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Species at Risk Act

Annual Report

for 2011



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1 INTRODUCTION

1.1 The Purpose of the Annual Report

The *Species at Risk Act* (SARA) received Royal Assent on December 12, 2002, and came fully into force on June 1, 2004.

This report summarizes SARA-related activities carried out in 2011. The report fulfils the Minister of the Environment's obligation, under section 126 of the Act, to prepare an annual report on the administration of SARA for each calendar year. The Act requires that the report include a summary of:

- a) the assessments of the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) and the Minister's response to each of them;
- b) the preparation and implementation of recovery strategies, action plans and management plans;
- c) all agreements made under sections 10 to 13;
- d) all agreements entered into and permits issued under section 73, and all agreements and permits amended under section 75 or exempted under section 76;
- e) enforcement and compliance actions taken, including the response to any requests for investigation;
- f) regulations and emergency orders made under SARA; and
- g) any other matters that the Minister considers relevant.

This introductory section provides background information on SARA and outlines the responsibilities of the federal departments and agencies under the Act. Subsequent sections describe the following activities under SARA:

- assessment and listing;
- protection measures for listed species;
- recovery planning for listed species;
- recovery implementation;
- monitoring and evaluation; and
- consultation and governance.



1.2 Background on SARA

1.2.1 The Government's Strategy for Species at Risk

SARA is the legislative basis for the Government of Canada's strategy for the protection of wildlife species at risk. It supports the federal commitments under the 1996 Accord for the Protection of Species at Risk to prevent species in Canada from becoming extinct as a consequence of human activity. The Habitat Stewardship Program for Species at Risk also supports these commitments, by providing a mechanism to encourage action by all Canadians in the recovery of species at risk (see section 5.2.2.1). Conservation of species at risk is shared by all jurisdictions in Canada, and is a process based on assessment, protection, recovery planning, implementation, and monitoring and evaluation, as illustrated in the diagram above. The Act recognizes this joint responsibility and that all Canadians have a role to play in the protection of wildlife.

1.2.2 The Purpose of SARA

SARA is an important tool for conserving and protecting Canada's biological diversity. The purposes of the Act are to prevent wildlife species from being extirpated or becoming extinct, to provide for the recovery of wildlife species that are extirpated, endangered or threatened as a result of human activity, and to manage species of special concern to prevent them from becoming endangered or threatened.

The Act establishes a process for conducting scientific assessments of the status of individual wildlife species and a mechanism for listing extirpated, endangered, threatened and special-concern species. SARA also includes provisions for the protection, recovery and management of listed wildlife species and their critical habitats¹ and residences,² as appropriate.

SARA complements existing legislation and supports domestic implementation of certain international conventions, including:

- the *Canadian Environmental Assessment Act*;
- the *Canada Wildlife Act*;
- the *Migratory Birds Convention Act, 1994*;
- the *Wild Animal and Plant Protection and Regulation of International and Interprovincial Trade Act*;
- the *Fisheries Act*;
- the *Oceans Act*;
- the *Canada National Parks Act*;
- the *Canada National Marine Conservation Areas Act*;
- the *Saguenay–St. Lawrence Marine Park Act*;
- the Convention on International Trade in Endangered Species of Wild Fauna and Flora; and
- the Convention on Biological Diversity.

1.3 Responsible Authorities for Implementation of SARA

The Parks Canada Agency, Fisheries and Oceans Canada, and Environment Canada are the three government organizations, commonly referred to as the “competent” departments, that share responsibility for the implementation of SARA. The ministers responsible for these organizations are known as the “competent” ministers under SARA. The Minister of the Environment is the minister responsible for both Environment Canada and the Parks Canada Agency. Ministerial responsibilities are as follows:

- The Minister responsible for Parks Canada Agency is responsible for individuals of species found in or on federal lands and waters it administers.
- The Minister of Fisheries and Oceans is responsible for aquatic species at risk other than individuals in or on federal lands administered by the Parks Canada Agency.
- The Minister of the Environment is responsible for all other species at risk.

The competent ministers have the authority to make many of the decisions in their areas of responsibility, including ministerial protection orders.

The Minister of the Environment is the minister responsible for the overall administration of SARA, except in so far as the Act gives responsibility to another minister (i.e., the other competent minister). The Minister of the Environment is required to consult with the other competent ministers as necessary on matters related to SARA administration. Orders in Council to list species under SARA are made by the Governor in Council on the recommendation of the Minister of the Environment.

2 WILDLIFE ASSESSMENT AND LISTING UNDER SARA

SARA establishes a process for conducting scientific assessments of the status of individual wildlife species. The Act separates the scientific assessment process from the listing decision, ensuring that scientists provide independent assessments and that decisions affecting Canadians are made by elected officials who are accountable for those decisions.

2.1 COSEWIC Assessments

The Committee on the Status of Endangered Wildlife in Canada (COSEWIC) is the committee of experts that identifies and assesses wildlife species at risk in Canada. It includes members from government, academia, Aboriginal organizations, non-governmental organizations and the private sector. The federal government provides financial support to COSEWIC.

¹ Under SARA, “critical habitat” is defined as the habitat that is necessary for the survival or recovery of a listed wildlife species (see section 4.2).

² “Residence” means a dwelling-place, such as a den, nest or other similar area or place, that is occupied or habitually occupied by one or more individuals during all or part of their life cycles, including breeding, rearing, staging, wintering, feeding or hibernating.

COSEWIC assesses the status of a wildlife species using the best available information on the biological status of a species, including scientific knowledge, community knowledge and Aboriginal traditional knowledge (ATK). The committee provides assessments and supporting evidence annually to the Minister of the Environment.

COSEWIC can assess wildlife species as extinct, extirpated, endangered, threatened, of special concern, data deficient or not at risk:

- An extinct wildlife species no longer exists: it is extirpated worldwide.
- An extirpated wildlife species no longer exists in the wild in Canada but exists elsewhere in the world.
- An endangered wildlife species faces imminent extirpation or extinction.
- A threatened wildlife species is likely to become endangered if nothing is done to reverse the factors leading to its extirpation or extinction.
- A wildlife species of special concern may become threatened or endangered because of a combination of biological characteristics and identified threats.

Further details on risk categories and more information on COSEWIC are available at www.cosewic.gc.ca.

To help prioritize species for assessments, COSEWIC uses the general status ranks outlined in the reports entitled *Wild Species: The General Status of Species in Canada*. These reports are produced every five years by the National General Status Working Group (see section 7.2.4), a joint federal–provincial–territorial initiative led by Environment Canada.

The first report, *Wild Species 2000*, provided general assessments of 1670 species in Canada. The second report, *Wild Species 2005*, presented general status assessments for 7732 species from all provinces, territories and ocean regions, representing all of Canada's vertebrate species (fish, amphibians, reptiles, birds and mammals), all of Canada's vascular plants, and four invertebrate groups (freshwater mussels, crayfishes, ordonates and tiger beetles). The third

report, *Wild Species 2010*, included assessments of 11 950 species. Reports from the Wild Species series have greatly increased the number and variety of species assessed nationally, but with the total number of species in Canada estimated at more than 70 000, there are still many species left to be assessed. The reports can be found at www.wildspecies.ca.

Environment Canada, the Parks Canada Agency, and Fisheries and Oceans Canada provide input to the assessment process via their representation on COSEWIC and through the population surveys that they conduct on some species of interest to COSEWIC. In keeping with section 20 of SARA, Environment Canada provides COSEWIC with professional, technical, secretarial, clerical and other assistance that is necessary to carry out its functions via the COSEWIC Secretariat, which is housed within Environment Canada. Environment Canada and Parks Canada scientists are regularly involved in the peer review of COSEWIC status reports.

Prior to COSEWIC meetings, Fisheries and Oceans Canada leads a peer-review process to gather data in order to provide COSEWIC with all available information held by that department on aquatic species, for inclusion in the status reports. This process involves government scientists, experts from academia and other stakeholders, as appropriate. Fisheries and Oceans Canada staff participate in the review of COSEWIC species status reports before COSEWIC species assessments are finalized. In 2011, Fisheries and Oceans Canada conducted pre-COSEWIC scientific meetings on four aquatic species and reviewed species status reports from COSEWIC for 39 aquatic species.

When COSEWIC assesses aquatic species as threatened or endangered, Fisheries and Oceans Canada, as the competent department under SARA, undertakes a number of actions. Many of these actions require scientific information on the current status of the species, population or designatable unit, threats to its survival and recovery, and the feasibility of its recovery. In many cases, this advice is provided through a recovery potential assessment that Fisheries and Oceans Canada prepares shortly after the COSEWIC assessment. This provides a mechanism for Fisheries and Oceans Canada, recovery teams and the public to receive the best scientific advice possible about a species' potential for recovery. These recovery

potential assessments are taken into consideration in the SARA processes, including at the recovery planning stage. Fisheries and Oceans Canada completed recovery potential assessments for 24 wildlife species in 2011.

In 2011, the Parks Canada Agency continued to conduct detailed assessments to measure the conservation status of species (its risk of being extirpated from a given heritage place), determine changes in species population levels, and evaluate the effectiveness of management activities for species. This diagnostic tool helps the Agency to identify feasible recovery opportunities and knowledge gaps for species at risk at each heritage place under the Agency's responsibility (i.e., national parks, national marine conservation areas, national historic sites and historic canals).

In 2011, the Agency either completed (reviewed or approved) or drafted a total of 194 detailed assessments for species at risk found within Parks Canada's protected heritage places. Parks Canada has now completed or drafted detailed assessments for all species that occur on Parks Canada lands and in its waters. In total, 166 species at risk live, breed and feed throughout the network of Park's heritage places. The Agency's long-term goal is to complete detailed assessments for all newly listed species occurring in Parks Canada land and waters and to update information on the conservation status for all species at risk found within its network of heritage places as it becomes available. The information in detailed assessments contributes to the Wild Species reports and to COSEWIC status reports.

Pioneering Piping Plovers at Gros Morne National Park

Historically, the northernmost Atlantic Piping Plovers (*Charadrius melodus melodus*) were found at Shallow Bay in Gros Morne National Park of Canada. The park was established in 1973, but Piping Plovers were already in decline at that time and were last seen in the park in 1975, even though several high-quality Piping Plover beaches were under the protection of Parks Canada.

Parks staff kept an eye on this site and in June 2009, something hopeful happened in Gros Morne. After an absence of 34 years, a Piping Plover was seen at Shallow Bay! Over the following days, a pair was seen courting and, within two weeks, a seasonal closure was placed on the section of beach where they had settled. Park staff used this opportunity to engage the local community and the media to increase public understanding of the plight of plovers throughout Newfoundland. The birds did their part too. A nest was established and four chicks fledged that summer. More importantly, the plovers returned to nest at Shallow Bay in 2010 and 2011.



Piping Plover chicks hatching in Gros Morne.
© Parks Canada Agency

That single pair of plovers at Shallow Bay is vitally important to the species' recovery since their continued presence dramatically increases the chances that other plovers will decide to breed there in the future. For other plovers searching for a breeding site, the presence and breeding success of these Piping Plovers is certainly an indicator of a good quality beach. Indeed, on one July day in 2010, a third adult plover was seen feeding with them. It is very likely that this individual had lost a nest and was prospecting for a new breeding site. Thus there is real hope that this single pair of Piping Plovers will precipitate the reclamation of an important portion of the species' historical range and reminds us of the importance of keeping habitats and ecosystems healthy and whole.

2.1.1 COSEWIC Subcommittee on Aboriginal Traditional Knowledge

SARA requires that COSEWIC assess the conservation status of wildlife species on the basis of the best available information, including scientific knowledge, community knowledge and Aboriginal traditional knowledge (ATK). The Act also requires that COSEWIC establish a supporting subcommittee on ATK.

Activities of the ATK Subcommittee (ATK SC) for 2011 included the following:

- Three ATK SC meetings were held in Vancouver, British Columbia, in January; in Wendake (Québec), Quebec, in June; and in Toronto, Ontario, in September. Also, a meeting was held with the National Aboriginal Council on Species at Risk (NACOSAR) in September 2011. This meeting provided an opportunity for recently appointed NACOSAR members to become familiar with ATK SC members, the COSEWIC assessment process, how ATK is to be integrated into the COSEWIC assessment process, and the issues associated with ATK gathering and integration by COSEWIC.
- The ATK SC began to develop a list of wildlife species for which ATK information would be gathered. From the list of wildlife species created, wildlife species were prioritized using a decision matrix tool. Some examples of prioritized species include the Grizzly Bear, Caribou, Plains Bison and Wood Bison, Beluga Whale, Atlantic Walrus, Sockeye Salmon (Fraser River population) and Cassin's Auklet.
- The ATK SC further refined the decision matrix tool as well as the content and format of two standard reports: an ATK source report and an ATK assessment report.
- The ATK SC initiated ATK source reports for a number of species including the Grizzly Bear, Caribou, Haida Gwaii Slug, Steller Sea Lion, Plains and Wood Bison, Cassin's Auklet, Limestone Moss, Wolverine, Mormon Metalmark, Green Sturgeon, White Sturgeon, Sockeye Salmon (Fraser River population), Eastern Box Turtle, Spotted Turtle, Beluga Whale, Atlantic Walrus, Butternut, Shortjaw Cisco, Blue Ash, and Athabasca Rainbow Trout (Alberta Designatable Units). The ATK SC also initiated ATK assessment reports for the

Grizzly Bear, Caribou (all designatable units), and Sockeye Salmon (Fraser River population) and shared these reports upon finalization with relevant COSEWIC species specialist subcommittees (SSCs).

2.1.2 Wildlife Species Assessments in 2011

COSEWIC finalized the following wildlife species assessments, grouped in batches, between 2002 and 2011:

- Batch 1: 115 wildlife species in May 2002, November 2002 and May 2003
- Batch 2: 59 wildlife species in November 2003 and May 2004
- Batch 3: 73 wildlife species in November 2004 and May 2005
- Batch 4: 68 wildlife species in April 2006
- Batch 5: 64 wildlife species in November 2006 and April 2007
- Batch 6: 46 wildlife species in November 2007 and April 2008
- Batch 7: 48 wildlife species in November 2008 and April 2009
- Batch 8: 79 wildlife species in November 2009 and April 2010
- Batch 9: 92 wildlife species in November 2010 and May 2011

Details on batches 1 through 9 can be found in Table 3 (see Section 2.2.4), and in previous SARA annual reports at www.sararegistry.gc.ca/approach/act/sara_annual_e.cfm.

Batch 9

At the November 2010 and May 2011 meetings, COSEWIC finalized assessments and classification reviews of 92 wildlife species (Batch 9):

- Four wildlife species were examined and found to be data-deficient.
- Six wildlife species were assessed as not at risk.
- One wildlife species was assessed as extinct.

- Eighty-one wildlife species were assessed as at risk, of which 30 were confirmed at the classification already attributed to them on Schedule 1.³

COSEWIC forwarded these assessments to the Minister of the Environment in late summer 2011.

2.2 Listing

2.2.1 Listing Process

Upon formally receiving COSEWIC's assessments, the Minister of the Environment has 90 days to post a response statement on the Species at Risk (SAR) Public Registry indicating how the Minister intends to respond to each assessment and, to the extent possible, providing timelines for action.

During this 90-day period, the competent minister carries out an internal review to determine the level of public consultation and socio-economic analysis necessary to inform the listing decision. Timelines for action and the scope of consultations included in the response statement are based on the results of this initial review.

The next step in the listing process is for the Minister of the Environment to provide the COSEWIC assessments to the Governor in Council, and for the Governor in Council to officially acknowledge receipt of the assessments by publishing, in the *Canada Gazette*, an order acknowledging receipt.

Following receipt by Governor in Council of the assessments, the Minister must prepare a recommendation to the Governor in Council regarding each of the species proposed for listing, de-listing, reclassification, or referral back to COSEWIC for further information or consideration. When making a recommendation to the Governor in Council, the Minister of the Environment cannot vary the status of a species as assessed by COSEWIC. As required by the *Cabinet Directive on Streamlining Regulation*,

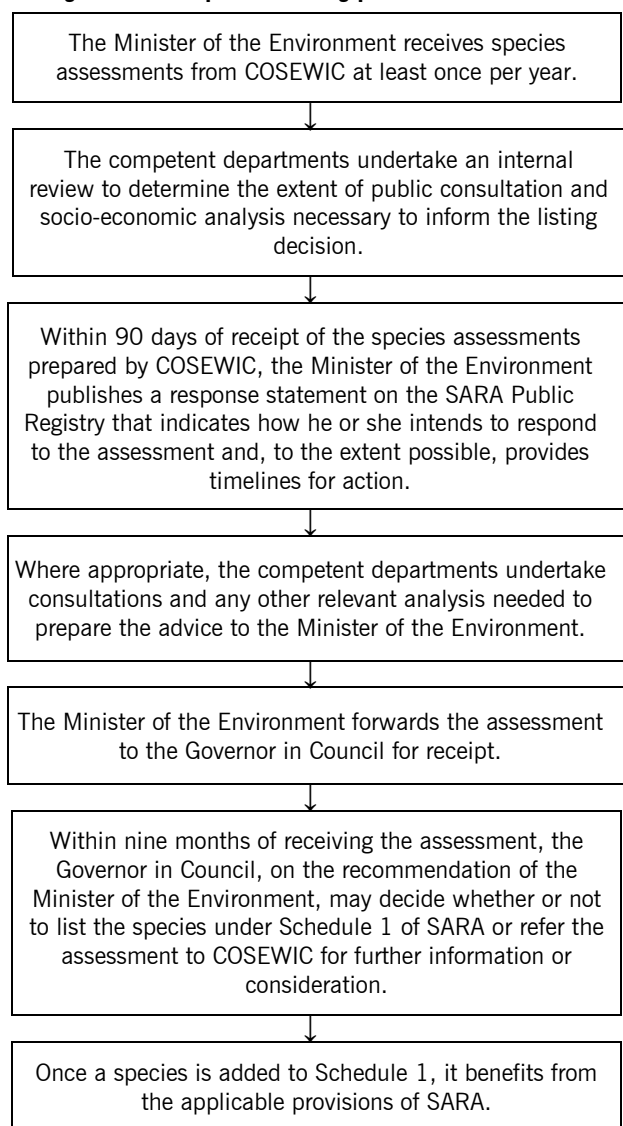
the competent minister will conduct public consultations and socio-economic analyses and consider the results prior to making a recommendation. Under section 27 of SARA, the Governor in Council can decide to add a species to Schedule 1, to change the status designation of a species already listed on Schedule 1 in accordance with the status assessment by COSEWIC, to not add a species to Schedule 1 of SARA or to remove a species from Schedule 1 of SARA. The Governor in Council also has the authority to refer the assessment back to COSEWIC.

Species that were designated as being at risk by COSEWIC prior to October 1999 were listed under schedules 2 and 3 when the Act came into force. COSEWIC is reassessing these species using revised criteria, following which the Governor in Council may, on the recommendation of the Minister, add the species to Schedule 1. All Schedule 2 species have been reassessed by COSEWIC. At the end of 2011, 11 Schedule 3 species remained to be assessed.

The chart shown in Figure 1 further describes the species listing process. Table 3 (see Section 2.2.4) provides the status of the listing process for each batch of assessed species.

³ Every 10 years, or earlier if warranted, COSEWIC carries out a classification review of wildlife species previously designated in a category of risk, with an updated status report. As necessary, COSEWIC may also reassess other wildlife species previously found not at risk or data-deficient with an updated status report.

Figure 1: The species listing process under SARA



2.2.2 Federal Government Response to COSEWIC Assessments

In September 2011, the Minister of the Environment received from COSEWIC the assessments for 81 wildlife species at risk from Batch 9, including 32 aquatic species. In December 2011, the Minister posted response statements for these 81 species.

The Minister also posted a response statement for the Atlantic Salmon Lake Ontario population, a species that had been assessed as extinct by COSEWIC in November 2010. The response statements (full list included in Table 1) indicated the following:

- For 27 wildlife species, normal consultations (i.e., consistent with the consultation path that is typical for most species; see Figure 1) would be undertaken. These included 21 terrestrial species and six aquatic species. Thirteen of these 27 species were already listed on Schedule 1—three as endangered, six as threatened and four as being of special concern. The three endangered species are now eligible to have their risk status lowered (“downlisted”): two to threatened and the other to special concern. Of the six threatened species, four are now eligible to be downlisted to special concern, and the other two are eligible to have their risk status raised (“uplisted”) to endangered. Of the four special concern species, one is eligible to be uplisted to extirpated, one is eligible to be uplisted to endangered and two are eligible to be uplisted to threatened.
- For 22 aquatic wildlife species and three terrestrial species, extended consultations would be undertaken, because listing these species could potentially have marked impacts on the activities of Aboriginal peoples, commercial and recreational fishers, or Canadians at large.
- COSEWIC requested the Minister provide a recommendation that one species, the Eulachon (Nass/Skeena rivers population), be referred back to COSEWIC for reassessment, because new information relevant to the assessment became apparent that was not available at the time of the species assessment in May, 2011.
- The Minister also posted 31 response statements for species already listed and for which COSEWIC had confirmed the risk classification already attributed to them on Schedule 1. For these 31 species, no further measures were required.

Table 1: List of species for which a response statement was posted during the 2011 reporting year

COSEWIC Risk Status	Taxon	English legal name	Scientific name
Normal consultation			
Endangered	Arthropod	Hine's Emerald	<i>Somatochlora hineana</i>
Endangered	Arthropod	Hungerford's Crawling Water Beetle	<i>Brychius hungerfordi</i>
Endangered	Arthropod	Macropis Cuckoo Bee	<i>Epeoloides pilosulus</i>
Endangered	Arthropod	Olive Clubtail	<i>Stylurus olivaceus</i>
Endangered	Arthropod	Skillet Clubtail	<i>Gomphus ventricosus</i>
Endangered	Lichen	Batwing Vinyl Lichen	<i>Leptogium platynum</i>
Endangered	Moss	Roell's Brotherella Moss	<i>Brotherella roelli</i>
Threatened	Lichen	Crumpled Tarpaper Lichen	<i>Collema coniophilum</i>
Special Concern	Fish	Dolly Varden (Western Arctic populations)	<i>Salvelinus malma malma</i>
Special Concern	Fish	Mountain Sucker (Pacific populations)	<i>Catostomus platyrhynchus</i>
Special Concern	Fish	Silver Lamprey (Great Lakes – Upper St. Lawrence populations)	<i>Ichthyomyzon unicuspis</i>
Special Concern	Arthropod	Dune Tachinid Fly	<i>Germaria angustata</i>
Special Concern	Lichen	Blue Felt Lichen	<i>Degelia plumbea</i>
Special Concern	Lichen	Peacock Vinyl Lichen	<i>Leptogium polycarpum</i>
Uplist from Special Concern to Extirpated	Amphibian	Spring Salamander (Carolinian population)	<i>Gyrinophilus porphyriticus</i>
Uplist from Special Concern to Endangered	Mollusc	Rocky Mountain Ridged Mussel	<i>Gonidea angulata</i>
Uplist from Special Concern to Threatened	Bird	Barn Owl (Western population)	<i>Tyto alba</i>
Uplist from Special Concern to Threatened	Amphibian	Spring Salamander (Adirondack / Appalachian population)	<i>Gyrinophilus porphyriticus</i>
Uplist from Threatened to Endangered	Reptile	Butler's Gartersnake	<i>Thamnophis butleri</i>
Uplist from Threatened to Endangered	Amphibian	Jefferson Salamander	<i>Ambystoma jeffersonianum</i>
Downlist from Endangered to Special Concern	Vascular plant	Pitcher's Thistle	<i>Cirsium pitcher</i>
Downlist from Threatened to Special Concern	Vascular plant	Dwarf Lake Iris	<i>Iris lacustris</i>
Downlist from Threatened to Special Concern	Vascular plant	Lyall's Mariposa Lily	<i>Calochortus lyallii</i>
Downlist from Endangered to Threatened	Vascular plant	Purple Twayblade	<i>Liparis liliifolia</i>
Downlist from Endangered to Threatened	Vascular plant	Showy Goldenrod (Boreal population)	<i>Solidago speciosa</i>
Downlist from Threatened to Special Concern	Mammal	Humpback Whale (North Pacific population)	<i>Megaptera novaeangliae</i>
Downlist from Threatened to Special Concern	Fish	Shorthead Sculpin	<i>Cottus confusus</i>
Extended consultation			
Endangered	Fish	Atlantic Bluefin Tuna	<i>Thunnus thynnus</i>

Table 1. (Continued)

COSEWIC Risk Status	Taxon	English legal name	Scientific name
Endangered	Fish	Atlantic Salmon (Anticosti Island population)	<i>Salmo salar</i>
Endangered	Fish	Atlantic Salmon (Eastern Cape Breton population)	<i>Salmo salar</i>
Endangered	Fish	Atlantic Salmon (Nova Scotia Southern Upland Population)	<i>Salmo salar</i>
Endangered	Fish	Atlantic Salmon (Outer Bay of Fundy population)	<i>Salmo salar</i>
Endangered	Fish	Eulachon (Central Pacific Coast population)	<i>Thaleichthys pacificus</i>
Endangered	Fish	Eulachon (Fraser River population)	<i>Thaleichthys pacificus</i>
Endangered	Molluscs	Hickorynut	<i>Obovaria olivaria</i>
Threatened	Mammal	Northern Fur Seal	<i>Callorhinus ursinus</i>
Threatened	Bird	Barn Swallow	<i>Hirundo rustica</i>
Threatened	Bird	Eastern Meadowlark	<i>Sturna magna</i>
Threatened	Fish	Atlantic Salmon (South Newfoundland population)	<i>Salmo salar</i>
Threatened	Fish	Atlantic Sturgeon (Maritimes populations)	<i>Acipenser oxyrinchus</i>
Threatened	Fish	Atlantic Sturgeon (St. Lawrence populations)	<i>Acipenser oxyrinchus</i>
Threatened	Fish	Mountain Sucker (Milk River populations)	<i>Catostomus platyrhynchus</i>
Special Concern	Mammal	Northern Bottlenose Whale (Davis Strait-Baffin Bay-Labrador Sea populations)	<i>Hyperoodon ampullatus</i>
Special Concern	Fish	Atlantic Salmon (Gaspé-Southern Gulf of St. Lawrence population)	<i>Salmo salar</i>
Special Concern	Fish	Atlantic Salmon (Inner St. Lawrence population)	<i>Salmo salar</i>
Special Concern	Fish	Atlantic Salmon (Quebec Western North Shore population)	<i>Salmo salar</i>
Uplist from Special Concern to Endangered	Bird	Cerulean Warbler	<i>Dendroica cerulea</i>
Uplist from Special Concern to Threatened	Fish	Silver Shiner	<i>Notropis photogenis</i>
Status confirmed—no consultations			
Extirpated	Bird	Greater Prairie-Chicken	<i>Tympanuchus cupido</i>
Extirpated	Reptile	Timber Rattlesnake	<i>Crotalus horridus</i>
Endangered	Mammal	Northern Bottlenose Whale (Scotian Shelf population)	<i>Hyperoodon ampullatus</i>
Endangered	Bird	Barn Owl (Eastern population)	<i>Tyto alba</i>
Endangered	Bird	Henslow's Sparrow	<i>Ammodramus henslowii</i>
Endangered	Bird	King Blue	<i>Rallus elegans</i>
Endangered	Bird	Sage Thrasher	<i>Oreoscoptes montanus</i>
Endangered	Bird	White-headed Woodpecker	<i>Picoides albolarvatus</i>
Endangered	Reptile	Desert Nightsnake	<i>Hypsiglena chlorophaea</i>
Endangered	Amphibian	Oregon Spotted Frog	<i>Rana pretiosa</i>

Table 1. (Concluded)

COSEWIC Risk Status	Taxon	English legal name	Scientific name
Endangered	Amphibian	Blanchard's Cricket Frog	<i>Acris blanchardi</i>
Endangered	Fish	Atlantic Salmon (Inner Bay of Fundy population)	<i>Salmo salar</i>
Endangered	Fish	Atlantic Whitefish	<i>Coregonus huntsman</i>
Endangered	Arthropod	Taylor's Checkerspot	<i>Euphydryas editha</i>
Endangered	Mollusc	Salamander Mussel	<i>Simpsonaias ambigua</i>
Endangered	Vascular plant	White Prairie Gentian	<i>Gentiana alba</i>
Endangered	Vascular plant	Southern Maidenhair Fern	<i>Adiantum capillus-veneris</i>
Endangered	Vascular plant	Small Whorled Pogonia	<i>Isotria medeoloides</i>
Endangered	Vascular plant	Skinner's Agalinis	<i>Agalinis skinneriana</i>
Endangered	Vascular plant	Showy Goldenrod (Great Lakes Plains population)	<i>Solidago speciosa</i>
Endangered	Vascular plant	Seaside Bird's-foot Lotus	<i>Lotus formosissimus</i>
Endangered	Vascular plant	Nodding Pogonia	<i>Triphora trianthophoros</i>
Endangered	Vascular plant	Long's Braya	<i>Braya longii</i>
Endangered	Vascular plant	Furbish's Lousewort	<i>Pedicularis furbishiae</i>
Endangered	Moss	Poor Pocket Moss	<i>Fissidens pauperculus</i>
Threatened	Mammal	Pallid Bat	<i>Antrozous pallidus</i>
Special Concern	Mammal	Eastern Mole	<i>Scalopus aquaticus</i>
Special Concern	Mammal	Woodland Vole	<i>Microtus pinetorum pellucid</i>
Special Concern	Bird	Barrow's Goldeneye (Eastern population)	<i>Bucephala islandica</i>
Special Concern	Bird	Long-billed Curlew	<i>Numenius Americana</i>
Special Concern	Fish	Columbia Sculpin	<i>Cottus hubbsi</i>
Special Concern	Mollusc	Olympia Oyster	<i>Ostrea lurida</i>
No consultation*			
Extinct	Fish	Atlantic Salmon (Lake Ontario population)	<i>Salmo salar</i>
Threatened	Fish	Eulachon (Nass / Skeena rivers population)	<i>Thaleichthys pacificus</i>

* No consultation was undertaken for Atlantic Salmon (Lake Ontario population) because, as an extinct species, it is not eligible for listing under SARA. For the Eulachon (Nass/Skeena rivers population), COSEWIC requested it be referred back for reassessment due to new information not available at the time of its May 2011 assessment.

2.2.3 Public Consultations

In December 2011, the Minister of the Environment launched consultations on whether to modify the status of, or add to Schedule 1 of SARA, 24 terrestrial species. Thirteen of these species are newly eligible for addition to Schedule 1, six are being considered for uplisting to higher risk status, and five are being considered for downlisting to a lower risk status. The Government contacted 1798 targeted stakeholders, including provincial and territorial governments, wildlife management boards, Aboriginal communities, and other stakeholders and affected parties. To facilitate consultations, the document *Consultation*

on Amending the List of Species under the Species at Risk Act: Terrestrial Species – December 2011 was made publicly available on the Species at Risk Public Registry at www.registrelep-sararegistry.gc.ca/document/default_e.cfm?documentID=2318.

In 2011, Fisheries and Oceans Canada undertook listing consultations on more than 20 aquatic species (from Batches 4, 5, 7, 8 and 9 of the COSEWIC assessments). Public consultations were facilitated through emails to stakeholders and interested parties, and by posting other supporting documents on the Species at Risk Public Registry and the Fisheries and Oceans Canada website. Consultation documents

and summaries of the socio-economic analyses were mailed directly to other government departments, Wildlife Management Boards, stakeholders, Aboriginal peoples and non-governmental organizations. As well, meetings were held with interested or potentially affected individuals and organizations.

2.2.4 Listing Decisions

When making a listing decision, the Government of Canada relies on the scientific assessments provided by COSEWIC, any other relevant scientific information, an assessment of the costs and benefits (including social, cultural and economic) to Canadians, and comments received through consultations with other federal departments or agencies, other levels of government, Aboriginal peoples, wildlife management boards, stakeholders and the public. Governor in Council decisions to add a species to Schedule 1 are

published as orders amending Schedule 1 of SARA in the *Canada Gazette*, and include Regulatory Impact Analysis Statements. Decisions not to add a species at risk to Schedule 1 of SARA or to refer the matter back to COSEWIC are published in the *Canada Gazette* with an explanatory note. The orders are also published on the Species at Risk Public Registry.

In 2011, 23 species (three species from Batch 2, one from Batch 3, one from Batch 4, one from Batch 5, one from Batch 6, and 16 from Batch 7), including six aquatic species, were added to Schedule 1 of SARA. Three species (from Batch 7) had their status on Schedule 1 uplisted to a higher risk status and one was downlisted to a lower risk status. The Governor in Council made three decisions to not list in 2011 (two species from Batch 1 and one species from Batch 6).

Table 2: SARA listing decision made by the Governor in Council in 2011

Risk status	Taxon	English legal name	Scientific name
Moved to a higher level of risk (uplisted)			
Endangered	Fish	Lake Chubsucker	<i>Erimyzon sucetta</i>
Endangered	Mollusc	Northern Abalone	<i>Haliotis kamtschatkana</i>
Threatened	Mammal	Killer Whale (Northeast Pacific offshore population)	<i>Orcinus orca</i>
Move to a lower level of risk (downlisted)			
Special Concern	Vascular plant	White-top Aster	<i>Sericocarpus rigidus</i>
Added to List of Wildlife Species at Risk (listed)			
Extirpated	Fish	Striped Bass (St. Lawrence Estuary population)	<i>Morone saxatilis</i>
Extirpated	Vascular plant	Oregon Lupine	<i>Lupinus oregonus</i>
Endangered	Mammal	Peary Caribou	<i>Rangifer tarandus pearyi</i>
Endangered	Bird	Horned Grebe (Magdalen Islands population)	<i>Podiceps auritus</i>
Endangered	Fish	White Shark (Atlantic population)	<i>Carcharodon carcharias</i>
Endangered	Arthropod	Cobblestone Tiger Beetle	<i>Cicindela marginipennis</i>
Endangered	Arthropod	Edwards' Beach Moth	<i>Anarta edwardsii</i>
Endangered	Vascular plant	Bent Spike-rush (Great Lakes Plains population)	<i>Eleocharis geniculata</i>
Endangered	Vascular plant	Bent Spike-rush (Southern Mountain population)	<i>Eleocharis geniculata</i>
Threatened	Bird	Whip-poor-will	<i>Caprimulgus vociferous</i>
Threatened	Vascular plant	California Buttercup	<i>Ranunculus californicus</i>
Threatened	Vascular plant	Gray's Desert Parsley	<i>Lomatium grayi</i>
Threatened	Vascular plant	Slender Popcornflower	<i>Plagiobothrys tenellus</i>
Threatened	Moss	Porsild's Bryum	<i>Mielichhoferia macrocarpa</i>
Special Concern	Mammal	Barren-ground Caribou (Dolphin and Union population)	<i>Rangifer tarandus groenlandicus</i>
Special Concern	Mammal	Polar Bear	<i>Ursus maritimus</i>
Special Concern	Mammal	Sowberby's Beaked Whale	<i>Mesoplodon bidens</i>
Special Concern	Bird	Band-tailed Pigeon	<i>Patagioenas fasciata</i>
Special Concern	Reptile	Snapping Turtle	<i>Chelydra serpentina</i>
Special Concern	Fish	Bigmouth Buffalo (Saskatchewan – Nelson River populations)	<i>Ictiobus cyprinellus</i>
Special Concern	Fish	Yelloweye Rockfish (Pacific Ocean inside waters population)	<i>Sebastes ruberrimus</i>
Special Concern	Fish	Yelloweye Rockfish (Pacific Ocean outside waters population)	<i>Sebastes ruberrimus</i>
Special Concern	Arthropod	Pygmy Snaketail	<i>Ophiogomphus howei</i>
Decisions to not list			
Endangered	Mollusc	Lake Winnipeg Physa Snail	<i>Physa</i> sp.
Threatened	Fish	Bocaccio	<i>Sebastes paucispinis</i>
Threatened	Fish	Canary Rockfish	<i>Sebastes pinniger</i>

In 2011, the Governor in Council received one species assessment in February and 28 in October. The Governor in Council then has nine months to decide whether to list the species under Schedule 1 of SARA or refer the assessment to COSEWIC for further information or consideration.

These assessments included:

- 24 species from Batch 8 that underwent normal consultations; and
- two species from Batch 6 and three from Batch 5 that underwent extended consultations.

Table 3: Summary status of the listing process for species in batches 1 to 9 at year-end 2011

COSEWIC assessments				Minister Receipt	Consultation process	Governor in Council			Listing decision						
Batch	Date assessed	# of species assessed	# assessed as 'Species at Risk'			Receipt	Proposed listing decision (CGI)*	Final listing decision (CGII)*	Listed	Uplisted†	Downlisted†	Not listed	Referred back		
Schedule 1 proclamation	-	-	233	-	-	-	-	233							
Batch 1	May 2002, Nov 2002, May 2003	115	95	91 new assessments	Jan. 2004	79 normal	Apr 2004	Oct 2004	Jan 2005	73			5‡	1	
						12 extended	July 2005	Dec 2005	Apr 2006	2			4	6	
			4 confirmations††	-	-	-	-	-	-	-	-	-	-	-	-
Batch 2	Nov 2003, May 2004	59	51 new assessments	July 2004	44 normal	Oct 2004	May 2005	July 2005	39			4	1		
					3 of the 4 species that were not listed in July 2005) ‡‡	June 2010	July 2010	Feb 2011	3						
					7 extended	Nov 2005	June 2006	Aug 2006	4§			8§			
Batch 3	Nov 2004, May 2005	73	59	55 new assessments	Aug. 2005	39 normal	Nov 2005	June 2006	Aug 2006	38				1	
						16 extended	6 received by Governor in Council	Apr 2007	July 2007	Dec 2007	4			2	
							1 received by Governor in Council	June 2008	Jan 2009	Mar 2009	1				
							3 received by Governor in Council	June 2009	Dec 2009	Feb 2010				3	
							1 received by Governor in Council	Sep 2010	Dec 2010	June 2011	1				
							5 remained under extended consultation	[2012]	[2012]	[2012]					
4 confirmations††	-	-	-	-	-	-	-	-	-	-	-	-			
Batch 4	Apr 2006	68	54	50 new assessments	Aug. 2006	35 normal**	Apr 2007	July 2007	Dec 2007	32	1			1	
						15 extended	5 received by Governor in Council	June 2008	Jan 2009	Mar 2009	3	1			1
							1 received by Governor in Council	June 2009	Dec 2009	Feb 2010				1	
							1 received by Governor in Council	Sep 2010	Dec 2010	June 2011	1				
							8 remained under extended consultation	[2012]	[2012]	[2012]					
							4 confirmations††	-	-	-	-	-	-	-	-
other listing processes	1 emergency assessment	Apr. 2006	-	-	-	May 2007					1				
5 assessment re-submissions***	1 normal	Dec. 2006	1 normal	June 2008	Jan 2009	Mar 2009	1								
	4 normal		4 normal	[2012]	[2012]	[2012]									

Table 3. (Concluded)

COSEWIC assessments				Minister Receipt	Consultation process	Governor in Council			Listing decision						
Batch	Date assessed	# of species assessed	# assessed as 'Species at Risk'			Receipt	Proposed listing decision (CGI)*	Final listing decision (CGII)*	Listed	Uplisted†	Downlisted†	Not listed	Referred back		
Batch 5	Nov 2006, Apr 2007	64	53	45 new assessments	Aug. 2007	23 normal	June 2008	Jan 2009	Mar 2009	17	2	4			
						22 extended	6 received by Governor in Council	June 2009	Dec 2009	Feb 2010	6				
							3 received by Governor in Council	Oct 2011	[2012]	[2012]					
							13 remained under extended consultation	[2012]	[2012]	[2012]					
			8 confirmations††	-	-	-	-	-	-	-	-	-	-		
Batch 6	Nov 2007, Apr 2008	46	39	25 new assessments	Aug. 2008	20 normal	19 normal	June 2009	Dec 2009	Feb 2010	16	3			
						5 extended	1 received by Governor in Council	June 2009	[2012]	[2012]					
							1 received by Governor in Council	[2011]	[2011]	[2011]	1				
							1 received by Governor in Council	Feb 2011	July 2011	Oct 2011				1	
							1 received by Governor in Council	Oct 27 2011	[2012]	[2012]					
							2 remained under extended consultation	[2012]	[2012]	[2012]					
			14 confirmations††	-	-	-	-	-	-	-	-	-			
Batch 7	Nov 2008, Apr 2009	48	46	29 new assessments	Aug 2009	20 normal	14 normal	June 2010	July 2010	Feb 2011	13		1		
						9 extended	6 normal	May 2010	Dec 2010	June 2011	3	3			
								[2012]	[2012]	[2012]					
			17 confirmations	-	-	-	-	-	-	-	-	-			
Batch 8	Nov 2009, Apr 2010	79	78	44 new assessments	Sep 2010	27 normal	24 normal	Oct 2011	[2012]	[2012]					
						17 extended	3 normal	[2012]	[2012]	[2012]					
								[2012]	[2012]	[2012]					
			34 confirmations††	-	-	-	-	-	-	-	-	-			
Batch 9	Nov 2010, Apr 2011	92	81	50 new assessments	Sep 2011	27 normal	[2012]	[2012]	[2012]						
						22 extended	[2012]	[2012]	[2012]						
			31 confirmations	-	-	-	-	-	-	-	-				

* Canada Gazette Part I/II.

† Change of the status of a species listed on Schedule 1 to a higher or lower category of risk.

‡ Includes the Polar Bear (referred back to COSEWIC in July 2005 after a decision not to list was made in January 2005).

†† Species on Schedule 1 for which COSEWIC has received/reassessed the status and for which no regulatory change is indicated.

§ COSEWIC assessed White Sturgeon as a single species but, for the recommendation to Governor in Council, Fisheries and Oceans Canada subdivided this population into six populations: of the six populations, four were listed and two were not.

** One species for which the Response statement indicated a Normal consultation path (Harbour Porpoise, Northwest Atlantic population) has not yet been received by Governor in Council.

*** The Governor in Council had referred species back to COSEWIC for reassessment. In late 2006, COSEWIC found that no reassessment was required for five of these species and so re-submitted the original assessments to the Minister.

‡‡ Further consultations as per land claims agreement requirements.

§§ 2011 assessment.

2.2.5 SARA Schedule 1 Current Status

When SARA was proclaimed in June 2003, the official List of Wildlife Species at Risk (Schedule 1 of SARA) included 233 species. In 2005, 112 species were added to the original list. In 2006 and 2007, 44 and 36 more species were added, respectively. No species were added to or removed from Schedule 1 in 2008. Twenty-two species were added in 2009,

22 species were added in 2010 and 23 were added in 2011. As of December 31, 2011, Schedule 1 listed 23 extirpated species, 218 endangered species, 131 threatened species, and 121 species of special concern for a total of 493 species.

Tables 4 and 5 show the number of species added to Schedule 1 each year, by risk status and government agency, respectively.

Table 4: Numbers of species added to Schedule 1 each year by risk status, as of December 2011

Year	Risk status				Total
	Extirpated	Endangered	Threatened	Special concern	
June 2003 (proclamation)	17	107	67	42	233
2005	4	47	30	31	112
2006	0	18	14	12	44
2007	0	20	5	11	36
2008	0	0	0	0	0
2009	0	8	3	11	22
2010	0	11*	8	4	23*
2011	2	7	4	10	23
TOTAL*	23	218	131	121	493†

* The Eastern Foxsnake was split into two populations. The new populations inherited the species' status on Schedule 1 of SARA before it was split, and both new populations were uplisted in 2010. For the purpose of this table, one of the new Eastern Foxsnake populations was treated as an addition to Schedule 1.

† Although the total number of listed species (493) is correct, the total listed as endangered and threatened may be slightly off, because the values presented in this table do not reflect status changes (i.e., uplisting or downlisting of a species).

Table 5: Number of species listed on Schedule 1 by department/agency responsible for recovery planning, as of December 2011

	Environment Canada	Fisheries and Oceans Canada	Parks Canada Agency	Total
Terrestrial mammals	27	–	4	31
Aquatic mammals	–	22	–	22
Birds	65	–	3	68
Reptiles	34	1	5	40
Amphibians	20	–	1	21
Fishes	–	66	–	66
Molluscs	4	14	2	20
Arthropods	28	–	4	32
Plants	119	–	52	171
Lichens	6	–	1	7
Mosses	11	–	4	15
TOTAL	314	103	76	493

3 PROTECTION MEASURES FOR LISTED SPECIES

3.1 Legislative Background

The protection that comes into effect following the addition of a species to Schedule 1 of SARA depends on the type of species (e.g., migratory bird, aquatic species), its listed status (endangered, threatened, special concern) listed, and its location.

Sections 32 and 33 of SARA make it an offence to:

- kill, harm, harass, capture or take an individual of a species that is listed as extirpated, endangered or threatened;
- possess, collect, buy, sell or trade an individual of a species that is listed as extirpated, endangered or threatened, or any of its parts or derivatives; or
- damage or destroy the residence of one or more individuals of a species that is listed as endangered or threatened, or of a species listed as extirpated if a recovery strategy has recommended its reintroduction into the wild in Canada.

These prohibitions apply automatically to listed aquatic species and to listed migratory birds protected under the *Migratory Birds Convention Act*, 1994 wherever they are found in Canada, and to all other endangered, threatened or extirpated species when found on federal lands in a province or lands under the authority of the Minister of the Environment in a territory.⁴

Provinces and territories have the primary responsibility to protect other listed species on provincial, territorial and private land. If the province or territory does not act, the Governor in Council, on the recommendation of the Minister of the Environment, may order that the prohibitions in sections 32 and 33 apply for a given species on non-federal lands in a province or territory, or on lands under the authority of Environment Canada or the Parks Canada Agency in a territory. The Minister must make a recommendation if, after consultation

⁴ Under SARA, “federal land” includes, but is not limited to, Canada’s territorial sea and internal waters, national parks, military training areas, national wildlife areas, some migratory bird sanctuaries, and First Nations’ reserve lands.

with the provincial or territorial minister, and wildlife management board if required, the Minister finds that the species or its residence is not effectively protected by the laws of the province or territory.

3.2 Emergency Orders

Under section 29 of SARA, if the Minister of the Environment, after consultation with every other competent minister, is of the opinion that there is an imminent threat to the survival of a wildlife species, the Minister must recommend to the Governor in Council that the species be added to the List of Wildlife Species at Risk as an endangered species on an emergency basis. No emergency listing was recommended by the Minister of the Environment in 2011.

Under section 80 of SARA, the Governor in Council (GiC) may, on the recommendation of the competent minister, make an emergency order to provide for the protection of a listed wildlife species or its habitat on federal lands or on non-federal lands.

In 2010, two applications for judicial review were filed in Federal Court on behalf of the Beaver Lake Cree Nation, Enoch Cree Nation, Chipewyan Prairie Dene First Nation, and Athabasca Chipewyan First Nation (First Nations) and the Alberta Wilderness Association, the Pembina Institute and the Sierra Club Prairie seeking to compel the Minister of the Environment to make a recommendation to the GiC that an emergency order be issued pursuant to ss. 80(2) of SARA to protect boreal caribou in northeastern Alberta a species which is listed as “threatened” under Schedule 1 of the *Species at Risk Act*.

On February 2, 2011 the Minister of the Environment concluded that neither the survival nor recovery of the boreal caribou was imminently threatened. The matter was heard in June 2011 and the Federal Court ruled that the Minister’s decision failed to take into account the First Nations Applicants’ Treaty Rights and the honour of the Crown. The Court set aside the Minister’s decision not to recommend an emergency order and the matter was remitted to the Minister for reconsideration. The Minister reconsidered whether or not the survival or recovery of the boreal caribou was imminently threatened on January 13, 2012 and concluded that it was not. The Applicants filed another Application for

judicial review in February 2012 asking the court to declare that the Minister's reconsideration of whether or not the survival or recovery of the boreal caribou was imminently threatened is unlawful or unreasonable.⁵ This matter remains before the Court.

In November 2011, Ecojustice, on behalf of a coalition of conservation organizations, petitioned the Minister of the Environment to recommend an emergency order for the Greater Sage-grouse, pursuant to section 80(2) of SARA. This petition was followed by the filing of a Notice of Application for judicial review on February 23, 2012 seeking an order compelling the Minister to comply with s. 80(2) of SARA and recommend to the Governor in Council that an emergency order be made to provide for the protection of the Greater Sage-Grouse in Canada.⁶ This matter remains before the Court.

3.3 Permits

Sections 73 to 78 of SARA address agreements, permits, licences, orders and other instruments that authorize activities that otherwise would be offences under the Act. If all reasonable alternatives have been considered, all feasible measures have been taken to minimize the impact of the activity, and the survival or recovery of the species is not jeopardized, the competent minister may enter into an agreement or issue a permit under SARA for the following activities:

- scientific research related to conserving a listed species, conducted by qualified persons;
- activities that benefit a listed species or enhance its chances of survival in the wild; and
- activities that incidentally affect a listed species.

Environment Canada, the Parks Canada Agency, and Fisheries and Oceans Canada issued a total of 185 SARA permits in 2011 for purposes of research, conservation, and monitoring of listed species.

In 2011, Fisheries and Oceans Canada issued 118 permits covering at least 19 listed aquatic species. These permits were issued to different groups, including fisheries technicians, consultants, researchers, and environmental scientists whose activities could incidentally affect listed species or their critical habitat. Peer-reviewed assessments determined that the level of harm from these activities would not jeopardize the survival or recovery of the listed species.

In 2011, Environment Canada issued 36 permits to allow for the monitoring, inventory or management of over 140 species, including reptiles, amphibians, birds, vascular plants, arthropods molluscs and mammals. Of the 36 permits issued, 23 were for scientific research related to the conservation of a species; 4 were for activities benefiting a species or required to enhance its chance of survival in the wild; 5 were for activities that may incidentally affect a species; and 4 were for more than one purpose.

In 2011, Environment Canada deployed a new e-permitting system, which allows permit applications to be completed and submitted online.

The Parks Canada Agency also maintains an online research permitting system to enhance services to researchers, and to ensure that the Agency is informed of research being conducted in the protected heritage places network. The system incorporates a mandatory peer-review mechanism that ensures that every permitted research activity is SARA compliant. In 2011, the Parks Canada Agency issued 31 SARA-compliant permits. Of these, 25 permits covering at least 23 listed species were issued to academic and government researchers as well as Parks Canada scientists, for conservation research affecting species at risk, including inventory, population monitoring, habitat use and restoration, and conservation genetics. The remaining 6 permits were for activities that may incidentally affect a listed species.

Rationales for all permits issued under the Act by Environment Canada, the Parks Canada Agency, and Fisheries and Oceans Canada are posted on the Species at Risk Public Registry at www.sararegistry.gc.ca/sar/permit/permits_e.cfm.

⁵ This second application is also seeking an order declaring that the Minister failed to meet his statutory duty to include a final recovery strategy for Boreal Caribou on the Public Registry within the time period mandated by ss. 42(2) and 43 of SARA.

⁶ The Notice of Application is also seeking amongst others, an order requiring the Minister to amend the Recovery Strategy to identify further critical habitat for Sage Grouse as set out in the June 2011 *Draft Amendment to the Recovery Strategy for the Greater Sage-Grouse in Canada*.

3.4 Conservation Agreements

A competent minister may, after consultation with the other competent minister and with the Canadian Endangered Species Conservation Council or any of its members, enter into a conservation agreement with any government in Canada, organization or person, to benefit a species at risk or enhance its survival in the wild.

The agreement must provide for the taking of conservation measures and any other measures consistent with the purposes of SARA, and may include measures with respect to:

- monitoring the status of the species;
- developing and implementing educational and public awareness programs;
- developing and implementing recovery strategies, action plans and management plans;
- protecting the species' habitat, including its critical habitat; or
- undertaking research projects in support of recovery efforts for the species.

Conservation agreements can also be entered into to provide for the conservation of a wildlife species that is not a species at risk.

The competent departments continued work to develop the first conservation agreements under SARA. These will be with First Nations in British Columbia and Ontario.

3.5 Compliance Promotion

SARA recognizes that Canada's natural heritage is an integral part of our national identity and history. All Canadians have a role to play in the conservation of wildlife species and their habitats, and public involvement through education and awareness is essential to maintaining an effective compliance and enforcement program.

Officials from Environment Canada, Fisheries and Oceans Canada and the Parks Canada Agency continue working together to promote compliance with the Act, ensuring that Canadians are informed about SARA and their responsibilities under the Act. Offences committed under SARA can lead to legal proceedings.

Environment Canada ensures compliance with SARA for migratory birds throughout Canada and for terrestrial species that are found on federal lands (other than lands under the authority of Parks Canada).

Information is shared within the Department and with federal and provincial partners. Environment Canada also delivers information to educate communities and the public about activities that affect species at risk and their habitat. In 2011, Environment Canada finalized the *SARA Compliance Promotion Framework for Core Departments*.

Environment Canada also provided information sessions for Aboriginal and other stakeholder communities, as well as signage, area-user brochures, and volunteer guardian programs.

In 2011, fishery officers from Fisheries and Oceans Canada continued working with partners to promote SARA compliance, through education and outreach activities with affected communities and Aboriginal groups. Fishery officers dedicated more than 825 hours to educating Canadians, through school visits, trade shows, workshops and community meetings, on the threats to aquatic species at risk and how they can help protect these species. Some highlights of these activities include:

- educating boat operators, including kayakers and fishing lodge staff, about the guidelines for viewing marine mammals from a safe and responsible distance;
- building relationships with all-terrain vehicle (ATV) communities and organizations at meetings and trade shows, to raise their awareness about the impacts of ATVs in streams that support SARA-listed species and to discourage the use of advertising that depicts ATVs crossing streams;
- working with First Nations fishers to reduce the interception rate of endangered Nechako White Sturgeon in salmon gillnets and promote best practices for the safe release of sturgeon from the nets;
- visiting classrooms in Haida Gwaii to raise awareness of how illegal harvest impacts the overall recovery of Northern Abalone populations in their communities;

- educating local fishers and stakeholders about the impacts of entanglement on Leatherback Sea Turtles; and
- encouraging members of the fishing industry to report Leatherback Sea Turtle sightings, entanglements and strandings by creating an email network through which they can both receive information from the department's regional offices as well as send in reports of incidents in a timely manner, especially during turtle migration periods.

The Parks Canada Agency promotes compliance with SARA through public engagement in efforts to mitigate the factors that adversely affect the protection and recovery of species at risk. In 2011, the Agency continued to implement the Parks Canada Service Prevention Guidelines, which support the implementation of activities promoting awareness and understanding of species at risk and their habitat.

3.6 Enforcement

Environment Canada, the Parks Canada Agency and Fisheries and Oceans Canada jointly enforce SARA. These federal entities work in partnership with Aboriginal, provincial, territorial and international authorities to preserve and protect SARA-listed wildlife species at risk and their critical habitats. More information regarding the applicability of SARA prohibitions (see Section 3.1) can be found on the Species at Risk Public Registry website at http://sararegistry.gc.ca/involved/you/default_e.cfm.

3.6.1 Enforcement Capacity

Environment Canada enforces four statutes that protect wildlife:

- the *Species at Risk Act*;
- the *Migratory Birds Convention Act, 1994*;
- the *Canada Wildlife Act*; and
- the *Wild Animal and Plant Protection and Regulation of International and Interprovincial Trade Act*.

This suite of legislation is aimed at protecting and conserving wildlife species and their habitats. To ensure the effective enforcement of these acts, wildlife officers work in close cooperation with national and international partners.

In 2011, Environment Canada had a staff of 87 enforcement officers assigned to enforce these Acts.

Fisheries and Oceans Canada's enforcement actions for species at risk are carried out by approximately 600 front-line fishery officers who have been trained and designated as enforcement officers under SARA and who incorporate SARA enforcement activities into their duties under the *Fisheries Act* and other federal statutes and regulations.

Parks Canada's Law Enforcement Program has been in operation since May 2009. Park wardens enforce legislation related to Parks Canada's mandate, including SARA, on all lands and waters it administers. These wardens also support law enforcement in other Parks Canada protected heritage areas as required. In 2011, the contingent of park wardens dedicated to law enforcement activities included 82 positions located in 33 protected heritage areas.

3.6.2 Enforcement Activities

Enforcement activities under SARA include patrolling protected areas, investigating alleged violations, and assuring compliance through court action. Penalties for contraventions of the Act include liability for costs, fines, imprisonment, alternative measures agreements, and forfeiture of proceeds from illegal activities.

Each year, Environment Canada prioritizes its enforcement activities. In 2011, as in the four previous years, SARA enforcement activities focused on three national priorities:

- **Legal obligations:** a legal obligation to investigate exists under section 93 of SARA. It comes into play when receiving a public request that an investigation be carried out concerning an alleged offence involving SARA-listed species, their critical habitat or residence. This priority also

includes inspections related to SARA emergency orders, which play an essential role in addressing immediate conservation concerns.

- Commercial activities: these involve commercial/ industrial activities that may entail the incidental take of SARA-listed species.
- The protection of critical habitat on federal lands: critical habitat is the habitat deemed necessary for the survival and recovery of species listed under SARA.

In 2011, Fisheries and Oceans Canada fishery officers dedicated over 16 000 hours to activities related to species at risk, such as operational planning, patrols, inspections, investigations, court cases, public relations and other duties related to enforcing the prohibitions of SARA.

3.6.2.1 Enforcement Tracking and Intelligence

Environment Canada's Wildlife Intelligence Program has a regional intelligence officer for each region and a national intelligence unit. Regional intelligence officers are mainly involved in the collection of operational and tactical intelligence that supports the investigation and inspection programs. The national unit focuses on strategic intelligence and analysis to determine national and international trends in illegal activities related to wildlife species.

Fisheries and Oceans Canada tracks enforcement activities through the Fisheries Enforcement Activity Tracking System. The Department recorded a total of 55 SARA violations in 2011, resulting in fines, seizures, charges and warnings.

Fisheries and Oceans Canada is building its capacity for strategic intelligence analysis, which will identify individuals, groups and companies that should be monitored for compliance. This involves state-of-the-art intelligence software that is a critical component of intelligence-led policing, as it will increase the efficacy with which the Department can identify, monitor and charge those who intentionally violate the SARA prohibitions and who therefore place species at an increased risk of extinction.

The Parks Canada Agency tracks enforcement activities through the Occurrence Tracking System. In 2011, park wardens recorded a total of five law enforcement

occurrences related to the protection of species at risk and enforcement of the Act in protected heritage areas. One of these occurrences involved all-terrain vehicle tracks observed on a beach in a Piping Plover closure, but no subsequent leads or enforcement actions were taken beyond monitoring the situation. There were no charges or prosecutions under the prohibitions of SARA during this period.

3.6.2.2 Inspections

Environment Canada's inspection efforts target areas where detecting violations of the law will have the most positive impacts on conservation. These efforts fall under the three national priorities described in section 3.6.2 above. Human activities can have an impact on SARA-listed species, and can result in violations related to habitat destruction, illegal capture, poaching, removal from the wild, or disturbance of residences. The list of general prohibitions under sections 32 to 36 can be found at www.sararegistry.gc.ca/approach/act/Part9a_e.cfm.

Environment Canada enforcement officers conducted 30 inspections in 2011, seven of which resulted in the detection of a violation. An inspection can include several activities or audits and can take several days, depending on the type of audit.

As part of their enforcement work, fishery officers conduct regular and targeted inspections to ensure that Canadians are complying with legislation that protects species at risk (e.g., SARA, *Fisheries Act*). Partnerships with other agencies, such as the Canadian Border Services Agency and Canadian Food Inspection Agency, are an important resource to fishery officers in carrying out inspections of cargo, containers and fish shipments that could be used to smuggle species at risk.

In 2011, fishery officers in Fisheries and Oceans Canada's Pacific Region carried out several inspections that led to investigations regarding poaching, buying

and selling of Northern Abalone. Officers in the Department's Quebec, Gulf and Maritime regions carried out regular inspections of groundfish catches for any incidental catch of Northern, Atlantic or Spotted Wolffish. All logbooks, whether for groundfish, large pelagic, tuna, etc., are reviewed for any species at risk.

3.6.2.3 Investigations

In 2011, Environment Canada conducted 17 investigations.

The following example of an investigation that yielded results in 2011 illustrates the type of situation in which a single case can result in charges under multiple acts.



Illegal Import of Rattlesnakes and Scorpions Led to Convictions Under WAPPRIITA and SARA

In 2009, following an investigation by Environment Canada, an individual was charged at the Kingsgate border crossing near Cranbrook, British Columbia for illegally importing Western Rattlesnakes (which are SARA listed as threatened) and Emperor Scorpions into Canada. The investigation revealed that the snakes had been smuggled into Canada after being unlawfully harvested from the wild in the United States, and the scorpions had been purchased from a United States pet store.

In October 2011, the individual was convicted and his violations included two counts under the *Wild Animal and Plant Protection and Regulation of International and Interprovincial Trade Act* (WAPPRIITA) relating to the scorpion import and one count under the *Species at Risk Act* (SARA) relating to the possession of the rattlesnakes.

Following the conviction, the individual was sentenced to pay \$10,000 in penalties of which \$1,000 was a fine and \$9,000 a contribution to the Environmental Damages Fund. He was also ordered to pay \$1400 towards the care of the seized animals.

Western Rattlesnake.
© Karl W. Larsen

Environment Canada publishes the outcomes of its main investigations on its website. Media releases and enforcement notifications are available at www.ec.gc.ca/alef-ewe/default.asp?lang=En&n=8F711F37-1.

Investigations are an important part of fishery officers' enforcement work in cases where non compliance has been discovered. Officers use a number of tools, such as verbal and written warnings, tickets, arrests, seizures, and court-directed fines, to ensure offenders become compliant with laws that protect species at risk.

In 2011, fishery officers in the Eastern Arctic area, in cooperation with the Department of National Defence, boarded numerous commercial fishing vessels throughout the Davis Strait. Officers were inspecting the vessels for Wolffish bycatch and

compliance with SARA regulations. These at-sea boardings were a new occurrence for this fishing area.

4 RECOVERY PLANNING FOR LISTED SPECIES

4.1 Legislative Background

Species recovery includes a wide range of measures to restore populations of species at risk. Under SARA, the competent ministers must prepare recovery strategies and action plans for species listed as extirpated, endangered or threatened, and management plans for species listed as being of special concern. Recovery strategies identify threats to the species

and its habitat, identify critical habitat to the extent possible, and set population and distribution objectives for the species, while action plans outline the actions to be taken to meet the objectives in the recovery strategy. Management plans include measures for species conservation.

Table 6 shows the required timelines for developing recovery strategies and management plans. The timelines for developing action plans are set within the recovery strategies. Posting of SARA recovery documents is the responsibility of the federal competent minister for the species, however, they must be developed in cooperation and consultation with all relevant jurisdictions and directly affected parties. In some cases, the preparation of SARA recovery

documents may be undertaken by a provincial or territorial government, but the document must meet SARA requirements to be approved for posting.

Proposed recovery strategies, action plans and management plans are posted on the Species at Risk Public Registry for a 60-day public comment period. The competent ministers consider comments and make changes where appropriate. The final documents are posted on the Species at Risk Public Registry within 30 days of the close of the public comment period. Five years after a recovery strategy, action plan or management plan comes into effect, the competent minister must report on progress made toward the stated objectives.

Table 6: Timeline for developing recovery documents (in years)

Species listing date	Recovery strategy		Management plan
	Endangered	Threatened or extirpated	Special concern
June 5, 2003	3	4	5
New listings after June 5, 2003	1	2	3
Reassessed Schedule 2 or 3 listings, after June 5, 2003	3	4	5

4.2 Recovery Planning

In 2011, the federal government continued its ongoing effort to improve and enable effective and consistent implementation of the federal SAR Recovery Program. Environment Canada, the Parks Canada Agency, and Fisheries and Oceans Canada collaborated to draft revised templates and guidelines for the development of action plans, including guidance on evaluation of the socio-economic costs of an action plan and the benefits to be derived from its implementation. Work also included laying policy groundwork for revising guidelines on setting population and distribution objectives.

Environment Canada's multi-year plan to address the backlog of recovery documents has produced significant results. Building on considerable progress in 2010, Environment Canada posted recovery documents for 34 species in 2011 and a large number of recovery documents have been drafted and are expected to be posted in the near future. Environment Canada has developed a toolbox for

practitioners to support scientifically sound and well documented critical habitat identification. In addition, a training program addressing the new policy and guidance initiatives was developed for Environment Canada staff.

Parks Canada posted recovery planning documents for 22 species in 2011. The Agency also completed the *Guidelines in Compliance with the Species at Risk Act* and a series of internal operational procedures which provide detailed guidance to Agency staff for implementing the Act in Parks Canada sites.

Recovery Strategies

A recovery strategy is a planning document that identifies what needs to be done to reverse the decline of a species. It sets population and distribution objectives that will assist the recovery and survival of species, and identifies the threats to the species

and its habitat and the main activities to address these threats. A single recovery strategy may address multiple species at risk. Environment Canada, Fisheries and Oceans Canada, and the Parks Canada Agency use a multi-species / ecosystem-based approach for the recovery of species at risk where appropriate.

On August 26, 2011, Environment Canada posted the proposed recovery strategy for the Woodland Caribou (*Rangifer tarandus caribou*), Boreal population in Canada on the Species at Risk Public Registry. To inform the recovery strategy process for the Boreal population of Woodland Caribou (boreal caribou), Environment Canada engaged in extensive scientific investigation and analysis to understand the species' biology and ecology, identify threats to the species, define population and distribution objectives, and allow for the identification of critical habitat. To complement this scientific work, the Department considered information gathered from Aboriginal communities and organizations, stakeholder groups, the provinces and territories, and wildlife management boards. Environment Canada also completed a separate process to gather Aboriginal traditional knowledge. Two supporting documents, the *Scientific Assessment to Inform the Identification of Critical Habitat for Woodland Caribou (Rangifer tarandus caribou), Boreal Population, In Canada: 2011 Update* and the *2011 Aboriginal Traditional Knowledge Summary Reports on Woodland Caribou (Rangifer tarandus caribou), Boreal Population* are posted along with the proposed national recovery strategy on the Species at Risk Public Registry. Once completed, the national recovery strategy will form the basis of the Government of Canada's work to protect boreal caribou and their habitat.

Fisheries and Oceans Canada was inspired by similar threats to geographic distributions and knowledge gaps around Pacific populations of Blue, Fin and Sei Whales to develop a combined recovery strategy for these three species in 2006. A better understanding of their population structure and distribution is required to be able to recover these rare species, which tend to live far from shore and regularly travel vast distances both inside and outside Canadian Pacific waters. Before 2002, the only source of data on the Pacific populations of these species came from historical whaling records. However, over the past ten years, scientists in the Cetacean Research Program at Fisheries and Oceans Canada's Pacific Biological Station have used a variety of approaches and technologies to understand more about how these whales spend segments of their lives in the waters off the British Columbia coast. The knowledge of what habitat is important to Blue, Fin and Sei Whales in British Columbia and how best to protect that habitat is increasing through a number of activities such as ship-based surveys, photo identification of individual whales, deployment of remote acoustic monitoring stations that record whale calls, and the attachment of satellite tags to whales in order to track movement. This foundational research is helping the Government of Canada meet the objectives set out in the recovery strategy.

In 2011, all three competent departments continued to work on recovery strategies at various stages of development. Recovery strategies that were posted on the Species at Risk Public Registry are listed in Table 7.

Table 7: Number of recovery strategies posted in 2011, and the listed species at risk covered by them, by competent department

Competent department	Proposed		Final	
	No.	Species covered	No.	Species covered
Environment Canada	17	White Flower Moth Soapweed and Yucca Moth* Ord's Kangaroo Rat Bluehearts Heart-leaved Plantain Acadian Flycatcher and the Hooded Warbler* Fernald's Braya and Long's Braya* Woodland Caribou, Boreal population Eastern Prairie Fringed-orchid Showy Goldenrod Skinner's Agalinis White Prairie Gentian White-headed Woodpecker Maritime Ringlet Least Bittern Victorin's Gentian Blunt-lobed Woodsia * Total of 20 species covered	5	White Flower Moth Soapweed and Yucca Moth* Blanchard's Cricket Frog Green-scaled Willow Prothonotary Warbler * Total of 6 species covered
Fisheries and Oceans Canada	1	Beluga Whale, St. Lawrence Estuary population	3	Striped Bass, St. Lawrence Estuary population North Pacific Right Whale Basking Shark, Pacific population
Parks Canada Agency	12	Eastern Ribbonsnake, Atlantic population Blanding's Turtle, Nova Scotia population Baikal Sedge Common Hoptree Muhlenberg's Centaury Rayless Goldfields Brook Spike-primrose Dense-flowered Lupine Rigid Apple Moss Ermine haidarum subspecies Dwarf Hackberry Contorted-pod Evening-primrose	12	Dwarf Lake Iris Bolander's Quillwort Red Mulberry Lakeside Daisy American Water-willow Pitcher's Thistle Dense-flowered Lupine Rigid Apple Moss Hill's Thistle Ermine haidarum subspecies Dwarf Hackberry Contorted-pod Evening-primrose

Identification of Critical Habitat

SARA defines "critical habitat" as the habitat that is necessary for the survival or recovery of a listed wildlife species. Competent ministers must identify critical habitat to the extent possible, based on the best

available information, in recovery strategies and action plans. This requirement helps to protect habitat, maintaining its quality and amount so as to achieve the population and distribution objectives established in the recovery strategy. Environment Canada, the Parks Canada Agency, and Fisheries and Oceans

Canada continued to work with government and non-government stakeholders to address policy development, intergovernmental responsibilities and the science associated with identifying critical habitat.

Building on the progress made in previous years, Environment Canada identified critical habitat for 5 species in final recovery documents during the 2011 calendar year. Critical habitat was also identified for an additional 12 species in proposed documents that were posted on the SAR Public Registry.

In 2011, the Parks Canada Agency played a leadership role in identifying critical habitat for 11 species: Bolander's Quillwort, Dwarf Lake Iris, Red Mulberry, Lakeside Daisy, American Water-willow, Pitcher's Thistle, Dense-flowering Lupine, Rigid Apple Moss, Hill's Thistle, Dwarf Hackberry, and Contorted-pod Evening-primrose. Where insufficient information existed to identify critical habitat in a recovery strategy, the Agency implemented studies that will enable the identification of critical habitat in the associated action plan.

In 2011, Fisheries and Oceans Canada implemented research and monitoring activities and studies to identify critical habitat for 22 species. For example, marine tracking work is ongoing on adult Inner Bay of Fundy Atlantic Salmon related to their migration out to sea in order to better understand marine survival and species distribution in the marine environment. This information will assist with the identification of marine critical habitat areas for this species.

Action Plans

An action plan outlines the projects or activities required to meet the population and distribution objectives outlined in the recovery strategy. This includes information on species' critical habitat, protection measures, and an evaluation of the socio-economic costs and benefits. It is the second part of the two-part recovery planning process and is used to implement the projects or activities for improving the species' status.

In 2011, Environment Canada posted final action plans for three species (Small Whorled Pogonia, Horsetail Spike-rush, and Red Crossbill) on the SAR Public Registry.

In 2011, Parks Canada posted one combined final recovery strategy and action plan (Bolander's Quillwort). In addition, Parks Canada is developing a site-based multi-species approach to action planning to prioritize conservation actions for the suite of species at risk found in Parks Canada heritage places. In 2011, Parks Canada initiated multi-species action plans for 9 protected heritage places.

In 2011, Fisheries and Oceans Canada posted a proposed action plan (Northern Abalone) and advanced a number of draft action plans.

Management Plans

Species of special concern are those that may become a threatened or an endangered species because of a combination of biological characteristics and identified threats. SARA authorizes the government to prepare management plans for species of special concern, rather than recovery strategies and action plans.

A management plan differs from a recovery strategy and an action plan in that it sets goals and objectives for maintaining sustainable population levels of one or more species of special concern that are particularly sensitive to environmental factors, but that are not in danger of becoming extinct. Whenever possible, these management plans will be prepared for multiple species on an ecosystem or landscape level.

In 2011, all three competent departments continued to work on management plans at various stages of development. The management plans that were posted on the Species at Risk Public Registry in 2011 are listed in Table 8.

Table 8: Number of management plans posted in 2011, and the listed species at risk covered by them, by competent department

Competent department	Proposed		Final	
	No.	Species covered	No.	Species covered
Environment Canada	9	Fernald's Milk-vetch Frosted Glass-whiskers, Nova Scotia population Victorin's Water-hemlock Louisiana Waterthrush Barrow's Goldeneye, Eastern population Woodland Caribou, Northern Mountain population Columbian Carpet Moss Lewis's Woodpecker Cryptic Paw Lichen	5	Fernald's Milk-vetch Frosted Glass-whiskers, Nova Scotia population Victorin's Water-hemlock Yellow-breasted Chat, virens subspecies Cerulean Warbler
Fisheries and Oceans Canada	2	Grass Pickerel Columbia Sculpin	5	Rocky Mountain Ridged Mussel Bridle Shiner Banded Killifish, Newfoundland population Steller Sea Lion Grey Whale, Eastern North Pacific population
Parks Canada Agency	3	Banded Cord-moss Coastal Wood Fern Twisted Oak Moss	3	Banded Cord-moss Coastal Wood Fern Twisted Oak Moss

5 RECOVERY IMPLEMENTATION

5.1 Protection of Critical Habitat

SARA requires that all critical habitat identified in a recovery strategy or action plan be protected against destruction on federal lands. This includes critical habitat located in the exclusive economic zone or on the continental shelf of Canada.

The provinces and territories are primarily responsible for the management of non-federal lands, natural resources and wildlife located on those lands, including protection of the habitat of species at risk on non-federal lands (other than aquatic species) and implementation of protection measures through their

own legislation and programs. The prohibitions set out in subsection 61⁷ of SARA only apply to non-federal lands when the Governor in Council makes an order, commonly referred to as a safety-net order. The Minister may only recommend a safety-net order to the Governor in Council if the Minister is of the opinion that the laws of the province or territory do not effectively protect a species' critical habitat.

In 2010, Environment Canada protected critical habitat for the Prothonotary Warbler in Big Creek National Wildlife Area, finalized the development of a ministerial order to protect critical habitat for the

⁷ Subsection 61(1) of SARA states that no person shall destroy any part of the critical habitat of a listed endangered species or a listed threatened species that is in a province or territory and that is not part of federal lands (see <http://laws-lois.justice.gc.ca/eng/acts/S-15.3/page-15.html>).

Roseate Tern on federal lands and waters in Nova Scotia, and engaged numerous federal departments in discussions on issues related to critical habitat protection. In addition to these efforts directed toward the protection of critical habitat on federal lands, Environment Canada also developed an approach to facilitate the assessment of critical habitat protection on non-federal lands and collaborated with provincial and territorial governments on critical habitat protection. Efforts are ongoing to formalize other aspects of critical habitat protection on lands under the administration of Environment Canada, other federal departments and provincial and territorial governments.

In 2011, Fisheries and Oceans Canada advanced the development of ministerial orders, known as Protection Orders, prohibiting destruction of habitat for five species: Nooksack Dace, Lake Chubsucker, North Atlantic Right Whale, Northern Bottlenose Whale (Scotian Shelf population), and Inner Bay of Fundy Atlantic Salmon. It is expected that these protection orders will come into force in 2012. Work has also advanced on the development of a draft compliance strategy for implementation of the Nooksack Dace and Inner Bay of Fundy Atlantic Salmon protection orders.

The critical habitat on lands administered by the Parks Canada Agency must be legally protected within 180 days of its identification. In 2011, the Agency protected critical habitat for five species in three of its protected heritage areas: Waterton Lakes National Park (Bolander's Quillwort); St. Lawrence Islands National Park (Deerberry); and Point Pelee National Park (Eastern Prickly Pear Cactus, Red Mulberry and American Water-willow). Efforts are ongoing to finalize protection measures for critical habitat of other species on lands administered by the Agency.

5.2 Recovery Activities

5.2.1 Competent Departments' Recovery Activities

In 2011, Environment Canada biologists across Canada led or supported dozens of activities, including research projects, education and awareness, habitat restoration or enhancement initiatives, monitoring, assessment,

and more. These activities supported the recovery of numerous species at risk, ranging from birds such as the Loggerhead Shrike in Ontario and the Marbled Murrelet in British Columbia to plants such as American Ginseng in Quebec. For example:

- In Atlantic Canada, efforts continued to conserve the Roseate Tern through habitat improvements, predator deterrence, research on key conservation topics, and monitoring since 1998.
- Since 2007, 33 Piping Plover chicks have been banded at three locations in Ontario. Banding provides critical information for recovery when the birds are resighted.
- Direct monitoring of Horsetail Spikerush and its critical habitat on the Long Point National Wildlife Area continued. In addition, a water level logger was deployed and a beaver baffle installed to monitor and mitigate the threat to this plant of rising water levels at its only known location in Canada.

For several years, recovery biologists in Quebec have been working with Attention Fragiles, a local non-governmental organization, to document the reproduction biology of Piping Plovers, with the support of systematic inventories. This will help to ensure protection during the nesting period on the beaches of the Magdalen Islands, through different stewardship and awareness actions.

The Marine Mammal Response Program aids marine mammals and sea turtles in distress. Fisheries and Oceans Canada works in close collaboration with researchers, non-governmental organizations, community groups and other experts to focus on outreach, training, communication among program partners, improved reporting of incidents, and increased response to incidents. In 2011, the Marine Mammal Response Program responded to 234 species at risk related incidents where marine mammals and sea turtles were reported as being in dangerous situations, such as entanglement. An example of a disentanglement operation that resulted in the successful release of a juvenile threatened Humpback Whale near Kitimat, British Columbia is highlighted in the story below.

Fisheries and Oceans Canada continues to work with the coastal First Nations communities, fishery officers and scientists in a coordinated effort to recover the

Northern Abalone. As a gourmet delicacy in some cuisines, market demand is believed to exceed global market supply, making abalone a highly valuable commodity and a target for illegal harvesting. Abalone populations are declining and some of the recovery actions underway include stopping illegal harvesting (which has resulted in charges under SARA), increasing reporting of such incidents, and supporting stewardship in communities. With the support of Aboriginal Fund for Species at Risk (AFSAR) funding, monitoring within the coastal areas has been continuous and communities are now assisting in recovery actions to rebuild the abalone populations. In conjunction with coastal communities and fisheries officers, Fisheries and Oceans Canada will be implementing aggregation activities, where abalone are placed in close proximity in order to increase reproductive success.

Another aquatic species success story focuses on efforts to reestablish the Striped Bass (St. Lawrence Estuary population) in Quebec. In the late 1960s, this species was heavily exploited by commercial and sport fishing which led to its extirpation. A few years ago, Fisheries and Oceans Canada and the Ministère des Ressources naturelles et de la Faune du Québec successfully reintroduced the Striped Bass population to the St. Lawrence estuary. Since then, various initiatives have been implemented to promote the recovery of

this population, including a recovery strategy published in October 2011, a monitoring network, a telemetry study and other research projects such as surveys, mark-recapture, radio tracking and the designation of a critical habitat for juveniles. These efforts have confirmed that this population is again reproducing naturally in the St. Lawrence.

In 2011, the Parks Canada Agency continued to support the implementation of recovery activities in and around protected heritage places, including research, restoration activities, and public outreach and education. The Parks Canada approach integrates public and stakeholder involvement with direct recovery actions.

Several projects are conducted in partnership with non-governmental organizations, private citizens, and Aboriginal communities, such as training Inuit students to monitor species at risk at Torngat Mountains National Park. In 2011, in national parks across Canada, over 800 volunteers recorded over 12 000 hours dedicated to projects related to species at risk. This included Piping Plover monitoring in Prince Edward Island National Park; Garry Oak Ecosystem restoration at Gulf Islands National Park (B.C.); Peregrine Falcon surveys at Vuntut National Park (Yk.) and at Pukaskwa National Park (Ont.); and Black-footed Ferret and Sage Grouse monitoring at Grasslands National Park (Sask.).

Black-footed Ferret Update from Grasslands National Park

The first introduction of Black-footed Ferrets to re-establish a population in Canada occurred in Grasslands National Park in October 2009. Their survival over the harsh Saskatchewan winters was a major concern and required careful monitoring of the ferrets during their first winter. The effort was rewarded by the sighting of young kits, which confirmed not only their survival but better yet, their breeding success. Since 2010, monitoring volunteers have recorded four wild-born ferret families exploring their nocturnal habitat at four different prairie dog colonies. The discovery of new families is confirming how quickly the ferrets are adapting to their new home on the Canadian prairies. Volunteers enjoyed this unique experience of roaming a prairie landscape at night and were greatly appreciated by park staff for their hard work and dedication to this project.



Black-footed Ferrets being brought to their new prairie home.
© Parks Canada Agency

In 2011, on the occasion of the third release of Black-footed Ferrets, Parks Canada invited over 60 school students along with representatives from the Calgary and Toronto zoos to participate in the reintroduction of 15 Black-footed Ferrets to their new prairie home. This brings the total number of individuals released in the park to 64. From volunteers participating in the intensive night-time spotlighting program, to school students engaging in experiential learning through their involvement with the releases, the Black-footed Ferret is bringing Canadians together to help restore the prairie landscape.

Piping Plover Captive Rearing in Kouchibouguac National Park



Piping Plover in an outdoor flight pen.
© Parks Canada Agency

This Piping Plover captive rearing project is the first of its kind in eastern North America and is funded by Parks Canada. It is a cooperative effort between Parks Canada, the Magnetic Hill Zoo (MHZ) and Wildlife Preservation Canada to salvage abandoned plover eggs from beaches in Prince Edward Island and Kouchibouguac National Parks of Canada.

Once a plover nest is confirmed abandoned, the eggs are collected and transported to the MHZ in Moncton, New Brunswick, to be incubated and brooded. In 2011, the chicks were transported to an outdoor flight pen in Kouchibouguac National Park. An unobstructed view of the flight pen from a nearby boardwalk brought many questions from park visitors, resulting in countless educational opportunities. In total, five healthy Piping Plover chicks were released from eggs that otherwise would have been lost to the population. Through this collaborative partnership, Park staff developed the protocols necessary to make captive rearing a viable tool with the potential to aid in the recovery of Piping Plovers. This was a great conservation initiative, but also a remarkable public awareness opportunity.

In recognition of their successful initiative with the endangered Piping Plover, Parks Canada and Magnetic Hill Zoo received the 2011 Colonel G.D. Dailley Award, recognizing achievements in programs that lead to the long-term survival of at-risk animal species or populations, at the Canadian Association of Zoos and Aquariums Annual General Meeting.

Freeing a Trapped Humpback Whale

On August 18, 2011, the British Columbia Marine Mammal Response Network received a report from Gil Island whale researchers that a distressed Humpback Whale was trailing a long gillnet. It was evident from photographs that the whale would soon drown.



© Janie Wray, Cetacean Research Program, Fisheries and Oceans Canada

Three fishery officers, local whale researchers, and members of Hartley Bay First Nations joined in the search. Three hours and 12 humpback sightings later, the distressed whale was found. It was massive—30 feet long—and had several loops of net wrapped tightly around its head, preventing it from opening its mouth. The team initiated a disentanglement effort that continued for eight hours.

The power and endurance of the whale was amazing. It towed the rescuers' boat at six to seven knots for several hours until it began to tire and slowed to two knots, allowing the team to initiate the disentanglement. The rescuers slowly cut the training gear off and once they reached the area around the whale's head, used specialized tools to carefully remove the ropes that had cut into the whale's blubber. The high-pitched blows coming from the whale signaled its exhaustion. The rest of the gear was peeled away and the whale broke free, swimming off quickly, with its new-found freedom.

5.2.2 Other Recovery Activities

5.2.2.1 Habitat Stewardship Program

The federal Habitat Stewardship Program (HSP) for Species at Risk was established in 2000 as part of the National Strategy for the Protection of Species at Risk. The program's goal is to engage Canadians in conservation actions that contribute to the recovery of species at risk, with priority given to endangered and threatened SARA-listed species. Projects focus on three key areas:

- securing or protecting important habitat to protect species at risk and support their recovery;
- mitigating threats to species at risk caused by human activities; and
- supporting the implementation of priority activities in recovery strategies or action plans.

The Habitat Stewardship Program is co-managed by Environment Canada, Fisheries and Oceans Canada and the Parks Canada Agency, and administered by Environment Canada on a regional basis. Regional implementation boards include representatives from

the two federal departments and the Agency, provincial and territorial governments, and other stakeholders where appropriate. These boards provide advice on program direction such as priorities and project selection for their regions. Further information on the program is available at www.ec.gc.ca/hsp-pih.

During the eleventh year of the program (2010–2011), 231 projects initiated by 174 funding recipients contributed to the recovery of 347 SARA-listed species across Canada. A total of \$12.2 million in funding was awarded to these projects, and an additional \$21 million was leveraged from partners, for a total investment of \$33.2 million. These contributions provided support to stewardship efforts across Canada that resulted in the securement and protection of 436 785 hectares (ha) of land including 10 869 ha through legally binding means, such as acquisition or conservation easements. Non-binding protection accounts for 425 916 ha, and covers 273 665 ha through renewed stewardship agreements and 152 251 ha through new stewardship agreements to conserve land. The program also supports the improvement or restoration of 12 177 ha of land and 48.9 km of shoreline.

Ausable River Recovery Program

The Ausable River, located in south-western Ontario, is rich in aquatic biodiversity, supporting at least 26 species of freshwater mussels, 83 species of fish and 21 species of reptiles. Many of these species are rare and 14 species in the Ausable River have been assessed nationally by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC). In 2002, the Ausable River Recovery Team was formed, and is co-chaired by the Ausable Bayfield Conservation Authority (ABCA) and Fisheries and Oceans Canada (DFO). A draft recovery strategy, developed in 2005, employed an ecosystem approach that addresses the threats faced by several species at risk within the watershed and benefits the aquatic community in general. Since then, key recommendations to enhance habitat, monitor SAR populations and engage the local community have been undertaken.

The federal Habitat Stewardship Program has provided annual funding to leverage Ausable River ecosystem improvements since 2004. These projects resulted in the protection or improvement of more than 7600 ha of habitat or riparian zone and over 36 km of shoreline.

In 2006, a long-term mussel monitoring program for the Ausable River was initiated to track responses of the freshwater mussel community to ongoing recovery efforts. Seven monitoring stations were established and baseline data related to mussel abundance, distribution, population demographics and habitat requirements were collected. In 2011, support from the Ontario Ministry of Natural Resources' Species at Risk Stewardship Fund and Fisheries and Oceans Canada enabled the ABCA to conduct mussel surveys for a second time. A comparison between mussel survey data collected in 2006 and 2011 showed declines in the at-risk species at some sites. However, the monitoring results also confirmed ongoing reproduction with new cohorts of juveniles for most of the six at-risk mussels.

Although more work is needed to protect habitat for aquatic species at risk, including endangered freshwater mussels, the continued commitment from federal and provincial agencies provides landowners with incentives to restore and recover the Ausable River ecosystem.



Monitoring results for the Wavy-rayed Lampmussel (above) has shown this species to be more widespread within the Ausable River than previously known. The species was originally assessed by COSEWIC as Endangered, but was recently re-assessed as Special Concern.
© Ausable Bayfield Conservation Authority



The Ausable River population of the Snuffbox (Endangered) is one of the only two known populations in Canada. The range of sizes shown above (including juveniles) is indicative of a healthy population.
© Shawn Staton, Fisheries and Oceans Canada

Protection of Three Threatened or Endangered Plant Species in Centre-du-Québec Through Private Habitat Stewardship

In Centre-du-Québec, where private land represents over 96% of the area, the destruction of habitat essential to various plant and wildlife species is accelerating. During fiscal year 2010–2011, with the financial support of the Habitat Stewardship Program for Species at Risk, the Conseil régional de l'environnement du Centre-du-Québec (CRECQ) implemented a project in support of the protection of these habitats. The project primarily involved the conservation, through private stewardship, of the habitat of three Centre-du-Québec plant species listed in the *Species at Risk Act*: American Ginseng, Van Brunt's Jacob's Ladder and the Butternut.

CRECQ completed surveys that helped identify more accurately the distribution range of the American Ginseng and discover a new Van Brunt's Jacob's Ladder population, which facilitated the development of conservation plans tailor-made for each of these species. These plans resulted in diagnoses identifying conservation issues and defining the actions to be implemented to ensure their regional conservation. A status report on the Butternut was also produced thanks to the surveys. In addition, CRECQ met individually with the landowners affected by the presence of the targeted species to educate them about the conservation of these species and their habitat by handing out a landowner manual containing relevant recommendations. A total of 16 landowner manuals were handed out and eight landowners made a moral commitment to protect the habitat or species by following the recommendations. Furthermore, two landowners expressed interest in selling their land to a conservation agency. Funding was also used to build awareness among a wider audience, as well as to promote dialogue among stakeholders involved in conserving and developing the territory.

By contributing to the conservation and long-term recovery of these populations of species at risk, CRECQ is minimizing the potential risk of their disappearance from Centre-du-Québec.

5.2.2.2 Interdepartmental Recovery Fund

The Interdepartmental Recovery Fund (IRF) is administered by Environment Canada as part of the National Strategy for the Protection of Species at Risk. Established in 2002, the IRF supports federal departments, agencies and Crown corporations in their efforts to meet the requirements of SARA. Funded projects predominantly occur on lands owned or administered by federal organizations

other than the SARA competent departments and directly relate to the implementation of activities under recovery strategies or action plans, or surveys of species at risk. Endangered or threatened SARA-listed species are given higher priority for both recovery and survey projects. Since 2009, the IRF has also supported activities that assist federal organizations in preparing high quality proposals for surveys and recovery activities. More information is available at www.sararegistry.gc.ca/involved/funding/irf_fir/default_e.cfm.

During the IRF's first nine years (2002–2003 to 2010–2011), it has financed 555 projects with an investment of \$16.7 million. In 2010–2011, the IRF supported 31 projects totaling \$1.37 million in support of the recovery of 88 species (see Table 9 for breakdown by federal agency). Of the total funds, 67% was applied to recovery actions, 29% to surveys, and 4% to planning projects. Projects were implemented by seven federal departments and three Crown corporations or agencies. The projected allocation for the 2011–2012 fiscal year is \$1.6 million.

Table 9: Interdepartmental Recovery Fund expenditures, by federal agency, in fiscal year 2010–2011

Lead organization	No. of projects	IRF (\$)
Department of National Defence	3	364,033
Environment Canada	9	345,141
Transport Canada	3	189,280
Aboriginal Affairs and Northern Development Canada	6	157,143
National Capital Commission	2	128,700
Natural Resources Canada	1	75,150
Parks Canada Agency	2	54,200
National Research Council Canada	2	24,850
Agriculture and Agri-Food Canada	2	22,550
Canadian Museum of Nature	1	6,000
Total	31	1,367,047

Sharp-tailed Snake Surveys and Habitat Assessment in British Columbia

Why the endangered Sharp-tailed Snake (*Contia tenuis*) uses the Observatory Hill property managed by the National Research Council (NCR), a federal organization, as a habitat choice is not completely understood. Using new approaches to study this elusive and hard-to-find snake, the NCR undertook a project to provide information on habitat use that will help in conservation and management efforts of the snakes on Observatory Hill. With funding from the Interdepartmental Recovery Fund, the National Research Council delineated suitable habitat zones, mapped microhabitat features deemed important for the snakes, established survey plots according to a randomized microhabitat-based sampling design, monitored artificial cover objects, and conducted a pilot study to follow movements of individual snakes using a passive integrated transponder (PIT) system. A total of 10 Sharp-tailed Snakes were found under the artificial cover objects installed at 54 sites (each site consisted of three stations; each station had two cover objects). Two of the sites represent new sites for the species on Observatory Hill and expand the known distribution of the snakes. PIT-tags were successfully implanted on four adult snakes. Initial results showed that, over the short term, the released snakes remained close to their original capture locations around the artificial cover objects. These results indicate that it is possible to relocate tagged snakes in the natural habitat. Work in 2011-2012 allowed the National Research Council to evaluate the effectiveness of this technique. Using these results, management measures for the Observatory Hill property were proposed such as restricting public access to sensitive snake habitats by ensuring adequate signage and using barriers, where needed, and conducting surveys and assessments before initiating any developments or activities that may disturb the habitat in areas with records of the Sharp-tailed Snake or within identified high-quality habitat.



The endangered Sharp-tailed snake is secretive and semi-fossorial, which makes it very difficult to find.
© Christian Engelstoff



Made of black fiber-glass roofing material and measuring 30x60 cm, artificial cover objects installed on the Observatory Hill property increase the chance of capturing Sharp-tailed snake.
© Christian Engelstoff

5.2.2.3 Aboriginal Funds for Species at Risk

The Aboriginal Funds for Species at Risk (AFSAR) program helps Aboriginal organizations and communities across Canada build capacity to participate in the conservation and recovery of species protected under SARA, and species at risk designated by COSEWIC. The program also helps to protect and recover critical habitat or habitat important for species at risk on, or near, First Nations reserves or on land and waters traditionally used by Aboriginal peoples. The program is co-managed by Environment Canada, Fisheries and Oceans Canada and the Parks Canada Agency, with the support of Aboriginal Affairs and Northern Development Canada and the guidance of national Aboriginal organizations. Environment

Canada and Fisheries and Oceans Canada share project administration responsibilities. Further information is available at http://sararegistry.gc.ca/involved/funding/faep-asrp_e.cfm.

In the 2010–2011 fiscal year, AFSAR provided almost \$3.2 million for 89 projects, of which approximately \$1.15 million targeted aquatic species at risk. These projects leveraged additional funds that exceeded \$2.05 million (cash and in-kind). The projects involved more than 80 organizations and benefited 200 SARA-listed species and an additional 44 COSEWIC-assessed species, through increased Aboriginal awareness of species at risk and through the development of strategies, guidelines and practices or the completion of monitoring studies, surveys and inventories.

Striped Bass and American Eel Initiative

The North Shore Micmac District Council (NSMDC), an Aboriginal Aquatic Resource & Oceans Management (AAROM) aggregate body of seven First Nations communities in Eastern New Brunswick, received AFSAR funding for a First Nations Youth, Striped Bass and American Eel Initiative. The focus of the project was on promoting a greater understanding of SARA among the NSMDC communities. With the help of two students employed for 12 weeks during the summer months, research on the American Eel, including traditional uses by First Nations peoples, was conducted. The students also prepared a poster and brochure that was distributed to the member communities.

An Aboriginal fisher and his crew were hired to operate two gaspereau trap nets for collecting data on Striped Bass in the Miramichi River as part of the Striped Bass monitoring program that has been conducted for the past four years. The results have shown a significant increase in the number of Striped Bass from 2007 to 2010.

Waters of the Eel Ground First Nation are adjacent to the only known spawning grounds for Striped Bass (Southern Gulf of St. Lawrence population) and so awareness of the habitat needs of this species was also very important for this community. The project engaged youth to learn about Striped Bass protection and recovery, and to share this knowledge with other community members. Taking such an active role in species recovery generated a lot of interest and pride from the youth, fishers and others in these communities. It is hoped that the community awareness, stewardship and conservation efforts by all resource users will result in an increased population of Striped Bass in the very near future.



A fishing crew from Eel Ground First Nation caught this Striped Bass in the trap net located on the Miramichi River. The Striped Bass monitoring program has been conducted for the past four years. © NSMDC-AAROM

5.2.2.4 Natural Areas Conservation Program

Environment Canada has other initiatives that complement the SAR funding programs including wetland conservation and the Ecological Gifts Program. One example is the Natural Areas Conservation Program (NACP), which was created by the Government of Canada in 2007 with an investment of \$225 million. The long-term protection of more than 200 000 ha (half a million acres) containing diverse ecosystems, wildlife and natural habitat is the goal of the NACP. The Nature Conservancy of Canada (NCC) administers the NACP, and, in working with other non-profit, non-governmental conservation organizations, uses NACP funds to help secure full or partial interests in private lands across southern Canada containing significant ecologically sensitive natural areas.

Using a science-based process, the NCC and its partners work to acquire these lands through donation, purchase or stewardship agreements with private landowners. Under the NACP, priority is given to lands that are nationally or provincially significant, protect habitat for species at risk and migratory birds, or enhance connectivity or corridors between existing protected areas such as national wildlife areas, national parks and migratory bird sanctuaries.

The Government of Canada's contributions under the NACP are matched, at a minimum, dollar for dollar by partner organizations. As of December 2011, the NCC and its partners had contributed more than \$290 million to the program, through a combination of matching funds, pledges and donations. Since the program began in 2007, the NCC has completed 875 land transactions covering more than 327 700 ha. The land securement goal set out in the funding agreement has been surpassed as a result of the purchase of large properties or development rights over large areas. The NACP has also contributed to the protection of habitat for at least 117 different species at risk and to other elements of biodiversity.

5.2.2.5 Outreach and Education

SARA recognizes that all Canadians have a role to play in conserving wildlife, including preventing wildlife species from being extirpated or becoming extinct. The Act also recognizes that the conservation efforts

of individual Canadians and communities should be encouraged, and that stewardship activities contributing to the conservation of wildlife species and their habitat should be supported to prevent species from becoming at risk. Stewardship and cooperation are encouraged through provisions for funding programs, conservation agreements and joint programs for species at risk.

Environment Canada has continued educating Canadians about species at risk through its longstanding partnership with the Canadian Wildlife Federation in administering the Hinterland Who's Who program, and through developing and publishing species profiles on the Species at Risk Public Registry.

Fisheries and Oceans Canada invests in key outreach and educational activities to better inform Canadians about aquatic species at risk. For example, in 2011, with the department joined Parks Canada, the Bamfield Marine Station, and local schools and community groups at the *2011 Pacific Rim Whale Festival* in Ucluelet and Tofino, British Columbia. The event celebrated whales and their environment and engaged local children in learning activities. Thousands of people visited the Fisheries and Oceans Canada display during the festival.

Another example is related to the endangered Atlantic Leatherback Sea Turtle's recovery objectives. In 2011, information sheets on how to handle and release entangled Leatherback Sea Turtles were developed and distributed in the Gulf Region to commercial and Aboriginal fishers with fishing licences containing species at risk clauses (recognizing that SAR may inadvertently be caught as by-catch and confirming that SAR would be returned to the water). The department will continue to distribute these information sheets as required. Copies are available through the Government of Canada Publications site (www.publications.gc.ca: Leatherback Sea Turtle – An Endangered Species: Tips for Handling and Releasing, Fs149-5/2011). In addition, to raise awareness of the dangers of plastic bags to turtles, a reusable cloth bag was produced and distributed at awareness events in Gulf Region supermarkets during April.

The bags carried a link to a website that explains the threat of marine pollution to the Leatherback Sea Turtle (www.glf.dfo-mpo.gc.ca/Gulf/Leatherback).



Fisheries and Oceans Canada's Aquatic Species at Risk website (www.dfo-mpo.gc.ca/species-especes/index-eng.htm) provides information, by region, on all aquatic species at risk, ranging from the tiniest mollusc to the largest sea mammal. The department also publishes species profiles, and provides links to ongoing consultations on aquatic species.

In 2011, the Parks Canada Agency network of protected heritage places continued to develop educational products and initiatives for species at risk at the local and regional levels. The Ecological Integrity and Species at Risk Public Outreach and Education Strategy Plan (2007) developed under the leadership of the External Relations and Visitor Experience Directorate, continues to be implemented to establish collaborative activities with partners, develop tools and products related to species at risk and help strengthen capacity within Parks Canada outreach and education network through training, sharing of best practices and implementation of activities.

Outreach at the Calgary Zoo and the West Coast

During the summer of 2011, three Parks Canada students delivered theatrical programs and roving interpretation for visitors at the Calgary Zoo. The purpose of this initiative was to deliver conservation messages to the public in an urban environment. Some of the messages were focused on species at risk such as the Woodland Caribou, Wood Bison and Whooping Crane. Through song, dance and interaction, the students delivered messages to some 30 000 zoo visitors. The messages explained the importance of each species to its ecosystem, the challenges faced by at-risk species, and the conservation efforts made by Parks Canada and its partners.

In August 2011, the Canadian and American teenagers who won the Robert Bateman Get to Know art contest were offered the trip of a lifetime. They visited the Gulf Islands National Park Reserve and Fort Rodd Hill National Historic Site for a week-long summer camp, which included activities on species at risk. At Gulf Islands National Park, Parks Canada staff and a Hul'qumi'num Elder gave a presentation on the Southern Resident Killer Whale, Harbour Porpoise, Steller Sea Lion and the Golden Paintbrush. The teenagers then travelled to Fort Rodd Hill National Historic Site to help remove invasive species in the Garry Oak Ecosystem, an important home for many of Canada's species at risk.



Outreach activities at the Calgary Zoo.
© Parks Canada Agency

First Nations/Parks Canada Species at Risk Education Project



© Parks Canada Agency

At schools on south-eastern Vancouver Island and the Gulf Islands, the First Nations/Parks Canada Species at Risk Education Project introduced students and educators, mainly First Nations, to at-risk local species that are both culturally important and listed under the federal *Species at Risk Act*. In the fall of 2011, preparations were made by the WSÁNEĆ School Board and Parks Canada to deliver its fourth year of programming to 1215 students and 73 educators in eight tribal and non-tribal schools. Among the project's goals is to teach students respect for the connection between the SENĆOŦEN language and culture and the local at-risk plants and animals; to encourage students to care for, understand and act in a way that keeps rare or culturally important plants and animals from disappearing from the wild forever; and to raise awareness of SARA in First Nations communities.

6 MONITORING AND EVALUATION

Monitoring and evaluation involves the examination of actions taken to ensure that conservation measures are on the right track and achieving recovery goals and objectives. Specifically, the objectives of monitoring and evaluation are to:

- detect changes in the conservation status of a species;
- determine the effectiveness of protection and recovery measures; and
- measure progress toward achieving recovery goals.

The following key principles guide the monitoring and evaluation process:

- The process should be based on reliable data. Specifically, the results of actions aimed at protection and recovery will be tracked and evaluated. The activities required to accomplish this tracking and evaluation will be incorporated into recovery plans.
- The process should reflect adaptive management principles. Recovery goals, objectives and measures will be reviewed in light of monitoring and evaluation results coupled with consideration of significant external factors (e.g., climatic changes). Protection and recovery measures will be adjusted

or adapted to reflect new or changed circumstances in the environment and ecosystem within which species live.

- The process should lead to reassessment. When the situation of a species changes significantly enough to warrant reconsideration of its conservation status, this information will be communicated to the body responsible for species assessment.

6.1 Monitoring

Reviews of Parks Canada's detailed assessments allow the Agency to detect any changes in a species' risk of disappearing from a heritage place (the conservation status). In 2011, 14 parks determined the baseline conservation status of 89 species as reported in the State of Canada's Natural and Historic Places 2011.

In 2011, the Parks Canada Agency continued to monitor its recovery activities as part of its overall monitoring program to assess how well the Agency is achieving its recovery objectives.

Many other monitoring initiatives involving species at risk are ongoing within the heritage areas network of the Parks Canada Agency as part of the regular monitoring program, whether it is to assess the long-term condition of the species or evaluate the results of recovery actions and other management initiatives.

Peregrine Falcons in Pukaskwa National Park

Pukaskwa National Park of Canada staff first noticed that the Peregrine Falcon *anatum* (*Falco peregrinus anatum*) had returned to the park in 1998, when two adults were observed displaying breeding behaviour. Found throughout North America, the populations of Peregrine Falcon were dramatically reduced by the widespread use of DDT during the latter half of the 20th century. Falcon ingested DDT from their prey which not only disrupted their breeding behaviour but also resulted in the production of thinner eggshells. Peregrine Falcon *anatum*, one of three subspecies, endured the greatest population collapse. By 1975, only 35 nesting pairs remained in Canada.



Peregrine Falcon feeding chicks.
© Tom Lusk

Ontario's recovery program for the Peregrine Falcon is part of a larger Canadian and North American effort to restore this species to its former range. Pukaskwa National Park contributes to this initiative not only through the protection of its habitat but also by monitoring and reporting on the number of individuals found within the park, thereby increasing our knowledge of the progress of the recovery of the species. The good news is that the three Peregrine Falcon territories in use since 2000, with a nest in each territory, have been consistent in producing fledglings. In 2011, six fledglings were observed with one or more in each of the three nests.



Pukaskwa National Park.
© Parks Canada Agency

6.2 Parliamentary Five-year Review of SARA

Section 129 of SARA requires that five years after that section comes into force (the section came into force on June 5, 2003), a committee of the House of Commons, Senate or both Houses of Parliament is to be designated or established for the purpose of reviewing the Act. The Parliamentary five-year review of SARA was referred to the House of Commons Standing Committee on Environment and Sustainable Development on February 24, 2009. In March 2011, representatives from Environment Canada, the Parks Canada Agency and Fisheries and Oceans Canada appeared before the House of Commons Standing Committee on Environment and Sustainable Development. An election was called before the committee reported on its review.

More information on the Parliamentary five-year review, including testimony of witnesses, can be found at www.sararegistry.gc.ca/approach/act/parl_review_e.cfm and www2.parl.gc.ca/Committee/Business/StudyActivityHome.aspx?Cmte=ENVI&Stac=3048685&Language=E&Mode=1&Parl=40&Ses=3.

6.3 SARA General Status Report

SARA requires that a general report on the status of wildlife species be prepared five years after section 128 comes into force (2003) and every five years thereafter. The report's purpose is to provide Canadians with an overview of which wild species are doing fine, which should be monitored, and which need to be formally assessed or reassessed by COSEWIC. Reports entitled *Wild Species: The General Status of Species in Canada* (see section 2.1), prepared by a federal-provincial-territorial group of experts, serve as the basis to fulfill this requirement. To meet the next

reporting requirement, the Minister of Environment will table the complete *Wild Species 2010* report in Parliament in 2012. These documents fulfill the Minister of the Environment's obligation under SARA to provide a general report on Canada's wildlife. The first report is available on the Species at Risk Public Registry at www.sararegistry.gc.ca/document/dspHTML_e.cfm?ocid=7382.

7 CONSULTATION AND GOVERNANCE

7.1 Consultation with Aboriginal Groups and Other Stakeholders

7.1.1 National Aboriginal Council on Species at Risk

SARA recognizes that the role of Aboriginal peoples in the conservation of wildlife is essential and that Aboriginal peoples possess unique traditional knowledge concerning wildlife species. The National Aboriginal Council on Species at Risk (NACOSAR), composed of representatives of Aboriginal peoples in Canada, was created under section 8.1 of SARA to advise the Minister of the Environment on the administration of the Act and to provide advice and recommendations to the Canadian Endangered Species Conservation Council (see Section 7.2.1).

In 2011, NACOSAR held five face-to-face meetings and numerous teleconferences. Activities and accomplishments throughout 2011 include the following:

- NACOSAR developed a five-year strategic Plan that focuses on four key outcomes: 1) operate as an established and effective Council fully utilized by the Minister of Environment, the Canadian Endangered Species Conservation

Council (CESCC), and Aboriginal Peoples; 2) provide sound policy advice on legislation and the implementation of Aboriginal traditional knowledge within the *Species at Risk Act* that leads to actions and measurable results; 3) build an effective dialogue between Aboriginal Peoples and NACOSAR resulting in an enhanced two-way understanding and valuable policy advice; and 4) increase Aboriginal peoples' involvement in the *Species at Risk Act* processes and promote education of species at risk in curricula.

- NACOSAR and Policy Planning Committee members continued to provide input on guidance documents incorporating ATK into the implementation of SARA at regional workshops led by Fisheries and Oceans Canada.
- NACOSAR held a joint meeting with the COSEWIC ATK Subcommittee to build on the relationship and to support and collaborate on each other's work.
- A representative of NACOSAR met with the Species at Risk Advisory Committee (SARAC) to raise awareness of NACOSAR's work.

7.1.2 Species at Risk Advisory Committee

The purpose of the Species at Risk Advisory Committee (SARAC) is to provide advice on the implementation of SARA to the Species at Risk Assistant Deputy Ministers' Committee, and to promote and encourage the effective stewardship of Canada's biological diversity and provide advice on federal programs and activities related to species at risk, so as to achieve the purposes of SARA.

SARAC consists of a maximum of 20 members drawn from a balanced number of non-governmental, industry and agriculture organizations, and other parties that are national in scope and nationally recognized as possessing particular expertise in wildlife science, public policy, and law development and/or implementation—all of whom are concerned with the effective implementation of SARA.

SARAC met in Ottawa for two face-to-face meetings in 2011. Presentations, discussions and advice on SARA implementation included:

- updates from Environment Canada on key files and initiatives (e.g., boreal caribou recovery strategy, renewal of SARA funding, policy suite, National Conservation Plan);
- DFO presentations on permitting guidelines for aquatic species and non-listing of species;
- a series of case studies from SARAC members to review real-life examples of species recovery efforts to facilitate group learning; and
- participation of a NACOSAR member as a step towards building a relationship and promoting dialogue on like-minded issues.

7.1.3 Strategic Plan for Aboriginal Involvement in the Aquatic Species at Risk Program

Given the number of management units involved in SARA delivery at Fisheries and Oceans Canada, both nationally and regionally, the Strategic Plan for Aboriginal Involvement in the Aquatic Species at Risk Program was developed in 2009 to provide national consistency on the objectives, priorities, strategies and critical outcomes of Aboriginal involvement in the Aquatic Species at Risk Program. The Strategic Plan is helping guide the implementation of SARA at Fisheries and Oceans Canada, and is serving as a support tool for a five-year period (2009–2014).

7.1.4 Aboriginal Engagement Sessions on the Draft Guidance Document on Considering Aboriginal Traditional Knowledge in *Species at Risk Act* Implementation

In 2011, Fisheries and Oceans Canada hosted two meetings (Winnipeg and Toronto) with approximately 63 Aboriginal groups from across its Central and Arctic Region to review and discuss the draft Guidance Document on Considering Aboriginal Traditional Knowledge in *Species at Risk Act* Implementation. The purpose of this guidance document will be to provide guidance to federal SARA practitioners on how to work with Aboriginal peoples in the implementation of SARA, and on how

to consider Aboriginal traditional knowledge in a respectful and meaningful way throughout the SARA conservation cycle. Aboriginal input into the document is a crucial aspect of its development.

7.1.5 Species at Risk – Aboriginal Interdepartmental Committee

The Species at Risk – Aboriginal Interdepartmental Committee, established in 2004, continued in 2011 to work collaboratively with the Atlantic Aboriginal community to encourage and strengthen the involvement of Aboriginal peoples and promote the consideration and inclusion of Aboriginal traditional knowledge (ATK) in the implementation of species at risk activities in Atlantic Canada. This committee is composed of representatives from Fisheries and Oceans Canada's three Atlantic Regions, Environment Canada, the Parks Canada Agency, and Aboriginal Affairs and Northern Development Canada.

The committee continued to work with the Atlantic Aboriginal Protection of Species Committee (AAPSC), which is composed of representatives from Atlantic Aboriginal organizations. In March 2011, funding was provided to the AAPSC to deliver a train-the-trainer workshop where individuals were trained on how to conduct interviews to gather ATK on the American Eel and other species at risk. A total of 16 people from Nova Scotia, New Brunswick, Prince Edward Island, Quebec, and Newfoundland and Labrador participated in the three-day workshop.

7.2 Cooperation with Other Jurisdictions

SARA recognizes that the responsibility for conservation of wildlife in Canada is shared by federal, provincial and territorial governments. The federal government is responsible for terrestrial species found on federal lands, as well as aquatic species and migratory birds, while the provincial and territorial governments are primarily responsible for other species. SARA is designed to work with provincial and territorial legislation.

The federal, provincial and territorial governments agreed to the National Framework for Species at Risk Conservation in June 2007. This framework supports implementation of the 1996 Accord for the Protection of Species at Risk by providing a set of common principles, objectives and overarching approaches for species at risk conservation to guide federal, provincial and territorial species at risk programs and policies. The framework's objectives are to:

- facilitate coordination and cooperation among jurisdictions involved with species at risk;
- encourage greater national coherence and consistency in jurisdictional policies and procedures; and
- provide context and common ground for federal–provincial–territorial bilateral agreements.

7.2.1 Canadian Endangered Species Conservation Council

The Canadian Endangered Species Conservation Council (CESCC) was established under the Accord for the Protection of Species at Risk, and is formally recognized under SARA. The CESCC is made up of federal, provincial and territorial ministers responsible for conservation and management of species at risk. Under SARA, the CESCC provides general direction on the activities of COSEWIC, the preparation of recovery strategies, and the preparation and implementation of action plans, and coordinates the activities of the various governments represented on the council related to the protection of species at risk.

Neither the CESCC nor its Deputy Minister's Committee met in 2011.

7.2.2 Bilateral Administrative Agreements

Administrative agreements are intended to foster collaboration on the implementation of SARA and provincial and territorial species at risk legislation. The establishment of governance structures for inter-jurisdictional cooperation is central to the effective implementation of the Act.

The Government is negotiating bilateral administrative agreements on species at risk with all provinces and territories. The agreements set out

shared objectives, and commitments for the governments to cooperate on species at risk initiatives. As of 2011, agreements have been signed with the governments of British Columbia, Ontario, Quebec and Saskatchewan, and a Memorandum of Understanding is in place with the Nunavut Wildlife Management Board. Agreements with other provinces and territories are at various stages of negotiation.

7.2.3 Canadian Wildlife Directors Committee

The Canadian Wildlife Directors Committee (CWDC) plays an important role in inter-jurisdictional cooperation on species at risk. The committee, co-chaired by Environment Canada and a province or territory on a rotating basis (Prince Edward Island in 2011), is comprised of federal, provincial and territorial wildlife directors, including representatives from Environment Canada, Fisheries and Oceans Canada, and the Parks Canada Agency. As an advisory body on wildlife issues, the CWDC provides leadership in the development and coordination of policies, strategies, programs and activities that address wildlife issues of national concern and help conserve biodiversity. It also advises and supports the CESCC and the Wildlife Ministers' Council of Canada's Deputy Ministers' and Ministers' councils on these matters.

The CWDC meets twice a year, and has monthly teleconferences. An action plan and strategic agenda is approved by the Deputy Ministers for CWDC to work on various issues. The CWDC provides a forum for collaboration and integration of management and administration of federal and provincial/territorial species at risk programs, and tackles challenging policy issues. Priority actions for 2011 included the first steps towards streamlining federal and provincial-territorial consultation processes; providing guidance on the General Status of Wildlife Report and working with the Recovery to National Endangered Wildlife (RENEW) program to streamline efforts in recovery planning.

7.2.4 National General Status Working Group

The National General Status Working Group (NGSWG), composed of representatives from the federal government and all provincial and territorial

governments, was established by the CWDC to meet the commitment of monitoring, assessing and reporting on the status of wildlife, as required under the Accord for the Protection of Species at Risk. Members of the group are responsible for completing the general status assessments of species in their jurisdictions, which the group then uses to produce the *Wild Species: The General Status of Species in Canada* reports.

Environment Canada is co-chair and coordinator of the NGSWG; the other co-chair is currently the Government of Newfoundland and Labrador. Other members from the federal government include the Parks Canada Agency and Fisheries and Oceans Canada. In 2009, three ex-officio members joined the working group: Agriculture and Agri-Food Canada, Natural Resources Canada, and NatureServe Canada (www.natureserve-canada.ca). Members of the working group are responsible to the CWDC and ultimately to the CESSC.

In 2011, the NGSWG prepared the general status assessments of several groups of species for inclusion in the next report, *Wild Species 2015*.

7.3 Federal Coordinating Committees

The federal government has established governance structures to support federal implementation of SARA and its supporting programs. Several committees, composed of senior officials from Environment Canada, Fisheries and Oceans Canada, and the Parks Canada Agency, meet regularly to discuss policy and strategic issues, and to monitor SARA implementation. These include:

- the Species at Risk Deputy Ministers Steering Committee;
- the Species at Risk Assistant Deputy Ministers Committee; and
- the Species at Risk Directors-General Operations Committee.

The Species at Risk Assistant Deputy Ministers Committee and the Species at Risk Directors-General Operations Committee met regularly in 2011 to discuss and provide direction on matters related to SARA implementation, such as:

- ongoing improvements to the SARA program including SARA listing and recovery efforts;
- development and implementation of bilateral agreements, various policies, and program renewal; and
- approval of priorities and projects under the three species at risk funding programs (Habitat Stewardship Program, Aboriginal Fund for Species at Risk and Interdepartmental Recovery Fund).

7.4 Species at Risk Public Registry

The online Species at Risk Public Registry fulfills the requirement under SARA for the Minister of the Environment to establish a public registry for the purpose of facilitating access to SARA-related documents. Information in the Species at Risk Public Registry is maintained through the collaborative efforts of partners and stakeholders, and is an important tool in engaging and informing Canadians on species at risk issues. In addition to providing access to documents and information related to the Act, the Public Registry provides a forum for Canadians to submit comments on SARA-related documents being developed by the Government of Canada. It has been accessible since the proclamation of SARA in 2003.

Section 123 of SARA identifies documents that must be published on the Public Registry, including:

- regulations and orders made under the Act;
- agreements entered into under section 10 of the Act;
- COSEWIC's criteria for the classification of wildlife species;
- status reports on wildlife species that COSEWIC has prepared or has received with an application;
- the List of Wildlife Species at Risk;
- codes of practice, national standards, or guidelines established under the Act;
- agreements and reports filed under section 111 or subsection 113(2) of the Act, or notices that these have been filed in court and are available to the public; and
- all reports made under sections 126 and 128 of the Act.

Other documents prepared in response to the requirements of SARA include recovery strategies, action plans, management plans, and reports on round-table meetings.

In 2011, 415 documents were published on the registry. Documents included SARA and COSEWIC annual reports, consultation documents, COSEWIC status reports and species assessments, ministerial

response statements, recovery strategies, management plans, species profiles, and over one hundred permit explanations. Consultations in 2011 were again on the upswing with many Canadians voicing their opinions on the proposed listing of various species. Some of the most popular areas visited on the site for 2011 include the text of the Act, the A to Z Species Index and individual species profiles.

8 FURTHER INFORMATION

To obtain further information or publications—and to submit questions or comments—concerning species at risk programs and activities, please contact any of the following three departments:

Environment Canada
Inquiry Centre
10 Wellington Street, 23rd Floor
Gatineau QC K1A 0H3
Tel.: 1-800-668-6767 (in Canada only)
or 819-997-2800
Fax: 819-994-1412
TTY: 819-994-0736
Email: enviroinfo@ec.gc.ca

Fisheries and Oceans Canada
Communications Branch
200 Kent Street
3rd Floor, Station 13228
Ottawa, Ontario
Canada K1A 0E6
Tel.: 613-993-0999
Fax: 613-990-1866
Email: info@dfo-mpo.gc.ca

Parks Canada Agency
National Office
25 Eddy Street
Gatineau, Quebec
Canada K1A 0M5
Tel.: 888-773-8888
Email: information@pc.gc.ca

Public Registry Office

For more information on the Species at Risk Public Registry, and to submit questions or comments on the Public Registry, please contact the following office:

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