

## COSEWIC Wildlife Species Assessments (detailed version), December 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

**Northern Fur Seal** *Callorhinus ursinus* **Threatened**

Assessment Criteria A2bce; B2ab(iii,v)

#### Reason for Designation

The population of this eared seal that is found in Canadian Pacific waters comes from a limited number of small breeding colonies on 3 islands in Alaska (87%), 3 sets of islands in Russia (10%), and 2 islands in California (3%). The number of pups born annually is used as an index of population size and has declined in Alaska by 84% since 1950. Ongoing declines in Canada have been slowed by growth of a new colony on a small volcanically active Aleutian island, and recolonization of an extirpated colony in California. However, the estimated number of mature individuals occurring in Canadian waters has still declined by 39% over the past 30 years (1990–2020). Causes of the continuing population decline are not fully understood, but this species is impacted by on-going threats which include entanglement in marine debris, disturbance, pollution, decline in habitat quality, and reduced availability of prey due to fisheries and climate change.

Range BC Pacific Ocean

#### Status History

Designated Not at Risk in April 1996. Status re-examined and designated Threatened in April 2006. Status re-examined and confirmed in November 2010 and December 2022.

**Humpback Whale** *Megaptera novaeangliae kuzira* **Special Concern**  
**North Pacific population**

Assessment Criteria not applicable

#### Reason for Designation

Although the population of this baleen whale in the eastern North Pacific is recovering, it is not secure. It was depleted by commercial whaling but numbers of whales have increased substantially since becoming legally protected in 1966. Estimated rates of increase in abundance in British Columbia waters during 2004–2018 are 4–8%/year, with an estimated abundance of over 4,000 mature individuals in 2018. However, this population faces several threats including mortality from ship strikes and entanglement in fishing gear or debris, noise disturbance, and toxic spills, many of which will continue to increase. The major threat is ecosystem change due to marine heatwaves, which are projected to increase in frequency and intensity as a result of climate change. Heatwaves can result in substantial declines of this species by severely reducing food availability, and can exacerbate other threats, which collectively could significantly deplete the population within three generations.

Range BC Pacific Ocean

#### Status History

The "Western North Atlantic and North Pacific populations" were given a single designation of Threatened in April 1982. Split into two populations in April 1985 (Western North Atlantic population and North Pacific population). The North Pacific population designated Threatened in 1985. Status re-examined and confirmed in May 2003. Status re-examined and designated Special Concern in May 2011. Status re-examined and confirmed in December 2022.

**Mountain Beaver** *Aplodontia rufa* **Special Concern**

Assessment Criteria not applicable

#### Reason for Designation

This burrowing rodent has a limited distribution in southwestern British Columbia. Historically, the range has contracted, and population declines were known for some subpopulations. There is no recent evidence of continued decline although the species is not well monitored. Habitat loss from forestry and urban development continues, and soil compaction caused by heavy machinery associated with forestry, road building, and pipeline installation further limits the use of otherwise suitable habitat. This species may be particularly sensitive to climate change, as it requires humid microclimates

and low ambient temperatures. The potential for rescue is limited by its short dispersal distance and unsuitable habitat between populations in Canada and the United States. The species is assessed as Special Concern, but it may become Threatened if threats are neither reversed nor managed effectively.

Range BC

Status History

Designated Not at Risk in April 1984. Status re-examined and designated Special Concern in April 1999. Status re-examined and confirmed in November 2001, May 2012, and December 2022.

## **Birds**

**Bicknell's Thrush**

*Catharus bicknelli*

**Threatened**

Assessment Criteria A2bce+3bce+4bce

Reason for Designation

This songbird is now largely restricted to breeding in regenerating high-elevation forests in parts of southern Quebec, New Brunswick, Nova Scotia, and adjacent mountains of northeastern United States. Information from several survey sources confirms that breeding numbers continue to decline markedly, with the recent loss from coastal breeding sites and former strongholds on Cape Breton Island. Declines are expected to continue into the future in response to a range of threats. These include loss of forested wintering habitat on Caribbean islands, impacts of introduced Moose on Cape Breton and non-native rats on wintering grounds, habitat alteration from precommercial thinning and conversion of fir forests to spruce plantations, and impacts of climate change on forest composition.

Range QC NB NS

Status History

Designated Special Concern in April 1999. Status re-examined and designated Threatened in November 2009. Status re-examined and confirmed in December 2022.

**Eastern Whip-poor-will**

*Antrostomus vociferus*

**Special Concern**

Assessment Criteria not applicable

Reason for Designation

Similar to many other aerial insectivores, this well-known nocturnal bird has experienced a long-term population decline in Canada. However, reanalysis of trend data suggests that the decline may not have been quite as severe as thought at the time of the previous assessment, and new data suggest that abundance may now be stable or increasing. Concern remains regarding the reduction in the bird's insect prey base, attributed to ongoing pesticide use, in addition to other threats such as habitat loss and degradation and increasingly frequent and severe hurricanes along its migration routes. Although numbers remain relatively large, this species is at risk of becoming Threatened if threats are not adequately mitigated.

Range SK MB ON QC NB PE NS

Status History

Designated Threatened in April 2009. Status re-examined and designated Special Concern in December 2022.

## **Reptiles**

**Leatherback Sea Turtle**

*Dermodochelys coriacea*

**Endangered**

**Atlantic population**

Assessment Criteria A2bcde+3bcde+4bcde

Reason for Designation

The Atlantic population of this large, long-lived marine turtle has declined precipitously, with the number of known nesting females reduced by about 60% in a single generation (30 years) and this number is projected to decline by a further 50% within the next generation. Adult turtles nest on beaches in the Wider Caribbean Region, but a significant proportion migrate in summer to forage on jellyfish in marine waters of Atlantic Canada. This species continues to be threatened by bycatch and entanglement in fishing gear, marine pollution, coastal and offshore resource development, climate change, poaching of eggs, and nesting habitat decline.

Range QC NB PE NS NL Atlantic Ocean

#### Status History

The species was considered a single unit and designated Endangered in April 1981. Status re-examined and confirmed in May 2001. Split into two populations in May 2012. The Atlantic population was designated Endangered in May 2012. Status re-examined and confirmed in December 2022.

#### **Leatherback Sea Turtle Pacific population**

*Dermochelys coriacea*

**Endangered**

Assessment Criteria A2bcde+3bcde+4bcde

#### Reason for Designation

The Pacific population of this large, long-lived marine turtle has collapsed by over 80% since the mid-1980s and is projected to decline by 96% by 2040. Adult turtles nest on beaches in Indonesia, Papua New Guinea, Solomon Islands and Vanuatu, but migrate in summer to the Northeast Pacific to forage on jellyfish, with small numbers reaching the marine waters of Pacific Canada. This species continues to be threatened by bycatch and entanglement in fishing gear, marine pollution, coastal and offshore resource development, climate change, poaching of eggs, and nesting habitat decline.

Range BC Pacific Ocean

#### Status History

The species was considered a single unit and designated Endangered in April 1981. Status re-examined and confirmed in May 2001. Split into two populations in May 2012. The Pacific population was designated Endangered in May 2012. Status re-examined and confirmed in December 2022.

## **Fishes**

#### **Atlantic Whitefish**

*Coregonus huntsmani*

**Endangered**

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

#### Reason for Designation

This landlocked anadromous fish species is endemic to Canada. It once migrated between fresh water and the Atlantic Ocean, but it is now restricted to three interconnected lakes in southwestern Nova Scotia. It is threatened by illegally introduced predatory fishes, water-control structures that impede movement, municipal alteration of water levels, and declining habitat quality. If these threats are not reversed, they will lead to the extinction of this unique Canadian species.

Range NS

#### Status History

Designated Endangered in April 1984. Status re-examined and confirmed in November 2000, November 2010, and December 2022.

#### **Cordilleran Sucker**

*Pantosteus bondi*

**Threatened**

Assessment Criteria B2ab(iii)

#### Reason for Designation

In Canada, this small freshwater fish has a limited and patchy distribution within the North Thompson, lower Fraser, and Similkameen River drainages in British Columbia. It has a relatively small area of occupancy and number of locations. Population size and trend are unknown for this poorly-sampled species. Habitats in these drainages are undergoing continued decline in quality, related to declines in water quality and quantity as a result of water-use management and climate change, particularly in the Similkameen River drainage.

Range BC

#### Status History

The Mountain Sucker (*Catostomus platyrhynchus*) was originally assessed by COSEWIC as a single unit and designated Not at Risk in April 1991. Split into three populations in November 2010: "Milk River populations" unit (Threatened), "Pacific populations" unit (Special Concern), and "Saskatchewan-Nelson River populations" unit (Not at Risk). In December 2022, the species formerly considered Mountain Sucker was split into two separate species, Plains Sucker (*Pantosteus jordani*) (2 populations) and Cordilleran Sucker (*Pantosteus bondi*). The original 2010 "Pacific populations" unit of Mountain Sucker is now known as Cordilleran Sucker, and was designated Threatened in December 2022.

**Plains Sucker***Pantosteus jordani***Threatened****Missouri population**Assessment Criteria B1ab(iii)+2ab(iii); D2Reason for Designation

This population of small freshwater fish is found in the southern portion of a broader distribution of this species across prairie Canada. In Canada, its range is limited to two locations in the Milk River drainage of southern Alberta and Saskatchewan, where its distribution is restricted and has declined in recent years. Actual population size and trend are unknown. Habitat in this river drainage is undergoing continued decline in quality, related to declines in water quality and quantity as a result of water-use management and climate change.

Range AB SKStatus History

The Mountain Sucker (*Catostomus platyrhynchus*) was originally assessed by COSEWIC as a single unit and designated Not at Risk in April 1991. Split into three populations in November 2010: "Milk River populations" unit (Threatened), "Pacific populations" unit (Special Concern), and "Saskatchewan-Nelson River populations" unit (Not at Risk). In December 2022, the species formerly considered Mountain Sucker was split into two separate species, Plains Sucker (*Pantosteus jordani*) (2 populations) and Cordilleran Sucker (*Pantosteus bondi*). The original 2010 "Milk River populations" unit of Mountain Sucker is now known as Plains Sucker, Missouri population, and was designated Threatened in December 2022.

**Plains Sucker***Pantosteus jordani***Special Concern****Saskatchewan-Nelson population**Assessment Criteria not applicableReason for Designation

This population of small freshwater fish is found in the northern portion of a broader distribution of this species across prairie Canada. It has a widespread, but patchy, distribution within the Saskatchewan River drainage across five tributaries in Alberta and Saskatchewan. Habitats in these tributaries are likely undergoing continued decline in quality, related to declines in water quality and quantity as a result of water-use management and climate change. If these threats are not managed effectively, the species may have greater risk of extinction.

Range AB SKStatus History

The Mountain Sucker (*Catostomus platyrhynchus*) was originally assessed by COSEWIC as a single unit and designated Not at Risk in April 1991. Split into three populations in November 2010: "Milk River populations" unit (Threatened), "Pacific populations" unit (Special Concern), and "Saskatchewan-Nelson River populations" unit (Not at Risk). In December 2022, the species formerly considered Mountain Sucker was split into two separate species, Plains Sucker (*Pantosteus jordani*) (2 populations) and Cordilleran Sucker (*Pantosteus bondi*). The original 2010 "Saskatchewan-Nelson River populations" unit of Mountain Sucker is now known as Plains Sucker, Saskatchewan-Nelson population, and was designated Special Concern in December 2022.

**Arthropods****American Burying Beetle***Nicrophorus americanus***Extirpated**Assessment Criteria not applicableReason for Designation

There is sufficient information to document that no individuals of this beetle remain alive in Canada. This includes a lack of sightings for 49 years despite (1) being a large, distinctive, and conspicuous insect; (2) a tenfold increase in the number of field entomologists/community scientists as well as studies of carrion-feeding beetles; (3) the fact that it comes to lights and yet it has not been captured during an estimated 300,000 trap nights; and (4) directed search in the general area where it was last seen.

Range ON QCStatus History

Designated Extirpated in November 2011. Status re-examined and confirmed in December 2022.

**Island Marble** *Euchloe ausonides insulanus* **Extirpated**  
Assessment Criteria not applicable

Reason for Designation

This butterfly has not been found in Canada since 1908, and availability of suitable habitat is limited. Historically, the species occurred on southern Vancouver Island and adjacent Gulf Islands. This area has been well surveyed for butterflies, with targeted surveys from 2001 to 2008. These surveys were informed by recent advances in understanding of the species ecology from studies of the small extant population on San Juan Island in Washington State. Rescue is unlikely, as the closest population on San Juan Island is 15 km over open ocean.

Range BC

Status History

Extirpated by 1910. Designated Extirpated in April 1999. Status re-examined and confirmed in May 2000, April 2010, and December 2022.

**Bert's Predaceous Diving Beetle** *Sanfilippodytes bertae* **Endangered**  
Assessment Criteria B1ab(iii)+2ab(iii)

Reason for Designation

This small aquatic beetle is endemic to Canada. It has been found at four springs and seepages along steep cliff edges or river bends in southern Alberta. Recent surveys found that aquatic habitat has been lost at two sites. Water withdrawal and trampling by livestock are continuing threats.

Range AB

Status History

Designated Endangered in November 2009. Status re-examined and confirmed in December 2022.

**Half-moon Hairstreak** *Satyrium semiluna* **Endangered**  
**Waterton Lakes population**  
Assessment Criteria B1ab(iii)+2ab(iii)

Reason for Designation

The butterfly is restricted to one small site in Waterton Lakes National Park in southern Alberta at the northern extreme of the species' range and distant from any other sites. Population size is unknown, but very small, and has likely declined in the past as a result of habitat loss. An invasive plant, Spotted Knapweed, is an ongoing threat that reduces habitat quality and availability of nectar plants.

Range AB

Status History

The species was considered a single unit and designated Endangered in April 2006. Split into two populations in December 2022. The Waterton Lakes population was designated Endangered in December 2022.

**Island Blue** *Icaricia saepiolus insulanus* **Endangered**  
Assessment Criteria B1ab(iii)+2ab(iii)

Reason for Designation

This species has not been documented in the wild since 1979 but search effort is insufficient to conclude that it is extinct. Any remaining subpopulations in its historical range must occur within a very small distributional range and are likely in decline due to declining habitat quality from invasive plants that out-compete native host plants.

Range BC

Status History

Designated Endangered in November 2000. Status re-examined and confirmed in May 2012 and December 2022.

**Rusty-patched Bumble Bee***Bombus affinis***Endangered**Assessment Criteria B2ab(iii); C2a(i); D1Reason for Designation

This bee was once found throughout southern Ontario, Quebec, and east into western New Brunswick. Focused, intensive searches throughout the Canadian range have not detected this bumble bee since 2009. Pathogens from, and competition with, non-native and managed bees are believed to be the primary causes of the initial decline and remain serious threats. Additionally, habitat quality continues to decline as a result of changes in agricultural practices and increasing development. Climate change is an additional ongoing threat. These threats could lead to extirpation of the species in Canada within the next 10 years.

Range ON QC NBStatus History

Designated Endangered in April 2010. Status re-examined and confirmed in December 2022.

**Half-moon Hairstreak***Satyrrium semiluna***Threatened****Okanagan-Similkameen population**Assessment Criteria B1ab(iii)+2ab(iii)Reason for Designation

The butterfly occurs at fewer than 10 disjunct sites in southern British Columbia at the northern extreme of the species' range. Changes in fire regime and invasion by non-native plants are reducing habitat quality, and some sites are under pressure from development. Combining these threats could reduce population size in the near future.

Range BCStatus History

The species was considered a single unit and designated Endangered in April 2006. Split into two populations in December 2022. The Okanagan-Similkameen population was designated Threatened in December 2022.

**Molluscs****Brook Floater***Alasmidonta varicosa***Special Concern**Assessment Criteria not applicableReason for Designation

This medium-sized freshwater mussel is confined to 13 widely scattered watersheds in Nova Scotia and New Brunswick. This mussel is never abundant in waterbodies where it is found. With additional search effort, the species has been found in new tributaries/lakes but was not confirmed in two previously identified watersheds. Domestic and urban wastewater and agricultural and forestry effluents pose the greatest current threat to this species. Additional threats include habitat degradation, residential development, predation, and invasive species, including Zebra Mussel, which is now confirmed in the St. John River watershed and is expected to spread into adjacent systems where this species occurs. Special Concern status is retained for this species as it may become Threatened if factors suspected of negatively influencing its persistence are neither reversed nor managed with demonstrable effectiveness.

Range NB NSStatus History

Designated Special Concern in April 2009. Status re-examined and confirmed in December 2022.

**Magnum Mantleslug***Magnipelta mycophaga***Special Concern**Assessment Criteria not applicableReason for Designation

The large slug species, up to 80 mm in length, is endemic to the northern Columbia Basin in western North America. Half of the global range is in southeastern British Columbia. The species occurs in patchy habitat and is confined to moist, cool microsites within coniferous forests at mid-to high elevations. Despite extensive searches, there are only 22 subpopulations recorded within its Canadian range. Fragmentation of its habitat continues to be a threat, as are logging and habitat shifts, droughts, storms, and flooding. It may become Threatened if threats are neither reversed nor managed with demonstrable effectiveness and is currently close to meeting Threatened criteria.

Range BC

Status History

Designated Special Concern in May 2012. Status re-examined and confirmed in December 2022.

## **Vascular Plants**

**Spring Blue-eyed Mary**

*Collinsia verna*

**Extirpated**

Assessment Criteria not applicable

Reason for Designation

A spring ephemeral plant of open deciduous woods in Carolinian forests of southwestern Ontario. This species has been collected historically at only three sites. No plants have been found in Canada since 1954, despite searches in the vicinity of historical occurrences.

Range ON

Status History

No site records since 1954. Designated Extirpated in April 1987. Status re-examined and confirmed in May 2000 and December 2022.

**Coastal Manroot**

*Marah oregana*

**Endangered**

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

Reason for Designation

This long-lived perennial vine occurs in Canada at only four widely separated subpopulations on southeastern Vancouver Island and adjacent Gulf Islands. Fewer than 50 mature plants remain, with evidence of seedling production at only one site. Losses of habitat, subpopulations, and mature individuals are projected in its Canadian range. Main threats are development of the few known sites, alien species, and random events affecting the handful of remaining individuals. This is a medicinal plant cared for by some west coast First Nations.

Range BC

Status History

Designated Endangered in November 2009. Status re-examined and confirmed in December 2022.

**Slender Mouse-ear-cress**

*Crucihimalaya virgata*

**Threatened**

Assessment Criteria C2a(i)

Reason for Designation

This prairie plant is globally at risk, and restricted to small areas where its population is declining as a result of threats including invasive species, fire suppression, alteration of grazing regimens, fragmentation by cultivation and conversion to tame pasture, and oil and gas development that, ultimately, results in a decline of habitat quality.

Range AB SK

Status History

Designated Endangered in April 1992. Status re-examined and designated Threatened in May 2000. Status re-examined and confirmed in December 2022.

**Foothill Sedge**

*Carex tumulicola*

**Special Concern**

Assessment Criteria not applicable

Reason for Designation

This perennial plant is characteristic of mesic to moist meadows and associated Garry Oak woodlands unique to the semi-Mediterranean climate of southeastern Vancouver Island, British Columbia. The Canadian population consists of a few thousand mature individuals and although sixteen subpopulations have recently been discovered, many have very low numbers of plants. The primary threat to the species is encroachment by non-native herbs and native and non-native trees and shrubs. Due to changes in the application of assessment criteria, the species is no longer severely fragmented, which reduced the at-risk status.

Range BC

#### Status History

Designated Endangered in April 2008. Status re-examined and designated Special Concern in December 2022.

#### **Small-flowered Sand-verbena**

*Tripterocalyx micranthus*

**Special Concern**

Assessment Criteria not applicable

#### Reason for Designation

The population of this annual, drought-tolerant plant, which occurs in sand dune and coulee/river valley complexes in prairie grasslands, varies annually depending upon the conditions for germination and growth. The seed bank maintains the population during times of drought, until environmental conditions spark germination. The stabilization of its habitat due to fire suppression, changing grazing regimes, changing climate, and encroachment of invasive species are an ongoing concern. However, the discovery of more sites, improved monitoring of subpopulations, and a change in the application of criteria for assessment have resulted in an improved at-risk status.

Range AB SK

#### Status History

Designated Threatened in April 1992. Re-examined and designated Endangered in November 2002. Status re-examined and designated Special Concern in December 2022.

## **Mosses**

#### **Poor Pocket Moss**

*Fissidens pauperculus*

**Endangered**

Assessment Criteria D1

#### Reason for Designation

This western North American endemic moss reaches its northern range limit at a single, isolated Canadian locality in southwestern British Columbia. There, only a few small colonies occur within an extremely small (<6 m<sup>2</sup>) area, making the Canadian population especially vulnerable to human disturbance and events such as treefall and erosion following unusually heavy local rainfall.

Range BC

#### Status History

Designated Endangered in November 2001. Status re-examined and confirmed in May 2011 and December 2022.

## **Lichens**

#### **Scaly Fringe Lichen**

*Heterodermia squamulosa*

**Threatened**

Assessment Criteria C2a(i); D1

#### Reason for Designation

Within Canada, this lichen only occurs only in Nova Scotia and New Brunswick on old undisturbed hardwood or mixedwood forests without signs of past forest harvesting. The small Canadian population (less than 550 thalli on 145 known host trees) is projected to decline as a result of threats. These include forest harvesting, road construction, and residential development that lead to the loss of host trees or open the forest canopy that makes the habitat unsuitable for the lichen. In addition, air pollution, and the Emerald Ash Borer are other factors that are likely to contribute to the projected decline.

Range NB NS

#### Status History

Designated Threatened in December 2022.

\*The report on Horned Grebe (*Podiceps auritus*), Western population and Magdalen Islands population, was withdrawn to allow further consideration of the Designatable Unit structure. The report on Snapping Turtle (*Chelydra serpentina*) was withdrawn to incorporate more information on threats. Great Blue Heron *fannini* subspecies (*Ardea herodias fannini*) was determined to be ineligible for assessment.

03/12/2022