

COSSARO classifications from March 24-25 and May 27-29, 2009 assessments reported to the Minister on June 11, 2009.

Species Group	Common Name	Scientific Name	COSSARO classification	Current SARO List
Vascular Plants	Bent Spike-rush	<i>Eleocharis geniculata</i>	Endangered	N/A
Vascular Plants	Drooping Trillium	<i>Trillium flexipes</i>	Endangered	Endangered
Molluscs	Fawnsfoot	<i>Truncilla donaciformis</i>	Endangered	N/A
Insects	Frosted Elfin ¹	<i>Callophrys irus</i>	Extirpated	Endangered
Insects	Rapids Clubtail	<i>Gomphus quadricolor</i>	Endangered	N/A
Fishes	Bigmouth Buffalo	<i>Ictiobus cyprinellus</i>	Not at Risk	Special Concern
Fishes	Lake Chubsucker	<i>Erimyzon sucetta</i>	Threatened	Threatened
Fishes	Lake Sturgeon (Great Lakes - Upper St. Lawrence population)	<i>Acipenser fulvescens</i>	Threatened	Special Concern (1 DP) ²
Fishes	Lake Sturgeon (Hudson Bay-James Bay population)	<i>Acipenser fulvescens</i>	Special Concern	Special Concern (1 DP)
Fishes	Lake Sturgeon (Northwestern Ontario population)	<i>Acipenser fulvescens</i>	Threatened	Special Concern (1 DP)
Amphibians	Northern Leopard Frog	<i>Lithobates pipiens</i>	Not at Risk	[Not at Risk] ³
Amphibians	Western Chorus Frog	<i>Pseudacris triseriata</i>	Not at Risk	[Not at Risk]
Reptiles	Common Five-lined Skink (Carolinian population)	<i>Plestiodon fasciatus</i>	Endangered	Special Concern (1 DP)
Reptiles	Common Five-lined Skink (Southern Shield population)	<i>Plestiodon fasciatus</i>	Special Concern	Special Concern (1 DP)
Reptiles	Eastern Foxsnake (Carolinian population)	<i>Pantherophis gloydi</i>	Endangered	Threatened (1 DP)
Reptiles	Eastern Foxsnake (Georgian Bay population)	<i>Pantherophis gloydi</i>	Threatened	Threatened (1 DP)
Reptiles	Eastern Hog-nosed Snake	<i>Heterodon platirhinos</i>	Threatened	Threatened
Reptiles	Gray Ratsnake (Carolinian population)	<i>Pantherophis spiloides</i>	Endangered	Threatened (1 DP)
Reptiles	Gray Ratsnake (Frontenac Axis population)	<i>Pantherophis spiloides</i>	Threatened	Threatened (1 DP) ²
Reptiles	Snapping Turtle	<i>Chelydra serpentina</i>	Special Concern	N/A
Birds	Bald Eagle	<i>Haliaeetus leucocephalus</i>	Special Concern	Endangered - S. Ont Special Concern - N. Ont
Birds	Canada Warbler	<i>Wilsonia canadensis</i>	Special Concern	N/A
Birds	Chimney Swift	<i>Chaetura pelagica</i>	Threatened	N/A
Birds	Common Nighthawk	<i>Chordeiles minor</i>	Special Concern	N/A
Birds	Hooded Warbler	<i>Wilsonia citrina</i>	Special Concern	Threatened
Birds	Horned Grebe	<i>Podiceps auritus</i>	Special Concern	[Data Deficient] ³
Birds	Least Bittern	<i>Ixobrychus exilis</i>	Threatened	Threatened
Birds	Olive-sided Flycatcher	<i>Contopus cooperi</i>	Special Concern	N/A
Birds	Short-eared Owl	<i>Asio flammeus</i>	Special Concern	Special Concern
Birds	Whip-poor-will	<i>Caprimulgus vociferus</i>	Threatened	N/A
Mammals	Polar Bear	<i>Ursus maritimus</i>	Threatened	Special Concern

¹Species assessed at November 3-4, 2008 COSSARO meeting.

²DP = distinct population

³Note - species in the Not at Risk and Data Deficient categories are not included on the SARO List.

Recommended changes to names of species on the SARO List from March 24-25, 2009 COSSARO meeting (changes, additions or deletions denoted by bold text).

New name	Old name	Schedule number	Item number
Atlantic Salmon (Lake Ontario population) - <i>Salmo salar</i>	Atlantic Salmon (Great Lakes population) - <i>Salmo salar</i>	1	6
Eastern Tiger Salamander - <i>Ambystoma tigrinum</i>	Tiger Salamander - <i>Ambystoma tigrinum</i>	1	10
Few-flowered Club-rush - <i>Trichophorum planifolium</i>	Few-flowered Club-rush or Bashful Bulrush - <i>Trichophorum planifolium</i>	2	17
Fowler's Toad - Anaxyrus <i>fowleri</i>	Fowler's Toad - <i>Bufo fowleri</i>	3	31
Queensnake - <i>Regina septemvittata</i>	Queen Snake - <i>Regina septemvittata</i>	3	39
Eastern Musk Turtle - <i>Sternotherus odoratus</i>	Stinkpot - <i>Sternotherus odoratus</i>	3	41
Hart's-tongue Fern - <i>Asplenium scolopendrium</i>	American Hart's-tongue Fern - <i>Asplenium scolopendrium americanum</i>	4	2

**SPECIES CLASSIFIED BY COSSARO IN MARCH AND MAY 2009 AND THE
REASONS FOR THEIR CLASSIFICATION**
March and May 2009

Table of Contents

Vascular Plants		
	Bent Spike-rush	2
	Drooping Trillium	2
	Frosted Elfin	2
Mollusc		
	Fawnsfoot	2
Insect		
	Rapids Clubtail	3
Fishes		
	Bigmouth Buffalo	3
	Lake Chubsucker	3
	Lake Sturgeon	4
Amphibians		
	Northern Leopard Frog	5
	Western Chorus Frog	5
Reptiles		
	Common Five-lined Skink	5
	Eastern Foxsnake	6
	Eastern Hog-nosed Snake	7
	Gray Ratsnake	7
	Snapping Turtle	8
Birds		
	Bald Eagle	8
	Canada Warbler	9
	Chimney Swift	9
	Common Nighthawk	9
	Hooded Warbler	10
	Horned Grebe	10
	Least Bittern	10
	Olive-sided Flycatcher	11
	Short-eared Owl	11
	Whip-poor-will	11
Mammal		
	Polar Bear	12

VASCULAR PLANTS

Bent Spike-rush (*Eleocharis geniculata*) – Endangered

A distinctive sedge, the Bent Spike-rush is a small annual plant that lives on sandy soil along the shorelines of temporary ponds and wet open meadows. It has a broad global distribution, but is uncommon in northern North America. It is near the northern limit of its range in southern Ontario, where it is known from three sites along the north shore of Lake Erie but now appears to survive at only two locations. It has not been found since 1934 at its original discovery site in Rondeau Provincial Park. The two extant populations are threatened by the encroachment of the invasive Eurasian form of Common Reed. The Bent Spike-rush was classified as Endangered because of the small area of occupancy, the small sizes of populations and the presence of continuing threats to its survival.

Drooping Trillium (*Trillium flexipes*) - Endangered

Drooping Trillium is a perennial plant with large white flowers on drooping stems. It inhabits hardwood forests, usually on floodplain terraces or adjacent slopes. Its range extends from southwestern Ontario through the north central and eastern US. It was historically known from seven sites in Ontario, five where it is now believed to have been extirpated. The only confirmed extant sites in Canada are along the Sydenham River at Strathroy (approximately 1000 flowering stems) and along the Thames River in Dunwich Township (approximately 450 flowering stems). Numbers of plants were stable or increasing at the two sites between 1993 and 2007. Invasive exotic plants, especially Garlic Mustard, are probably the most significant threat to both populations. Grazing by White-tailed Deer and recreational activities are other potential threats. Drooping Trillium is classified as Endangered due to the continued threat of invasive species and vulnerability due to the small area of occupancy.

Frosted Elfin (*Callophrys irus*) – Extirpated

The Frosted Elfin is a small butterfly of oak savanna and pine barrens in eastern North America. It was known historically in Ontario only from a single site in remnant oak savannah within the St. Williams Forest, Norfolk County. The Frosted Elfin has not been seen at this or any other site in the province since 1988. There have been repeated searches of the historical site of occurrence and other sites supporting Wild Lupine, the species' larval host plant. Declining habitat quality associated with succession at the only known site, caused the loss of the Frosted Elfin from Ontario. It was originally regulated as an endangered species in Ontario in 1990 and is now classified as Extirpated.

MOLLUSC

Fawnsfoot (*Truncilla donaciformis*) – Endangered

This small freshwater mussel occurs in the Great Lakes and Mississippi River drainages. Most recent Ontario records of the Fawnsfoot are from four southwestern Ontario rivers. It has disappeared from western Lake Erie and the Detroit River, but there is a small population in Lake St. Clair. The current sizes of its populations are unknown, but there are only five known locations and two of these are based on single specimens. The decline in the species has been widespread and it is considered of high conservation concern in most northeastern North American jurisdictions where it occurs. The main threat appears to be competition from introduced Zebra Mussels. Declining

water quality associated with upstream agricultural and urban influences may also affect the species, and dams restrict the movement of fish that act as hosts for the parasitic larvae. Fawnsfoot is classified as Endangered because of the small population that has declined rapidly and the continuing threats from Zebra Mussels and habitat loss.

INSECT

Rapids Clubtail (*Gomphus quadricolor*) - Endangered

Rapids Clubtail is a small, elusive dragonfly found in medium-sized streams with riffles and pools from southern Ontario through the northeastern and north-central United States. Nymphs inhabit clear running water and are very sensitive to water quality. Adults leave streams to mature in the woods, but return to the water to lay eggs. Rapids Clubtails have occurred in several rivers in Ontario, including the Credit, Humber, Thames, and Mississippi. Today they are known from three sites, one on the Humber River, two on the Mississippi River. Rapids Clubtail is classified as Endangered because of the small number of occurrences, loss of populations, and ongoing threats from declining water quality, dams, and invasive species.

FISHES

Bigmouth Buffalo (*Ictiobus cyprinellus*) – Not at Risk

The Bigmouth Buffalo is a large fish and one of 18 species of suckers found in Canada. Bigmouth Buffalo prefers habitats in lakes and slower waters of medium- to large-sized rivers. Widely distributed in the Mississippi drainages of North America the distribution of Bigmouth Buffalo in Canada extends into the Great Lakes into the waters of southern Ontario and westward into the Assiniboine and Red River drainages of the Hudson Bay Basin in Manitoba and Saskatchewan. Records of this species from the 1970s in Lake of the Woods were likely the result of an unsuccessful, unauthorized introduction. COSEWIC recognized two populations in Canada, one extending into the Lake of the Woods region in Ontario and one occurring in Southern Ontario. This assessment, however, designates only one (in Southern Ontario) because regular surveys in northwestern Ontario have failed to capture any additional specimens since the two collected there in the late 1970s, which had likely been introduced. Known in Southern Ontario since 1957, there are only 11 known occurrences for Bigmouth Buffalo, most of which are new since the last assessment in 1989. Elsewhere in its range, changes in water management combined with overexploitation and exotic species have resulted in negative impacts to Bigmouth Buffalo populations. However, the species appears to be expanding its range in southern Ontario. The species is classified as Not at Risk because it currently faces few identified threats and its range is increasing.

Lake Chubsucker (*Erimyzon sucetta*) – Threatened

The Lake Chubsucker is a small sucker found in clear wetland areas of the southern Great Lakes and Mississippi basin. It was first reported from Ontario in 1949 and had been reported from 13 locations in southwestern Ontario, in the drainages of the Niagara River, Lakes Erie, St. Clair and Huron. They persist in 11 of these locations but appear to be declining at three of them. Lake Chubsuckers prefer clear, still, well vegetated waters as found in stagnant bays and channels and ponds and swamps where there is low turbidity and lots of vegetation. Substrates typically are clay, silt, sand, and organic debris. There are limited data on Ontario population sizes or trends. The species appears to be adversely affected by developments associated with agriculture, industry

and housing. They may also be affected by changes in the fish community. For example, along the Ausable River outside Pinery Provincial Park, fish communities are now dominated by centrarchids (sunfish) and Common Carp, apparently coinciding with the disappearance of Lake Chubsuckers. At the same time, increasing water clarity associated with Zebra Mussels may have benefited Lake Chubsuckers, notably in open coastal marshes of Lakes St. Clair and Erie. Lake Chubsuckers are classified as Threatened because of their limited distribution in Ontario and the declines recorded in some of the Ontario populations.

Lake Sturgeon (*Acipenser fulvescens*)

DU - Great Lakes/Upper St. Lawrence River: Threatened

DU – Southern Hudson Bay/James Bay: Special Concern

DU - Northwestern Ontario: Threatened

The Lake Sturgeon is one of the largest species of freshwater fish in Canada. It is a long-lived and late-maturing bottom-dwelling fish. These sturgeons occur widely in large lakes and rivers from the Saskatchewan River drainage in Alberta to the Hudson Bay and St. Lawrence River drainages in Quebec, and south to the lower portion of the Mississippi River. It has a wide distribution in Ontario, occurring in all major watersheds across the province. Ontario has recognized 3 distinct populations based upon genetic differentiation, watersheds and physical separation: Great Lakes/Upper St. Lawrence River (COSEWIC DU8), Southern Hudson Bay/James Bay (COSEWIC DU7), and Northwestern Ontario (COSEWIC DUs 4, 5, 6). Global and regional rankings, declines as well as rarity all indicate that this species is at risk. Approximately one half of the Ontario populations have experienced declines ~100 years ago. These declines have not been non-cyclical in all populations. Although some populations now show signs of modest recovery, many others persist at remnant levels. Many Ontario populations have been negatively affected by dams because of their effects on spawning habitat and fragmentation of populations. Overexploitation seriously affected many populations in the past, but has been significantly reduced by restrictions on commercial and recreational harvest. Traditional Aboriginal harvest continues. There are potentially serious impending threats of further habitat and population disruption that will occur with the advent of new or expanded hydroelectric power developments on many rivers in Ontario.

Great Lakes/Upper St. Lawrence River Population: In the past in Ontario the Great Lakes-Upper St. Lawrence River population appears to have been heavily impacted by hydroelectric development and commercial exploitation, but some populations are recovering. This population is classified as Threatened based on the observed declines, and the loss of several populations.

Southern Hudson Bay/James Bay Population: In Ontario the Southern Hudson Bay–James Bay population appears to be generally the most robust and least threatened. There remain, however, a number of causes for concern. Although there are a large number of extant populations, many of which are considered to be healthy, the impending threat of habitat loss and population fragmentation from dams on many rivers, combined with the sensitive life history of this species lead to a classification of Special Concern.

Northwestern Ontario Population: The status of populations and knowledge of Lake Sturgeon varies considerably within this area, with some populations recovering, and others with declines with little sign of recovery (e.g. Winnipeg/English River). There are concerns based on the species' sensitivity to exploitation and habitat disruption,

combined with past declines. Concerns are somewhat reduced given the recovery of the Lake of the Woods/Rainy River population and the reduced threat of overexploitation due to closure of the commercial and recreational fishery. There is a potentially serious impending threat of habitat and population disruption from new or expanded hydroelectric power development on several rivers in this area. This population is classified as Threatened based on observed declines, habitat fragmentation and impending threats.

AMPHIBIANS

Northern Leopard Frog (*Lithobates pipiens*) – Not at Risk

The Northern Leopard Frog is a medium-sized frog with a wide distribution in North America from northern Canada to the southern United States. The species uses three different habitat types (woods, pools, rivers) at different stages of its life cycle, so it may be susceptible to alterations in any of them. They overwinter in wetlands and rivers as juveniles or adults. Northern Leopard Frogs are widely distributed in the Province and are common in Southern Ontario with thousands of current locations. Northern Leopard Frogs in Ontario form a single distinct population. Although the species has declined rapidly and is very rare in some western parts of its North American range, eastern populations are still widespread and abundant and there is no evidence of a substantial decline. There are many threats to the species and the causes of the declines are not known. Loss of wetland habitat, competition or predation by invasive species and disease are potential limiting factors, but populations of Northern Leopard Frog in Ontario appear to be robust. Northern Leopard Frogs are classified as Not at Risk in Ontario because it is widespread and abundant, especially in the south and there is little evidence of substantial declines.

Western Chorus Frog (*Pseudacris triseriata*) – Not at Risk

Western Chorus Frog is a small frog of moist open or lightly wooded areas. It is primarily distributed in the midwestern United States, extending northward into southern Ontario and southwestern Quebec. There are some recent data to suggest two genetically distinct populations in southern Ontario, however few animals have been sampled from the province and the distinctiveness and distribution of the two forms is currently poorly known. Although declines have been reported in parts of its Ontario range, there is insufficient evidence of widespread declines in the province. Western Chorus Frogs are threatened by habitat changes due to increasing urbanization and agriculture. Apparently healthy populations still occur in many areas of southern Ontario and evidence for more than one genetically population is incomplete. Therefore Western Chorus Frog is treated as a single population in Ontario and classified as Not at Risk.

REPTILES

Common Five-lined Skink, *Plestiodon fasciatus*

DU - Carolinian Population – Endangered.

DU - Southern Shield Population – Special Concern

The Common Five-lined Skink is the only lizard native to Ontario. It is small-bodied (~ 8 cm) with smooth shiny scales and lays eggs. Juveniles have five cream-coloured stripes on a dark background and a bright blue tail. Body colours fade with age although females retain more of the original colour pattern. In the breeding season, males

develop orange colouration around the jaws and chin. It is widely distributed in the eastern USA and occurs in 2 separate regions of Ontario, southwestern Ontario (Carolinian Population) and along the southern edge of the Canadian Shield (Southern Shield Population, referred to as the Great Lakes/St. Lawrence Population by COSEWIC). Between these two regions, skinks differ genetically, are separated by a large natural disjunction and occupy different ecogeographic regions and are assessed as two distinct populations.

Carolinian Population: Southwestern Ontario populations occur in Carolinian forest with a sandy substrate, and individuals within these populations have a strong association with woody debris as refuge. This population has undergone a dramatic decline over the past 20 years and the number of occurrences has declined from about 20 to about 5. These remaining locations are completely isolated from each other so there is no chance of natural repopulation of sites. This population is threatened by illegal collection, habitat degradation, and the effects of small numbers and fragmentation and therefore was classified as Endangered

Southern Shield Population: This population consists of many local populations scattered along the southern edge of the Canadian Shield. These subpopulations occur on rock outcrops underlying coniferous and deciduous forest, and individuals in these populations seek refuge under rocks overlaid on open bedrock. These skinks are subject to some illegal collection, loss of habitat and other threats from an increasing human population. This species has limited dispersal capacity, so populations are increasingly becoming fragmented. However, these threats are less substantial than for the Carolinian Population and skinks on the Shield remain relatively abundant and widespread so the Southern Shield population was classified as Special Concern.

Eastern Foxsnake (*Pantherophis gloydi*)
DU - Carolinian Population - Endangered,
DU - Georgian Bay Population - Threatened.

This harmless, large (140 cm long), non-venomous snake has a small global range, being primarily confined to shorelines of lakes Erie, St. Clair and Huron. Seventy percent of the global range for this species is found in Ontario. The Eastern Foxsnake is found in two distinct regions of Ontario, one along the eastern Georgian Bay coast and islands, and the other in the Carolinian region in southwestern Ontario. Snakes in these two regions are widely separated, exhibit significant genetic differences and occupy different ecological regions. Therefore, they are assessed as two distinct populations.

Carolinian Population: Snakes in this population occupy old fields, prairie remnants, marshes, hedgerows and dune-shorelines in the Essex, Chatham-Kent, Lambton, Haldimand and Norfolk regions. The population has undergone a marked contraction of its area of occupancy in the past 20 years. The snakes face several immediate threats including loss of its wetland habitats, and mortality from a dense road network, from farm machinery in this intensively agricultural region, and from direct human persecution. Some poaching for the pet trade may occur. Expansion of the human population and increasing degradation of habitat in this area is intensifying these threats and this population is classified as Endangered based on ongoing decline in area of occupancy and increasing population fragmentation.

Georgian Bay Population: This population (referred to as the Great Lakes/St. Lawrence Population by COSEWIC) occupies the shoreline of Georgian Bay, swimming among the islands and rarely straying more than 100m inland. These snakes

predominantly use open habitats, coastal rock barrens and moist meadows along shorelines. The population's area of occupancy has declined ~ 33% in the past 20 years, mostly near Honey Harbour and Port Severn. Immediate threats include loss of its shoreline habitat to recreational development, mortality from increasing road and boat traffic, persecution, and loss of hibernation sites to development. The population is classified as Threatened because although it is declining in abundance and area of occupancy, it may be still relatively secure in the less populated portions of Georgian Bay.

Eastern Hog-nosed Snake (*Heterodon platyrhinos*) - Threatened

The Eastern Hog-nosed Snake is a stout, medium-sized snake with a distinct upturned nose and often gives a complex and intimidating bluffing threat performance when disturbed. Eastern Hog-nosed Snakes are wide ranging, but live at low population densities. They occur primarily in open and wooded sandy habitats where toads, their primary food source, are common. It is widely distributed in the eastern United States, but in Canada it is only found in southern Ontario. It occurs in two separate areas, the Carolinian zone and in south-central Ontario, mostly on the southern part of the Canadian Shield. In Ontario, Eastern Hog-nosed Snakes are known from about 135 sites but there are no recent records from about 40% of former locations. This snake faces several threats, including severe habitat fragmentation in southwestern Ontario, habitat loss elsewhere and persecution. The species' high mobility makes it particularly susceptible to road mortality, particularly with ever expanding road networks. This assessment confirms the existing Threatened classification for this species based on declines in its range and population and ongoing threats.

Gray Ratsnake (*Pantherophis spiloides*) DU – Carolinian Population – Endangered DU - Frontenac Axis Population – Threatened.

The Gray Ratsnake is Canada's largest snake and can be nearly 2 m long. This snake is semi-arboreal, black on its back with a white throat and grayish-white underside. The Gray Ratsnake is widely distributed through the forested areas of the eastern-central United States just west of the Appalachians. It occupies two distinct regions of Ontario; southeastern Ontario (the Frontenac Axis Population, referred to as the Great Lakes / St. Lawrence Population by COSEWIC) and the Carolinian Population in southwest Ontario near the north shore of Lake Erie. These two populations may represent different subspecies or even different species and differ from one another genetically, occupy different ecogeographic regions, are naturally disjunct with a wide separation (300 km) and face different levels of threat. COSSARO assessed them as separate populations.

Carolinian Population: In southwest Ontario, the Gray Ratsnake occurs as four small, isolated populations near the north shore of Lake Erie that appear to be remnants of a former more continuous distribution. Today, ratsnakes inhabit remnant parts of the Carolinian forest near the northern shore of Lake Erie. Prior to European settlement, large tracts of deciduous forest intermixed with open savanna would likely have been the preferred habitat in this region. The remaining Gray Ratsnakes are threatened by limited habitat, mortality on roads and from farm machinery and deliberate persecution. This population is classified as Endangered based on the small number of snakes, isolation, threats to habitat, ongoing decline and the probable negative effects of inbreeding and genetic drift.

Frontenac Axis Population: The bulk of this population occurs in Frontenac, and Leeds and Grenville Counties. The Gray Ratsnake is semi-arboreal and typically associated with a wide range of woodland and scrub habitats seeming to require a mosaic of forest and open habitat with a high edge to area ratio. In winter, ratsnakes hibernate below ground in communal hibernacula that provide shelter from both freezing temperatures and dehydration. This population likely comprises several thousand individuals, but long-term demographic studies suggest declines. The species' late age of maturity (>7 years) and slow reproductive rate make it vulnerable to high rates of mortality from roadkill and persecution. The population is declining and becoming increasingly fragmented from the expanded road network and the loss of populations and hibernation sites and therefore is classified as Threatened.

Snapping Turtle (*Chelydra serpentina*) – Special Concern

The Snapping Turtle is Canada's largest freshwater turtle and its life-history strategy is characterized by high and unpredictable mortality of embryos and hatchlings, late sexual maturity (15-20 years), extended longevity (over 100 years), and many reproductive events each with low reproductive output. Snapping Turtles are found in a wide range of wetland habitats and have a wide distribution in eastern North America including most of southern and central Ontario. Snapping Turtle populations in Ontario are limited by their life-history strategy and by cool summers that reduce hatching success. Even though this species is still widespread, both its range and abundance are declining from a host of threats especially those that increase rates of adult mortality. These threats include legal and illegal harvesting, persecution, road mortality, as well as on-going loss of habitat. They also are subject to environmental contamination, unnaturally high rates of nest predation, boat propeller strikes, "bycatch" from sport and commercial fishing, as well as various water management practices. Given all these threats and their demonstrated impact, Snapping Turtles is classified as Special Concern in Ontario.

BIRDS

Bald Eagle (*Haliaeetus leucocephalus*) - Special Concern

The Bald Eagle is a large-bodied fish eagle that relies on healthy aquatic ecosystems and large trees and cliffs for nesting sites. The species is endemic to and widely distributed across North America. Although previously designated as two populations in Ontario, there are neither disjunctions in range nor any genetic or other evidence to suggest more than one population. Populations declined throughout much of the range from the late 1940s to the 1970s largely due to the effects of DDT on reproduction. Bald Eagles were nearly extirpated from southern Ontario and most of the Great Lakes Basin by the late 1970s, and were reduced elsewhere in the province. Following designation as Endangered status in 1973, there were many positive changes. These included restriction in the use of persistent organochlorine pesticides, improved education, and increased enforcement. These changes included management actions such as the protection of nest sites and the translocation of nestlings to southern Ontario, Bald Eagles are now thriving across the province. Bald Eagles have increased substantially since the 1960s by a variety of indices (e.g. regional nest monitoring studies, Ontario Breeding Bird Atlas), and there are currently over 1400 active nests in Ontario. The species continues to expand its breeding range and re-colonize former habitat in southern Ontario. Reproductive success in southern Ontario is now equivalent to that of birds in

northern Ontario. As a long-lived species with reliance on healthy aquatic ecosystems, vulnerability to environmental contaminants, and sensitivity to disturbance during the early stages of nesting, the Bald Eagle should continue to be closely monitored and is classified as Special Concern.

Canada Warbler (*Wilsonia canadensis*) – Special Concern

Canada Warbler is a small, striking, yellow and grey insectivorous bird with a conspicuous eye-ring. It breeds in mixed forests with a dense shrub layer from Yukon Territory to northeastern North America and overwinters in northern South America. About 80% of the population breeds in Canada, perhaps a third of these birds breeding in Ontario. Populations of Canada Warbler in Western Canada appear to stable, while those in Eastern Canada, including Ontario, may be in decline. Although there could be at least 900,000 individuals in Ontario, Breeding Bird Surveys suggest a decline in numbers of about 2.4% per year. There may be a link between fluctuations of populations of Canada Warblers to variations in the abundance of Spruce Budworms. There may be threats from decline in the amount of breeding habitat and in the abundance of prey, however the main threat is likely habitat loss on the wintering grounds in South America. Canada Warbler is classified as a species of Special Concern in Ontario because of the evidence for decline and the high proportion of the global population that breeds in Ontario.

Chimney Swift (*Chaetura pelagica*) - Threatened

The Chimney Swift is a widespread, swallow-like, aerial feeding bird. Before the arrival of Europeans Chimney Swifts presumably nested in large hollow trees but as these were cut down the birds switched to nesting mainly in chimneys. This swift is widely distributed across the eastern half of North America, and breeds in southern and central Ontario. Like many other aerial insectivores, this species has recently undergone large range-wide declines. The Breeding Bird Survey (BBS) indicates that Chimney Swifts declined in Canada by 95% from 1968-2005. In Ontario, decline was estimated at 70% over the past 20 years (BBS), and the Ontario Breeding Bird Atlas reported an effort adjusted decline of 43% over the past 20 years. The most recent population estimate suggests there are 7,500 birds remaining in Ontario. The main threat to Chimney Swifts is ongoing elimination of old style chimneys that provide suitable nesting habitat. Modern metal liners and caps have made chimneys inaccessible to the birds. Another possible cause for decline is decline in aerial insect prey or contamination of this prey by insecticides. The Chimney Swift is classified as Threatened because of the size and ongoing nature of the decline in its abundance and area of occupancy.

Common Nighthawk (*Chordeiles minor*) – Special Concern

The Common Nighthawk is an aerial foraging, crepuscular bird found across North and Central America. Its breeding range covers all of Ontario south of the Hudson Bay Lowland. It nests in open habitats including naturally occurring rock outcrops, pasture, prairie, forest openings, and peat bogs, and also gravel roofs in urban areas. The Ontario population is estimated at about 40,000 birds and the species nests throughout the province. Breeding Bird Survey data indicate that the population has declined by 50% globally and by 82% to 94% in Ontario since 1966. Ontario Breeding Bird Atlas data suggest a decline of 39% between the first atlas (1981 to 1985) and the second one (2001 to 2005). The cause of the decline is not well understood but is concurrent with continent-wide declines of other aerial foraging birds. Reforestation, fire suppression,

intensive agriculture, spraying of insecticides, increase in predators and loss of gravel roofs are other possible causes. The Common Nighthawk is classified as Special Concern in Ontario based on ongoing declines and its specialized feeding behaviour as an aerial forager on insects.

Hooded Warbler (*Wilsonia citrina*) - Special Concern

A small insectivorous bird, the Hooded Warbler breeds throughout much of the eastern United States. It remains uncommon in Ontario and is still restricted to the southern portion of the province, and particularly the Carolinian forest region. However, it continues to expand its range in southern Ontario, now occurring in at least 15 counties, and extending north to the Midland Peninsula and east to the Kingston region. It breeds in areas with dense sapling and shrub layers in deciduous or mixed forest. Substantial increases in numbers of breeding pairs have occurred over the past two decades. Recent estimates suggest that there are more than 400 breeding pairs in Ontario. Hooded Warblers are classified as Special Concern (formerly threatened) because their population in Ontario is still recovering.

Horned Grebe (*Podiceps auritus*) – Special Concern

A relatively small water bird, the Horned Grebe usually breeds in freshwater and occasionally in brackish water on small semi-permanent or permanent ponds. Found across Eurasia and North America, approximately 92% of its North American breeding range is in Canada, extending from British Columbia to northwestern Ontario. In Ontario, it appears to be an irregular, rare breeder with three recent confirmed breeding locations in the northwestern part of the province. It is also a migrant at multiple locations in and around the Great Lakes region, where it occurs as a transient during spring and fall migration -- sometimes in large aggregations. Long-term trend analyses throughout Canada based on Christmas Bird Counts show a decline of 1.5%/year between 1966 and 2005, with an overall long-term population decline of approximately 45% since the mid-1960's. There have been documented declines at staging areas in the Great Lakes region of Ontario, particularly during spring. Permanent loss or degradation of wetlands in the prairie regions of Canada as a result of agriculture and development are the chief threat, as well as temporary loss of wetlands during droughts and the expansion of predators. On the wintering grounds, net entanglement, boat traffic, and disease may all be important sources of mortality. This species is classified as Special Concern due to declining trends in staging areas in Ontario that mirror population declines for the species elsewhere in Canada.

Least Bittern (*Ixobrychus exilis*) – Threatened

The Least Bittern is the smallest of North American herons, about 30 cm long. This secretive bird inhabits marshes with stable water levels and small patches of open water. The species has a wide distribution from eastern Canada to Central America. In Ontario and other northeastern jurisdictions there is evidence for a decline in numbers, but there are few comprehensive data about population trends. There are thought to be about 1500 pairs in Canada. Data from Marsh Monitoring programs in the Great Lakes Basin indicate an annual average decline of 10% per year (or 65%) over the last 10 years. The Ontario Breeding Bird Atlases indicate a decline of about 32 % between the 1981-1985 and 2001-2005 atlas periods with a high turnover of atlas squares between the two periods. Habitat loss is the main reason for decline, but other causes are suspected

including general habitat degradation, toxins, obstacles to migration and increased road mortality. This species is classified as Threatened because of the decline in numbers over the last decade and ongoing threats including loss and degradation of wetland habitat.

Olive-sided Flycatcher (*Contopus cooperi*) – Special Concern

The Olive-sided Flycatcher is a Neotropical migrant that breeds in semi-forested wetlands and in openings in relatively continuous forest. Its breeding range extends across boreal Alaska, Canada and the adjacent United States, and it winters in South America. Data from the North American Breeding Bird Survey indicate large declines along sampled routes throughout its range, suggesting a widespread decline in abundance in the species. However the species is poorly sampled by routes in Ontario where most routes are located in the southern part of its breeding range; about 72% of its range is in the Northern Shield and Hudson Bay Lowland regions of the province where the threats may be less immediate. The Atlas of the Breeding Birds of Ontario showed declines in the probability of observation, particularly in the southern portion of its range (35-44%) since the previous atlas was completed. The reasons for the decline are unclear but may relate to changes in forest composition and structure due to fire suppression and perhaps other forest management practices, as well as declines in both the quantity and quality of the species' wintering habitat in South America. The species is, nonetheless, still widespread and relatively common, with Canadian and Ontario breeding populations conservatively estimated at 325,000 and 50,000 pairs respectively. The Olive-sided Flycatcher is classified as Special Concern based on short-term and long-term declines.

Short-eared Owl (*Asio flammeus*) – Special Concern

The Short-eared Owl is a cosmopolitan grassland-nesting owl that occurs in every continent except Australia and Antarctica. The core North American range includes the prairies and the Arctic coast, but it nests irregularly across the continent. It has experienced declines in abundance globally and across North America including Canada, at least partially related to habitat loss, and is rare in the majority of jurisdictions where it occurs in northeastern North America. Based on the Ontario Breeding Bird Atlas data, the population in Ontario does not appear to be following this same trend, showing a significant effort-adjusted increase in probability of occurrence from the 1980s to 2000s. Abundant suitable habitat in the Hudson Bay Lowland appears to provide an effective counterbalance to habitat loss in southern Ontario. Changes in square occupancy between Ontario Breeding Bird Atlases reflect, at least in part, the nomadic nature of the species and its dependence upon populations of small mammals, especially voles. This nomadic nature, and the tendency to shift nesting sites from year to year, makes it difficult to determine overall population trends. The Ontario classification is based primarily upon the apparent health of the provincial population, although there is an obvious need for close monitoring given trends elsewhere in its range. Global, continental and regional trends, in combination with threats related primarily to habitat loss in southern Ontario, support a provincial classification of Special Concern.

Whip-poor-will (*Caprimulgus vociferus*) – Threatened

The summer range of the Whip-poor-will extends from Saskatchewan to Nova Scotia and south through the eastern United States. Its winter range extends along the Gulf coast from Florida through Mexico to Honduras. This nocturnal insectivorous bird hunts by making short flights to intercept flying insects. It lays its eggs on the ground

and does not make a nest. It breeds in sand or rock barrens, open deciduous or coniferous forests or old burns. Its distinctive song, giving it its name (Whip-poor-will), used to be a common night sound in southern and central Ontario. However, data from the Ontario Breeding Bird Atlas and the Breeding Bird Survey suggest a substantial decline in its population (51%) and a contraction in its range, especially in southern Ontario. The causes for the decline in numbers and the constriction of range are not yet clear as with other some other species of birds that eat mainly flying insects. The Whip-poor-will is classified as Threatened in Ontario based on the ongoing declines that have been observed.

MAMMAL

Polar Bear (*Ursus maritimus*) - Threatened

The Polar Bear is a top predator in the Arctic marine environment and has a circumpolar distribution in Alaska, Canada, Greenland, Norway, and Russia. In North America the range extends from the Canadian Arctic islands and Alaska to Hudson and James Bay, Quebec, and Labrador. Ontario Polar Bears spend much of the year on the sea ice of Hudson and James Bay and depend on obligate ice-loving seals for their annual energy requirements. For management purposes 13 sub-populations are recognized in Canada but no sub-species have been identified. Ontario Polar Bears belong to the Southern Hudson Bay (SH) management unit, the population considered for Ontario. Although abundance of Polar Bears in Ontario has been unchanged over the past 20 years, evidence of significant declines in body condition (especially in pregnant females and subadults) coupled with declines in survival rates in all age classes together suggest that the SH population is at a tipping point. The neighbouring Western Hudson Bay population in Manitoba declined by 22% since 1987, and it was classified as Threatened in Manitoba in 2008. The SH population in Ontario appears to be on a similar trajectory. There is a high probability of large decreases in sea ice in Hudson Bay that could result in its extirpation within 45 years. Population projections indicate that with current survival rates there is an 80% chance that the SH population will decline within one generation. The Polar Bear is classified as Threatened in Ontario based on these projected declines.

5 June 2009