



# *Species at Risk Act*

Annual Report to  
Parliament for 2022



Environment and  
Climate Change Canada

Environnement et  
Changement climatique Canada

Canada 

Cat. No.: En1-45E-PDF  
ISSN: 1926-4135  
EC23077

Unless otherwise specified, you may not reproduce materials in this publication, in whole or in part, for the purposes of commercial redistribution without prior written permission from Environment and Climate Change Canada's copyright administrator. To obtain permission to reproduce Government of Canada materials for commercial purposes, apply for Crown Copyright Clearance by contacting:

Environment and Climate Change Canada  
Public Information Centre  
Place Vincent Massey building  
351 St-Joseph boulevard  
Gatineau Quebec K1A 0H3  
Toll free: 1-800-668-6767  
Email: [enviroinfo@ec.gc.ca](mailto:enviroinfo@ec.gc.ca)

Cover photo: A Westslope Cutthroat Trout at Banff National Park, Parks Canada

© His Majesty the King in Right of Canada, represented  
by the Minister of Environment and Climate Change, 2023

Aussi disponible en français

## Table of Contents

<b>1. Introduction</b>	<b>4</b>
<b>2. Highlights</b>	<b>6</b>
<b>3. Wildlife species at risk in Canada</b>	<b>7</b>
3.1. Canadian Environmental Sustainability Indicators for species at risk	7
3.1.1. Species at risk population trends indicator	8
3.1.2. Changes in the status of wildlife species at risk indicator	9
3.2. Assessment of species at risk	10
3.3. Listing of species at risk	12
3.4. Federal government response to COSEWIC assessments	13
3.5. Public consultations	14
3.6. General status of wildlife species in Canada	17
<b>4. Progress under the Nature Legacy for Canada Initiative</b>	<b>19</b>
4.1. Pan-Canadian Approach for terrestrial species at risk	19
4.2. The Canada Nature Fund for Aquatic Species at Risk	22
<b>5. Recovery actions for species at risk</b>	<b>24</b>
5.1. Recovery strategies	24
5.2. Action plans	26
5.3. Management plans	29
5.4. Critical habitat	30
5.5. Recovery activities	31
5.5.1. Habitat Stewardship Program	32
5.5.2. Aboriginal Fund for Species at Risk	33
5.5.3. Critical Habitat Interdepartmental Program	33
<b>6. Monitoring</b>	<b>35</b>
<b>7. Enforcement</b>	<b>40</b>
7.1. Emergency orders and imminent threat assessments	42
7.2. Protection orders for critical habitat	43
<b>8. Agreements and collaboration</b>	<b>44</b>
<b>9. Permits under SARA</b>	<b>46</b>
9.1. Permits	46
<b>10. Outreach and education</b>	<b>48</b>
<b>11. Consultation and governance</b>	<b>52</b>
11.1. Indigenous advisory groups	52
11.2. Implementing ECCC's new nature engagement model	52
11.3. SARA Ministerial Round Table	52
11.4. Species at Risk Public Registry	53
<b>12. Additional information</b>	<b>54</b>
<b>13. Annex</b>	<b>55</b>
13.1. COSEWIC assessments (Batches 1 to 20)	55
13.2. Response with timelines to the species at risk assessments received from COSEWIC	56
13.3. Terrestrial species not yet forwarded to GIC	60
13.4. Aquatic species not yet forwarded to GIC	62





## 1. Introduction

Every year, the Minister of Environment and Climate Change (the Minister) must prepare a report on the administration of the [Species at Risk Act](#) (SARA or the Act)<sup>1</sup> during the preceding calendar year, and table it in Parliament. This SARA Annual Report summarizes activities carried out in 2022<sup>2</sup>.

The Minister is responsible for the overall administration of SARA, except insofar as the Act gives responsibility to another “competent” minister (i.e. Minister of Fisheries, Oceans and the Canadian Coast Guard). Parks Canada (PC), Fisheries and Oceans Canada (DFO), and Environment and Climate Change Canada (ECCC), often referred to as the “competent” departments, share responsibility for the implementation of SARA.

Figure 1: Competent Ministers



In 2022, the Commissioner of the Environment and Sustainable Development (CESD) undertook audits on the implementation of SARA, tabling those [reports](#) in Parliament of Canada in the spring of 2023.

<sup>1</sup> [Section 126 of the Act](#) lists the matters that must be addressed in the report.

<sup>2</sup> Some of the financial information is based on fiscal years (April 1 to March 31) from 2021-2022 or 2022-2023.

The Government of Canada (GoC) agrees that more must be done to halt and reverse biodiversity loss; it accepts the Commissioner's recommendations and is taking action to address them. Environment and Climate Change Canada (ECCC) will continue to refine its approach regarding the use of SARA's authorities on non-federal lands and will continue to deliver on its obligations under the Act. The significant progress the GoC has made to address SARA requirements and to protect Canada's biodiversity, including negotiating conservation agreements, listing species under the Act, assessing threats to species, and finalizing recovery strategies or management plans to advance species recovery is captured in this report.



## 2. Highlights

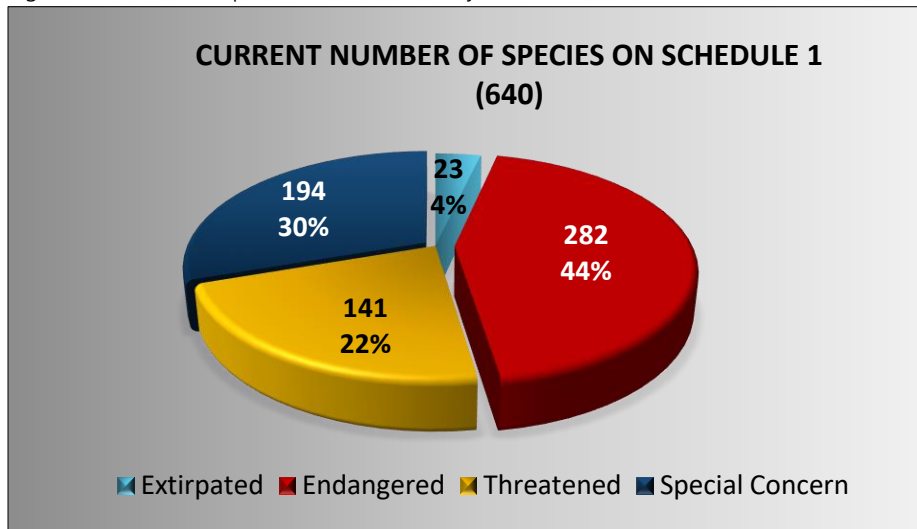
- In November 2022, the Department announced up to \$34.1 million in funding as part of the Enhanced Nature Legacy initiative to support 13 new projects focused on the recovery and protection of some of Canada's most iconic species.
- The Wild Species 2020 report was released in December 2022. It includes information on 50 534 species out of an estimated 80 000 species that exist in Canada. This represents an increase of over 20 000 species from the previous report and provides the most complete understanding ever on the status and distribution of wild species in Canada.
- The Canada-Yukon Nature Agreement, which was signed on December 14, 2022, committed to recovery actions for species at risk (such as Northern Mountain Caribou and Grizzly Bear), the pursuit of the development of territorial SAR legislation, supporting Indigenous leadership in conservation, and increased protection and conservation of land, including sensitive habitats, in the Yukon.
- The Department of Fisheries and Oceans' Pacific Region signed a Memorandum of Understanding (MOU) with the Government of British Columbia under the *2005 Canada-BC Agreement on Species at Risk* to support the recovery of freshwater and salmon species at risk in British Columbia. Pacific Region also signed an inaugural MOU with Yukon Government to fill information gaps for freshwater species at risk in Yukon.
- A conservation agreement between the Department of Fisheries and Oceans and the Cree Nation Government for the Lake Sturgeon (Southern Hudson Bay and James Bay populations), a species of Special Concern, was signed on April 1, 2022. The agreement establishes a framework for nation-to-nation collaboration in the preparation of a SARA-compliant Lake Sturgeon threat management plan for the *James Bay and Northern Quebec Agreement* area.
- In April 2022, the governments of Canada and Ontario reached an agreement to support the conservation and recovery of Boreal Caribou. Boreal Caribou, an iconic species, is listed as threatened under both SARA and the Ontario *Endangered Species Act*. The agreement builds on the federal caribou action plan and Ontario's ongoing caribou conservation program through cooperation and investment in monitoring, reporting, protection, restoration, planning, management, and stewardship actions.



### 3. Wildlife species at risk in Canada

SARA establishes Schedule 1 as the official list of wildlife species at risk. Species are listed as extirpated, endangered, threatened or of special concern. As of December 31, 2022, Schedule 1 listed a total of 640 species.

Figure 2: Number of species on Schedule 1 by risk status



#### 3.1. Canadian Environmental Sustainability Indicators for species at risk

The [Canadian Environmental Sustainability Indicators](#) (CESI) program provides data and information to track Canada's performance on key environmental sustainability issues. The following subsections present the suite of CESI indicators relative to nature and biodiversity protection.

Recovery of species is affected by many factors, including the species' life span, reproductive cycle, the state of their habitat and threats, such as habitat loss and pollution. Ensuring the successful recovery or management of a species at risk can be a long-term process involving various measures to stop or reverse the decline in the species and improve the likelihood that it will persist in the wild.

### 3.1.1. Species at risk population trends indicator

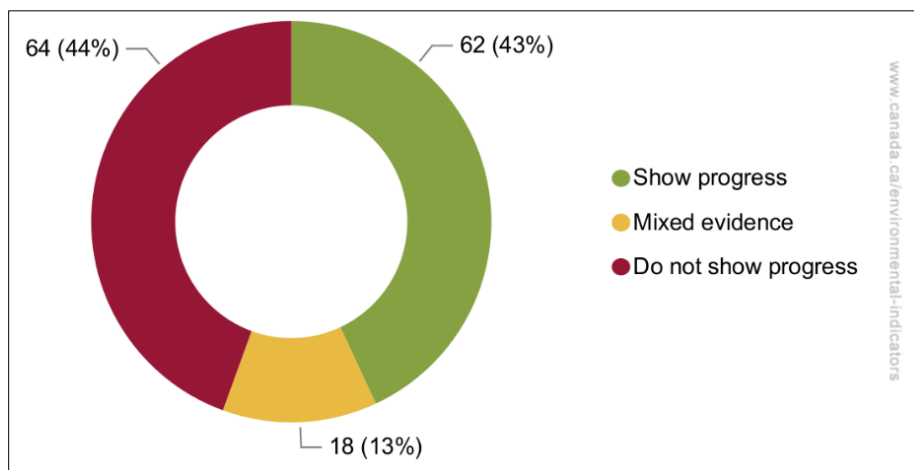
The [Species at risk population trends indicator](#) provides a preliminary assessment of whether the population (how many) and distribution (how they are spread out) trends of species at risk listed under SARA are consistent with the recovery or management objectives.

In order to assess whether species at risk show progress towards their recovery or management objectives, two conditions must be met:

- a recovery strategy or management plan has been posted on the Species at Risk Public Registry; and
- the species has been reassessed by COSEWIC or there is a report on the progress on recovery.

Of the 640 species listed under Schedule 1 of SARA, there are 256 species that meet both conditions. For 10 of them, recovery is considered not feasible; for 19 species, there are no population and distribution objectives in their recovery strategy or management plan; and for 83 species, there is insufficient information to determine population and distribution trends. Therefore, the results are based on the remaining 144 species (Figure 3).

Figure 3: Progress of species at risk towards their population and distribution objectives, Canada, May 2022



Note: In addition to the 144 species considered in the figure, there are also 83 species for which recovery or management objectives and reassessments exist, but insufficient evidence is available in the reassessment to assess trends. ([Detailed data table](#).) Information on these species can be found in the "Mixed evidence". This means that some information suggests improving trends, but there is also some evidence of decline. "Do not show progress" includes species that are stable but not progressing towards their objectives and species that are in decline.

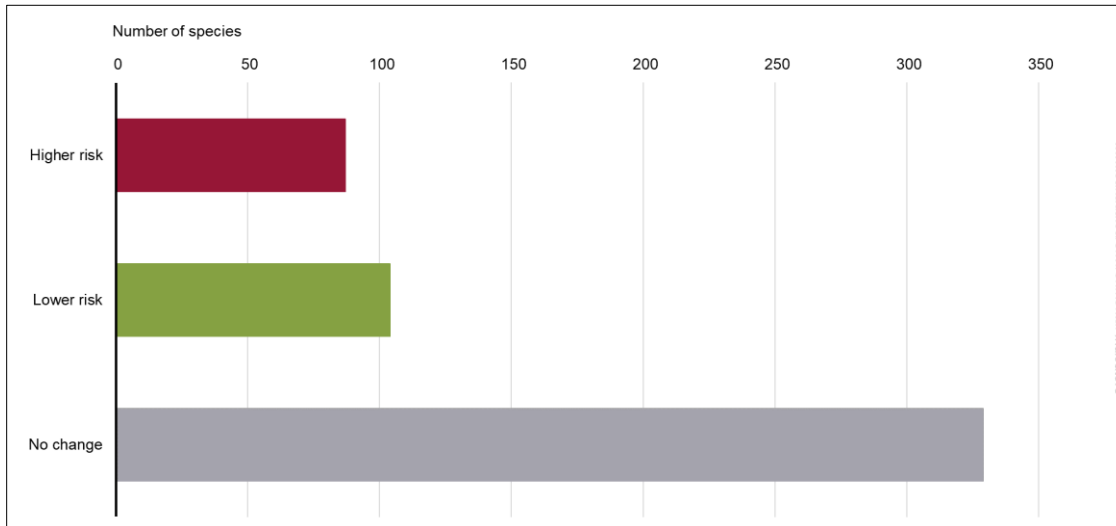
Source: Environment and Climate Change Canada, Fisheries and Oceans Canada, Parks Canada, and the Committee on the Status of Endangered Wildlife in Canada Secretariat (2022).



### 3.1.2. Changes in the status of wildlife species at risk indicator

Identifying wildlife species at risk is the first step towards protecting them. Wildlife species previously designated as being at risk are reassessed, usually after 10 years, to determine if there is a change in status. The [Changes in the status of wildlife species at risk indicator](#) reports on changes in wildlife species designations for wildlife species assessed by COSEWIC.

Figure 4: Changes in the risk of disappearance of wildlife species at risk from Canada, May 2022



Note: In this analysis, wildlife species refers to a species, subspecies or a genetically or geographically distinct population. Wildlife species' disappearance may refer to extinction or extirpation (an extirpated species no longer occurs in the wild in Canada). Lower risk consists of species reassessed as no longer at risk, as well as species in a lower risk category compared to the previous assessment.

Source: Committee on the Status of Endangered Wildlife in Canada, May 2022

In December 2021 and May 2022, 24 wildlife species were reassessed, of which 13 had no change in their status. Of the 11 wildlife species that had a change in status, 10 were classified to a lower risk category and one was classified to a higher risk category.

- The Seaside Bone Lichen changed in status from threatened to not at risk;
- The American Marten (Newfoundland population), Bobolink, Eastern Sand Darter (Quebec population), Eastern False Rue-anemone and Victorin's Gentian changed in status from threatened to special concern;
- The Skillet Clubtail changed in status from endangered to special concern;
- The Eastern Foxsnake (Carolinian population), Eastern Foxsnake (Great Lakes/St. Lawrence population) and Dusky Dune Moth changed in status from endangered to threatened;
- The Grey Whale (Atlantic population) changed in status from extirpated to extinct.

The Seaside Bone Lichen was assessed as no longer at risk because two additional subpopulations have since been found, significantly expanding its previously known range, and contributing to a 30-fold increase in the known population.

Wildlife species may take a long time to recover, and some wildlife species are naturally rare in Canada. A change in status may occur only after significant biological change (for example, increases in abundance, population size or geographical range) has been detected. For these reasons, relatively few wildlife species should be expected to show changes in risk level when reassessed. Changes in risk level can be a result of improved information rather than actual changes in the condition of the wildlife species. This is more likely to occur for wildlife species that have improved in status, than for wildlife species that have declined.<sup>3</sup>

### **In focus: Creating habitat leads to the return of Kirtland's Warbler**

One of the world's rarest songbirds is making a comeback in Canada as a result of years of habitat restoration efforts of dedicated partners in Ontario and the U.S.

The endangered Kirtland's Warbler occupies a very specific habitat, which was previously created by large-scale wildfires. As wildfires were suppressed, the species declined, almost to extinction: just fifty years ago, only a few hundred birds existed, and as recently as 2006, no breeding Kirtland's Warblers were known in Canada. In the spring of 2022, to the excitement of all involved, five male Kirtland's Warblers appeared on one of the restoration sites.



Kirtland's Warbler – listed as endangered  
Photo: Daryl Coulson

Widespread habitat restoration in the core U.S. breeding range over the last several decades has resulted in large population increases in Michigan. It became clear that recovering Kirtland's Warbler in Canada would also require active habitat restoration. Recovery Strategies and [Action Plans](#) have been implemented over the years. More recently, with support from ECCC, a Habitat Stewardship Program project initiated in 2017 has established early successional Pine-Oak Forest community in parcels of the Simcoe County Forest near Barrie, Ontario. To create suitable Kirtland's Warbler habitat, 111 hectares were planted with a diverse native seed mix, collected locally by the project team and volunteers. With its establishment, the area began to support many species at risk, including Eastern Whip-poor-will, Bobolink and other grassland birds, and a diversity of insect pollinators, including the Monarch Butterfly.

There are fewer than 5500 Kirtland's Warblers in the world, and an estimated 20 breeding pairs annually in Canada. The team is continuing to closely monitor the area for any sign that Kirtland's Warblers are breeding within the restoration area. Plans are already underway to repeat this successful habitat restoration 'recipe' elsewhere within the former range of this species in Ontario.

## 3.2. Assessment of species at risk

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

---

<sup>3</sup> Moore A, Cyr A, Findlay S (2016) Do changes in COSEWIC status reflect changes in species' biological status. Report to the Committee on the Status of Endangered Wildlife in Canada (COSEWIC), 10pp.

### COSEWIC wildlife species assessments

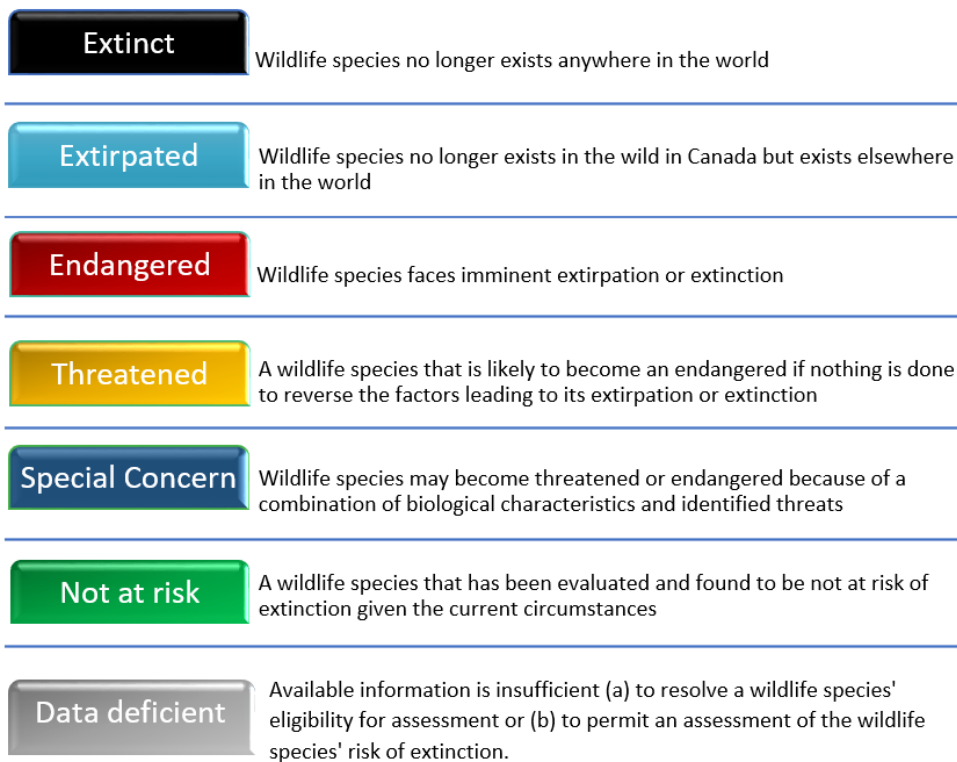
The Committee on the Status of Endangered Wildlife in Canada (COSEWIC) is an independent advisory panel which meets twice a year to assess the status of wildlife species at risk of extinction and provides the assessments and supporting evidence annually to the Minister. Members are wildlife biology experts from academia, government, non-governmental organizations, and the private sector responsible for designating wildlife species in danger of disappearing from Canada.

### COSEWIC status reports

A status report is a comprehensive technical document that compiles and analyzes the best available information on a wildlife species' status in Canada. It incorporates scientific input from government, indigenous and independent experts and is an essential part of the COSEWIC assessment process.

Based on a status report, Species Specialist Subcommittees provide species expertise to COSEWIC. They assess and assign the status of a wildlife species believed to be at some degree of risk.

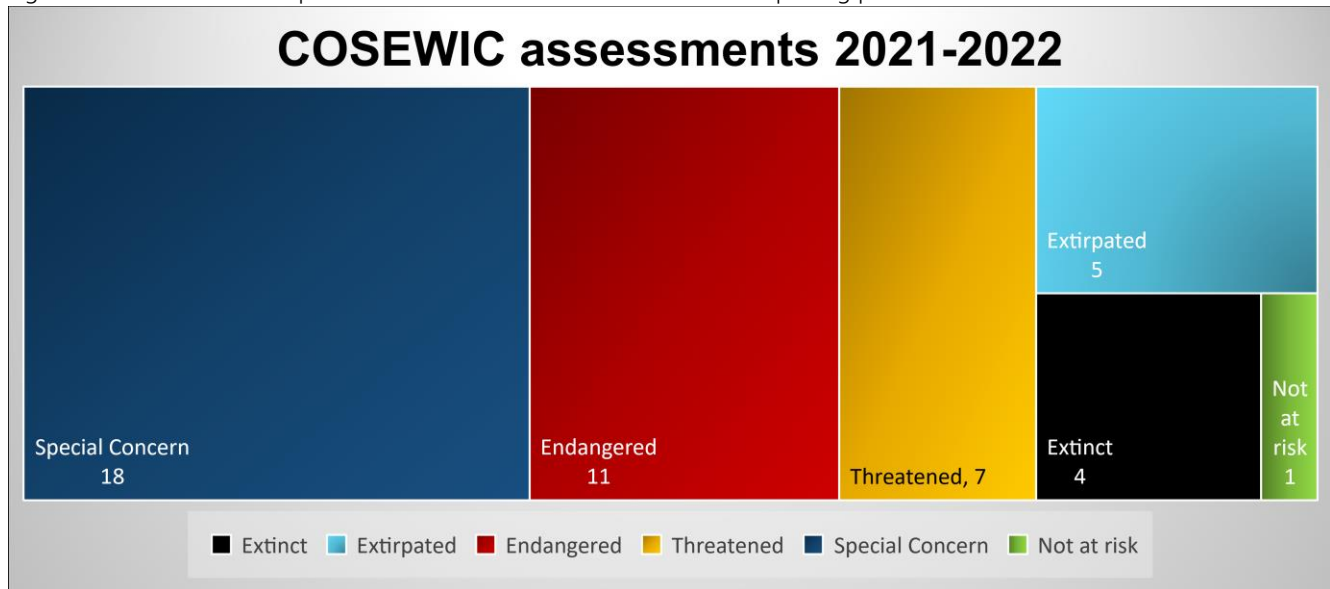
Figure 5: Categories of wildlife species status used by COSEWIC



For the 2021-2022 reporting year<sup>4</sup>, COSEWIC assessed the status of 46 wildlife species and provided the following assessment results (with reasons for status designation) to the Minister in November 2022:

- 4 wildlife species assessed as extinct;
- 1 wildlife species assessed as not at risk; and
- 41 wildlife species (27 terrestrial and 14 aquatic) assessed as at risk, of which 13 were confirmed at the classification already attributed to them on Schedule 1 of SARA.

Figure 6: COSEWIC wildlife species assessment results for the 2021-2022 reporting period



Note: A summary of [COSEWIC's assessments to date](#) is available on the Species at Risk Public Registry.

Two species are eligible to be removed from Schedule 1:

- The Grey Whale (Atlantic population), currently listed as extirpated, was assessed as extinct.
- The Seaside Bone Lichen, listed as threatened, was assessed as not at risk.

A list of the Minister's responses to the species at risk assessments submitted by COSEWIC in November 2022 can be found in the annex (13.2) of this report.

Detailed numbers of COSEWIC assessments at each stage of the listing process from 2002 to year end 2022 (assessed in batches each year), can be found in the annex (13.1) of this report.

### 3.3. Listing of species at risk

The [listing process](#) refers to amendments to Schedule 1 of SARA through the addition, the reclassification, or the removal of a species. GIC decisions on whether to amend Schedule 1 of SARA according to the COSEWIC assessments are published as orders amending Schedule 1 of SARA in the *Canada Gazette*. Orders amending

<sup>4</sup> October 1, 2021 – September 30, 2022



Schedule 1 are published with a Regulatory Impact Analysis Statement. Orders to not 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 and statement setting out the reasons for the decision made by the GIC.

On February 16, 2022, two orders were published in the *Canada Gazette*:

- Order to refer three populations of Woodland Caribou back to COSEWIC for further information or consideration
- Order to change the names of 34 species on Schedule 1 to reflect COSEWIC’s recommendations

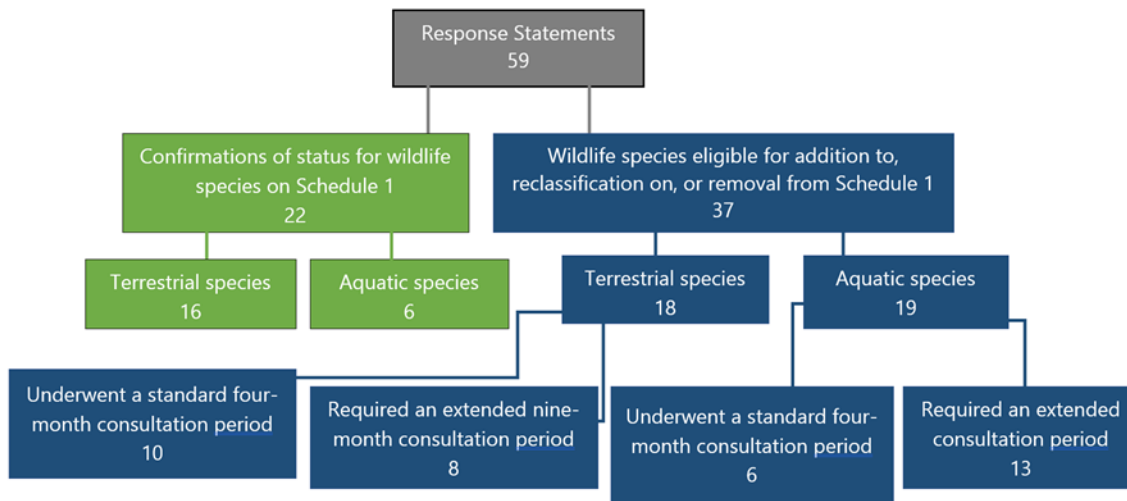
No listing decisions were published in 2022.

### 3.4. Federal government response to COSEWIC assessments



In January 2022, the Minister of Environment and Climate Change provided 59 response statements to COSEWIC’s assessments received in October 2021.<sup>5</sup>

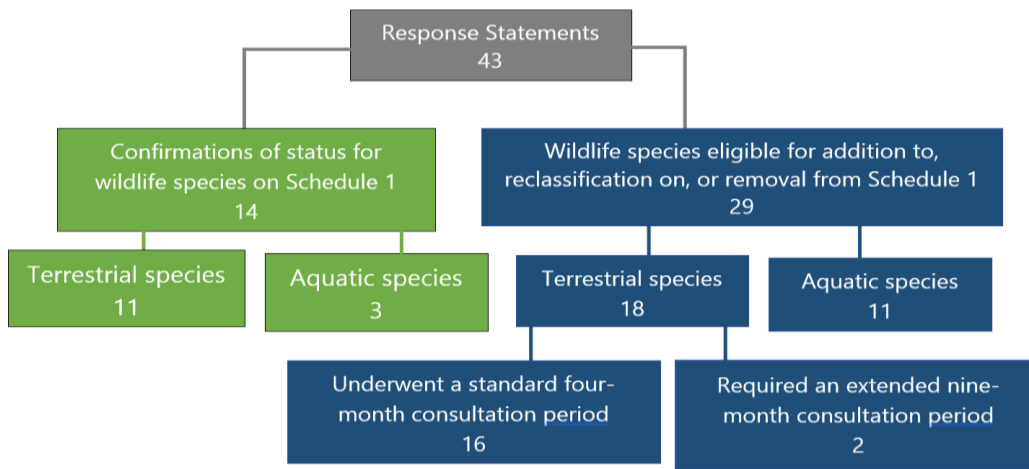
Figure 7: Response statements to COSEWIC assessments, January 2022



<sup>5</sup> Consultations on aquatic species are usually conducted separately from the response statement process and led by DFO.

In December 2022, the Minister of Environment and Climate Change provided 44 response statements to COSEWIC's assessments received in November 2022. Any consultations required for these assessments will take place in 2023 and/or 2024.

Figure 8: Response statements to COSEWIC assessments, December 2022



The Listing Timelines Policy for amendments to Schedule 1 of SARA, published in November 2017, sets out the timelines within which the Minister must make a recommendation to [Governor in Council](#) (GIC) for decisions for both terrestrial and aquatic species. There are 19 assessed terrestrial species and 55 assessed aquatic species that, according to the policy, are due but have not yet been submitted to the GIC. The lists of these species and the reasons for the delays can be found in the Annex (Table 9 for terrestrial species and Table 10 for aquatic species), along with the next steps for each of the species.

### 3.5. Public consultations

Public consultations provide the Minister with a better understanding of the potential social and economic impacts of possible changes to Schedule 1, and the potential consequences of adding or not adding a species to the list. Information collected during consultations is used to inform the Minister's recommendations to the GIC on amending Schedule 1 of SARA.

In 2022, ECCC carried out two separate consultations for a total of 30 terrestrial species for which status assessments had been received from COSEWIC:

- 18 terrestrial species as part of the [Consultation on Amending the List of Species under the \*Species at Risk Act\*: Terrestrial Species January 2022](#) [Batch 19]
  - Aweme Borer
  - Barn Swallow
  - Black Hills Mountainsnail
  - Canada Warbler
  - Cobblestone Tiger Beetle

- Davis's Shieldback
  - Ferruginous Hawk
  - Grappletail
  - Lakeside Daisy
  - Leach's Storm-Petrel (Atlantic population)
  - Lesser Yellowlegs
  - Maleberry
  - Red Knot islandica subspecies
  - Red Knot rufa subspecies (Northeastern South America wintering population)
  - Red Knot rufa subspecies (Southeastern USA / Gulf of Mexico / Caribbean wintering population)
  - Ross's Gull
  - Seaside Centipede Lichen
  - Short-eared Owl
- 18 terrestrial species as part of the [Consultation on Amending the List of Species under the \*Species at Risk Act\*. Terrestrial Species December 2022](#) [Batch 20]
    - American Marten (Newfoundland population)
    - Bobolink
    - Dense Draba
    - Dukes' Skipper
    - Dusky Dune Moth
    - Eastern Foxsnake (Carolinian population)
    - Eastern Foxsnake (Great Lakes / St. Lawrence population)
    - False Rue-anemone
    - Johnson's Hairstreak
    - Meadow Thistle (Mingan population)
    - Meadow Thistle (Rocky Mountain population)
    - Northern Oak Hairstreak
    - Pumpkin Ash
    - Seaside Bone Lichen
    - Sharp-tailed Snake (Pacific Coast population)
    - Skillet Clubtail
    - Vancouver Island Shieldback
    - Victorin's Gentian

### Consulting with Canadians

The Monarch Butterfly and the Western Bumble Bee are important pollinators in Canada, and essential to the production of many crops and broader food security. As the Monarch faces a wide range of direct or indirect threats, including habitat loss, climate change, and severe weather events, its population was reduced by more than half over the last ten years.

In 2022, forty-five day public consultation was conducted through the [Consulting with Canadians website](#) to gather feedback on COSEWIC assessments of the Monarch and the Western Bumble Bee, which are at risk in Canada. The feedback will help inform the decisions made by ECCC in administering the SARA.

Prior to undertaking socio-economic analysis and consultations with Indigenous communities, stakeholders, and the public, DFO develops science advice in the form of a Recovery Potential Assessment (RPA) for most aquatic species that have been assessed by COSEWIC as threatened, endangered, or extirpated. The scientific information in an RPA is peer-reviewed, and includes species status, threats and limiting factors to the recovery and/or survival of the species, and recovery targets.

In 2022, DFO conducted the following RPAs:

- Yelloweye Rockfish (*Sebastes ruberrimus*)
- Purple Wartyback (*Cyclonaias tuberculata*)
- Northern Madtom (*Noturus stigmosus*)
- Southern BC Chinook Salmon (*Oncorhynchus tshawytscha*) - 4 DUs

DFO also carried out online public consultations for eight aquatic species for which status assessments had been received from COSEWIC:

- Purple Wartyback
- Lake Whitefish (Opeongo Lake large-bodied population)
- Lake Whitefish (Opeongo Lake small-bodied population)
- Pygmy Whitefish (Great Lakes - Upper St. Lawrence populations)
- Fin Whale (Pacific population)
- Grey Whale (Pacific Coast Feeding Group population)
- Grey Whale (Western Pacific population)
- Shortfin Mako (Atlantic population)

Consultations with Wildlife Management Boards on potential listing of three whale species found in Arctic waters that were initiated in 2021 continued throughout 2022.



### 3.6. General status of wildlife species in Canada



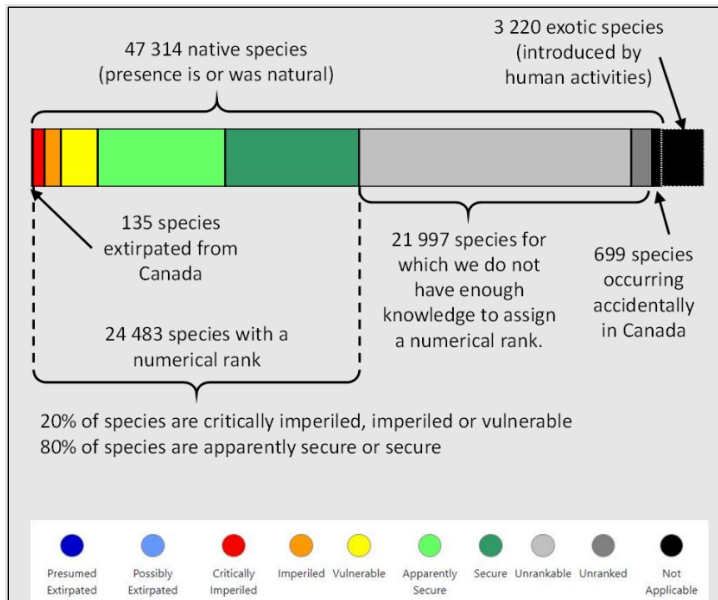
Under Section 128 of SARA, the Minister must, every five years, prepare a general report on the status of wildlife species. The latest report, titled *Wild Species 2020: The General Status of Species in Canada*, was released and tabled in Parliament in 2022.

The [Wild Species 2020 report](#) includes information on 50 534 species. This represents an increase of over 20 000 species from the previous report, providing the most complete understanding on the status and distribution of wild species in Canada.

Among the 24 483 species with sufficient data to assess their conservation status, 20% (one in five) have some level of risk in Canada (Figure 9). At a national level, 873 species are critically imperiled, 1245 are imperiled, 2765 are vulnerable, 9562 are apparently secure, and 10 038 are secure. In addition, 40 species are presumed extirpated and 95 are possibly extirpated, meaning they have likely disappeared from Canada. An additional 20 448 species are unrankable and 1549 are unranked, indicating that enough data is available to determine their distribution by jurisdiction, but not their conservation status. The report also identified 3919 species that are accidental or were introduced into Canada, in which case ranks are considered not applicable.

The *Wild Species 2020* report flags species that may be high priorities for more detailed assessments by COSEWIC. A priority score was assigned to each of the species that may be at risk, based on the level of risk and the percentage of their world range in Canada. Of the 2253 species ranked as imperiled, critically imperiled, or presumed / possibly extirpated, 322 species have a high priority score. Of these, 78 have already been assessed in detail by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC). The remaining species could be prioritized as potential candidates for future detailed assessments.

Figure 9: Summary of the conservation status of the 50 534 species included in the Wild Species 2020 report



All the results of the program on the General Status of Species in Canada are available on [the Wild Species website](#). A newly developed species search tool facilitates searching through all species included in all Wild Species reports and comparing changes in ranking over time.



## 4. Progress under the Nature Legacy for Canada Initiative

This section highlights a few of [the Nature Legacy Initiative](#)'s activities completed or underway that support conservation of species at risk.

### The Nature Legacy Initiative

Through the Canada Nature Fund, the federal government committed \$155 million over five years (2018-2023) to support conservation of terrestrial wildlife species under the Pan-Canadian Approach to Transforming Species at Risk Conservation in Canada (Pan-Canadian Approach), and \$55 million over five years (2018-2023) to support conservation of aquatic species through the Canada Nature Fund for Aquatic Species at Risk (CNFASAR).

In August 2021, the federal government reaffirmed its commitments toward wildlife and biodiversity through the Enhanced Nature Legacy (ENL), an investment of \$2.3 billion over five years (starting in 2021-2022) to ECCC, Parks Canada, and DFO.

### 4.1. Pan-Canadian Approach for terrestrial species at risk



ECCC and Parks Canada have continued to work closely with provinces and territories, Indigenous peoples, and other partners to address priority terrestrial species, places and sectors through the implementation of the [Pan-Canadian Approach](#) and related policy and program improvements.

### Priority Places

In 2022-2023, the federal government invested up to \$20.8 million in 134 Priority Places projects across the country, with additional funding leveraged via matching funds from partners. One hundred and seventeen of these projects are being implemented across 11 Priority Places and are complemented by projects in 18 Community Nominated Priority Places that were established following open calls for applications. Projects supporting these objectives in 2022-2023 include:

- Implementation of large-scale native prairie conservation efforts including invasive species management, restoration planning, surveys for species at risk and other target species, and public outreach in the Summit to Sage Priority Place in Alberta
- Restoration and securement of wetland habitat for species at risk (including Western Chorus Frog) in the St. Lawrence Lowlands in Quebec
- Garry Oak ecosystem restoration in Southwest British Columbia, invasive species management in high priority species at risk habitats in the Dry Interior and habitat restoration for species at risk on ranch lands in Southwest British Columbia and the Dry Interior. Restoration of tallgrass habitat for species at risk, and engaging landowners and the forest sector in stewardship for forest bird species at risk in Ontario's Long Point Walsingham Forest Priority Place
- Supporting Indigenous partner coordination and capacity-building, and securement and permanent protection of private land containing critical habitat for multiple species at risk within the Kespukwitk/Southwest Nova Scotia Priority Place



Garry Oak islet – Park staff remove invasive plants

Parks Canada is responsible for protecting and managing the ecosystems of National Parks. National Parks overlap with six Priority Places allowing for collaboration with partners to maximize landscape-scale conservation benefits. Parks Canada is also a key partner in at least five Community-Nominated Priority Place initiatives across the country.

### Priority Species

In 2022-2023, ECCC invested over \$44 million in 83 Priority Species projects across Canada to support on-the-ground management actions with many benefiting multiple species at risk, with additional funding leveraged via match funding from partners. Projects supporting this objective included:

- conducting genomic analyses of caribou samples across British Columbia to quantify gene flow and connectivity between populations and evaluate whether levels of gene flow are adequate for long term population viability;
- conducting studies to assess the impact of climate change on Boreal Caribou, in combination with habitat disturbance;
- undertaking Barren-ground Caribou surveys in the low Arctic and high subarctic regions of Northwest Territories;
- facilitating collaborative meetings with partners, including Indigenous peoples, for the management of Wood Bison in Northwest Territories; and,
- engaging with Indigenous partners in Labrador to advance the Caribou Guardians programs and initiate the drafting of Boreal Caribou range plans.



Priority species occur within over 21 Parks Canada-administered places. Parks Canada involvement in priority species projects in 2022-2023 include:

- developing better tests for bovine tuberculosis; combining vaccines for bovine tuberculosis and brucellosis; genetic testing for hybridization between wood and plains bison; and biobanking for wood bison reproductive material;
- completing a detailed Impact Assessment and Indigenous and public consultations for a conservation breeding program in Jasper National Park for Southern Mountain Caribou; and
- restoration of approximately 633 hectares in Grasslands National Park of previously impacted habitat for Greater Sage-Grouse, through removal or mitigation of anthropogenic infrastructure (e.g. powerlines, buildings, fences) since 2016.

### [Indigenous Partnerships Initiative](#)

ECCE's Indigenous Partnerships Initiative (IPI) aims to enable Indigenous leadership in species at risk conservation by supporting projects that advance the implementation of the Pan-Canadian Approach and SARA in a manner that reflects the unique priorities, rights and knowledge of First Nations, Inuit, and Métis peoples. During the 2021-2022 fiscal year<sup>6</sup>, IPI provided \$10.4 million to 33 new and 29 previously approved multi-year projects; leveraged additional funds that exceeded \$2.8 million (cash and in-kind); and involved 53 Indigenous governments, communities, and organizations.

### Priority Sectors

The Pan-Canadian Approach identified three Priority Sectors: agriculture, forest, and urban development. Each of the sectors was chosen for its impact on species at risk, national scope, and relevance. Each priority sector initiative advanced toward the completion of a national action plan by engaging relevant government officials, indigenous representatives, and stakeholders. In 2021-2022<sup>6</sup>, the federal government invested up to \$1.5 million in 13 Priority Sector projects across the country.

### [Nature Agreements](#)

Under the Enhanced Nature Legacy initiative, the Government of Canada is seeking to negotiate Nature Agreements to make substantial progress towards key federal nature objectives through enhanced collaboration with jurisdictions. The Government of Canada is investing \$200M over five years to support the negotiations and may leverage further federal financial incentives and regulatory authorities, as necessary, to seek meaningful conservation outcomes for Canadians. The core desired outcomes of Nature Agreements are to maximize the protection of 25% of Canada's lands and freshwater by 2025, and 30% by 2030, to advance reconciliation through Indigenous leadership in conservation, and to protect and recover species at risk and their critical habitats.

In December 2022, the Governments of Canada and Yukon signed the [Canada-Yukon Nature Agreement](#), the first of its kind, to advance nature conservation and protection across the territory. The Government of Canada will invest \$20.6 million to implement the agreement. This will support Indigenous leadership in conservation; increased protection of sensitive habitats; and recovery actions for species at risk, such as the Northern Mountain Caribou, the

---

<sup>6</sup> 2021-2022 is the latest information available for IPI for this annual report.

Grizzly Bear, and vascular plants, as well as the protection and conservation of land in the Yukon. The Government of Yukon has committed to working with Indigenous governments to pursue the development of territorial SAR legislation and advancing recovery work for species at risk in line with the outcomes identified in federal recovery strategies and management plans. The agreement also outlines commitments to clarify roles and jurisdiction under SARA (e.g. environmental assessments, national policy on effective protection of non-federal lands, devolution of lands to Yukon).

## 4.2. The Canada Nature Fund for Aquatic Species at Risk



Atlantic Salmon in aquarium in Canada— listed as endangered  
Photo: Steven Bly

As part of the Nature Legacy Initiative, DFO undertook public engagement on key concepts for the development of a *Framework for Aquatic Species at Risk Conservation* in Canada. This Framework is intended to improve conservation outcomes for species at risk through the application of multi-species approaches to the delivery of DFO's SARA responsibilities. Engaging with Indigenous organizations, provinces, and territories, as well as partners and stakeholders, is essential in shaping the Framework. As a result, from April - November 2022, DFO sought feedback on guiding principles, criteria, and best practices for

implementing multi-species approaches. DFO will build on existing processes and develop new approaches to improve conservation outcomes for Canada's aquatic species at risk.

The Canada Nature Fund for Aquatic Species at Risk (CNFASAR) supports the recovery and protection of aquatic species at risk. The fund aims to build relationships with Indigenous peoples, provinces and territories, industry, and other partners for aquatic species at risk by supporting and encouraging multi-species stewardship actions.

### CNFASAR

Budget 2018 provided \$55 million over five years, which has already been allocated to 57 multi-species projects across Canada. Under Budget 2021, an additional \$29.5 million over five years was made available to support 37 new projects between April 1, 2021 and March 31, 2026.

Since 2018, this funding has supported a total of 94 multi-species projects that benefit over 150 populations of aquatic species at risk associated with [nine priority places](#), [two marine threats](#) and three priority species (Atlantic Salmon, Pacific Salmon, and North Atlantic Right Whale).

Examples of new multi-year projects that were underway in 2022 include:

- supporting the conservation and recovery of salmonid species at risk that spawn and rear in the Thompson-Shuswap watershed;
- developing and implementing survey and monitoring methodologies for aquatic invasive species and species at risk, to assess riparian health in the Southern Prairies Priority Place of Manitoba
- improving, and expanding habitat for Chinook Salmon and Rocky Mountain Ridged Mussel in the Okanagan River watershed;
- increasing the capacity of Prince Edward Island watershed groups to contribute with the rehabilitation of important freshwater habitats for salmon; and
- improving refuge habitat for Atlantic Salmon and other native fish species by implementing cold water pool enhancements in the Miramichi River watershed.

Parks Canada supports implementation of several projects funded by the CNFASAR that take place in or adjacent to Parks Canada-administered places. For example, Saguenay-St. Lawrence Marine Park is a key partner and monitoring site for Le Sentier Béluga – a network of connected Earth observation sites as an alternative to marine observation.



Bobolink in Melbourne ON – listed as a species of special concern

## 5. Recovery actions for species at risk

Once listed, measures to protect and recover the wildlife species are implemented. Under SARA, the competent ministers must prepare: a) [recovery strategies and action plans](#) for the species listed as extirpated, endangered or threatened; and b) management plans for those listed as special concern.

### 5.1. Recovery strategies



Okanagan Efferia – listed as endangered  
Photo: Eric Gross

Recovery strategies for species listed as extirpated, endangered, or threatened have the following steps:

1. Identify threats to the species and its habitat
2. Set population and distribution objectives for the species
3. Identify critical habitat to the extent possible



**Table 1: Species for which recovery strategies were posted in 2022**

Competent department	Final recovery strategies: species	Proposed recovery strategies: species
<b>Environment and Climate Change Canada</b>	Peary Caribou* Northern Dusky Salamander (Carolinian population) Pink Coreopsis (amended RS-AP) Plymouth Gentian (amended RS-AP) Tall Beakrush (amended RS-AP) Thread-leaved Sundew (amended RS-AP) Eastern Baccharis (amended RS-AP) Sweet Pepperbush (amended RS-AP) Woodland Caribou (Atlantic Gaspésie population) (amended RS) Bank Swallow* Hairy Braya Olive Clubtail Okanagan Efferia Piping Plover <i>melodus</i> (amended RS)* Fascicled Ironweed Crumpled Tarpaper Lichen Roell's Brotherella Moss Barn Owl (Western population)* Hoptree Borer* Audouin's Night-stalking Tiger Beetle	Pink Coreopsis (amended RS-AP) Plymouth Gentian (amended RS-AP) Tall Beakrush (amended RS-AP) Thread-leaved Sundew (amended RS-AP) Eastern Baccharis (amended RS-AP) Sweet Pepperbush (amended RS-AP) Audouin's Night-stalking Tiger Beetle Hoptree Borer* Chimney Swift* Eastern Meadowlark* Bobolink* Gypsy Cuckoo Bumble Bee* Proud Globelet Gibson's Big Sand Tiger Beetle American Burying Beetle Black-foam Lichen*
<b>Parks Canada</b>	NIL	NIL
<b>Fisheries and Oceans Canada</b>	Black Redhorse Fawnsfoot Lilliput Pugnose Minnow Silver Shiner Threehorn Wartyback	Atlantic Mud-Piddock Spotted Gar (Proposed RS-AP)*

\*Parks Canada is also a competent department for this species, as it occurs in Parks Canada-administered lands/waters and contributed to the development of the recovery strategy.

In 2022, DFO published 17 reports on the progress of recovery strategy implementation covering 27 species, including the Northern and Southern Resident Killer Whales, the Blue Fin, and Sei Whales in Canadian Pacific waters, and the Copper Redhorse. Parks Canada published a report on the implementation of the recovery strategy and action plan for the Banff Springs Snail.

## 5.2. Action plans



Piping Plover – listed as endangered

An action plan identifies the conservation measures required to address the threats to the species and meet the population and distribution objectives outlined in the recovery strategy. An action plan may include identification of the species' critical habitat, to the extent possible, based on the best available information and consistent with the recovery strategy.

Table 2: Species for which action plans were posted in 2022

Competent department	Final action plans	Proposed action plans
<b>Environment and Climate Change Canada</b>	Piping Plover <i>melodus</i> * Pink Coreopsis (amended RS-AP) Plymouth Gentian (amended RS-AP) Tall Beakrush (amended RS-AP) Thread-leaved Sundew (amended RS-AP) Eastern Baccharis (amended RS-AP) Sweet Pepperbush (amended RS-AP)	Pink Coreopsis (amended RS-AP) Plymouth Gentian (amended RS-AP) Tall Beakrush (amended RS-AP) Thread-leaved Sundew (amended RS-AP) Eastern Baccharis (amended RS-AP) Sweet Pepperbush (amended RS-AP)
<b>Parks Canada</b>	Multi-species Action Plan for La Mauricie National Park and National Historic Sites of La Mauricie and Western Quebec regions (addresses 33 species listed on Schedule 1 of SARA)	NIL
<b>Fisheries and Oceans Canada</b>	Black Redhorse Fawnsfoot Lilliput Pugnose Minnow Silver Shiner Threehorn Wartyback	Spotted Gar White Sturgeon (4 designatable units)

\* Parks Canada is also a competent department for this species, as it occurs in Parks Canada-administered lands/waters and contributed to the development of the recovery strategy.

In 2022, Parks Canada published 12 implementation reports that demonstrate the progress made towards achieving the objectives of multi-species action plans posted on the SARA Registry in 2016 and 2017.

Table 3: Parks Canada five-year implementation reports for multi-species action plans posted in 2022

<b>Parks Canada Place Multi-species Action Plans</b>	<b># SARA- listed species addressed</b>	<b>% recovery measures completed</b>	<b>% population and distribution objectives* fully achieved</b>
Bruce Peninsula National Park of Canada and Fathom Five National Marine Park of Canada	33	71	38
Kouchibouguac National Park of Canada and Associated National Historic Sites of Canada	22	90	78
Kejimikujik National Park and National Historic Site of Canada	19	78	50
Pukaskwa National Park of Canada	13	100	33
Gwaii Haanas National Park Reserve, National Marine Conservation Area, and Haida Heritage Site	40	80	80
Banff National Park of Canada	7	81	33
Mount Revelstoke National Park of Canada and Glacier National Park of Canada	5	89	75
Jasper National Park of Canada	7	50	50
Yoho National Park of Canada	3	75	0
Kootenay National Park of Canada	5	67	0
Terra Nova National Park of Canada	10	60	50
Fort Rodd Hill National Historic Site of Canada	9	100	100

\* Parks Canada develops site-specific population and distribution objectives for the portion of the species that occurs within the National Park. These objectives align with the national population and distribution objectives for the species, as defined in a recovery strategy.

## In focus: Action on Westslope Cutthroat Trout



Parks Canada is restoring threatened Westslope Cutthroat Trout and aquatic ecosystems with the help of partners. Westslope Cutthroat Trout hatch in cold mountain streams, with only a handful of locations in Banff, Kootenay, and Yoho National Parks.

In the 1940s, Parks Canada introduced non-native fish, Brook Trout, to enhance the visitor fishing experience. Now, genetically pure Westslope Cutthroat Trout make up less than 10% of its historic distribution in Alberta.

Parks Canada has taken a four-part journey to help restore the Westslope Cutthroat Trout:

### 1. Identify habitat refuges

Parks Canada created a long-term headwater refuge to prevent other non-native trout from entering Banff National Park.

### 2. Remove non-native fish

Parks Canada tried unsuccessfully for six years to remove Brook Trout by netting, electrofishing, and angling. In 2018, Parks Canada worked with fisheries experts from Canada and Montana to remove the remaining Brook Trout. Rotenone, a natural fish toxicant made from the roots of the bean plant, was used safely and successfully with no effects on the ecosystem or other species.



### 3. Reintroduce native trout

Parks Canada started reintroducing Westslope Cutthroat Trout using a technique called remote stream-side incubation. During the final weeks of incubation, developed eggs were placed in this system of poles and buckets, which uses gravity to feed water into the bottom of buckets while water pushes through the top, bringing oxygen to the eggs. The intention is to have fish old enough to spawn every year.



### 4. Monitor for success

Parks Canada has successfully restored an 11-ha lake and around 4 km of stream. Environmental DNA is used to monitor the restoration work.

To learn more, visit: <https://parks.canada.ca/nature/science/especies-species/truite-trout>

### 5.3. Management plans



A pair of Evening Grosbeaks in Northern Ontario – listed as species of special concern

A management plan differs from a recovery strategy and an action plan, in that it identifies conservation measures needed to prevent a species of special concern from becoming threatened or endangered but does not identify critical habitat. Where appropriate, these management plans may be prepared for multiple species on an ecosystem or landscape level.

Table 4: Species for which management plans were posted in 2022

Competent department	Final management plans: species	Proposed management plans: species
<b>Environment and Climate Change Canada</b>	Vivid Dancer* Tiny Tassel Horned Grebe* Blue Felt Lichen* Western Grebe* Evening Grosbeak* Buff-breasted Sandpiper* Eastern Lilaepsis (amended MP) Goldencrest (amended MP) Long’s Bulrush (amended MP)* New Jersey Rush (amended MP) Redroot (amended MP) Tubercled Spike-rush (amended MP) Water Pennywort (amended MP)*	Eastern Lilaepsis (amended MP) Goldencrest (amended MP) Long’s Bulrush (amended MP)* New Jersey Rush (amended MP) Redroot (amended MP) Tubercled Spike-rush (amended MP) Water Pennywort (amended MP)* Red-necked Phalarope* Yellow-banded Bumble Bee* Yukon Podistera Evening Grosbeak* Spiked Saxifrage Baikal Sedge* Dune Tachinid Fly* Greenish-white Grasshopper* Eastern Musk Turtle* Haida Gwaii Slug* Mountain Crab-eye Dwarf Lake Iris* Magnum Mantleslug* Pygmy Slug Sheathed Slug Collared Pika*
<b>Parks Canada</b>	NIL	NIL
<b>Fisheries and Oceans Canada</b>	Giant Threespine Stickleback Unarmoured Threespine Stickleback	Giant Threespine Stickleback Unarmoured Threespine Stickleback

\* Parks Canada is also a competent department for this species, as it occurs in Parks Canada-administered lands/waters and contributed to the development of the recovery strategy.



In 2022, DFO published six reports on the progress of management plan implementation covering ten species, including the Bowhead Whale (Bering-Chukchi-Beaufort population), the Bluntnose Sixgill Shark and Tope Shark, and the Grass Pickerel.

## 5.4. Critical habitat

SARA defines “critical habitat” as the habitat that is necessary for the survival or recovery of a listed wildlife species and that is identified as the species’ critical habitat in the recovery strategy or in an action plan for the species.

Table 5: Final and proposed recovery strategies in which critical habitat was identified in 2022

Competent department	Final recovery strategy	Proposed recovery strategy
<b>Environment and Climate Change Canada</b>	Peary Caribou Northern Dusky Salamander (Carolinian population) Pink Coreopsis (amended RS-AP) Plymouth Gentian (amended RS-AP) Tall Beakrush (amended RS-AP) Thread-leaved Sundew (amended RS-AP) Eastern Baccharis (amended RS-AP) Sweet Pepperbush (amended RS-AP) Woodland Caribou (Atlantic Gaspésie population) (amended RS) Bank Swallow Hairy Braya Olive Clubtail Okanagan Efferia Piping Plover <i>melodus</i> (amended RS) Fascicled Ironweed Crumpled Tarpaper Lichen Roell’s Brotherella Moss Barn Owl, Western population Hoptree Borer Audouin’s Night-stalking Tiger Beetle	Pink Coreopsis (amended RS-AP) Plymouth Gentian (amended RS-AP) Tall Beakrush (amended RS-AP) Thread-leaved Sundew (amended RS-AP) Eastern Baccharis (amended RS-AP) Sweet Pepperbush (amended RS-AP) Audouin’s Night-stalking Tiger Beetle Hoptree Borer Chimney Swift Eastern Meadowlark Bobolink Gypsy Cuckoo Bumble Bee Gibson’s Big Sand Tiger Beetle Black-foam Lichen Pink Coreopsis (amended RS-AP) Plymouth Gentian (amended RS-AP) Tall Beakrush (amended RS-AP) Thread-leaved Sundew (amended RS-AP) Eastern Baccharis (amended RS-AP) Sweet Pepperbush (amended RS-AP)
<b>Parks Canada</b>	Bank Swallow Peary Caribou Piping Plover** Hoptree Borer	Hoptree Borer Spotted Gar* Chimney Swift Eastern Meadowlark Bobolink Gypsy Cuckoo Bumble Bee Black-foam Lichen
<b>Fisheries and Oceans Canada</b>	Black Redhorse Fawnsfoot Lilliput Pugnose Minnow Silver Shiner Threehorn Wartyback	Spotted Gar Atlantic Mud-piddock

\*Recovery strategy and action plan \*\*Amended final recovery strategy and action plan

## 5.5. Recovery activities



Common Nighthawk – listed as species of special concern

In supporting species at risk recovery, federal government biologists across Canada led or supported dozens of activities with Indigenous partners, stakeholders, and Canadians, including research, habitat restoration or enhancement initiatives, monitoring, and assessment.

In 2022, ECCC helped advance recovery activities for a wide variety of terrestrial species at risk with conservation measures focused on research and monitoring, partnership development, conservation planning and implementation of conservation agreements under SARA.

### In focus: Grassland species at risk recovery in Ontario

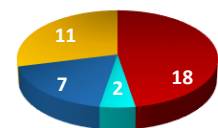
Since 2018, ECCC has been collaborating with conservation partners in the Long Point Walsingham Forest (LPWF) Priority Place, located in southwestern Ontario, to create healthy, resilient, and connected ecosystems that support biodiversity and a thriving community. The Priority Place approach focuses on the implementation of conservation actions that will benefit multiple species at risk, as opposed to individual species at risk conservation. For example, conservation efforts in the LPWF Priority Place are supporting the recovery of 38 grassland species at risk through activities such as: securement, restoration and improvement of tallgrass prairie, savannah, and oak woodland habitat; conservation planning; systematic monitoring and surveys of vegetation, breeding birds, and pollinating insects; and raising public and private landowner awareness on the importance of grassland habitat and of prescribed burning as a management tool.

Examples of recovery document measures that are currently being implemented for species at risk in LPWF include:

- Restoring habitat and natural processes (e.g. prescribed burns, mechanical thinning, prairie restoration) that provide breeding habitat for Common Nighthawk (special concern) and its prey.
- Continuing to work with partners to undertake monitoring, habitat management, research to address significant knowledge gaps, and to increase awareness and promote stewardship of Virginia Goat's-rue (endangered) in St. Williams Conservation Reserve.
- Plan and implement a monitoring system based on the quality and quantity of available habitat for Eastern Milksnake (special concern).

In addition to these examples, the investments in the LPWF Priority Place for grassland conservation have notably contributed to the advancement of the 2019 recovery strategy for three butterfly species: Karner Blue, Frosted Elfin, and Eastern Persius Duskywing. Given the extent of habitat restoration and management that has taken place within LPWF over the last 15 years, experts have identified a potential for a successful reintroduction of Frosted Elfin (extirpated). These species are excellent indicators of habitat quality, and a successful reintroduction would further demonstrate the long-term success of the Priority Place Initiative. An assessment is underway to determine whether a Frosted Elfin reintroduction is feasible in LPWF and to develop a path forward.

SARA Schedule 1 status of 38 grassland species at risk in the LPWF Priority Place



- Endangered
- Extirpated
- Special Concern
- Threatened

In 2022, Parks Canada implemented recovery measures in and around the lands and waters it administers, including research, restoration activities, and public outreach and education. As part of the work under the [Nature Legacy for Canada Initiative](#), Parks Canada allocated approximately \$6,967,000 in 2022-2023 to over 37 projects across the country to implement recovery measures identified in SARA action plans. This included conducting several projects in partnership with non-governmental organizations, academic institutions, private citizens and Indigenous communities. These projects contributed to recovering, restoring, and enhancing ecosystems and species at risk across Canada, such as:

- Evaluating and adopting proven methods in endangered salmon restoration for broad-scale benefits at Cape Breton Highlands, Terra Nova, Fundy, Kouchibouguac and Gros Morne National Parks;
- Recovering turtles with partners at La Mauricie National Park;
- Conserving and restoring five-needle pines at Waterton Lakes, Jasper and Banff National Parks, and in the Lake Louise, Yoho and Kootenay Field Unit;
- Relearning to live with Sea Otters at Gwaii Haanas National Park Reserve, National Marine Conservation Area Reserve and Haida Heritage Site.

In 2022, DFO helped advance the recovery of aquatic species at risk by supporting the implementation of recovery measures through stewardship programs including the Habitat Stewardship Program, Aboriginal Fund for Species at Risk, and the Canada Nature Fund for Aquatic Species at Risk. From 2018 to the end of fiscal year 2021-2022, contribution funding under HSP, AFSAR and CNFASAR addressed over 775 recovery measures (27%) of 107 species listed under SARA and benefited over 80 species assessed by COSEWIC.

In addition, DFO supports recovery through DFO and the Marine Mammal Response Program. DFO officials and external partner organizations, under the umbrella of the Marine Mammal Response Program, carried out 265 marine mammal responses nationally for species at risk. Responses included: freeing entangled whales and pinnipeds, collecting samples and performing necropsies on dead animals, responding to harassment calls, monitoring sick animals, and monitoring close approaches by vessels.

In the PEI area of Gulf Region, DFO officers verified SARA logs and inspected gear for North Atlantic Right Whale (NARW) rope markings. This included specific targeted patrols as part of compliance promotion activities in the lobster fishery. NARW closed grids were patrolled using Vessel Monitoring System patterns and aerial surveillance to confirm the presence of and seize discarded or lost fishing gear. (Ghost) fishing gear and vertical lines in the water posing an entanglement risk to marine mammals were removed. In the wake of Hurricane Fiona, DFO officers assisted fishers in scouting for, retrieving and returning lost gear in areas closed for lobster fishing. They retrieved approximately 50 lobster traps and assisted provincial partners in retrieving hundreds more.

### 5.5.1. Habitat Stewardship Program

The Government of Canada's Habitat Stewardship Program for Species at Risk (HSP) was established in 2000 and is administered by ECCC (for terrestrial species) and DFO (for aquatic species) on a regional basis. The most complete data available for the HSP at the end of 2022 is for the 2021-2022 fiscal year.

### [HSP for terrestrial species at risk](#)

During the 2021-2022 fiscal year, 69 new projects and 7 previously approved multi-year projects involving 71 unique funding recipients contributed to recovery efforts of SARA-listed terrestrial species across Canada. Of these 76 projects, 65 addressed terrestrial priority species, and 58 projects addressed priority sectors and/or threats specifically. A total of \$3.6 million was provided to these 76 projects, with an additional \$15 million (cash and in-kind) leveraged from partners. Since the program's inception, the HSP has supported the protection of 225 692 hectares of land, as well as the improvement of 500 785 hectares of land and 3355 kilometres of shoreline.

### [The HSP for aquatic species at risk](#)

In 2021-2022, nearly \$4 million dollars were invested in new and previously approved multi-year projects. The investments provided support to a variety of stewardship efforts across Canada, and resulted notably in 443 outreach events, 244 habitat/species surveys/inventories, improvement of habitat, and engagement and participation of 346 partners.

## 5.5.2. Aboriginal Fund for Species at Risk

Established in 2004, the [Aboriginal Fund for Species at Risk](#) (AFSAR) is an application-based program delivered by ECCC (terrestrial species stream) and DFO (aquatic species stream). AFSAR focuses on strengthening capacity in Indigenous communities to lead the stewardship of species at risk in support of broader SARA implementation.

### [Aboriginal Fund for terrestrial species at risk](#)

During the 2021-2022 fiscal year, the AFSAR terrestrial stream:

- provided \$2.1 million to 32 new projects and one previously approved multi-year project;
- leveraged additional funds exceeding \$900,000 (cash and in-kind);
- involved 33 Indigenous governments, communities, and organizations as unique recipients.

### [Aboriginal Fund for aquatic species at risk](#)

During the 2021-2022 fiscal year, the AFSAR aquatic stream:

- provided over \$3.46 million towards 35 new projects and 12 previously approved multi-year projects (47 total);
- leveraged additional funds exceeding \$1.5 million (cash and in-kind);
- involved 44 Indigenous organizations and communities as recipients.

## 5.5.3. Critical Habitat Interdepartmental Program

Established in 2020 and administered by ECCC, the [Critical Habitat Interdepartmental Program](#) (CHIP) is a directed funding program that provides financial support to federal government departments, agencies and Crown corporations (other than ECCC, Parks Canada, and DFO) for projects aimed at the recovery of species at risk through the conservation and restoration of their habitat.

In the 2022-2023 fiscal year, the CHIP supported 13 projects led by seven federal departments and two Crown corporations. Collectively, \$585,791.81 representing 51.28% of combined total project costs supported species at risk

conservation and recovery and critical habitat restoration. Lead organizations and partners (e.g. Indigenous communities, environmental organizations, other organizations, academics, provincial governments and private landowners) contributed \$227,360.24 and \$329,268.75 in leveraged funds (cash and in-kind), respectively. The 2022-2023 CHIP projects supported efforts for 68 SARA-listed species, including 36 CHIP priority species, representing an increase of 33 and 20 targeted species since the program's inception, respectively.

As well, Other Internally Prioritized Species (OIPS) CHIP project type, which consists of projects targeting species that require species-specific targeted actions towards their recovery, was successfully implemented, with two OIPS projects targeting four species.

Overall, funded projects delivered on objectives that included critical habitat identification through surveys, critical habitat restoration through the removal of invasive species, the establishment of a field SAR seed bank, SAR population surveys, native species reintroduction and monitoring, community outreach, and research to increase scientific knowledge pertaining to SAR and their critical habitat.



Barn Owl in flight in BC – listed as threatened

## 6. Monitoring

Monitoring of wildlife species provides the scientific foundation for all aspects of the species at risk program, from assessment and recovery planning, to implementing and evaluating the effectiveness of conservation actions.

For assessment, monitoring programs provide information on the distribution, abundance, and population trends of species, which are key parameters in the COSEWIC assessment process. Recovery planning depends upon data from monitoring programs to determine the current distribution and identify critical habitat for listed species at risk. Monitoring can be used to evaluate the effectiveness of actions for meeting recovery objectives and guide further actions through an adaptive management process.

ECCC manages or coordinates national scale monitoring programs for all species of migratory birds in Canada, as well as regional programs for selected other wildlife species at risk. The [North American Breeding Bird Survey](#), which completed its 57th year of surveys in 2022, provides the foundation for monitoring the status of most species of land birds across Canada and the US. This survey, like many others in North America, depends upon thousands of skilled volunteers who can identify bird species in their area by sight and sound, along with professional staff who provide oversight and coordination. Data from this survey have been instrumental in identifying major population declines in forest birds, grassland birds, and aerial insectivores, and have contributed to many COSEWIC status assessments. The survey contributes to all aspects of the SARA cycle, from assessment to recovery planning to monitoring effectiveness of conservation actions.



In 2022, [Breeding Bird Atlases](#) were active in Newfoundland and Ontario, engaging hundreds of volunteers. Breeding Bird Atlases contribute to assessment and conservation of species at risk by providing detailed information on the distribution and abundance of all bird species in a region. Data from these atlases are made publicly available through the [NatureCounts](#) data platform hosted by Birds Canada.



ECCC runs or manages many monitoring programs specifically focused on species at risk. Examples include programs focused on describing critical habitat; quantifying occupancy, abundance, productivity, and/or breeding evidence at important breeding or foraging sites and/or habitats; developing environmental DNA (eDNA) survey methods to support monitoring of Canadian populations; providing status and trend information for low density or locally-distributed species that are not otherwise monitored by large-scale, standardized surveys; describing threats to populations; and assessing the impact of management activities on species at risk and their habitats. These projects are designed to address specific knowledge gaps that are necessary to complete recovery documents, or to otherwise support species at risk program needs.

One example in 2022 was monitoring to evaluate the effectiveness of control measures to remove 250 ha of *Phragmites australis* via herbicide application in the Long Point National Wildlife Area. *Phragmites* is an invasive plant listed as a threat in several recovery strategies as it reduces suitable wetland habitat. A monitoring plan was developed to evaluate the benefits to SARA-listed plants and habitat features required for other wetland-associated species at risk wildlife.

Parks Canada monitors various ecosystem indicators and species at risk in the places it administers using ecological indicators. In 2022, Parks Canada continued to monitor actions administered in support of site based multi-species action plans in its national ecological monitoring database system. The information obtained from monitoring activities and action plan targets is used to determine progress towards achieving both the population and distribution objectives, and recovery measures, as outlined in the multi-species action plans.

Here are two examples of projects that took place in 2022:

1. Eight Parks Canada administered places participated in the Canadian Bat Box Project, a national study led by Trent University. This monitoring project will help fill a knowledge gap regarding the safety and effectiveness of bat boxes, as well as inform and optimize the use of this conservation tool across Canada.
2. Working with the Province of Newfoundland and Labrador and partners, including the Innu Nation, the Nunatsiavut Government, and the Nunatukavut Community Council, Parks Canada contributed to the completion of a caribou classification survey and the deployment of telemetry collars for the Mealy Mountain Boreal Caribou population. These data will complement the full population survey completed last year to better understand herd composition, demographics, and habitat use throughout their range.

## In focus: Caribou recovery at Parks Canada – Monitoring and habitat connectivity



Caribou live in some of Canada's most remote locations, yet, many caribou populations are facing steep declines due to habitat loss, altered predator/prey dynamics, human disturbance and predator access, and climate change. By monitoring Woodland Caribou at Gros Morne National Park, Parks Canada understands better the travel patterns and habitat connectivity. Partners, like local Indigenous Knowledge holders, other governments, and stakeholders also help with the collection and analysis of movement data. Knowledge of caribou movement patterns was key in the creation of the Main River Waterway Provincial Park — an area located outside of Gros Morne National Park.

[Watch this video from Gros Morne National Park](#) and see the work done to protect caribou by connecting landscape.



[Watch the path that a Woodland Caribou takes](#) as it travels inside and outside of the national park boundaries.

In 2022, DFO advanced many new and ongoing multi-species research and monitoring projects for SARA-listed and COSEWIC-assessed species as part of the Nature Legacy Initiative. Fourteen research and 10 multi-species monitoring projects were provided funds in 2022. Four new research projects were funded, which included:

- Understanding the landscape of fixed-gear fishing to identify areas of potential risk (entanglement and bycatch threat) in eastern Canada for species such as North Atlantic Right Whale, sea turtles, and at-risk marine fishes;
- Research on bycatch throughout Maritimes fleets, using pelagic sharks as a case study, providing overarching support for DFO's [Bycatch Policy](#);
- Identifying threats, habitat stressors, and suitable physiological indicators for SARA-listed riverine fishes to address issues impeding species recovery including challenges identifying the impact of threats;
- Genetic (environmental DNA or 'eDNA') detection of at-risk freshwater mussel species, including Brook Floater and Yellow Lampmussel in New Brunswick.

## In focus: Surveillance of whales



North Atlantic Right Whale - listed as endangered

In 2018, DFO received funding to address human-induced threats to three species of endangered whale: the North Atlantic Right Whale (NARW), the Southern Resident Killer Whale (SRKW) and the St. Lawrence Beluga (SLEB). For the last five years, and including 2022, DFO has conducted systematic aerial [surveillance for the NARW](#) in eastern Canadian waters. This systemic survey provides us with a better understanding of NARW distribution and supports the protection of NARW through the implementation of fishery and vessel management measures, which includes closing fishing areas and slowing vessels down. In 2022, DFO completed 487 flights for a total of 1,556 hours and 33 minutes of surveillance and resulted in a total of 415 sighting events (471 whales including duplicates).

DFO also leads the identification of individual NARW in Canadian waters and in 2022, 131 individuals were preliminarily identified from images collected by aerial surveillance. In addition to aerial surveillance, DFO monitors NARW using acoustic technology and in 2022 this included eight specially equipped buoys in the Gulf of St. Lawrence which made a total of 1325 acoustic detections in 2022. DFO also completes research related to NARW prey and this supports the development of a range-wide species distribution model which will be an essential tool in the Recovery Potential Assessment for NARW scheduled for February 2024.

In addition to NARW, in 2022 DFO also led research and monitoring activities directed at better understanding the threats to recovery of St Lawrence Beluga (SLEB) and Southern Resident Killer Whales (SRKW). Ongoing research includes a focus on better understanding the impact of vessel-related noise and testing whale detection technologies which can reduce the risk of vessel strikes. In addition, DFO research in 2022 addressed issues with contaminants and prey availability for SRKW and SLEB.

Ten new multi-species monitoring projects were undertaken across Canada in freshwater and marine systems in 2022 to help inform SARA recovery measures, such as providing more reliable species population and distribution estimates:

- Implementing a standardized monitoring approach for Redside Dace and Silver Shiner in the Great Lakes to help monitor population trends and baseline influence of key threats;
- Monitoring in the Sydenham River in Ontario to track the recovery of freshwater mussels (e.g. Northern Riffleshell, Round Pigtoe) and their host fishes to provide quantitative tracking of changes in mussel abundance and assessment of distribution, abundance, and trends in host species;
- Multi-species monitoring in the Ottawa River to sample and characterize potential habitats for freshwater mussels and fishes (e.g. Hickorynut, Northern Sunfish, Channel Darter, River Redhorse, Grass Pickerel) using habitat classification models;
- Passive acoustic monitoring using existing network of recorders to monitor threat of acoustic noise and disturbance on at-risk Arctic marine mammals (e.g. walrus, narwhals, belugas, and bowhead whales) in shipping corridors in Foxe Basin, Hudson Bay, and Hudson Strait;
- Monitoring the impacts of disturbance (noise, ship strikes) on Baffin Bay whales (Sperm, Northern Bottlenose, Bowhead) to support risk mitigation options in the Arctic;
- Monitoring of riparian zones in Alberta to inform a model for refined classification of critical habitat for two species (Athabasca Rainbow Trout, Bull Trout);

- Novel environmental DNA (eDNA) approaches to fill critical monitoring gaps on at-risk Pacific salmon (Chinook, Coho) freshwater habitat use across life history stages in the Fraser River watershed to improve monitoring of their occurrence and population status;
- Prince Edward Island Multi-Species eDNA Survey (“eDNA Blitz”) to evaluate the presence of rare or threatened species, including several at risk species including Atlantic Salmon, American Eel, Brook Floater, Alewife Floater, and Pearlshell Mussel;
- A comprehensive baseline survey of major freshwater habitats in the Southern Uplands Region of Nova Scotia using a combination of eDNA analyses with traditional electrofishing surveys to develop an atlas of species presence and absence data, community composition, and abundances across the Maritimes region;
- First Nations community driven monitoring project to understand life history and develop a community driven monitoring network for American Eel, Atlantic Salmon, and Banded Killifish in southern Newfoundland.



## 7. Enforcement

ECCC, Parks Canada and DFO work jointly and in partnership with Indigenous, provincial, territorial, and international authorities to protect SARA-listed species and their critical habitat by promoting and securing compliance with SARA and regulations made under SARA.

Compliance promotion initiatives educate Canadians about species at risk and provide information on the plant and animal species that cannot be killed, harmed, or collected, and for which it is illegal to destroy its home or critical habitat.

In 2022, ECCC operated with 71 wildlife enforcement officers to ensure compliance with wildlife acts and regulations including SARA across Canada. These officers have jurisdiction in 149 federally protected habitats which include National Wildlife Areas and Migratory Bird Sanctuaries. Enforcement continued to use a risk and evidence-based framework to inform, plan, and allocate resources to guide enforcement activities. This includes initiating a series of threat and risk assessments to determine the risk of non-compliance to inform enforcement planning and priority-setting process. Assessments of harm and compliance verification for SARA-listed species resulting from illegal human activities included Spotted Turtle, Caribou, Blanding's Turtle, Spiny Softshell, Eastern Foxsnake, Piping Plover, Bank Swallow, Sage Grouse, Western Chorus Frog, Oregon Forestsnail, Chimney Swift, Marbled Murrelet and Bobolink.

ECCC also launched a SARA permit project with an increased on-site presence to verify permit holder compliance with the terms and conditions of ECCC issued SARA permits. Compliance verification of critical habitat protection orders on federal lands (i.e. Boreal Caribou) and federal emergency orders (i.e.: Greater Sage Grouse and Western Chorus Frog (Great Lakes / St. Lawrence — Canadian Shield Population (La Prairie and Longueuil, Quebec)) continued.

In 2022, ECCC wildlife enforcement officers:

- conducted 263 inspections;
- issued 7 warnings, one Compliance Order, and opened 16 new investigations;
- initiated 2 prosecutions;
- concluded 2 prosecutions totalling \$80,000 in monetary penalties;
- responded to 1 SARA section 93 investigation.

### Prosecutions



Western Chorus Frog – listed as threatened

A violation of the provisions of a section 80 emergency order constitutes an offence under section 97(1)(b) of SARA. In 2022, a total of \$80,000 in fines were court ordered for two violations that occurred in La Prairie, Quebec relating to the Western Chorus Frog emergency order (Great Lakes / St. Lawrence–Canadian Shield Population). This population of Western Chorus Frog is listed as a threatened species under Schedule 1 of SARA. To protect the species, prohibitions set out in the emergency order aim to prevent the degradation or loss of habitat needed by the Western Chorus Frog for its recovery and to prevent activities that could harm the species. As such, ECCC's wildlife enforcement officers carry out regular patrols and inspections in the

emergency order areas and respond to information obtained from the public. These enforcement activities resulted in two successful prosecutions that concluded in 2022:

- The first case involved [a guilty plea by Hydro Québec for conducting prohibited activities](#). During a routine patrol, ECCC wildlife enforcement officers observed heavy equipment and work on the lands included in the emergency order. The investigation determined the work caused visible damage to the habitat of the Western Chorus Frog.
- In the second case, [Canac-Marquis Grenier Ltée plead guilty to one count of violating the prohibitions under the emergency order](#). ECCC wildlife enforcement officers observed snowbanks containing various debris in the geographic area of the emergency order. The investigation revealed that between December 21, 2021, and March 23, 2022, the company had blown snow from the lumber yard of its La Prairie branch into the Western Chorus Frog habitat protected by the emergency order. The activities such as depositing, discharging, dumping, or immersing of any material or substance, including snow, are prohibited in the areas covered by the order.

DFO's enforcement actions for species at risk are carried out by fishery officers who have been trained and designated as enforcement officers under SARA. They incorporate SARA enforcement activities alongside their duties under the *Fisheries Act* and other federal statutes and regulations.



In 2022, DFO's fishery officers:

- dedicated over 21 949 hours to patrols, inspections, investigations, court cases, public relations and other duties related to enforcing the prohibitions of SARA;
- initiated approximately 268 investigations and spent approximately 1626 hours on investigative work related to species at risk; and
- recorded a total of 83 SARA violations involving species at risk that resulted in fines, seizures, charges, and warnings.

### In focus: Monitoring compliance through aerial surveillance

DFO is using surveillance aircraft to conduct inspections to monitor for compliance with both SARA and the *Fisheries Act*. Arctic Region Conservation and Protection officers completed an aerial surveillance flight over Cumberland Sound, which is home to a specific population of Beluga Whales, known as the Cumberland Sound Beluga (listed as threatened under SARA). Regulatory air surveillance patrols were conducted during the months of June and July, when Beluga hunting occurs, to monitor compliance and deter non-compliance. For Cumberland Sound Beluga, there is an annual hunting quota of 41 whales.



Images of the Cumberland Sound Beluga, listed as threatened, taken during the surveillance patrol flight on 30 June 2022.

In 2022, Parks Canada had 82 operational park wardens dedicated to law enforcement activities in all Parks Canada-administered places. Park wardens recorded a total of 78 law enforcement incidents related to the protection of species at risk. Of these 78 incidents, 13 warnings were issued under SARA, while 32 charges and 57 warnings were issued under other legislation.

Parks Canada continues efforts with DFO, Transport Canada, ECCC, and other partners, to protect the Southern Resident Killer Whale (SRKW). At Gulf Islands National Park Reserve and Pacific Rim National Park Reserve, park wardens enforce Transport Canada's Interim Order and associated measures as well as DFO Seasonal Based Closures related to the SRKW recovery measures. Park wardens also enforce regulations to address the protection of Chinook Salmon. They dedicated 522 hours in proactive patrols for the protection of Southern Resident Killer Whales, and 121 hours in reactive time related to incidents that resulted in 9 charges and 36 warnings.

## 7.1. Emergency orders and imminent threat assessments

Under section 80(1) of SARA, the GIC may, on the recommendation of the competent Minister, make an emergency order to provide for the protection of a listed wildlife species. In 2022, the Government of Canada received and

reviewed several requests for emergency orders to protect species from imminent threats; however, in 2022, the Minister of ECCC did not form any opinions on imminent threat and no emergency orders were issued.

## 7.2. Protection orders for critical habitat



Fawnsfoot – listed as endangered  
Photo: The National Water Research Institute

In 2022, the Minister of Environment and Climate Change made orders to protect the critical habitat of Gattinger's Agalinis (February 2, 2022) and Cerulean Warbler (May 25, 2022) on federally administered lands, pursuant to section 58 of SARA. The Minister also published a report in June 2022 on steps taken for protection of critical habitat for 254 terrestrial species at risk with critical habitat identified on non-federal lands.

ECCC published [one critical habitat protection statement](#) in March 2022, which was then amended in December 2022 following the Migratory Birds Regulations modernization, covering 25 migratory bird species listed under SARA. The

statement describes how critical habitat identified for species that are both a migratory bird protected by the *Migratory Birds Convention Act, 1994*, SC 1994, c. 22 (MBCA) and listed as endangered, threatened, or extirpated on Schedule 1 of SARA, S.C. 2002, c. 29 are protected on non-federal lands in Canada.

In 2022, Parks Canada published no protection statements.

DFO published six ministerial orders to protect critical habitat for the following aquatic species at risk:

- Striped Bass (St. Lawrence River population)
- Fawnsfoot
- Lilliput
- Threehorn Wartyback
- Pugnose Minnow
- Black Redhorse

The DFO's [Aquatic species at risk map](#) is available online to assist in project planning to protect critical habitat.



## 8. Agreements and collaboration

In April 2022, the Cree Nation Government (CNG) and DFO signed a Conservation Agreement pursuant to section 11 of SARA for the conservation of Lake Sturgeon (southern Hudson Bay - James Bay populations), a species of special concern under SARA. The Conservation Agreement establishes a nation-to-nation collaborative framework for the preparation of a threat management plan for Lake Sturgeon in the territory covered by the [James Bay and Northern Quebec Agreement](#) by recognizing the essential role and leadership of the Cree nation for the successful conservation of this species. Since the signing of the agreement, a working group composed of members of DFO and the CNG has been working on its implementation and the development of the management plan, the final version of which is expected in 2024.

In 2022, DFO's Pacific Region signed a Memorandum of Understanding (MOU) with the Government of British Columbia under the *2005 Canada-BC Agreement on Species at Risk* to support the recovery of freshwater and salmon species at risk in British Columbia. Pacific Region also signed an inaugural MOU with Yukon Government to fill information gaps for freshwater species at risk in Yukon.

In 2022, two conservation agreements under s.11 of SARA for Boreal Caribou were finalized and published on the Species at Risk Public Registry:

- The [Agreement for the Conservation of the Woodland Caribou, Boreal population with Athabasca Chipewyan First Nation and Mikisew Cree First Nation](#), between the Government of Canada and the Athabasca Chipewyan First Nation and Mikisew Cree First Nation, signed in March 2022;
- The [Agreement for the Conservation of Caribou, Boreal Population in Ontario](#), between the Government of Canada and the Government of Ontario, signed in April 2022.

The implementation of conservation measures under the six previously signed section 11 conservation agreements for Boreal Caribou with Alberta, Cold Lake First Nation, Newfoundland and Labrador, Northwest Territories, Saskatchewan, and Yukon Territory (Gwich'in Tribal Council and First Nation Na-Cho Nkyak Dun) continued throughout 2022. These and the newly finalized conservation agreements include measures such as: habitat restoration, population management, monitoring, and commitments to develop and implement range plans. Some range plans or equivalent landscape-level plans were drafted or finalized in 2022.

In addition, conservation measures under two section 11 conservation agreements for Southern Mountain Caribou in British Columbia, between the Government of British Columbia, the Saluteau First Nations and West Moberly First Nations, also continued to be implemented. Measures included monitoring, herd planning, habitat protection, maternal penning, predator management and habitat restoration.

The Governments of Canada and Manitoba published a draft s.11 conservation agreement for Boreal Caribou for a 30-day public comment period in April 2022, and were working collaboratively to finalize the agreement. Negotiations continued with the Government of British Columbia to include Boreal Caribou conservation and recovery measures as part of a potential tri-lateral agreement with the province, Canada, and the First Nation Leadership Council. Further, negotiations continued to advance for a conservation agreement for Boreal Caribou and Atlantic-Gaspésie Caribou with the Government of Quebec.

During the 2021-2022 fiscal year, 17 new projects and over 20 ongoing projects from previous years were implemented to support the progress on the protection and recovery of federal, provincial, and territorial priority species (i.e. Boreal Caribou, Southern Mountain Caribou, Peary Caribou, Barren-ground Caribou, Wood Bison, and Greater Sage-Grouse) as well as their habitat. Projects focused on measures such as habitat restoration, collaboration with stakeholders, community engagement and population monitoring.

In April 2022, the Government of Canada and the Government of Ontario signed the Agreement for the Conservation of Caribou, Boreal Population, in Ontario, under sections 10 and 11 of SARA. The governments are collaborating with stakeholders and Indigenous communities to implement the agreement which builds on Ontario's ongoing caribou conservation program and the federal caribou action plan. Conservation measures focus on caribou monitoring, habitat protection and restoration, planning and management, policy updates, and stewardship actions. Implementation is underway on all measures including the completion of monitoring in four caribou ranges. Three stewardship projects have been funded in the first year, with efforts to promote the available funding underway.



Loggerhead Sea Turtle – listed as endangered

## 9. Permits under SARA

### 9.1. Permits

Permits are required for activities that may affect species listed on Schedule 1 of SARA as extirpated, endangered, or threatened by contravening the Act's prohibitions or protection orders, wherever these apply.

The competent minister may enter into an agreement or issue a permit under section 73 or 74 of SARA for the following:

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

In 2022, ECCC, Parks Canada and DFO jointly issued a total of 23 362 SARA permits and SARA compliant permits.

Table 6: Permits, agreements and licences issued or enabled under SARA in 2022

Competent department	SARA permits and agreements (under s.73 of the Act)	Licences, permits, and other documents that act as SARA permits (enabled under s.74 of the Act)	Grand total
<b>Environment and Climate Change Canada</b>	69	332	401
<b>Parks Canada</b>	15	14	29
<b>Fisheries and Oceans Canada</b>	217	22 715	22 932
<b>Total</b>	301	23 061	23 262

ECCC issued 69 section 73 permits to allow for activities affecting over 50 species, including reptiles, amphibians, birds, vascular plants, arthropods, molluscs, and mammals. The total number of permits per type is greater than 69 because 12 permits covered more than one purpose. Eleven of these permits were issued for activities carried out in an area affected by an emergency protection order. ECCC also issued 332 SARA-compliant permits affecting, or with the potential to affect, threatened and endangered migratory bird species under the Migratory Birds Convention Act, 1994. Details regarding delivery of permits against [ECCC service standards](#) are available online.

Parks Canada issued a total of 29 permits, 14 of which were SARA-compliant permits issued under the *Canada National Parks Act*. The total number of permits per type sums to 30 as one permit covered more than one purpose. Most permitting processes at Parks Canada are conducted through either an online research and collection permitting system or an impact assessment. All Parks Canada permitting processes incorporate a peer-review mechanism that ensures SARA requirements are considered for every activity.

DFO issued a total of 217 SARA permits in 2022. DFO also issued permits, licences and authorizations under various regulations made under the *Fisheries Act* that have the same effect as SARA permits: 28 fishing licences for experimental, scientific, and educational purposes under section 52 of the Fishery (General) Regulations; 12 authorizations under section 38 of the Marine Mammal Regulations for disturbances caused in the conduct of beneficial work; and 17 authorizations under paragraph 35(2)(b) of the Fisheries Act that have the same effect as SARA permits.

Of these 274 permits, licences and authorizations described in the paragraph above:

- 72 were for scientific research related to the conservation of an aquatic species;
- 35 were for other activities that benefit the species or enhance its chance of survival in the wild (for example, monitoring surveys or marine mammal rescue);
- 167 were for activities that incidentally affected the listed species (including accidental capture while undertaking research on other non-listed species, or fish or mussel relocation during construction activities).

In addition, DFO issued 22 658 commercial fishing licences under the *Fisheries Act* where incidental catches of White Shark, Basking Shark and Loggerhead Sea Turtles were recognized to be a possibility. Conditions in fishing licences require mandatory reporting of interactions in logbooks, and subsequent release of species back into the water in the manner that causes the least harm.

[Explanations for all SARA permits](#) issued by ECCC, Parks Canada and DFO are posted on the Species at Risk Public Registry.





DFO presentation at Twillingate Sparks of Girl Guides Canada

## 10. Outreach and education

ECCC produces and delivers information on protecting species at risk and their habitat in various forms, including through its long-standing partnership with the Canadian Wildlife Federation and the [Hinterland Who's Who](#) wildlife education program, and through species profiles on the Species at Risk Public Registry.

Parks Canada raises awareness about species at risk and engages the public through numerous outreach and education programs including:

- the [Integrated Compliance and Law Enforcement Planning Process](#), which focuses on proactive communication with visitors to highlight the connection between their actions and the effect they have on the protection and recovery of species at risk and their habitat.



- outreach programs for youth, families, and new Canadians in urban areas to increase awareness, understanding and support for the protection and recovery of species at risk. As part of ongoing collaborations with education-focused organizations, Parks Canada worked with École en réseau to leverage their expertise in digital programming and offered four species at risk-based programs focussed on Wood Bison, Whooping Crane, St. Lawrence Beluga and Wood Turtle.



Whooping Cranes - listed as endangered

- collaboration with the Royal Canadian Geographical Society and Exploring by the Seat of your Pants to present the [Cross-Canada Virtual Road Trip](#), a series of live virtual presentations delivered to classrooms across the country. These presentations featured bat, turtle and shark species recognized as species at risk. These two programs reached over 67 000 students and teachers across Canada.

- reinvestments from the proceeds of online sale of official merchandise. In 2022, these online sales supported research on shark species found around Gulf Islands National Park Reserve, including the endangered basking shark.



**In focus: Parks Canada and Biodôme raising species at risk awareness**

In 2022, Parks Canada developed a partnership with the Montréal Biodôme to engage the public about species at risk. This was an exciting first-time collaboration between Espace pour la vie, Mingan Archipelago National Park Reserve, Parks Canada Nunavut, Saguenay-St. Lawrence Marine Park, La Mauricie National Park, and Forillon National Park.



For the Biodôme, Parks Canada represents a very valuable partnership, providing an opportunity to help visitors further connect with nature. For Parks Canada, the Biodôme, with its 2.2 million visitors per year, provides Parks Canada with the opportunity to reach various target audiences. Together, this collaboration raised awareness of the value of protected areas for the well-being of ecosystems and the issues that threaten biodiversity. The species at risk that were highlighted included: Wood Turtle, Little Brown Myotis, Northern Myotis, Tri-colored Bat, Eastern Wolf, Peary Caribou, Red Knot, Ivory Gull, Mingan Thistle, Barrow's Goldeneye, Bank Swallow, St. Lawrence Beluga Whale, Fin Whale, and Blue Whale.

For eight days across September and October, Parks Canada employees met with 2,540 visitors to highlight Parks Canada's conservation efforts to protect species at risk and actions that contribute to climate change adaptation, ecological connectivity, and supporting Indigenous leadership.

The Biodôme showcases five ecosystems of the Americas to raise visitors' awareness of nature and conservation. Parks Canada's kiosk was installed where the public could make connections between the species they had just observed and conservation actions taking place in the park. For example, the Biodôme participates in the protection of Wood Turtle by raising dozens of young turtles in captivity and by releasing them into their original natural habitat; while La Mauricie National Park installs fences around egg-laying sites to protect the eggs from predators. A fun quiz and a spinning wheel with beautiful illustrations of species allowed staff to engage with young families and urban youth.



DFO's outreach and education activities included hosting several virtual and in-person information sessions throughout the country, in addition to the production of materials for educational purposes and the promotion of stewardship measures. Individual sessions were held with Indigenous groups, stewardship groups, environmental organizations, academia, and other levels of government.



The following provide examples of DFO activities in 2022:

- Within DFO's Gulf region, the program has been partnering with Ingenium Canada (<https://ingeniumcanada.org/>) since 2021 under an established Memorandum of Agreement to engage Canadians through outreach and education activities. Some of these initiatives have included the production of videos and paper-based educational materials (e.g. posters, identification cards) for key aquatic species at risk including the North Atlantic Right Whale, White Shark, and the Atlantic population of Leatherback Sea Turtle.
- In July, DFO's Maritimes Region supported a two-day Freshwater Mussel Workshop delivered in Southwest New Brunswick by the New Brunswick Museum in partnership with Cape Breton University and the Petitcodiac Watershed Alliance. The objective of the workshop was to increase the recovery partners' capacity to participate in future freshwater mussel surveys, eDNA collection, and to enable members to conduct community education and outreach activities that promote the recovery of freshwater mussels and support the implementation of the Yellow Lamp Mussel and Brook Floater Management Plans.



- In DFO's Newfoundland Region, school outreach activities, many on or around World Ocean Day (June 8), included career information sessions and presentations on species at risk such as Leatherback Sea Turtles and Atlantic Wolffish, how pollution affects them, how watersheds can be protected, and the elimination of single-use plastics. DFO and the group Tangly Whales also presented an Immediate Award to a student at Beaconsfield Junior High for his creation of a non-profit micro project that aims to raise funds and awareness to help save and protect at-risk whales and turtles.



- In DFO's Ontario and Prairie Region, social media was used to raise the profile of aquatic species at risk and the actions Canadians can take to protect aquatic species when planning a project near water. The Region hosted an interactive outreach display at the Latornell Conservation Symposium, providing hands on experience using [DFO's national aquatic SAR map](#) and highlighting species at risk mussels and other resources to interested participants. The Region also, led multiple webinars with watershed stakeholders and Indigenous groups, highlighting the *Species at Risk Act*, status of aquatic species, recovery documents and federal funding programs to support stewardship efforts. In addition, species at risk outreach content was posted online making it accessible nationally (e.g. SAR infographics, coloring book).



- In 2022-2023, DFO's Pacific Region conducted outreach activities related to marine species at risk. In November 2022, the Region and the Tula Foundation co-hosted a public webinar and invitational workshop on detecting and monitoring marine whales and sharks from space, using Very High-Resolution Satellites. Over 130 people attended the webinar and the workshop included over 30 participants. The webinar recording is publicly available on the [Ocean Decade Collaborative Center's](#) website. In collaboration with Marine Education and Research Society, Pacific Region presented to students in grades 5 to 12 on Basking Sharks in BC as part of Oceans Day Presentation for Schools. Pacific region also distributed educational materials to ENGOs related to whale entanglements and marine species, which were then shared with local community members, mariners, and recreational boaters.

## 11. Consultation and governance

### 11.1. Indigenous advisory groups

#### National Aboriginal Council on Species at Risk

As per section 8.1 of the Act, the National Aboriginal Council on Species at Risk (NACOSAR) advises the Minister on the administration of the Act and provides advice and recommendations to the Canadian Endangered Species Conservation Council (CESCC). While CESCC is not currently formally established, the participating Ministers meet regularly.

On April 6, 2022, the Minister of ECCC approved the appointment of a new NACOSAR membership, identified following a hybrid nomination process, and selected with consideration to a balance of Indigenous perspectives while promoting a gender- and diversity-inclusive approach to ensure that, together, NACOSAR members have a range of knowledge, expertise, experience, and perspectives. The newly appointed Council held its inaugural videoconference on June 16, 2022, offering an opportunity for members to build relationships among members and with federal partners, review the Council's terms of reference, and identify resources and information to support the Council's work. ECCC, Parks Canada, and DFO officials also held briefing sessions and shared information to build NACOSAR's knowledge related to the SARA and help inform priority setting work.

### 11.2. Implementing ECCC's new nature engagement model

As part of the Enhanced Nature Legacy, ECCC worked in 2022 to establish four new advisory tables under a new nature engagement model. This model seeks to strengthen engagement with external partners, respect varied perspectives, and improve coordination on ECCC nature priorities, including SAR, and builds on previous engagement mechanisms such as the Species at Risk Advisory Committee. The Nature Advisory Committee (NAC) was appointed and met in spring 2022 and consists of 22 strategic thinking individuals including Indigenous peoples and individuals from environmental non-governmental organizations, Indigenous organizations, industry, and academia. In addition, three distinctions-based Indigenous Nature Tables were under co-development with Indigenous partners and considered capacity funding, membership, and terms of reference. The mandate of these new engagement tables is to provide ECCC and the Minister with strategic advice, recommendations, and innovative solutions to advance progress under ECCC's nature mandate commitments and priorities.

### 11.3. SARA Ministerial Round Table

A SARA Ministerial Roundtable was not held in 2022 due to the 2021 federal election, and the COVID-19 pandemic. Planning took place in 2022 to hold a SARA Ministerial Roundtable meeting in 2023.



## 11.4. Species at Risk Public Registry



Marbled Murrelet – listed as threatened

The online Species at Risk Public Registry fulfills the requirement under SARA for the Minister to establish a public registry to facilitate access to SARA-related documents. The Registry is an important tool for engaging and informing Canadians on species at risk issues. In addition to providing access to documents and information related to SARA, it provides a forum for Canadians to submit comments on SARA-related documents being developed by the Government of Canada.

Section 123 of SARA identifies documents that must be published on the 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 have been filed in court and are available to the public;
- 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 the progress of recovery strategy implementation are also published on the Public Registry.

In 2022, 709 documents were published on the Registry, including 401 permit explanations and 93 documents for public consultation. These documents include SARA and COSEWIC annual reports, consultation documents, COSEWIC status reports and status appraisal summaries, ministerial response statements, recovery documents and the General Status of Wildlife Species in Canada which gets published once every five years.



## 12. Additional 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:

Environment and Climate Change Canada  
Public Inquiries Centre  
7<sup>th</sup> Floor, Fontaine Building  
200 Sacré-Cœur Boulevard  
Gatineau QC K1A 0H3  
Telephone: 819-938-3860  
Toll Free: 1-800-668-6767 (in Canada only)  
Email: [enviroinfo@ec.gc.ca](mailto:enviroinfo@ec.gc.ca)

Fisheries and Oceans Canada  
Communications Branch  
200 Kent Street  
3<sup>rd</sup> Floor, Station 13228  
Ottawa ON K1A 0E6  
Canada  
Tel.: 613-993-0999  
Fax: 613-990-1866  
Email: [info@dfo-mpo.gc.ca](mailto:info@dfo-mpo.gc.ca)

Parks Canada  
National Office  
30 Victoria Street  
Gatineau QC J8X 0B3  
Canada  
Tel.: 888-773-8888  
TTY: 866-787-6221  
Email: [information@pc.gc.ca](mailto:information@pc.gc.ca)

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

SAR Public Registry Office  
351 St. Joseph Boulevard, 10<sup>th</sup> Floor  
Gatineau QC K1A 0H3  
Canada  
Email: [SARRegistry@ec.gc.ca](mailto:SARRegistry@ec.gc.ca)

## 13. Annex

### 13.1. COSEWIC assessments (Batches 1 to 20)

Table 7: COSEWIC assessments (Numbers of species during listing process each year to December 2022)

Batch (year of Minister's receipt of assessments)	COSEWIC at risk assessments received	Confirmation of current status	Added to Schedule 1	Uplisted (to a higher risk category)	Downlisted (to a lower risk category)	Delisted	Not listed	Referred back	Decision pending
(Proclamation)	233 <sup>a</sup>	–	233						–
Batch 1 (2004)	95	4	75				9	7	
Batch 2 (2004)	59		44				13	1	1
Batch 3 (2005)	60	4	44				6	1	5
Batch 4 (2006)	54	4	39	2			1	2	6
Emergency Assessment (2006)	1						1		
Batch 5 (2007)	53	8	30	2	3	1			9
Batch 6 (2008)	39	14	20	3			1		1
Batch 7 (2009)	46	17	20	3	1				5
Batch 8 (2010)	78	34	18	3	5		4		14
Batch 9 (2011)	82	31	19	5	7		1	3	16
Batch 10 (2012)	56	28	10	6	5	1		1	5
Emergency Assessment (2012)	3		3						
Batch 11 (2013)	67	33	16	3	5				10
Batch 12 (2014)	56	21	16	2	3	1	1		12
Batch 13 (2015)	54	24	19	3	2				6
Batch 14 (2016)	38	7	9	5	8	1			9
Batch 15 (2017)	55	17	10	4	7	1		1	15
Emergency Assessments (2018)	2						2		
Batch 16 (2018)	75	26	8	3	2				36
Batch 17 (2019)	52	15		2					35
Batch 18 (2020)	21	9	0	0	0	0	0	0	14
Batch 19 (2021)	59	22							37
Batch 20 (2022)	41	13							28
<b>Listing amendments</b>			<b>640<sup>b</sup></b>	<b>46</b>	<b>48</b>	<b>5</b>	<b>39</b>	<b>16</b>	<b>264</b>

a. At proclamation, 233 species were on Schedule 1.

b. The column total is 633, however there are 640 species on Schedule 1. This apparent discrepancy results when COSEWIC confirms the status of listed wildlife species while assigning those same individuals to two or more wildlife species, at the same status. For these wildlife species, once GIC has accepted the change, no individuals were added to Schedule 1 and their statuses did not change; however, what was listed as one species, becomes listed instead as two or more wildlife species.

## 13.2. Response with timelines to the species at risk assessments received from COSEWIC

Table 8: The Minister's responses to the species at risk assessments submitted by COSEWIC in 2022

COSEWIC risk status	Taxon	English legal name	Scientific name	Consultation path
<b>Terrestrial species</b>				
Endangered	Arthropods	Vancouver Island Shieldback	<i>Steiroxys strepens</i>	Normal
Endangered	Vascular Plants	Meadow Thistle (Mingan population)	<i>Cirsium scariosum</i>	Normal
Endangered	Vascular Plants	Meadow Thistle (Rocky Mountain population)	<i>Cirsium scariosum</i>	Normal
Endangered	Vascular Plants	Pumpkin Ash	<i>Fraxinus profunda</i>	Normal
Threatened	Arthropods	Dusky Dune Moth	<i>Copablepharon longipenne</i>	Normal
Threatened	Arthropods	Northern Oak Hairstreak	<i>Satyrium favonius ontario</i>	Normal
Threatened	Reptiles	Eastern Foxsnake (Carolinian population)	<i>Pantherophis vulpinus</i>	Normal
Threatened	Reptiles	Eastern Foxsnake (Great Lakes / St. Lawrence population)	<i>Pantherophis vulpinus</i>	Normal
Threatened	Reptiles	Sharp-tailed Snake (Pacific Coast population) <sup>7</sup>	<i>Contia tenuis</i>	Normal
Special Concern	Arthropods	Dukes' Skipper	<i>Euphyes dukesi</i>	Normal
Special Concern	Arthropods	Skillet Clubtail	<i>Gomphurus ventricosus</i>	Normal

<sup>7</sup> New population structure, currently listed on SARA Schedule 1 as Sharp-tailed Snake

COSEWIC risk status	Taxon	English legal name	Scientific name	Consultation path
Special Concern	Mammals (terrestrial)	American Marten (Newfoundland population)	<i>Martes americana atrata</i>	Normal
Special Concern	Vascular Plants	Dense Draba	<i>Draba pycnosperma</i>	Normal
Special Concern	Vascular Plants	Eastern False Rue-anemone <sup>8</sup>	<i>Enemion biternatum</i>	Normal
Special Concern	Vascular Plants	Victorin's Gentian	<i>Gentianopsis virgata</i> ssp. <i>victorinii</i>	Normal
Not at Risk	Lichens	Seaside Bone Lichen	<i>Hypogymnia heterophylla</i>	Normal
Special Concern	Arthropods	Johnson's Hairstreak	<i>Callophrys johnsoni</i>	Extended
Special Concern	Birds	Bobolink	<i>Dolichonyx oryzivorus</i>	Extended
Extirpated	Birds	Greater Sage-Grouse <i>phaios</i> subspecies	<i>Centrocercus urophasianus phaios</i>	Confirmation
Extirpated	Birds	Greater Prairie-Chicken	<i>Tympanuchus cupido pinnatus</i>	Confirmation
Extirpated	Mammals (terrestrial)	Black-footed Ferret	<i>Mustela nigripes</i>	Confirmation
Extirpated	Mosses	Incurved Grizzled Moss	<i>Ptychomitrium incurvum</i>	Confirmation
Endangered	Amphibians	Northern Leopard Frog (Rocky Mountain population)	<i>Lithobates pipiens</i>	Confirmation
Endangered	Birds	Greater Sage-Grouse <i>urophasianus</i> subspecies	<i>Centrocercus urophasianus urophasianus</i>	Confirmation
Endangered	Birds	Mountain Plover	<i>Charadrius montanus</i>	Confirmation
Endangered	Birds	Sage Thrasher	<i>Oreoscoptes montanus</i>	Confirmation

<sup>8</sup> Name change, currently listed on SARA Schedule 1 as False Rue-anemone

COSEWIC risk status	Taxon	English legal name	Scientific name	Consultation path
Endangered	Reptiles	Sharp-tailed Snake (Coast Mountains population) <sup>9</sup>	<i>Contia tenuis</i>	Confirmation
Special Concern	Molluscs (terrestrial)	Threaded Vertigo	<i>Vertigo rowellii</i> <sup>10</sup>	Confirmation
Special Concern	Vascular Plants	Victorin's Water-hemlock	<i>Cicuta maculata</i> var. <i>victorinii</i>	Confirmation
Aquatic species				
Extinct	Mammals (marine)	Grey Whale (Atlantic population)	<i>Eschrichtius robustus</i>	Normal
Threatened	Fishes (freshwater)	Eastern Sand Darter (West Lake population)	<i>Ammocrypta pellucida</i>	Normal
Special Concern	Fishes (freshwater)	Brassy Minnow (Missouri population)	<i>Hybognathus hankinsoni</i>	Normal
Special Concern	Fishes (freshwater)	Brassy Minnow (Pacific population)	<i>Hybognathus hankinsoni</i>	Normal
Special Concern	Fishes (freshwater)	Brassy Minnow (Western Arctic population)	<i>Hybognathus hankinsoni</i>	Normal
Special Concern	Fishes (freshwater)	Eastern Sand Darter (Quebec populations)	<i>Ammocrypta pellucida</i>	Normal
Extinct	Fishes (marine)	Sockeye Salmon (Adams–ES population (original))	<i>Oncorhynchus nerka</i>	N/A
Extinct	Fishes (marine)	Sockeye Salmon (North Barriere–ES population (original))	<i>Oncorhynchus nerka</i>	N/A

<sup>9</sup> New population structure, currently listed on SARA Schedule 1 as Sharp-tailed Snake

<sup>10</sup> Scientific name change, currently listed on SARA Schedule 1 as *Nearctula* sp.

COSEWIC risk status	Taxon	English legal name	Scientific name	Consultation path
Extinct	Fishes (marine)	Sockeye Salmon (Seton-S population (original))	<i>Oncorhynchus nerka</i>	N/A
Endangered	Fishes (marine)	Sockeye Salmon (Fraser-ES population (original))	<i>Oncorhynchus nerka</i>	N/A
Endangered	Fishes (marine)	Sockeye Salmon (Momich-ES population (original))	<i>Oncorhynchus nerka</i>	Extended
Special Concern	Fishes (marine)	Sockeye Salmon (Alouette-ES population (original))	<i>Oncorhynchus nerka</i>	Extended
Special Concern	Fishes (marine)	Sockeye Salmon (Coquitlam-ES population (original))	<i>Oncorhynchus nerka</i>	Extended
Special Concern	Mammals (marine)	Harbour Porpoise (Northwest Atlantic population)	<i>Phocoena phocoena</i>	Extended
Extirpated	Molluscs (aquatic)	Dwarf Wedgemussel	<i>Alasmidonta heterodon</i>	Confirmation
Threatened	Fishes (freshwater)	Eastern Sand Darter (Southwestern Ontario population) <sup>11</sup>	<i>Ammocrypta pellucida</i>	Confirmation
Special Concern	Mammals (marine)	Sea Otter	<i>Enhydra lutris</i>	Confirmation

<sup>11</sup> New population structure, currently listed on SARA Schedule 1 as Eastern Sand Darter (Ontario populations)



### 13.3. Terrestrial species not yet forwarded to GIC

Table 9: Assessed terrestrial species that have not yet been forwarded to the Governor in Council for decision

Wildlife species	SARA status	Consultation path	COSEWIC status	Rationale
<b>Terrestrial species</b>				
Suckley's Cuckoo Bumble Bee	No Status	Extended	Threatened (2019-11-29)	The consultations with First Nations were delayed due to the COVID-19 pandemic but are now completed. Delays were also partly due to limited human resources. The Minister's recommendation on the listing is planned to be included in a regulatory package with approvals expected to start in spring 2024.
Manitoba Oakworm Moth	No Status	Normal	Special Concern (2019-11-29)	Batch 18 became outstanding due to limited human resources. The regulatory package of this species is in approvals. A listing proposal is expected to be published in CGI in fall 2023 for a final GIC decision in spring 2024.
Reversed Haploa Moth	No Status	Normal	Endangered (2019-11-29)	
Hudsonian Godwit	No Status	Extended	Threatened (2019-05-03)	Initial consultations for this species were initially scheduled from January 2020 to September 2020. Due to COVID-19, this period was extended to September 2021 to allow for sufficient time for all consultations to be completed. Delays were also partly due to limited human resources.
Chestnut-collared Longspur	Threatened	Normal	Endangered (2019-11-29)	Batch 18 became outstanding due to limited human resources. The regulatory package of this species is in approvals. A listing proposal is expected to be published in CGI in fall 2023 for a final GIC decision in spring 2024.
White-rimmed Shingle Lichen	No Status	Normal	Threatened (2019-05-03)	Initial consultations for this species were initially scheduled from January 2020 to September 2020. Due to COVID-19, this period was extended to September 2021 to allow for sufficient time for all consultations to be completed. Delays were also partly due to limited human resources. The Minister's recommendation on the listing is planned to be included in a regulatory package with approvals expected to start in spring 2024.
Cryptic Paw Lichen	Special Concern	Extended	Threatened (2019-05-03)	
Caribou (Dolphin and Union population)	Special Concern	Extended	Endangered (2017-11-01)	Follow-up consultations were extended in part due to covid-19 and are now complete. The Nunavut Wildlife Management Board provided their decision to support the listing decision in spring 2022. The Minister's recommendation on the listing is planned to be included in a regulatory package with approvals expected to start in spring 2024.

Wildlife species	SARA status	Consultation path	COSEWIC status	Rationale
Western Harvest Mouse megalotis subspecies	Special Concern	Extended	Endangered (2019-11-29)	The consultations with First Nations were delayed due to the COVID-19 pandemic but are now completed. Delays were also partly due to limited human resources. The Minister's recommendation on the listing is planned to be included in a regulatory package with approvals expected to start in spring 2024.
Carolina Mantleslug	No Status	Normal	Threatened (2019-11-29)	Batch 18 became outstanding due to limited human resources. The regulatory package of this species is in approvals. A listing proposal is expected to be published in CGI in fall 2023 for a final GIC decision in spring 2024.
Shagreen	No Status	Normal	Endangered (2019-11-29)	
Toothed Globe	No Status	Normal	Endangered (2019-11-29)	
Slender Yoke-moss	No Status	Normal	Endangered (2019-11-29)	
Plains Hog-nosed Snake	No Status	Normal	Special Concern (2019-11-29)	
Yukon Draba	No Status	Extended	Special Concern (2018-11-01)	Initial consultations for this species were initially scheduled from January 2020 to September 2020. Due to COVID-19, this period was extended to September 2021 to allow for sufficient time for all consultations to be completed. Delays were also partly due to limited human resources. The Minister's recommendation on the listing is planned to be included in a regulatory package with approvals expected to start in spring 2024.
Black Ash	No Status	Extended	Threatened (2018-11-01)	Initial consultations for this species were initially scheduled from January 2020 to September 2020. Due to COVID-19, this period was initially extended to spring 2022 to allow for sufficient time for all consultations to be completed. Due to the express concerns of several First Nations, consultations remain ongoing.
Ute Ladies'-tresses	No Status	Normal	Endangered (2018-11-01)	Initial consultations for this species were initially scheduled from January 2020 to September 2020. Due to COVID-19, this period was extended to September 2021 to allow for sufficient time for all consultations to be completed. Delays were also partly due to limited human resources. The Minister's recommendation on the listing is planned to be included in a regulatory package with approvals expected to start in spring 2024.

Wildlife species	SARA status	Consultation path	COSEWIC status	Rationale
Gillman's Goldenrod	No Status	Normal	Endangered (2019-11-29)	Batch 18 became outstanding due to limited human resources. The regulatory package of this species is in approvals. A listing proposal is expected to be published in CGI in fall 2023 for a final GIC decision in spring 2024.
Puvirnituk Mountain Draba	No Status	Normal	Special Concern (2019-11-29)	

### 13.4. Aquatic species not yet forwarded to GIC

Table 10: Assessed aquatic species that have not yet been forwarded to the Governor in Council for decision

Wildlife species	SARA status	Consultation path	COSEWIC status	Rationale and next steps
<b>Aquatic species</b>				
Bering Cisco	None	Extended	Special Concern (Nov. 2017)	The species underwent public consultations in 2020. The analysis of information is underway to inform a listing decision.
Coastrange Sculpin (Cultus Lake population)	Threatened, Schedule 1	Not Applicable	Endangered (Nov. 2019)	The analysis of information is underway to inform a listing decision.
Rocky Mountain Sculpin (Missouri River)	None	Not Applicable	Threatened (Nov. 2019)	The Rocky Mountain Sculpin Eastslope populations is currently listed as threatened under SARA. A Recovery Strategy (2012), Critical Habitat Order (2017), and Action Plan (2019) are in place. The Eastslope population was split into two when re-assessed by COSEWIC: the Missouri River population and Saskatchewan – Nelson River population. Both populations remain threatened. A SARA listing decision on this change in population structure is expected to be advanced soon.
Rocky Mountain Sculpin (Saskatchewan-Nelson River)	None	Not Applicable	Threatened (Nov. 2019)	

Wildlife species	SARA status	Consultation path	COSEWIC status	Rationale and next steps
European Whitefish (Dezadeash Lake large-bodied population)	None	Extended	Threatened (April 2018)	The collection of information required to inform a listing decision for the species is extensive. The analysis of information is underway; next steps include a cost-benefit analysis, as well as public consultations.
European Whitefish (Dezadeash Lake small-bodied population)	None	Extended	Threatened (April 2018)	
European Whitefish (Little Teslin Lake small-bodied population)	None	Extended	Threatened (April 2018)	
European Whitefish (Squanga Lake small-bodied population)	None	Extended	Threatened (April 2018)	
Lake Chub (Atlin Warm Springs populations)	None	Normal	Threatened (Nov. 2018)	
Lake Chub (Liard Hot Springs populations)	None	Normal	Threatened (Nov. 2018)	
Lake Whitefish (Little Teslin Lake large-bodied population)	None	Extended	Threatened (April 2018)	
Lake Whitefish (Opeongo Lake large-bodied population)	None	Extended	Threatened (April 2018)	
Lake Whitefish (Opeongo Lake small-bodied population)	None	Extended	Threatened (April 2018)	
Lake Whitefish (Squanga Lake large-bodied population)	None	Extended	Threatened (April 2018)	
Northern Brook Lamprey (Saskatchewan - Nelson River populations)	None	Normal	Endangered (Nov. 2020)	The collection of information required to inform a listing decision for the species is extensive. The analysis of information is underway; next steps include a cost-benefit analysis, as well as public consultations.
Silver Lamprey (Saskatchewan - Nelson River populations)	None	Normal	Special Concern (Nov. 2020)	
Chinook Salmon	None	Extended	Endangered	

Wildlife species	SARA status	Consultation path	COSEWIC status	Rationale and next steps
(East Vancouver Island, Stream, Spring population)			(Nov. 2018)	The collection of information required to inform a listing decision for the species is extensive. The analysis of information is underway; next steps include a cost-benefit analysis, as well as public consultations.
Chinook Salmon (Lower Fraser, Ocean, Fall population)	None	Extended	Threatened (Nov. 2018)	
Chinook Salmon (Lower Fraser, Stream, Spring population)	None	Extended	Special Concern (Nov. 2018)	
Chinook Salmon (Lower Fraser, Stream, Summer (Upper Pitt) population)	None	Extended	Endangered (Nov. 2018)	
Chinook Salmon (Lower Fraser, Stream, Summer population)	None	Extended	Threatened (Nov. 2018)	
Chinook Salmon (Middle Fraser, Stream, Fall population)	None	Extended	Endangered (Nov.2018)	
Chinook Salmon (Middle Fraser, Stream, Spring (MFR+GStr) population)	None	Extended	Threatened (Nov. 2018)	
Chinook Salmon (Middle Fraser, Stream, Spring population)	None	Extended	Endangered (Nov. 2018)	
Chinook Salmon (Middle Fraser, Stream, Summer population)	None	Extended	Threatened (Nov. 2018)	
Chinook Salmon (North Thompson, Stream, Spring population)	None	Extended	Endangered (Nov. 2018)	
Chinook Salmon (North Thompson, Stream, Summer population)	None	Extended	Endangered (Nov. 2018)	
Chinook Salmon (South Thompson,	None	Extended	Endangered (Nov. 2018)	

Wildlife species	SARA status	Consultation path	COSEWIC status	Rationale and next steps
Stream, Summer 1.2 population)				The collection of information required to inform a listing decision for the species is extensive. The analysis of information is underway; next steps include a cost-benefit analysis, as well as public consultations.
Chinook Salmon (Upper Fraser, Stream, Spring population)	None	Extended	Endangered (Nov. 2018)	
Lumpfish	None	Extended	Threatened (Nov. 2017)	
Shortfin Mako (Atlantic population)	None	Extended	Endangered (May 2019)	The species underwent public consultations in 2023. The analysis of information is underway to inform a listing decision.
Sockeye Salmon (Bowron-ES population)	None	Extended	Endangered (Nov. 2017)	The collection of information required to inform a listing decision for the species is extensive. The analysis of information is underway; next steps include a cost-benefit analysis, as well as public consultations.
Sockeye Salmon (Cultus-L population)	None	Extended	Endangered (Nov. 2017)	
Sockeye Salmon (Francois-Fraser-S population)	None	Extended	Special Concern (Nov. 2017)	
Sockeye Salmon (Harrison (D/S)-L population)	None	Extended	Special Concern (Nov. 2017)	
Sockeye Salmon (Harrison (U/S)-L population)	None	Extended	Endangered (Nov. 2017)	
Sockeye Salmon (Kamloops-ES population)	None	Extended	Special Concern (Nov. 2017)	
Sockeye Salmon (Lillooet-Harrison-L population)	None	Extended	Special Concern (Nov. 2017)	
Sockeye Salmon (Nahatlatch-ES population)	None	Extended	Special Concern (Nov. 2017)	
Sockeye Salmon (North Barriere-ES population)	None	Extended	Threatened (Nov. 2017)	
Sockeye Salmon (Quesnel-S population)	None	Extended	Endangered (Nov. 2017)	
Sockeye Salmon (Seton-L population)	None	Extended	Endangered (Nov. 2017)	
Sockeye Salmon (Takla-Trembleur-ESTu population)	None	Extended	Endangered (Nov. 2017)	



Wildlife species	SARA status	Consultation path	COSEWIC status	Rationale and next steps
Sockeye Salmon (Takla-Trembleur-Stuart-S population)	None	Extended	Endangered (Nov. 2017)	The collection of information required to inform a listing decision for the species is extensive. The analysis of information is underway; next steps include a cost-benefit analysis, as well as public consultations.
Sockeye Salmon (Taseko-ES population)	None	Extended	Endangered (Nov. 2017)	
Sockeye Salmon (Widgeon (River-Type) population)	None	Extended	Threatened (Nov. 2017)	
Yelloweye Rockfish (Pacific Ocean inside waters population)	Special Concern, Schedule 1	Normal	Threatened (Nov. 2020)	
Yelloweye Rockfish (Pacific Ocean outside waters population)	Special Concern, Schedule 1	Normal	Threatened (Nov. 2020)	
Beluga Whale (Cumberland Sound population)	Threatened, Schedule 1	Normal	Endangered (Nov. 2020)	
Fin Whale (Pacific population)	Threatened, Schedule 1	Normal	Special Concern (May 2019)	The species underwent public consultations in 2022. The analysis of information is underway to inform a listing decision.
Grey Whale (Pacific Coast Feeding Group population)	None	Extended	Endangered (Nov. 2017)	
Grey Whale (Western Pacific population)	None	Extended	Endangered (Nov. 2017)	
Ringed Seal	None	Extended	Special Concern (Nov. 2019)	The collection of information required to inform a listing decision for the species is extensive. The analysis of information is underway; next steps include a cost-benefit analysis, as well as public consultations.
Sei Whale (Atlantic population)	None	Extended	Endangered (May 2019)	
Purple Wartyback	None	Normal	Threatened (May 2021)	The species underwent public consultations in 2022. The analysis of information is underway to inform a listing decision.