



# THE ROYAL BANK OF CANADA MONTHLY LETTER

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## *Conserving Canada's Wildlife*

MODERN MAN, doubling his population every fifty or sixty years and carrying his technology into all parts of the earth, is a menace to wildlife everywhere.

The expansion of cities, the ever-increasing demand for electric power dams, the use of poisonous chemicals in agriculture and industry, the harvesting of forests, and the increased leisure time that sends millions of people into wildlife territory seeking to enjoy nature: all these impose heavy pressure on wild animals.

Man's family album, if carried back just a few thousand years, would show him pictures of himself resembling the photographs we take of creatures we now call "wild". For ninety-nine per cent of his time on earth man was a food gatherer like the wild creatures of today, and only for one per cent has he been a producer.

Destruction of life is irreversible. The machines that men make are invented, contrived and built in a few weeks or months and if they are destroyed they can be replaced. Wild animals were millions of years in the making. The forces that shaped the earth moulded their form. They were sorted and discarded, modified and improved, until they reached the stage of adaptation that makes them fit for the age of the world in which they live.

Canada is in a special relationship with nature. She is known throughout the world for the wealth and variety of her wildlife. She has an estimated 100,000 different kinds of animals living in a state of nature. These include 193 species of mammals, 518 species of birds, 82 species of amphibians and reptiles, and 770 species of fish.

### *Extinct or vanishing*

When conversation turns to destruction of wildlife we are likely to grieve over what is happening in far-away lands.

Jean Dorst, Curator of the Division of Mammals and Birds in the National Museum of Natural History, Paris, has written a book called *Before Nature Dies*, translated into English and published by Houghton

Mifflin in 1970. He traces man's assault on nature by continents, revealing "the thoughtless pillage of a world exploited by men who were dazzled by wealth and foolish enough to consider it inexhaustible."

North America provides one of the most tragic examples. In addition to the changes made in the environment, to which wild creatures could not adapt, "there was also a will to destroy, to eradicate wildlife, which has no equivalent in European history." We have lost more species in the last hundred years than Europe has lost in a thousand years.

Pierre de Charlevoix, a great French-born historian, teacher and explorer, wrote in his *Journal* in 1663: "When we discovered this vast continent it was full of deer and beasts of the chase: but a handful of men have within a single age found means to make them almost entirely disappear, and there are some species of them entirely destroyed."

Three species of bird, the great auk, Labrador duck, and passenger pigeon are extinct, and the Eskimo curlew and the whooping crane have tottered on the brink of extinction for some years. The wild turkey, formerly found in southern Ontario, disappeared as its habitat was destroyed.

The most pitiful example is that of the passenger pigeon. Its numbers were so great that trees collapsed under the weight of perching birds. Now the ivory-billed woodpecker, last seen in Texas in 1967, appears to have joined the passenger pigeon in oblivion. When we say "extinct as the dodo" we should add: "which was a bird as defenceless as the baby seal. It was clubbed to death and disappeared about 1680."

Some mammals are rare or endangered, due mainly to a combination of destruction of their habitat and excessive hunting pressure. The Arctic hare has become rare in Newfoundland. The Northern kit fox is almost extinct; hunting and poisoning have made the Vancouver Island wolf rare, and the black-footed ferret is on the verge of extinction.

### *What is to blame?*

In a parade protesting the killing of wild animals

by pollution, a girl carried a banner reading: "We have met the enemy . . . and he is US."

Primitive man destroyed environment, it is true, but never with the irresponsible destructiveness that marked the settlement of North America and continues to this day. There is a passion abroad that reminds us of what Satan says in Milton's *Paradise Lost*: "Only in destroying I find ease to my relentless thoughts."

We bulldoze trees out of our way, divert streams and dam rivers; we irrigate thousands of acres and concurrently drain shallow wet lands; we take prime land out of production and upset the diverse natural system; we pile up wastes on land, dump sewage and noxious chemicals into rivers, and vent gases and soot into the air. All of this poisons the living system.

Misuse of our clever inventions adds to the disturbance. Wilful or accidental harassment by aircraft is having serious detrimental effects on moose in the far north. It increases the incidence of broken bones, and exhausts and disperses the herds, making them more susceptible to attack by wolves.

Forest and brush and grass fires, started by men to clear land or by careless use of matches are deadly enemies of wildlife. They reduce fawning space, destroy food plants, disturb nesting areas, interrupt breeding activities, and leach ashes into lakes and streams.

Even our curiosity to learn about nature can be pushed too far. Cavalcades of station wagons used to carry people into the Everglades wilderness to see the last remaining flocks of roseate spoonbills . . . but they frightened the birds into leaving their rookeries. The refuge has been closed to visitors.

Chemical eradication of weed and insect pests presents a serious threat to wild animals. The thought of an aboriginal hunter crouching near a water-hole with his bow and his poison-tipped arrows makes us shudder, but we accept without raising an eyebrow the airplane that sprays the landscape with poison, destroying mammals, birds, fish, and a host of useful insects while aiming at a few pests.

Rachel Carson said: "It is ironic to think that man may determine his own future by something so seemingly trivial as the choice of his insect spray."

Pesticides were developed in response to a practical need, and wisely used they have done much to improve agriculture, protect forests, and add comfort to our way of life. But too often an operation is done ahead of research.

All hawks, eagles and owls in Canada are in danger, said J. S. Tener in a report entitled "Vanishing Species in Canada". Being flesh eaters they acquire and accumulate the pesticide residues that are picked up by their prey. The eastern race of the peregrine falcon is now probably extinct.

The Government of Canada has taken note of the danger, and has restricted by ninety per cent the amount of DDT used in Canada. The National

Research Council of Canada is probing pollution so as to establish standards to be set by the authorities charged with regulation of pollutants.

### *Merely an episode?*

Is it permissible to accept today's destructiveness as only a punctuation mark, a comma or a semi-colon, in the story of man's advancement?

During the past centuries the human race has entered a new kind of life. It has developed through the hunting and agriculture-handicraft stages into one of machines and computers, just as the caterpillar turns into a chrysalis and then into a butterfly. The butterfly cannot be held responsible for what it did as a caterpillar, and punished retroactively, but let it look to it that it behaves well in its new role.

His cult of the machine has enabled man to reach a high standard of living, but an excess might prove fatal. There are found in the bogs of Ireland skeletons of the Irish elk, which developed antlers so large that it could not reach its food, and so became extinct.

*Homo faber*, which is the official name for man the maker of things, has become so enamoured of his technology that he has become forgetful of his animal structure. Only a just balance with nature can assure his subsistence and the spiritual happiness to which in his better moments he aspires.

One of the difficulties about promoting the conservation of wildlife is that one cannot put a dollar sign in front of a bird song, the ballet-like grace of a Rocky Mountain big-horn on a cliff side, or the beauty of a rainbow trout lazing below a waterfall. Hopefully, the Canadian Wildlife Service, a branch of a Government department, says in one of its booklets: "Interest in wildlife for its beauty and grace and novelty alone is growing and is a factor that cannot be dismissed in any assessment of wildlife's value to our economy."

There are more than a million hunters in Canada who spend a hundred million dollars annually in pursuing their sport. Some of them do not always understand or appreciate the restrictions imposed by biologists who have studied the animals' ecological requirements. The sport can be a normal and legitimate exploitation of a natural resource, but it needs to be regulated so as to exclude persons who are wantonly destructive.

### *Conservation starts at home*

Most Canadians would like to play their part in conserving wildlife, and everyone has the opportunity. Conservation is not confined to the wide open spaces or the vast forests seen in television wildlife programmes. It starts in every suburban garden and in every farmer's field and in every stream. There are big and small wild creatures everywhere.

Here is a list of the wildlife population of Metropolitan Toronto given in the *Ontario Fish and Wildlife Review*. Among the mammals: mink, muskrat, squirrel, skunk, raccoon, white-tailed deer, coyote, groundhog, cottontail, European hare, flying squirrel, bat and weasel. Game birds include ring-necked pheasants, Canada geese and many species of ducks. There are song birds too numerous to list. Among the fish are pike, bass, smelts and suckers.

A lot of small conservation projects will supplement the national and provincial sanctuaries. All that is needed is to provide a combination of soil, water and plants where the wild creatures can live.

Fairy rings, supposed to be made by dancing fairies, left without disturbance by the plow, are havens for small animals in Ireland. Many farmers in Canada leave uncultivated strips along their fence lines and in the corners.

An interesting little booklet entitled *Wildlife Land Management*, written by Vernon P. Husek, has been issued by the Fish and Wildlife Branch of the Ontario Department of Lands and Forests, Toronto. In its 22 pages it describes and illustrates what can be done by land owners for the preservation of wildlife.

Hedges play an important part in the existence of small animals and birds, particularly if they include some fruit bushes. Trees and shrubs provide shelter and refuge and the privacy that wild creatures desire.

To take even a small part in providing for wildlife is to bring conservation down out of the clouds where it is so often obscured, and to help to make the world a better place for humans to live in. Conservation is not merely preserving life for future generations, but something also for here and now. Every moment of every day we are affected by what is around us, and our lives become enriched when we pay attention to it.

Some people speak ill of the evangelistic ardour of conservationists, but missionary zeal is needed to offset the dismal history of wildlife destruction if man is to be saved from the results of his own folly. It is not desired to lock up and preserve all resources that are left, but to *conserve*, which means allowing the use of a renewable resource without impairing its ability to reproduce itself.

### *Canadian Wildlife Service*

The Canadian Wildlife Service and the provincial agencies are the trustees of Canada's wildlife. They are moving in a positive way to preserve wildlife. Outside the national parks, wildlife, with the exception of migratory birds, is the legislative responsibility of the provincial and territorial governments.

Besides its work with migratory birds the Wildlife Service advises other federal agencies on wildlife in federal areas, and the territorial governments on wildlife in the Yukon and Northwest Territories. It offers research services to the provinces on request.

In 1966 it began a programme of scholarships of \$1,200 each to assist graduate students in various fields of wildlife biology. Federal-provincial wildlife conferences are held annually.

If the governmental activities were participated in and supported by a union of the thousand and one private conservation organizations it would be a beneficial move. The Task Force on Ecological and Environmental Factors, Mid-Canada Foundation, has proposed that an agency be formed, with authority to oversee the implementation of environmental protection programmes and the responsibility for continuing public education.

### *Wildlife management*

It is not enough to leave wild creatures to fend for themselves. Men are encroaching upon the places where they live, changing them beyond the power of wildlife to cope.

The main objective of Canadians concerned with the future of wildlife is that it should be managed properly as a renewable natural resource. That management must be based upon sound biological principles.

Wildlife cannot continue to contribute to our way of living unless we set aside adequate living space for it. The alteration or destruction of habitat is more subtle than shooting, but just as deadly. When a plan to change the use of land or to build a road or a pipeline is in the making, a thought should be given to wildlife in its vicinity. A small modification in construction or location can perhaps ensure the future welfare of wildlife without appreciable economic loss.

Wild creatures do not ask us for much: a handful of essential foods, an assured water supply, and a safe refuge or cover.

In 1969 there came into being the Mid-Canada Foundation, designed to establish a level of long-range planning to Canada's mid-north. Its policy and programme, like those of the Canadian Wildlife Service, are designed to translate national concern about wildlife into guidelines for co-ordinated action by Canada and the provinces.

Also under way is the Canada Land Inventory, a comprehensive survey of present land use and its capability for various purposes, including agriculture, forestry, recreation and wildlife. This is a co-operative federal-provincial operation. The vast amount of information obtained will be stored on computer tapes to become a working tool in resource planning and in rural development plans. Maps on land capability have been published and may be purchased from Information Canada.

### *Parks and sanctuaries*

In 1887 a bird sanctuary, the first on the continent,

was established at Last Mountain Lake in Saskatchewan. Today the Canadian Wildlife Service administers 94 migratory bird sanctuaries throughout Canada, and there are sanctuaries administered by Ducks Unlimited, the Jack Miner Foundation, and scores of other agencies.

To naturalists it is most important that reserves should be under effective control to prevent modification of the habitat or disturbance of the animals using them.

Canada has provincial parks and national parks. The provincial parks, totalling 76,051 square miles, are of five kinds: primitive, preserved from resource exploitation and sophisticated resort development; wild river parks, protected from incompatible land and water uses; natural environment parks, landscapes of outstanding aesthetic or historic significance, protected from resource use that would conflict with recreation and education; recreation parks, where the environment may be substantially modified for human use; and nature reserves for scientific and educational use, where public access is only permitted if it will not be detrimental.

An effort is being made to protect natural parks from human erosion. For example, some provinces prohibit or restrict the use of snowmobiles where there are fragile ecological or geological areas. The coursing of snowmobiles can easily break off the tops of young seedlings. Irresponsible drivers can damage water fowl habitat, and Ontario has documented examples of sadistic hunting in which animals have been run under the snowmobile tracks. Other all-terrain vehicles, dune buggies and motorcycles, are invading wilderness areas in increasing numbers.

### *"To preserve for all time"*

Canada's twenty-four national parks add up to 30,000 square miles.

The purpose of a national park is to preserve for all time the most outstanding and unique natural features of Canada. They are dedicated forever to one use — to serve as sanctuaries of nature for rest, relaxation and enjoyment. No exploitation of resources for any other purpose is permitted.

Robert Scharff wrote in *Canada's Mountain National Parks*: "Most visitors to Canada's mountain parks have two main objectives: first, to view the magnificent scenery, and, second, to see the wildlife that animates the scenery." In most parks, the public has access to wildlife habitat under public control to watch, study or photograph the animals. Public appreciation of nature is encouraged through provision of nature trails and guides who are naturalists; nature museums, movie and slide shows, lectures, and other interpretative activities.

Those who administer parks, both national and provincial, are under constant pressure to open up

parts of them for permanent and transient housing and for the establishment of commercial enterprises.

The government's policy statement of 1964 forbidding exploitation of parks that would lessen their scope as sanctuaries of nature provided the administrators with the armament needed to prevent the parks being turned into recreational honky-tonks as have been so many in other countries.

### *Wildlife has rights*

Nature's children are all straightforward creatures with very simple intentions. There is nothing vulgar in nature. People, too, need to practise outdoor manners.

When primitive tribes hunted game to satisfy their basic wants, they almost always entertained beliefs that involved respect for the animals they sought. When today's people intrude into an environment belonging to the native animals they cannot do less than respect them. Courtesy is part of the Canadian creed, and it is a small thing to ask that it be extended to humble fellow-creatures.

Perhaps animals, as well as humans, deserve to have a Bill of Rights. Ernest Thompson Seton, Naturalist to the Government of Manitoba and author of many books, wrote in *Wild Animals I Have Known* (1898): "Since, then, the animals are creatures with wants and feelings differing in degree only from our own, they surely have their rights."

To see that they are given these rights is the obligation of human beings, the dominant species. The fact of our superiority imposes special responsibilities. Man was given "dominion over the fish, fowl, cattle and every creeping thing", and he was told to dress his Eden and to *keep* it.

Aside from the personal ethical reasons for discharging our stewardship of life with compassion, there are survival reasons against upsetting ecological balances deliberately or thoughtlessly. Nature is something existing in its own right, demanding our respect and attention; it is also something imperative to our enjoyment of life.

To carry out our responsibilities well we need an intellectual re-conditioning. Children should be brought up to enjoy the more primitive aspects of the out-of-doors, and their education should include appreciation of their place in nature.

Knowledge about their surroundings and knowledge that they are a part of all created things is the only way to prevent their accepting Disneyland's *Jungle Land* as a substitute for the wonder and beauty of the real world.

If misunderstanding of his place in nature should lead man to depreciate other animal life, and to transgress the characteristics which distinguish him as man, he would be turning back down the road he has climbed with such difficulty over the ages.