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Hewitt, Charles G.

Commission of Conservation

CANADA

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COMMITTEE ON FISHERIES, GAME AND  
FUR-BEARING ANIMALS

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Conservation of Wild Life  
in Canada in 1917:  
A Review

BY

C. GORDON HEWITT

*Consulting Zoologist  
Department of Agriculture  
Ottawa*

Reprinted from the Ninth Annual Report of the  
Commission of Conservation

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OTTAWA—1918

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THE WAPITI OR AMERICAN ELK

This magnificent animal, the finest member of the deer tribe in North America, is now permanently protected throughout its range in Canada, except in Saskatchewan, where permanent protection has been urged. Thousands of these animals have been ruthlessly slaughtered in the past merely for the sake of their teeth.

*(The above illustration is copyright, and is from a painting by Mr. Carl Rungius, whose courtesy is hereby acknowledged.)*

## The Conservation of Wild Life in Canada in 1917: A Review

BY

C. GORDON HEWITT, D.Sc.,

*Consulting Zoologist, Department of Agriculture, Ottawa*

IN considering the natural resources with which we have to deal, it will be found that our wild life, as our native mammals and birds are collectively termed, offers some of the most complex problems. The existence of certain of our resources is, to a large extent, not affected by the activities of man that necessarily follow the opening up and development of the country. Our water-powers, for example, are not affected by the extension of agriculture. Barring forest fires, insect depredations and disease, and excessive lumbering operations, our forests should persist; and where they are cut down they may be artificially replaced. But it is not so with our wild life. Most sensitive in its response, the finely adjusted natural balance of animal life is upset by man's intrusion. He occupies their former natural haunts and drives them farther afield and in reduced numbers. With the advent of the breech-loader and the high-power rifle, the greatest enemies to all wild life, their numbers became reduced to the point where extermination is merely a matter of a comparatively few years. And it cannot be too often repeated that once any of our native animals are exterminated, they cannot be brought back or replaced; that is the outstanding characteristic of the wild life of any country. In the struggle for existence that is constantly being waged between all forms of animal life, including man, the stronger prevails and the weaker goes to the wall. While the artificial weapons of offense that man's intelligence has furnished make him all the more powerful and destructive an adversary, that same intelligence should enable him to appreciate the limits to which his destructive proclivities may be carried with safety.

In the case of no other natural resource is the application of the real idea of conservation, use without abuse, more necessary than in the case of our wild life. This product of nature's undisturbed dominion over forest and plain simply melts away into nothing more than a memory of regret when it meets the unrestrained

destructive tendencies of 'nature's insurgent son' intensified by all his superior power of offense. Setting aside all claims based on æsthetic and scientific grounds, impelling as such claims are, we cannot, as a country responsible to posterity for the handing on of our resources as unimpaired as possible, afford to neglect the great opportunity which the existence of so unique a wealth of wild life, a wealth unsurpassed in its economic value elsewhere in the world, furnishes to improve our natural prosperity and the efficiency of our people.

In selecting a subject for my address, I felt that a very useful purpose would be served if the events of the year were reviewed so that, by the measure of our accomplishment and the recital of our further needs, we might be encouraged to continue without relaxation our efforts on behalf of our wild life and of those who depend upon its continued existence.

Vigorous Policy  
is Essential

With the combined intelligence and energy of the great nations of the world centred on the task of devising and putting into effect means of destroying life on one hand and of sustaining it on the other, we may be asked whether consideration of the welfare of our wild life is warranted at the present time. Without exception those who have given the subject the closest study and are most imbued with its wide significance will give a most emphatic reply: the need was never greater and the results of neglect never more fraught with serious consequences.

Fur Resources  
of the  
North

In the paper that you invited me to contribute to your last annual report, I endeavoured to emphasize the importance of our fur resources of the north and the need of measures to prevent their unrestricted exploitation. The fur-bearing animals, particularly beaver, first of all our natural resources attracted hardy men to our shores and forests. To-day in that great unsettled region of northern Canada they still constitute the sole attraction and means of support to thousands of our inhabitants, white men and natives, and produce an annual crop of furs which in the census of 1910 was valued at \$1,927,550, but which estimate, I feel, does not give the full appraisal. To-day the annual fur crop will be worth considerably more. The fur-bearing animals therefore, contribute no insignificant share to the country's export trade of natural products, on which trade the future of this country will largely depend. It is safe to say that the chief and most widely distributed natural product of the major portion of Canada to-day is fur. Also, it may be confidently asserted that with adequate conservation and

barring catastrophies beyond human control, our northern fur-bearing animals will continue to render productive those non-agricultural areas they inhabit and to support the population native to them. The maintenance of the country's productiveness in all directions is pre-eminently important at the present time of vast expenditures and increasing national debt.

Nor should it be necessary again to remind you that, besides affording the main supply of exportable goods, the wild life of the north constitutes the main and, in most cases, the only food supply for the inhabitants of our northern territories.

**The Farmers'  
Allies**

Turning for a moment to an important part of our wild life, namely, the insectivorous birds, sufficient, I hope, has been said on previous occasions to emphasize the important relation that these birds play in protecting our crops from destruction by their innumerable insect enemies. Never in the history of the world has the necessity of protecting our food crops from destruction been more urgent; never has the need of taking every means to protect and encourage these allies of ours in increased crop production had a greater claim to our consideration. Expressed in terms of wheat, the value of the field crops destroyed annually in Canada by insect pests, is sufficient to feed our entire population for a year. We must, therefore, protect our greatest natural allies in crop production.

Finally, it is the duty of those of us who are 'carrying on' at home to see to it that, when the liberty of democratic peoples is established and those who have been spared return to resume the arts of peace, there is preserved for their enjoyment, that part of our wild life that counts for so much in maintaining that spirit of the love of nature and of resourcefulness and self-reliance that is characteristic of the true naturalist and sportsman. As one of our leading ornithologists and sportsmen wrote to me from France, where he is now, in charge of a sniping school: "If you knew what is happening around me as I write this, you would be surprised that I could think of such a thing as game protection, but, if I ever return I want some of my old life to return to, as do many others here."

Without any exaggeration it may be claimed, I think, that the past year has been the most notable in the history of the wild life conservation movement in this country. In spite of the pressing demands upon Parliament made necessary by our war activities, two measures of vital importance to the conservation of our wild life were passed, namely, the Migratory Birds Convention Act and the Northwest Game Act. No legislation has ever been



placed on the statute books of the Dominion that had greater possibilities for useful service in the direction of conserving the wild life of the country. The value of this legislation was enhanced by the third act on the part of the government, namely, the creation by order in council of an Advisory Board on Wild Life, the work of which will now be reviewed as briefly as possible.

#### ADVISORY BOARD ON WILD LIFE PROTECTION

Realizing the desirability of co-ordinating the efforts and opinions of those officers of the various Departments concerned in the conservation of our wild life, the Government passed an order in council on December 28th, 1916, creating an inter-departmental Advisory Board on Wild Life Protection. The Board is constituted of the following officials: Mr. James White, Assistant to the Chairman of the Commission of Conservation, Mr. White is Chairman of the Board; Mr. Duncan C. Scott, Deputy Superintendent General of Indian Affairs, whose concern for the welfare of the Indians and Eskimos throughout Canada brings him into close relationship with the objects of the Board; Mr. J. B. Harkin, Commissioner of Dominion Parks, Department of Interior, under whose direction the Dominion Parks, including the animal parks and the administration of the game protective legislation, as will be mentioned later, are placed; Dr. R. M. Anderson, in charge of mammals in the National Museum, whose continued studies of the wild life in the Arctic and the Northwest Territories since 1908, first, as a member of the Stefansson-Anderson Expedition of 1908-1912, and later, in charge of the Scientific party of the Canadian Arctic Expedition, 1913-16, have given him an invaluable first-hand knowledge of the mammals and birds, their habits, distribution and abundance in the north, which knowledge has already been of great value in the work of the Board; I constitute the fifth member of the Board and act as Secretary.

Eight meetings of the Board have been held during the year and numerous committee meetings of the members particularly concerned in the various matters submitted for consideration and action. Further, the Board has invited to its meetings from time to time to assist in its work other officers of the Government service, as Mr. J. M. Macoun, Chief of the Biological Division of the Natural Museum, Mr. P. A. Taverner, Ornithologist of the same Department, Lt.-Col. F. W. White, Controller of the Royal Northwest Mounted Police, Mr. F. H. Gisborne, Parliamentary Counsel, officers of the Hudson Bay Company, and Mr. Maxwell Graham of the Parks Branch of the Department of Interior. The following

are the chief matters that have been dealt with during the past year:

1. THE MIGRATORY BIRDS CONVENTION ACT—The conclusion of the International Convention between Great Britain and the United States for the protection of Migratory Birds in Canada and the United States, in December, 1916, necessitated the enactment of legislation to put into effect the provisions of that Convention. Accordingly, the Board was charged with the duty of drafting such legislation and the Migratory Birds Convention Bill was drafted and approved by the Government. It was introduced in Parliament by Hon. W. T. Roche, Minister of the Interior, on June 21, 1917, and, after being passed without amendment, received Royal assent and became law on August 31, 1917.\* The full text of the Act is appended. The Regulations by which the provisions of the Act will be put into effect are now being drafted. It is satisfactory to be able to record that already the provinces of Manitoba, Saskatchewan and Alberta have, during the past year, amended their game laws to bring them into conformity with the provisions of the Convention. In addition, personal conferences have been held with the departments concerned of the Ontario and other Provincial Governments of eastern Canada on the subject and all have expressed their intention of making such amendments as may be necessary in their provincial game laws to conform with the terms of the Convention. The subject has also been taken up with the authorities in British Columbia, to the exceptional conditions of which province special consideration has been given. So far as possible, it is intended that the enforcement of the provisions of the Act shall be effected by means of the machinery already existing in the various provinces, to avoid any unnecessary duplication. It is proposed to appoint a special officer to administer the Act and regulations under the direction of the Commissioner of Dominion Parks, and the Advisory Board will supervise the general policy. An appropriation has been made by Parliament for the expenses of administration. The enactment of this measure constitutes the greatest forward step ever taken in this country in the interests of bird protection.

The United States Government submitted their necessary enabling legislation to Congress in January, 1917, but progress was affected by the entry of that country into the war. However, it is confidently expected that their enabling act will be passed before the end of the present year.

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\*The full text of this Act appears as Appendix I.

2. THE NORTHWEST GAME ACT—Following my address before this Commission in January, 1917, a resolution was passed by the Commission embodying the proposals which were then made, the chief of which were: 1. The revision of the Northwest Game Act to meet the urgent need of increased protection to the wild life in the north; and 2. The administration of such legislation by a duly authorized officer; the Commissioner of Dominion Parks was recommended as that officer already had charge of the national animal parks and reserves. It will be a matter of great satisfaction to the Commission to learn that the recommendations then made have been carried out.

Early in the present year, the Advisory Board undertook the complete revision of the Northwest Game Act which relates to the protection of the game and fur-bearing animals and birds of the Northwest Territories. The task was by no means a light one and after a large amount of work and study, a Bill was drafted and approved. This was introduced in Parliament by Hon. W. T. Roche on June 21, 1917, and after certain amendments which did not detract from the value of the measure, it became law at the close of the last session.\*

It will be observed that, in addition to providing for close seasons for game, for fur-bearing animals and for birds, an absolute close season is provided for buffalo, thus ensuring the continued protection of the herd of about six hundred buffalo which is still to be found, it is gratifying to know, in the region west and northwest of Fort Smith. The killing of musk ox and wapiti is also prohibited except in such areas as may be prescribed by order in council. It is hoped by this means to prevent the continued decrease to the point of extermination of that unique member of our northern fauna, the musk ox, which has become so seriously reduced in numbers in recent years on account of the value of its pelt and the consequent excessive hunting, particularly by the Eskimo.

One of the most important and valuable features of the new Act is the introduction of the policy of licensing all persons engaged in hunting, trapping or trading in game, including fur-bearing animals, in the Northwest Territories. This will enable the Government to control the situation and to prevent undesirable exploitation of the game and, especially, of the fur resources of the north. We hope that it will be the means of putting an end to the activities of persons whose operations are opposed to the principles of conservation and thus ensure for the legitimate traders and the inhabitants of the north a source of livelihood for all time. Provision is

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\*The full text of the Northwest Game Act appears as Appendix II.

also made for the regulation of the use of poison which, in many sections of the north, is reported to be a serious menace to the wild life.

The Commissioner of Dominion Parks has been entrusted with the administration of the Act and regulations under the supervision and with the advice of the Advisory Board; and an appropriation has been made for the purpose of administration. With adequate machinery we may now confidently look forward to maintaining a policy that will ensure the conservation of this valuable natural resource of our northern regions. It should be a source of great satisfaction to the Commission to know that its recommendations have been so fully and speedily acted upon.

3. THE BARREN GROUND CARIBOU AS A MEAT SUPPLY—In view of the serious shortage of meat supplies existing at the present time owing to the war, the Advisory Board has had under consideration for some time the possibility of utilizing the enormous meat supply which the existence of countless herds of the barren ground caribou in the northern regions of Canada affords. Travellers and others have, from time to time, called attention to the possibility of utilizing the herds of caribou as a natural source of meat. These herds have been estimated by different travellers to number from ten million to thirty million animals; but, naturally, such estimates can be little more than guess work. Nevertheless, we know that these animals may be numbered by millions, and once a year, during the winter months, they reach in their southward migration the northern limit of tree growth extending in the Northwest Territories from Churchill on Hudson bay in the east to the neighbourhood of lake Athabaska in the west. The chief difficulties with which we are faced at present are lack of labour and adequate means of transportation and storage. There are several alternative methods of reaching the herds during their winter sojourn and these, together with the difficulties I have mentioned, are now being investigated. Should any method of making use of such a natural meat supply be found feasible, it would be necessary to put it into effect under government administration, and the control which is possible to exercise under the Northwest Game Act would prevent any exploitation of this valuable natural resource by private interests.

This problem of the conservation and possible utilization of the barren ground caribou herds is one of the chief subjects to which the Board is devoting its attention, as it is a matter of immense importance to our northern territories and to the country as a whole. In my address before the Commission two years ago, the situation

was reviewed and I will therefore omit any full discussion at the present time, as the subject is dealt with at some length in the account that I am preparing of the present status and conservation of the wild life of this country.\* I would again direct your attention, however, to the fact that whereas the barren ground caribou have been seriously reduced in numbers in Alaska and practically exterminated in certain regions such as the Alaskan Arctic coast, with the result that domestic reindeer of Siberian origin are now to some extent taking their place, we have still in northern Canada immense herds of native reindeer to supply food and clothing to the native population. But if you will realize that the caribou in Canadian territory have been killed off to such an extent in the Mackenzie Delta region that the Eskimo of that region, as I am informed by Dr. Anderson, are importing skins of domestic reindeer from Alaska for clothing, you will appreciate the significance of the problem with which we are dealing.

The possibilities of the use of semi-domesticated and domesticated caribou or reindeer under adequate supervision have been strikingly demonstrated by the history of the domestic reindeer in Alaska. It would be out of place to give in a review of this nature an account of that wise policy but the following summary statement will indicate what can be accomplished. The latest report that I have received regarding the reindeer herds in Alaska is that for the fiscal year ending June 30th, 1915.† This Report gives the following account of the reindeer service:

"The reports from the reindeer stations for the fiscal year ended June 30th, 1915, show a total of 70,243 reindeer, distributed among 76 herds. Of the 70,243 reindeer, 46,683, or 66 per cent, were owned by 1,140 natives; 3,408, or 5 per cent, were owned by the United States; 8,890, or 10 per cent, were owned by missions; and 13,262, or 19 per cent, were owned by Lapps and others. The total income of the natives from the reindeer industry during the fiscal year, exclusive of the meat and hides used by the natives themselves, was \$81,997. The total, 70,243, is a net increase of 21 per cent during the fiscal year, notwithstanding the fact that nearly 9,000 reindeer were killed for meat and skins during the year.

"The reindeer enterprise in Alaska has successfully passed through two stages—the introduction of the reindeer to a new country and people, and the development of an administration which has established the industry in the coastal region from Point

\* This report, intitled *The Wild Life of Canada and its Conservation*, will be published in the near future by the Commission of Conservation.

† *Report on the Work of the Bureau of Education for the Natives of Alaska 1914-15.* Bulletin, 1916, No. 47. Bureau of Education, U.S. Department of Interior, Washington, D.C., 1917.

Barrow to the Aleutian peninsula. There remains the successful commercializing of the industry, the advancement of the enterprise from a branch of industrial education to one of the industries of the country.

"Realizing that the establishment of an export trade in reindeer products is essential to the success of the enterprise, the bureau is encouraging the shipment of reindeer meat and hides from Alaska to the States. The last steamer brought to Seattle in October, 1914, 25 carcasses of reindeer which were placed on sale in Seattle, retailing at from 20 to 35 cents per pound. The chief of the Alaska division also brought from Nome 3 carcasses to be distributed among the five continental railway lines running out of Seattle, in order that reindeer meat might be given a trial on dining cars, with a view to securing for the natives contracts for the delivery of reindeer meat each season.

"During the winter of 1914-15 the Bureau's superintendent, who is situated at Nome, with the approval of the Commissioner of Education, distributed among the Eskimo herders in northwestern Alaska a proposal from a cold-storage company operating between Seattle and Nome to market in Seattle for the Eskimos on a commission basis, the reindeer meat consigned to said company. This action will probably result in the shipment of a considerable quantity of reindeer meat from Nome during the summer. The responsibility of accepting or rejecting the proposal of the cold-storage company will rest with the native owners of reindeer, the superintendents acting in an advisory capacity and assisting in making the necessary arrangements.

"Soon after the inception of the reindeer enterprise certain Lapps were brought from Lapland to Alaska and employed by the Bureau as instructors of the Eskimos in the care and management of the reindeer, each Lapp receiving a certain number of reindeer in payment for his services. During the summer of 1914, a company, organized at Nome, purchased about 1,200 reindeer from one of these Lapps. This company intends to purchase other herds now owned by Lapps, and to engage in the exportation of reindeer meat and hides.

"Under the supervision of the superintendent of the Northwestern district a very successful convention, attended by about 200 of the Eskimos engaged in the reindeer industry on the Seward peninsula, was held at Igloo from January 11th to 17th. The main object of the convention was the exchange of experiences and opinions on matters connected with the raising and the utilizing of reindeer. The discussions included such subjects as the best way to slaughter a reindeer and prepare it for market, the most satisfactory forms of sleds and harness, and the best methods of driving reindeer. There were also shooting matches, rope-throwing contests, wrestling bouts, and many kinds of races with reindeer. The exhibits included sets of harness, sleds, halters, and clothing made of reindeer skin, for which prizes were awarded. The success of this convention will probably result in the holding of similar conventions annually in various centres of the reindeer industry.

"The reindeer industry is now extending from the mainland to the outlying islands. During August, 1914, upon the request of the Department of the Interior the revenue cutter *Manning* conveyed a herd of 40 reindeer from Ugashik, on the Alaska peninsula, to Atka, a remote island in the Aleutian chain, where it will be a valuable factor in alleviating the deplorable conditions which have hitherto prevailed upon that desolate island. The extension of the reindeer industry in southeast Alaska was begun during October by the shipment of Metlakatla, on Annette island, of eight reindeer from the herd in the vicinity of Nome."

4. ANTELOPE OR PRONGHORN—The few remaining small herds of this singularly interesting and beautiful member of our former plain dwellers are to be found in Saskatchewan and Alberta. Every effort is now being made by the different authorities concerned to prevent this species from vanishing completely from our fauna. Such a fate, from a scientific point alone, would be a loss of first magnitude. The close season for antelope in Alberta expired during the year and we are pleased to record the wise action of the Alberta Government in extending the close season for a further period of years, namely until 1925. The Board memorialized the government on the importance of such a step. As a permanent close season on antelope is in force in Saskatchewan, the animal is absolutely protected by law throughout its present range and we earnestly hope that the governments concerned will make special efforts to ensure strict observance of the law.

5. WAPITI OR ELK—This, our finest member of the deer tribe, which formerly existed in abundance from Quebec to British Columbia, has suffered the fate of its congeners. Every effort, however, is being made to encourage the increase of the small number that still remain. In British Columbia, a wise policy of absolute protection is resulting in an increase in numbers and an extension of range. Absolute protection is given to such wapiti as remain in Alberta. The new Northwest Game Act establishes an absolute close season in the Northwest Territories. In Saskatchewan, where a few hundred wapiti are still to be found in the northern part of the province, the bag limit has been reduced to one male. During the year the Board addressed a strong recommendation to the Government of Saskatchewan that an absolute close season be declared, as the concensus of opinion of sportsmen and others in the province is against further killing of this animal, which is rapidly decreasing in numbers for lack of such protection. In Manitoba, the number of wapiti is estimated to be from 600 to 700 animals. They are chiefly to be found in the Riding Mountains Forest Reserve, a portion of which is a provincial game reserve. Others occur in the

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POINT PELEE, ONT.

The end of the point. This is the most southerly point in Canada. This point is gradually being washed away owing to the removal of the sand by "sandsuckers" operating near the shore; on the right may be seen uprooted trees and the three men in the foreground are standing at the foot of the face of the retreating point. The privilege of removing sand near the shore must be discontinued to prevent further rapid erosion of the point.



*Photos by Dr. C. Gordon Hewitt.*

POINT PELEE, ONT.

Looking south-eastward across the marsh which affords excellent breeding and feeding facilities for ducks, rails, bittern and other birds; this marsh would be included in the proposed wild life reserve.

neighbourhood of lake Winnipeg. As steps were being taken to amend the provincial game law of Manitoba to provide, among other useful steps, an absolute close season on wapiti, the Board strongly supported this proposal and urged that such action be taken. We are pleased to record that the law was so amended as to provide for such absolute protection. As the matter now stands the wapiti enjoys absolute protection throughout its range in Canada with the exception of Saskatchewan, and we sincerely hope and have reason to believe that a permanent close season in that province will be declared at the next session of the provincial legislature.

During the past year the Dominion Parks Branch of the Department of the Interior imported over fifty wapiti from the large herd at Jackson Hole, Wyoming, into the Rocky Mountains park, and it is proposed to use these as a nucleus to repopulate that section of the Rocky Mountain region with this animal.

6. WOLVES.—Throughout Canada, wolves are proving to be an increasing menace to a number of our game animals such as deer and mountain sheep. In Ontario, reports of their destructive activities are increasing and stronger efforts to secure a much needed reduction in their numbers are urgently necessary. From Yukon territory, an appeal was addressed to the Government that steps should be taken to reduce the wolves which are making determined inroads on the mountain sheep. As any action taken in that region would require co-operative effort on the part of the United States Government in Alaska, the Board took up the matter with the United States authorities in Washington, but owing to the difficulties of obtaining the necessary men required for any effective steps, no arrangements could be made at the present time. While increased bounties would greatly assist in securing a reduction in the number of wolves, the Board is strongly of the opinion that the only satisfactory method of dealing with the wolf problem is by organized hunting under Government direction. The wisdom and value of the latter scheme has been conclusively shown by the work of the Biological Survey of the United States Department of Agriculture in the western states, where wolves have proved a menace to the live stock interests. It is hoped that after the war, definite action along somewhat similar lines may be taken in Canada.

7. PROPOSED GAME SANCTUARY AT POINT PELEE, ONT.—During the year, the Board has taken active steps with a view to the establishment of a game sanctuary at Point Pelee in Ontario. From time to time, efforts have been made to secure the permanent

reservation of this unique portion of Canadian territory which is the property of the Dominion Government, being an old naval reserve. It is a triangular point of land in Essex county, extending for about nine miles into lake Erie and measuring about six miles across the base of the point. The peculiarities of the flora and fauna and the desirability of such a reservation are fully discussed in a memorandum submitted to the Commission by Mr. P. A. Taverner, Ornithologist of the Geological Survey, in 1915, and published in the *Sixth Annual Report* of the Commission, pp. 304-307. Not only is it the most southerly point of Canada, geographically, and in the character of its birds, trees and plants, but it constitutes one of the concentration points in the northern and southern journey of our migratory birds. In the spring and in the autumn, enormous numbers of birds of all species in their migratory journeys to and from Canadian territory concentrate at this point and its reservation, therefore, would be an important factor in ensuring the protection of our migratory birds. The area includes a marsh several square miles in extent which forms a favourite resort and breeding place for wild fowl, but excessive shooting has reduced its value as a breeding place. Pine, oaks, red cedar, black walnut, and hackberry grow in profusion on the narrow strip of land running down the west side of the point and make it a tract of singular beauty to the lover of trees and shady groves. Its scenic value, the southern nature of its birds and plant life, its importance as a main route for migratory birds and the exceptional opportunities it affords for the protection and encouragement of wild fowl, insectivorous and other birds, all combine to make it an ideal area for a national reservation. I was particularly impressed with these facts when I visited the Point in April and September.

We have every reason to believe that within a short time our efforts will be successful and that Point Pelee will be added to the number of wild life reserves now administered by the Parks Branch of the Department of Interior.

8. BONAVENTURE ISLAND BIRD CLIFFS—The Board has continued the efforts previously made by the Commission to secure as a bird sanctuary the cliffs on Bonaventure island off the coast of Gaspé in the gulf of St. Lawrence. This proposal has been most sympathetically endorsed by the Hon. Honoré Mercier, Minister of Colonization, Mines and Fisheries of Quebec. Mr. James White and I have visited Quebec twice during the autumn for the purpose of securing the reservation of these cliffs, which rise to a height of about 300 feet from the sea and furnish ledges



POINT PELEE, ONT.

A corner of one of the many open ponds in the marsh; the camera faced the west and in the background may be seen the trees on the strip of upland which runs down the west side of the marsh to the end of the point.



*Photos by Dr. C. Gordon Hecitt.*

CANADA GEESE AND WOOD DUCK

A photograph taken on the farm of Jack Miner, Kingsville, Ont., which has now been declared, together with the farms immediately adjoining it, to be a Provincial Game Reserve.



on which thousands of sea birds such as gannets, murre, razor-billed auks and puffins breed, and we hope that in the near future the necessary arrangements may be made. In 1914, Mr. Taverner estimated that there were about 7,500 birds nesting on these cliffs. Their importance, therefore, in the protection of these birds is obvious. At the present time, deplorable slaughter of the birds takes place and their dead bodies are cast up on the shores of the neighbouring mainland to rot. The need of such a protective measure as this proposal involves is very urgent.

9. BIRD RESERVATIONS IN WESTERN CANADA—In the provinces of Alberta and Saskatchewan, the Department of the Interior has withheld from settlement, 28 areas, chiefly in the neighbourhood of lakes, that were not considered to be of agricultural value but, on the other hand, formed suitable places for the breeding of numerous species of wild fowl. With the opening up of these regions for agricultural settlement and the draining of the existing bodies of water, the breeding places of ducks and other wild fowl in the west have been greatly reduced with the consequent reduction of the numbers of wild fowl breeding locally. The Board was requested to advise on the desirability of the permanent reservation of those areas most suitable for bird reservations, and Dr. R. M. Anderson, one of our members, was accordingly requested to make a personal examination of the areas provisionally withheld from settlement. In September and October, Dr. Anderson visited twelve of the areas in Saskatchewan and six in Alberta, and although the Board has not had an opportunity as yet of considering his report, he has informed me that he found that all but three or four of the areas examined constituted desirable bird reservations. It is anticipated that the areas that were found suitable will be permanently reserved bird sanctuaries under the provisions of the Migratory Birds' Convention Act.

The foregoing brief recital of the more important subjects to which the Advisory Board on Wild Life Protection has given its attention during the first year of its existence not only demonstrates very clearly the value of such a body but also the advantage of co-ordinated effort in the government service. The usefulness of the work of the Board will undoubtedly continue as time goes on. It will ensure the carrying out of well-considered policies in respect to all matters affecting the conservation of wild life, and we hope that it will also be the means of assisting the various provinces in the efforts to conserve the wild life in the territories under their respective jurisdictions. These problems are national in character and there cannot be too great a spirit of co-operation with a view to securing

the necessary protection that the continued welfare of our wild life requires.

#### PROGRESS IN BIRD PROTECTION

Reference has already been made in the foregoing report of the work of the Advisory Board in regard to the Migratory Birds' Convention Act. The enactment of this measure has been welcomed on all sides as a guarantee of the Government's intention to undertake such steps as are possible to protect our insectivorous birds and wild fowl.

#### Educational Work

Throughout the country there has been a very marked awakening of public interest in the protection of our native birds and the progress of the movement has been very encouraging. Educational work in the schools through which we must aim to mould the public opinion of the future has been extended. The subject naturally appeals to the youthful mind when presented in the proper manner. Among the educational agencies in this country, the Canadian Society for the Protection of Birds, with headquarters at Toronto, has done great service. The recent formation of the Province of Quebec Society for the Protection of Birds with headquarters at Montreal will materially help in the educational work in that city and the province as a whole. In St. John, N.B., the junior Branch of the Natural History Society of New Brunswick is carrying on an active campaign among the children; and throughout the country similar organizations are undertaking educational work along these lines. The value of such organizations as means of creating an active interest in the protection of birds cannot be too strongly emphasized. There has been a continued increase in the practice of holding bird-house competitions in the cities and towns during the year. In many cases, splendid results were obtained. In Ottawa, for example, we arranged through the Ottawa Humane Society to hold such a competition among the boys of the public schools. The Public School Board and teachers heartily co-operated and bird houses were made as part of the work in the manual training classes, with the result that, last spring, an exhibition of over 1,000 bird houses was held. The important feature of this work was that, while many of the nesting boxes were sold to the public on behalf of the Red Cross, the majority were used by the boys around their homes.

#### Urban Bird Sanctuaries

For some time, I have been urging the establishment of bird sanctuaries in and around our cities and towns, and encouraging progress has been made in this direction. Several years ago bird sanctuaries were established in the neighbourhood of Ottawa, of which an account has already

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*Reproduced by courtesy of the New York Zoological Society.*

**WILD DUCKS ON ONE OF THE UNITED STATES GOVERNMENT GAME RESERVES**

In certain of the Dominion Parks and Provincial Game Reserves wild ducks breed in large numbers, and steps are now being taken to reserve permanently other areas, unsuitable for agriculture, as reserves for wild fowl and other birds.

been published in the Ottawa Naturalist, March, 1914. On my recommendation the Board of Park Commissioners of Vancouver, B.C., has established, during the past year, a bird sanctuary in Stanley park, and the Quebec Society for the Protection of Birds is arranging to establish bird sanctuaries on Mount Royal, Westmount, and in the public parks and cemeteries in and around the city of Montreal.

Community Bird  
Sanctuaries

I would strongly recommend local organizations and public bodies to adopt and carry out the following scheme as a first step. The absolute protection of birds in public parks and cemeteries in cities, towns and villages should be secured by the co-operation of the local civic authorities and such areas should be publicly declared to be bird sanctuaries. At the same time, bird-house competitions should be organized and a proportion of the bird houses so made by the school children should be distributed in the civic bird sanctuaries, and thus the children would have that personal interest in the work which tends to secure success. Further, the assistance of the local horticultural societies should be enlisted and they should be asked to help the civic or other authorities in the work of planting suitable fruit-bearing and other shrubs and trees attractive to birds in the local sanctuaries; or these associations could make themselves entirely responsible for such work. Prominent citizens should then be encouraged to present bird fountains and baths to be placed in the bird sanctuaries. Each year, preferably in the spring, a local 'Bird Day' might be instituted. On that day, the schools would devote special attention to the subject of birds and bird protection and means could be taken to enlist the interest of the general public. By these and other means that might be devised, every section of the community could be called upon to take a personal interest in the protection and encouragement of the birds in their district and the work would express the community spirit. I cannot conceive of any practical measure that would have a greater effect in stimulating public interest in this subject, and the value of such work throughout Canada as a whole would be inestimable. Where interest is kindled in the minds of young and old on the subject of birds, it increases with time and few subjects have a wider appeal or elicit to a greater extent that sympathy with and admiration for our wild life.

Prairie  
Chicken

The extraordinary scarcity of the prairie chicken, which popular name in western Canada includes both the pinnated grouse (*Tympanuchus americanus*) and the prairie sharp-tailed grouse (*Pediæcetes phasianellus*), has created a feeling of considerable uneasiness in the Prairie provinces.

A few years ago, they were fairly abundant in the farming sections of the prairies, but, during the last two years, they have disappeared almost completely in some sections and, generally, are extremely scarce. In view of these facts, the provincial governments of Manitoba, Saskatchewan and Alberta have established an absolute close season on prairie chickens in the hope that such timely action will result in securing an increase in the numbers of birds from the remaining flocks. We should profit by the unfortunate history of this bird in the western states where the prairies in the states of Illinois, Wisconsin, Minnesota, Iowa, Missouri, Kansas, and Nebraska were well stocked with prairie chickens (*T. americanus*), but the market hunters soon commenced operations with the inevitable result of almost complete extermination. While over-shooting, which has been largely brought about by the increasing use of the automobile, has undoubtedly caused the disappearance of the prairie chicken in many districts, natural causes have also exerted a pronounced influence. Cold wet springs have killed off the young birds; and the greater abundance of goshawks, probably due to the scarcity of rabbits throughout the north, has also seriously reduced the numbers. While the indiscriminate killing of hawks is to be most strongly deprecated, it is very desirable that steps should be taken to reduce the numbers of this most destructive species of hawk, which is one of the greatest enemies of our game birds and, by its inroads on the poultry yard, is responsible for the bad reputation which is unfortunately given to all hawks, many species of which, such as the red-tailed hawk and sparrow hawk, are of great economic value as destroyers of such pests as gophers, mice and grasshoppers.

#### WILD LIFE CONSERVATION AND FOOD PRODUCTION

It is very desirable that, at the present critical period in the history of the country and the world generally, we should consider what relation our wild life bears to the chief problems with which we are faced, namely, the production and conservation of food supplies. In their relation to this problem, the native mammals and birds may be divided into three classes: (1) Sources of food; (2) Protectors of food; and (3) Destroyers of food.

##### Sources of Food

From the time when the early settler depended almost entirely upon the wild life as a source of meat up to the present time when the population has increased to so great an extent that, to prevent extermination, it is inadvisable to provide more than short open seasons, our wild life

has furnished meat. It is this fact that has led to their destruction. Wapiti, moose, caribou and deer all furnish meat of most excellent quality. To these, are added the native game birds: wild turkey, (now extinct in the wild state in Canada) geese, ducks, grouse of several species, quail and shore birds, all excellent food and all diligently sought after. The smaller mammals, such as hares and rabbits, have also a place in the bill of fare.

During the open seasons many people will take advantage of the opportunity to add to the domestic meat supply by obtaining one or more deer or moose, in accordance with bag limits imposed by the provincial game laws. The possibility of utilizing cold storage will help to solve the problem of making the best use of game killed during the open seasons. From all reports that I have received, it would appear that a greater number of persons have availed themselves this year of the presence of a native meat supply in the different provinces. In many cases, it was not in the interests of sport that they ranged the woods, but as a result of the most primitive and impelling motive—to secure food. There is little doubt in my mind that throughout the country full advantage has been taken of the opportunity to secure wild meat.

Relaxation of  
Laws Serious

It has been suggested that the game laws of the various provinces might be relaxed to permit a greater use of our wild life as a source of food.

While this suggestion is undoubtedly made with the best of intentions, if put into practice it would undoubtedly result in consequences of a most serious nature which are not realized by those unacquainted with the present status of our wild life and with the progress of game legislation and its enforcement. The relaxation of our game laws would be wholly inimical to the welfare of our game mammals and birds and completely opposed to the strenuous efforts that are now being made by the Dominion and Provincial Governments to secure better protection for game of all kinds. The chief cause of the depletion of our game resources has been either the absence of game laws or laxity in their enforcement. Violations are still all too common and not infrequently, for reasons which need not be discussed here, they are winked at by the authorities. For a number of years, those who realized what would be the outcome of continued excessive destruction in this country, which is the last stronghold of the chief game animals and birds of North America, have been striving hard to secure the greater protection that was needed to prevent reduction to the point of extermination. The struggle has been very uphill work, but owing to the attitude of the real sportsmen, as opposed to the market hunters and 'game hogs,' and of the public

generally, steady progress has been made and the provincial authorities are seriously endeavouring, not only to prevent further reduction in the number of certain game animals, but to secure some increase by the better enforcement of their laws and more appropriate close seasons.

Therefore, to relax these efforts at the present time would more than undo the results of the hard work and effort of years and would be catering to those individuals who have been the greatest enemies to game conservation, men who are entirely selfish in their point of view and who have very little interest in the welfare of the country as a whole. In the West, this class is largely made up of foreigners. To all these persons who violate the game laws on all occasions, food conservation has no meaning, and any relaxation of the game laws would simply legalize their destructive tendencies to the detriment of the rights of game and the rights of those who are accustomed to observe the law.

The amount of wild meat that would be obtained would be comparatively small, but the destruction involved in obtaining it would affect in the most serious manner possible the future of our game animals. We hope that the continued progress that is being made in game conservation may ultimately mean that we can utilize our wild meat supply, that the numbers of deer, for example, will so increase in non-agricultural areas as to make such areas productive. But this will only come about provided the strict enforcement of the game laws is continued and our hopes will be frustrated by the results of any relaxation.

In cases of absolute want or necessity, it is always possible for the provincial game officers to make special arrangements under permit. In British Columbia, the provincial game warden during the past two years has repeatedly authorized his wardens to kill deer out of season in order to supply meat to families in need. In this way, the door is not thrown open to those who normally take every advantage of killing all they can, regardless of the consequences to the future of the animals involved.

#### Protectors of Food

The greatest enemies to our food crops are insect pests, which attack the plants both below and above ground. Of all natural agencies tending to keep in check such pests and to suppress outbreaks, the many species of insectivorous birds play a very important rôle. Without the aid of these most valuable allies in destroying the enemies of our crops, our food production would be most seriously affected by the unrestrained ravages of the ever-increasing number of pests to which crops of all kinds are subject. The protection of insectivorous birds

is at all times a necessary measure in crop production. At the present time, when the production of food crops is not only a national but a world necessity, the protection of such birds should be regarded as a measure of national defence.

In addition to the assistance rendered by insectivorous birds, other members of our wild life render valuable help in the protection of our food crops by destroying insect pests and such other enemies of crops as field mice and gophers. Skunks destroy large numbers of insects; moles and shrews perform a similar service. Hawks and owls kill countless numbers of gophers and mice. The value of the lower forms of animal life such as snakes, frogs, and toads in destroying crop pests is not generally realized, but, at the present time, it is very desirable that their usefulness in this direction should not be overlooked.

**Destroyers of Food** The immense destruction to growing grain and other food supplies by gophers, rats and mice is not sufficiently appreciated by the general public. It is of the utmost importance that the destructive powers of these members of our wild life should be brought home to every one at a time when the conservation of food is the most vital necessity.

**Gophers** Throughout western Canada, no farm pest is more widely disliked than the pocket gophers (*Thomomys talpoides* Rich.) whose destruction to growing grain is immense. On this account the farmers are compelled to follow a vigorous policy of destruction as a matter of self-defence. The following records obtained by the Dominion Experimental Station at Scott, Sask., in 1915, will serve to illustrate the extent of the damage due to gophers, especially where grain is grown adjacent to open uncultivated prairie. Comparisons were made of the yield per acre on portions of fields attacked and portions unattacked and it was found that the loss per acre caused by gophers was 11 bushels, 5 pounds of oats and 18 bushels, 26 pounds of barley.\* During 1917, the Provincial Governments of Manitoba and Saskatchewan adopted the wise policy of enlisting the help of the boys and girls in the country schools in the destruction of gophers. The gopher usually has two broods during the season and the object of the campaigns was to secure the destruction of as large a number of the animals as possible at the beginning of May before breeding commenced.

In Manitoba, the campaign was organized by Professor V. W. Jackson of the Manitoba Agricultural College. The first five days

\**Experimental Farms Bulletin*, No. 31, Second Series, Dept. of Agriculture, Ottawa, 1916.

in May were selected for the gopher-killing contests. Essays on gophers were written in the country schools and many of the manufacturers of gopher poisons offered prizes for the best essays and for the greatest numbers of gophers killed. One boy claimed to have killed 1,082 gophers with one packet of poison. The chief methods of destruction adopted were drowning and trapping, but shooting was widely practised. The best record of the province was obtained by Alex. Henry of Rapid City, Man.; although only fourteen years of age he shot 386 gophers in one day. Two Glenboro school girls shot 141 and 132 gophers, respectively, on May 5. Altogether in this campaign, about 100,000 gophers were killed in the province; this number was considered to represent about one-tenth of the total.

In Saskatchewan, the Provincial Department of Agriculture organized the gopher-killing campaign among the school children. May 1st was set aside as 'gopher day.' Thirty-six bronze shields were offered to the school districts for the schools gaining the highest number of points. The highest record was obtained by Gutenberg school which collected 7,682 tails. Christian Reiter of this school won the first prize with 2,092 gophers to his credit. As a result of this competition, 514,140 gophers were killed in the province; this number represented 524 gophers for each school. Half a million gophers killed in the spring would represent about two and one quarter million gophers in July and August when the crop destruction is effected. Assuming that each gopher eats ten cents worth of grain the boys and girls who participated in the contest saved the country about \$200,000 worth of grain, which was a notable contribution to the cause of food conservation. As a result of this success of the campaign, a Junior Agricultural Service League has been formed in Saskatchewan. To qualify for admission, it is necessary to kill 50 gophers; a bag of 200 qualifies for third rank, 500 for second rank and to secure promotion to the first rank 1,000 gophers must be killed. Silver and bronze medals will be given in competition. As a means of dealing with this serious problem in the West, the enlisting of the help of the boys and girls on the farms will undoubtedly yield valuable results.

**Rats and  
Mice**

The destructive powers of rats and mice are well known but the manner in which their presence is tolerated in city and country would indicate that the immense losses they cause are not fully appreciated. Of all animals, the rat is the worst pest. As a carrier of bubonic plague, it is a serious menace to public health; as a destroyer of grain, stored foods of all kinds, eggs, chickens, and other food products, it is

unequaled. And yet no serious efforts are made to cope with this powerful enemy in our midst.

Bubonic plague is transmitted from rats to human beings by fleas. The destruction of rats is an essential step in the protection of communities from this disease. In the fourteenth century, it is estimated that about 25,000,000 people died in Europe from the 'black death,' as this disease was called, and 2,000,000 deaths are stated to have occurred during the epidemic of plague in India in 1907. Modern methods of preventing the spread of plague involve the most vigorous eradication of rats.

But we are concerned now with the destruction of food by rats, which, as I have stated, is not sufficiently appreciated. In Europe, it was estimated in 1907, after a full inquiry, that the average annual loss caused by each rat in Great Britain equalled \$1.80, in France \$1.00 and in Denmark \$1.20. The losses in the rural districts in Great Britain and Ireland due to rats in the same year were computed at \$73,000,000; and a capital of about \$10,000,000 was employed in the industry supplying means to destroy rats. At the present time, the English Board of Agriculture is making special efforts to combat the rat pest in England. Mr. E. W. Nelson, Chief of the Biological Survey of the United States Department of Agriculture, in a recent valuable article\* on the rat pest, estimates the annual losses in the United States due to rats to equal at least \$200,000,000. He further makes the interesting statement that in order to feed and otherwise provide for this enormous destructive army of rats the labour of 200,000 men is required.

Mice co-operate with their larger cousins in waging this widespread campaign of food destruction. On no occasion have the destructive powers of mice been more strikingly demonstrated than during 1917 in Australia. Owing to the lack of ocean transportation, vast quantities of grain destined for export have accumulated in New South Wales and Victoria. A plague of mice developed and the destruction to the stored grain has been enormous. We are informed that, in some places, the ravages of the mice were so great that, in a few months, huge stacks of grain were reduced to what resembled heaps of debris.

The Wheat Board in New South Wales organized a campaign of destruction. In one place, the catch for two nights totalled seven tons of mice. In another place, 56,000 mice were caught in four nights. This was an exceptional outbreak but it serves to show the destructive power of these small creatures in the mass. Everywhere destruction is proceeding and everywhere there is

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\**National Geographic Magazine*, July, 1917.



gr. need than ever for the conservation of every bushel of grain and every pound of food.

When the prolific habits of rats are taken into account the extent of the menace they constitute will be made still clearer. The brown rat begins to breed when about three or four months old; they breed from six to ten times a year and produce, on the average, ten young in a litter. If we imagine a pair of rats breeding at this rate for three years without any deaths among their progeny, at the end of that short period the number would be increased to over 350,000,000 rats.

The main reasons for the abundance and destructiveness of rats and mice is that we provide food and shelter for them. To combat them successfully, we must refuse them both these vital essentials. Shelter should be denied by making buildings and other haunts rat- and mice-proof by various constructional methods. Seed grain, provisions, etc., should be stored in rat-proof containers. The adoption of sanitary conditions in towns and cities, cleanliness, about stores, warehouses and other buildings will help to eradicate them. The maintenance of garbage dumps is one of the greatest causes of rat abundance; incineration is the only sanitary method of treating garbage. Systematic campaigns should be organized and such methods of destruction as trapping, poisoning, and hunting with ferrets and dogs should be adopted wherever rats occur.

Rats are destroying millions of dollars worth of food in Canada at the present time when the conservation of food is a duty that devolves upon everyone. The more food we permit the rats to destroy the less there is for us and our kinsfolk across the seas to eat. Never was the need of saving our food supplies greater; never was the need of the most relentless campaign against these food destroyers more urgent. Eradicative measures should be prosecuted with the greatest vigour wherever these pests occur, whether on the farm or in the city.

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## APPENDIX I

### The Migratory Birds Convention Act

(7-8 George V, chap. 18; assented to Aug. 29, 1917)

WHEREAS on the sixteenth day of August, one thousand nine hundred and sixteen, a Convention was signed at Washington respecting the protection of certain migratory birds in Canada and the United States, and ratifications were exchanged at Washington on the seventh day of December, one thousand nine hundred and sixteen; and whereas it is expedient that the said Convention should receive the sanction of the Parliament of Canada and that legislation be passed for insuring the execution of the said Convention: Therefore His Majesty, by and with the advice and consent of the Senate and House of Commons of Canada, enacts as follows:

1. This Act may be cited as *The Migratory Birds Convention Act*.
2. The said Convention of the sixteenth day of August, one thousand nine hundred and sixteen, which is set forth in the Schedule to this Act, is hereby sanctioned, ratified and confirmed.
3. In this Act and in any regulation made thereunder, unless the context otherwise requires—
  - (a) "close season" means the period during which any species of migratory game, migratory insectivorous, or migratory nongame bird is protected by this Act or any regulation made under this Act;
  - (b) "migratory game birds" means—
    - Anatidæ or waterfowl, including brant, wild ducks, geese and swans;
    - Gruidæ or cranes, including little brown, sandhill and whooping cranes;
    - Rallidæ or rails, including coots, gallinules and sora and other rails;
    - Limicolæ or shorebirds, including avocets, curlew, dowitchers, godwits, knots, oyster catchers, phalaropes, plovers, sandpipers, snipe, stilts, surf birds, turnstones, willet, woodcock, and yellowlegs;
    - Columbidæ or pigeons, including doves and wild pigeons;
  - (c) "migratory insectivorous birds" means—
    - Bobolinks, catbirds, chickadees, cuckoos, flickers, flycatchers, grosbeaks, humming birds, kinglets, martins, meadowlarks, nighthawks or bull bats, nuthatches, orioles, robins, shrikes, swallows, swifts, tanagers, titmice, thrushes, vireos, warblers, waxwings, whip-poorwills, woodpeckers, and wrens, and all other perching birds which feed entirely or chiefly on insects;

- (d) "migratory nongame birds" means—  
Auks, auklets, bitterns, fulmars, gannets, grebes, guillemots, gulls, herons, jaegers, loons, murrens, petrels, puffins, shearwaters, and terns;
- (e) "Minister" means the Minister of the Interior;
- (f) "regulation" means any regulation made under the provisions of section four of this Act.

4. (1) The Governor in Council may make such regulations as are deemed expedient to protect the migratory game, migratory insectivorous and migratory nongame birds which inhabit Canada during the whole or any part of the year.

(2) Subject to the provisions of the said Convention, such regulations may provide,—

- (a) the periods in each year or the number of years during which any such migratory game, migratory insectivorous or migratory nongame birds shall not be killed, captured, injured, taken, molested or sold, or their nests or eggs injured, destroyed, taken or molested;
- (b) for the granting of permits to kill or take migratory game, migratory insectivorous and migratory nongame birds, or their nests or eggs;
- (c) for the prohibition of the shipment or export of migratory game, migratory insectivorous or migratory nongame birds or their eggs from any province during the close season in such province, and the conditions upon which international traffic in such birds shall be carried on;
- (d) for the prohibition of the killing, capturing, taking, injuring or molesting of migratory game, migratory insectivorous or migratory nongame birds, or the taking, injuring, destruction or molestation of their nests or eggs, within any prescribed area;
- (e) for any other purpose which may be deemed expedient for carrying out the intentions of this Act and the said Convention, whether such other regulations are of the kind enumerated in this section or not.

(3) A regulation shall take effect from the date of the publication thereof in the *Canada Gazette*, or from the date specified for such purpose in any regulation, and such regulation shall have the same force and effect as if enacted herein, and shall be printed in the prefix, in the next succeeding issue of the Dominion Statutes, and shall also be laid before both Houses of Parliament within fifteen days after the publication thereof if Parliament is then sitting, and if Parliament is not then sitting, within fifteen days after the opening of the next session thereof.

5. (1) The Minister may appoint game officers for carrying out this Act and the regulations, and may authorize such game officers to exercise the powers of Justice of the Peace or the powers of a Police Constable. Such persons shall hold office during pleasure, and shall have, for the purpose of this Act and the said Convention,

such other powers and duties as may be defined by this Act and the regulations.

(2) Every game officer who is authorized by the Minister to exercise the powers of a Justice of the Peace or of a Police Constable shall, for all the purposes of this Act and the regulations, be *ex officio* a Justice of the Peace or a Police Constable, as the case may be, within the district within which he is authorized to act.

(3) Every such game officer shall take and subscribe an oath in the form following, that is to say:

"I, A.B., a \_\_\_\_\_ of \_\_\_\_\_ do solemnly swear that to the best of my judgment I will faithfully, honestly and impartially fulfil, execute and perform the office and duties of such \_\_\_\_\_

according to the true intent and meaning of *The Migratory Birds Convention Act* and the regulations made thereunder.

So help me God."

6. No one without lawful excuse, the proof whereof shall lie on him, shall buy, sell or have in his possession, any bird, nest or egg or portion thereof, during the time when the capturing, killing or taking of such bird, nest or egg is prohibited by law.

7. All guns, ammunition, boats, skiffs, canoes, punts and vessels of every description, teams, wagons and other outfits, decoys and appliances of every kind, used in violation of or for the purpose of violating this Act or any regulation, and any bird, nest or egg taken, caught, killed or had in possession, in violation of this Act or any regulation, may be seized and confiscated upon view by any game officer appointed under this Act, or taken and removed by any person for delivery to any game officer or justice of the peace.

8. Any game officer appointed under this Act who violates this Act or any regulation, or who aids, abets or connives at any violation of this Act or of any regulation, shall be liable, upon summary conviction before any recorder, commissioner of police, judge of the sessions of the peace, police stipendiary or district magistrate or any two justices of the peace, to a penalty not exceeding five hundred dollars and costs or six months' imprisonment and not less than one hundred dollars and costs or three months' imprisonment.

9. Any person who assaults, obstructs or interferes with any game officer or peace officer in the discharge of any duty under the provisions of this Act, or of any regulation, shall be guilty of a violation of this Act.

10. Any person who wilfully refuses to furnish information or wilfully furnishes false information to a game officer or peace officer respecting a violation of this Act or of any regulation, the existence of or the place of concealment of any bird, nest or egg, or any portion thereof captured, killed or taken in violation of this Act or of any regulation, shall be guilty of a violation of this Act.

11. Any game officer or peace officer may enter any place or premises in which he has reason to believe there exists migratory game, or migratory insectivorous, or migratory nongame birds, nests or eggs, or any parts thereof, in respect of which a breach of this

Act or of the regulations may have been committed, and may open and examine any trunk, box, bag, parcel or receptacle which he has reason to suspect and does suspect contains any such bird, nest or egg, or any part thereof.

12. Every person who violates any provision of this Act or any regulation shall, for each offence, be liable upon summary conviction to a fine of not more than one hundred dollars and not less than ten dollars, or to imprisonment for a term not exceeding six months, or to both fine and imprisonment.

#### SCHEDULE

##### CONVENTION

Whereas many species of birds in the course of their annual migrations traverse certain parts of the Dominion of Canada and the United States; and

Whereas many of these species are of great value as a source of food or in destroying insects which are injurious to forests and forage plants on the public domain, as well as to agricultural crops, in both Canada and the United States, but are nevertheless in danger of extermination through lack of adequate protection during the nesting season or while on their way to and from their breeding grounds;

His Majesty the King of the United Kingdom of Great Britain and Ireland and of the British dominions beyond the seas, Emperor of India, and the United States of America, being desirous of saving from indiscriminate slaughter and of insuring the preservation of such migratory birds as are either useful to man or are harmless, have resolved to adopt some uniform system of protection which shall effectively accomplish such objects, and to the end of concluding a convention for this purpose have appointed as their respective plenipotentiaries:

His Britannic Majesty, the Right Honourable Sir Cecil Arthur Spring Rice, G.C.V.O., K.C.M.G., etc., His Majesty's ambassador extraordinary and plenipotentiary at Washington; and

The President of the United States of America, Robert Lansing, Secretary of State of the United States;

Who, after having communicated to each other their respective full powers which were found to be in due and proper form, have agreed to and adopted the following articles:

ARTICLE I—The High Contracting Powers declare that the migratory birds included in the terms of this Convention shall be as follows:

1. Migratory Game Birds—

(a) Anatidæ or waterfowl, including brant, wild ducks, geese, and swans.

(b) Gruidæ or cranes, including little brown, sandhill, and whooping cranes.

(c) Rallidæ or rails, including coots, gallinules and sora and other rails.

(d) Limicolæ or shorebirds, including avocets, curlew, dowitchers, godwits, knots, oyster catchers, phalaropes, plovers, sandpipers, snipe, stilts, surf birds, turnstones, willet, woodcock, and yellowlegs.

(e) Columbidaë or pigeons, including doves and wild pigeons.

2. Migratory Insectivorous Birds—

Bobolinks, catbirds, chickadees, cuckoos, flickers, flycatchers, grosbeaks, humming birds, kinglets, martins, meadowlarks, night-hawks or bull bats, nut-hatches, orioles, robins, shrikes, swallows, swifts, tangers, titmice, thrushes, vireos, warblers, waxwings, whippoorwills, woodpeckers, and wrens, and all other perching birds which feed entirely or chiefly on insects.

3. Other Migratory Nongame Birds—

Auks, auklets, bitterns, fulmars, gannets, grebes, guillemots, gulls, herons, jaegers, loons, murres, petrels, puffins, shearwaters, and terns.

ARTICLE II—The High Contracting Powers agree that, as an effective means of preserving migratory birds, there shall be established the following close seasons during which no hunting shall be done except for scientific or propagating purposes under permits issued by proper authorities.

1. The close season on migratory game birds shall be between 10th March and 1st September, except that the close of the season on the limicolæ or shorebirds in the Maritime Provinces of Canada and in those States of the United States bordering on the Atlantic ocean which are situated wholly or in part north of Chesapeake bay shall be between 1st February and 15th August, and that Indians may take at any time scoters for food but not for sale. The season for hunting shall be further restricted to such period not exceeding three and one-half months as the High Contracting Powers may severally deem appropriate and define by law or regulation.

2. The close season on migratory insectivorous birds shall continue throughout the year.

3. The close season on other migratory nongame birds shall continue throughout the year, except that Eskimos and Indians may take at any season auks, auklets, guillemots, murres and puffins, and their eggs for food and their skins for clothing, but the birds and eggs so taken shall not be sold or offered for sale.

ARTICLE III—The High Contracting Powers agree that during the period of ten years next following the going into effect of this Convention, there shall be a continuous close season on the following migratory game birds, to-wit:

Band-tailed pigeons, little brown, sandhill and whooping cranes, swans, curlew and all shorebirds (except the black-breasted and golden plover, Wilson or jack snipe, woodcock, and the greater and lesser yellowlegs); provided that during such ten years the close seasons on cranes, swans and curlew in the province of British Columbia shall be made by the proper authorities of that province within the general dates and limitations elsewhere prescribed in this Convention for the respective groups to which these birds belong.

ARTICLE IV—The High Contracting Powers agree that special protection shall be given the wood duck and the eider duck either

(1) by a close season extending over a period of at least five years, or (2) by the establishment of refuges, or (3) by such other regulations as may be deemed appropriate.

ARTICLE V—The taking of nests or eggs of migratory game or insectivorous or nongame birds shall be prohibited, except for scientific or propagating purposes under such laws or regulations as the High Contracting Powers may severally deem appropriate.

ARTICLE VI—The High Contracting Powers agree that the shipment or export of migratory birds or their eggs from any State or Province, during the continuance of the close season in such State or Province, shall be prohibited except for scientific or propagating purposes, and the international traffic in any birds or eggs at such time captured, killed, taken, or shipped at any time contrary to the laws of the State or Province in which the same were captured, killed, taken, or shipped shall be likewise prohibited. Every package containing migratory birds or any parts thereof or any eggs of migratory birds transported, or offered for transportation from the Dominion of Canada into the United States or from the United States into the Dominion of Canada, shall have the name and address of the shipper and an accurate statement of the contents clearly marked on the outside of such package.

ARTICLE VII—Permits to kill any of the above-named birds which, under extraordinary conditions, may become seriously injurious to the agricultural or other interests in any particular community, may be issued by the proper authorities of the High Contracting Powers under suitable regulations prescribed therefor by them respectively, but such permits shall lapse or may be cancelled, at any time when, in the opinion of said authorities, the particular exigency has passed, and no birds killed under this article shall be shipped, sold, or offered for sale.

ARTICLE VIII—The High Contracting Powers agree themselves to take, or propose to their respective appropriate law-making bodies, the necessary measures for insuring the execution of the present Convention.

ARTICLE IX—The present Convention shall be ratified by His Britannic Majesty and by the President of the United States of America, by and with the advice and consent of the Senate thereof. The ratifications shall be exchanged at Washington as soon as possible and the Convention shall take effect on the date of the exchange of the ratifications. It shall remain in force for fifteen years, and in the event of neither of the High Contracting Powers having given notification, twelve months before the expiration of said period of fifteen years, of its intention of terminating its operation, the Convention shall continue to remain in force for one year and so on from year to year.

In faith whereof, the respective Plenipotentiaries have signed the present Convention in duplicate and have hereunto affixed their seals.

Done at Washington this sixteenth day of August, 1916.

(L.S.) CECIL SPRING-RICE.

(L.S.) ROBERT LANSING.

## APPENDIX II

### The Northwest Game Act

(7-8 George V, chap. 36; assented to Sept. 20, 1917)

**HIS MAJESTY** by and with the advice and consent of the Senate and House of Commons of Canada, enacts as follows:

1. This Act may be cited as *The Northwest Game Act*.
2. In this Act and in the regulations, unless the context otherwise requires,—
  - (a) "Minister" means the Minister of the Interior;
  - (b) "Game Officer" means a game officer appointed as such under or by the provisions of this Act or the regulations;
  - (c) "Game Warden" means a game warden appointed as such under the provisions of this Act or the regulations;
  - (d) "Game" means and includes all wild mammals and wild birds protected by this Act or by any regulation, and the heads, skins, and every part of such mammals and birds;
  - (e) "Close season" with respect to any kind of game means the period during which the hunting, killing, destroying, injuring, trapping, taking, capturing, selling, trading in or molesting of such kind of game is prohibited or restricted by this Act or by any regulation;
  - (f) "Open season" with respect to any kind of game means the period during which such kind of game may be hunted, killed, destroyed, trapped, taken, captured, sold, traded in or possessed;
  - (g) "Regulation" means any regulation made by the Governor General in Council under the authority of this Act;
  - (h) "Northwest territories" means the Northwest territories formerly known as Rupert's land and the Northwestern territory (except such portions thereof as are included in the provinces of Ontario, Quebec, Manitoba, Saskatchewan and Alberta, and Yukon) together with all British territories and possessions in North America and all islands adjacent thereto not included within any province except the colony of Newfoundland and its dependencies.
3. This Act shall apply to the Northwest territories.
4. (1) Except as hereinafter provided, the following shall not be hunted, trapped, taken, killed, shot at, wounded, injured or molested in any way during the following times of year respectively:
  - (a) Moose, deer and mountain goat, between the first day of April and the first day of September;
  - (b) Caribou and mountain sheep, between the first day of April and the first day of August, and between the first day of October and the first day of December;



- (c) Mink, fisher and marten, between the fifteenth day of March and the first day of November;
- (d) Otter and beaver, between the fifteenth day of May and the first day of October;
- (e) Muskrat, between the fifteenth day of May and the first day of October;
- (f) White fox, between the first day of April and the fifteenth day of November;
- (g) Partridge, prairie chicken, ptarmigan and other species of grouse, between the first day of January and the first day of September;
- (h) Wild geese and wild duck, with the exception of eider duck, between the fifteenth day of December and the first day of September.

(2) Except as hereinafter provided, no eggs in the nest of any of the said birds or in the nest of any other species of wild fowl, shall be taken, destroyed, injured or molested at any time of the year.

(3) Notwithstanding anything contained in subsections one and two, the game therein mentioned may be lawfully hunted, taken or killed, and the eggs of birds therein mentioned may be lawfully taken, by Indians or Eskimos who are *bona fide* inhabitants of the Northwest territories, or by other *bona fide* inhabitants of the said territories, and by explorers or surveyors who are engaged in any exploration, survey or other examination of the country, but only when such persons are actually in need of such game or eggs to prevent starvation.

(4) Except as hereinafter provided, buffalo or bison shall not be hunted, trapped, taken, killed, shot at, wounded, injured or molested at any time of the year.

(5) Except as hereinafter provided, musk-ox and wapiti or elk shall not be hunted, trapped, taken, killed, shot at, wounded, injured or molested at any time of the year, except in such zones and during such period as the Governor in Council may prescribe.

(6) Except as hereinafter provided, white pelicans shall not be hunted, trapped, taken, killed, shot at, wounded, injured or molested at any time of the year.

(7) Except as hereinafter provided, the following shall not be hunted, trapped, taken, killed, shot at, wounded, injured or molested in any way:

(a) Wild swan, until the first day of January, one thousand nine hundred and twenty-eight.

(b) Eider duck, until the first day of January, one thousand nine hundred and twenty-three.

(8) Notwithstanding the provisions of subsections one, two, four, five and six, the Minister or any officer or person authorized by him, may issue a permit to any person to take or kill at any time such mammals and birds, or take the eggs or nests of birds, for scientific or propagation purposes.

(9) Excepting a native-born Indian, Eskimo or halfbreed, who is a *bona fide* resident of the Northwest territories, no person shall engage in hunting, trapping, or trading or trafficking in game, without first securing a license so to do.

(a) The fees for such licenses when issued to a *bona fide* resident of the Northwest territories shall be:—

For hunting and trapping, two dollars.

For trading or trafficking, five dollars.

(b) The fees for such licenses, when issued to non-residents of the Northwest territories, shall be fixed by the Governor in Council.

(10) The Governor in Council may make regulations—

(a) Regulating or prohibiting the use or possession of poison, ammunition, explosives, traps, snares, spring-guns, firearms and other implements, appliances and contrivances for hunting, killing, taking, trapping, destroying or capturing game: Provided that such prohibition shall not apply to such types of guns, rifles, traps and ammunition as are now in common use;

(b) permitting the hunting, killing, taking, capturing or trapping of specimens of game for scientific or propagation purposes;

(c) governing the issue of licenses and permits, and prescribing the terms and conditions thereof;

(d) authorizing the appointment by the Minister of game officers and game wardens, and prescribing their duties;

(e) regulating the possession of and transportation of game;

(f) governing the number of mammals and birds that may be killed or taken by any person in one season;

(g) for any other purpose which may be deemed expedient for carrying out the provisions and intentions of this Act, whether such regulations are of the kind enumerated or not.

(11) Any regulation made under the provisions of this section may be made to apply to the whole or any part of the Northwest territories.

5. No one shall enter into any contract or agreement with or employ any Indian, Eskimo, or other person, whether such Indian, Eskimo, or other person is an inhabitant of the country to which this Act applies or not, to hunt, trap, kill, or take game contrary to the provisions of this Act or a regulation; or to take, contrary to the provisions of this Act or a regulation, any egg, nest or part thereof.

6. All members of the Royal Northwest Mounted Police, and the sub-collector of Customs at Herschel island, shall be ex-officio game officers.

7. (1) Any game officer, when he considers it necessary so to do, may appoint a constable or constables to apprehend any person who has done, or who he has reason to believe has done, anything in contravention of any of the provisions of this Act or the regulations.

(2) Such constable shall, upon apprehending such person, arrest him and bring him for trial before the nearest justice of the peace, together with any game, eggs or nests, or parts thereof, protected by this Act or a regulation, found in the possession of such person at the time of his apprehension.

8. No person without lawful excuse, the proof whereof shall lie on him, shall buy, sell or have in his possession any game, or the nests, or eggs of any wild bird, or any part thereof, during the close season.

9. (1) All guns, ammunition, traps, boats, skiffs, canoes, punts and vessels of every description, horses, dogs, wagons, sleighs, and other outfits, decoys, and appliances, and materials of every kind, used in violation of or for the purpose of violating this Act or any regulation, may be seized upon view by any game officer or game warden, or taken and removed by any person appointed for such purpose by a game officer or game warden, for delivery to a justice of the peace, who may order such chattels to be held pending the payment of any penalty for any offence committed.

(2) (a) Any game taken, caught, killed or had in possession, or any nest or egg or parts thereof taken or had in possession, in violation of this Act or any regulation; and,

(b) any poison, ammunition, explosives, traps, snares, spring-guns, fire-arms, and other implements, appliances and contrivances, the use of which is prohibited under the provisions of this Act;

may be seized on view by any peace officer, game officer or game warden, and shall be forfeited to the Crown.

10. Any game officer, game warden or peace officer who violates this Act or any regulation, or who aids, abets or connives at any violation of this Act or of any regulation, shall be liable upon summary conviction to a penalty not exceeding five hundred dollars and not less than one hundred dollars, or to imprisonment for any term not exceeding six months, or to both fine and imprisonment.

11. Any person who assaults, obstructs or interferes with any game officer, game warden, constable or other peace officer, in the discharge of any duty under the provisions of this Act or of any regulation, shall be guilty of a violation of this Act.

12. Any person who wilfully furnishes false information to a game officer, game warden or peace officer respecting a violation of this Act or of any regulation, the existence of or the place of concealment of any game, nest or egg, or portion thereof, captured, killed or taken in violation of this Act or of any regulation, shall be guilty of a violation of this Act.

13. Any game officer, game warden, constable or other peace officer may enter any place, building or premises, or any ship, vessel, or boat in which he has reason to believe there exists game, nests or eggs or any parts thereof in respect to which a breach of this Act or of the regulations has been committed, and may open and examine any trunk, box, bag, parcel or other receptacle which he has reason to suspect and does suspect contains any such game, nest or egg or any part thereof.

14. Any person found committing an offence against this Act may be arrested on view by any game officer, game warden or peace officer.

15. Every justice of the peace may upon his own view convict for any offence against this Act or a regulation.

16. The killing, taking, trapping or capturing of each mammal or bird, contrary to the provisions of this Act or a regulation, shall constitute a separate offence.

17. Every game officer and every game warden shall before acting take and subscribe to the following oath:—

A. B. , game officer (or game warden), appointed under the provisions of *The Northwest Game Act* and the regulations do swear that to the best of my judgment I will faithfully, honestly and impartially execute and perform the office and duty of such game officer (or game warden) according to the true intent and meaning of *The Northwest Game Act* and the regulations. So help me God.

18. Any person who violates any of the provisions of this Act for which no other penalty is provided, or of any regulation, shall be guilty of an offence and shall be liable on summary conviction to,—

- (a) a fine not exceeding five hundred dollars or less than one hundred dollars, or to imprisonment for any term not exceeding six months, or to both fine and imprisonment, for any offence against subsections four and five of section four;
- (b) a fine not exceeding two hundred dollars or less than fifty dollars, or to imprisonment for any term not exceeding three months, or to both fine and imprisonment, for any offence under subsection nine of section four, or under section eleven;
- (c) a fine not exceeding one hundred dollars or less than five dollars, or to imprisonment for any term not exceeding two months, or to both fine and imprisonment, for any other offence against this Act or a regulation.

19. When because of the distance, or for want of conveyance or communication, or for any other cause, it is not convenient to confine any convicted person in the nearest gaol, or other place of confinement, the convicting authority shall have power to confine such person in any suitable building which is more convenient to the place of trial, and to take all necessary precautions to prevent his escape therefrom.

20. (1) Whenever by this Act it is made an offence to do any act without holding a license therefor, the onus in any prosecution shall be upon the person charged, to prove that he was the holder of the license required by this Act.

(2) In any prosecution under this Act the onus of proof as to his *bona fide* residence in the Northwest territories shall be upon the defendant.

21. Chapter one hundred and fifty-one of the Revised Statutes of Canada, 1906, is hereby repealed.