

COSEWIC Wildlife Species Assessments (detailed version), May 2021

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

Swift Fox

Vulpes velox

Threatened

Assessment Criteria D1

Reason for Designation

This small prairie canid was extirpated from Canada in the 1930s. Following reintroduction programs initiated in 1983, it has re-established in southern Alberta and Saskatchewan as well as in Northern Montana. Regular monitoring suggests that the population reached a peak in 2005 but had subsequently declined when surveyed again in 2014/15. The reason for the decline is unknown but suspected to be related to severe winter conditions in 2010/11. Occupancy surveys in 2015 and 2018 suggest the population has remained stable since 2010/11. The species persists at very low numbers. Threats include accidental or intentional poisoning, disease, habitat loss, habitat fragmentation, and severe winters.

Range AB SK

Status History

Last seen in Saskatchewan in 1928. Designated Extirpated in April 1978. Status re-examined and designated Endangered in April 1998 after successful re-introductions. Status re-examined and confirmed in May 2000. Status re-examined and designated Threatened in November 2009. Status re-examined and confirmed in May 2021.

Birds

Ross's Gull

Rhodostethia rosea

Endangered

Assessment Criteria B1ab(i,ii,iii,iv,v)+2ab(i,ii,iii,iv,v); C2a(i,ii); D1

Reason for Designation

This small little-known gull nests at 1-3 known colonies in the Canadian High Arctic and likely winters in the Labrador Sea. Fewer than 20 mature individuals are known to breed in Canada, although roughly similar numbers may occur undetected. Large numbers of fall migrants seen annually off northern Alaska likely come from a separate large population in eastern Russia. This species has low productivity in Canada, with frequent breeding deferral, nest abandonment, and no chicks fledged over a period of 14 years at the only known active Canadian colony. These factors contribute to inferred continuing population decline. The abandonment of Low Arctic nesting sites since the last assessment has reduced its range and number of locations in Canada, and its breeding range is now limited to the High Arctic. Major threats impeding reproductive success include the killing of chicks by Arctic Terns at colonies, and contamination from airborne toxic chemicals. Effects of ongoing climatic changes on food availability, reproductive success and adult survival are largely unknown.

Range NU MB NL Arctic Ocean Atlantic Ocean

Status History

Designated Special Concern in April 1981. Status re-examined and confirmed in April 1996. Status re-examined and designated Threatened in November 2001 and in April 2007. Status re-examined and designated Endangered in May 2021.

Short-eared Owl

Asio flammeus

Threatened

Assessment Criteria A2bc+4bc

Reason for Designation

The Canadian population of this widespread nomadic owl breeds in open grassland, tundra, and wetland habitats in all provinces and territories, and winters in southern Canada and the United States. The use of new atlas-based population estimation procedures suggests that the size of the Canadian population is about 31,000 mature individuals, roughly 10% of previous estimates. Its numbers vary over space and time in response to cycles in the availability of small mammals—its main prey. This adds uncertainty to estimates of the rate of decline in the Canadian population. Data from both the Breeding Bird Survey and Christmas Bird Counts indicate a decline of more than 30% over the past three generations.

The Canadian population is projected to continue to decline because of future threats, including reduced availability of nesting and wintering habitat resulting from crop conversion, agricultural intensification, urbanization, and invasive plants. In low Arctic habitats, increased growth of shrubs as a result of climate warming (shrubification) will further reduce prey availability and increase predation risk.

Range YT NT NU BC AB SK MB ON QC NB PE NS NL

Status History

Designated Special Concern in April 1994 and April 2008. Status re-examined and designated Threatened in May 2021.

Band-tailed Pigeon

Patagioenas fasciata

Special Concern

Assessment Criteria not applicable

Reason for Designation

This large, fruit-eating pigeon breeds in woodlands of western North and Central America, but in Canada nests only in southwestern British Columbia. Forest harvesting and encroaching urbanization have reduced the quality and extent of its breeding habitat. Most individuals overwinter in the western United States, where they are exposed to habitat loss and hunting and are threatened by an epizootic disease caused by the parasite *Trichomonas gallinae*. This pigeon's normal one-egg clutch limits its annual reproductive output. Aggregation at communal foraging areas, and at sites where minerals are ingested to offset dietary imbalances, increases its vulnerability to disturbance and disease. The Breeding Bird Survey has documented continuing long-term population declines in Canada, with an 11.5% decline over the last three generations. However, species-specific surveys at mineral sites suggest localized declines of about 40% over three generations, and this species may become Threatened if threats related to habitat loss throughout the year, and disease on US wintering grounds, cannot be managed effectively.

Range BC

Status History

Designated Special Concern in November 2008. Status re-examined and confirmed in May 2021.

Barn Swallow

Hirundo rustica

Special Concern

Assessment Criteria not applicable

Reason for Designation

This aerial insectivore is among the world's most widespread birds, with about 6.4 million mature individuals in Canada. It experienced a substantial population decline in North America over more than two decades, beginning in the mid-to-late 1980s. However, the Canadian population has remained largely stable over the past ten years (2009-2019), with a substantial increase in Saskatchewan largely offsetting ongoing declines in several other provinces. Key threats include declining populations of insect prey, increasing frequency of severe temperature fluctuations during spring migration and the breeding season, and in some regions, loss of suitable nesting sites. Although the Canadian population remains large and overall declines have abated, the species may once again become Threatened if threats continue or worsen.

Range YT NT NU BC AB SK MB ON QC NB PE NS NL

Status History

Designated Threatened in May 2011. Status re-examined and designated Special Concern in May 2021.

Ferruginous Hawk

Buteo regalis

Special Concern

Assessment Criteria not applicable

Reason for Designation

This large hawk is the only raptor endemic to North American grasslands. Its Canadian range is largely limited to the southern Prairies of Alberta and Saskatchewan, with a few individuals in southwestern Manitoba. Overall population trends have been stable or slightly increasing over the past three generations, despite ongoing loss of nesting and foraging habitat. The revised status reflects an improvement in population trend since the previous assessment, but recognizes that the species may become Threatened again if threats such as displacement by energy production, increased competition for nesting habitat, disturbance at nest sites, and persecution of prey are not effectively managed.

Range AB SK MB

Status History

Designated Threatened in April 1980. Status re-examined and designated Special Concern in April 1995. Status re-examined and designated Threatened in April 2008. Status re-examined and designated Special Concern in May 2021.

Reptiles

Common Five-lined Skink Carolinian population

Plestiodon fasciatus

Endangered

Assessment Criteria B2ab(i,ii,iii,iv,v)

Reason for Designation

This small and secretive lizard is restricted to isolated areas on the shores of Lakes Erie, St. Clair, and Huron in Ontario. The population has experienced a long-term decline, and today exists only in nine small and widely separated subpopulations within a landscape heavily modified by urbanization and agriculture. Continuing threats include habitat loss from various sources, mortality and barriers to movement from an extensive network of roads, increased predation by raccoons and other species associated with disturbed habitats, and severe storms associated with climate change that are eroding shoreline habitats. The wildlife species' limited distribution across a low number of small isolated subpopulations and multiple continuing threats are the reasons for retaining Endangered status.

Range ON

Status History

The species was considered a single unit and designated Special Concern in April 1998. Split into two populations in April 2007. The Carolinian population was designated Endangered in April 2007. Status re-examined and confirmed in May 2021.

Eastern Hog-nosed Snake

Heterodon platirhinos

Threatened

Assessment Criteria A2cde+3cde+4cde

Reason for Designation

This large, mobile snake has a patchy distribution in southern and south-central Ontario, where it relies on habitats with sandy soils for oviposition and hibernation, and feeds mainly on toads. The population faces a suspected continuing decline in abundance, based on ongoing threats. These include road traffic mortality, road construction and expansion, urban expansion, agricultural intensification, introduced and abnormally abundant predators, and persecution. Based on recent extirpation of five subpopulations, there appear to be significant range contractions in landscapes highly modified by agriculture and urbanization in the south, as well as in more intact landscapes in the northeast, including protected areas. The magnitude of decline is uncertain because this species is more challenging to monitor than other, similarly sized snakes. However, declines are suspected to exceed 30% over the next 20 years.

Range ON

Status History

Designated Special Concern in April 1997. Status re-examined and designated Threatened in November 2001, November 2007, and May 2021.

Common Five-lined Skink Great Lakes / St. Lawrence population

Plestiodon fasciatus

Special Concern

Assessment Criteria not applicable

Reason for Designation

This small and secretive lizard occurs in the southern Canadian Shield in Ontario, from Georgian Bay to the St. Lawrence River. It is currently known from 87 subpopulations, three of which have been discovered since the previous status assessment. A declining trend is suspected but cannot be confirmed because of lack of systematic surveys at historically occupied sites. Threats include increased depredation by native and domestic animals, mortality on roads, incremental habitat loss from development, and habitat disturbance from recreation. The re-confirmed designation of Special Concern recognizes that this population may become Threatened if the threats are not effectively managed.

Range ON

Status History

The species was considered a single unit and designated Special Concern in April 1998. Split into two populations in April 2007. The Great Lakes / St. Lawrence population was designated Special Concern in April 2007. Status re-examined and confirmed in May 2021.

Amphibians

Coeur d'Alene Salamander

Plethodon idahoensis

Special Concern

Assessment Criteria not applicable

Reason for Designation

This terrestrial salamander has a restricted Canadian range in southeastern British Columbia, which represents about 40% of the species' global distribution. It is highly dependent on moist, shaded, rocky habitats, often along fast-flowing streams and seepages scattered across the otherwise dry landscape. Specialized habitat requirements and life history, including low reproductive rate, increase the salamanders' vulnerability to habitat disturbance. New information includes increased knowledge of distribution, establishment of Wildlife Habitat Areas to mitigate logging impacts, and clarification of threats. Climate change vulnerability analyses indicate that it is highly vulnerable to increased frequency and intensity of droughts. Population trends remain unknown. The species may become Threatened if threats from various sources, including road traffic, development and maintenance, are not adequately monitored and mitigated.

Range BC

Status History

Designated Special Concern in April 1998. Status re-examined and confirmed in November 2001, November 2007, and May 2021.

Fishes

Lake Chubsucker

Erimyzon sucetta

Endangered

Assessment Criteria A3bce+4bce; B2ab(ii,iii,iv,v)

Reason for Designation

This small sucker species is restricted in Canada to wetlands in southwestern Ontario. It has very specific and narrow habitat preferences, making it extremely susceptible to habitat changes driven by invasive species, climate change, and agricultural practices. These interacting threats result in increased turbidity and ongoing fragmentation and loss of habitat. In particular, it is suspected that, unless managed effectively, the invasive European Common Reed will rapidly expand and substantially reduce the species' habitat in a short period of time. Three historical subpopulations have been lost and, of the remaining 10, the relative population status is poor for nine and fair for one. If the threats to these extant subpopulations are not managed effectively, loss of individuals and subpopulations will continue.

Range ON

Status History

Designated Special Concern in April 1994. Status re-examined and designated Threatened in November 2001. Status re-examined and designated Endangered in November 2008. Status re-examined and confirmed in May 2021.

White Shark

Carcharodon carcharias

Endangered

Atlantic population

Assessment Criteria A2bd

Reason for Designation

This highly mobile species is a seasonal migrant in Atlantic Canada and considered to be part of a widespread Northwest Atlantic population. The status of the Canadian population is considered to be the same as that of the broader Northwest Atlantic population. That broader population is estimated to have declined by >70% over the past 1.5 generations (since the 1960s) because of incidental mortality from fishing. However, the population appears to have remained stable since the 1990s and is projected to remain stable or increase slightly. Although measures to improve fishing practices have been introduced, the primary threat continues to be mortality from incidental capture in fisheries. The species is still vulnerable to this threat because of its long generation time (42 years) and low reproductive rate.

Range QC NB PE NS NL Atlantic Ocean

Status History

Designated Endangered in April 2006. Status re-examined and confirmed in May 2021.

Tope *Galeorhinus galeus* **Special Concern**
Assessment Criteria not applicable

Reason for Designation

This Pacific coast shark is considered to be a single migratory population off the west coast of North America. More than 800,000 individuals, primarily large adults, were killed for their livers between 1937 and 1949. In 2012, the coastwide population was estimated at about 10% of historical abundance. Commercial fishery catch rates and research vessel surveys suggest greater abundance in Canadian waters from 2012 to 2018 compared with 2003 to 2011. The main ongoing threat is bycatch in commercial trawl and longline groundfish fisheries, which continues at low levels in Canada and the United States. Targeting and retention of this shark has been prohibited in Canada, although mortality rates upon release are unknown. Population recovery is further limited by its slow growth rate and low fecundity.

Range BC Pacific Ocean

Status History

Designated Special Concern in April 2007. Status re-examined and confirmed in May 2021.

Arthropods

Edwards' Beach Moth *Anarta edwardsii* **Endangered**

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

Reason for Designation

This handsome, grey moth lives in sparsely-vegetated coastal dunes and upper beaches at only six sites on Vancouver Island and adjacent Gulf Islands; two of these subpopulations may be extirpated. The moth's habitats are at risk from increasing vegetation encroachment (by both native and non-native plant species), recreational activities, and loss of sand as a result of increasing frequency, severity and intensity of winter storms, compounded by sea level rise.

Range BC

Status History

Designated Endangered in April 2009. Status re-examined and confirmed in May 2021.

Cobblestone Tiger Beetle *Cicindela marginipennis* **Special Concern**

Assessment Criteria not applicable

Reason for Designation

This distinctive tiger beetle has a small and scattered range within New Brunswick spread over three isolated geographic areas: the Saint John River, the Southwest Miramichi River, and the Grand Lake area. This species' habitat, which is sparsely vegetated cobble and sand beaches on lake shores and riverine islands, is highly fragmented and limited. Up to 74% of potential habitat on the Saint John River was lost with the construction of the Mactaquac Dam in the 1960s. The main threats to the habitat include shoreline modifications from cottage development and soil compaction from ongoing all-terrain vehicle (ATV) recreation within the Grand Lake area. Because the larvae live in burrows among cobblestones, beach traffic from ATVs and other vehicles can crush burrows and cause mortality to individual larvae as well as negatively impact the habitat structure. The shoreline in front of cottages is often modified by removal of vegetation and sometimes levelling, including sand deposition which smothers larval burrows. The improved status of the beetle reflects additional sites discovered, including a new watershed, since the last assessment as well as a change in the interpretation of severe fragmentation. However, the species may become Threatened if threats are not managed with demonstrable effectiveness.

Range NB

Status History

Designated Endangered in November 2008. Status re-examined and designated Special Concern in May 2021.

Grappletail *Octogomphus specularis* **Special Concern**

Assessment Criteria not applicable

Reason for Designation

This dragonfly is known from only seven fast-flowing, warm streams that drain small lowland lakes in the mountains of the lower Fraser Valley in southwestern British Columbia. Here, the species is at the northern edge of a range that extends south to Mexico. Larvae forage for three years in streams while adults forage for only a few weeks in nearby forests. There are no estimates of population trends from about 150 observations in the past 90 years. Most streams where it occurs are

in forested watersheds with few threats. However, local threats include roadkill at stream crossings and disturbance to the stream habitat by recreational vehicles.

Range BC

Status History

Designated Special Concern in May 2021.

Molluscs

Black Hills Mountainsnail

Oreohelix cooperi

Endangered

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

Reason for Designation

Globally, this small (shell width about 1 cm) land snail is confined to four mountainous “sky islands” on the Great Plains of North America. In Canada, it occurs only in the Cypress Hills of Alberta and Saskatchewan. Known from this area since 1905, albeit under a different name, this species occurs on ridges, hilltops, cliffs, and slopes at or near the sand, silt, cobbles, and conglomerates of the Cypress Hills Formation. The snails are patchily distributed within these habitats. It is absent from the gently sloping southern exposure of the Cypress Hills and seldom occurs in the valley bottoms. This slow-moving species is susceptible to catastrophic wildfire, exacerbated by a build-up of fuels from fire suppression over the past century and drought associated with climate change. Introduced species, including ground-foraging Wild Turkey and a parasite, are a growing concern.

Range AB SK

Status History

Designated Endangered in May 2021.

Atlantic Mud-piddock

Barnea truncata

Threatened

Assessment Criteria D2

Reason for Designation

In Canada, this intertidal marine bivalve species is restricted to small sections of Minas Basin in Nova Scotia. Here, the species is entirely dependent on the red-mudstone facies geological formation where it bores into the mudstone and remains as an immobile adult. Changes in sediment deposition can bury habitat, and smother and kill individuals. The main threat to the species is increased frequency and intensity of severe storms due to climate change, which can abruptly shift and redeposit sediments. Additional threats include human activities that change water current, erosion and sediment deposition patterns, pollution run-off from agricultural or urban sources, and climate-change induced sea-level rise.

Range NS Atlantic Ocean

Status History

Designated Threatened in November 2009. Status re-examined and confirmed in May 2021.

Purple Wartyback

Cyclonaias tuberculata

Threatened

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

Reason for Designation

In Canada, this long-lived, medium-sized, heavy-shelled fresh water mussel is restricted to southwestern Ontario. The species occupies small to large rivers with a range of flow conditions and favours a substrate comprised of cobble, gravel, and sand. It is believed to be extirpated from its historical distribution in the Detroit River and Lake Erie, but still persists in the Ausable, Sydenham, and Thames rivers. The habitat in which this species occurs is projected to continue to decline in quality, as a result of threats that include pollution (agricultural and urban run-off), climate change (droughts), invasive species (dreissenids and Round Goby), and dredging.

Range ON

Status History

Designated Threatened in May 2021.

Vascular Plants

American Water-willow

Justicia americana

Threatened

Assessment Criteria A2ace+4ace

Reason for Designation

This aquatic wildflower of lake and river shorelines occurs at 13 sites in southern Ontario and southwestern Quebec. Although still locally numerous, its numbers have declined significantly in the past 10 years, driven by large losses from the Rivière des Mille Îles in Quebec. Declines are mostly attributable to unnaturally severe or prolonged water level fluctuations caused by water level management and climate change. Invasive species such as European Reed and Blue Cattail are likely to contribute to future population declines.

Range ON QC

Status History

Designated Threatened in April 1984. Status re-examined and confirmed in May 2000 and May 2021.

Kentucky Coffee-tree

Gymnocladus dioicus

Threatened

Assessment Criteria D1

Reason for Designation

In Canada, this deciduous tree is found only in extreme southwestern Ontario. Searches have identified new subpopulations, and recovery efforts have established new sites, but the number of mature individuals remains very low. Most subpopulations are threatened by shading caused by fire suppression, and several occurrences on the Lake Erie islands are threatened by high densities of nesting Double-crested Cormorants. The ability of this species to respond to threats is limited by low rates of sexual reproduction, and by low seed production, which in turn restricts dispersal.

Range ON

Status History

Designated Threatened in April 1983. Status re-examined and confirmed in November 2000 and May 2021.

Western Silvery Aster

Symphotrichum sericeum

Threatened

Assessment Criteria A3c+4ac

Reason for Designation

This species is a beautiful, purple-flowered perennial with silky silvery leaves, that is restricted to isolated remnant xeric tall-grass prairie and oak savannah in southern Manitoba and northwestern Ontario. This species was designated Threatened at the last assessment because of the small number of known individuals. Subsequent search effort has resulted in the discovery of new sites and partnerships with public and private land managers have increased the population at some sites. However, there have been declines in abundance and area of occupancy elsewhere and threats to this species remain very high, primarily from aggregate extraction and habitat degradation. A population decline of greater than 30 percent is suspected within the next 20-30 years based on potential threat impacts. The species is limited by low seed viability coupled with low seed set, indicating that current declines could continue.

Range MB ON

Status History

Designated Special Concern in 1988. Status re-examined and designated Threatened in May 2000. Status re-examined and confirmed in May 2021.

Coastal Wood Fern

Dryopteris arguta

Special Concern

Assessment Criteria not applicable

Reason for Designation

This Pacific North American fern reaches its northern limit on the Gulf Islands of southwestern British Columbia where it occurs in small subpopulations within rugged and forested coastal habitat. Although the species occurs in a very geographically restricted area, the population appears to be relatively stable and is not currently at high risk of decline due to natural or anthropogenic threats. Invasive plants and unintentional trampling by recreationalists have been noted. Although the threat impact is presently considered to be low, introduced fungal pathogens, and increased drought and intensive fire associated with climate change are possible future threats.

Range BC

Status History

Designated Special Concern in April 1998. Status re-examined and confirmed in November 2001 and May 2021.

Lakeside Daisy

Tetaneuris herbacea

Special Concern

Assessment Criteria not applicable

Reason for Designation

This perennial herb occurs only in the Great Lakes region where it is restricted to rare alvar and lakeshore calcareous bedrock habitats. Ninety-five percent of the world population is in Canada. This species may be very abundant where it occurs, and a few large subpopulations on western Manitoulin Island buffer the level of risk to the rest of the population. On-going threats include fire suppression, trampling by pedestrians, off-road vehicle use, building and road construction, quarrying, logging in adjacent forests, and invasion by exotic species. The change in status since the last assessment is the result of increased search effort and a change in interpretation of severe fragmentation.

Range ON

Status History

Designated Threatened in May 2002. Status re-examined and designated Special Concern in May 2021.

Lichens

Vole Ears Lichen

Erioderma mollissimum

Endangered

Assessment Criteria B2ab(i,ii,iii,iv,v)

Reason for Designation

In Canada, this large foliose lichen currently only occurs in Nova Scotia, and on Newfoundland and Labrador's Avalon Peninsula. It previously occurred in New Brunswick and in the United States, in Tennessee and North Carolina. The lichen can be found on Red Maple, Yellow Birch and Balsam Fir trees in forests that are humid and within 30 km of the ocean. The number of mature individuals in Canada is estimated to be < 2500 thalli based on data from observations of mature thalli in the field and the remaining amount of suitable habitat. A continuing decline in the population is likely as a result of the threats faced by this lichen which include climate change, air pollution, and habitat destruction from forest clearance and wood harvesting.

Range NB NS NL

Status History

Designated Endangered in November 2009. Status re-examined and confirmed in May 2021.

Seaside Centipede Lichen

Heterodermia sitchensis

Threatened

Assessment Criteria B1ab(iii,v)+2ab(iii,v); D1

Reason for Designation

This leafy lichen is known from 20 occurrences on the west coast of Vancouver Island, Canada, and from two in the US. It has highly specific habitat requirements and grows only on partially defoliated small-diameter Sitka Spruce twigs on trees, close to the shoreline, that often receive nitrogen enrichment from sea lion haul-out sites or bird nest sites. The number of mature individuals (thalli) is thought to be less than 1000, and the lichen is highly vulnerable to intense storm activity associated with climate change that destroys the twigs upon which the lichen is found. The change of status from Endangered reflects increased knowledge of the distribution as a result of increased survey effort.

Range BC

Status History

Designated Endangered in April 1996. Status re-examined and confirmed in May 2000 and in April 2006. Status re-examined and designated Threatened in May 2021.

04/05/2021