The Federation of Ontario Naturalists

Publication No. 2

Sanctuaries

and

The Preservation of Wild Life in Ontario

February, 1934

SANCTUARIES

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The Preservation of Wild Life in Ontario

In most civilized countries today sanctuaries are being set aside for the preservation of representative samples of the natural conditions, including the plants and animals, characteristic of those countries. This movement for the preservation of nature as a whole has important points of difference from the 'conservation movement' as ordinarily understood. For years there has been general agreement as to the desirability of conserving forests because of their value in the production of timber and pulpwood; for the conservation of fur-bearing animals and food fish because they supply clothing and food; and for the conservation of insectivorous birds because they devour destructive insects. There is also a wide-spread sentiment for the conservation of game animals, game birds, and game fish, because they provide recreation in the form of hunting and fishing and attract sportsmen to the country; and, more recently, there is developing an appreciation of the value of conserving areas of natural beauty as playgrounds and as tourist attractions.

Safeguarding these elements of nature is frankly based on utilitarian motives and, in general, is deserving of the support of every citizen. But there is a real danger that over-emphasis upon the conservation of a particular form may prove detrimental to the preservation of nature as a whole. Those interested in the increase of one type—whether of bird, or animal, or fish—may, through perhaps well-intentioned efforts, be doing inestimable harm to what would prove of great value to future generations.

The need for nature preservation does not depend only on the economic value of the natural life usually considered worthy of conservation. Few thoughtful persons would wish to have all wild places subdued, all swamps drained, and all deserts irrigated, so that ultimately our country would be a series of vast cities and gardens, with no wild life except those forms that supply us with food, clothing, or sport. From the contemplation of unspoiled nature the artist, the poet, and the lover of outdoors have all drawn thoughts and ideals that have enriched life. So, too, the man in the street who spends his summer

vacation in the north, carries in his memory, or upon the films of his camera, vivid and abiding memories of a moose nibbling lily-pads, the soaring of an eagle, or the rapid plunge of a falcon, memories as satisfying to him as the experience of the poet or artist. Few believe that the inspiration we derive from wild nature are survivals from a more savage stage of existence, and that the more highly socialized man of the future will gather more inspiration from the mad crush of a home-bound street-car crowd than he will from the solemn majesty of unspoiled nature. A pressing duty faces all who believe that nature does mean something worth while to man, for the forces of destruction are at work even in areas which are complacently regarded as sanctuaries.

THREE VIEWS OF NATURE PRESERVATION

At least three classes of our people are interested in the preservation of our wild life: (1) isolated settlers and natives of the north, for whom the wild life is an important element of their livelihood, either as food or on account of the fur produced; (2) sportsmen who hunt and kill wild animals, birds, and fish for pleasure; (3) those who enjoy the contemplation and study of nature for aesthetic, recreational, and educational reasons. The interests of these different elements of our population in the preservation of wild life are to some extent conflicting, but the Federation of Ontario Naturalists believes that it is possible to reconcile the different points of view if a little mutual tolerance is shown. A necessary preliminary to the establishment of such mutual tolerance is that each group should understand the points of view of the others.

THE NATURALISTS' VIEWS ON NATURE PRESERVATION

It is the purpose of the present pamphlet to set forth the views of the Federation of Ontario Naturalists with reference to the preservation of nature. The naturalists are not opposed to trapping and hunting either for food, furs, or recreation. They believe that these are legitimate methods of using our wild-life resources, provided they do not disproportionately curtail the rights of others to enjoy wild life in other ways which are as legitimate as those of trappers and hunters. The wild life of the province, naturalists insist, is the heritage of every

citizen and not the exclusive property of any section of the population.

The naturalists are interested in wild life *in a state of nature,* without the removal of or interference with any creature, great or small. They believe that all animals and plants have their functions in the unity we call nature. It does not follow that naturalists expect that nature will be left alone everywhere, but they do insist that there should be preserved, in various parts of the province, representative areas of the different natural conditions originally existing in the province, and that these should be maintained under absolutely natural conditions.

GAME PRESERVES, PARKS, AND NATURE SANCTUARIES

In Ontario, as in many other parts of the world, areas have been set aside for the purpose of preserving various kinds of wild life. In Ontario such reserves are of two kinds: (1) provincial parks, (2) game preserves. The parks are under the jurisdiction of the Department of Lands and Forests, and the game preserves under the Department of Game and Fisheries. The location of the three provincial parks, the sixty-five provincial game preserves, and the three national parks are shown on the map on page 7.

The total area of the provincial parks is about 4,200 square miles, which is about 1% of the total area of the province; game preserves in Ontario have an area of approximately 4,400 square miles. About 3,800 square miles of this preserved area lies north of the French river; about 600 square miles, therefore, south of it. The average area of a preserve is about 7.1 square miles, but the sizes vary greatly, viz., between 2,000 square miles and a few acres. The average area of those south of the French river is 12.3 square miles, but of the fifty-two included in these figures only five are over this average, and they comprise 500 out of the 600 square miles; the remainder are thus clearly very small. The average area of the thirteen that lie north of the French river is 312.2 square miles, and they range in size from 1,000 square miles to less than one square mile.

There are no nature sanctuaries in Ontario, but several of the game preserves are popularly called and generally believed to be sanctuaries. Some of those to which the name sanctuary is often applied include the Miner Game Preserve, the Dundas Marsh Game

Preserve, and the Peasemarsh Game Preserve. These are all officially known as Crown Game Preserves; in fact, there is no provision under the laws of Ontario for the creation of sanctuaries.

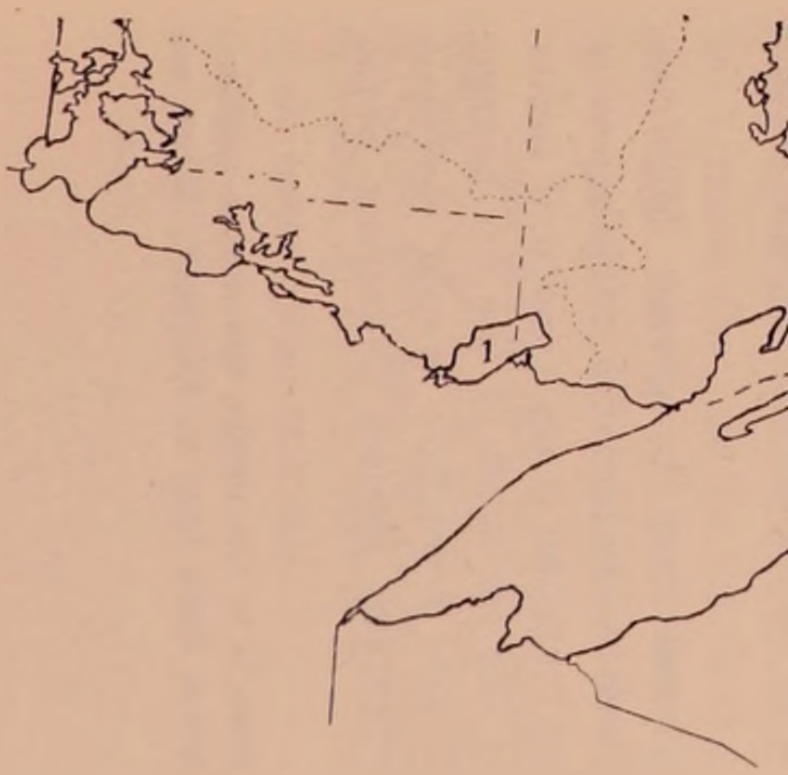
THE ADMINISTRATION OF WILD LIFE IN ONTARIO

Legislation dealing with the wild life of Ontario is very largely dominated by the idea of 'game'. Animals customarily called game have come to be regarded as being endowed with a sacrosanct first claim on life in order that they may later be killed for sport. This distinction is implied very clearly in the wording of some of the orders-in-council governing the setting aside of preserves; therein is forbidden the 'taking or killing of any game, bird or animal'.

This view that game is in a different category from other living things is unjustified scientifically and is unfortunate in its *sequelae*. The emphasis being on game, all protected areas are commonly regarded as game preserves, and since game is to be preserved in them, provision is made for controlling or eliminating animals supposedly inimical to the best interests of that game, i.e., forms collectively described as 'predatory animals or vermin'.

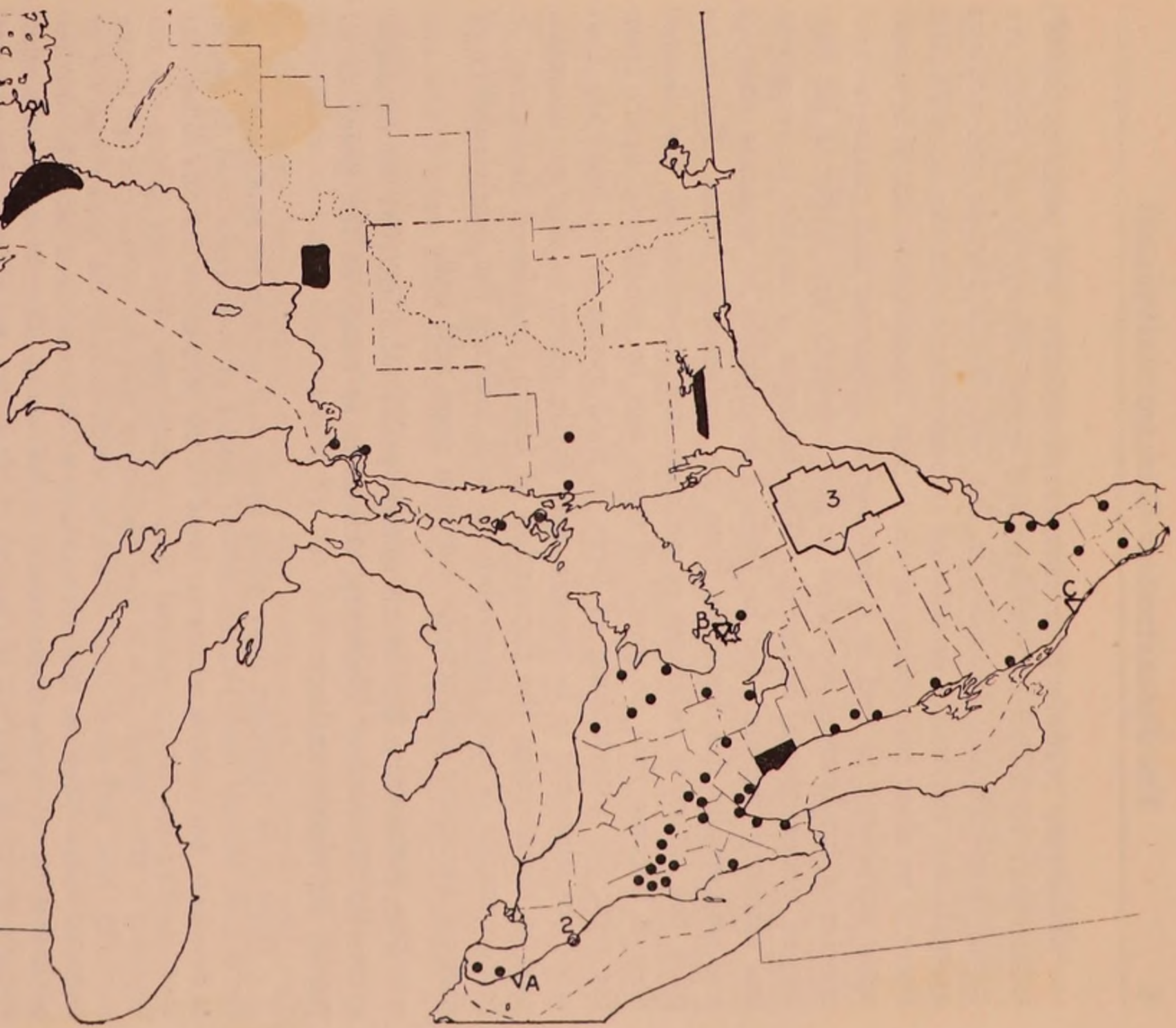
It is here that the confusion involved in the distinction between wild life and game becomes obvious. Sixteen game preserves nominally protect any bird or animal; another thirty protect game only; but in all these forty-six preserves provision is made for the destruction by special permit of 'predatory animals or vermin'. Predatory animals and vermin are nowhere specifically defined, though lists are given here and there in the Act of animals that may be shot; they include groundhogs, red squirrels, hares, rabbits, foxes, skunks, muskrats, and weasels; the Act expressly excludes from protection all hawks and owls.

The regulations relating to the control of the provincial parks are not essentially different. In Rondeau Park, authority may be given for the use in the Park of firearms, explosives, nets, traps, spears, fish-hooks, or lines. In Quetico and Algonquin Parks under special authority, wolves, bears, wolverines, wildcats, foxes, and hawks may be killed. Regulations may be made for cutting timber and for mining. The treatment of the wild life problem is essentially the same in national parks; here, however, a special clause authorizes permission for the collecting of game for scientific purposes, and makes the destruction of game by the Park authorities conditional on expert advice.



Legend for Map

Map of portion of Ontario showing location of three provincial parks:—1. Quetico; 2. Rondeau; 3. Algonquin; sixty-five game preserves in solid black; and three national parks; A. Point Pelee; B. Georgian Bay Islands; C. St. Lawrence Islands.


3
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A

'Noxious, predatory or dangerous animals and noxious birds', which may be killed by wardens and forest officers at any time, are nowhere specifically described in the Act. While vermin and noxious animals are constantly mentioned in regulations relating to wild life, there is no clear conception of what these terms mean, but it is somewhat surprising to find in a number of preserves and parks several species of fur-bearers included in this category and liable to be destroyed under special authority. The biologist is unable to recognize the category 'vermin', for he finds it impossible to separate sharply and universally the desirable from the undesirable forms. The more fully the intimate relations of animals are investigated, the clearer does it become that no group of them can be considered apart from the rest; the interlocking of lives in food cycles is so intricate that what are supposed to be vermin may easily prove to play an essential part in maintaining the population of forms considered desirable. A few examples of such interrelations will indicate the inadvisability of making sweeping distinctions between good and bad.

The Federation has in an earlier publication quoted an example given by Sir Arthur Thomson, which is so much to the point as to justify its repetition here:

> There is an Australian story which reads as if written for man's instruction. On certain Murray river swamps several species of cormorants used to swarm in thousands, but ruthless massacres, based on the supposition that the cormorants were spoiling the fishing, reduced them to hundreds. But the fishing did not improve; it grew worse. It was then discovered that the cormorants fed largely on crabs, eels, and some other creatures which devour the spawn and fry of desirable fishes. Thus the ignorant massacre of the cormorants made for the impoverishment, not for the improvement, of the fishing. The obvious moral is that man should get at the facts of the web of life before, not after, he has recourse to drastic measures of interference.

Another example from nearer home may be given. Mice are probably regarded by nearly everyone as undeniable vermin, or at best of no importance. In areas where trapping is an important industry, however, they are a mainstay of life for most of the fur-bearing animals; their disappearance or material reduction would certainly greatly diminish the numbers of fur-bearers. Ernest Thompson Seton writes of them:

> What moss is to the reindeer, what grass is to the cattle, the mouse millions of the north are to all the northern carnivores from bear to *Blarina**. When we

*The mole shrew.

shall have fully worked out the life history of each of these species, I believe we shall learn that the whole of that vast, beautiful, important and specialized production that we call the Carnivora rests on a broad, simple basis of Muridae,* that in turn rests on the grass, that rests on the earth. We shall for each of these flesh-eaters write 'it sometimes eats this and sometimes eats that, but by far the greatest bulk of its food is mice.'

In the agricultural areas of southern Ontario, as opposed to northern areas which are under more or less natural conditions, mice appear to be definitely undesirable, since they are one of the most important menaces to several field crops. One hundred meadow mice (the common mouse of open agricultural country) eat slightly over a ton of green grass or clover a year; as this is not an unusual number to find on an acre (and a number which can on occasion be easily increased several times), the aggregate damage they do is clearly enormous. By an irony of ignorance it is in these very areas that the destruction of controlling predators, mainly hawks, owls, and weasels, has been carried to an extreme. Mouse plagues in several parts of the world have been definitely traced to the reduction in numbers of their natural enemies in the interests of poultry, pheasants, and the like; this relief from normal control has resulted in damage from mice thousands of times that caused by the loss of a few chickens. It has in fact been demonstrated that on the average each hawk and owl. far from being a liability, is worth to the farmer over whose land it hunts between $15 and $20 a year.

It is granted, of course, that any bird or animal that takes to raiding the poultry yard must be destroyed; this is, however, quite a different thing from killing all animals or birds of that kind wherever they are found. An occasional dog takes to harrying sheep, and thus becomes liable to destruction; but we do not on that account change our opinion that on the whole dogs are useful to man. It is no more reasonable to attempt to exterminate a wild species of which a few representatives have interfered with man's immediate interests.

These examples, which could be supplemented, indicate that the dictinction between game and vermin cannot be maintained; that the exclusive emphasis on game, even from the point of view of its conservation, is wrong; that it is impossible to consider game rationally apart from other animals.

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*Mice.

CONSERVATION OF GAME AND FUR-BEARING ANIMALS

If our resources of game and fur-bearing animals are to be maintained as a permanent asset, it is imperative that measures affecting them should be based on scientific knowledge of the food habits, the populations, the rate of increase, etc., of the different commercially-important animals. Even at present a considerable bulk of pertinent information is available, and an advisory and consultative committee of competent naturalists could be very useful.

The necessity of greatly increasing our knowledge of the habits of wild animals, game and otherwise, has not yet been widely recognized. As has been indicated above, a confusion exists which can only be cleared up in the light of further knowledge. Much is already known about the general nature of the problems, but it is clear that further intensive investigation into the 'sociology and economics of animals' is needed before legislation can be placed upon a thoroughly rational basis.

Such investigations are concerned mainly with the population of animals, and especially with the periodic changes in numbers that are coming to light in the lives of more and more species. A well-known example is afforded by the lynx and the snowshoe rabbit. The numbers of snowshoe rabbits in any area vary between wide extremes with great regularity. A short time of great abundance will suddenly give way to an extreme rarity, from which again, during seven or eight years, a new peak of abundance will be gradually built up. The curve of abundance of the lynx follows that of the rabbit with a slight lag. The connection is that the rabbit is the main food of the lynx, and in times of rabbit scarcity the lynx dies of starvation. Its abundance is determined by the rabbit, not *vice versa;* if the lynx was exterminated, it would not ensure a perpetual abundance of rabbits, for in districts where lynx do not occur, the fluctuations of the rabbit go on.

Similar fluctuations are being discovered for other animals, e.g., wild mice; and in some parts of the world a connection has been established between the abundance of mice and the abundance of foxes, which feed largely on them. If information were available in the province, so that we could foretell coming abundance or scarcity in a particular species of animal, regulations for its exploitation and conservation could be framed so as to permit the maximum use with the minimum danger to the future well-being of the species.

The rhythm of these fluctuations varies from three years to eight years or more, and, since they cannot be hurried, periods that cover at least three complete rhythms are needed to determine them completely. At present there is no place in the province where even a ten-year investigation could be started in the reasonable certainty that no drastic man-made change of conditions would not occur before its conclusion.

AESTHETIC AND EDUCATIONAL ASPECT OF NATURE PRESERVATION

The aesthetic and educational aspect has received altogether too little attention in Ontario. In failing to make provision for this phase Ontario is backward compared with most countries, where it is actively recognized that no people can be considered civilized that does not admit the cultural necessity of keeping at least a sample of the wild animals indigenous to the country in as nearly as possible a natural state.

These two aspects—the scientific and the educational—involve an outlook very different from the purely monetary one at present dominant in the administration of wild life. The monetary point of view is concerned only with certain kinds of animals; it assumes that there is no interest in animals other than those of commercial value, and it further assumes an unquestioned right to kill without investigation all other animals if they appear to interfere at all with the immediately profitable or sporting forms. Both assumptions are wrong, and there is an increasing feeling that the point of view behind them is essentially selfish.

Many people are interested in non-commercial animals, either on aesthetic or on educational grounds, or simply because they get pleasure from watching animals under natural conditions. It is reasonable to suggest that these people are as fully entitled to have their views considered as are those who regard animals from a purely commercial point of view, since the wild animals of the province are the collective property of *all* the citizens of the province, not of a minority.

The situation may be summed up by saying that every citizen of the province has a right, conferred by possession, to enjoy the wild life of the province in his own way, always provided that in doing so he does not unduly interfere with the enjoyment of others.

SANCTUARIES AS A CONTRIBUTION TO THE SOLUTION OF THE WILD LIFE PROBLEM

The creation of sanctuaries constitutes one of the most important contributions that can be made to the preservation of wild life, not only for aesthetic, educational, and scientific purposes, but from the commercial and sporting points of view as well. Sanctuaries provide reservoirs of game and fur-bearing animals from which they overflow into neighbouring territories. They also offer opportunties for the enjoyment of those who derive pleasure and inspiration from the contemplation of unspoiled nature. In properly preserved sanctuaries there are, moreover, the conditions necessary to the scientist investigating the laws underlying the ceaseless ebb and flow in the numbers of animals found in nature. For such studies undisturbed natural conditions over long periods are an absolute necessity. Only under rigid sanctuary regulations are such undisturbed natural conditions obtainable. Thus all those interested in the preservation of wild life, whether from the commercial, sporting, aesthetic, educational, or scientific point of view, find in the creation of sanctuaries the best means of attaining their several ends.

WHAT IS A SANCTUARY?

One of the original meanings of sanctuary was a sacred place where a fugitive from law or a debtor was secured by mediaeval church-law against arrest or violence. The word sanctuary, therefore, should imply more than reserve. The term should be restricted to those areas where the lives of all wild creatures are secure from human attack or interference. A nature sanctuary should therefore be an area where nature, not certain elements of it only, but *all* nature, is sacred from interference.

AN AFRICAN SANCTUARY

While most countries now have made provision for the reservation of areas of great scenic beauty, and for the preservation of game animals, in relatively few countries has an enlightened public opinion resulted in the creation of real nature sanctuaries. Perhaps in Africa

has such a sentiment most fully expressed itself in South Africa's great Kruger National Park, where lions are given the same protection as any other element of the natural life of the area. The attitude of the people of South Africa in setting aside this unique nature sanctuary is illustrated by the following extract from a pamphlet distributed to tourists visiting the park.

'If you find lions standing or lying in the middle of the road in front of you, it is not necessary to do more than slow down; when you get close they will get up and move to the side out of your way. But don't get within a hundred yards of a lioness with small cubs. She will think you mean to harm them, and may take steps to prevent you from doing so. Stop your car until she has got her cubs away, when she will quickly follow them. Don't forget that if you fire and wound a lion or lioness, you are making unnecessary trouble for yourself. The animal, probably merely curious before, will become indignant and may try to get level with you.' After these 'Hints', the following plea is put in the mouths of the park lions: 'We, the wild animals of the Kruger National Park, appeal for your sympathy and friendship. You have been our bitter enemies for so long that it takes time to make us understand that a new and happier era has begun for us. Do not betray our trust in you.'

It is doubtful whether any park or reserve in North America gives the same consideration to *all* elements of the wild life as is afforded in the Kruger National Park.

STATEMENT OF ECOLOGICAL SOCIETY OF AMERICA ON SANCTUARIES AND RESERVES

A circular prepared by the Ecological Society of America contains the following statement on sanctuaries and reserves:

NATURE SANCTUARIES OR NATURE RESERVES

I. *Meaning and Use of the Term.*

Just what original nature in any area was like from a biological viewpoint is not known and never can be known with any great accuracy. Primitive man, who could not remove the forest or exterminate the animals, is probably properly called a part of nature. At the time of the discovery of America, a scattered population of Indians had locally modified the vegetation, but had not destroyed any of the vegetation types. However, most of the areas which are not available for

reservation as nature sanctuaries or nature reserves were probably not much affected by these primitive men. This is the argument for leaving them out of the picture.

"Nature" and "natural" are purely relative terms and can have significance only as averages, because the outstanding phenomenon of biotic communities is fluctuations in numbers of constituent organisms or reproductive stages of organisms over a period of one to thirty or more years. Thus, a Nature Sanctuary is primarily an area in which these fluctuations are allowed free play.

The term *Nature Sanctuary* has been applied to areas covered by natural vegetation, but not containing all the animal species. In Europe, for example, in some of the nature parks no timber is removed and only persons with serious scientific or other scholarly interest are admitted. The Nature Sanctuaries are surrounded by areas in a less natural state, such as nearly natural forest devoted to growing timber, game production, etc. These surounding lands are called *buffer* areas of partial protection.

In the United States and Canada areas of nearly natural vegetation are larger than in central Europe and fewer of the animals have been lost. It is possible, therefore, to recognize several classes of Nature Sanctuaries in North America.

II. *Classes of Nature Sanctuaries.*

The categories below are arbitrary and merely for the purpose of providing provisional estimation of ranking. The classification of each area should be determined by a committee of competent naturalists.

1. First Class Nature Sanctuaries.
   Any area of original vegetation, containing all the animal species historically known to have occurred in the area (except primitive man), and thought to be present in sufficient numbers to maintain themselves, is suitable for a first class Nature Sanctuary.

2. Second Class Nature Sanctuaries.
   A. Second growth areas (of timber) approaching maturity, but conforming to the requirement of No. 1.
   B. Areas of original vegetation from which not more than two important species of animal are missing.

3. Third Class Nature Sanctuaries.
   Areas modified more than those described under No. 2.

III. *Other Terms and their Meanings in Common Usage.*

1. *Nature Sanctuary*—This emphasizes not only the stationary (floral) elements but also the motile (faunal) elements. It necessitates buffering and non-interference by man.

2. The only synonym for Nature Sanctuary that has been suggested is *Nature Reserve.*

3. *Research Reserve* (U.S. National Park Service sense) means Nature Sanctuary, as the areas are selected to represent the primitive biological condition and admission is by permit only. The U.S. National Park Service appears to be working toward a three-zone plan: (a) a zone of development which is a small portion of the park devoted to hotels, camps, etc.; (b) the greater portion of the park open to the public and traversed by trails and roads (in many cases these areas may serve as second or third class Nature Sanctuaries); and (c) Research Reserves open to the public only by permit.

4. *Natural Area* (U.S. Forest Service sense)—This emphasizes the stationary elements of nature, hence is primarily floral.

5. *Buffer Area* is a region surrounding a Nature Sanctuary in which the biotic community, especially the vegetation, is only slightly modified by man. It is a region of partial protection of nature and may be zoned to afford suitable range for roaming animals under full protection.

6. *Research and Experimental Area*—This usually implies modification and management of some of the biological elements.

7. *Primitive Area* (U.S. Forest Service sense)—This is defined as an area in which human transportation and conditions of living are kept primitive. Some of the areas are to be cut over periodically.

8. *Wilderness Area*—This is defined essentially as in *primitive area.*

NATIONAL PARK STANDARDS IN THE UNITED STATES

There is a strong sentiment in favour of making the national parks of the United States more nearly nature sanctuaries than they are at present. This is indicated by the following extracts from the declaration of policy with reference to national park standards. This declaration has been adopted or endorsed by nearly forty organizations, including the National Parks Association, the Camp Fire Club of America, American Nature Association, and American Game Protective Association.

Natural Parks are spacious land areas essentially in their primeval condition and so outstandingly superior in quality and beauty to average examples of their several types as to demand their preservation intact and in their entirety for the enjoyment, education and inspiration of all the people for all time. It follows:

That the area of each park must be a logical unit, embracing all territory required for effective administration and for rounding out the life zones of its flora and fauna.

That each park area shall be a sanctuary for the scientific care, study and preservation of all wild plant and animal life within its limits, to the end that no species shall become extinct.

That wilderness features within any park shall be kept absolutely primitive.

That the existence of the parks is justified and insured by the educational and spiritual benefits to be derived from contact with pristine wilderness.

That parks must be kept free from all industrial use, and that sanctuary, scientific and primitive values must always take precedence over recreational or other values.

In administering national parks and keeping the system up to standard, it is important:

That scientific, educational and inspirational values dictate the major uses of parks.

That cultivation of crowds for the sake of records or profits, and the introduction of the pleasures of ordinary roadside and mountain resorts be regarded as a violation of National Park Standards.

That scientific administration be applied to the maintenance of every park standard, and particularly to the preservation of wilderness, wild-life and geological features.

That roads be developed in each National Park only for the purpose of protection and to bring the public in touch with the principal features of the park. In no case should they be built where they would in any way impair natural features. Wilderness and sanctuary areas should be reached by trail only,—such areas to remain undeveloped.

That airplane landing fields, as in the case of railroad stations, be located outside park boundaries. They should be considered only for the needs of inter-park flights. Flying across national park areas should be closely regulated.

That any park buildings be as unobtrusive as possible, harmonizing with their surroundings. They should be erected only where necessary for the protection of the parks, and the comfort of the public, and at the locations where they will least interfere with natural conditions.

That concessions be granted only for such business as is necessary for the care and comfort of visitors, and then in definitely localized areas. Such concessions should not interfere with the rights of individuals under park rules to provide for themselves while visiting the parks.

That recreational use of any park be confined to roads, concentration locations, and trails so chosen as to interfere as little as possible with major uses and not at all with the rights of future generations to enjoy nature unmodified.

THE ROYAL CANADIAN INSTITUTE URGES THE CREATION OF NATURAL LIFE-SANCTUARIES IN ONTARIO

The following resolutions with reference to the need for establishing natural life-sanctuaries in Ontario were adopted by the council of the Royal Canadian Institute on February 1st, 1934:

1. The Royal Canadian Institute hereby places itself on record as recognizing the importance of setting aside a number of natural life-sanctuaries in various parts of Ontario.

2. Such natural life-sanctuaries are needed to insure the preservation of all the various types of animal and plant communities in Ontario.

3. The preservation of such areas is desirable for scientific as well as for aesthetic reasons. Certain types of ecological studies of great economic as well as scientific importance require for their success that the conditions under which they are carried out shall remain undisturbed over long periods of years.

4. Each natural life-sanctuary should be large enough to allow as many of the native plants and animals as possible—preferably all of them—to live their complete lives, undisturbed, within the limits of the sanctuary.

5. Sanctuaries of the type here considered should if possible be located within provincial parks. Since these parks are subject to a certain amount of human interference, they cannot, in their entirety, be considered as meeting the requirements of natural life-sanctuaries, but since conditions in them are only slightly modified by man they make excellent buffer areas for natural life-sanctuaries.

6. Since it is desirable to preserve samples of as many types of original Ontario plant and animal communities as possible, it is urged that natural life-sanctuaries be set aside in each of the following areas: Algonquin Park, Quetico Park, Rondeau Park, Temagami Forest Reserve and the Georgian Bay area.

7. Although areas reserved as natural life-sanctuaries should not be open to the public as provincial parks are, provision under permit should be made for the entrance of biologists and other visitors having special reasons for wishing to observe animals and plants under undisturbed natural conditions.

8. To emphasize the distinction between natural life-sanctuaries and other reserved areas such as provincial parks and to insure their preservation and administration essentially for scientific purposes, it is recommended that such sanctuaries be placed under the control of universities, museums or properly qualified scientific societies.

9. The Royal Canadian Institute further urges the government to appoint an honorary consultative board made up of representatives of university biologists, naturalists' societies and sportsmen's organizations to act in an advisory capacity in matters affecting the administration of the wild life of Ontario.

RECOMMENDATIONS OF THE FEDERATION OF ONTARIO NATURALISTS

To ensure the preservation of adequate samples of the wild life of Ontario the Federation of Ontario Naturalists urges:

(1) The creation of additional provincial parks.

(2) The management of provincial parks as wild life sanctuaries rather than as game preserves.

(3) The setting aside within each provincial park of areas to be left under absolutely undisturbed natural conditions.

(4) The appointment of an advisory wild-life board composed of trained biologists, of naturalists, and of sportsmen.

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NOTE

Any club may become affiliated with the Federation of Ontario Naturalists by a declaration of adherence to its Basic Principles and the payment of a fee of $3.00. Individual naturalists and others may become members by application and the payment of a fee of $1.00. The Executive Committee wish to draw attention to the fact that *only by the active support of all well-wishers* can the Federation attain its objects. Donations, large or small, to assist in carrying on its work will be gratefully accepted. Please address all communications to the Secretary-Treasurer, whose address is given above.