply could have been obtained. Fish were sold at about \$6 per barrel, full weight.

When I left the office, now two or three years ago, there was a great change in the state of the fisheries; the fishing had become very extensive; the fishermen, and the fishing gear, in the way of improved boats and nets, had grown wonderfully. The fisheries in Georgian Bay have been injured by over-fishing, with too many nets, boats, &c. As much as 500 miles of net were used there. The use of the small thread gill-nets came into play, which was more destructive than the former larger twine. The pound-nets were indiscriminately used in Lake Huron and Georgian Bay. The meshes in the pots were all small. There were no regulations as to size. Illegal fishing was carried on in some cases. Where there were ten nets duly licensed they would fish double the number or more; this came under my observation, more particularly on the north side of Manitoulin Island, between Clapperton Island and Little Current. This excessive fishing was carried on by C. W. Gauthier, from whom I seized more than double the number of nets he had license for. These were pound-nets. I brought these nets with tugs up to the Sault, with the view of selling them as they were confiscated. Mr. Bauset, then the acting officer in the department, took special objection to me for seizing these nets, and accused me of taking too severe action against Gauthier. This officer then ordered me to return these nets to Gauthier, upon the latter simply paying the expenses of the seizure. The consequence was Mr. Gauthier commenced fishing there again. This gave a general latitude to fish illegally, and to violate the fishery laws by all fishermen when they saw this return of illegal nets by authority from the department; my authority was taken away from me on the score of protection, and my usefulness was done with from that date. The consequence has been that the fisheries have suffered most severely ever since. When this tampering with the regulations was known and permitted by the department, it was taken advantage of throughout my division.

The close season for whitefish to preserve them properly should be during the month of November, and that for salmon-trout should be earlier, commencing in October.

There should be close seasons for all kinds of fish at their spawning times, and it should be enforced against the Indian as well as the white man. The killing of the parent fish at this time means extermination of the fisheries sooner or later. Fish when spawning should not be used, as they are in an unfit state as wholesome food, the flesh is deteriorated, they become soft and flabby, they do not cure well, they are, in fact, quite unmarketable as compared with other times. I think it most imperative to preserve the present declining fisheries, that the close season should be thoroughly enforced, and that the nets should have a sufficiently large mesh as not to allow the small and immature fish to be taken, and that excessive and over-fishing should be stopped by reducing the number of licenses and the quantity of yards of net now used. This is causing great destruction to the fisheries. To recuperate the present state of the fisheries the above statements and conditions should be immediately enforced.

*By Mr. Harris :*

If the fishermen could fish their nets anywhere they liked the whole 500 miles would be covered with nets. Wherever the fishermen found the fish, there they all went in a body with their nets to catch them, this was in the Georgian Bay. Licenses were then issued in Lake Huron and Georgian Bay without any limit to quantity of yards of nets, nor size of mesh. The Georgian Bay fishermen fished wherever they pleased.

It is much easier to watch pound-nets, than gill-nets, any competent overseer should be able to watch pound-nets and prevent illegal fishing. It is very difficult to watch gill-nets. Pound-nets take all fish, coarse and better kinds. Pike and pickerel will feed on the young of all kinds of fish. The rough fish should be caught as well as the finer kinds, this would be beneficial to the fisheries. If the American can furnish twine he will do so, if he can better himself. If the Canadian could do it without the American, he would do so. The Canadian fisherman as a general rule cannot afford to send his fish to the American market unless he fishes upon a large

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scale, or is under the wink of American capitalists. The Americans have done the carrying trade as well as furnished the supplies to Canadian fishermen.

To regulate our fisheries and keep pace with the Americans, an export duty should be put upon the American capital taking the fish out of the country, as at the present time the Americans draw the greatest benefits from our fisheries, they make us pay a duty, and we should make them pay it also until they allow free traffic in fish into their country. Speckled trout should be prohibited from going out of the country altogether.

Mr. WILLIAM McLEOD was duly sworn and examined.

*By Mr. Wilmot :*

I am a Scotchman, I live at Sault Ste. Marie. I have been a fisherman for some twenty years. Have fished in lakes Huron and Superior. My particular limit has been at Pilot harbour for the past two years.

I use gill-nets wholly of  $4\frac{1}{2}$ -inch mesh, have never fished a less mesh, and have found it answer my purpose, and I do as well with it as those that fish a  $4\frac{1}{2}$ -inch mesh. This mesh catches a smaller fish and it is harder on the fishery. I think a 5-inch mesh is too large, as it would cripple me a good deal in my present catch. I use No. 50 three-cord twine. I tan my nets about once a month to keep them from rotting. This webb costs \$2.10 per pound. In the  $4\frac{1}{2}$ -inch mesh No. 45 and 50 and 60 two cord. The No. 3 cord 50, is the right cord to catch the larger fish and will last longer than No. 2 cord 50. The finer cords, such as No. 60 two cord may be more killing and likely to catch smaller fish, and the No. 2 45 and 50 is more killing, that is for the smaller fish. The very fine twine, No. 2 40, 50 and 60 necessarily becomes more killing as it is so much finer, and is therefore more likely to overfish a fishery. The finer the twine the greater killing power it has, and if to the finer twine is added a smaller mesh it seriously affects a fishery. I am content to fish with a  $4\frac{1}{2}$ -inch mesh with No. 50 three cord twine, and I think it answers for general purposes for the present fishermen. I catch whitefish and trout. The usual size of my whitefish will average  $2\frac{1}{2}$  pounds dressed, and the salmon-trout will average  $2\frac{1}{2}$  pounds dressed, but the large rock trout, which come in September and October, will run up to an average of 7 pounds. They are the large spawning fish, and are only taken when they are on the shoals in these months. They come right on the beach on the shore on the rocky bottom. These are the trout which are called by various names, such as rock trout, black trout, red trout, yellow fins, mochers. These mochers are what may be called the overgrown ones of the trout race, running up to 30, 40 and 45 pounds, these are the giants of their race and are caught in the summer time in twenty and thirty fathoms and more. They generally follow the whitefish runs.

I sell all my fish for about  $2\frac{1}{2}$  cents per pound. These large black or rock trout do not bring as much by half a cent. They are only caught late in the fall when coming in to spawn.

I sell my fish to Ainsworth and Ganley at a fishing station, when they bring their tugs to carry away fish. They ice and pack the fish in fish cars, and pay us the prices mentioned on delivery at the station. This company take their fish direct to the American Sault and ship to different cities in the United States.

Fish are not in as good condition at the spawning time as earlier, they are softer, and they sour sooner, and do not carry as well.

Whitefish come in from the deep water about the 18th of November, and keep laying their eggs till the end of the month. Salmon-trout come on the shoals from the 25th of September to the middle of October, and later sometimes, they come to lay their eggs and then go away again. In Southampton, Lake Huron, they remain in till early in November to spawn.

Whitefish and salmon-trout only come in from deep water to lay their eggs. Herring are here in considerable numbers, they are not caught, as there is not at present any market for them. Do not know when they spawn.

Salmon-trout and whitefish have fallen off largely both in Lake Huron, and in Lake Superior during my time of fishing, and whitefish have fallen off in a much greater degree than salmon-trout. The cause of the great falling off I attribute to excessive fishing which has been practiced by using too many nets, too many boats, and improvements in fishing gear and expertness in fishing the water, using finer twine and nets of all kinds. Greater catching is made to supply the great demand in the market for fish, particularly by the American dealers, and if not stayed will reach such a point very soon, as to ruin the fishing trade for the fishermen. The remedies to prevent this total destruction will be the enforcement of the proper close seasons, regulation of the meshes of the nets to a proper size, and generally give greater guardianship to the fisheries, and establish hatcheries to help the natural reproduction of fish. In my experience as a fisherman, if this is not done, and quickly too, the waters will soon be fished out. Leases of fishing-grounds should not be given, but licenses should be given to any fisherman wanting to fish, but he should be a British subject and resident fisherman in the county or district in which he intends to fish. It is not right to allow American dealers or American companies to come into our country and hire our fishermen to take out licenses for them in order to secure the fish so caught. No license should be granted to the fishermen if they should work in this underhand way to benefit the American dealers. Our fishermen may sell their fish as much as they like, but to sell themselves, and the Government licenses to benefit the American dealers should not be allowed if possible to prevent it. This system, I have no doubt, has been carried on, and some of the day's labour fishermen act under it to the disadvantage of the regular resident fisherman, who depends upon his fishing for his living and the support of his family.

I use one boat 34 feet keel, and employ two men, and fish fifteen boxes of net this year of 600 yards, in all, about 9,000 yards. I keep them in the water during the fishing season, only taking the nets out to clean and tan. In 1892 I fished about twenty-five boxes of 600 yards, or 15,000 yards, which took about twenty-three tons of fish, and 1893 about fifteen tons. Salmon would be in the greatest numbers, about two-thirds, and whitefish the other third.

I would recommend that the present quantity of nets should not be reduced, and that two men boats should be allowed to fish up to 10,000 yards of net. That a three men boat should be allowed to fish 15,000 yards, and that a tug should not exceed 25,000 yards, and the fees for all licenses should be equal. Our fees are \$10.00 for a boat; in the Georgian Bay the fee is only \$5.00. The mesh of the nets if changed from the present size, should not be made to exceed  $4\frac{1}{2}$  inches. There should be a hatchery built here to help the fisheries.

*By Mr. Harris :*

These large mocher trout are not caught in the pound-nets but the ordinary large black trout are. I cannot say how you could get hold of or find out the persons who work into the hands of the Americans in the way of getting licenses from the department.

Mr. THOMAS H. TRETHERWAY was duly sworn and examined.

*By Mr. Wilmot :*

I am an Englishman. Reside at Mamaise, Algoma. I am a mining engineer, have been sailing the lakes for many years and conversant with the fisheries generally since 1865.

I know gill-nets to measure  $4\frac{1}{2}$  inches in the mesh, if actually kept up to it it is about the right thing.



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Sturgeon, pickerel, whitefish, and trout are the principal commercial fish. Whitefish will stand first, next trout, then sturgeon and pickerel. Fish are almost all sold to American dealers. The current price paid to fishermen is from 2 to 3 cents.

American boats come and take the fish away to Duluth from Port Arthur. Fish from the east end of the lake are generally shipped by steamers to Sault Ste. Marie. Boats are both American and Canadian. Fish are not as good for the table or any other purpose at spawning time as at other times, they are more soft and flabby. Whitefish approach, and come on the shores during the month of November to lay their eggs, some earlier, some will come in in October.

Salmon-trout come in for the same purpose about the 15th of October; these are called red trout, somewhat larger than the ordinary trout. The colouring is somewhat different in appearance. They are nevertheless the true salmon-trout. These fish give good trolling sport, have known as many as 50 and 60 caught in one day before breakfast, this was at Jarvis Island, about 30 miles west of Port Arthur. They are not near as numerous as they were. It would be almost impossible to catch these fish now, they are getting less all the while.

There was a time, about 1880, when salmon-trout and whitefish were so numerous, that they could be caught with half a net near the shore. With two or three of these pieces, it was usual to catch 400 or 500 pounds at a lift. At the present time they have to go miles farther out, with a great deal more net, and get a much less quantity of fish. Fish, generally speaking, throughout the north shore of Lake Superior, are very much less in quantity than they were some years ago; even with the increased quantity of nets, and with more fishing now carried on. Fish have all fallen off very much, caused largely by the use of the small meshed nets in pound, and gill-nets, until of late when the size of the meshes have been increased. It is most injurious to the fisheries to allow the young and immature fish to be killed. I have seen many hundreds of tons of these young fish caught and thrown away at the docks, and on the shores. These decaying fish are very injurious to the fisheries. It pollutes the water to such an extent that it was difficult to get good water to drink at some of the docks. The dead fish were stinking all along the shores. Offal was also dumped from the boats when cleaning fish. I have seen this done myself, and another cause has been the habit of killing fish at the spawning time. This is most injurious and most ruinous to the fishery. This custom is largely followed on the American side, where they do not protect fish by close season.

As an illustration, I was coming over the lake on the 6th instant, on a Canadian boat which was carrying the fishermen and their apparatus to be put away for the winter; and, close to the boundary on the American side, the American fishermen were busily engaged in fishing without any hindrance whatever, with two large tugs with their rigs. It is most desirable that some joint action should be made between the two countries for regulations as to the meshes to be used and the close season to be observed. It would be advisable to have some of the waters reserved wholly from fishing during the whole season, that is the whole year, excepting during the winter months, when fishermen might find fish for the markets; the summer being reserved for breeding and feeding purposes and growth. These places on Lake Superior would be Thunder Bay, part of Nepigon Bay, Batchewana Bay, and Gallows Bays. If these bays were so set aside it would be found to be greatly in the interests of the fishermen, and would sustain the fisheries for the present and the future, whereas at present from the over-fishing in those parts the fish have become very scarce.

It is unfair that the former leases should be taken from some fishermen after they have occupied the ground so long and lived and fished there. Licenses are now granted only to these fishermen. These lessees had at that time exclusive rights against all others to fish within these limits. There are not many of them, but it is a grievance to dispossess them after occupying the grounds from ten to forty years.

Our Mining Company leased in this way the Silver Inlet fisheries, not to fish it, but to protect it against other fishermen. My statements are based upon obser-

vations made by myself when travelling up and down and around the lakes, when I have seen the matters referred to plainly, and I am quite satisfied that the time has come to put a stop to this improper work, otherwise our fisheries must soon come to an end.

I am also impressed with the importance of establishing hatcheries to assist nature in sustaining our fisheries.

To protect this large expanse of fishing water the inspector should be provided with the necessary means to do so. The use of sail boats alone are not sufficient, but more speedy means of covering the fishing grounds should be had in the way of steam power. It is impossible for an officer to cover this large fishing area. It has been the habit for illegal fishing to be carried on at one place while the officer would be in another carrying out his duties.

*By Mr. Harris:*

I have been very much among the fishermen since 1865; watched their operations; in fact, could not help but do so. Some of the fishermen have evinced a desire to protect the fish, especially the resident fishermen. A portion have no other object than to catch all they can irrespective of consequences.

There are two kinds of whitefish; one is smaller, one is larger. They are quite different, as between two grades of cattle; that is, as between an Ayrshire and a Devon cow; do not know whether the two kinds of whitefish will breed together or not. The larger come in and spawn earlier in the season and breed together. The smaller kind breed together later in the season; they breed in shallow water from 3 to 12 feet; I know that myself. I have seen no distinctive difference in either of these fish when young; could not recognize any difference, not having paid special attention. The small kind run from 2½ to 5 pounds, the larger ones from 5 to 16 pounds. I do not know what becomes of the young of these large whitefish when they are about 2 to 2½ pounds.

I mean by winter months, January, February, March and part of April. This would be the time in which the fish could be taken on the suggested reserved grounds. The fish to be caught then would be whitefish, trout and all kinds. These reserved grounds would have pickerel, perch, pike, suckers, and general run of coarse fish, besides the salmon-trout and whitefish. The coarse fish live on the young of other fish; whitefish, I think, do not. Sturgeon and suckers are spawn-eaters, but not eaters of young fish. All fish may be caught during the winter on these reserved grounds; the grounds referred to are breeding-grounds as well as feeding-grounds.

Mr. JAMES GAULEY was duly sworn and examined.

*By Mr. Wilmot:*

I am a Canadian; I reside at Sault Ste. Marie; I have been a fisherman for the past 15 years; I have fished Georgian Bay, North Channel and Lake Superior.

I fish under a license for Lake Superior; I fish gill-nets; size of mesh, 4½ inches; I have fished a 5-inch mesh in Lake Superior for the large trout in the fall; I use a 4½-inch mesh at Lizard Island for whitefish and trout, principally the smaller or deep-water trout. I sell my fish to Ainsworth & Ganley, at my station, about 80 miles up; they call in their tugs for them, pack them in ice and put in cars; I get 3 cents a pound all round for dressed fish; the fish go to the Sault, then to Chicago, Cleveland, Port Huron and Buffalo. When the large or rock trout come in late in the fall, there is a small reduction in the value, only getting for them from 2¼ to 2½ cents per pound; the larger the fish the less the price; these fish do not sell as well in the market; the entrails, spawn, head and other parts are greater in the large fish, and consequently we lose more.

At the spawning time fish are always softer and clammy than at other times; they sour much quicker; in fact, they are not in as good condition before as after

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spawning; whitefish first come in about the 20th of November and seek their spawning grounds and lay their eggs up to the 10th of December, and then leave for deep water. These fish, however, are not caught in the summer months; they are by far the largest fish, running from 5 to 12 pounds; average, about 7 pounds.

The other, smaller, whitefish come in about the middle of December and lay their eggs during a couple of weeks, when they go off the shore.

Salmon-trout or black trout, begin to come to the shores at Lizard Island about the 25th of October and lay their eggs from that time till about the 5th of November, they then go away and we don't see them in the summer months, not until the following autumn again. Salmon-trout, the smaller kind, begin to come from deep water about the 18th of December and lay their eggs till the end of the month then they go away and we catch them during the summer months in the greatest numbers.

All these fish, salmon-trout and whitefish come out of the deeper water to spawn as above described. These fish are not caught on their spawning grounds at any other time.

Herring are abundant. We do not use them or catch them. Pickerel spawn in the spring. Fish have fallen off in these waters to a great extent, both salmon-trout and whitefish. The grounds are over-fished to supply the great demand for fish. This would be one of the causes for falling off.

The fish eggs are largely consumed by other fish. This, with too much fishing has brought down the standard of fish here. There should be close seasons to protect fish at the spawning time, and there should be hatcheries to assist the natural production. This would be a good situation for a hatchery. Eggs could easily be got here, the fishermen would give them free, the best of water could be had here, and the town has offered a free site for the building.

Licenses might be issued to any extent if this additional fostering were allowed.

I use three boats and pay \$10 for a license for each boat, about 30 feet keels, two men to each boat, and use about 12,000 yards of net to each boat. I keep all this net in the water from the beginning to the end of the season, except when lifting them up with the fish, mending and cleaning, this is done about once a month. I would suggest that the licenses granted be the same for us as to those fishing in the Georgian Bay, namely \$5.00, and the mesh continued at  $4\frac{1}{2}$  inches, and the close season to run from the 15th of November until the end of the month.

Mr. MICHAEL NEVILLE was duly sworn and examined.

*By Mr. Wilmot :*

I am an Irishman, I live at the Sault, I have been a fisherman for the past ten years in Georgian Bay, and Lake Superior. I have fished, principally in Lake Superior, for the past eight years, principally at Lizard Island, on my own account. I fish with gill-nets of  $4\frac{1}{2}$  and  $4\frac{7}{8}$ -inch mesh. The smaller mesh is mostly used in the summer months to catch whitefish, and smaller salmon-trout. I use both meshes also in the fall. I catch whitefish and trout and sell them at an average of  $2\frac{1}{2}$  cents per pound. We cannot get as much for the large fall trout called shoal trout, (black trout) as we do for the others. I get about 2 to  $2\frac{1}{2}$  cents for these, they are not as saleable as the others. This is all for dressed fish. Average weight of shoal trout is about 7 pounds, the small or summer trout about  $2\frac{1}{2}$  pounds. The average of whitefish is about  $2\frac{1}{2}$  pounds all dressed.

When cleaning the large salmon-trout and whitefish they are full of eggs, some ready to lay, some are hard, some are soft. This would be from the 25th of September till the middle of October. On opening the whitefish we find them full of eggs and ripen from the 25th of November to the 15th of December, this is the large whitefish. In the smaller whitefish the eggs are ripe in them from the 1st to the

20th of December. These dates would show as nearly as possible the time in which the fish lay their eggs.

Herring are very plentiful, but we don't fish for them. I do not know when they lay their eggs.

Fish were pretty plentiful when I first began to fish in the Georgian Bay, but when I left there, they were getting very scarce. I then came up here. When I fished here first, the fish were about double the quantity they are now. The fish have also fallen off in size. This applies to salmon-trout, and whitefish both. Then 15 boxes of net were used, now we have to use 20 and get no more fish, and it won't pay now even with that increased quantity of nets. We used then  $4\frac{1}{2}$  to  $4\frac{3}{4}$ -inch mesh nets, and we now use  $4\frac{1}{2}$ .

The increased fishing with too many nets has brought down the supply; the greater demand in the markets here caused greater exertions to be made by the fishermen to catch the fish, and no supply has been put in the water to keep them up, fishery protection is therefore demanded, and we want hatcheries also to keep up the natural production.

The pound-net fish are generally alive when taken out, but it is generally set in shallow water which is warmer, and they are therefore softer, and won't stand the carrying as well. Gill-nets will sometimes lose some fish as fresh fish, but they can be salted and sold as well. There is a certain amount of the gill-net fish which die and have to be put in the gut-tubs. This is more particularly at stormy times in September and October.

I use one boat. License \$10.00. Size 30 feet keel. Two men work it. I use about 18 boxes of nets of 600 yards, in all 10,800. Fish all of them through the whole season, except when cleaning, tanning, etc. We have to tan them once a month.

I caught about 17 tons this year. I was not fishing in 1892 here. I fished at Squaw Island, Georgian Bay, in 1890 and 1892. Our license should be reduced to \$5.00, the same as Georgian Bay. The mesh should be  $4\frac{1}{2}$  inches, and the close season should be only 15 days with the same amount of nets we now use.

*By Mr. Harris :*

I fished in Georgian Bay, Byng Inlet, in 1883 and 1884, then left to come up here.

Mr. FRANK SCOTT was duly sworn and examined.

*By Mr. Wilmot :*

I am a Canadian. I live at the Sault. I have been a fisherman for the past 20 years. Have fished in Georgian Bay, and Lake Superior. Also Lake Winnipeg, Manitoba. I fished at Otter Head in 1893. I fished with gill-nets of  $4\frac{1}{2}$ -inch mesh. In former years I have used 5-inch mesh, but since I have found out that  $4\frac{1}{2}$  will catch more fish but smaller fish.

A whitefish of  $1\frac{1}{2}$  pounds and more will readily pass through a  $4\frac{1}{2}$ -inch mesh, any larger than that would be caught.

A salmon-trout of  $1\frac{1}{2}$  pounds would pass through a  $4\frac{1}{2}$ -inch mesh in the nets and whitefish of same weight. I have sold my fish lately to Ainsworth and Ganley. They take them at the station where I deliver my fish. They pack and ice them at their expense, and they pay me  $2\frac{1}{2}$  cents for whitefish and from 2 to  $2\frac{1}{4}$  cents for trout all dressed. They take them away with their tugs to the American Sault. They are the principal dealers here. The female fish are not in as good condition when spawning as at other times. They are somewhat softer and more slimy, this applies to all fish at the breeding time.

Whitefish generally come in from the 18th to the 20th of November, and remain until the 10th or 12th of December, and then go away. They are then done spawning. They go away, and we do not catch them till spring.

## Ontario Fishery Commission.

Salmon-trout usually come on the shores and reefs, and begin to spawn about the 5th of October, and keep on for about three weeks. They then go off to deep water again. In fact salmon-trout and whitefish only come on the shores and shallows at the above time for spawning purposes, as they are not found there at other times. In each of the above cases whitefish and salmon-trout may spawn a little earlier or a little later.

Herring are very thick, but we do not fish for them; there is no market. I do not know when they spawn. Fish have generally fallen off quite a lot in my experience. About twenty years ago fish were much more abundant; we could earn better wages and more money with half the amount of nets then, than we use now. This applies particularly to salmon-trout and whitefish. We then fished with  $4\frac{1}{2}$  and as high as 5-inch mesh, with only about half the amount of net that we do now, and on an average the fish put on the market then were larger than now. There was not so large a fresh fish market then, a good many were salted.

I assign as the causes of the falling off of the fisheries, that they have been caught too numerously, more than the fish could keep up by natural reproduction. Too much fishing—too many nets and fishing through the whole spawning time. In fact they were not protected to any extent till of late, the consequence is that we now feel the reduced catch very severely. There should be some means instituted to resuscitate these fisheries if possible to do so. To have proper close seasons, for the spawning of fish, thoroughly kept. Illegal fishing of all kinds should be prevented. Proper sized meshes in nets should be enforced. The natural methods of producing should be aided by hatcheries and artificial means. If this was carried out, it is most probable that our fisheries might again be brought into a satisfactory position for the fishermen. An effort should be made to induce the Americans to keep close seasons, and protect the lake fisheries like ourselves.

I use one boat of 30 feet, and employ two men, and fish with about eighteen boxes of nets, making about 10,800 yards, which I keep in the water through the fishing season, except when washing and tanning, which takes about one day in a month.

*By Mr. Harris:*

The  $4\frac{1}{2}$ -inch mesh will catch more weight than the 5-inch in an average lift. The difference would be about  $\frac{1}{4}$  more. I get the same price for large and small fish. The large sized trout do not sell as well as the smaller ones, particularly those taken late in the fall. Salmon-trout and whitefish come on the shores to spawn, not to feed. We fish for these fish on the shoals sometimes about three miles out or more. These fish are there to spawn. In the summer months, we fish away out in the deep water. If the 5-inch mesh were established, it would so effect us, that we would have to give it up, as we can barely live now by using the  $4\frac{1}{2}$ . It won't be very long, if the fisheries go on decreasing as it has, before we will have to go somewhere else.

Mr. JAMES GLANVILLE, was duly sworn and examined.

*By Mr. Wilmot:*

I am a Canadian. I reside at Thessalon. I am a fisherman. I have fished for two years on French Island in the North Channel. I fish at French Island about 85 miles below the Sault. I use pound-nets with mesh of 4 inches in the pot, tunnel 5 inches, and leaders 6 and 7. All No. 15 or 16 twine. The pots are generally 28 to 30 feet square. I catch sturgeon, whitefish, trout, pickerel, a few bass, suckers and mullet, pike now and then. I sell my fish to the firm of Noble Brothers, at Newport. These are the only buyers. But the firm of Davis & Co., of Detroit, also operated here last season. Reeves and his company were associated with the Buffalo Company this season. The usual price for sturgeon is 3 cents per pound dressed,

whitefish, trout and pickerel  $3\frac{1}{2}$  cents dressed, except pickerel. The Noble Brothers come to my camp for all fish. When delivered at the camp I had nothing more to do with them. This company ships to the Buffalo Company, in the United States. I do not notice much difference in the quality of fish at any time. When spawning they are softer and flabby and not so good.

Whitefish come on their spawning grounds from deep water the beginning of November, and spawn through this month, after this they leave for the deep water. Some fishing has been done in November by some fishermen, but not by me, and the catches then are the largest of any. Whitefish are thickest and more easily taken in November as they get closer together for spawning purposes.

Salmon-trout come on earlier, beginning about the middle of October. They come on the rocky bottoms where it is honeycombed, there they lay their eggs. They mostly lay their eggs at the end of October. They then leave for deep water. There are reefs far out in the bay where they may spawn in 5 or 6 fathoms of water, but when they come on the shores, very often only a short distance from shore in from 3 to 4 feet of water. The trout are called by some rock trout, salmon-trout and black trout. They are all the same. Those that spawn outside, and on the shore are the same. They look alike, although trout differ considerably in colour and appearance, sometimes some are whiter, sometimes more speckled, all are, however, termed the salmon-trout.

Herring, I do not catch any; pickerel spawn in the spring, get through about the 1st of May; bass I do not know.

No bullheads, but I get some channel cats, these will run from 6 to 10 pounds each. They sell at the same price as sturgeon. Salmon-trout, and whitefish always come out of the deep water in the fall of the year to spawn. They come in greater quantities in October and November than at any other time. That whitefish have fallen off is the general statement of the fishermen. My experience being only for the last two years, I cannot give a proper opinion of it. The general impression is that whitefish have fallen off. I cannot say anything about the trout. I caught more whitefish in 1893 than in 1892, but I had four nets in 1893 and only two in 1892, but the proportion was about the same. The general impression of the cause of the falling off of the fish is, that it has been brought about by the use of too small meshes in the pots formerly. Some were as small as a 2-inch mesh. Some of the fishermen, Gauthier for instance, would catch everything large and small, and the small fish would be carried off in hand barrows and thrown away. This information was obtained from my fisherman who formerly worked with Gauthier and Reeves. It is injurious to the fisheries to catch fish at the spawning time, and no doubt this was practiced formerly, even when the close time was only ten days, then they were allowed to fish after the ten days. It was more than injurious, because the fish would then be spawning, and this would naturally affect the fisheries. Bark and the soft wood on the logs which has been found to be very plentiful in the water since the exportation of saw-logs has taken place, is injurious. This stuff rubs off by the motion of the logs while being towed across the bay to the United States, or elsewhere, or even from the rivers when brought down to our own mills. The rafts are very large, and great damage is done to the meshes of the nets. This is very injurious to the fisheries and clings to the meshes of the nets. It is much more injurious to gill-nets than pound-nets. If these logs are allowed to be towed over our waters, this difficulty will increase, and the prospects for any improvement in the fisheries will not be very encouraging to the fishermen. If the present fishing laws had been in the past carried out as fully as they have been in the past two seasons, and the evils spoken of regarding small meshes, and the saw log difficulty were overcome, then fishermen would become prosperous again, and would increase. More licenses might then be granted. With the present mesh in nets the young fish could not be caught. Fish of 2 pounds and under will go through a 4-inch mesh. I cannot give the average of our whitefish or salmon-trout, as to size or weight. There should be close seasons to protect fish at their spawning time, and the periods, mentioned before by me, are about the right time of their spawning.

## Ontario Fishery Commission.

The pound-nets have advantages over the gill-nets. The pound-net is stationary, and the fish come to it. The gill-nets are shifted from place to place, and follow up the fish, and therefore catch more fish. The fish in the pound-nets are always alive and fresh and in better condition for the market. The gill-nets on the other hand kill a great many fish, which are wasted.

With two pound-nets I caught about 13 tons in 1892, and in 1893 with four nets took about 28 tons. One boat about 24 feet long with four hands. As to quantity the sturgeon were the greatest, next whitefish, next pickerel, then salmon-trout. Sturgeon amounted to about 8 tons, these fish are sold dressed, that is, with heads, tails and entrails taken away. Sturgeon are the most valuable, not only the flesh, but the bladders as well as the eggs are valuable, which is not the case with other fish. Sturgeon flesh is sold for 3 cents per pound, bladders \$1.20 per pound. Eggs made into caviare sell from 20 to 25 cents per pound. Sturgeon run from 30 to 40 up to 130 pounds as taken from the water; one of 130 pounds weight will give 65 pounds of cured meat, and we will get 20 pounds of eggs, and about  $\frac{1}{4}$  pound of bladders ready for sale. When sturgeon spawn it is difficult to say, they are caught most in May, June and July, and then again in September and October. We catch them in the bay around French Island. The spawn of sturgeon has to be in a certain condition before it is fit to make caviare; this is when it is hard. When the eggs are soft they are ripest. I cannot state the time when sturgeon are actually ripe for spawning, and cannot say that I ever saw eggs running from the female or milt running from the male fish.

*By Mr. Harris :*

I take up nets about a couple days before the close season arrives. My nets are in shallow places. Gill-nets are fished in deep water, but they begin to come in in October for trout. They don't catch whitefish at this time on the shoals; they catch them in the deep water.

The gill-net fishermen came on this fall around my nets. I do not know much about gill-net fishing. I know the gill-net fishermen come on shore to catch trout in October. My best month for trout is October. The rafts of saw-logs are towed across to the American side. Pound-nets are set as early as the weather will permit. This year I had part of them in the water on the 2nd May. The pickerel I caught I threw out. As a rule the nets are set about the 15th of May or 20th. Pound-net fishing in these waters does not interfere with the close season for fish if they are legally fished. The usual mode of fishing pound-nets here is not when the close season exists. The nets cannot be set or stakes driven as a rule before the 16th May, and are taken up on the 1st of November.

I sell the caviare to Noble Brothers. They send it to New York. I get 20 to 25 cents per pound for it.

Mr. PETER CALGIOSGIE, (Indian) duly examined and said :

*By Mr. Wilnot :*

I am a Canadian. I was born at Sault Ste. Marie. I am 73 years of age.

About 15 or 20 years ago could catch plenty of whitefish here in the Sault Rapids. Could catch any number with scoop-nets and canoes. They are nearly all gone now. Only a few small ones left, hardly worth fishing for. Formerly the whitefish caught were very large. Think the rock blasting and the use of dynamite have helped to reduce the whitefish in the rapids. The whitefish begin to spawn about the 1st of November, and continue spawning nearly the whole of the month. Salmon-trout begin to spawn about the 15th of October, and keep on spawning till the 15th of November.

I fish with gill-nets near Whitefish Point, about seventeen miles up from the rapids. The fish are getting much more scarce than they were six and ten years

ago. Pound-nets have done a great deal of harm to the fisheries. These nets kill all fish large and small. A great many young fish are killed before they are large enough to breed, they are thrown away. With seven canoes and fourteen Indians they caught in 1892 only about one ton of fish altogether. Ten or twelve years ago one canoe with two men would each take a ton of fish.

The Commission then closed proceedings for the want of further evidence with the view of returning to Ottawa.

NOTE.—The attached letter from P. Sullivan and Sons, was received at Ottawa, and it is inserted here to show the extent of damage resulting from the towing of saw-logs over the fishing grounds in the north channel of Lake Huron.

SPANISH STATION, 24th November, 1893.

In regard to the number of rafts which left here this summer there was two hundred and ten millions logs came down the Spanish River. Out of that there was about thirty millions manufactured in this district, and there is still on hand about twenty millions rafted up in store booms to leave here the first thing in the spring, that leaves one hundred and sixty millions which were towed to the other side this season. As near as I can ascertain these logs left here in about forty or forty-five rafts, and would cover from twenty to twenty-five square miles of water.

COOK'S MILLS, DISTRICT OF ALGOMA, 4th Dec., 1893.

MR. WILMOT,  
Chairman of the Fishery Commission.

DEAR SIR,—I have ascertained the above facts as near as I am able respecting the number of logs passing between Spanish River and the Georgian Bay. There are eight different streams and each one used for the flowing of logs. The French River, I am told, passed even more logs than the Spanish, and my opinion is that the bottom of the whole lake from Georgian Bay to Mississauga is teeming with bark. It is eighteen miles across to the Manitoulin, and rafts pass in three different directions, so that the bark is spread every way. This bark in the course of time rots and forms into a kind of slime and fish will not stay on that ground. There were five skiffs fishing from here four years ago, since then they have left, as fish so scarce, and in a very short time I believe there will be no fish at all.

On September 26th of this year I had thirty-six pieces of net utterly destroyed by this bark. Each piece of net was 180 yards long, and was loaded so heavily with bark as to break the web. I also had six other pieces similarly loaded the last week in October. I am sending you a sample of net as we took it out in October.

My loss in September was about \$350, and again loss of six weeks fishing from \$150 to \$200 at the least.

I have stated my affairs as plainly and correctly as I am able, and without giving any offence to Mr. Elliott. I should be glad if you could aid me in getting two or three pound-net licenses for next year.

I am, sir, yours obediently,

P. SULLIVAN & SONS.