Environment and Climate Change Canada
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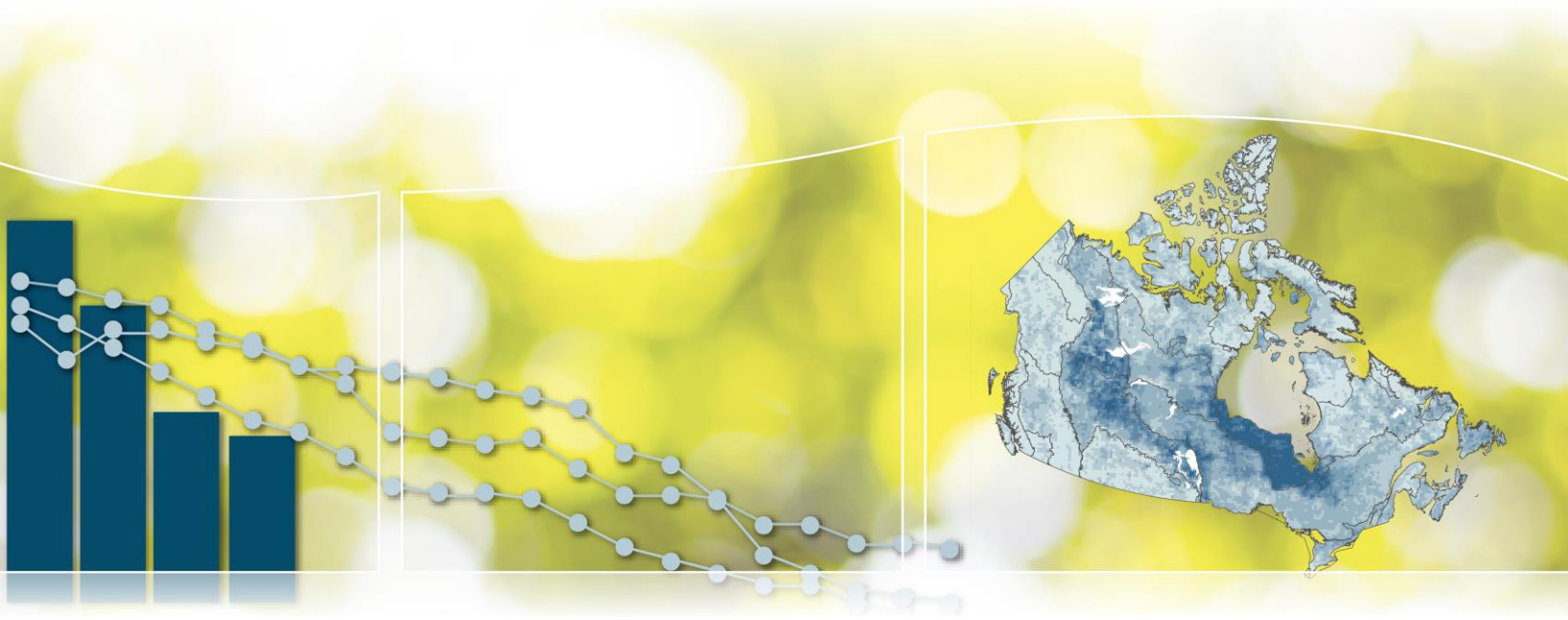
Canadian Environmental Sustainability Indicators

Species at Risk Population Trends



Canada

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Canadian Environmental Sustainability Indicators

Species at Risk Population Trends

December 2016

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Part 1. Species at Risk Population Trends Indicator

Some wildlife species in Canada are at risk of extinction. The goal of the Species at Risk Act (the Act) is to prevent losses of endangered or threatened plants and animals from the wild, and to help in their recovery. Recovery strategies for these species[1] assess whether recovery is feasible, what threats need to be addressed, and identify objectives and approaches for recovery, and critical habitat. The Act is also intended to manage species of Special concern and to prevent them from becoming Endangered or Threatened.

Of the 350 species at risk that had final recovery strategies or management plans as of May 2016, 123 species have population-oriented objectives and have been reassessed by the Committee on the Status of Endangered Wildlife in Canada since their recovery documents were finalized.[2] Of these 123 species, 43 (35%) have population trends that are consistent with the objectives laid out in the recovery documents and 46 (37%) show trends that are inconsistent with the objectives. Another 11 (9%) have both some indication of improvement and some indication of decline. For the remaining 23 species (19%), data are not sufficient to determine trends.

Since May 2015, 11 species have been added to this indicator:

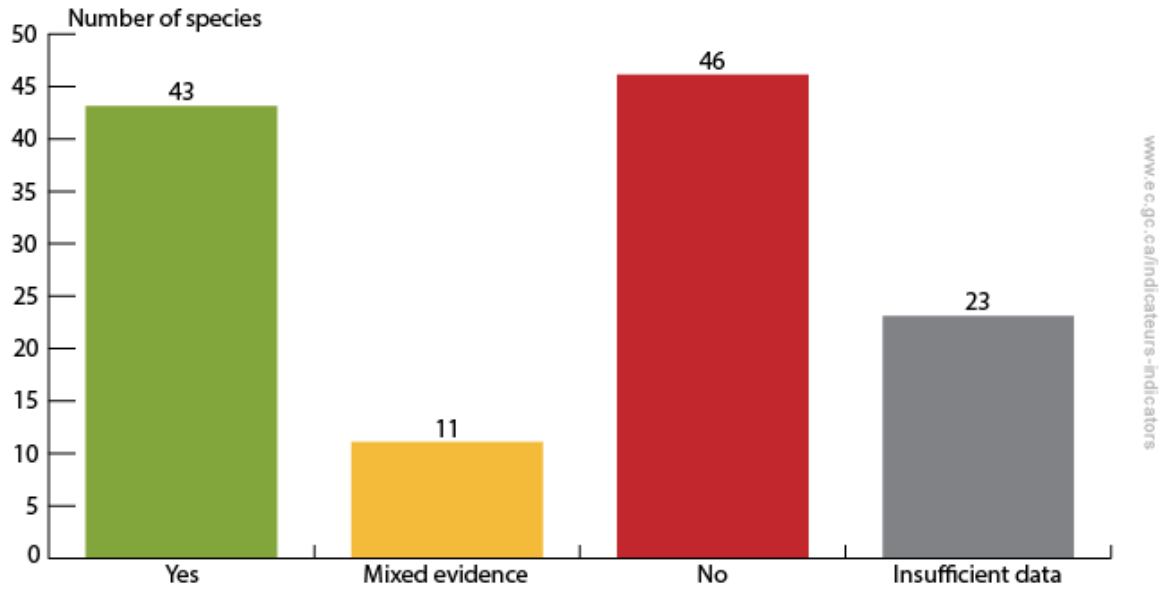
- six show trends that are inconsistent with the objectives,
- two have mixed evidence, and
- three did not have sufficient data to determine trends.

Species that are at risk can take a long time to recover. Recovery of species is related to, among other factors, their life span, reproductive cycle, and the state of their habitat. In addition, observations of rare species are often difficult to collect. The indicator results should not be interpreted as a measure of recovery success until sufficient time has passed to allow species to recover and to collect sufficient information to assess that recovery.

[1] Recovery strategies are also prepared for extirpated species, which are species that are no longer present in Canada but exist elsewhere.

[2] Species that are not deemed feasible to recover at this time (8) and species with operational, rather than population-related, goals (9) are not included in this total.

Figure 1. Are population trends of species at risk consistent with the objectives?, Canada, May 2016



Data for Figure 1

Note: Categories are assigned based on the most recent available information, accounting as much as possible for the amount of time that has been available for recovery. Mixed evidence means that there is a mix of consistent and inconsistent population trends.
Source: Fisheries and Oceans Canada, Environment and Climate Change Canada, Parks Canada, and Committee on the Status of Endangered Wildlife in Canada Secretariat (2016).

Canada has a two-step process to determine which species require recovery documents:

1. Scientific assessment: The Committee on the Status of Endangered Wildlife in Canada provides advice to the Government of Canada on the status of wildlife species.
2. Listing decision: The Government of Canada reviews this information and decides whether to add the species to Schedule 1 under the Species at Risk Act. Schedule 1 is the official list of species at risk in Canada. Inclusion on Schedule 1 brings the Act into effect.

Determining population trends in rare species can present some challenges. Many of these individuals are difficult to find and identify. For example, the most reliable way to distinguish the threatened Eastern Ribbonsnake from the more common Eastern Garter Snake is to see which scale rows have yellow stripes: those of the Ribbonsnake fall on scale rows 3 and 4, whereas those of the Garter Snake are on scale rows 2 and 3.

Healthy wildlife populations

This indicator supports the measurement of progress towards the long-term goal of the 2016–2019 Federal Sustainable Development Strategy: All species have healthy and viable populations.

Part 2. Data Sources and Methods for the Species at Risk Population Trends Indicator

Introduction

The Species at Risk Population Trends indicator is part of the Canadian Environmental Sustainability Indicators (CESI) program, which provides data and information to track Canada's performance on key environmental sustainability issues. This indicator is also used to report and measure progress towards the goals of the 2016–2019 Federal Sustainable Development Strategy and the 2020 Biodiversity Goals and Targets for Canada.

Description and rationale of the Species at Risk Population Trends indicator

Description

The indicator provides an assessment of the recovery trends of species at risk that:

i) are included on the List of Wildlife Species at Risk under the federal Species at Risk Act,
ii) have a final recovery strategy or management plan that contains population objectives,
iii) are determined to be biologically and technically feasible to recover if listed as Extirpated, Endangered or Threatened, and
iv) have been reassessed by the Committee on the Status of Endangered Wildlife in Canada since the final recovery document (recovery strategy or management plan) was published.

Recovery strategies and management plans are as varied as the biology of, and threats to, the species they address. Recovery documents contain overall objectives which often relate to population numbers and distribution. The documents consider the current and past abundance and distribution of the species, and also recommend approaches for recovery or conservation.

Rationale

The degree to which species respond positively to management is a measure of success.

In general, successful recovery of species should arrest or reverse any unnatural decline, and remove or mitigate anthropogenic pressures, in order to improve or stabilize the likelihood of the species' persistence in the wild. A species will be considered recovered when its long-term persistence in the wild has been achieved.

Recovery takes time: once recovery efforts are in place, it may take many years for changes in populations to be measurable. Early signs of progress may include, for example, a reduced rate of decline.

Recent changes to the indicator

In 2014, the indicator was extended to include both recovery strategies and management plans. As a result, species of Special concern are included. For the 2016 update, new data have been included.

Data

Data source

Recovery strategies: objectives

Recovery objectives were drawn from final recovery strategies of species listed as Extirpated, Endangered or Threatened on the List of Wildlife Species at Risk under the Species at Risk Act (the Act). Final and proposed species recovery strategies are made available to the public through the Species at Risk Public Registry.

Management plans: objectives

Management plans contain objectives that relate to preventing species of Special concern from becoming Threatened or Endangered. Like recovery strategies, final and proposed species management plans are made available to the public through the Species at Risk Public Registry.

Population trends

The latest available information on population trends was extracted from the most recent assessments of the Committee on the Status of Endangered Wildlife in Canada (the Committee), which are also available through the Species at Risk Public Registry. In a few cases, additional information was drawn from federal documents.

The Committee is a group of experts that determines the status of Canadian wildlife species, subspecies, varieties or other designatable units that are suspected of being at risk of extinction or extirpation. The assessment report gathers the available science as well as Indigenous and community knowledge, to provide a comprehensive view of species status. The Committee reassesses species every 10 years or more often if warranted. It should be noted that reports from the Committee, including reassessments, are independent from other work under the Act.

Spatial coverage

Coverage is national, but significant biases in information availability exist. Species knowledge is greatest in southern Canada, in part because the area is more accessible, and in part because more species at risk occur in southern Canada.

Temporal coverage

The first final recovery strategies and management plans were published in 2006. The indicator includes all species meeting the criteria for inclusion from that date (see Data completeness).

Data completeness

All species with final recovery documents are considered; these are species with a status under the Act as Extirpated, Endangered, Threatened or Special concern. Three criteria are considered:

1. Species listed as Extirpated, Endangered or Threatened must be deemed feasible to recover.
2. Species must have objectives relating to population size, distribution or both.
3. Species must have been reassessed since the publication of the final recovery strategy/management plan, to allow a comparison to previous conditions.

All species meeting these criteria are included.

Eight species were deemed not feasible to recover at the time of their assessment and are thus not considered in this indicator: Dwarf Wedgemussel, Eskimo Curlew, Grey Whale (Atlantic population), Grizzly Bear (Prairie population), Incurved Grizzled Moss, Paddlefish, Tiger Salamander (Great Lakes population), and Timber Rattlesnake.

The recovery strategies for nine species contain only operational objectives, such as verification of the presence of the species in Canada, and those species are not considered in this indicator. These are Blanchard's Cricket Frog, Gravel Chub, Island Blue, Kirtland's Warbler, Margined Streamside Moss, Mormon Metalmark (Prairie population), Ottoe Skipper, Puget Oregonian Snail and Silver Hair Moss. Kirtland's Warbler has since been sighted.

Data timeliness

This indicator is current to May 2016.

Methods

Listing

Species potentially at risk undergo an assessment by the Committee on the Status of Endangered Wildlife in Canada (the Committee), an independent body of experts. The Committee completes a species assessment (status report) and assigns species to risk categories: Extinct, Extirpated, Endangered, Threatened, Special concern, Not at risk or Data deficient. Each species at risk is reassessed by the Committee at least once every 10 years, or at any time if there is reason to believe that the status of the species has changed.

The Committee's assessments are provided to the Minister of the Environment and Climate Change, who recommends to the Governor in Council which species to add to the List of Wildlife Species at Risk under the Species at Risk Act (the Act). Species listed as Endangered, Threatened or Extirpated under the Act must have a recovery strategy prepared by Environment and Climate Change Canada, Parks Canada or Fisheries and Oceans Canada, as appropriate. For species listed as Special concern, a management plan must be prepared.

Recovery strategies

Recovery strategies assess whether recovery is feasible, outline what threats need to be addressed, set objectives and broad strategies and approaches for the species recovery, and identify critical habitat. When the critical habitat cannot be fully identified, a recovery strategy includes a schedule of studies to complete the identification. Co-occurring species may share a strategy. Recovery strategies for species deemed recoverable are followed by action plans, which outline specific measures required to meet the objectives of the recovery strategy.

Species recovery strategies must be completed within one year of the species being listed as Endangered, and within two years of the species being listed as Threatened or Extirpated on the List of Wildlife Species at Risk under the Act.

Management plans

Management plans include measures for the conservation of species of Special concern and their habitat and, when possible, are prepared for multiple species in a shared ecosystem or landscape. Management plans are required within three years of the species being listed as Special concern on the List of Wildlife Species at Risk under the Act.

Data extraction

Species meeting the criteria for inclusion were those deemed feasible to recover at the time of assessment and which had objectives related to population size and/or distribution. Recovery objectives were drawn from recovery documents. Population recovery objectives could include, for example, maintaining or increasing the total number of individuals of a species, restoring the area of occupation, and/or increasing the number of sites occupied by a species.

A search was made for reassessments produced by the Committee since the recovery document was finalized. Relevant data were extracted from these reassessments, based on the recovery objectives.

Scoring

A comparison was made between the recovery objectives and the trends in observed data, accounting as much as possible for the length of time elapsed between the recovery document and the reassessment, and for the biology of the species. Using a weight-of-evidence approach, species were categorized into one of four groups, and the rationale was recorded:

1. Population trends consistent with recovery objectives (Yes).
2. Population trends not consistent with recovery objectives (No).
3. A mix of consistent and inconsistent population trends (Mixed evidence).
4. Available data is insufficient to determine population trends (Insufficient data to determine trends).

The indicator is a count of the number of species categorized in each group.

Caveats and limitations

Coverage of species in the indicator is very narrow compared to the number of wildlife species assessed by the Committee on the Status of Endangered Wildlife in Canada as Extirpated (23), Endangered (320), Threatened (172) or of Special concern (209), or compared to the number of species listed on Schedule 1 of the Species at Risk Act as Extirpated (23), Endangered (241), Threatened (127), or of Special concern (130).

It takes time for response to become apparent: while an insect population might begin to recover in a few years, it can take decades to detect changes in tree or whale populations. While the indicator uses the best information available, this may include periods of time before recovery documents were finalized. Indicator results should not be interpreted as a measure of recovery success until sufficient time has passed to allow species to recover and to collect sufficient information to assess that recovery.

Observations of rare species are often difficult to collect, and assessments are necessarily based on incomplete information.

With time, the number of species with completed recovery documents and the number of reassessed species will increase, and trends will become more meaningful as populations have sufficient time to respond.

Part 3. Annexes

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

Table A.1. Data for Figure 1. Are population trends of species at risk consistent with the objectives?, Canada, May 2016

Common name	Trends consistent with objectives?	Relevant statements from the recovery documents
Atlantic Salmon (Inner Bay of Fundy population)	No	The Atlantic Salmon (Inner Bay of Fundy population) has less than 200 mature individuals left in the wild and is not self-sustaining.
Atlantic Whitefish	Yes	Individuals have been introduced to suitable watersheds in order to expand the species' range.
Atlantic Wolffish	Yes	There are signs of population recovery.
Baikal Sedge	No	Observed continued decline in the number of mature individuals and observed decline in extent of occurrence and locations.
Banded Cord-moss	Insufficient data to determine trends	Population trends are unknown.
Banded Killifish (Newfoundland population)	Yes	Population appears to be stable. No indication of decline in either the number of populations or abundance within populations.
Banff Springs Snail	Yes	There is a population increase.
Bearded Owl-clover	Insufficient data to determine trends	Due to a lack of reliable counts and the sizable fluctuations in the number of mature individuals, current population trends cannot be determined.
Bear's-foot Sanicle	No	There has probably been a decline in the number and size of the total population. There has been a 5% reduction in the extent of occurrence.
Beluga Whale (St. Lawrence Estuary population)	No	The population has been declining and reasons for this decline are not understood.

Common name	Trends consistent with objectives?	Relevant statements from the recovery documents
Blackstripe Topminnow	Yes	Canadian population appears to be stable.
Black-tailed Prairie Dog	Insufficient data to determine trends	Populations do not appear to be increasing, and the probability of catastrophic disturbances is increasing as climate changes. It is difficult to determine the probability of population survival.
Blue Whale (Northwest Atlantic population)	Insufficient data to determine trends	The Blue Whale (Northwest Atlantic population) is estimated to contain <250 mature individuals; however further data on changes in population size is needed to determine if progress has been made.
Blue Whale (Pacific population)	Insufficient data to determine trends	The rarity of the Blue Whale (Pacific population) has been confirmed, but data on changes in population size is needed.
Boreal Felt Lichen (Atlantic population)	No	Both the number of occurrences and number of individuals are declining. Available habitat has declined between 1988 and 2005.
Boreal Felt Lichen (Boreal population)	Mixed evidence	It is not clear whether observed increases at some sites offset the declines observed at other sites.
Bridle Shiner	Insufficient data to determine trends	Population sizes have not been estimated in Canada.
Buffalograss	Insufficient data to determine trends	Population trends in Canada are unknown.
Coastrange Sculpin (Cultus population) (also Cultus Pygmy Sculpin)	No	The species appears to have declined in abundance.
Columbian Carpet Moss	Insufficient data to determine trends	Detailed population data do not exist.
Common Hoptree	Mixed evidence	Some subpopulations were extirpated, some have increased, and previously undocumented sites were recorded.

Common name	Trends consistent with objectives?	Relevant statements from the recovery documents
Copper Redhorse	No	No increase in population abundance and one location has been extirpated.
Cucumber Tree	Yes	Ontario populations appear to be at a steady state. Large trees have increased in number.
Dakota Skipper	No	Population has declined.
Deltoid Balsamroot	No	There is a sharp decline in the total Canadian population.
Eastern Mountain Avens	Mixed evidence	Overall, one population has declined, the other appears stable.
Eastern Ribbonsnake (Atlantic population)	Insufficient data to determine trends	Long-term population trends of the Eastern Ribbonsnake could not be established. There is limited evidence that some populations may be declining in parts of Nova Scotia.
Eastern Yellow-bellied Racer	No	Within the past 10 years, the population has been declining.
Enos Lake Benthic Threespine Stickleback	No	It is unlikely that genetically pure benthics remain in Enos Lake and no captive populations have been established.
Enos Lake Limnetic Threespine Stickleback	No	It is unlikely that genetically pure limnetics remain in Enos Lake and a captive population appears to be different.
Ermine, haidarum subspecies (Haida ermine)	No	A historical population decline since the 1950s is inferred and habitat is declining.
Fernald's Braya	No	Population size is declining.
Flooded Jellyskin	No	A continuing decline in number of populations has been observed and a continuing decline in number of locations has been inferred.
Frosted Glass-whiskers (Atlantic population)	Yes	Known occurrences have been maintained.
Furbish's Lousewort	No	Populations continue to decline at existing sites.

Common name	Trends consistent with objectives?	Relevant statements from the recovery documents
Golden Paintbrush	No	Decline in population size is inconsistent with goal of attaining self-sustaining populations at existing sites. No new populations have been established.
Goldencrest	No	Population size is declining slowly.
Grass Pickerel	No	There is a decline in abundance of three sub-populations and the range has also decreased.
Greater Sage-Grouse urophasianus subspecies	No	Population and number of occupied leks are in decline.
Haller's Apple Moss	Yes	Currently, nine populations appear to be stable; trends for the five most recently discovered populations are unknown.
Harbour Porpoise (Pacific Ocean population)	Insufficient data to determine trends	Population trends are unknown.
Harlequin Duck (Eastern population)	Yes	Population size is increasing, and appears to have met the population levels outlined in the goals.
Henslow's Sparrow	Insufficient data to determine trends	Data are too few to determine recent trends.
Hoary Mountain-mint	Insufficient data to determine trends	Population sizes are not sufficiently well documented to indicate trends.
Hooded Warbler	Yes	Increasing population has reached recovery goals.
Hotwater Physa	Yes	Although populations fluctuate widely, there appears to be no change to abundance or distribution.
Island Marble	No	Available evidence suggests the Island Marble is extirpated in Canada.
Kidneyshell	Mixed evidence	Although populations in the Sydenham River appear stable, populations continue to decline in Lake St. Clair and Ausable River.

Common name	Trends consistent with objectives?	Relevant statements from the recovery documents
Killer Whale (Northeast Pacific Northern Resident population)	Yes	Population trend is increasing or stable.
Killer Whale (Northeast Pacific Southern Resident population)	No	The population is small and has been declining slightly since the mid-1990s.
Killer Whale (Northeast Pacific Transient population)	Yes	The population has been increasing.
Leatherback Sea Turtle (Atlantic population)	Yes	The population appears to be stable or slightly increasing.
Leatherback Sea Turtle (Pacific population)	No	Nesting colonies in the Pacific are in a steep and continuing decline.
Louisiana Waterthrush	Mixed evidence	Declines have been noted in some parts of the Canadian range, while new pairs have been found in other parts.
McCown's Longspur	No	There has been a continuing decline in number of individuals.
Mountain Plover	Insufficient data to determine trends	Long term trends cannot be established with existing data.
North Atlantic Right Whale	Yes	The North Atlantic Right Whale population increased by about 50% between 1990 and 2010.
North Pacific Right Whale	Insufficient data to determine trends	Population trends are unknown.
Northern Abalone	No	There has been no evidence of population recovery since the fishery closed in 1990.
Northern Bottlenose Whale (Scotian Shelf population)	Yes	The population appears to be stable and there has been no decline in the area of occupancy.

Common name	Trends consistent with objectives?	Relevant statements from the recovery documents
Northern Riffleshell	Yes	The trends are consistent with early recovery: the Northern Riffleshell is found in the Sydenham and Ausable rivers, and recruitment is occurring at several sites in the Sydenham River.
Northern Wolffish	Yes	There have been early signs of recovery in distribution and abundance.
Olympia Oyster	Yes	Although quantitative estimates on population sizes are not available, the Olympia Oyster appears to be stable in recent decades.
Pacific Water Shrew	Insufficient data to determine trends	Population estimates and trends are not available.
Paxton Lake Benthic Threespine Stickleback	Yes	Benthics appear to be stable and locally abundant in Paxton Lake.
Paxton Lake Limnetic Threespine Stickleback	Yes	Limnetics appear to be stable and locally abundant in Paxton Lake.
Pink Coreopsis	Yes	The Canadian population is relatively stable; estimates have increased due to increased survey effort.
Piping Plover circumcinctus subspecies	No	Population is about 2/3 of population goal and appears to be declining.
Piping Plover melodus subspecies	No	Population is less than the short-term population goal and declining.
Plymouth Gentian	Mixed Evidence	Relative stability is consistent with maintenance of populations, yet a minor decline may have occurred.
Poor Pocket Moss	Mixed Evidence	Individual moss plants are difficult to identify. Poor Pocket Moss now occupies more patches but the original patch is smaller than previously.
Poweshiek Skipperling	Mixed evidence	Population decline is uncertain, area of occupancy is stable.

Common name	Trends consistent with objectives?	Relevant statements from the recovery documents
Prairie Lupine	Yes	No evidence of total population decline has been observed, and one additional population was discovered.
Pugnose Minnow	No	Population sizes are unknown in Canada. There is evidence of continuing decline in extent of occurrence and the quality of habitat.
Pugnose Shiner	Insufficient data to determine trends	Population trends are not available.
Rayed Bean	Yes	The population in the Sydenham River appears to have increased.
Red Crossbill percna subspecies	No	Populations are declining and habitat loss is expected.
Red Mulberry	No	Population size and distribution are declining.
Roseate Tern	No	Population of 100 pairs is below population goal with no increasing trend.
Round Hickorynut	No	Round Hickorynut declined between 2003 and 2013; extent of occurrence has declined since 2001.
Round Pigtoe	No	There has been a decline in the area, extent and quality of habitat and an apparent decease in the number of live individuals.
Salamander Mussel (also Mudpuppy Mussel)	No	Habitat quality continues to decline and the species is currently found in only one river.
Sand-verbena Moth	Insufficient data to determine trends	Population numbers are not well-enough known to assess change in the number.
Savannah Sparrow princeps subspecies	Yes	Stable population is consistent with recovery goals.
Seaside Birds-foot Lotus	Mixed Evidence	Seaside Birds-foot Lotus populations appear to be self-sustaining. No new populations have been established.

Common name	Trends consistent with objectives?	Relevant statements from the recovery documents
Sei Whale (Pacific population)	Insufficient data to determine trends	The population is likely well below 250 mature individuals; additional information is required to determine if any recovery progress has been made.
Short-tailed Albatross	Yes	Population size continues to increase.
Silver Chub	No	Population has declined substantially.
Small Whorled Pogonia	No	No new sighting of this species in Canada has been recorded. Species habitat is declining in quality.
Snuffbox	Yes	Populations in the Sydenham and Ausable rivers appear to be viable as reproduction is occurring at both. The extent of occupancy in these rivers has remained stable.
Soapweed	Yes	No decline or fluctuation in population has been documented. Fruiting success has increased at one site.
Spotted Gar	Insufficient data to determine trends	Population trends are unknown.
Spotted Owl caurina subspecies	No	Population continues to decline; extirpation appears likely.
Spotted Sucker	No	Observed a decline in the number of sub-populations and a continuing decline in quality and quantity of habitat.
Spotted Wolffish	Yes	There have been signs of increases in abundance and area of occupancy.
Sprague's Pipit	Yes	The long-term decline of Sprague's Pipit appears to have stopped, although no significant recovery has yet occurred.
Steller Sea Lion	Yes	Steller Sea Lion populations have been increasing since the 1970s, and there has been an increase in number of breeding sites.
Striped Bass (St. Lawrence Estuary population)	Yes	Reintroduction efforts have resulted in natural spawning and an increase in distribution.

Common name	Trends consistent with objectives?	Relevant statements from the recovery documents
Sweet Pepperbush	Yes	Population appears to be stable or declining slightly.
Swift Fox	Yes	The Canadian population increased.
Taylor's Checkerspot	No	Taylor's Checkerspot currently occurs at only one location; population size trends are unknown, but geographic range is not increasing.
Tiny Cryptantha	Insufficient data to determine trends	Currently not possible to determine population trends for this species.
Twisted Oak Moss	Insufficient data to determine trends	Trends cannot be determined.
Vananda Creek Benthic Threespine Stickleback	Yes	Benthics appear to be stable in Vananda Creek.
Vananda Creek Limnetic Threespine Stickleback	Yes	Limnetics appear to be stable in Vananda Creek.
Vancouver Lamprey	Insufficient data to determine trends	Population trends are unknown.
Warmouth	No	Observed decline in the quality and quantity of habitat.
Water-pennywort	Yes	Populations are stable.
Water-plantain Buttercup	Mixed Evidence	Fluctuations in population size are likely the result of variable environmental conditions and no clear trend exists. However, no new sites have been established.
Wavy-rayed Lampmussel	Yes	Population sizes are increasing and the area of occupancy is expanding.
Western Brook Lamprey (Morrison Creek population)	Insufficient data to determine trends	Population trends are unknown.

Common name	Trends consistent with objectives?	Relevant statements from the recovery documents
Western Silvery Minnow	Yes	The species appears to be stable.
White Flower Moth	No	Population declines are expected.
White-top Aster	No	Populations of White-top Aster are stable or declining.
Whooping Crane	Yes	Increasing population is consistent with recovery goals.
Woodland Caribou (Atlantic-Gaspésie population)	No	Population size and distribution are declining.
Woodland Caribou (Boreal population)	No	Most local populations are declining.
Woodland Caribou (Northern Mountain population)	Mixed evidence	Northern herds are stable or increasing, while southern herds are declining. Survey data are dated and incomplete.
Wood-poppy	Yes	Recent stable population trend is consistent with recovery objective to stabilize or increase population sizes of mature plants at all known sites.
Yellow Lampmussel	Yes	There is no information on population trends, but habitat conditions appear stable.
Yellow Montane Violet praemorsa subspecies	No	An overall trend cannot be determined due to fluctuations in population sizes. However, no new sites have been established and habitat quality is declining.
Yellow-breasted Chat virens subspecies	No	Population size is declining.
Yucca Moth	Yes	Successful larval emergence in 2011 confirmed the presence of Yucca moth.

Note: Categories are assigned based on the most recent available information, accounting as much as possible for the amount of time that has been available for recovery. Mixed evidence means that there is a mix of consistent and inconsistent population trends.
Source: Fisheries and Oceans Canada, Environment and Climate Change Canada, Parks Canada, and Committee on the Status of Endangered Wildlife in Canada Secretariat (2016).

Annex B. References and additional information

References and further reading

Environment and Climate Change Canada (2016) Habitat Stewardship Program for Species at Risk. Retrieved on July 29, 2016.

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Related information

Changes in Wildlife Species Disappearance Risks

Environment and Climate Change Canada – Species at Risk

Global Trends in Bird Species Survival

www.ec.gc.ca

Additional information can be obtained at:

Environment and Climate Change Canada
Public Inquiries Centre
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