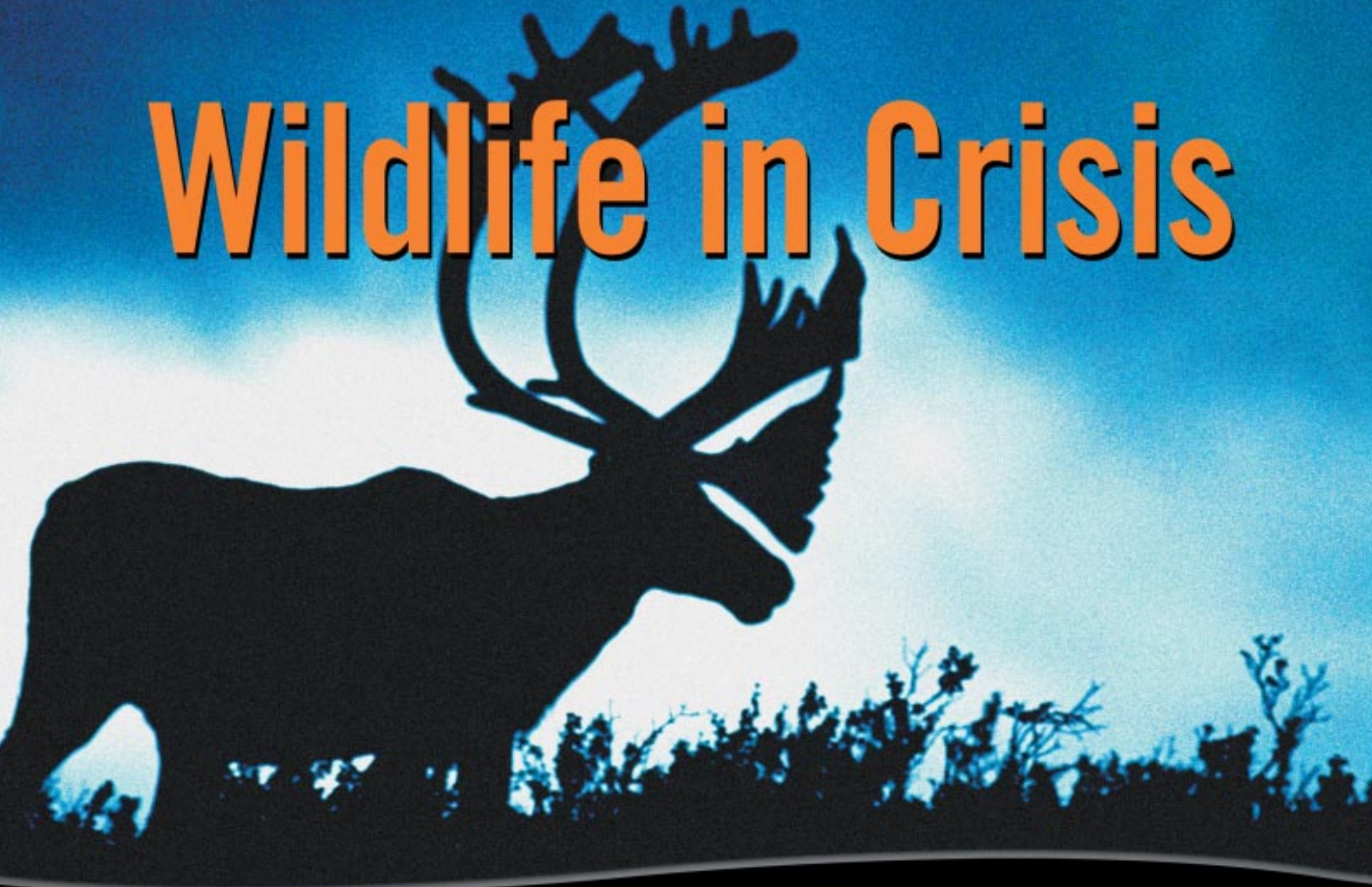


Wildlife in Crisis



Help Save Canada's National Wildlife Areas



Crisis in C

Canada's National Wildlife Areas and Migratory Bird Sanctuaries are in a state of crisis. These sites form a federal protected areas network that conserves some of Canada's most important wild spaces for our wildlife, but the health of these areas is at risk. Critical habitats are being destroyed. Exotic species are crowding out native vegetation. Pristine waters are being polluted. And wildlife is being poached.

At risk is habitat crucial to Canada's wildlife—forests, wetlands, grasslands, and arctic tundra that combined cover an area twice the size of Nova Scotia.

Yet these sites are virtually neglected by the federal government. Most National Wildlife Areas and Migratory Bird Sanctuaries are left largely unmanaged.



canada's wild spaces

Enforcement of environmental laws is sporadic. Wildlife research is only conducted regularly at a handful of locations. Worst of all, Canada is missing out on important opportunities to add meaningful new habitat to the network.

At the heart of this crisis is a lack of funding. Environment Canada, the federal manager of the network, lacks even the most basic level of funding to properly manage these protected areas.

This report summarizes the major threats to these sites and identifies Nature Canada's Five-Step Action Plan to safeguard this vital protected areas network. It also describes how you can help ensure that these areas remain Canada's "Wild Spaces for Wildlife."



TOP FIVE THREATS



DEVELOPMENT PRESSURES

Forestry, mining, oil and gas production, and urbanization are fragmenting and destroying natural habitat.



HARMFUL PUBLIC USES

Poaching, boating, ATV use and excessive visitation are disturbing wildlife and destroying sensitive vegetation.



INVASIVE SPECIES

Non-native, or exotic, plant and animal species are crowding out native species and dramatically changing natural ecosystems.



POLLUTION

Contaminants, such as pesticides, heavy metals, and leaking fuel storage tanks, are polluting many of these sites.



CLIMATE CHANGE

Predicted warming trends due to climate change are expected to increase drought conditions in the Prairies and significantly alter northern ecosystems.

What are National Wildlife Areas

Some of Canada's best wildlife habitat has been set aside in a network of 51 National Wildlife Areas (NWAs) and 92 Migratory Bird Sanctuaries (MBSs) that span all provinces and territories. This protected areas network is managed by Environment Canada and is critical to Canada's efforts to conserve biodiversity:

SAFE HAVENS FOR BIRDS

Robert McCaw



NWAs and MBSs protect Canada's most important migratory bird habitat, including critical nesting areas, migration staging areas, and coastal seabird islands.

John Dunlop



Sir John A. MacDonal designated Last Mountain Lake in Saskatchewan as the first-ever migratory bird sanctuary in 1887. Today the site is one of the Prairie's most important refuelling stations for waterfowl and shorebirds on their way from the Arctic to their wintering grounds throughout the Americas.

Photo: National Archives of Canada/C-006513

REFUGE FOR SPECIES AT RISK

Tim Hagen



More than half of these areas provide a home for species at risk of extinction, such as polar bears, monarch butterflies, and burrowing owls. Ontario's Long Point NWA (left) alone is home to 31 species at risk.



Dan Sokolowski

and Migratory Bird Sanctuaries?

HEALTHY NATURAL ECOSYSTEMS

Dan Sokolowski



More than seven million hectares of wetlands within NWAs and MBSs filter and store fresh water, manage floods, clean our air, and limit climate change by acting as carbon sinks.

HEALTHY NATURAL ECOSYSTEMS

Dan Sokolowski



Dan Sokolowski



These wild spaces can significantly contribute to Canada's efforts to conserve our vast boreal forests, our three ocean coasts, and our northern ecosystems.

What is the difference between a National Park, a National Wildlife Area and a Migratory Bird Sanctuary?

National Parks protect representative samples of each of Canada's natural regions, whereas NWAs and MBSs protect habitat for specific wildlife species. National Wildlife Areas are owned by the federal government and conserve essential habitat for migratory birds, species at risk and other wildlife. Migratory Bird Sanctuaries include a mix of public and private lands, and generally only focus on protecting birds and their breeding grounds during the nesting season.

Nature Canada and Bird Studies Canada have identified the locations of Canada's most important bird habitats using an international scientific approach. These sites are called Important Bird Areas. Of the 597 Important Bird Areas identified nationwide, Environment Canada's network of National Wildlife Areas and Migratory Bird Sanctuaries protects 80 of these sites.

Crisis in Canada's NWAs and MBSs

Companies are putting incredible pressure on government to develop the petroleum reserves found by oil and gas exploration in the Kendall Island Migratory Bird Sanctuary in the NWT.



Canada's boreal forest is one of the largest intact forests remaining on the planet. It is home to an estimated five billion land birds and is the breeding ground for 40 per cent of North America's waterfowl population. However, as development pressures mount, Environment Canada has yet to establish any National Wildlife Areas in our boreal forest.



Many Prairie NWAs and MBSs are surrounded by agricultural lands, such as Redberry Lake MBS in Saskatchewan. Toxic pesticides used for agriculture seep into these protected wetlands and water bodies where they accumulate in wildlife through the food chain and risk interfering with the growth, reproduction and survival of animals that ingest them.



● National Wildlife Area

● Migratory Bird Sanctuary



Burns/Larsen

The impacts of climate change will be significant in the Arctic, where temperature increases will be greatest. Climate change predictions suggest an increase in insect harassment of caribou in Nunavut's Queen Maud Gulf Migratory Bird Sanctuary. This harassment will increase the energy requirements of the caribou and decrease the time they devote to foraging.



Léo-Guy de Repentigny

The introduced purple loosestrife is crowding out native wildlife and reducing biodiversity in wetlands at 19 NWAs and MBSs, mostly in eastern Canada. It is one of nine invasive species displacing native wildlife at Lac Saint-François NWA in Quebec.



Ethan Meleg

Motorboats, jet skis, and other recreational activities are disrupting herons and terns that nest on Eleanor Island NWA and Mohawk Island NWA in southern Ontario. Motorized watercrafts disturb the birds, causing them to leave their eggs or fledglings unattended and, therefore, vulnerable to predators.





Development pressures

Development pressures are a leading cause of habitat destruction and biodiversity loss within and around National Wildlife Areas and Migratory Bird Sanctuaries. Urban sprawl is encroaching on many of these sites in British Columbia, Ontario, Quebec and the Maritime provinces. The northward expansion of forestry and oil and gas development is destroying and fragmenting northern ecosystems. With these new developments comes the increased spread of exotic species that compete with and displace native wildlife, and greater public disturbance to wildlife, such as poaching and ATV use, through increased access to these havens.

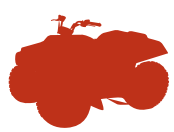
Kevin Davidson



G.W. Berg

Alberta's Richardson Lake MBS forms part of the Peace Athabasca Delta, an internationally recognized wetland and one of the largest freshwater deltas in the world. The construction of two upstream hydroelectric dams has disrupted the delta's water levels causing a great reduction in its ability to support wildlife, like the black terns that inhabit the area.

New Brunswick's Portobello Creek NWA protects part of the largest wetland complex in Atlantic Canada, but large-scale commercial cranberry facilities on adjacent private lands are fragmenting and contaminating the wetland. So far these facilities have resulted in the clearing of forests, the changing of seasonal flooding and hydrology patterns, and the silting of the adjacent Portobello River. When 30,000 acres of adjacent, privately owned wetlands recently came up for sale, the federal government lacked the resources to purchase the land. It was purchased privately for logging and is now being clear-cut.



Harmful public uses

Two thirds of National Wildlife Areas and Migratory Bird Sanctuaries are threatened by harmful public uses, such as poaching, boating, ATV use, and wildlife harvesting. Visitors are also trampling sensitive vegetation and disturbing nesting birds.

This problem is greatest in Canada's most populated regions. For example, the nine NWAs in southwestern Ontario are home to some of the last remaining natural lands in the entire region, but they are all under acute stress from public overuse.

Only five of the network's 143 sites have on-site staff to control the ever-increasing number of visitors.

Kevin Davidson



Sand Pond NWA in southern Nova Scotia is a critical migration and staging area for thousands of American black ducks and other waterfowl. Pristine regions of this protected area are now at risk because of the access created by an illegal bridge built by ATV enthusiasts. A natural cranberry bog was recently torn up beyond recognition when an ATV rally was held through the delicate wetland.



Peggy and Erwin Bauer

Public disturbance of nesting bird colonies along the St. Lawrence River and in the Great Lakes poses a serious threat to a variety of birds and can result in overall population declines. For instance, at the turn of the century Île Sainte-Marie MBS was home to 350,000 pairs of common murres. Today there are a mere 20,000 pairs. Egg collecting, poaching, and disturbance of the nesting birds are suspected for this dramatic decline.

Increasing numbers of cruise ships are entering Arctic waters so tourists can visit seabird colonies such as the one at Nirjutiqavvik (Coburg Island) NWA off the southeast tip of Ellesmere Island in the NWT. Some seabirds are sensitive to human presence, particularly when nesting. For example, murres nest on narrow ledges and when humans approach the ledges too closely the incubating birds can suddenly leave their nests, dislodging their single eggs or leaving them open to predation by gulls. Depending on the levels of disturbance, reproductive output for the year can be diminished substantially.



Alain Fontaine



Pollution

Pesticides, herbicides and fertilizers are among the toxic pollutants that are contaminating the wetlands, fresh water and wildlife of NWA and MBSs, particularly in the Prairies. Herbicides are killing off the plant species upon which monarch butterflies depend, and these and other toxins cause reproductive or developmental failure in various wildlife. Excess fertilization of lakes and wetlands can cause massive growths of algae, which consumes the available oxygen in the water and results in fish die-offs. These toxins may also place birds at greater risk to natural diseases, such as avian botulism, which occurs periodically in prairie wetlands.

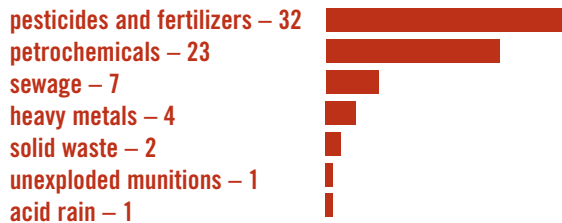
More than 28 NWA and MBSs are contaminated with petrochemicals, oil from fuel drums, sewage, unexploded munitions, and heavy metals. Many northern and coastal sites and those along the St. Lawrence River are at grave risk from oil spills and illegal bilge-water dumping.



The sensitive habitat at Redberry Lake MBS in Saskatchewan is both unique and vulnerable. Along with the spring run-off, upon which this saltwater lake is so dependent, comes residues of pesticides and herbicides, such as “Triallate,” used extensively in surrounding croplands. Recent studies at Redberry Lake show that Triallate accumulates in the fatty tissues of amphibians and several fish species. This could be bad news for the American white pelicans and Canada’s largest known breeding population of white-winged scoters, currently in decline, that feed on fish and shrimp in the lake.

Pollutants affecting NWA and MBSs

(# of sites reporting pollutant present)



Each year more than 15,000 cargo ships carrying over 15 million tonnes of petroleum products pass by Cap Tourmente NWA along the north shore of the St. Lawrence River. A fuel spill, particularly during fall migration, could kill large numbers of waterfowl and heavily contaminate their habitat. This threat was made evident in 1999 when a cargo ship spilled 15,000 tonnes of a cement compound next to the NWA. Luckily there was no damage, but it drew attention to the need for better prevention and mitigation measures.



Invasive species

Robert McCaw



Invasive species are non-native plant and animal species, also called “exotics,” that have moved into an ecosystem and displaced the original wildlife that was found there.

Exotic plants, such as purple loosestrife, have crowded out native wildlife in wetlands and other habitats at more than half of Canada’s National Wildlife Areas and Migratory Bird Sanctuaries. Similarly exotic animal species threaten native species by increasing the likelihood of competition and predation, and by destroying critical habitat. For example, large populations of introduced carp in Lake St. Clair NWA have damaged beds of native vegetation, and their spawning activities have destroyed the nests and eggs of many marsh-nesting bird species. Likewise, the explosive spread of zebra mussels (left) in the Great Lakes are thought to be altering the food web, changing water chemistry and physically disabling native species. Their direct economic impact is estimated at more than three billion dollars.

“Federal efforts so far have not been coordinated and have not been adequate to manage the threat of invasive species [and] the government does little to prevent the arrival of invasive species. Keeping them from entering the [St. Lawrence River] basin could save millions of dollars in control costs beyond the costs of damage they cause to the ecosystem.”
—Auditor General of Canada, 2001

Vaseux-Bighorn NWA in British Columbia is considered one of the most threatened NWAs in western Canada. Many of its native grassland species, such as bluebunch wheatgrass and cheat grass, are being crowded out by exotic plant species like smooth brome grass. Wildlife that live here, such as the “threatened” pallid bat and the “endangered” tiger salamander, are dependent upon the native grasslands for cover and hunting grounds.



Gary M. Stolz, USFAWS

Climate change

The effects of climate change have already been recorded in some of the Prairie National Wildlife Areas and Migratory Bird Sanctuaries. A hotter and drier climate has increased the frequency of drought causing many sites to experience drops in water levels, thus diminishing the availability of fresh water for a variety of plant and animal species.

However, the impact of climate change is expected to be most dramatic in northern Canada. Climate change models predict the greatest increase in temperature to occur in the Arctic, with an estimated increase of between five and eight degrees Celsius by 2100. This increase in temperature will dramatically change the distribution of Arctic wildlife indefinitely. Increased surface thaw has already been noted in a number of Nunavut Migratory Bird Sanctuaries.

In order to minimize the impacts of climate change on our natural ecosystems, we must plan for the northward extension and migration of wildlife. Protected areas can play an integral role in helping wildlife to adapt to climate change. The planning of future NWAs should therefore be designed to accommodate the northern migration of wildlife ranges.



Polar Bear Pass NWA, NWT

Craig Machtans

Ross Glenfield



The Anderson River MBS in the Northwest Territories and Nunavut's Queen Maud Gulf MBS are likely to be some of the sites hardest hit by the effects of climate change. Climate models show that caribou herds in these areas may be at risk because warmer weather means an increase in the numbers of insects harassing the herds. This harassment will increase the animal's energy requirements and decrease the time they devote to foraging, thereby causing a decline in their body fat—nutrition that is needed over the long winter months when food is less accessible. Furthermore, increased snow levels in the more southerly portion of their range may reduce food availability and make it more difficult for the caribou to escape from wolf predation.

Nature Canada's Five-Step Action Plan

Nature Canada's Five-Step Action Plan is essential to ensure a healthy future for Canada's National Wildlife Areas and Migratory Bird Sanctuaries.



1 RESOURCE THE NETWORK

An annual investment of at least \$35 million is needed to ensure the effective management and expansion of the National Wildlife Area and Migratory Bird Sanctuary network.

2 PROTECT THE NETWORK

The laws and policies that ensure protection of National Wildlife Areas and Migratory Bird Sanctuaries must be updated. They are currently out-of-date, poorly interpreted, in some cases non-existent, and are not being enforced.

3 GROW THE NETWORK

The number of National Wildlife Areas in the network should be doubled in five years. Priority should be given to establishing a suite of boreal National Wildlife Areas in conjunction with Aboriginal communities to protect ecologically and culturally significant areas in Canada's north, and to protect critical habitat for species at risk. Wherever possible, Migratory Bird Sanctuaries should be re-designated as National Wildlife Areas to better protect their habitat. A suite of Marine Wildlife Areas should also be established to protect priority wildlife habitat along our three coasts.

4 MANAGE THE NETWORK

Increased on-site staff, a full assessment of ecological values and threats, updated management plans, increased research, more community outreach and better enforcement are all needed to effectively conserve wildlife within the network.

5 INCREASE PARTNERSHIPS

Environment Canada should engage in partnerships with community groups, non-governmental organizations, and universities to assist them in research, management, acquisition, and education throughout the network.

What you can do to protect Canada's NWAs and MBSs

STAY INFORMED

- Visit Nature Canada's Web site at naturecanada.ca and download "Conserving Wildlife on a Shoestring Budget," our report on the state of Environment Canada's protected areas network. Our Web site also posts updates and suggestions about how you can help preserve these vital areas. Write or e-mail us if you have specific questions. See back cover for our contact information.
- Learn more about the network by visiting Environment Canada's Web site at cws-scf.ec.gc.ca.

MAKE YOUR VIEWS KNOWN

- Write the Prime Minister and/or Minister of the Environment and tell them about the importance of Canada's National Wildlife Areas and Migratory Bird Sanctuaries and that you support the need for adequate funding to manage the network. Their contact information can be found at pm.gc.ca and ec.gc.ca/minister.

SUPPORT AN NWA OR MBS IN YOUR AREA

- If you live in an area where there is a National Wildlife Area or Migratory Bird Sanctuary, write or meet with your federal Member of Parliament and indicate your interest in the site. You can find out who your MP is at elections.ca.

GET INVOLVED

- If you live in an area where there is a National Wildlife Area or Migratory Bird Sanctuary, contact Environment Canada and ask them how you can get involved in conservation or education activities at the site. To find the nearest Environment Canada office to you, check out cws-scf.ec.gc.ca.

STAY GREEN

- Minimize your ecological footprint by reducing your consumption and use of natural resources, thereby helping to preserve Canada's wild spaces.

JOIN A NATURALIST CLUB

- Learn about nature by joining your local naturalist club. For contact information for the naturalist club in your area, visit our Web site at naturecanada.ca or see back cover for contact information.

ABOUT NATURE CANADA



Celebrating 65 years of protecting nature in Canada, Nature Canada has more than 40,000 members and donors, and more than 350 affiliated organizations, including provincial and local naturalist groups. A member-based organization, we maintain a focus on the protection of wildlife and its habitat, including significant bird populations and species at risk.

We have a long-standing commitment to preserving our nation's spectacular wilderness and wildlife areas. Nature Canada's Wildlands Campaign is a determined, well-respected and positive driving force working to complete the National Parks System and secure other federal protected areas. We are working across the country to translate continuing public support for wilderness protection into decisions that result in new protected areas.



Nature Canada and Bird Studies Canada are Canadian co-partners in BirdLife International, a global partnership of conservation organizations that conserve birds, habitat, and global biodiversity. Our Important Bird Areas Program identifies and seeks to protect a network of sites that conserve the natural diversity of Canadian bird species.

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