COSEWIC Wildlife Species Assessments (detailed version), May 2022*

Results are grouped by taxon and then by status category. The range of occurrence in Canada (by province, territory or ocean) and history of status designation are provided for each wildlife species.

Mammals

Grey Whale ***Eschrichtius robustus*** **Extinct**

Atlantic population

Assessment Criteria not applicable

Reason for Designation

This baleen whale once occurred in the North Atlantic Ocean but disappeared before the end of the 1700s, presumably as a result of whaling activities. Little is known about this whale's historical abundance, biology, distribution, and habitat use in the North Atlantic. Although the situation for this whale has not changed since earlier assessments, COSEWIC now recognizes that a designatable unit which no longer exists either inside or outside Canada should be considered Extinct rather than Extirpated.

Range Atlantic Ocean

Status History

Extirpated before the end of the 1700s. Designated Extirpated in April 1987. Status re-examined and confirmed in May 2000 and November 2009. Status re-examined and designated Extinct in May 2022.

American Marten ***Martes americana atrata*** **Special Concern**

Newfoundland population

Assessment Criteria not applicable

Reason for Designation

This species is a geographically isolated, and genetically and ecologically distinct population. This is one of only 14 mammal species endemic to the island of Newfoundland. The population decline began in the early 20th century and was largely the result of direct and incidental harvest. Current data and a recent population estimate suggest that distribution and abundance have increased since the last COSEWIC assessment in 2007. These increases are likely the result of underestimates of the number of marten, a reduction in harvest mortality, and more favourable ecological conditions for the species. The population no longer meets the criteria for Threatened, and is assessed as Special Concern as it would likely become Threatened if not managed effectively.

Range NL

Status History

Designated Not at Risk in April 1979. Status re-examined and designated Threatened in April 1986. Status re-examined and designated Endangered in April 1996 and in May 2000. Status re-examined and designated Threatened in April 2007. Status re-examined and designated Special Concern in May 2022.

Harbour Porpoise ***Phocoena phocoena*** **Special Concern**

Northwest Atlantic population

Assessment Criteria not applicable

Reason for Designation

This species is widely distributed in eastern Canadian marine waters. Surveys in 2016 indicated about 350,000 porpoises. Incidental catch (bycatch) in fishing gear, especially gillnets, was a major source of mortality, and considerably reduced some populations in eastern Canada and elsewhere. While gillnet fishing has likely declined over the last 25 years, mortality levels in Canada are unknown because there is virtually no monitoring. The species is very sensitive to ocean noise and noise levels are increasing in some areas. Although the population remains abundant, the species' particular susceptibility to bycatch in fishing gear represents a potentially severe threat. The species may become Threatened if these threats are not effectively mitigated or managed.

Range NU QC NB PE NS NL Atlantic Ocean

Status History
The Northwest Atlantic population was designated Threatened in April 1990 and in April 1991. Status re-examined and designated Special Concern in May 2003, April 2006, and May 2022.

Sea Otter ***Enhydra lutris*** **Special Concern**

Assessment Criteria not applicable

Reason for Designation
This marine mammal was extirpated from British Columbia in the Pacific maritime fur trade by the early 1900s. It was reintroduced to British Columbia during 1969 to 1972. The population has since grown to about 4000 mature individuals, which is 15% of the estimated historical number. The species occupies 33-50% of its historical range in British Columbia but is not yet clearly secure in Canada. It is particularly susceptible to the effects of its main threat, oil contamination, because it depends on its fur for insulation and segregates by sex in large groups. There are several potential sources of oil but the greatest risk is from shipping, which is expected to continue to increase into the foreseeable future. A major oil spill could affect very large portions of the current range, making the species especially vulnerable. Other threats include contaminants, entanglement in fishing gear, persecution, climate change, and strikes from vessels. Pathogens and human disturbance may also pose a risk. Thus, the species may become Threatened if these threats are not effectively mitigated or managed.

Range BC Pacific Ocean

Status History
Designated Endangered in April 1978. Status re-examined and confirmed Endangered in April 1986. Status re-examined and designated Threatened in April 1996 and in May 2000. Status re-examined and designated Special Concern in April 2007. Status re-examined and confirmed in May 2022.

Birds

Bobolink ***Dolichonyx oryzivorus*** **Special Concern**

Assessment Criteria not applicable

Reason for Designation
This grassland songbird undertakes an annual round-trip migration of approximately 20,000 km between its breeding grounds in southern Canada and wintering range in central South America. Over 25% of the global population breeds in Canada, mostly from Saskatchewan to Quebec. Population size decreased sharply throughout the 1980s and 1990s, and has since continued to decline, but at a slower rate. Based on improved analytical techniques, the ten-year decline reported in the 2010 status report is now believed to have been -26%, similar to the -25% change between 2009 and 2019. Key threats to the species occur throughout its life cycle, including incidental mortality and nest failure from haying and other agricultural activities, habitat loss and fragmentation and pesticide exposure in all seasons, and persecution at wintering feeding and roosting sites. If these threats are not managed effectively, the species may become Threatened.

Range BC AB SK MB ON QC NB PE NS NL

Status History
Designated Threatened in April 2010. Status re-examined and designated Special Concern in May 2022.

Fishes

Eastern Sand Darter ***Ammocrypta pellucida*** **Threatened**

West Lake population

Assessment Criteria Meets criteria for Endangered, B1ab(iii,v)+2ab(iii,v), but designated Threatened, B1ab(iii,v)+2ab(iii,v), as the magnitude of threats does not suggest that the species is at imminent risk of extinction.

Reason for Designation
This small fish was first discovered in West Lake in 2013. It prefers the sandy bottom areas of West Lake into which it burrows. This specific habitat preference makes it extremely susceptible to habitat changes. It is also negatively impacted by invasive species, such as Round Goby, which has invaded its preferred habitat. Actions to reduce the threats of habitat changes and the invasive goby are needed to prevent the risk of becoming Endangered.

Range ON

Status History
The species was considered a single unit and designated Threatened in April 1994 and November 2000. When the species was split into separate units in November 2009, the "Ontario populations" unit was designated Threatened. Population name changed to Ontario population in May 2022, and was further split into two populations (West Lake population and Southwestern Ontario population). The West Lake population was designated Threatened.

Eastern Sand Darter ***Ammocrypta pellucida*** **Threatened**

Southwestern Ontario population

Assessment Criteria B1ab(ii,iii,v)+2ab(ii,iii,v)

Reason for Designation
This small fish prefers the sand bottom areas of lakes and streams into which it burrows. This specific habitat preference makes it extremely susceptible to habitat changes caused by agricultural impacts. It is also negatively impacted by invasive species, such as Round Goby, which have invaded its preferred habitat. As a result, there is a continuing decline in habitat quality and quantity. As a result, fish numbers are declining, and three historical populations have been lost.

Range ON

Status History
The species was considered a single unit and designated Threatened in April 1994 and November 2000. When the species was split into separate units in November 2009, the "Ontario populations" unit was designated Threatened. Population name changed to Ontario population in May 2022, and was further split into two populations (West Lake population and Southwestern Ontario population). The Southwestern Ontario population was designated Threatened.

Brassy Minnow ***Hybognathus hankinsoni*** **Special Concern**

Pacific population

Assessment Criteria not applicable

Reason for Designation
This small, primarily herbivorous minnow inhabits headwater lakes and slow-moving streams with low fish diversity. It has a disjunct distribution within Canada in two discrete regions of southwestern and central British Columbia, within the Pacific watershed. Its abundance and population trends are unknown. This population may become Threatened if factors suspected of negatively influencing its persistence are not reversed or effectively managed, especially in the southern portion of its range. There it faces numerous cumulative threats, including predation by invasive species, habitat modifications due to agriculture/ranching, roads and logging, and pollution.

Range BC

Status History
Designated Special Concern in May 2022.

Brassy Minnow ***Hybognathus hankinsoni*** **Special Concern**

Western Arctic population

Assessment Criteria not applicable

Reason for Designation
This small, primarily herbivorous minnow inhabits headwater lakes and slow-moving streams with low fish diversity. This population is endemic to Canada, occurring only in central British Columbia and central Alberta within watersheds that flow north to the western Arctic Ocean. Although this fish is still abundant at Musreau Lake, Alberta, its population trends are unknown, and its overall distribution may be shrinking. Substantial cumulative threats to its persistence include predation by invasive species, habitat deterioration due to industrial development, and droughts caused by climate change. This population may become Threatened if these factors are not reversed or effectively managed.

Range BC AB

Status History
Designated Special Concern in May 2022.

Brassy Minnow ***Hybognathus hankinsoni*** **Special Concern**

Missouri population

Assessment Criteria not applicable

Reason for Designation

This small, primarily herbivorous minnow inhabits headwater lakes and slow-moving streams with low fish diversity. This population occurs in Canada only in extreme southeastern Alberta and southwestern Saskatchewan, in the Missouri Watershed. Its overall abundance and population trends are unknown. Substantial cumulative threats to its persistence include loss of available habitat resulting from the interaction between water management practices and climate change-related droughts, as well as predation by invasive species. This population may become Threatened if these factors are not reversed or effectively managed.

Range AB SK

Status History

Designated Special Concern in May 2022.

Eastern Sand Darter ***Ammocrypta pellucida*** **Special Concern**

Quebec population

Assessment Criteria not applicable

Reason for Designation

This small fish prefers the sandy bottom areas of lakes and streams into which it burrows. This specific habitat preference make it extremely susceptible to habitat changes related to human impacts. It is also negatively impacted by invasive species, such as Round Goby, which have invaded its preferred habitat. As a result, there is a continuing decline in habitat quality and quantity and, hence, abundance. The species no longer meets the current definition of severely fragmented and, therefore, the status has changed since the last assessment. The species may become Threatened if threats to the species are neither reversed nor managed effectively.

Range QC

Status History

The species was considered a single unit and designated Threatened in April 1994 and November 2000. When the species was split into separate units in November 2009, the "Quebec populations" unit was designated Threatened. Population name changed to Quebec population in May 2022. Status re-examined and designated Special Concern in May 2022.

Arthropods

Vancouver Island Shieldback ***Steiroxys strepens*** **Endangered**

Assessment Criteria B1ab(iii,v)+2ab(iii,v)

Reason for Designation

This flightless shieldback katydid has an extremely limited distribution on southern Vancouver Island with fewer than 10 observations between 1990 and 2011. The only recent records are from a small urban park, Mount Tolmie, in Greater Victoria. The population inhabits Garry Oak ecosystems which have experienced historical and widespread habitat loss. The impacts from increased predation by invasive European Wall Lizards, and decline in habitat quality in an urban park threaten the existence of this shieldback in Canada.

Range BC

Status History

Designated Endangered in May 2022.

Dusky Dune Moth ***Copablepharon longipenne*** **Threatened**

Assessment Criteria Plausible range of status is Endangered, B2ab(iii), to Special Concern (b), depending on uncertainty of meeting criteria for severe fragmentation. Therefore the designated status is Threatened, B2ab(iii), given the two non-consecutive status categories.

Reason for Designation

This moth is restricted to a handful of open, active sand dunes and blowouts on the Prairies. Beginning in the 1940s, these dunes have slowly become more stabilized and vegetated, and the area of open sand of many dunes has declined

by an estimated 10-40% per decade. The decline in dune area has reduced the moth's habitat and has resulted in a more fragmented landscape. Although the moth can be common where it is found, it occurs in only a small proportion of the apparently suitable sites and has disappeared from a few historical localities. Dispersal between most dune systems is extremely unlikely and the moth is likely not viable at several sites, and viability is uncertain at others but there are continuing declines in quality and quantity of habitat.

Range AB SK MB

Status History
Designated Endangered in November 2007. Status re-examined and designated Threatened in May 2022.

Northern Oak Hairstreak ***Satyrium favonius ontario*** **Threatened**

Assessment Criteria B1ab(iii)+2ab(iii)

Reason for Designation
This species is a closed canopy (>60% cover) oak woodland specialist. Only a few, isolated subpopulations remain within a small range of southwestern Ontario although there are likely a few undocumented occurrences for this difficult-to-survey species. Within this range, the habitat that this species is dependent on is also declining in extent and quality. The primary threat is the application of broad-spectrum lepidopteran insecticides to control outbreaks of the non-native moth species, and other ecosystem changes which impact this species directly and further reduce habitat quality.

Range ON

Status History
Designated Threatened in May 2022.

Johnson's Hairstreak ***Callophrys johnsoni*** **Special Concern**

Assessment Criteria not applicable

Reason for Designation
This butterfly is found in Canada only in southern British Columbia from Vancouver Island east to Hope. It lives in coastal old growth and late successional second growth coniferous forests with a large component of Western Hemlock. Caterpillars feed only on flowers of Hemlock Dwarf Mistletoe, a hemiparasite of Western Hemlock. Hemlock Dwarf Mistletoe reduces economic value of trees and therefore forest management practices that remove Western Hemlock to reduce mistletoe in older forests are an ongoing threat. This species could become Threatened if threats influencing its persistence are not managed.

Range BC

Status History
Designated Special Concern in May 2022.

Dukes' Skipper ***Euphyes dukesi*** **Special Concern**

Assessment Criteria not applicable

Reason for Designation
This wetland specialist butterfly is found in open hardwood swamps and clearings of extreme southwestern Ontario. The species has a restricted range within the counties of Essex, Chatham-Kent, and Lambton, with only 12 known extant subpopulations. Its historical habitat has changed since European settlement, which has led to geographical isolation of suitable wetland patches. Larvae feed on native sedges that are displaced when the invasive European Reed encroaches into the butterfly's wetland habitat. This invasive plant is present at seven of the 12 extant subpopulations and has increased its range in southern Ontario by almost 30% between 2010 and 2017. The spread invasive plants could lead to extirpation at some sites in the future.

Range ON

Status History
Designated Special Concern in May 2022.

Skillet Clubtail ***Gomphurus ventricosus*** **Special Concern**

Assessment Criteria not applicable

Reason for Designation
This dragonfly of eastern North America is rarely observed and only in small numbers at known sites. Larvae live in small to large rivers. It is thought that adults spend much of their time away from the river, foraging, and only return to breed - thus are seldom seen. Increased survey effort and reporting have resulted in the documentation of 10 new subpopulations since the first assessment in 2010, distributed across a much broader area, and there are now 13 known subpopulations. The species is exposed to urban and rural development, the cumulative effects of aquatic pollution to larvae, roadkill, boat wakes, and invasive aquatic species. Failure to mitigate these threats could result in the species becoming Threatened.

Range ON QC NB NS

Status History
Designated Endangered in November 2010. Status re-examined and designated Special Concern in May 2022.

Molluscs

Threaded Vertigo ***Vertigo rowellii*** **Special Concern**

Assessment Criteria not applicable

Reason for Designation
In Canada, this minute terrestrial snail is at the northern edge of its global range. The species is found in lowland areas around the Strait of Georgia and on southern Vancouver Island on the bark of Bigleaf Maple. The species is presumed to have poor dispersal abilities between trees and sites. Increases in the number of occupied sites and locations since the last assessment are due to increased search effort. Nonetheless, the index of area of occupancy remains below the threshold for Endangered and the extent of occurrence remains below the threshold for Threatened. The primary threats are loss of habitat and habitat degradation due to housing and urban development, logging, and roads and associated infrastructure. The species' limited distribution and ongoing threats support maintaining a status of Special Concern.

Range BC

Status History
Designated Special Concern in April 2010. Status re-examined and confirmed in May 2022.

Vascular Plants

Meadow Thistle ***Cirsium scariosum*** **Endangered**

Rocky Mountain population

Assessment Criteria A2bce+3bce+4bce; B1ab(i,ii,iii,iv,v)+2ab(i,ii,iii,iv,v)

Reason for Designation
This perennial herb occurs in grassy montane to subalpine meadows and forest openings in the mountains of southeastern British Columbia and southwestern Alberta. Plants flower and produce seed only once, after 2 to 9 years, and then die. Most plants do not survive to the flowering stage due to herbivory from small mammals and drought. Those plants that do flower are threatened by the non-native Thistle Head Weevil, resulting in little, if any, seed production and a precipitous continuing decline in thistle numbers since 2002. Other threats include mortality related to an increase in wildfire due to climate change, grazing by domestic livestock, and herbicide control programs that target exotic invasive thistle species.

Range BC AB

Status History
Designated Endangered in May 2022.

Meadow Thistle ***Cirsium scariosum*** **Endangered**

Mingan population

Assessment Criteria B1ab(i,ii,iii,iv,v)+2ab(i,ii,iii,iv,v); C1+2a(ii)

Reason for Designation
This perennial herb is restricted to upper portions of beaches on four islands of the Mingan archipelago in the Gulf of St. Lawrence. The population has a very limited distribution and few individuals – in 2018 it consisted of only 367 mature

plants. The population is expected to continue to decline as a result of continuing threats, primarily an increase in storms due to climate change, which cause beach erosion as well as the deposition of sediment and woody debris. Given the small, coastal areas over which the population is found, a single storm can severely impact entire sites. Other threats related to climate change include rising sea level, reduced winter sea ice and snow cover, drought, and tree encroachment.

Range QC

Status History
Designated Endangered in May 2022.

Pumpkin Ash ***Fraxinus profunda*** **Endangered**

Assessment Criteria A2abcde+3bcde+4abcde; B2ab(i,ii,iii,iv,v); C1+2a(i); D1

Reason for Designation
This rare tree occurs in forested wetlands in the Carolinian Zone of southern Ontario, where it is estimated the number of mature individuals has recently declined by over 90% due to impacts of invasive Emerald Ash Borer. Only two mature individuals are known and fewer than ten are expected to remain in Canada, and these potentially face additional threats from logging and land conversion. Over 400 known seedlings and saplings are also at continued risk from Emerald Ash Borer.

Range ON

Status History
Designated Endangered in May 2022.

Dense Draba ***Draba pycnosperma*** **Special Concern**

Assessment Criteria not applicable

Reason for Designation
This small plant occurs on rock outcrops, cliffs, and talus slopes within 2.5 km of the coast along the Gaspe Peninsula and Strait of Belle Isle (Quebec, Newfoundland & Labrador), and is found nowhere else in the world. Fewer than 3000 plants are currently known, occupying a small portion of seemingly abundant suitable habitat. Invasive introduced plant species are degrading the draba's habitat. As most plant colonies consist of only a few individuals and are associated with steep, dynamic substrates, they may be vulnerable to stochastic events such as rockslides. This subspecies is near to qualifying for Threatened status, and failure to effectively mitigate the threats could result in the species becoming Threatened.

Range QC NL

Status History
Designated Special Concern in May 2022.

Eastern False Rue-anemone ***Enemion biternatum*** **Special Concern**

Assessment Criteria not applicable

Reason for Designation
This perennial forest herb is at the northern edge of its range and in Canada is restricted to a few fragmented riverside sites in southwestern Ontario. It occurs in six subpopulations that are at risk of decline in area and quality of habitat resulting from various activities, including recreational trail use and expansion of exotic invasive plants. Since the previous assessment, COSEWIC has changed its interpretation and application of the terms 'severe fragmentation' and 'area of occupancy' to better align with IUCN assessment criteria and the species exceeds criteria thresholds as now applied.

Range ON

Status History
Designated Special Concern in April 1990. Status re-examined and designated Threatened in May 2005. Status re-examined and designated Special Concern in May 2022.

Victorin's Gentian ***Gentianopsis virgata* ssp. *victorinii*** **Special Concern**

Assessment Criteria not applicable

Reason for Designation
This short-lived annual or biennial plant is endemic to Canada, and occurs in highly-restricted tidal freshwater or brackish shoreline habitats of the St. Lawrence River estuary in Quebec. About 30,000 mature plants are presently known from 35 small localized coastal sites. It is at risk from a wide range of threats, including habitat damage and loss through competition with invasive plant species, erosion and inundation from the effects of climate change, disruption by all-terrain vehicles, and potentially from oil spills. Change of status from Threatened in the previous assessment largely reflects a change in the definition of some assessment criteria. This subspecies is near to qualifying for Threatened status, and failure to effectively mitigate these threats could result in the species becoming Threatened.

Range QC

Status History
Designated Special Concern in April 1987. Status re-examined and designated Threatened in May 2004. Status re-examined and designated Special Concern in May 2022.

Victorin's Water-hemlock ***Cicuta maculata* var. *victorinii*** **Special Concern**

Assessment Criteria not applicable

Reason for Designation
This geographically highly-restricted perennial herbaceous plant is endemic to Canada and occurs only in tidal freshwater or brackish shoreline habitats of the St. Lawrence River estuary in Quebec. Over 16,000 mature plants are presently known from 54 small localized subpopulations. It is at risk from a range of threats, including competition with invasive plants, habitat destruction by off-road vehicles and other recreational activities, and habitat loss from erosion and inundation that result from the effects of climate change. This taxon is near to qualifying for Threatened status, and failure to effectively mitigate these threats could result in it becoming Threatened.

Range QC

Status History
Designated Special Concern in April 1987. Status re-examined and confirmed in May 2004 and May 2022.

Lichens

Seaside Bone Lichen ***Hypogymnia heterophylla*** **Not at Risk**

Assessment Criteria not applicable

Reason for Designation
This leafy lichen is endemic to western North America, and in Canada was once thought to occur only on the southern tip of Vancouver Island. Two additional subpopulations have since been found, one farther north on Vancouver Island and the other on Haida Gwaii, significantly expanding its previously-known range and ecological amplitude. Surveys since the last assessment have revealed that there are between 600,000 and 3,000,000 thalli, a 30-fold increase in the known population. In view of this new information, this lichen is assessed as “Not at Risk”. Threats include fires, housing developments, human intrusion, and pollution, but the overall impact is considered to be low. The effects of storms and summer droughts on this species could not be quantified but are unlikely to have a significant near-term impact on the very large population.

Range BC

Status History
Designated Special Concern in April 1996. Status re-examined and designated Threatened in April 2008. Status re-examined and designated Not at Risk in May 2022.

*The reports on Plains and Cordilleran Suckers (*Pantosteus jordani* and *Pantosteus bondi*) and Great Blue Heron *fannini* subspecies (*Ardea herodias fannini)* were withdrawn to allow further consideration of the Designatable Unit structure.