# COSEWIC Wildlife Species Assessments (detailed version), December 2023

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**

## **Killer Whale (Northeast Pacific Southern Resident population)**

Scientific name: Orcinus orca

Status: Endangered

Assessment criteria: A3bce+4ace; C1+2a(i,ii); D1; E

**Reason for designation**: The population of this long-lived fish-eating apex marine predator is very small (46 mature individuals) and continues to decline. No immigration occurs and the population shows signs of inbreeding depression. The population is limited and dependent on the availability and abundance of its principal prey, Chinook Salmon, whose current low abundance is expected to continue. The whales are also threatened by increasing vessel traffic and associated acoustic disturbance, contaminants, vessel strikes, and, potentially, oil spills.

Range: BC, Pacific Ocean

**Status history**: The "North Pacific resident populations" were given a single designation of Threatened in April 1999. Split into three populations in November 2001. The Northeast Pacific Southern Resident population was designated Endangered in November 2001. Status re-examined and confirmed in November 2008 and December 2023.

# Killer Whale (Northeast Pacific Northern Resident population)

Scientific name: Orcinus orca

Status: Threatened

**Assessment criteria**: Met criterion for Endangered, D1, but designated Threatened, D1, because of the recent and projected continued increase in mature individuals.

Reason for designation: The population of this long-lived fish-eating apex marine predator is small (~176 mature individuals) and dependent on the availability of its principal prey, Chinook Salmon, whose current low abundance is expected to continue. This whale is at risk from physical and acoustical disturbance, vessel strikes, contaminants, and, potentially, oil spills. Although this population meets criteria for Endangered, it has been increasing slowly (average of 2%/yr) since monitoring began in 1974, likely recovering from past human-caused mortality and live-capture for public display.

Range: BC, Pacific Ocean

**Status history**: The "North Pacific resident populations" were given a single designation of Threatened in April 1999. Split into three populations in November 2001. The Northeast Pacific Northern Resident population was designated Threatened in November 2001. Status re-examined and confirmed in November 2008 and December 2023.

## Killer Whale (Northeast Pacific Offshore population)

Scientific name: Orcinus orca

Status: Threatened

**Assessment criteria**: Met criterion for Endangered, D1, but designated Threatened, D1, because the wildlife species is not at imminent risk of extirpation.

**Reason for designation**: The population of this long-lived apex marine predator is small (~160 mature individuals) and specializes in a diet of sharks and rays. Threats include contaminants, acoustical and physical disturbance, vessel strikes, potential future declines in prey availability, and possibly oil spills. However, the population does not appear to be declining.

Range: BC, Pacific Ocean

**Status history**: The "North Pacific resident populations" were given a single designation of Threatened in April 1999. Split into three populations in November 2001. The Northeast Pacific Offshore population was designated Special Concern in November 2001. Status re-examined and designated Threatened in November 2008. Status re-examined and confirmed in December 2023.

# Killer Whale (Northeast Pacific Transient population)

Scientific name: Orcinus orca

Status: Threatened

**Assessment criteria**: Met criterion for Endangered, D1, but designated Threatened, D1, because total abundance has increased since the 1970s and the wildlife species is not at imminent risk of extirpation.

Reason for designation: The population of this long-lived, apex marine mammal-eating predator is small (~192 mature individuals). Threats include acoustical and physical disturbance, potential future reduction in prey abundance, vessel strikes, and, potentially, oil spills. However, the population appears to have been slowly increasing since the mid-1970s when monitoring began, and its prey base of pinnipeds and small cetaceans is currently stable or increasing.

Range: BC, Pacific Ocean

**Status history**: Designated Special Concern in April 1999. Status re-examined and designated Threatened in November 2001 and in November 2008. Status re-examined and confirmed in December 2023.

# Killer Whale (Northwest Atlantic / Eastern Arctic population)

Scientific name: Orcinus orca

Status: Special Concern

Assessment criteria: not applicable

**Reason for designation**: The range of this long-lived apex marine predator has recently expanded in the Eastern Arctic and the frequency of sightings has increased, likely due to the availability of new hunting areas because of declining summer sea ice. Occurrence and abundance of these whales elsewhere in their range is poorly known. Threats include hunting, contaminants, and acoustical and physical disturbance as shipping traffic increases. The population's small size (likely fewer than 1,000 mature individuals and perhaps even fewer than 250), known and potential threats, life history, and cultural attributes justify designation as Special Concern.

Range: MB, NB, NL, NS, NU, PE, QC, Arctic Ocean, Atlantic Ocean

**Status history**: Species considered in April 1999 and in November 2001, and placed in the Data Deficient category. Re-examined in November 2008 and designated Special Concern. Status re-examined and confirmed in December 2023.

# **Birds**

#### **Ivory Gull**

Scientific name: Pagophila eburnea

Status: Endangered

Assessment criteria: B2ab(i,ii,iii,iv)

Reason for designation: This medium-sized gull occupies ice-dominated habitats in the Arctic year-round, nesting in Canada in isolated colonies on nunataks (rock outcrops within extensive snow and ice) in northern Nunavut. It overwinters along the sea-ice edge in Davis Strait and the northern Labrador Sea, with birds from northern Eurasian colonies. Counts of birds at colonies have not declined in recent years, and an estimated 2,150 mature individuals now nest in Canada. However, the Canadian breeding range has contracted appreciably to the northeast, with about 98% of the known population confined to 11 colonies on Ellesmere Island, where nesting birds rely exclusively on the North Water Polynya for foraging. Key threats reflect climate-related changes linked to increasing sea-surface temperature, diminishing extent and duration of sea-ice cover, and increasing intensity and duration of storms, as well as the risk of intermittent disturbance by tourists. Other threats include hunting, oil pollution, and airborne contaminants.

Range: NL, NT, NU, Arctic Ocean, Atlantic Ocean

**Status history**: Designated Special Concern in April 1979. Status re-examined and confirmed in April 1996 and in November 2001. Status re-examined and designated Endangered in April 2006. Status re-examined and confirmed in December 2023.

#### Gray-cheeked Thrush minimus subspecies

Scientific name: Catharus minimus minimus

Status: Threatened

Assessment criteria: A2bce+4bce

Reason for designation: This songbird subspecies breeds only in dense montane forests of the Newfoundland archipelago and south coastal Labrador, with small numbers on coastal islands of Nova Scotia and on the French islands of Saint-Pierre-et-Miquelon. This bird likely winters in forests of northeastern Colombia and northwestern Venezuela. It differs genetically, in colour, and in song from the larger northern subspecies that is widespread across boreal Canada. Once abundant across the island of Newfoundland, it is now largely restricted to high-elevation habitats and some coastal islands. This is primarily due to nest depredation by a squirrel species introduced to Newfoundland in 1963. Overall numbers of the subspecies are conservatively estimated to have declined by 26.7-30.4% over the past 10 years, with declines likely to continue into the future. Other low-level threats include ecosystem changes related to introduced herbivores and control of insect outbreaks, energy development, mining, and effects of agriculture and logging on wintering habitat.

Range: NL, NS, QC

Status history: Designated Threatened in December 2023.

## **Horned Grebe**

Scientific name: Podiceps auritus

Status: Special Concern

Assessment criteria: not applicable

Reason for designation: Approximately 92% of the North American breeding range of this waterbird occurs in Canada, primarily in prairie and boreal wetlands of western and central Canada. A very small, disjunct group breeds on Quebec's Magdalen Islands. Although Magdalen Islands birds were previously assessed separately, the species is now assessed as one population because the lack of evidence for unique adaptations no longer justifies separate assessment. Available data on population trends are mixed. However, the species is threatened by loss and degradation of wetland habitat, drought, collisions with power lines and other structures, and the potential for oil spills and fisheries bycatch on the wintering grounds. The overall impact of current and future threats may lead to declines of up to 30 percent over the species' next three generations.

Range: AB, BC, MB, NB, NT, NS, NU, ON, QC, SK, YT, Atlantic Ocean, Pacific Ocean

**Status history**: In December 2023, the Magdalen Islands population and the Western population were considered as a single unit across the Canadian range and was designated Special Concern.

#### **Yellow Rail**

Scientific name: Coturnicops noveboracensis

Status: Special Concern

Assessment criteria: not applicable

Reason for designation: This small, secretive marsh bird breeds in shallow, grassy marshes and wet meadows from eastern British Columbia and the Northwest Territories to New Brunswick, and the northern United States. About 90% of its breeding range is in Canada, and it winters in shallow coastal marshes and rice fields from Texas to North Carolina. Increased search effort has raised the population estimate to 18,000 to 65,000 mature individuals, 3-4 times the previous estimate. Population trends are poorly monitored, and although there is no evidence of an overall reduction in the Canadian population, there are indications of local declines. It is threatened by ongoing wetland loss and degradation in parts of its breeding and wintering grounds, often due to agriculture and industrial activity. Climate change may further alter hydrological regimes and cause drier conditions in some areas. This population may become Threatened if ongoing deterioration of wetland habitat is not reversed or managed effectively.

Range: AB, BC, MB, NB, NT, NU, ON, QC, SK

**Status history**: Designated Special Concern in April 1999. Status re-examined and confirmed in November 2001, November 2009, and December 2023.

# <u>Amphibians</u>

# **Mudpuppy (Manitoba population)**

Scientific name: Necturus maculosus

Status: Threatened

Assessment criteria: B2ab(i,ii,iii,iv)

Reason for designation: The range of the central Canadian population of this large, long-lived salamander is restricted to southeastern Lake Winnipeg and its tributaries in southern Manitoba. It is uncommon and has not been observed recently within much of its historical Canadian range. This population has a limited and declining distribution, with observed or inferred declines in its occupied area, number of locations, and quality of habitat. Its fully aquatic lifestyle, sedentary nature, and low reproductive potential make it vulnerable to a range of threats across all watersheds. This salamander is particularly vulnerable to sedimentation and pollutants from agriculture and forestry, flood control and river channelization activities, and impacts of invasive species, including Zebra Mussel and the recently arrived Rusty Crayfish.

Range: MB

**Status history**: The species was considered a single unit and designated Not at Risk in May 2000. Split into two populations in December 2023. The Manitoba population was designated Threatened in December 2023.

#### Mudpuppy (Great Lakes / St. Lawrence population)

Scientific name: Necturus maculosus

Status: Special Concern

Assessment criteria: not applicable

Reason for designation: The eastern Canadian population of this large, long-lived salamander is widely distributed in southern Ontario and Quebec, along the edge of the Great Lakes and the St. Lawrence Lowlands. It remains widespread but recently appears to be missing from 14 percent of sites where it occurred historically, primarily in southern Ontario. Its fully aquatic lifestyle, sedentary nature, and low reproductive potential make it vulnerable to a range of widely occurring and increasing threats to water quality, including sedimentation and pollutants from agriculture, industry, forestry, and urban development. It is also at risk from flood control activities, river channelization, and impacts of invasive species. It is especially sensitive to lampricides used routinely for Sea Lamprey control across the Great Lakes Basin. This population may become Threatened if these threats are neither reversed nor managed.

Range: ON, QC

**Status history**: The species was considered a single unit and designated Not at Risk in May 2000. Split into two populations in December 2023. The Great Lakes / St. Lawrence population was designated Special Concern in December 2023.

# <u>Fishes</u>

# **Enos Lake Benthic Threespine Stickleback**

Scientific name: Gasterosteus aculeatus

Status: Extinct

Assessment criteria: not applicable

**Reason for designation**: This small, robust-bodied freshwater fish was part of an endemic species pair restricted to one small lake in south coastal British Columbia. It lived close to the bottom of the lake, while the other member of the pair lived in the open water. However, the introduction of an invasive crayfish in this lake dramatically reduced aquatic vegetation, which likely had been important in preventing hybridization between the two species. As a consequence, the two species collapsed into a hybrid swarm resulting in the loss of the original two species. The revised status reflects the inability to find genetically non-hybridized individuals of this distinctive Canadian species despite repeated surveys. There is sufficient information to document that no individuals of the species remain.

Range: BC

**Status history**: Original designation (including both Benthic and Limnetic species) was Threatened in April 1988. Split into two species when re-examined in November 2002 and the Enos Lake Benthic Threespine Stickleback was designated Endangered. Status re-examined and confirmed in May 2012. Status re-examined and designated Extinct in December 2023.

#### **Enos Lake Limnetic Threespine Stickleback**

Scientific name: Gasterosteus aculeatus

Status: Extinct

Assessment criteria: not applicable

**Reason for designation**: This small, slender-bodied freshwater fish was part of an endemic species pair restricted to one small lake in south coastal British Columbia. It lived in the open water of the lake, while the other member of the pair lived close to the bottom. However, the introduction of an invasive crayfish in this lake dramatically reduced aquatic vegetation, which had likely been important in preventing hybridization between the two species. As a consequence, the two species collapsed into a hybrid swarm resulting in the loss of the original two species. The revised status reflects the inability to find genetically non-hybridized individuals of this distinctive Canadian species despite repeated surveys. There is sufficient information to document that no individuals of the species remain.

Range: BC

**Status history**: Original designation (including both Benthic and Limnetic species) was Threatened in April 1988. Split into two species when re-examined in November 2002 and the Enos Lake Limnetic Threespine Stickleback was designated Endangered. Status re-examined and confirmed in May 2012. Status re-examined and designated Extinct in December 2023.

#### Misty Lake Lentic Threespine Stickleback

Scientific name: Gasterosteus aculeatus

Status: Endangered

Assessment criteria: B1ab(iii,v)+2ab(iii,v)

**Reason for designation**: This small, lake-dwelling fish is endemic to Canada as part of a species pair restricted to a single small lake-stream complex on northern Vancouver Island. This fish could quickly become extinct if invasive non-native fishes that prey on the eggs and adults of this species are accidentally or deliberately introduced. Proximity of this species to a major highway and public access make an introduction more probable. Logging activities in the watershed could also negatively impact habitat quality. If these threats are not prevented or reversed, they could lead to the extinction of this distinctive Canadian species.

Range: BC

Status history: Designated Endangered in November 2006. Status re-examined and confirmed in December 2023.

#### Misty Lake Lotic Threespine Stickleback

Scientific name: Gasterosteus aculeatus

Status: Endangered

Assessment criteria: B1ab(iii,v)+2ab(iii,v)

**Reason for designation**: This small, stream-dwelling fish is endemic to Canada as part of a species pair restricted to a single small lake-stream complex on northern Vancouver Island. This fish could quickly become extinct if invasive non-native fishes that prey on the eggs and adults of this species are accidentally or deliberately introduced. Proximity of this species to a major highway and public access make an introduction more probable. Logging activities in the watershed could also negatively impact habitat quality. If these threats are not prevented or reversed, they could lead to the extinction of this distinctive Canadian species.

Range: BC

Status history: Designated Endangered in November 2006. Status re-examined and confirmed in December 2023.

## Paxton Lake Benthic Threespine Stickleback

Scientific name: Gasterosteus aculeatus

Status: Endangered

Assessment criteria: B1ab(iii,v)+2ab(iii,v)

**Reason for designation**: This small, robust-bodied freshwater fish is part of an endemic species pair restricted to one small lake in coastal British Columbia (BC). It lives close to the bottom of the lake, while the other member of the pair lives in the open water. The main threat to this species is introduction of invasive species, which have caused the rapid extinction of similar species pairs in two other lakes in coastal BC, either through predation or hybridization resulting from habitat modification. Invasive species continue to spread in the region. Water extraction could also result in loss of habitat and increase the risk of hybridization. If these threats are not mitigated, they could lead to the extinction of this distinctive Canadian species.

Range: BC

**Status history**: Designated Threatened in April 1998. Status re-examined and confirmed in April 1999. Status re-examined and designated Endangered in May 2000. Status re-examined and confirmed in April 2010 and December 2023.

# Paxton Lake Limnetic Threespine Stickleback

Scientific name: Gasterosteus aculeatus

Status: Endangered

Assessment criteria: B1ab(iii,v)+2ab(iii,v)

**Reason for designation**: This small, slender-bodied freshwater fish is part of an endemic species pair restricted to one small lake in coastal British Columbia (BC). It lives in the open water of the lake, while the other member of the pair lives close to the bottom. The main threat to this species is introduction of invasive species, which have caused the rapid extinction of similar species pairs in two other lakes in coastal BC, either through predation or hybridization resulting from habitat modification. Invasive species continue to spread in the region. Water extraction could also result in loss of habitat and increase the risk of hybridization. If these threats are not mitigated, they could lead to the extinction of this distinctive Canadian species.

Range: BC

**Status history**: Designated Threatened in April 1998. Status re-examined and confirmed in April 1999. Status re-examined and designated Endangered in May 2000. Status re-examined and confirmed in April 2010 and December 2023.

#### <u>Unarmoured Threespine Stickleback</u>

Scientific name: Gasterosteus aculeatus

Status: Endangered

Assessment criteria: B1ab(iii,v)+2ab(iii,v)

**Reason for designation**: This small freshwater fish is a Canadian endemic, and it is unusual as it has reduced bony plates and protective spines compared to other sticklebacks. It is currently known from only three very small lakes on Haida Gwaii in British Columbia. Its revised status reflects the increased risk of extinction following dramatic declines observed in one lake when it temporarily dried up, and in a second lake following the introduction of an invasive frog, the tadpoles of which may compete with the adult fish. These three lakes lack predatory fishes that could prey on the tadpoles. If these threats are not prevented or reversed, they could lead to the extinction of this distinctive Canadian species.

Range: BC

**Status history**: Designated Special Concern in April 1983. Status re-examined and confirmed in November 2013. Status re-examined and designated Endangered in December 2023.

## Vananda Creek Benthic Threespine Stickleback

Scientific name: Gasterosteus aculeatus

Status: Endangered

Assessment criteria: B1ab(iii,v)+2ab(iii,v)

Reason for designation: This small, robust-bodied freshwater fish is part of an endemic species pair restricted to three small, interconnected lakes in coastal British Columbia (BC). It lives close to the bottom of the lakes, while the other member of the pair lives in the open water. The main threat to this species is introduction of invasive species, which have caused the rapid extinction of similar species pairs in two other lakes in coastal BC, either through predation or hybridization resulting from habitat modification. Invasive species continue to spread in the region. Water extraction could also result in loss of habitat and increase the risk of hybridization. If these threats are not mitigated, they could lead to the extinction of this distinctive Canadian species.

Range: BC

**Status history**: Designated Threatened in April 1999. Status re-examined and designated Endangered in May 2000. Status re-examined and confirmed in April 2010 and December 2023.

#### Vananda Creek Limnetic Threespine Stickleback

Scientific name: Gasterosteus aculeatus

Status: Endangered

Assessment criteria: B1ab(iii,v)+2ab(iii,v)

Reason for designation: This small, slender-bodied freshwater fish is part of an endemic species pair restricted to three small, interconnected lakes in coastal British Columbia (BC). It lives in the open water of the lake, while the other member of the pair lives close to the bottom. The main threat to this species is introduction of invasive species, which have caused the rapid extinction of similar species pairs in two other lakes in coastal BC, either through predation or hybridization resulting from habitat modification. Invasive species continue to spread in the region. Water extraction could also result in loss of habitat and increase the risk of hybridization. If these threats are not mitigated, they could lead to the extinction of this distinctive Canadian species.

Range: BC

**Status history**: Designated Threatened in April 1999. Status re-examined and designated Endangered in May 2000. Status re-examined and confirmed in April 2010 and December 2023.

#### **Little Quarry Lake Benthic Threespine Stickleback**

Scientific name: Gasterosteus aculeatus

Status: Threatened

Assessment criteria: D2

**Reason for designation**: This small, robust-bodied freshwater fish is part of an endemic species pair restricted to one small lake in coastal British Columbia (BC). It lives close to the bottom of the lake, while the other member of the pair lives in the open water. The main threat to this species is introduction of invasive species, which have caused the rapid extinction of similar species pairs in two other lakes in coastal BC, either through predation or hybridization resulting from habitat modification. Although this lake on Nelson Island is relatively inaccessible, invasive species continue to spread in the region. If this threat is not prevented, it could lead to the extinction of this distinctive Canadian species.

Range: BC

Status history: Designated Threatened in November 2015. Status re-examined and confirmed in December 2023.

#### <u>Little Quarry Lake Limnetic Threespine Stickleback</u>

Scientific name: Gasterosteus aculeatus

Status: Threatened

Assessment criteria: D2

**Reason for designation**: This small, slender-bodied freshwater fish is part of an endemic species pair restricted to one small lake in coastal British Columbia (BC). It lives in the open water of the lake, while the other member of the pair lives close to the bottom. The main threat to this species is introduction of invasive species, which have caused the rapid extinction of similar species pairs in two other lakes in coastal BC, either through predation or hybridization resulting from habitat modification. Although this lake on Nelson Island is relatively inaccessible, invasive species continue to spread in the region. If this threat is not prevented, it could lead to the extinction of this distinctive Canadian species.

Range: BC

Status history: Designated Threatened in November 2015. Status re-examined and confirmed in December 2023.

## **Giant Threespine Stickleback**

Scientific name: Gasterosteus aculeatus

Status: Special Concern

Assessment criteria: not applicable

**Reason for designation**: This freshwater fish is a Canadian endemic, and it is unusual as it is nearly twice as long as other sticklebacks. It is currently known from only two small lakes on Haida Gwaii in British Columbia. The main threat to this species is introduction of invasive species, although the highly acidic waters of the lakes would likely make them unsuitable to most invasive predatory fishes. In addition, tadpole predation by native fish in these lakes might help slow the impact of invasive frogs that are already on the island. However, the potential long-term impacts of invasive species are uncertain, and this distinctive Canadian species could become Threatened if these threats are neither reversed nor managed effectively.

Range: BC

**Status history**: Designated Special Concern in April 1980. Status re-examined and confirmed in November 2013 and December 2023.

# **Arthropods**

## Finlayson's Oakworm Moth

Scientific name: Anisota finlaysoni

Status: Special Concern

Assessment criteria: not applicable

**Reason for designation**: This moth is known only from Canada and is restricted to oak habitats in southern Ontario including savannah, woodland, forest edge, and other semi-open areas. It is exposed to many threats including competition from the invasive Spongy Moth during the larval stages and the impact of *Btk* pesticide used to control this non-native moth. Other threats include ecosystem modification from fire suppression and the decline of oak trees.

Range: ON

Status history: Designated Special Concern in December 2023.

# **Vascular Plants**

## Cleland's Evening-primrose

Scientific name: Oenothera clelandii

Status: Endangered

Assessment criteria: A2ace; B1ab(i,ii,iii,iv,v)+2ab(i,ii,iii,iv,v); C2a(i); D1

**Reason for designation**: This relic of dry tallgrass prairie communities occurs from mid-western United States to Ontario. In Canada, this prairie wildflower is known from four isolated sites in southwestern Ontario. While no plants have been seen since 2001, it may still be present within the seedbank. Its decline in Canada is thought to be due to

habitat loss and degradation through development, fire suppression, and competition with exotic and native terrestrial plants.

Range: ON

Status history: Designated Endangered in December 2023.

#### Forked Bluecurls

Scientific name: Trichostema dichotomum

Status: Threatened

**Assessment criteria**: Met criteria for Endangered, A2ace, but designated Threatened, A2ace, because the wildlife species is not at imminent risk of extirpation.

**Reason for designation**: In Canada, this annual mint grows on open dry sand deposits and acidic rocky barrens at only a few sites in southern Ontario, Quebec, and Nova Scotia. Over the past 10 years, the Canadian population declined by at least 50%, to 3200-3700 mature individuals. Although factors causing declines are not fully understood, most current threats relate to human activities that disrupt natural ecological processes, such as fire suppression and competition from native and invasive species in habitats affected by human development.

Range: NS, ON, QC

Status history: Designated Threatened in December 2023.

#### **Hibberson's Trillium**

Scientific name: Trillium hibbersonii

Status: Threatened

Assessment criteria: B1ab(iii)+2ab(iii); C2a(i)

**Reason for designation**: This Canadian endemic perennial plant is globally restricted to a small area on the west coast of Vancouver Island in British Columbia. It is distributed in seven subpopulations, most with less than a few hundred individuals, on rocky outcrops and cliffs with seasonal seepages near ocean, river, and lake shorelines. It is threatened by the continuing decline of its habitat from landslides, severity of storms and flooding due to climate change and, indirectly, from forest-harvesting activities increasing erosion and altering seepage patterns. The limited population size and number of subpopulations makes the species vulnerable to these stochastic events.

Range: BC

Status history: Designated Threatened in December 2023.

## Macoun's Meadowfoam

Scientific name: Limnanthes macounii

Status: Special Concern

Assessment criteria: not applicable

**Reason for designation**: This plant is a Canadian endemic that occurs within a narrow coastal fringe of seasonally wet microhabitats where it is at risk from continued competition with a wide range of exotic plants, increasing frequency of extreme weather events, and possible consumption by introduced and locally abundant Canada geese. The known population of this plant has increased considerably since the last assessment due to more search effort. This has resulted in the discovery of new sites, including a managed site, that increases the total population size 50-fold. The status has changed primarily due to a change in the way assessment criteria are now applied; the population is no longer considered to be severely fragmented.

Range: BC

**Status history**: Designated Special Concern in April 1988. Status re-examined and designated Threatened in November 2004. Status re-examined and designated Special Concern in December 2023.

#### **White Wood Aster**

Scientific name: Eurybia divaricate

Status: Special Concern

Assessment criteria: not applicable

**Reason for designation**: This herbaceous perennial plant is found in the temperate forests of eastern North America, reaching the northern limit of its range in Canada. Thirty geographically-restricted and isolated subpopulations occur in patches of deciduous forest in extreme southern Ontario and southwestern Quebec. Recent surveys have found additional subpopulations, with over 100,000 known mature plants in Canada. The change in status reflects this higher estimate of abundance, and changes to the way that criteria are applied. However, the species is still threatened by habitat loss and degradation due to housing, recreational activities, agriculture, and forestry, as well as invasive species and deer browsing.

Range: ON, QC

**Status history**: Designated Threatened in April 1995. Status re-examined and confirmed in November 2002. Status re-examined and designated Special Concern in December 2023.

# **Mosses**

# Rigid Apple Moss

Scientific name: Bartramia aprica

Status: Threatened

Assessment criteria: C2a(i)

**Reason for designation**: This moss occurs in Canada in the Mediterranean climates of southern Vancouver Island and the Gulf Islands. It is restricted to rock outcrops and well-drained, shallow soil in close association with seepages, almost all within imperiled Garry Oak ecosystems. Increased survey effort has shown that the species is more widespread than previously known, reducing its risk of extirpation. However, the population remains small, and habitat loss through climate change, fire and fire suppression, and invasive non-native species continues to threaten the species.

Range: BC

**Status history**: Designated Threatened in April 1997. Status re-examined and designated Endangered in May 2000 and November 2009. Status re-examined and designated Threatened in December 2023.

\*The report on Snapping Turtle (*Chelydra serpentina*) was withdrawn to incorporate newly available information.

1/12/2023