

COSEWIC Wildlife Species Assessments (detailed version), April 2010*

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. Assessment criteria and reason for designation are shown, where applicable**.

Birds

Acadian Flycatcher *Empidonax vireescens* **Endangered**
Assessment Criteria D1

Reason for Designation

In Canada, this species is restricted to certain types of mature forest in southern Ontario. Only small numbers breed in Canada. Although the population appears to have been relatively stable over the past 10-20 years, this is most likely due to immigration from U.S. populations. The species is threatened by forestry practices, particularly those that target removal of large trees. Serious conservation concerns, both in Canada and the adjacent U.S. also stem from increasingly widespread losses of a variety of favoured nest tree species owing to the spread of an array of exotic forest insects and pathogens. Collectively, these threats to habitat greatly reduce potential for rescue from adjacent U.S. populations.

Range ON

Status History

Designated Endangered in April 1994. Status re-examined and confirmed in November 2000 and April 2010.

Whooping Crane *Grus americana* **Endangered**
Assessment Criteria B1ab(iii); D1

Reason for Designation

Canada is home to 100% of the naturally-occurring global breeding population of this species. Although never common, its population dipped to only 14 adult birds early in the last century, at which point the species was at the brink of extinction. Conservation efforts in Canada and the U.S. not only rescued the remnant population from extinction, but later resulted in population increases. To help ensure persistence of the species, efforts to establish wild flocks of captive-bred individuals outside Canada have been underway for several decades. Nevertheless, Canada's breeding population is still very small and is confined to a limited breeding area and only one wintering location. This situation exposes it to catastrophic natural events (e.g. droughts, hurricanes) and a variety of ongoing anthropogenic threats (e.g. loss and degradation of coastal wetland habitats on the wintering grounds, oil spills in coastal areas, and collisions with power lines and structures during migration). Last, because of delayed sexual maturity and a naturally low annual reproductive output, the population of this species has an inherently weak capacity to rebound from pressures that reduce survivorship or reproductive success.

Range NT AB SK MB

Status History

Designated Endangered in April 1978. Status re-examined and confirmed in November 2000 and in April 2010.

Bobolink *Dolichonyx oryzivorus* **Threatened**
Assessment Criteria A2b

Reason for Designation

Over 25% of the global population of this grassland bird species breeds in Canada, which is the northern portion of its range. The species has suffered severe population declines since the late 1960's and the declines have continued over the last 10 years, particularly in the core of its range in Eastern Canada. The species is threatened by incidental mortality from agricultural operations, habitat loss and fragmentation, pesticide exposure and bird control at wintering roosts.

Range BC AB SK MB ON QC NB PE NS NL

Status History

Designated Threatened in April 2010.

Lewis's Woodpecker*Melanerpes lewis***Threatened**Assessment Criteria C2a(i); D1Reason for Designation

In Canada, this woodpecker breeds only in British Columbia. Its population is small, with fewer than 1000 individuals, and there is evidence of ongoing declines in parts of its Canadian range where it has been monitored over time. The global population (Canada and the USA) is also showing significant declines. Threats include habitat loss and degradation from increasing urban and agriculture development, and fire suppression. Recent surveys have shown the species to be far less numerous than previously believed.

Range BCStatus History

Designated Special Concern in April 1999. Status re-examined and confirmed in November 2001. Status re-examined and designated Threatened in April 2010.

Sprague's Pipit*Anthus spragueii***Threatened**

Assessment Criteria Does not meet any of the criteria, but designated Threatened because of a substantial decline in the population since the late 1960's and a projected loss and fragmentation of habitat likely to affect this area sensitive grassland specialist.

Reason for Designation

Approximately 80% of the global breeding population of this species occurs in Canada. It is a habitat specialist that needs large tracts of intact native grassland for breeding. Threats at both breeding and wintering grounds include ongoing habitat loss, degradation and fragmentation. The species has experienced long-term declines with no evidence of recovery.

Range AB SK MBStatus History

Designated Threatened in April 1999. Status re-examined and confirmed in May 2000 and April 2010.

Flammulated Owl*Otus flammeolus***Special Concern**Assessment Criteria not applicableReason for Designation

In Canada, this small owl is restricted to older Douglas-fir and Ponderosa Pine forests of the southern interior of British Columbia. The species requires mature coniferous forests with a mosaic of large-diameter, old trees, clumps of dense regenerating younger trees and small patches of shrubby grassland for breeding. The extent and quality of this habitat was significantly reduced through the early to mid-1900s by forest harvest. Ongoing threats include forestry practices that remove large trees and snags, epidemics of insect pests such as the Mountain Pine Beetle and catastrophic fires combined with the species' small population, limited distribution, small clutch size and delayed breeding of males.

Range BCStatus History

Designated Special Concern in April 1988. Status re-examined and confirmed Special Concern in April 1999, November 2001, and April 2010.

Reptiles**Loggerhead Sea Turtle***Caretta caretta***Endangered**Assessment Criteria A2b+4bReason for Designation

This species is declining globally and there are well documented, ongoing declines in the Northwest Atlantic population from which juveniles routinely enter and forage in Atlantic Canadian waters. The Canadian population is threatened directly by commercial fishing, particularly bycatch in the pelagic longline fleet, and by loss and degradation of nesting beaches in the southeastern USA and the Caribbean. Other threats include bycatch from bottom and midwater trawls, dredging, gillnets, marine debris, chemical pollution and illegal harvest of eggs and nesting females.

Range Atlantic Ocean

Status History

Designated Endangered in April 2010.

Queensnake

Regina septemvittata

Endangered

Assessment Criteria B2ab(ii,iii,iv,v); C2a(i)

Reason for Designation

This species has a restricted and shrinking distribution in southwest Ontario. It consists of scattered small populations which are isolated due to habitat fragmentation and the species' limited dispersal capacity. Over the last decade, the number of extant locations has declined and the species' riparian and riverine habitat has continued to be lost and degraded. The species is limited by its extremely specialized diet and threatened by decline in its prey of freshly moulted juvenile crayfish. Other threats include persecution and effects of invasive Zebra Mussels and Common Reed.

Range ON

Status History

Designated Threatened in April 1999. Status re-examined and confirmed in May 2000. Status re-examined and designated Endangered in April 2010.

Amphibians

Fowler's Toad

Anaxyrus fowleri

Endangered

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

Reason for Designation

This species only occurs on sandy beaches in three disjunct areas along the north shore of Lake Erie. It has disappeared from numerous historic sites on the Lake Erie shore and continues to decline in abundance and number of populations with further habitat loss and degradation due to invasive species (Common Reed, Zebra Mussels) and anthropogenic activities including shoreline development, beach cleaning, construction of breakwalls, bulldozing of beaches, vehicle use on beaches and agricultural and industrial contaminants. In addition, a Population Viability Analysis (PVA) model suggests that over the last decade, the probability of extirpation within 20 years has increased substantially.

Range ON

Status History

Designated Special Concern in April 1986. Status re-examined and designated Threatened in April 1999. Status re-examined and confirmed in November 2000. Status re-examined and designated Endangered in April 2010.

Great Plains Toad

Anaxyrus cognatus

Special Concern

Assessment Criteria not applicable

Reason for Designation

This species is widespread but has a scattered distribution of mostly small populations that fluctuate in numbers. It almost meets criteria for Threatened and could become Threatened because of ongoing loss and degradation of habitat, particularly loss of intermittent wetlands from cultivation, oil and gas development and increase in droughts. These threats increase fragmentation of populations and jeopardize their persistence.

Range AB SK MB

Status History

Designated Special Concern in April 1999. Status re-examined and confirmed in May 2002 and April 2010.

Fishes

Atlantic Cod

Gadus morhua

Endangered

Newfoundland and Labrador population

Assessment Criteria A2b

Reason for Designation

This designatable unit (DU) includes the cod management units 2GH, 2J3KL and 3NO, located in the inshore and offshore waters of Labrador and eastern Newfoundland, and the Grand Banks. Cod in this area have declined 97-99% in the past 3

generations and more than 99% since the 1960s. The area of occupancy declined considerably as the stock collapsed in the early 1990s. The main cause of the decline in abundance was overfishing, and there has been a large reduction in the fishing rate since 1992. However, the population has remained at a very low level with little sign of substantive recovery. The most recent surveys indicate an increase in abundance over the past 3 years, however this change in abundance is very small compared to the measured decline over the past 3 generations. The extremely low level of abundance and contracted spatial distribution makes the population vulnerable to catastrophic events, such as abnormal oceanographic conditions. Threats from fishing, predation, and ecosystem changes persist. There is no limit reference point (LRP) for the 2J3KL management unit but the population in this area is considered to be well below any reasonable LRP value. The offshore 2J3KL fishery is under moratorium and there is an inshore stewardship fishery with no formal total allowable catch (TAC). The fishery in the 3NO management unit is also under moratorium. There is a LRP for this management unit and the population is well below this value.

Range Atlantic Ocean

Status History

The species was considered a single unit and designated Special Concern in April 1998. When the species was split into separate populations in May 2003, the Newfoundland and Labrador population was designated Endangered. Status re-examined and confirmed in April 2010.

Atlantic Cod

Gadus morhua

Endangered

Laurentian South population

Assessment Criteria A2b+3b+4b; E

Reason for Designation

Populations in this designatable unit (DU) have declined by 90% in the past 3 generations. The main cause of the rapid decline in abundance during the early 1990s was overfishing. Commercial fisheries were curtailed in 1993 and the abundance stabilized for a number of years. However, increased natural mortality and continued small catches have caused the abundance to decline again. Quantitative analysis of population demographic parameters indicate the population will continue to decline in the absence of fishing if the current elevated level of natural mortality persists. This DU includes the cod management units 4TVn (November – April), 4Vn (May – October) and 4VsW. A limit reference point (LRP) has been estimated for the 4TVn management unit and the current status is assessed to be well below the LRP. An LRP has not been estimated for the 4VsW management unit, however it is considered to be at a critically low level.

Range Atlantic Ocean

Status History

The species was considered a single unit and designated Special Concern in April 1998. When the species was split into separate populations in May 2003, the Maritimes population was designated Special Concern. When the Maritimes population was further split into two populations (Laurentian South population and Southern population) in April 2010, the Laurentian South population was designated Endangered, and the original Maritimes population was de-activated.

Atlantic Cod

Gadus morhua

Endangered

Southern population

Assessment Criteria A2b

Reason for Designation

Populations in this designatable unit (DU) have declined by 64% in the past 3 generations and the decline is continuous. Commercial fishing is ongoing and is an important contributor to the decline. As well, there is evidence of an unexplained increase in natural mortality in the 4X portion of the DU. Rescue from the US population is unlikely given the low abundance of the species in that area. This DU includes the cod management units 4X5Y and 5Zjm. There is a directed fishery for the species in the 4X5Y area, and although there is no limit reference point (LRP), recent fishery management advice indicates that this management unit is at a critically low level. There is also a directed fishery in the 5Zjm management unit and this fishery is co-managed with the United States.

Range Atlantic Ocean

Status History

The species was considered a single unit and designated Special Concern in April 1998. When the species was split into separate populations in May 2003, the Maritimes population was designated Special Concern. When the Maritimes population was further split into two populations (Laurentian South population and Southern population) in April 2010, the Southern population was designated Endangered, and the original Maritimes population was de-activated.

Atlantic Cod *Gadus morhua* **Endangered**
Laurentian North population
Assessment Criteria A2b

Reason for Designation

Populations in this designatable unit (DU) have declined 76-89% in the past 3 generations. The main cause of the decline in abundance was overfishing and there is no indication of recovery. This DU includes the cod management units 3Ps and 3Pn4RS. A limit reference point (LRP) has been estimated for the 3Pn4RS management unit. The abundance for this management unit has been relatively stable over the past decade, but it is well below the LRP, and directed fisheries continue. Abundance in southern Newfoundland (3Ps) is declining. The assessment indicates that this management unit is at the LRP, and directed fisheries continue.

Range Atlantic Ocean

Status History

The species was considered a single unit and designated Special Concern in April 1998. When the species was split into separate populations in May 2003, the Laurentian North population was designated Threatened. Status re-examined and designated Endangered in April 2010.

Deepwater Redfish *Sebastes mentella* **Endangered**
Gulf of St. Lawrence - Laurentian Channel population
Assessment Criteria A2b+4b

Reason for Designation

As with other members of the family Sebastidae, this species is long-lived (maximum age about 75 yr), late-maturing (generation time 18 yr), and highly vulnerable to mortality from human activities. Recruitment is episodic, with strong year-classes only occurring every 5-12 years. Abundance of mature individuals has declined 98% since 1984, somewhat more than one generation, and the decline has not ceased. Directed fishing and incidental harvest in fisheries for other species (bycatch) are the main known threats. Harvesting in parts of this population (Gulf of St. Lawrence) is currently limited to an index fishery, but commercial fisheries remain open in other areas (Laurentian Channel). Bycatch in shrimp fisheries has been substantially reduced since the 1990s by use of separator grates in trawls, but could still be frequent enough to affect recovery.

Range Atlantic Ocean

Status History

Designated Endangered in April 2010.

Morrison Creek Lamprey *Lampetra richardsoni* **Endangered**
Assessment Criteria B1ab(iii)+2ab(iii)

Reason for Designation

This dimorphic population of lamprey is a small freshwater fish endemic to a small stream on eastern Vancouver Island. It is susceptible to habitat loss and degradation owing to its close proximity to a major highway and increasing urbanization in the watershed.

Range BC

Status History

Designated Threatened in April 1999. Status re-examined and designated Endangered in May 2000 and in April 2010.

Paxton Lake Benthic Stickleback *Gasterosteus sp.* **Endangered**
Assessment Criteria A3e

Reason for Designation

This small freshwater fish is a unique Canadian endemic that is restricted to a single small lake in coastal British Columbia (BC). The wildlife species is highly susceptible to extinction from aquatic invasive species introductions that have been observed to cause rapid extinction of similar species in at least two other lakes. Invasive aquatic species continue to increase in lakes on adjacent Vancouver Island and the lower mainland of BC, and there is, therefore, a reasonable likelihood that invasives could be introduced into the habitat of the species over the next 10 years. This species is also susceptible to habitat loss and degradation from water extraction and land use activities in the surrounding landscape.

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.

Paxton Lake Limnetic Stickleback

Gasterosteus sp.

Endangered

Assessment Criteria A3e

Reason for Designation

This small freshwater fish is a unique Canadian endemic that is restricted to a single small lake in coastal British Columbia (BC). The wildlife species is highly susceptible to extinction from aquatic invasive species introductions that have been observed to cause rapid extinction of similar species in at least two other lakes. Invasive aquatic species continue to increase in lakes on adjacent Vancouver Island and the lower mainland of BC, and there is, therefore, a reasonable likelihood that invasives could be introduced into the habitat of the species over the next 10 years. This species is also susceptible to habitat loss and degradation from water extraction and land use activities in the surrounding landscape.

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.

Vananda Creek Benthic Stickleback

Gasterosteus sp.

Endangered

Assessment Criteria A3e

Reason for Designation

This small freshwater fish is a unique Canadian endemic that is restricted to three small, interconnected lakes in coastal British Columbia (BC). The wildlife species is highly susceptible to extinction from aquatic invasive species introductions that have been observed to cause rapid extinction of similar species in at least two other lakes. Invasive aquatic species continue to increase in lakes on adjacent Vancouver Island and the lower mainland of BC, and there is, therefore, a reasonable likelihood that invasives could be introduced into the habitat of the species over the next 10 years. This species is also susceptible to habitat loss and degradation from water extraction and land use activities in the surrounding landscape.

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.

Vananda Creek Limnetic Stickleback

Gasterosteus sp.

Endangered

Assessment Criteria A3e

Reason for Designation

This small freshwater fish is a unique Canadian endemic that is restricted to three small, interconnected lakes in coastal British Columbia (BC). The wildlife species is highly susceptible to extinction from aquatic invasive species introductions that have been observed to cause rapid extinction of similar species in at least two other lakes. Invasive aquatic species continue to increase in lakes on adjacent Vancouver Island and the lower mainland of BC, and there is, therefore, a reasonable likelihood that invasives could be introduced into the habitat of the species over the next 10 years. This species is also susceptible to habitat loss and degradation from water extraction and land use activities in the surrounding landscape.

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.

Acadian Redfish

Sebastes fasciatus

Threatened

Atlantic population

Assessment Criteria Met criterion for Endangered, A2b, but designated Threatened, A2b, because the species is widely

distributed, the population includes several hundred million mature individuals, and abundance indices are stable or increasing since the 1990s in some areas.

Reason for Designation

As with other members of the family Sebastidae, this species is long-lived (maximum age about 75 yr), late-maturing (generation time 16-18 yr), and highly vulnerable to mortality from human activities. Recruitment is episodic, with strong year-classes only occurring every 5-12 years. Abundance of mature individuals has declined 99% in areas of highest historical abundance over about two generations. However, since the 1990's, there has been no long-term trend in one area, and trends have been stable or increasing in other areas where large declines have been previously observed. Directed fishing and incidental harvest in fisheries for other species (bycatch) are the main known threats. Fisheries in parts of the range of this designatable unit (DU) are currently closed, but remain open in other areas. Bycatch in shrimp fisheries has been substantially reduced since the 1990s by use of separator grates in trawls, but could still be frequent enough to affect population recovery.

Range Atlantic Ocean

Status History

Designated Threatened in April 2010.

Coastrange Sculpin

Cottus aleuticus

Threatened

Cultus population

Assessment Criteria D2

Reason for Designation

This species is a small Canadian endemic freshwater fish found in a single lake in the lower mainland region of southwestern British Columbia, an area undergoing sustained and rapid urbanization. The lake is heavily used by recreationists and drains into the lower Fraser River area where many invasive species are well-established. Trends in indices of abundance suggest a persistent decline and the single location makes the species particularly vulnerable should either habitat quality decline or vertebrate invasive species become established in the lake.

Range BC

Status History

Designated Special Concern in April 1997. Status re-examined and designated Threatened in November 2000 and in April 2010.

Deepwater Redfish

Sebastes mentella

Threatened

Northern population

Assessment Criteria Met criterion for Endangered, A2b, but designated Threatened, A2b, because the species is widely distributed, includes several million mature individuals, and has been stable or increasing since the mid-1990s.

Reason for Designation

As with other members of the family Sebastidae, this species is long-lived (maximum age about 75 yr), late-maturing (generation time 23 yr), and highly vulnerable to mortality from human activities. Recruitment is episodic, with strong year-classes only occurring every 5-12 years. Abundance of mature individuals has declined 98% since 1978, somewhat over one generation. However, declines have stopped since the mid-1990s and increases have been observed in some areas. Directed fishing and incidental harvest in fisheries for other species (bycatch) are the main known threats. Fisheries in parts of this designatable unit are currently closed, but remain open in other areas. Bycatch in shrimp fisheries has been substantially reduced since the 1990s by use of separator grates in trawls, but could still affect population recovery.

Range Arctic Ocean Atlantic Ocean

Status History

Designated Threatened in April 2010.

Umatilla Dace

Rhinichthys umatilla

Threatened

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

Reason for Designation

This small freshwater fish has a limited distribution in Canada encompassing habitats that have been extensively modified by widespread hydroelectric developments (change from riverine to reservoir habitats, altered flow regimes). It is likely that habitat will continue to be lost and degraded owing to hydroelectric operations, climate change, and increased water extraction. This species is also susceptible to aquatic invasive species that are widespread in the Columbia-Kootenay

Rivers' portion of the species' range. Proposed additional hydroelectric and water storage development in the Similkameen River drainage is a potential major threat to habitat quality.

Range BC

Status History

Designated Special Concern in April 1988. Status re-examined and designated Threatened in April 2010.

Yellowmouth Rockfish

Sebastes reedi

Threatened

Assessment Criteria A2b

Reason for Designation

As with other rockfish species, this slow-growing (generation time 30 years), long-lived (maximum age 100 years) species is vulnerable to commercial fishing. Research vessel surveys indicate that abundance has declined considerably over the past 40 years (1.5 generations). While contemporary surveys designed specifically for groundfish species indicate a recent period (5 years) of relative stability, it is not clear that the decline has ceased. The initial period of decline occurred as the commercial fishery for this and other rockfish species developed. Although this is considered normal for a newly exploited population, the total decline in abundance is inferred to be well beyond what is optimal for an exploited population. The absence of any strong recruitment events during the last 20 years is also a concern. The species is an important component of BC's commercial fisheries. Fishing continues to be a threat and there is no established limit reference point to help manage these fisheries in a precautionary manner.

Range Pacific Ocean

Status History

Designated Threatened in April 2010.

Acadian Redfish

Sebastes fasciatus

Special Concern

Bonne Bay population

Assessment Criteria not applicable

Reason for Designation

As with other members of the family Sebastidae, this species is long-lived (maximum age about 75 yr), late-maturing (females 50% mature at 8-10 yr in the adjacent Gulf of St. Lawrence/Laurentian Channel population), and highly vulnerable to mortality from human activities. Little is known of the biology of this designatable unit (DU). It has a small range of occurrence but there is no indication of decline. The population has been exploited by fishing in the past, but is currently closed to directed fishing. This DU is susceptible to extirpation by random events such as oil spills.

Range Atlantic Ocean

Status History

Designated Special Concern in April 2010.

Atlantic Cod

Gadus morhua

Special Concern

Arctic Lakes population

Assessment Criteria not applicable

Reason for Designation

This designatable unit (DU) exists in 3 isolated lakes on Baffin Island, Nunavut. The combined surface area of the 3 lakes is less than 20 km². Rescue from other DUs is not possible. One of the lakes, Ogac Lake, is accessible for fishing and large numbers of the species may be removed from the lake if fishing increases.

Range NU

Status History

The species was considered a single unit and designated Special Concern in April 1998. When the species was split into separate populations in May 2003, the Arctic population was designated Special Concern. When the Arctic population was further split into two populations (Arctic Lakes population and Arctic Marine population) in April 2010, the Arctic Lakes population was designated Special Concern, and the original Arctic population was de-activated.

Rocky Mountain Sculpin
Westslope populations

Cottus sp.

Special Concern

Assessment Criteria not applicable

Reason for Designation

This small freshwater fish is restricted to a small number of locations (nine) within the Flathead River basin in southeastern British Columbia. It is sedentary as an adult and is particularly susceptible to habitat degradation from road building and associated use.

Range BC

Status History

Designated Special Concern in April 2010.

Spiny Dogfish

Squalus acanthias

Special Concern

Atlantic population

Assessment Criteria not applicable

Reason for Designation

This small shark is widely distributed in temperate regions of the world's oceans and appears to be a habitat generalist. The Atlantic population occurs from Labrador to Cape Hatteras; in Canadian waters the species is most abundant in southwest Nova Scotia. An average of six pups are born every two years; the gestation period of 18-24 months is one of the longest known for any vertebrate. The species has few natural predators, but is subject to both targeted and bycatch fishing mortality. The species remains relatively abundant in Canadian waters, but low fecundity, long generation time (23 years), uncertainty regarding abundance of mature females, and demonstrated vulnerability to overfishing in adjacent U.S. waters are causes for concern.

Range Atlantic Ocean

Status History

Designated Special Concern in April 2010.

Atlantic Cod

Gadus morhua

Data Deficient

Arctic Marine population

Assessment Criteria not applicable

Reason for Designation

Information to establish any COSEWIC status category with assurance is not available. Data on distribution, abundance, habitat, and changes over time are insufficient.

Range Arctic Ocean Atlantic Ocean

Status History

The species was considered a single unit and designated Special Concern in April 1998. When the species was split into separate populations in May 2003, the Arctic population was designated Special Concern. When the Arctic population was further split into two populations (Arctic Lakes population and Arctic Marine population) in April 2010, the Arctic Marine population was designated Data Deficient, and the original Arctic population was de-activated.

Arthropods

Frosted Elfin

Callophrys irus

Extirpated

Range ON

Status History

Extirpated by 1988. Designated Extirpated in April 1999. Status re-examined and confirmed in May 2000 and in April 2010.

Island Marble *Euchloe ausonides insulanus* **Extirpated**
Range BC

Status History

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

Karner Blue *Lycaeides melissa samuelis* **Extirpated**
Range ON

Status History

Has not been observed since 1991. Designated Extirpated in April 1997. Status re-examined and confirmed in May 2000 and April 2010.

Laura's Clubtail *Stylurus laurae* **Endangered**
Assessment Criteria B1ab(iii)+2ab(iii)

Reason for Designation

This attractive dragonfly of eastern North America is known from only two locations in unusual fast-moving sandy streams in southwestern Ontario. The species has a very small range in Canada and there is evidence of continuing decline of habitat.

Range ON

Status History

Designated Endangered in April 2010.

Rusty-patched Bumble Bee *Bombus affinis* **Endangered**
Assessment Criteria A2ce; B1ab(i,ii,iv,v)+2ab(i,ii,iv,v)

Reason for Designation

This species, which has a distinctive color pattern, was once commonly found throughout southern Ontario. Active searches throughout its Canadian range have detected only one small population over the past seven years which suggests a decline of at least 99% over the past 30 years. It is threatened by disease, pesticides, and habitat fragmentation, each of which could cause extirpation in the near future.

Range ON QC

Status History

Designated Endangered in April 2010.

Monarch *Danaus plexippus* **Special Concern**
Assessment Criteria not applicable

Reason for Designation

This species has a population of millions to over one billion individuals. The most sensitive stage of its annual cycle is overwintering. There are two main overwintering areas: the Oyamel Fir forests of Central Mexico, where 90% of the population overwinters, and coastal regions of California. The overall area of these sites is relatively small, and threats, especially from logging in the Oyamel Fir forests, are sufficient to suggest that the species could become Threatened in the near future.

Range BC AB SK MB ON QC NB PE NS

Status History

Designated Special Concern in April 1997. Status re-examined and confirmed in November 2001 and in April 2010.

Molluscs

Northern Riffleshell

Epioblasma torulosa rangiana

Endangered

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

Reason for Designation

This small freshwater mussel is restricted to two rivers in southern Ontario. Since the original COSEWIC assessment (2000), a small, possibly reproducing population was discovered in the Ausable River although only 16 live individuals, including one juvenile, have been found over the last 10 years. Recruitment is occurring at several sites along the Sydenham River and the population appears to be stable, but the perceived recovery could be due to increased sampling effort over the past 12 years. The main limiting factor is the availability of shallow, silt-free riffle habitat. Both riverine populations are in areas of intense agriculture and urban and industrial development, subject to siltation and pollution. Only four populations in the world, including the two in Canada, show signs of recruitment.

Range ON

Status History

Designated Endangered in April 1999. Status re-examined and confirmed in May 2000 and April 2010.

Rayed Bean

Villosa fabalis

Endangered

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

Reason for Designation

This freshwater mussel is one of the smallest in Canada. It is found in two rivers in southern Ontario; more than 99% of the estimated total population is found in the Sydenham River. The original COSEWIC assessment (2000) concluded that it had been extirpated from most of its Canadian range and was confined to one river but a new, albeit small, population was discovered in 2004 in the North Thames River. Thirteen live individuals were found between 2004 and 2008 in this river. The main limiting factor is the availability of shallow, silt-free riffle habitat. Both riverine populations are in areas of intense agriculture and urban development, subject to siltation and pollution. Invasive Zebra Mussels have rendered much of the historic habitat unsuitable and pose a continuing threat to one of the last remaining populations.

Range ON

Status History

Designated Endangered in April 1999. Status re-examined and confirmed in May 2000 and April 2010.

Threaded Vertigo

Nearctula sp.

Special Concern

Assessment Criteria not applicable

Reason for Designation

This minute terrestrial snail species is at the northern extent of its range, and found in lowland areas around the Strait of Georgia and on southern Vancouver Island. Most individuals live on the bark of Bigleaf Maple trees and appear to have poor capacity for dispersal between trees and sites. Removal of trees and habitat degradation due to urban expansion, roads and associated infrastructure, forestry, and agriculture are the main threats.

Range BC

Status History

Designated Special Concern in April 2010.

Wavy-rayed Lampmussel

Lampsilis fasciola

Special Concern

Assessment Criteria not applicable

Reason for Designation

This medium-sized freshwater mussel is confined to four river systems and the Lake St. Clair delta in southern Ontario. Since the original COSEWIC assessment of Endangered in 1999, surveys have identified a large, previously unknown reproducing population in the Maitland River. The mussels in the Thames River are also now reproducing. The largest population is in the Grand River; smaller but apparently reproducing populations are in the Ausable River and Lake St. Clair delta. Although water and habitat quality have declined throughout most of the species' former range in Canada, there are signs of improvement in some populations but habitats in Great Lakes waters are now heavily infested with invasive mussels and are uninhabitable for native mussels. The main limiting factor is the availability of shallow, silt-free

riffle/run habitat. All riverine populations are in areas of intense agriculture and urban and industrial development, subject to degradation, siltation, and pollution. Invasive mussels continue to threaten the Lake St. Clair delta population and could be a threat to populations in the Grand and Thames rivers if they invade upstream reservoirs.

Range ON

Status History

Designated Endangered in April 1999. Status re-examined and confirmed in October 1999. Status re-examined and designated Special Concern in April 2010.

Vascular Plants

Cucumber Tree

Magnolia acuminata

Endangered

Assessment Criteria D1

Reason for Designation

This forest canopy species of the Carolinian zone of southern Ontario is present as a series of small populations in a region of highly fragmented forest cover. Its total Canadian population consists of about 200 trees with most of the sites having only a few mature reproductive individuals. Several sites only have single trees without evidence of regeneration which makes the species highly susceptible to certain catastrophic events, such as ice storms. Its habitat is under continued impact from local disturbances and loss of forest area.

Range ON

Status History

Designated Endangered in April 1984. Status re-examined and confirmed Endangered in April 1999, May 2000, and April 2010.

Eastern Mountain Avens

Geum peckii

Endangered

Assessment Criteria A2c+4c; B1ab(ii,iii)+2ab(ii,iii)

Reason for Designation

This globally imperiled species is geographically restricted in Canada to three locations of open peatland habitat in Nova Scotia. Its habitat has declined due to encroachment by woody vegetation, exacerbated by artificial drainage of sites. Portions of the habitat have also become degraded by nesting gulls. Threats including all-terrain vehicles, road maintenance and development have also impacted this species. Fewer than 9000 mature individuals remain with most found on private land.

Range NS

Status History

Designated Endangered in April 1986. Status re-examined and confirmed Endangered in April 1999, May 2000, and April 2010.

Eastern Prickly Pear Cactus

Opuntia humifusa

Endangered

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

Reason for Designation

This cactus of sandy habitats is restricted in Canada to two very small locations in extreme southwestern Ontario along the north shore of Lake Erie. The two native populations are primarily at risk from habitat loss and degradation due to vegetation succession and shoreline erosion. Stochastic events could readily eliminate the population on Pelee Island consisting only of a few plants.

Range ON

Status History

Designated Endangered in April 1985. Status re-examined and confirmed Endangered in April 1998, May 2000, and April 2010.

Four-leaved Milkweed

Asclepias quadrifolia

Endangered

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

Reason for Designation

Only two small extant populations are known in Canada at the eastern end of Lake Ontario, each with very low numbers of individuals. Historic populations within the Niagara Falls region are believed extirpated. Extant populations are in very rare limestone deciduous woodland communities where plants are at risk from shading by invasive Common Buckthorn shrubs and from native shrubs and trees expanding in the absence of ground fires. Residential development is a potential threat at the largest site. Future development on this site remains a reasonable possibility.

Range ON

Status History

Designated Endangered in April 2010.

Victoria's Owl-clover

Castilleja victoricae

Endangered

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

Reason for Designation

This small annual herb is confined to a very small area of British Columbia and one site in adjacent Washington State. The species is restricted to seasonally wet microhabitats within the highly fragmented and declining Garry Oak ecosystem. Five of the nine Canadian populations disappeared before 1957 and one other population may have been recently extirpated. The three to four extant populations are subject to ongoing competition with several invasive exotic plants and two of the populations are very small and occur in areas used for recreational activities where trampling is a continuing problem.

Range BC

Status History

Designated Endangered in April 2010.

Virginia Mallow

Sida hermaphrodita

Endangered

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

Reason for Designation

This globally rare showy perennial herb of the mallow family occurs in open riparian and wetland habitats where it reproduces by seed and asexually by spreading rhizomes. Only two small populations, separated by about 35 km, are known from southwestern Ontario where they are at risk from continued decline in habitat area and quality due to an aggressive invasive grass and quarry expansion.

Range ON

Status History

Designated Endangered in April 2010.

Whitebark Pine

Pinus albicaulis

Endangered

Assessment Criteria A3ce+4ace

Reason for Designation

This long-lived, five-needled pine is restricted in Canada to high elevations in the mountains of British Columbia and Alberta. White Pine Blister Rust alone is projected to cause a decline of more than 50% over a 100 year time period. The effects of Mountain Pine Beetle, climate change, and fire exclusion will increase the decline rate further. Likely, none of the causes of decline can be reversed. The lack of potential for rescue effect, life history traits such as delayed age at maturity, low dispersal rate, and reliance on dispersal agents all contribute to placing this species at high risk of extirpation in Canada.

Range BC AB

Status History

Designated Endangered in April 2010.

Dense Blazing Star

Liatris spicata

Threatened

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

Reason for Designation

This showy perennial herb is restricted in Canada to a few remnant tallgrass prairie habitats in southwestern Ontario. A variety of threats, including lack of consistent application of fire to control the spread of woody species, spread of invasive plants, loss of habitat to agriculture and development and various management practices, including mowing, have placed the species at continued risk.

Range ON

Status History

Designated Special Concern in April 1988. Status re-examined and designated Threatened in May 2001. Status re-examined and confirmed in April 2010.

Tubercled Spike-rush

Eleocharis tuberculosa

Special Concern

Assessment Criteria not applicable

Reason for Designation

In Canada, this sedge is known to exist only along peaty and sandy shorelines at six lakes in southwestern Nova Scotia. The use of all-terrain vehicles along the shores of the two larger lakes, where most of the Canadian population occurs, has degraded portions of the species' habitat. Cottage development and related impacts (water quality and habitat disturbances) are currently limited threats that have the potential to increase in the future. More intensive surveys of lakeshore habitats indicate that the species is somewhat more abundant than previously documented.

Range NS

Status History

Designated Threatened in May 2000. Status re-examined and designated Special Concern in April 2010.

Western Blue Flag

Iris missouriensis

Special Concern

Assessment Criteria not applicable

Reason for Designation

This showy perennial is restricted to ten native sites and is also present at a few sites where it is believed to have been introduced. It occurs primarily in the grasslands of southern Alberta. Several new populations have been discovered since the species was last assessed. The area occupied and total population size of native plants are now known to be larger than previously determined. The total Canadian population appears to be stable but fluctuates in size. The species is subject to on-going competition from invasive plants, but trampling in areas heavily grazed by cattle has been largely mitigated by recovery actions.

Range AB

Status History

Designated Threatened in April 1990. Status re-examined and confirmed in May 2000. Status re-examined and designated Special Concern in April 2010.

Lichens

Oldgrowth Specklebelly Lichen

Pseudocyphellaria rainierensis

Special Concern

Assessment Criteria not applicable

Reason for Designation

This foliose, tree-inhabiting lichen is endemic to old-growth rainforests of western North America. In Canada, it is limited to coastal or near-coastal areas of southern British Columbia. Recent discoveries of additional records have only slightly expanded the known range of occurrence, and the lichen remains threatened by ongoing loss of old growth forests through clear-cut logging. The low dispersal ability of its heavy propagules contributes to its rarity, as does its restriction to nutrient hotspots, such as dripzones under old Yellow-cedars, toe slope positions, and sheltered seaside forests. It tends to occur discontinuously and on very few trees in the stands where it is established.

Range BC

Status History

Designated Special Concern in April 1996. Status re-examined and confirmed in April 2010.

*The report on Pitcher's Thistle (*Cirsium pitcheri*) was withdrawn to allow inclusion of genetic data. The report on Crumpled Tarpaper Lichen (*Collema coniophilum*) was withdrawn to incorporate more information on search effort and to clarify threats. The report on Skillet Clubtail (*Gomphus ventricosus*) was withdrawn and a revised version of the status report will be prepared. It is anticipated that these wildlife species will be re-considered by COSEWIC in November 2010. The assessment of Rocky Mountain Tailed Frog (*Ascaphus montanus*) was deferred.

**Assessment criteria and reasons for designation are not specified when a review of classification is conducted by means of status appraisal. The status appraisal process is used when a review of classification is required and it is reasonably certain that the wildlife species' status has not changed from the previous assessment.

05/11/2010