



# SPECIES AT RISK POPULATION TRENDS

CANADIAN ENVIRONMENTAL  
SUSTAINABILITY INDICATORS



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# CANADIAN ENVIRONMENTAL SUSTAINABILITY INDICATORS SPECIES AT RISK POPULATION TRENDS

January 2023

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## Species at risk population trends

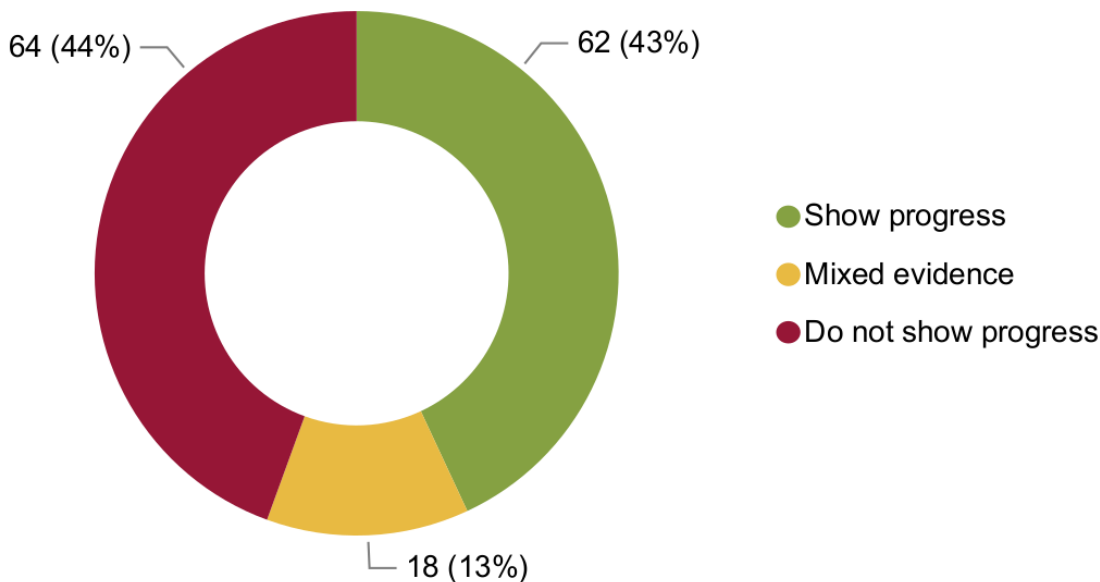
Healthy wildlife populations are an important part of biodiversity. In Canada, some species that have experienced population declines or are naturally rare are now in danger of disappearing. Recovery or management actions are put in place to protect wildlife species that are identified as being at risk and are in danger of disappearing. 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. This 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 the *Species at Risk Act* are consistent with their recovery or management objectives.

### Key results

Of the 144 species at risk for which trends could be determined:

- 62 species (43%) show progress towards their population and distribution objectives
- 18 species (13%) show mixed evidence, meaning that some information suggests improving trends, but there is also some evidence of decline
- 64 species (44%) do not show progress towards their population and distribution objectives

**Figure 1. Progress of species at risk towards their population and distribution objectives, Canada, May 2022**



[Data for Figure 1](#)

**Note:** In addition to the 144 species considered in the Figure, there are 83 species with population and distribution objectives that had reassessments that did not contain enough information to determine trends. Information on these species can be found in the [detailed data table](#). "Mixed evidence" 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 (2022).

In order to assess whether species at risk show progress towards their recovery or management objectives, 2 conditions must be met:

1. A recovery strategy or management plan has been posted on the Species at risk public registry
2. The species has been reassessed by the Committee on the Status of Endangered Wildlife in Canada or there is a report on the progress on recovery

256 species meet both of these conditions. For 10 of the 256 species, 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 in their reassessment or report on the progress on recovery to determine population and distribution trends. Therefore, the results are based on the remaining 144 species.

The *Species at Risk Act* (SARA) is Canada's key legislation for the assessment, listing and recovery of species at risk. The purposes of SARA are to:

- prevent wildlife species from being extirpated (meaning they will no longer exist in Canada) or becoming extinct
- provide for the recovery of wildlife species that are extirpated, endangered or threatened
- manage species of special concern to prevent them from becoming endangered or threatened

The recovery or management 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. In addition, it can be difficult to evaluate the recovery or results of management measures of rare species, particularly if the species is hard to find and identify. It is important to note that it may take many years to observe the response of a species' population or distribution to recovery or management efforts.

## Results by risk level

Species at risk are wildlife species that are in danger of disappearing. Extirpated species are most at risk, followed by endangered species, threatened species, and species of special concern.

An extirpated species is a wildlife species that no longer exists in the wild in Canada, but exists elsewhere in the wild. An endangered species is a species facing imminent extirpation or extinction. A threatened species is a wildlife species that is likely to become endangered if nothing is done to reverse the factors leading to its decline. A species of special concern is a wildlife species that is at risk of becoming endangered or threatened if nothing is done to reverse the factors leading to its decline.

### Extirpated, endangered and threatened species at risk

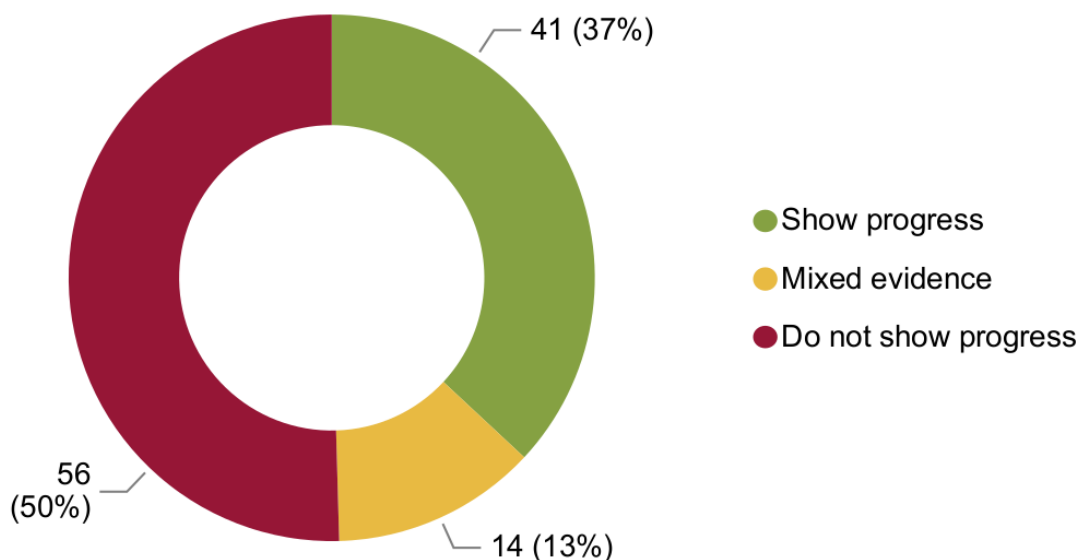
Under SARA, recovery strategies must be prepared for species listed as extirpated, endangered, or threatened. Recovery strategies identify, among other things, threats to the survival of the species and its habitat, critical habitat, and set population and distribution objectives for the species' recovery.

#### Key results

Of the 111 extirpated, endangered and threatened species for which trends could be determined:

- 41 species (37%) show progress towards their population and distribution objectives
- 14 species (13%) show mixed evidence, meaning that some information suggests improving trends, but there is also some evidence of decline
- 56 species (50%) do not show progress towards their population and distribution objectives

**Figure 2. Progress of extirpated, endangered and threatened species towards their population and distribution objectives, Canada, May 2022**



www.canada.ca/environmental-indicators

[Data for Figure 2](#)

**Note:** In addition to the 111 species considered in the Figure, there are also 52 extirpated, endangered or threatened species with population and distribution objectives for which the reassessments did not contain enough information to determine trends. Information on these species can be found in the [detailed data table](#). "Mixed evidence" 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.

Percentages may not add up to 100 due to rounding.

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

### Species of special concern

Species of special concern are in the lowest category of risk under SARA. These species are at risk of becoming threatened or endangered because of a combination of biological characteristics and identified threats.

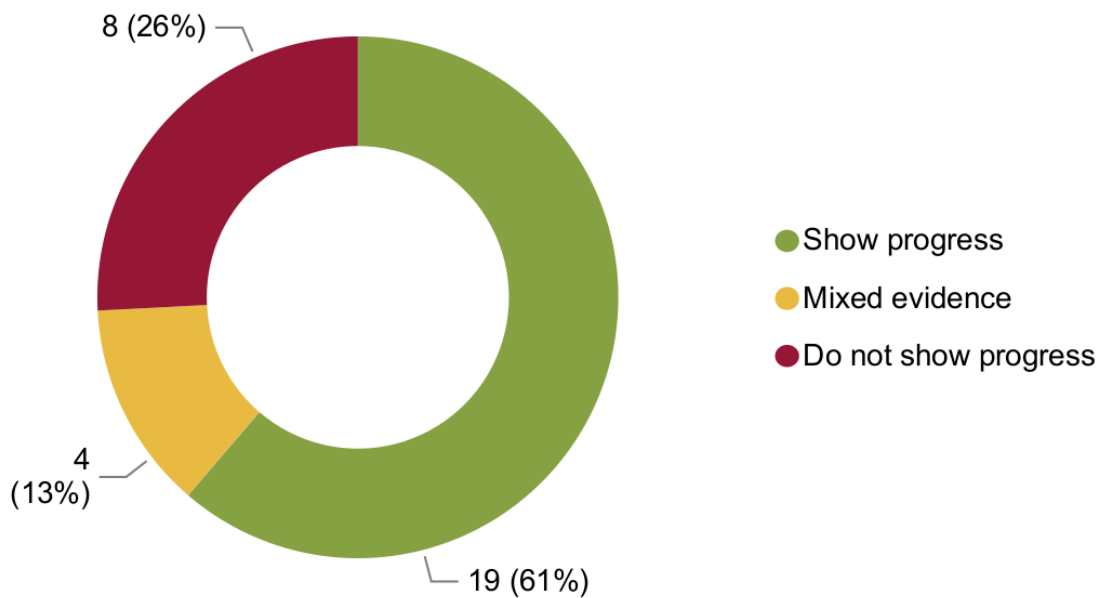
Under SARA, management plans must be prepared for species listed as special concern. Management plans include measures for maintaining sustainable population levels of the species. They may include population and distribution objectives as part of their management objectives, but is not a requirement.

#### Key results

Of the 31 species of special concern that include population and distribution objectives and for which trends could be determined:

- 19 species (61%) show progress towards their population and distribution objectives
- 4 species (13%) show mixed evidence, meaning that some information suggests improving trends, but there is also some evidence of decline
- 8 species (26%) do not show progress towards their population and distribution objectives

**Figure 3. Progress of species of special concern towards their population and distribution objectives, Canada, May 2022**



www.canada.ca/environmental-indicators

[Data for Figure 3](#)

**Note:** In addition to the 31 species considered in the Figure, there are also 31 species of special concern with population and distribution objectives for which the reassessments did not contain enough information to determine trends. Information on these species can be found in the [detailed data table](#). "Mixed evidence" 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 (2022).

## About the indicator

### What the indicator measures

The indicator shows whether the population and distribution trends of species at risk are consistent with the objectives set out in final recovery strategies or management plans. Results should be interpreted with caution as it can take many years for species to show progress towards their population and distribution objectives. Examples of challenges in this regard include the long time frame involved as it can take several generations for species to respond to management and recovery actions and the need for enough time to collect and assess information.

### Why this indicator is important

The indicator provides a preliminary assessment of whether recovery or management efforts are on track. Species at risk are important elements of healthy ecosystems, and protecting them helps support biodiversity. In general, the successful recovery or management of a species at risk should, over time, stop or reverse a significant decline due to human activity and should stabilize or improve the likelihood of the species' persistence in the wild.

### Related initiatives

This indicator supports the measurement of progress towards the following [Federal Sustainable Development Strategy long-term goal](#): Protect and recover species, conserve Canadian biodiversity. It is used to assess progress towards the target: By 2026, increase the percentage of species at risk listed under federal law that



exhibit population trends that are consistent with recovery strategies and management plans to 60%, from a baseline of 42% in 2019.

In addition, the indicator contributes to the [Sustainable Development Goals of the 2030 Agenda for Sustainable Development](#). It is linked to the 2030 Agenda's Goal 15, Life on Land and Target 15.5, "Take urgent and significant action to reduce the degradation of natural habitats, halt the loss of biodiversity and, by 2020, protect and prevent the extinction of threatened species."

The indicator also contributes towards reporting on Target 2 of the [2020 Biodiversity Goals and Targets for Canada](#): "By 2020, species that are secure remain secure, and populations of species at risk listed under federal law exhibit trends that are consistent with recovery strategies and management plans."

It also contributes to the [Kunming-Montreal Global Biodiversity Framework](#). It is linked to Target 4: "Ensure urgent management actions to halt human induced extinction of known threatened species and for the recovery and conservation of species, in particular threatened species, to significantly reduce extinction risk, as well as to maintain and restore the genetic diversity within and between populations of native, wild and domesticated species to maintain their adaptive potential, including through in situ and ex situ conservation and sustainable management practices, and effectively manage human-wildlife interactions to minimize human-wildlife conflict for coexistence."

## Related indicators

The [Changes in the status of wildlife species at risk](#) indicator tracks changes in status for species at risk assessed by the [Committee on the Status of Endangered Wildlife in Canada](#).

The [General status of wild species](#) indicator reports extinction risks across a broad set of species and can reveal early signs of trouble before species reach a critical condition.

The [Canadian species index](#) indicator tracks average population trends for vertebrate species in Canada.

## Data sources and methods

### Data sources

For species listed under the [Species at Risk Act](#) (SARA, the Act), population and distribution objectives are drawn from final recovery strategies (for extirpated, endangered, and threatened species) or management plans (for species of special concern).

To evaluate progress towards the objectives, population and distribution data are obtained from the most recent assessment by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC), from [Reports on the Progress of Recovery Document Implementation](#) and from other publicly available data.

All documents are made available through the [Species at risk public registry](#) or can be requested from [COSEWIC](#).

### More information

#### Committee on the Status of Endangered Wildlife in Canada assessments

COSEWIC is an independent body of experts that determines the conservation status of Canadian wildlife species or other designatable units (subspecies, varieties, discrete and evolutionary significant populations) that are suspected of being at risk of extinction or extirpation. The status report compiles and analyzes the best available scientific information on a wildlife species' status in Canada and may include Indigenous and community knowledge. COSEWIC reassesses species every 10 years, or more often if warranted. It should be noted that COSEWIC reports, including status reassessments, are independent of the other work performed under SARA and do not take political, social or economic factors into account.

#### Listing of species at risk in Canada

Canada has a [2-step process](#) for listing species at risk in Canada:

1. Scientific assessment: COSEWIC assesses the status of wildlife species.

Species potentially at risk are assessed by COSEWIC. The Committee prepares a status report and assigns the species to 1 of 7 status categories: Extinct, Extirpated, Endangered, Threatened,

Special Concern, Not at Risk, or Data Deficient. Each species at risk is reassessed by COSEWIC at least once every 10 years, or sooner if there is reason to believe that the status of the species has changed.

2. Listing decision: COSEWIC provides advice to the Government of Canada, which makes a decision on whether to list.

COSEWIC assessments are provided to the members of the Canadian Endangered Species Conservation Council and to the Minister of Environment and Climate Change Canada, who recommends to the Governor in Council which species to add to the [List of wildlife species at risk](#) (Schedule 1) under the *Species at Risk Act*. Inclusion of a species on Schedule 1 triggers the provisions of the Act to take effect.

### **Species at Risk Act recovery strategies and management plans**

For species listed as endangered, threatened or extirpated under Schedule 1 of SARA, a recovery strategy must be prepared by the competent minister(s) (Environment and Climate Change Canada, Parks Canada Agency or Fisheries and Oceans Canada, as appropriate). For species listed under SARA as special concern, a management plan must be prepared. The provisions of the Act come into force when species are added to SARA Schedule 1. See Table 1 for species at risk definitions.

**Table 1. Species at risk definitions**

<b>Species</b>	<b>Definitions</b>
Extirpated species	A wildlife species that no longer exists in the wild in Canada, but exists elsewhere in the wild.
Endangered species	A wildlife species that is facing imminent extirpation or extinction.
Threatened species	A wildlife species that is likely to become an endangered species if nothing is done to reverse the factors leading to its extirpation or extinction.
Species of special concern	A wildlife species that may become a threatened or an endangered species because of a combination of biological characteristics and identified threats.

**Source:** *Species at Risk Act* (2022).

The [Species at Risk Act](#) allows the Government to adopt all or part of existing recovery strategies or management plans (SARA sections 44 and 69, respectively) for a Schedule 1 listed species, such as those developed by a province or territory, if the document meets the content requirements under the Act.

A recovery strategy includes a determination of whether recovery is feasible. If recovery is determined to be feasible, the recovery strategy must address threats to the survival of the species identified by COSEWIC, including any loss of habitat. It must also include other specific elements as outlined in SARA section 41 including population and distribution objectives. A multi-species or ecosystem approach may be used when preparing the recovery strategy if appropriate. A proposed recovery strategy must be posted on the [Species at risk public registry](#) within 1 year of the corresponding listing on SARA Schedule 1 for endangered species, and within 2 years for threatened or extirpated species. A report on the recovery strategy implementation and the progress towards meeting its objectives must be completed and posted on the public registry every 5 years. Action plans must be prepared to support implementation of the recovery strategy. In general, action plans will outline specific measures required to meet the objectives of the recovery strategy.

A management plan must be prepared within 3 years of listing for a species of special concern. It must include measures for the conservation of the species and may apply to more than one wildlife species. Implementation of management plans must be monitored, and a report assessing the implementation must be posted on the public registry every 5 years.

Recovery strategies and management plans are as varied as the biology of, and threats to, the species they address. These documents consider the current and past abundance and distribution of the species and recommend approaches for their recovery or conservation. For example, the objective of the recovery

strategy for the Poor Pocket Moss is to maintain existing populations through habitat protection and stewardship, including limiting recreational access to sites. The interim recovery goal for the North Atlantic Right Whale is to achieve an increasing trend in population abundance over 3 generations (about 60 years), by reducing mortality from ship strikes, entanglement in fishing gear, and habitat degradation.

### **Species at Risk Act progress reports**

Where more recent population and distribution information was available in a [Report on the Progress of Recovery Document Implementation](#) than in a COSEWIC report, this information was used in the indicator. These reports generally describe actions taken towards recovery or management; they may or may not contain information on biological trends.

## **Methods**

The population and distribution trend information for each species is compared to the corresponding objectives to determine whether efforts are on track to meet those objectives. Each species is assigned to 1 of 4 categories based on whether it is making progress toward the objectives: show progress, do not show progress, mixed evidence, or insufficient information. The indicator is a count of the number of species in the show progress, do not show progress, or mixed evidence categories.

### **More information**

#### **Species selection**

All wildlife species for which final recovery strategies or management plans exist are included, namely species listed as extirpated, endangered, threatened, or special concern. A species is included in the indicator if it meets the following criteria:

- Species listed as extirpated, endangered, or threatened for which recovery is considered feasible
- The species' recovery strategy or management plan has objectives relating to population size, distribution, or both
- Species have been reassessed (COSEWIC assessment or a Report on the Progress of Recovery Document Implementation) since the publication of the final recovery strategy or management plan, to compare the population and distribution trends to the objectives
- Sufficient information must be available to determine whether the species' population and distribution trends are consistent with the recovery or management objectives

In preparing a recovery strategy for a species at risk, a determination is made about whether recovery is technically and biologically feasible. For example, it may not be feasible to ensure the recovery of a species whose habitat is no longer present in the wild. The recovery of the following 10 species was deemed not feasible: [Atlantic Walrus \(Northwest Atlantic population\)](#), [Dwarf Wedgemussel](#), [Eskimo Curlew](#), [Greater Sage-Grouse \*phaios\* subspecies](#), [Grey Whale \(Atlantic population\)](#), [Incurved Grizzled Moss](#), [Paddlefish](#), [Pygmy Short-horned Lizard](#), [Shortnose Cisco](#), and [Timber Rattlesnake](#). The species therefore have no population or distribution objectives and are not considered in this indicator.

The following 19 species are not considered in this indicator because their recovery strategies or management plans do not contain population and distribution objectives; instead, they set targets such as verification of the presence of the species in Canada: [Blanchard's Cricket Frog](#), [Brook Spike-primrose](#), [Butternut](#), [Coastrange Sculpin \(Cultus population\)](#), [Columbia Sculpin](#), [Eastern Hog-nosed Snake](#), [Frosted Elfin](#), [Gravel Chub](#), [Great Basin Spadefoot](#), [Island Blue](#), [Karner Blue](#), [Kirtland's Warbler](#), [Margined Streamside Moss](#), [Mormon Metalmark \(Prairie population\)](#), [Ottoe Skipper](#), [Pink-footed Shearwater](#), [Puget Oregonian Snail](#), [Seaside Centipede Lichen](#), and [Silver Hair Moss](#).

For 83 species, the evidence contained in reassessment documents was insufficient to assess whether progress was being made towards objectives. Information on these species is contained in the [detailed data table](#).

#### **Categorization**

A comparison was made between the objectives and the population and distribution trends in observed data, accounting as much as possible for the length of time elapsed between the publication of the

recovery document and the reassessment and for the biology of the species. Using a weight-of-evidence approach, species were placed into 1 of 4 categories, and the rationale was recorded.

1. Population and distribution trends consistent with objectives (Show progress)
2. Population and distribution trends not consistent with objectives, including species that are stable below their objectives and species that are in decline. (Do not show progress)
3. Some information suggests improving trends, but there is also some evidence of decline (Mixed evidence)
4. Available data are insufficient to determine population and distribution trends (Insufficient data to determine trends)

The indicator is a count of the number of species assigned to the first 3 categories. Species in the fourth category are not included in the indicator because there is insufficient data to determine population and distribution trends for them. Should a species no longer be at risk because its population and distribution objectives are achieved, it will be categorized as Show progress in the indicator and remain in this category in future indicator updates. One (1) species, the Hooded Warbler, was removed from SARA Schedule 1 in 2017 as it was no longer at risk; it is included in the Show progress category in the indicator.

## Recent changes

New recovery documents allowed additional species to be included in the indicator. Documents are available through the [Species at risk public registry](#) or from the Committee on the Status of Endangered Wildlife in Canada (COSEWIC).

The current update of the indicator added 13 animal species ([American Marten \[Newfoundland population\]](#), [Bluntnose Sixgill Shark](#), [Bowhead Whale \(Bering-Chukchi-Beaufort population\)](#), [Dusky Dune Moth](#), [Eastern Foxsnake \[Carolinian population\]](#), [Eastern Foxsnake \[Great Lakes / St. Lawrence population\]](#), [Greater Sage-Grouse phaios subspecies](#), [Northern Leopard Frog \[Rocky Mountain population\]](#), [Sage Thrasher](#), [Sea Otter](#), [Sharp-tailed Snake](#), [Skillet Clubtail](#), and [Threaded Vertigo](#)), 3 plant species ([False Rue-anemone](#), [Victorin's Gentian](#) and [Victorin's Water-hemlock](#)) and 1 lichen species ([Seaside Bone Lichen](#)) to the indicator.

In addition, 21 animal species ([Black-footed Ferret](#), [Blackstripe Topminnow](#), [Blue Whale \[Pacific population\]](#), [Dwarf Wedgemussel](#), [Eastern Sand Darter \[Ontario populations\]](#), [Eastern Sand Darter \[Quebec populations\]](#), [Fin Whale \[Pacific population\]](#), [Grass Pickerel](#), [Greater Sage Grouse \*urophasianus\* subspecies](#), [Grey Whale \[Atlantic population\]](#), [Killer Whale \[Northeast Pacific northern resident population\]](#), [Killer Whale \[Northeast Pacific southern resident population\]](#), [Leatherback Sea Turtle \[Atlantic population\]](#), [Leatherback Sea Turtle \[Pacific population\]](#), [Mountain Plover](#), [Pugnose Minnow](#), [Pugnose Shiner](#), [Sei Whale \[Pacific population\]](#), [Spotted Sucker](#), [Tope](#), and [Western Silvery Minnow](#)) and 1 moss ([Incurved Grizzled Moss](#)) that were previously included in the indicator were reassessed.

## Caveats and limitations

It takes time for a species' response to recovery management actions to become apparent. For example, while an insect population might begin to show signs of recovery in a few years, it can take decades to detect changes in tree or whale populations. Indicator results should not be interpreted as a measure of success with regard to the recovery of species or maintaining species until sufficient time has passed to allow species to respond to actions taken and to collect enough information for assessment.

### More information

Coverage of species in the indicator is narrow compared to the number of wildlife species assessed by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) as at risk or compared to the number of species at risk listed on Schedule 1 of the *Species at Risk Act*.

While the indicator uses the best information available, it does not always precisely match what is contained in recovery strategies or management plans. The evaluation of species trends may include data from time periods prior to the finalization of recovery documents.

In selecting new species to assess, COSEWIC gives priority to species that are more likely to become extinct. COSEWIC is mandated to reassess species every 10 years, or more often if warranted. Under

some circumstances, the reassessment may be delayed, resulting in uneven data availability across species.

With time, the number of final recovery documents and the number of species that are reassessed by COSEWIC will increase, and trends will become more meaningful as populations have sufficient time to respond.

## Resources

### References

Committee on the Status of Endangered Wildlife in Canada (COSEWIC) (2022) [Committee on the Status of Endangered Wildlife in Canada](#). Retrieved on November 4, 2022.

Government of Canada (2015) [Species at Risk Act](#). Retrieved on November 4, 2022.

Government of Canada (2017) [List of wildlife species at risk: Schedule 1](#). Retrieved on November 4, 2022..

Government of Canada (2019) [Species at risk: the act, the accord and the funding programs](#). Retrieved on November 4, 2022.

Government of Canada (2022) [Species at risk public registry, A to Z species index](#). Retrieved on November 4, 2022.

### Related information

[Aboriginal Fund for Species at Risk](#)

[Aquatic species at risk](#)

[Habitat Stewardship Program for Species at Risk](#)

[Species at risk](#)

# Annex

## Annex A. Data tables for the figures presented in this document

Table A.1. Data for Figure 1. Progress of species at risk towards their population and distribution objectives, Canada, May 2022

Progress	Number of species	Species (common name)
Show progress	62	<p><b>Animals</b>            American Marten (Newfoundland population); Atlantic Whitefish; Atlantic Wolffish; Banded Killifish (Newfoundland population); Banff Springs Snail; Black-tailed Prairie Dog; Bowhead Whale (Bering-Chukchi-Beaufort population); Canada Warbler; Carmine Shiner; Common Nighthawk; Eastern Sand Darter (Quebec populations); Fin Whale (Atlantic population); Fin Whale (Pacific population); Grass Pickerel; Harlequin Duck (Eastern population); Hooded Warbler; Hotwater Physa; Killer Whale (Northeast Pacific northern resident population); Killer Whale (Northeast Pacific transient population); North Atlantic Right Whale; Northern Bottlenose Whale (Scotian Shelf population); Northern Riffleshell; Northern Wolffish; Olympia Oyster; Paxton Lake Benthic Threespine Stickleback; Paxton Lake Limnetic Threespine Stickleback; Peregrine Falcon <i>anatum/tundrius</i>; Rainbow Smelt (Lake Utopia small-bodied population); Rayed Bean; Red Knot <i>islandica</i> subspecies; Rusty Blackbird; Savannah Sparrow, <i>princeps</i> subspecies; Sea Otter; Short-tailed Albatross; Snuffbox; Sonora Skipper; Spotted Wolffish; Sprague's Pipit; Steller Sea Lion; Swift Fox; Vananda Creek Benthic Threespine Stickleback; Vananda Creek Limnetic Threespine Stickleback; Wavy-rayed Lampmussel; Western Silvery Minnow; Whooping Crane; Yellow Lampmussel; Yucca Moth</p> <p><b>Vascular plants</b>            Anticosti Aster; Bolander's Quillwort; Coastal Wood Fern; Cucumber Tree; Pink Coreopsis; Prairie Lupine; Soapweed; Spotted Wintergreen; Sweet Pepperbush; Water-pennywort; Western Prairie Fringed-orchid; Wood-poppy</p> <p><b>Moss</b>            Haller's Apple Moss; Spoon-leaved Moss</p> <p><b>Lichen</b>            Frosted Glass-whiskers (Nova Scotia population)</p>
Mixed evidence	18	<p><b>Animals</b>            Blanding's Turtle (Nova Scotia population); Burrowing Owl; Louisiana Waterthrush; Olive-sided Flycatcher; Poweshiek Skipperling; Woodland Caribou (Northern Mountain population)</p> <p><b>Vascular Plants</b>            Common Hoptree; Deerberry; Eastern Mountain Avens; Plymouth Gentian; Seaside Birds-foot Lotus; Victorin's Gentian; Victorin's Water-hemlock; Water-plantain Buttercup</p> <p><b>Moss</b>            Poor Pocket Moss; Rusty Cord-moss</p> <p><b>Lichen</b>            Boreal Felt Lichen (Boreal population); Vole Ears Lichen</p>



Progress	Number of species	Species (common name)
Do not show progress	64	<p><b>Animals</b>  Atlantic Salmon (Inner Bay of Fundy population); Band-tailed Pigeon; Beluga Whale (St. Lawrence Estuary population); Black-footed Ferret; Channel Darter; Chestnut-collared Longspur; Dakota Skipper; Eastern Yellow-bellied Racer; Enos Lake Benthic Threespine Stickleback; Enos Lake Limnetic Threespine Stickleback; Ermine, <i>haidarum</i> subspecies; Five-lined Skink, Carolinian population; Greater Sage Grouse <i>urophasianus</i> subspecies; Greater Short-horned Lizard; Island Marble; Kidneyshell; Killer Whale (Northeast Pacific southern resident population); Leatherback Sea Turtle (Atlantic population); Leatherback Sea Turtle (Pacific population); McCown's Longspur; Northern Abalone; Northern Saw-whet Owl, <i>brooksi</i> subspecies; Ord's Kangaroo Rat; Piping Plover, <i>circumcinctus</i> subspecies; Piping Plover, <i>melodus</i> subspecies; Prothonotary Warbler; Red Crossbill, <i>perca</i> subspecies; Red Knot <i>rufa</i> subspecies; Roseate Tern; Ross's Gull; Round Hickorynut; Round Pigtoe; Salamander Mussel (also Mudpuppy Mussel); Short-eared Owl; Silver Chub (Great Lakes - Upper St. Lawrence populations); Spotted Owl, <i>caurina</i> subspecies; Streaked Horned Lark; Striped Bass (St. Lawrence River population); Taylor's Checkerspot; Vesper Sparrow <i>affinis</i> subspecies; Warmouth; Westslope Cutthroat Trout (Alberta population); White Flower Moth; Woodland Caribou (Atlantic-Gaspésie population); Woodland Caribou (Boreal population); Yellow-breasted Chat, <i>virens</i> subspecies</p> <p><b>Vascular plants</b>  American Water-willow; Baikal Sedge; Bear's-foot Sanicle; Deltoid Balsamroot; Fernald's Braya; Furbish's Lousewort; Golden Paintbrush; Goldencrest; Pink Sand-verbena; Red Mulberry; Small Whorled Pogonia; Tall Woolly-heads; White-top Aster; Yellow Montane Violet, <i>praemorsa</i> subspecies</p> <p><b>Moss</b>  Porsild's Bryum</p> <p><b>Lichen</b>  Boreal Felt Lichen (Atlantic population); Cryptic Paw Lichen; Flooded Jellyskin</p>

**Note:** <sup>[A]</sup> In addition to the 144 species considered, 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. Information on these species can be found in the [detailed data table](#). "Mixed evidence" means that some information suggests improving trends, but that 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 (2022).

**Table A.2. Data for Figure 2. Progress of extirpated, endangered and threatened species towards their population and distribution objectives, Canada, May 2022**

Progress	Number of species	Species (common name)
Show progress	41	<p><b>Animals</b>            American Marten (Newfoundland population); Atlantic Whitefish; Banff Springs Snail; Black-tailed Prairie Dog; Canada Warbler; Carmine Shiner; Common Nighthawk; Eastern Sand Darter (Quebec populations); Fin Whale (Pacific population); Hotwater Physa; Killer Whale (Northeast Pacific northern resident population); Killer Whale (Northeast Pacific transient population); North Atlantic Right Whale; Northern Bottlenose Whale (Scotian Shelf population); Northern Riffleshell; Northern Wolffish; Paxton Lake Benthic Threespine Stickleback; Paxton Lake Limnetic Threespine Stickleback; Rainbow Smelt (Lake Utopia small-bodied population); Rayed Bean; Short-tailed Albatross; Snuffbox; Spotted Wolffish; Sprague's Pipit; Swift Fox; Vananda Creek Benthic Threespine Stickleback; Vananda Creek Limnetic Threespine Stickleback; Western Silvery Minnow; Whooping Crane; Yucca Moth</p> <p><b>Vascular plants</b>            Bolander's Quillwort; Cucumber Tree; Pink Coreopsis; Prairie Lupine; Soapweed; Spotted Wintergreen; Sweet Pepperbush; Western Prairie Fringed-orchid; Wood-poppy</p> <p><b>Moss</b>            Haller's Apple Moss; Spoon-leaved Moss</p>
Mixed evidence	14	<p><b>Animals</b>            Blanding's Turtle (Nova Scotia population); Burrowing Owl; Louisiana Waterthrush; Olive-sided Flycatcher; Poweshiek Skipperling</p> <p><b>Vascular plants</b>            Deerberry; Eastern Mountain Avens; Plymouth Gentian; Seaside Birds-foot Lotus; Victorin's Gentian; Water-plantain Buttercup</p> <p><b>Moss</b>            Poor Pocket Moss; Rusty Cord-moss</p> <p><b>Lichen</b>            Vole Ears Lichen</p>
Do not show progress	56	<p><b>Animals</b>            Atlantic Salmon (Inner Bay of Fundy population); Beluga Whale (St. Lawrence Estuary population); Black-footed Ferret; Channel Darter; Chestnut-collared Longspur; Dakota Skipper; Eastern Yellow-bellied Racer; Enos Lake Benthic Threespine Stickleback; Enos Lake Limnetic Threespine Stickleback; Ermine, <i>haidarum</i> subspecies; Five-lined Skink, Carolinian population; Greater Sage Grouse <i>urophasianus</i> subspecies; Greater Short-horned Lizard; Island Marble; Kidneyshell; Killer Whale (Northeast Pacific southern resident population); Leatherback Sea Turtle (Atlantic population); Leatherback Sea Turtle (Pacific population); McCown's Longspur; Northern Abalone; Northern Saw-whet Owl, <i>brooksi</i> subspecies; Ord's Kangaroo Rat; Piping Plover, <i>circumcinctus</i> subspecies; Piping Plover, <i>melodus</i> subspecies; Prothonotary Warbler; Red Crossbill, <i>percna</i> subspecies; Red Knot <i>rufa</i> subspecies; Roseate Tern; Ross's Gull; Round Hickorynut; Round Pigtoe; Salamander Mussel (also Mudpuppy Mussel); Silver Chub (Great Lakes - Upper St. Lawrence populations); Spotted Owl, <i>caurina</i> subspecies; Streaked Horned Lark; Striped Bass (St. Lawrence River population); Taylor's Checkerspot; Vesper Sparrow <i>affinis</i> subspecies; Westslope Cutthroat Trout (Alberta population); White Flower Moth; Woodland</p>



Progress	Number of species	Species (common name)
		Caribou (Atlantic-Gaspésie population); Woodland Caribou (Boreal population); Yellow-breasted Chat, <i>virens</i> subspecies <b>Vascular plants</b> American Water-willow; Bear's-foot Sanicle; Deltoid Balsamroot; Fernald's Braya; Furbish's Lousewort; Golden Paintbrush; Pink Sand-verbena; Red Mulberry; Small Whorled Pogonia; Tall Woolly-heads; Yellow Montane Violet, <i>praemorsa</i> subspecies <b>Moss</b> Porsild's Bryum <b>Lichen</b> Boreal Felt Lichen (Atlantic population)

**Note:** <sup>[A]</sup> In addition to the 111 species considered, there are also 52 extirpated, threatened and endangered species for which recovery objectives and reassessments exist, but insufficient evidence is available in the reassessment to assess trends. Information on these species can be found in the [detailed data table](#). "Mixed evidence" means that some information suggests improving trends, but that 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 (2022).

**Table A.3. Data for Figure 3. Progress of species of special concern towards their population and distribution objectives, Canada, May 2022**

Progress	Number of species	Species (common name)
Show progress	19	<b>Animals</b> Atlantic Wolffish; Banded Killifish (Newfoundland population); Bowhead Whale (Bering-Chukchi-Beaufort population); Fin Whale (Atlantic population); Grass Pickerel; Harlequin Duck (Eastern population); Olympia Oyster; Peregrine Falcon <i>anatum/tundrius</i> ; Red Knot <i>islandica</i> subspecies; Rusty Blackbird; Savannah Sparrow, <i>princeps</i> subspecies; Sea Otter; Steller Sea Lion; Way-rayed Lamppussel; Yellow Lamppussel <b>Vascular plants</b> Anticosti Aster; Coastal Wood Fern; Water-pennywort <b>Lichen</b> Frosted Glass-whiskers (Nova Scotia population)
Mixed evidence	4	<b>Animal</b> Woodland Caribou (Northern Mountain population) <b>Vascular plants</b> Common Hoptree; Victorin's Water-hemlock <b>Lichen</b> Boreal Felt Lichen (Boreal population)

Progress	Number of species	Species (common name)
Do not show progress	8	<b>Animals</b> Band-tailed Pigeon; Short-eared Owl; Warmouth <b>Vascular plants</b> Baikal Sedge; Goldencrest; White-top Aster <b>Lichen</b> Cryptic Paw Lichen; Flooded Jellyskin

**Note:** In addition to the 31 species considered, there are also 31 species of special concern for which management objectives and reassessments exist, but insufficient evidence is available in the reassessment to assess trends. Information on these species can be found in the [detailed data table](#). "Mixed evidence" means that some information suggests improving trends, but that 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 (2022).

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