SAVING THE WILD

An opportunity to participate in species recovery in Canada

A publication of RENEW—Recovery of Nationally Endangered Wildlife

Canadian Endangered Species Conservation Council

Canada

Saving the Wild

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LETTER FROM THE CANADIAN WILDLIFE DIRECTORS COMMITTEE

As members of the Canadian Wildlife Directors Committee (CWDC), we are conservation professionals representing federal, provincial, and territorial departments responsible for species at risk of extinction. Recovery of species at risk is of fundamental importance to our work. In this we are supported by the National Recovery Working Group which provides guidance and advice to the CWDC on recovery matters.

We all agree that one of the best aspects of our work is contact with the many generous and passionate people across this country dedicated to species survival.

As diverse as the species they help to recover, they include fishers on the east coast, corporate executives in almost every industry, and zookeepers from centres across the country. Some are schoolchildren, others are young at heart. They include scientists, hunters, birdwatchers, and shopkeepers. They are city-dwellers and rural landowners, artists and engineers. Increasingly, Canadians are participating in the recovery of species at risk and are taking individual responsibility for the health of our land.

This publication celebrates the tens of thousands of Canadians from all walks of life who are striving to save the wild in Canada. It celebrates their view of a natural world in which all things are precious and connected and crucial to our well-being, and it celebrates their commitment to doing something about it. These pages are also intended to promote a better understanding of the need for species at risk recovery in Canada and the ways in which people can participate in that process.

In an ideal world, we all would be working to maintain healthy and diverse habitats and preventing plants and animals from disappearing in the first place, rather than rescuing them from extinction. But the fact is that species recovery is an essential aspect of biodiversity conservation right now. We hope our work to recover wild species will prepare and motivate us to solve the broader causes of their decline and eventually put us out of the recovery business.

We offer this publication as a source of information and inspiration to encourage more Canadians to join us in saving the wild or indeed in working to conserve landscapes where all species can thrive.

Trevor Swerdfager
Director General
Canadian Wildlife Service
Environment Canada

Hugh Hunt
Executive Director
Resource Stewardship Branch
Saskatchewan Environment

American Ginseng (Endangered)
© Andrée Nault

Collecting fish samples for an ecotoxicology study for Copper Redhorse (Endangered)
© Andrée Gendron

Spotted Turtle (Endangered)
© Gary Allen

AN INTRODUCTION TO THE RECOVERY OF WILD SPECIES IN CANADA

ALL CANADIANS HAVE CAUSE FOR CONCERN

The World Conservation Union (IUCN) identifies the loss of species as one of the world's most pressing crises. If nature were to take its course, one species would disappear about every 1000 years. Current global loss of species is estimated at two to three species extinctions almost every hour—a rate that rivals five other extinction episodes since life on earth began.

But unlike previous episodes, these modern-day extinctions are the result of human activity in almost all cases.

At least 12 species have become extinct in Canada, and an additional 15 species no longer exist in the wild in this country. Currently, experts have identified more than 450 species of plants and animals in danger of being lost from the wild in Canada and, in some cases, the world.

The major factor accelerating species extinction is loss of habitats such as prairie grasslands, wetlands, and temperate rainforests. And other threats take their toll on Canada's native wild species, including invasive species, pesticides, climate change, overhunting, and oil spills.

Species extinction matters because Canadians share a moral responsibility for the earth's biological heritage. As well, healthy and diverse ecosystems support human life by cleansing the water, refreshing the air, and providing the resources we need to maintain our livelihoods. Accelerated species extinction signals a serious imbalance in the connected natural web on which we all depend.

Swift Fox (Endangered) © Ludwig Carbyn

WHY ARE WE LOSING SPECIES?

HABITAT LOSS: Converting natural habitats to urban, agricultural, transportation, and industrial uses is the primary cause of species decline. The loss of native prairie grasslands was a major factor in the loss of the Swift Fox from the Canadian prairie.

INVASIVE SPECIES: Non-native or "exotic" species prey on or out-compete native species for food and territory. Reed Canary Grass, which chokes wetland habitat, and an imported predator, the Bullfrog, are contributing to the decline of the endangered Oregon Spotted Frog in British Columbia.

POLLUTION: Pesticides, fertilizers, industrial wastewater, and acid rain pollute habitats. Toxins accumulate in the food chain, and affect wildlife health and the reproduction of species such as the Northern Cricket Frog and the Deepwater Sculpin of the Great Lakes.

ILLEGAL TAKING: Poaching of animals such as the Grizzly Bear places extreme pressure on populations, and illegal collection of plants affects species such as American Ginseng.

INCIDENTAL KILLS: Rare species become caught in commercial fishing nets or hunting traps intended for other species. For example, the Short-tailed Albatross and the Leatherback Seaturtle are accidentally caught in fishing nets.

CLIMATE CHANGE: Changes in ice thickness and snowpack in northern Canada affect access to food by animals such as the Polar Bear and Peary Caribou.

CANADA'S APPROACH TO SAVING WILD SPECIES

People across Canada are working on two fronts to preserve our rich variety of species: managing human activity to protect habitats for the full range of species, and recovering those species whose survival is threatened.

Under the *Accord for the Protection of Species at Risk*, federal, provincial, and territorial ministers responsible for wildlife have committed to cooperate in protecting species at risk and their habitats by establishing complementary legislation and programs.

Six provinces—Nova Scotia, New Brunswick, Quebec, Ontario, Manitoba, and Newfoundland and Labrador—provide legal protection for species at risk in legislation passed specifically for that purpose. Other provinces protect species at risk through amendments to existing wildlife laws or other legislation.

The federal *Species at Risk Act* (SARA), which was proclaimed in 2003, was created to prevent wildlife from becoming extinct, to help recover species at risk, and to manage species of special concern. The Act requires Canada to provide for the recovery of species at risk due to human activity and to manage species of special concern so that they don't become endangered or threatened. The Act prohibits the killing, harming, harassing, capturing, or taking of species at risk under its authority, and makes it illegal to destroy the critical habitat of species at risk on federal land and potentially on non-federal land as well.

Juvenile Short-tailed Albatross (Threatened)
© U.S. Fish and Wildlife Service

WHAT IS SPECIES RECOVERY?

In the context of species at risk conservation, recovery is the process by which the decline of an endangered, threatened or extirpated species is stopped or reversed, and threats reduced to improve the likelihood of the species' persistence in the wild.

To Joe Brazil, who manages the Endangered Species and Biodiversity Section of the Government of Newfoundland and Labrador, "Recovery is about awakening wildlife values in people. Once we explain what's happening to a species, most people understand and want to help, even take ownership of the issue. It's our job to provide them with the options and tools for recovery."

Joe Brazil with Bald Eagle chick © Shawn Avery

Water-pennywort (Threatened) © Alex Wilson

THE NEWFOUNDLAND MARTEN: SURVIVAL DEPENDS ON HELP FROM ALL DIRECTIONS

Marten living on the island of Newfoundland were assessed as endangered by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) in 1996. With about 300 Newfoundland Marten remaining, this is one of the most rare animals on earth.

Like many species at risk, the Newfoundland Marten requires a diverse range of actions to recover its population levels:

- captive breeding for release into the wild;
- regulated use of a modified snare that will catch hares, but not martens;
- a system of protected areas or "reserves";
- modification of logging practices to protect important habitat; and
- greater public awareness and support, promoted through displays, brochures, and the "Adopt a Marten" program.

Live capture of a juvenile marten confirms successful breeding in the north end of Terra Nova National Park © John Gosse

Newfoundland Marten (Endangered) © John Gosse

RECOVERY RELIES ON ENGAGING CANADIANS

Governments cannot tackle this challenge alone. Both the Accord and the *Species at Risk Act* emphasize the need to partner with scientists, industry, landowners, communities, and volunteers, to understand the threats to species survival and to take action to restore populations.

All Canadians have a role to play. In fact, with more than 450 species struggling to survive over an expanse of 10 million km^2, recovery depends on the help of all Canadians. For some species, help can take the form of a relatively simple change in land use practices over a short period of time. For other species, recovery requires a massive, costly effort lasting many decades and requiring the work of hundreds of people.

EVERYONE CAN CONTRIBUTE TO SAVING THE WILD

Canadians are taking action. Tens of thousands of people — including cottagers, farmers, corporations, students, communities – are pitching in to save wild species. These stories provide a small sampling of the diverse group of people rallying for a common cause.

YUKON STUDENTS GATHER LICHEN FOR CHISANA CARIBOU

Woodland Caribou (Northern Mountain population; Special Concern) © Jukka Jantunen

Aboriginal peoples and outfitters out on the land first noticed the steep decline in the size of the Chisana herd of the Woodland Caribou. It appears that over a 10 year period, no calves survived as a result of predation by bears, wolves, Golden Eagles, Western Wolverine, and coyotes. Action had to be taken immediately to prevent the herd's extinction, while causes of the sudden, drastic change in predation were being studied.

A joint Yukon-Alaska recovery program is based on the premise of increasing calf survival by capturing pregnant cows in the early spring. They are kept safe from predation in large pens until well after they calve, and the cows and calves are not released until their calves are strong enough to elude predators.

Yukon students are contributing to the recovery program by collecting tonnes of lichen, an essential part of the diet, for the caribou while they are inside the pens. By slowing down the shift in diet from natural forage to pelleted feed, this lichen allows the caribou's stomach "bugs"—mostly one-celled protozoa that are crucial to digestion—to adapt to the pelleted feed. The lichen gathered by Yukon schoolchildren is probably the most important factor in the caribou's good health in the pen.

Estimates now put the herd at about 720 animals, up from a low of 300 in 2003, and there is evidence it is rebounding on its own.

RESEARCHERS TEAM UP WITH NOVA SCOTIA FISHERS FOR LEATHERBACK SEATURTLE SCIENCE AND CONSERVATION

Working Group members with "Johanna," a Leatherback Seaturtle found off Cape Breton Island, previously tagged at a nesting colony in Suriname © Nova Scotia Leatherback Turtle Working Group

In 1998, Mike James and Kathleen Martin set out to discover whether the Leatherback Seaturtle was native to Canadian waters or just a tropical species occasionally sighted off-course. Instead of turning to conventional science for answers, they spoke to the people who had the greatest opportunity to observe the turtles at sea—the Nova Scotia fishing community. With the help of more than 200 fishers from around the province, the pair recorded more than 170 leatherback sightings that first summer, and changed leatherback science forever.

This was the foundation for the Nova Scotia Leatherback Turtle Working Group, a conservation initiative involving coastal community members, primarily commercial fishers and scientists. Today, the working group has collected over a thousand sightings and involves more than 500 fisher volunteers, who are also active research partners in other projects of the Nova Scotia Leatherback Turtle Working Group, like studying the movements of leatherbacks. Most importantly, the fishers conserve the species by working to safely disentangle seaturtles accidentally caught in fishing gear.

The Nova Scotia Leatherback Turtle Working Group has made important scientific contributions to the global understanding of these majestic seaturtles and how best to conserve them. And, as Kathleen Martin emphasizes, "It also stands as a testament to the importance of collaboration and the enormous value community ecological knowledge holds for science and the future of our world's species."

Children examine a beached Leatherback Seaturtle (Endangered) at Lobster Cove, Gros Morne National Park © Fiona Cuthbert

ALBERTA CATTLE RANCHER PROTECTS THE BURROWING OWL…AND MUCH MORE

Jerry Holtman on his ranch © Jerry Holtman

"It's important to create habitat where everything can survive," says Jerry Holtman, a rancher who owns 4455 hectares of shortgrass prairie in southern Alberta near Taber. He maintains his rangeland in native grass, including 365 hectares he purchased to reseed to native grasses a few years ago.

Jerry Holtman became interested in holistic resource management in 1984. Now, the Alberta rancher manages his operations not just for cattle, but for the Pronghorn, the White-tailed Deer, and the Prairie Rattlesnake, which inhabit the prairie as well. "When we make management decisions on the ranch," Jerry explains, "we go through a checklist to make sure the whole of the natural system is taken into account, because everything is connected."

As a participant in the Operation Grassland Community Stewardship Program since 1990, Jerry views his ranch as a small piece of the habitat that the endangered Burrowing Owl requires to survive. "We're part of a larger area of 50 000 acres [20 250 hectares] of native range—and the owls need it all. They need gophers [ground squirrels] and American Badgers for burrows, grasshoppers for food, the odd mouse." Grazing management on the Holtman ranch respects the owls' low tolerance of disturbance and encourages the "good hatch of grasshoppers" they require to accumulate the body fat necessary to fly south each fall.

Creating high functioning ecosystems where everything can survive also benefits Jerry's ranching operation. Grasses that have been given enough rest between grazing are more drought proof, because their roots have had the opportunity to grow deeper into the soil. The greater variety of plants on the range means that his cattle are getting more nutritious forage.

But more than anything, a holistic approach to range management rejuvenates the rancher's interest in his work and keeps him enthused about the land. "I sometimes get out there on my hands and knees to see the prairie physically working," says Jerry Holtman. "I count species in a patch of grass and dig in the dirt for insects. To actually see an ecosystem functioning to a high degree—well, that is the foundation of everything."

"Energy flows through our community—just like the energy cycle in the prairie ecosystem," explains Jerry Holtman, referring to the energy of his own enthusiasm for Burrowing Owl recovery and emphasizing the importance of the holistic approach to resource management. "We're all part of a whole — and we need to get together, feed off each other, to ensure we don't become complacent about our natural spaces…"

OSOYOOS INDIAN BAND LEADS IN THE RECOVERY OF SOUTH OKANAGAN SPECIES

Osoyoos Indian Band Reserve biologists survey for Tiger Salamanders (Southern Mountain population; Endangered) © David Cunnington

Featuring diverse habitats like coniferous forests, desert-like grasslands, wetlands, and rocky cliffs, the South Okanagan-Similkameen region in southern British Columbia is among Canada's richest and most threatened ecosystems. Nearly half of the bird species in the country are found in this region, as well as many plants and animals that exist nowhere else in North America or, in some cases, the world.

The combination of rich natural heritage and intense development pressure has resulted in a high occurrence of species at risk. The region is home to 58 species of plants and animals considered at risk in Canada by the Committee on the Status of Endangered Wildlife in Canada (as of May 2005). These include the Pallid Bat, Tiger Salamander, Whiteheaded Woodpecker and Western Rattlesnake. Recovery for many of these species would not be possible without the leadership of the Osoyoos Indian Band, whose reserves cover about half of the habitat left for some species at risk.

This First Nations community, a partner in the South Okanagan-Similkameen Conservation Program, is developing a sustainable land use plan that will conserve plants and animals while at the same time meeting the needs of their human community. The Band maintains an extensive database on wildlife occurrence on its lands, participates on Recovery Teams, and runs field courses on species and habitats at risk for local elementary and high schools. The Band has also developed a range management plan that benefits cattle production and habitat restoration, and is working cooperatively with local, provincial and federal governments to enhance and research species at risk populations such as the Pallid Bat and the Western Rattlesnake.

The Nk'Mip Desert and Heritage Centre is operated by the Band, and one of its most popular tours focuses on the biology and conservation of the Western Rattlesnake. The Centre also leads research in management of rattlesnakes near orchards, vineyards and campsites and hosts workshops on snake management for local farmers and park operators.

Some of the many habitats found on the Osoyoos Indian Band Reserve © Alain Branchaud

CANFOR CORPORATION WORKS WITH B.C. GOVERNMENT TO PROTECT THE NORTHERN GOSHAWK (*LAINGI* SUBSPECIES)

Central Vancouver Island is an ideal place to view wildlife, including the Vancouver Island subspecies of the Cougar, Black Bears, Roosevelt Elk, and Black-tailed Deer. The area is also home to several species at risk, including the *laingi* subspecies of the Northern Goshawk (previously known as the Queen Charlotte Goshawk), the Marbled Murrelet, and Keen's Long-eared Bat.

Northern Goshawk *laingi* (Threatened)
© Wayne Lynch

The forestry company Canfor has had a licence to manage a forest area in central Vancouver Island since 1960. Wildlife management in the area historically focused on deer and elk winter range, but since 1994 Canfor has been working with the British Columbia government to conduct inventories and to develop management plans to protect the *laingi* subspecies of the Northern Goshawk.

"The inventories identified 14 goshawk territories containing 43 nests—large numbers that had not been anticipated," explains John Deal of Canfor. "This created a challenge for both the company and the provincial government—they needed a strategy that would allow logging the licence area *and* protect the threatened goshawk."

The most important habitat for the goshawk is the area that young birds need for security once they leave the nest—the "post-fledging area." Canfor and the British Columbia government conducted telemetric tracking of young birds to identify important post-fledging habitat types. A collaborative strategy was developed that created 10 Wildlife Habitat Areas under provincial legislation and at the same time provided an adequate timber supply for Canfor.

LOCAL STEWARDS PRESERVE LIMESTONE BARRENS IN NEWFOUNDLAND AND PROMOTE ECO-TOURISM

Quilt depicting the flora of the Limestone Barrens
© Dulcie House

The coastal limestone barrens of the Great Northern Peninsula of Newfoundland are a hotspot of plant diversity on the island. Human activity, including all-terrain vehicle use, gravel removal, and dumping, has damaged important sections of the barrens. Continued misuse endangers the rare Long's Braya, Barrens Willow and other plants and their habitat.

Local residents and landowners are taking responsibility for caring for this fragile habitat with the help of the Limestone Barrens Habitat Stewardship Program. The program emphasizes community education to encourage residents to become custodians of this exceptional resource. It promotes the barrens as a source of pride for residents and as a destination for plant lovers and naturalists. The program also supports conservation and restoration of the habitat for rare species.

Straits Elementary School, the municipality of Flower's Cove, and landowners in Sandy Cove have all signed stewardship agreements and are at the forefront of the program thus far. Elementary students have toured the barrens and created drawings and paintings of the unique flora. A local women's institute has crafted a quilt depicting the plants and a map of the area. The quilt is displayed at meetings of local community and school groups. Students of the Memorial University of Newfoundland have carried out scientific studies and recovery work on the barrens. Youth groups have developed a dictionary of plants for a walking trail and are providing guided tours.

"The strength of this stewardship program is teamwork," says Dulcie House, coordinator of the stewardship program. "We have a diverse group of partners who provide the expertise and talent we need to conserve the barrens."

RENEW COORDINATES NATIONAL SPECIES RECOVERY

Recovery planning for any given wildlife species at risk in Canada rarely involves just one government or organization. All provinces and territories and the federal government have responsibility for wildlife recovery under the *Accord for the Protection of Species at Risk*, and three federal agencies are responsible under the *Species at Risk Act*: Environment Canada, the Parks Canada Agency, and Fisheries and Oceans Canada. The federal government also works with its provincial and territorial partners in the distribution of funding through the Habitat Stewardship Program.

Canada's national recovery program is called RENEW, an acronym for REcovery of Nationally Endangered Wildlife. RENEW brings together representatives from all responsible jurisdictions to work together to rescue wildlife species at risk and to prevent other species from becoming at risk. The RENEW program also involves wildlife management boards, Aboriginal peoples, industries, universities, and other organizations and individuals with a role in recovery.

The main organization behind the RENEW program is the National Recovery Working Group. The Working Group involves about 20 people from the federal, provincial and territorial departments that have responsibility for species at risk recovery. The Working Group guides the national recovery process and is supported by the Recovery Secretariat housed in the Canadian Wildlife Service.

The National Recovery Working Group meets twice a year, among other forms of ongoing communication, to develop the National Recovery Program © Crown

RENEW has the following national objectives:

- No endangered species of wildlife will be allowed to become extirpated or extinct.
- No species will be allowed to become threatened or move from threatened to endangered status.
- Extirpated species will be reintroduced to Canada where feasible.
- Recovery strategies and action plans will be prepared for all threatened, endangered, or extirpated species, as required under the *Species at Risk Act*.
- Where feasible, recovery programs will be undertaken on a scale necessary to remove species from endangered, threatened, or extirpated status.

"Effective recovery planning supports, but does not, in itself, restore species" — *Sherman Boates, Manager, Biodiversity, Nova Scotia Department of Natural Resources*

Participants reading stewardship materials at a Sharp-tailed Snake stewardship presentation on Pender Island, B.C. (Endangered) © Christian Engelstoft

THE BASIC STEPS OF RENEW

The Committee on the Status of Endangered Wildlife in Canada (COSEWIC) gathers once a year to determine which wild species are in danger of disappearing from Canada. The release of COSEWIC's report each year triggers a number of basic steps in the RENEW process, although recovery actions may start immediately in urgent situations. COSEWIC assessments also trigger decisions about listing species under legislation such as SARA or provincial legislation.

COSEWIC releases assessment of species at risk in Canada

COSEWIC assessments trigger the RENEW process and lead to one of the following responses:

- Extinct – no action
- Extirpated in Canada – recovery planning
- Endangered – recovery planning
- Threatened – recovery planning
- Special concern (vulnerable) – management planning

Recovery planning started

Organizations responsible for species at risk meet in each region of Canada to decide on the best approach (single species, multiple species, or ecosystem wide), time lines, groups or individuals to be consulted, and immediate recovery actions required.

Usually a Recovery Team is formed, consisting of departmental representatives, who invite other individuals or organizations to participate on the team. Recovery Team members are experts or specialists on the species or issues associated with its recovery. Alternatively, one or more Recovery Planners are appointed.

Recovery Strategy prepared

A Recovery Strategy is prepared for each species, set of multiples species, or ecosystem (as the case may be) that identifies:

- goals (what the outcome should be);
- objectives (what needs to be done);
- approach (how to do it);
- the species' critical habitat (to the extent possible); and
- time line for action plan.

The Recovery Strategy is prepared in cooperation with those who have expertise in the conservation of the species, often representatives of federal agencies, provinces and/or territories, aboriginal organizations and co-management boards or non-government organizations with expertise. It is also prepared in consultation with those who would be affected by it.

Action Plan prepared

An Action Plan is prepared that identifies:

- specific projects that will achieve objectives in the Recovery Strategy;
- who will do the work;
- what the cost will be and where the funds will come from;
- when the work will be completed by;
- the species' critical habitat; and
- the socio-economic considerations of the Action Plan.

The Action Plan is also prepared in cooperation with those who have expertise in the conservation of the species, including those who might be directly affected by it, and in consultation with those either affected or interested in the action plan.

Recovery actions carried out

Recovery actions are carried out by the Recovery Team, related working groups, or others in communication with the Recovery Team.

Recovery evaluated

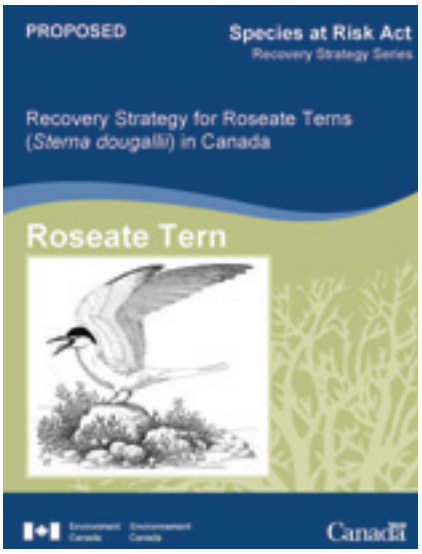
The RENEW annual report summarizes progress on recovery in Canada. Recovery Strategies and Action Plans will be amended as necessary to include new information or to build on experience.

Recovery actions are often underway while plans are being prepared

HOW DOES THE *SPECIES AT RISK ACT* INFLUENCE THE RECOVERY PROCESS?

The *Species at Risk Act*:

- protects individuals and residences of species at risk under federal jurisdiction;
- protects critical habitat on federal land;
- creates the opportunity to protect critical habitat on non-federal land through conservation agreements and other cooperative/voluntary measures;
- provides safeguards for the protection of portions of critical habitat that occur on non-federal land that are not being adequately protected through voluntary measures or through other legislation;
- requires two-part recovery plans (Recovery Strategies and Action Plans) for species that are endangered, threatened or extirpated and management plans for species of special concern;
- prescribes time lines for recovery planning to accelerate the pace of recovery;
- identifies mandatory content for Recovery Strategies and Action Plans, promoting consistency in recovery planning;
- emphasizes cooperation and consultation during the process of recovery planning;
- brings socio-economic considerations into action planning;
- increases government investment in funding for recovery; and
- heightens public interest in and awareness of species at risk.



Proposed cover design for recovery strategies on the SARA public registry © Crown

Sampling for Nooksack Dace (Endangered) © Mike Pearson

Recording data for native mussels collected in Lake St. Clair © Don Schloesser

RECOVERY TEAMS PROVIDE A WIDE RANGE OF EXPERTISE

Recovery Teams provide leadership in planning and carrying out recovery actions. Each Recovery Team member brings particular expertise to the table related to the species, its habitat, or industrial processes affecting the species. In addition to jurisdictional representatives, the Recovery Team may include:

- representatives of Aboriginal communities and wildlife management boards;
- species specialists in the academic, conservation, or zoological/botanical communities;
- affected landowners or land managers;
- government departments or municipalities;
- individual businesses or industries, such as forestry, agriculture, commercial fishing, mining, oil and gas production, and the associations that represent them;
- people who engage in certain types of recreational activities (for example, hunting, fishing, snowmobiling, biking) and the organizations that represent them; and
- enforcement specialists (for example, when illegal harvest is an issue).

Vancouver Island Marmot (Endangered) © Robert Milko

THE VANCOUVER ISLAND MARMOT RECOVERY TEAM

Inhabiting the mountains of Vancouver Island, the endangered marmot is one of the rarest animals in North America. A Recovery Team was formed in 1988, and has included the following members:

Don Doyle, Chair (British Columbia Ministry of the Environment)
Gordon Blankstein (Mountain View Breeding and Conservation Centre)
Justin Brashares (University of California)
John Camio (Canadian Association of Zoos and Aquaria)
Drew Chapman (British Columbia Ministry of the Environment)
Bob Elner (Canadian Wildlife Service, Environment Canada)
Maria Franke (Toronto Zoo)
David Fraser (British Columbia Ministry of the Environment)
Peter Gibson (Mount Washington Alpine Resort)
Sally Leigh-Spencer (Cowichan Valley Naturalists Society)
Dave Lindsay (Timber West)
Ron McLaughlin (Weyerhaeuser Canada)
Bob Morris (British Columbia Wildlife Federation)
David Nagorsen (Mammalia Biological Consulting)
Helen Schwantje (British Columbia Ministry of the Environment)
David Shackleton (University of British Columbia)
Doug Whiteside (Calgary Zoo)

Tasked with saving the Vancouver Island Marmot from extinction, the Team works in partnership with scientists, researchers and technicians — nationally and internationally — to improve scientific understanding of Vancouver Island Marmot population recovery.

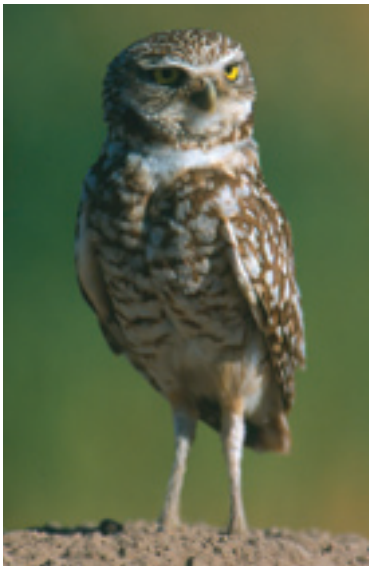
SUPPORT IS CRUCIAL TO GETTING THE JOB DONE

RECOVERY TAKES TIME AND MONEY

If species decline past the point where they can recover themselves, rescue can be very expensive and may require decades of work. Brian Johns, chair of the Whooping Crane Recovery Team, estimates that more than $200 million has been invested by the United States and Canada, in that species since the early 1930s. Recovery actions include research, habitat protection, and captive breeding and reintroduction programs.

Contributions for species recovery valued at about $29 million per year arrive from all sectors of Canadian society. For example, governments and wildlife management boards assign staff to run recovery programs and provide matching funds for scientific research or recovery actions. Aboriginal organizations advise recovery planning and actions using Traditional Ecological Knowledge. Universities and colleges support the participation of faculty members on Recovery Teams or scientific research in their facilities. Environmental non-government organizations raise funds to invest in recovery actions. Corporations contribute a portion of sales receipts to a recovery effort, sponsor a species, or provide office space for recovery staff. Individuals volunteer their time, donate or manage land that provides habitat for species at risk, and contribute earnings to species recovery foundations.

Despite these generous contributions, it is not enough to implement all the recovery actions that are needed. Recovery actions must be prioritized to ensure that limited funds benefit the most endangered species at the national level.



Burrowing Owl (Endangered)
© Christian Artuso

ANNUAL CONTRIBUTIONS TO THE NATIONAL RECOVERY PROCESS

(Average per year for 1999-2004; from RENEW annual reports)

Expenditures on recovery
(salaries and expenses): $29 million

Employment equivalent:
About 145 people working full time

Volunteer effort:
Thousands of individuals equivalent to about 35 people working full time

Financial contributors: 212 organizations

Shortnose Sturgeon (Special Concern) © Jason Casselman

CORPORATE PARTNERSHIPS: RAISING FUNDS AND PROMOTING THE CAUSE

CRAFT BEERS FOR THE PROTECTION OF ENDANGERED SPECIES

In 1998, Project Rescousse partnered with RJ Brewery to launch a new beer in Quebec in support of species at risk.

Rescousse—which means "rescue" in English—is red wheat ale inspired by the endangered Copper Redhorse fish, a rare fish found in only a few rivers of southwestern Quebec, and featured on the bottle's label. RJ Brewers donates royalties from the sale of Rescousse to the Fondation de la faune du Québec, to support recovery of threatened and vulnerable wildlife in Quebec. In fact, the beer helped build a $2.4 million fishway to allow the rare species to bypass a dam and reach its spawning grounds upstream. Escousse is a seasonal beer launched in 2002 to raise more funds and to use the SOS Beer concept to present other species at risk such as the Western Chorus Frog and the Piping Plover.

These products pay off in more ways than one. In addition to revenues for species at risk, they raise awareness of the plight of species in peril, and of the importance of preserving biodiversity. The stunning artwork on the labels by Ghislain Caron draws the attention of customers and inspires discussions about environmental issues.

The strong partnership of RJ Brewery, Fondation de la faune du Québec, and Project Rescousse is based on a shared interest in protecting species at risk. Their "message in the bottle" is an SOS for endangered species—and the partners are hoping that people will listen to their last call.

AVEDA: SAVING POWER PLANTS

Aveda is an international company that makes plant-based beauty products. Every year in April, Aveda holds an Earth Month campaign and donates a portion of its revenues to its conservation partners. The 2005 theme, "Save Our Power Plants," recognized that "Plants provide the air we breathe, food and habitat for wildlife—even medical cures yet to be discovered. But…one out of every three plant species is now threatened by extinction."


Golden Crest (Threatened)
© Mark F. Elderkin


Plymouth Gentian (Threatened)
© Nova Scotia Museum of Natural History

Funds raised in the 2005 Earth Month campaign in Atlantic Canada will benefit the Plants on the Edge initiative of the Nova Scotia Nature Trust—a program to protect endangered plants of the Atlantic coastal plain, the largest and most significant intact populations of coastal plain flora in Canada. Of the province's 64 Atlantic coastal plain species, 11 are considered nationally endangered, threatened, or of special concern. Five species are considered at risk globally.

In addition to generating critical funds, the Earth Month campaign helps raise awareness of and support for endangered species conservation. "Earth Month gives us the chance to educate our clients about critical issues affecting the health of the planet, as well as ourselves," says Cindy Dunn, regional representative for Aveda.

PEOPLE CAN MAKE A DIFFERENCE

Recovery efforts have resulted in some notable successes. New nesting colonies established for the White Pelican and nesting platforms provided for the Ferruginous Hawk stabilized their population levels so they are no longer considered at risk. The Peregrine Falcon (subspecies *anatum*) has been upgraded to threatened from endangered due to the reduced use of persistent organochlorine pesticides and reintroduction of captive-bred young. Establishment and protection of new herds of Wood Bison have enhanced the prospects of that species, which is no longer considered at imminent risk of extinction.

Still, much work needs to be done to protect and recover those species that are most sensitive to human activity, and to prevent others from becoming at risk. Alain Branchaud, a recovery specialist with Environment Canada, thinks one of the greatest challenges is encouraging people to care about the issue: "The protection of biodiversity and species at risk must be internalized as a fundamental value. This is the first step in protecting species."

Wood Bison (Threatened)
© Kathreen Ruckstuhl

PROMISING ADVANCES IN SCIENCE AND TECHNOLOGY

Recent innovations in science and technology also mark progress in the field of recovery. Refinement of animal management practices has enabled the Vancouver Island Marmot Recovery Team to finally turn the corner and successfully breed the species in captivity. Bill Lishman's technique to teach birds to migrate using an ultralight aircraft—popularized in the 1996 movie *Fly Away Home*—has helped establish new breeding flocks of the Whooping Crane. Canadians have adopted U.S. preservation techniques based on nest cages called "exclosures" to protect young Piping Plovers from predators. The multi-partner "Space for Habitat" pilot project is developing a system to monitor wildlife habitat using satellite technologies, including monitoring critical habitat for species at risk.

Satellite image of Shepody National Wildlife Area in New Brunswick © Crown

Endangered Whooping Cranes spending time with their mechanical "mother" and the costumed pilots © Operation Migration

WITH A LITTLE HELP FROM MY FRIENDS…

The Eastern Bluebird has made an extraordinary comeback, due largely to a nest box campaign supported by thousands of bird lovers. The Committee on the Status of Endangered Wildlife in Canada removed the bluebird from its list of species at risk in 1996.

Bluebird numbers declined with the loss of old trees and fence posts for nesting, competition from other songbirds, and a couple of harsh winters in the 1970s.

Landowners, naturalists, and others responded to the decline by building artificial nest boxes to improve the species' breeding success. Nest box trails were created to help volunteers to monitor and maintain the nest boxes.

"But let's take satisfaction in this: Sea otters are repopulating coastal waters. Caribou are reinhabiting their ancient winter home. Sockeye salmon are spawning in record numbers in the Adams River. Bald eagles are riding thermals in the sky. These wild animals, part of what defines our Canadian identity, are living, breathing proof that when we mend our destructive ways, nature can bounce back. By offering us hope, these stories of resilience light the way toward a sustainable future for all of this country's diverse inhabitants."

David R. Boyd, environmental lawyer and author of Unnatural Law: Rethinking Canadian Environmental Law and Policy (*quoted in the* Globe and Mail, *December 31, 2002 and reprinted here with the permission of David Boyd).*

Formerly a species of Special Concern, the Eastern Bluebird has recovered because people across its range provided nest boxes © S.L. Renkel

Western Rattlesnake (Threatened) © Karl W. Larsen

GET INVOLVED IN SAVING THE WILD

There are many opportunities to help save the wild.

LEARN MORE ABOUT SPECIES AT RISK AND WHAT THEY LOOK LIKE.

Awareness is the first step on the road to participating in recovery. The Government of Canada's Species at Risk Web site provides an Internet mapping tool that will help you to identify the species that live in your area. Once the list is generated, you can click on any species name to access a photograph and more information.

UNDERSTAND THE THREATS TO SPECIES AND HOW YOU CAN BE PART OF THE SOLUTION.

Canada's Species at Risk Web site and most Recovery Team Web sites explain the reasons for species' declines and feature concrete things that you can do to help protect or recover species at risk. For example, you can reduce threats by eliminating use of chemical pesticides around your home, voicing your opinion about development plans that affect species at risk, or avoiding souvenirs made from plants and animals.

HELP OUT WITH RECOVERY ACTIONS.

Contact a Recovery Team, local naturalist club, or other conservation organization to find out about recovery projects in your community. Your help may be needed to build nest boxes, clear invasive plants, or monitor plants or animals.

PROTECT SPECIES AT RISK ON YOUR PROPERTY.

If you own a small lot, operate a farm, or manage a large forest tract that is home to species at risk, recovery specialists can provide advice on how to care for species while still making use of your property. Contact the Recovery Team or responsible jurisdiction.

To protect endangered plants and animals in the long run, landowners can donate ecologically sensitive land to an environmental charity or government body. Canada's Ecological Gifts Program provides landowners with tax relief on lands that protect significant natural heritage features, including some habitat for species at risk.

PASS IT ON…TALK ABOUT RECOVERY.

Talk to your friends, family, and colleagues about species at risk of extinction and what is being done to save them. Read a story to a child, or a whole class! Ask at your local library or bookstore for stories about species recovery, like *The Hatchling's Journey*: *A Blanding's Turtle Story* by Kristin Bieber Domm or *Samuel's Most Important Message* by Frank Glew.

MAKE A FINANCIAL OR IN-KIND DONATION TARGETED TO SPECIES RECOVERY.

You can contribute to saving the wild by contacting non-government organizations, Recovery Teams, or species at risk foundations.

PROTECTING PRECIOUS HABITAT: THE BLISS LEGACY

"We just couldn't see it developed," says Dr. Frederic (Ted) Bliss, explaining why he and his wife Pamela donated a 40-hectare property in eastern Ontario to their local municipality for preservation. "We wanted to ensure it would be protected after my wife and I are no longer here."

The property is near their home just west of Brockville, in a region called the Frontenac Axis, where the Canadian Shield stretches south across the St. Lawrence River into the Adirondacks of New York state. Ruggedly beautiful, the property features rocky ridges, old-growth maple and Eastern Hemlock forests, marshes, and beaver ponds. The diverse habitats support a variety of plants and animals, including species at risk such as the Eastern Ratsnake and the Stinkpot, as well as the rare Pitch Pine, all at the northern limits of their range.

Ted and Pamela Bliss have enjoyed walking and skiing on the property for more than 35 years. The couple donated the land to the local municipality through Environment Canada's Ecological Gifts Program in 2002 with the assistance of the Canadian Thousand Islands Heritage Conservancy. The program enables landowners to protect their cherished piece of nature forever by donating ecologically sensitive land to an environmental charity or government body. Ecogift donors are eligible to receive enhanced income tax benefits for their donation.

The Bliss property has been transferred to the Parks Canada Agency and is now part of St. Lawrence Islands National Park of Canada. Ted and Pamela continue to enjoy the property a couple of times a week, with the peace of mind that this beautiful and precious habitat will be preserved for generations to come.

Volunteers working on a Sharp-tailed Snake restoration project on Saltspring Island, B.C. (Endangered) © Christian Engelstoft

Pam and Ted Bliss still enjoy the property they donated for conservation © Toronto Star

WHERE TO FIND MORE INFORMATION

Canada's Species at Risk
www.speciesatrisk.gc.ca

Committee on the Status of Endangered Wildlife in Canada
www.cosewic.gc.ca

General Status of Species in Canada
www.wildspecies.ca

SARA Public Registry
www.sararegistry.gc.ca

Provincial and territorial species at risk
www.speciesatrisk.gc.ca/links_e.cfm

Conservation Data Centres
www.natureserve-canada.ca

RECOVERY

RENEW Web site
www.speciesatrisk.gc.ca/recovery/default_e.cfm

Recovery Teams
www.speciesatrisk.gc.ca/recovery/team_ch_e.cfm

SAMPLE RECOVERY TEAM OR WORKING GROUP WEB SITES

Aquatic Species at Risk in the Sydenham River Watershed
www.sydenhamriver.on.ca

Garry Oak Ecosystems Recovery Team
www.goert.ca

The Newfoundland Marten
www.newfoundlandmarten.com

Nova Scotia Leatherback Turtle Working Group
www.seaturtle.ca

Nova Scotia's Blanding's Turtles: Conservation and Recovery
www.speciesatrisk.ca/blandings

Nova Scotia's Coastal Plain Flora: Conservation and Recovery
www.speciesatrisk.ca/coastalplainflora

The Vancouver Island Marmot
www.marmots.org/recovery_partner.htm

SOME NATIONAL NON-GOVERNMENT ORGANIZATIONS ACTIVE IN RECOVERY

Canadian Wildlife Federation
www.cwf-fcf.org

Nature Canada
www.cnf.ca

Nature Conservancy of Canada
www.natureconservancy.ca

World Wildlife Fund
www.wwf.ca

FUNDING PROGRAMS OF INTEREST

The Canadian Ecological Gifts Program
www.cws-scf.ec.gc.ca/ecogifts

Endangered Species Recovery Fund
www.speciesatrisk.gc.ca/support/esrf_frep/default_e.cfm

Habitat Stewardship Program for Species at Risk
www.cws-scf.ec.gc.ca/hsp-pih

FOR THE KIDS…

Space for Species
www.spaceforspecies.ca

Recovery of Nationally Endangered Wildlife

In 1988, the Wildlife Ministers Council of Canada endorsed a new strategy to rescue wildlife species at risk of extinction and to prevent other species from becoming at risk. Called RENEW (the acronym for REcovery of Nationally Endangered Wildlife), the strategy brings together all agencies, organizations, and interested individuals to work as a team for the recovery of wildlife at risk. RENEW focuses on those species or populations that have been designated as extirpated, endangered, or threatened by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC). The responsible jurisdictions usually establish a National Recovery Team of experts to produce a recovery strategy and action plan, which then become the basis for a recovery program carried out by the responsible governments in cooperation with Aboriginal people, industry, academia, non-government organizations, businesses, and private citizens.

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