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fishing until some successful fishing experiments gave satisfactory evidence that herring could just as well be caught off the coast, and hundreds of thousands of barrels have in consequence been caught every year. These considerations are by no means new in the Canadian fisheries. For many years the Canadian Government made efforts to investigate the problem of catching herring in offshore waters, and by drift nets such as are used in European waters.

A steam drifter "No. 33" was bought and brought over from Scotland in the year 1904, and this steamer has, during the years 1904-7 carried out a great number of experiments under the experienced direction of Mr. J. J. Cowie. (See the annual reports of the Department of Marine and Fisheries for the years 1904-7 and a special report by Mr. Cowie published by the department as Bulletin No. 1.) The experiments were in the first years not very successful, but in the year 1907 most promising catches were made off Prince Edward Island, off the Magdalen islands, and off the Gaspé coast. In all these experiments, catches were made (up to sixty-eight and mainly between twenty and thirty barrels in a night) which may be considered satisfactory, especially if the fact be considered that drift-net fishing everywhere must depend on the detailed and local experience which is necessary for making good hauls, and will require fishing operations for some seasons. Further, one boat working alone has greater difficulties in finding the schools of herring than a fleet of boats, and last but not least, fishing experiments, always shifting ground in order to extend the knowledge of a large geographical area, can never be expected to obtain such considerable catches as boats which stay on the field where fishing has proved to give satisfactory results. Mr. Cowie's experiments would thus, in any case, give ample grounds for the expectation that material, for the study of the natural history of the herring, could be got by means of a scheme of drift-net experiments. Indeed, there seemed to me to be so much hope of obtaining practical results of value to the fisheries, through the understanding of the natural history of the herring, that I ventured to propose to the Biological Board of Canada that the study of the Canadian herring should be taken up by a well-planned expedition. Such an expedition would investigate the sea off Nova Scotia and in the gulf of St. Lawrence during the period extending from May to September.

My proposal was favourably regarded and accepted by the Biological Board, and later by the Department of Naval Service, which granted the means and assistance necessary for the work. A detailed plan for the work was drawn up by the Dominion Commissioner of Fisheries, Prof. E. E. Prince, and myself, as follows:—

1. That the steam drifter "No. 33" be fitted out with drift-nets for the catch of herring and fish in the gulf of St. Lawrence and off the Atlantic coast of Nova Scotia during the suggested time—May to September.

2. That hydrographical and biological investigations be carried out through the assistance of fishery cruisers.

The steam drifter "No. 33" to be fitted out with her gear, etc., in Halifax during the first part of May, and then proceed directly to the gulf of St. Lawrence, in order to carry on herring fishing operations off the coasts of Gaspé, New Brunswick, Prince Edward Island, the Magdalen Islands, and the west shore of Cape Breton. When the season advances the vessel should follow the schools of herrings out to sea, mainly on the bank between the Gaspé coast and Cape Breton, especially with the object of getting samples of the different schools of herrings there. In the late summer she will further have to make test catches of herrings of the west coast of Newfoundland and the east coast of Cape Breton and Nova Scotia.

The hydrographical and biological investigations will mainly aim at the collection of the following material:—

Hydrography.—The distribution of the different water layers (currents) in the gulf and the outside areas, by collection of water samples for determination of salinities (titrations).