

## **APPENDIX 2b**

### **LIST OF SPECIES AT RISK**

## Gereaux Island Site Remediation – Species at Risk

### Birds:

- Least Bittern (*Ixobrychus exilis*) – Schedule 1 Threatened
- Chimney Swift (*Chaetura pelagica*) – Schedule 1 Threatened
- Common Nighthawk (*Chordeiles minor*) – Schedule 1 Threatened
- Gold-Winged Warbler (*Vermicora chrysoptera*) – Schedule 1 Threatened
- Peregrine Falcon Anatum Subspecies (*Falco peregrinus anatum*) – Schedule 1 Special Concern
- Rusty Blackbird (*Euphagus carolinus*) – Schedule 1 Special Concern
- Short-Eared Owl (*Asio flammeus*) – Schedule 1 Special Concern
- Yellow Rail (*Coturnicops noveboracensis*) – Schedule 1 Special Concern

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- Monarch Butterfly (*Danaus plexippus*) – Schedule 1 Special Concern

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- Eastern Foxsnake (*Pantherophis gloydi*) – Schedule 1 Endangered
- Spotted Turtle (*Clemmys guttata*) – Schedule 1 Endangered
- Blanding's Turtle (*Emydoidea blandingii*) – Schedule 1 Threatened
- Eastern Hog-nosed Snake (*Heterodon platirhinos*) – Schedule 1 Threatened
- Five-lined skink (*Plestiodon fasciatus*) – Schedule 1 Special Concern
- Eastern Ribbonsnake (*Thamnophis sauritus*) – Schedule 1 Special Concern
- Milksnake (*Lampropeltis triangulum*) – Schedule 1 Special Concern

### Mammals:

- Eastern Wolf (*Canis lycaon*) – Schedule 1 Special Concern



## Species at Risk Public Registry

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## Species Profile

### Least Bittern

Scientific Name: *Ixobrychus exilis*

Taxonomy Group: Birds

Range: Manitoba, Ontario, Quebec, New Brunswick, Nova Scotia

Last COSEWIC Assessment: April 2009

Last COSEWIC Designation: Threatened

SARA Status: Schedule 1, Threatened

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### Image of Least Bittern



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### Taxonomy

There are five subspecies of Least Bittern, *Ixobrychus exilis*. Since only the subspecies *exilis* breeds in

Canada, it is considered a species in and of itself in this country.

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## Description

The Least Bittern is the smallest member of the heron family in North America. Only 30 cm in length, it is no larger than an American Robin. Like the more familiar American Bittern, the Least Bittern hunches at rest and freezes when alarmed, with its bill stretched skyward. It has brown and buffy plumage, with broad buff streaks on its white underside, and a contrasting back and crown that is glossy black in adult males but lighter in females and juveniles. The buff undersides of its wings, which are especially obvious when the bird takes flight, distinguish this species from all other marsh birds. This small heron is seldom seen in its dense marsh habitat; it is most often detected by its call.

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## Distribution and Population

The Least Bittern breeds from southern Canada to South America, mainly in the eastern United States. It winters along the Atlantic coast, primarily in Florida and along the Gulf of Mexico, and in the region extending from California, Texas and Florida to Panama. In Canada, the Least Bittern has been observed in every province, but most individuals occur in Ontario. The species breeds primarily in southern Ontario, and in southern Manitoba, Quebec, New Brunswick and probably Nova Scotia. The Canadian population of Least Bittern is estimated at approximately 1500 pairs. Numbers appear to have declined in Canada and in the northern and central United States over the years. The degree of recent declines is difficult to assess, because the birds are difficult to detect, but bird atlas projects and marsh bird monitoring programs suggest a decline in Ontario of over 30% between 1999 and 2009. Trend information is currently lacking for other provincial jurisdictions; however, the majority of the Canadian population occurs in southern Ontario.

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## Habitat

The Least Bittern breeds strictly in marshes dominated by emergent vegetation surrounded by areas of open water. Most breeding grounds in Canada are dominated by cattails, but breeding also occurs in areas with other robust emergent plants and in shrubby swamps. The presence of stands of dense vegetation is essential for nesting because the nests of Least Bittern sit on platforms of stiff stems. The nests are almost always within 10 m of open water. Open water is also needed for foraging, because Least Bitterns forage by ambushing their prey in shallow water near marsh edges, often from platforms that they construct out of bent vegetation. Access to clear water is essential for the birds to see their prey. This small heron prefers large marshes that have relatively stable water levels throughout the nesting period. Adults can raise nests somewhat to deal with rising waters, but persistent or sudden increases will flood nests. Conversely, drops in water level can reduce foraging opportunities and increase the species' exposure to predators. Needs for wintering habitat are less specific, and appear to be met by a wide variety of wetlands—not only emergent marshes like those used for breeding, but also brackish and saline swamps. Habitat use during migration is poorly known, but presumably is similar to breeding and wintering habitat.

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## Biology

With its secretive habits and relatively impenetrable habitat, the Least Bittern is one of North America's most poorly known species. This migratory species arrives on Canadian breeding grounds between late April and late May; by mid-May, calling and nesting begin. The Least Bittern is weakly territorial, sometimes nesting in small, loose colonies. First eggs are laid between mid-May and June, and incubated for 17 to 20 days. Young are fed in the nest for two weeks following hatching. Average



clutch size is four to five eggs. Causes of nest failure are predation, nest flooding and abandonment, and nest collapse from wave action or wind. Some individuals can raise two broods in one season. Predators on adults include snapping turtles and raptors, with eggs and chicks being taken by snakes, turtles, Common Ravens, raptors, raccoons, American mink and other herons. Eggs and chicks are also predated by Marsh Wrens. Diet has not been studied in detail, but Least Bitterns are thought to prey mainly on small vertebrates, including fish, snakes, frogs, salamanders, and occasionally, small mammals and passerine bird eggs or nestlings. Its diet is also believed to include large insects such as dragonflies, as well as leeches, slugs, crayfish and some vegetation. The Least Bittern migrates south from late August to late September. Although details of its migratory habits are unknown, it can probably travel considerable distances with each flight, given the ability of its European congener, the Little Bittern, to migrate non-stop across the Mediterranean Sea and the Sahara. Like all wading birds, the Least Bittern is particularly susceptible to oil poisoning and diseases, including type C botulism, avian cholera, aspergillosis, sarcocystis, and avian salmonellosis. Two diseases of particular concern recently are H5N1 avian influenza, which has been found in four other heron species, and West Nile Virus, which has been found in Least Bitterns.

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## Threats

Habitat loss and degradation is by far the greatest threat to the species. Historically, habitat loss consisted of wholesale destruction of marshes, mainly for agriculture. In southwestern Ontario, 90% of marshes have disappeared in this way. Although wetlands were still in steep decline from the 1950s to the 1990s, these declines are probably starting to slow, thanks to recent protection initiatives targeted at these habitats. Nonetheless, in Ontario at least, local habitat loss continues at a smaller scale, through the infilling of smaller marshes and fragmentation of larger ones, and through degradation caused by contamination, siltation and disturbance. Similar factors affect habitat on the wintering grounds, especially along the Gulf Coast and in Central America. Pesticides, fertilizers and other toxic substances in industrial and agricultural run-off accumulate in predators, such as Least Bitterns. High levels of the pesticide dieldrin have been found in Least Bittern eggs in Louisiana and in feathers in Ontario. Herons are particularly susceptible to residue build-up and eggshell thinning from these toxic substances. At various sites, including in Ontario and Quebec, several invasive species are outcompeting the cattails in which most Least Bitterns breed. These species include Purple Loosestrife, Reed Canary Grass, Common Reed, and, especially in Quebec, Flowering Rush. All these species also encourage succession of wetlands to drier habitat. Least Bitterns may be susceptible to devastating outbreaks of disease and parasites. Collisions of Least Bitterns with cars or human-made structures, such as towers and fences, are a serious local threat. There are regular collisions of Least Bitterns with a generator tower in Ontario, including eight on a single weekend. Disturbance from recreational activities, pleasure boating in particular, is a conservation concern for herons because it can disrupt activities such as foraging and can cause nest abandonment. Motorized boating creates waves that could flood nests and erode the marsh edges where the species forages. Climate change could lower water levels in the Great Lakes and St. Lawrence River, reducing the size and distribution of the adjacent wetlands. Since abundance of breeding Least Bitterns along the Great Lakes is very tightly linked to changes in water levels, a drop in water levels is sure to result in a decline in the number of birds in southern Canada.

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## Protection

### Federal Protection

The Least Bittern is protected under the federal *Species at Risk Act* (SARA). More information about SARA, including how it protects individual species, is available in the [Species at Risk Act: A Guide](#).

The Least Bittern occurs in several national parks, where it is protected under the Canada National Parks Act. The species is also protected under the Migratory Birds Convention Act, 1994, which prohibits harming birds, their nests and eggs. In Ontario, the species is protected under the Endangered





## Species at Risk Public Registry

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### Species Profile

#### Chimney Swift

Scientific Name: *Chaetura pelagica*

Taxonomy Group: Birds

Range: Saskatchewan, Manitoba, Ontario, Quebec, New Brunswick, Nova Scotia, Newfoundland and Labrador

Last COSEWIC Assessment: April 2007

Last COSEWIC Designation: Threatened

SARA Status: Schedule 1, Threatened

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#### Image of Chimney Swift

#### Description

Sometimes mistaken for a swallow, the Chimney Swift is readily distinguished by its cigar-shaped body; long, narrow, pointed wings; unique call; short tail; and quick, jerky flight, similar to that of the bat. Its folded wings project considerably beyond the spiny-looking tail. This is a small bird with dark brown, slightly iridescent plumage. The throat is brownish grey. There are no significant differences between the male and the female, and juveniles and adults have similar plumage.

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#### Distribution and Population

The Chimney Swift breeds mainly in eastern North America, from southern Canada down to Texas and Florida. It occasionally breeds in southern California and possibly in Arizona. Chimney Swifts winter in the upper Amazon basin in South America (mainly in Peru), southern and northeastern Ecuador, northwestern Brazil, and northern Chile. Approximately one quarter of this species' breeding range is in Canada. The species breeds in east central Saskatchewan, southern Manitoba, southern Ontario, southern Quebec, New Brunswick, Nova Scotia, and possibly in Prince Edward Island and southwestern Newfoundland. The Canadian Chimney Swift population is estimated at 11 820 breeding individuals: 2520 in Quebec, 7500 in Ontario, 900 in the Maritimes, and 900 in the other provinces. Chimney Swift populations are declining in all areas of occurrence. Data from the Breeding Bird Survey indicate that the Canadian population has been declining by 7.8% per year since 1968, which represents a total decline of 95%. From 1966 to 2002, there has been a significant downward trend of the American population in more than half of the states where data are available.

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#### Habitat

The Chimney Swift spends the major part of the day in flight feeding on insects. Flocks can often be seen near bodies of water due to the abundance of insects. Prior to the arrival of European settlers in North America, Chimney Swifts nested mainly in the trunks of large, hollow trees, and occasionally on cave walls or in rocky crevices. However, due to the land clearing associated with colonization, hollow trees became increasingly rare, which led Chimney Swifts to move into house chimneys. Today, the



species is mainly associated with urban and rural areas where the birds can find chimneys to use as nesting and resting sites. However, it is likely that a small portion of the population continues to use hollow trees. In the northern part of the breeding range, the Chimney Swift favours sites where the ambient temperature is relatively stable. The Chimney Swift's winter habitat includes forests along the water's edge, the edges of tropical lowland forests, regenerating shrub areas, farmland, suburban areas and city centre zones. It roosts in chimneys, crevices and caves, as well as in the hollow trees that are plentiful in the Amazon forest.

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## Biology

The Chimney Swift is an extremely gregarious species that feeds and rests in large flocks. This insectivore spends a great deal of time in flight in order to catch its tiny prey. It only returns to solid ground to sleep in its roost or to build a nest and raise its young. While each chimney generally houses a single couple, larger chimneys often serve as roosting sites before or after breeding. Many well-known roosting sites attract numerous admirers who come to enjoy the show as hundreds of birds enter these chimneys at sunset. The Chimney Swift is monogamous and does not generally breed until its second year. Couples usually remain together for life and return each year to the same breeding site. The Chimney Swift uses its glutinous saliva to build a half-saucer-shaped nest from twigs, which it cements to a vertical chimney surface. There are generally four or five eggs per clutch. In Canada, a single clutch is produced annually. Males and females incubate the eggs together for approximately 20 days. Fledging success is quite high, reaching an average of three juveniles per nest. The average lifespan of the Chimney Swift is 4.6 years, although the known longevity record for this species is 14 years. Given that this bird spends the major part of its time in flight and that its nesting and roosting sites are hard to reach, the Chimney Swift is virtually beyond the reach of predators. In the fall, large Chimney Swift flocks head for the southern United States; they then cross the Gulf of Mexico and fly along the Atlantic coast until they reach South America where they winter. In the spring, they essentially follow the same route back and arrive in the southern United States around mid-March.

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## Threats

The most significant threats to the Chimney Swift population appear to be the decreasing number of nesting and roosting sites caused by logging operations, the demolition of old abandoned buildings and, especially, the sharp decline in the number of suitable and accessible traditional chimneys, which are this species' main breeding habitat. The growing popularity of electric and gas heating, the renovation of old traditional chimneys, and new fire prevention regulations (installation of metal liners in brick chimneys, and installation of fire-screens, caps and mesh covers to keep animals out of chimneys) have resulted in a decrease in the number of traditional chimneys that could be used by Chimney Swifts. Every indication is that very few suitable sites will remain within the next thirty years. The number of breeding sites in Quebec is limited, and it is estimated that only 60% of breeding-age adults actually reproduce; in all likelihood, the situation is the same elsewhere in Canada. In its South American wintering area, the species is threatened by intensive logging operations and by the fires that ravage the Amazon forest and destroy the hollow trees this bird favours. Hurricanes during the Chimney Swift migration period and harsh weather conditions during breeding season have caused considerable deaths. Certain climate models suggest the possibility that such extreme weather events may become increasingly frequent in years to come. Other threats to this species include chimney sweeping during the summer (breeding season), the spraying of pesticides, and the tendency of building owners to destroy Chimney Swift nests in their chimneys. Although building owners fear that nests could cause chimney fires, they are not a fire hazard, since the birds simply cling to chimney walls during the night and leave the roost in the morning. The nests are very small and cannot block a chimney.

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## Protection



## Federal Protection

The Chimney Swift is protected under the federal *Species at Risk Act* (SARA). More information about SARA, including how it protects individual species, is available in the [Species at Risk Act: A Guide](#).

The Chimney Swift is protected under the federal Migratory Birds Convention Act, 1994. This law makes it an offence to disturb, kill or collect adults, juveniles and eggs. On American soil, the species is also protected under the United States' Migratory Bird Treaty Act of 1918.

## Provincial and Territorial Protection

[To know if this species is protected by provincial or territorial laws, consult the provinces' and territories' websites.](#)

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## Documents

PLEASE NOTE: Not all COSEWIC reports are currently available on the SARA Public Registry. Most of the reports not yet available are status reports for species assessed by COSEWIC prior to May 2002. Other COSEWIC reports not yet available may include those species assessed as Extinct, Data Deficient or Not at Risk. In the meantime, they are available on request from the [COSEWIC Secretariat](#).

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## COSEWIC Status Reports

- [COSEWIC Assessment and Status Report on the Chimney Swift \(\*Chaetura pelagica\*\) in Canada \(2007\)](#)

Sometimes mistaken for a swallow, the Chimney Swift is readily distinguished by its cigar-shaped body, long, narrow, pointed wings, short spiny tail and quick, jerky flight. The folded wings project beyond the tail. The plumage is dark brownish except for the paler throat. All ages and sexes are similar in appearance.

## COSEWIC Assessments

- [COSEWIC Assessment - Chimney Swift](#) (2007)

Designated Threatened in April 2007. Assessment based on a new status report.





## Species at Risk Public Registry

[Home](#) > [Species profiles](#) > Species Profile (Common Nighthawk)

### Species Profile

#### Common Nighthawk

Scientific Name: *Chordeiles minor*

Taxonomy Group: Birds

Range: Yukon, Northwest Territories, British Columbia, Alberta, Saskatchewan, Manitoba, Ontario, Quebec, New Brunswick, Prince Edward Island, Nova Scotia, Newfoundland and Labrador

Last COSEWIC Assessment: April 2007

Last COSEWIC Designation: Threatened

SARA Status: Schedule 1, Threatened

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#### Image of Common Nighthawk

#### Taxonomy

There are seven recognized subspecies of the Common Nighthawk in North America, three of which occur in Canada. As the differences between them are minor, the three subspecies are described in this document as a single species.

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#### Description

The Common Nighthawk is a medium-sized bird with long, narrow, pointed wings, and a long tail that is slightly notched. The call, a short, raucous, and nasal "peet," is quite distinctive. The head is large and flattened, the eyes are large, the bill is small, and the mouth is large. The plumage is dark brown with black, white, and buff specks. In flight, a wide white stripe can be seen across the long feathers that edge the wings. Females can be distinguished from males by the throat band, which is buff-coloured as opposed to white. The tail is brown with fine buff stripes. Males also have a white band near the tip of the tail. The main difference between juveniles and adults is the absence of the white or buff throat band. The Common Nighthawk can be distinguished from three other nighthawk species that occur in Canada by the absence of long fine feathers around the bill, the presence of a wide white stripe across the long feathers that edge the wings, the shape and colouration patterns of the tail, and the long pointed wings.

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#### Distribution and Population

The Common Nighthawk nests in almost all of North America, in some parts of Central America, and possibly also in southeastern Columbia. In Canada, this species occurs in all of the provinces and territories, with the exception of Nunavut. In the eastern part of the country, it breeds in southern Labrador and, albeit extremely rarely, on the Island of Newfoundland. This species is commonly found throughout the Maritimes, with the exception of Prince Edward Island. In Quebec, the Common Nighthawk occurs in the Lower St. Lawrence, although it is not known whether this species breeds on the Magdalen Islands or Anticosti Island. With the exception of the coastal regions of James Bay and Hudson Bay, this species occurs throughout Ontario. In western Canada, the species breeds throughout



Alberta and Saskatchewan, and south of the tree line in Manitoba. The species occurs throughout British Columbia, including Vancouver Island, although it is not found in the Coast Mountains or the Queen Charlotte Islands. In Yukon, the Common Nighthawk breeds from the southern part of the territory through to the Dawson region. In the Northwest Territories, the species occurs along the Alberta and Saskatchewan borders and, to the north, along the Mackenzie Valley through to Norman Wells. The Common Nighthawk winters throughout South America, primarily in eastern Peru and Ecuador, and southern Brazil. The Canadian population of Common Nighthawks was estimated to be 400 000 breeding adults in 2007, which represents 10% of the global population. In Canada, long-term data gathered between 1968 and 2005 point to a significant population decline of 4.2% per year, which represents an overall decline of 80% over this same period. The latest data (1995 to 2005) indicate an annual rate of decline of 6.6%, which represents a 49.5% population decline over the 10-year period.

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## Habitat

The Common Nighthawk nests in a wide range of open, vegetation-free habitats, including dunes, beaches, recently harvested forests, burnt-over areas, logged areas, rocky outcrops, rocky barrens, grasslands, pastures, peat bogs, marshes, lakeshores, and river banks. This species also inhabits mixed and coniferous forests. The Common Nighthawk probably benefited from the newly-opened habitats created by the massive deforestation associated with the arrival of European settlers in eastern Canada and United States. The appearance of gravel roofs contributed to the expansion of the Common Nighthawk's habitat in North America.

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## Biology

The Common Nighthawk arrives in Canada from early May to mid-June, where it produces one clutch per year. Faithfully returning to their nesting sites, females lay an average of two eggs directly on the ground up to mid-August. The female incubates the eggs on her own. Depending on the region, incubation lasts from 16 to 20 days. During this period, the male feeds the female who broods the eggs continuously. Nestlings remain in the nest from mid-June to late August and are fully developed by the age of 45 to 52 days. The species migrates to South America between mid-August and mid-September. The Common Nighthawk is an aerial insectivore that feeds on a wide variety of insects at dusk or dawn. It feeds primarily on flying ants and coleoptera, which it locates thanks to its excellent night vision. When insect density is high, the species may feed in groups. Potential predators of adult nighthawks include Domestic Cats, American Kestrels, and Peregrine Falcons. Eggs and nests are often preyed upon by other predators such as American Crows, Common Ravens, and gulls. The Common Nighthawk has a lifespan of four or five years.

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## Threats

The causes of the decline of Common Nighthawk populations are unknown. However, it may be related, at least in part, to the decline of the insect populations on which this species preys. Given the widespread declines observed among other insectivorous bird species, it is assumed that the reduced availability of food sources caused by the extensive use of pesticides is a contributing factor. Other factors that may have contributed to the declines observed in certain regions include habitat loss and modification, particularly the reforestation of abandoned agricultural fields and harvested forests; fire-fighting efforts; intensive agriculture; and the gradual reduction of the number of buildings with flat gravelled roofs in urban areas. The increased predator population (specifically, Domestic Cats, Striped Skunks, Raccoons, American Crows, and Common Ravens) may contribute to this species' decline, particularly in urban areas. Other possible factors include collisions with motor vehicles and climate change.

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## Species at Risk Public Registry

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## Species Profile

### Golden-winged Warbler

Scientific Name: *Vermivora chrysoptera*

Taxonomy Group: Birds

Range: Manitoba, Ontario, Quebec

Last COSEWIC Assessment: April 2006

Last COSEWIC Designation: Threatened

SARA Status: Schedule 1, Threatened

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### Image of Golden-winged Warbler

#### Description

The Golden-winged Warbler is a small warbler measuring 11 cm long. It is distinguishable by its grey back, white belly, yellow forehead and a yellow patch on its wings. This is the only warbler with both a yellow patch on its wings and a black throat (grey in females). The male is identified by the black ring round its eyes, which is darker than the ring around the female's eyes. Juveniles look like their parents. The Golden-winged Warbler resembles the Black-capped Chickadee, and it is sometimes easy to confuse these species, both of which feed head down at the ends of branches.

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#### Distribution and Population

Golden-winged Warblers nest primarily in the northeastern United States, southeastern Saskatchewan, southwestern Manitoba, southwestern Ontario and far southwestern Quebec. In Ontario, they breed from the far southwest of the province north as far as the centre of the Nipissing region, the southern part of the Sudbury and Algoma districts, and the southwest part of the Rainy River district, near Lake of the Woods. In Manitoba, small populations are found in a narrow corridor along the transition between prairie and forest from the far southeast of the province, near Winnipeg, to the border with Saskatchewan to the northwest. In Quebec and Saskatchewan, the bird's presence has been identified in only a few places. This small migratory bird overwinters in Central America and the northern part of South America, from central Guatemala and northern Honduras to northwestern Venezuela and western Colombia. It also overwinters in the Greater Antilles – on the island of Cuba, for example – and on some Caribbean islands. According to data from the Canadian Breeding Bird Survey, the Golden-winged Warbler population dropped 79% from the mid 1990s to the mid 2000s. In Canada and the United States in the early 2000s, the species was experiencing an overall drop of 2.4% per year, making it one of the most vulnerable passerines, with the most marked decline, in North America. Breeding Bird Survey data show that between 20 000 and 50 000 couples –roughly 18.5% of the world's population – breed in Canada. The vast majority of these birds nest in Ontario. In Quebec, the total population would vary between 210 and 540 couples. In Manitoba, the population is said to range between 105 and 270 couples. However, the results from recent detailed surveys and the remaining abundance of unsurveyed lands in Manitoba suggest that the population in that province could be as high as several thousand individuals. In Saskatchewan, 19 birds reportedly show signs of probable reproduction.



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## Habitat

In their breeding areas, Golden-winged Warblers seem to be fond of regeneration zones where young shrubs grow, surrounded by mature forest, and characterized by plant succession of 10 to 30 years. The warblers frequent clusters of herbaceous plants and low bushes (where they place their nests, which are built on the ground). They favour environments where the trees are spread out, as well as the forest edge, and use this setting for perching, singing and looking for food. Golden-winged Warblers are found in dry uplands, swamp forests and marshes. This warbler shows a preference for public utility (hydro-electric) rights-of-way, the edges of fields, areas where logging has recently occurred, beaver ponds and burned-out or intermittently cultivated areas. On their wintering grounds in Central and South America, Golden-winged Warblers prefer areas where the altitude is between 1500 m and 3000 m, in various types of habitats in open pine, oak and shrub woodlands, where they are found in gaps or at the forest edge, especially with forest cover. Their presence has also been identified in lowlands.

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## Biology

Little is known about the dispersal movements of these migratory birds. What is documented is the arrival of male Golden-winged Warblers in southern Ontario during the first days of May, with the females following one or two weeks later. These small warblers remain in their breeding habitats until late August and early September. Males and females tend to nest in the same territory year after year. Golden-winged Warblers usually breed at one year of age and can continue to do so until they are nine years old. Couples build their nest on the ground, at the base of a plant, and produce a single clutch of 2 to 6 eggs per year. In Ontario, the female lays an average of 4.75 eggs. When nesting fails, subsequent breeding attempts are common, but a decline in fertility is seen. In 55% of nests sampled in the province, at least one chick took flight, whereas predators or abandonment caused nesting failure in 45% of cases. The eggs and chicks of this species fall victim to various predators, including the racoon, red fox, coyote, ermine, mink, red squirrel, grey squirrel, eastern chipmunk, fisher, striped skunk, Blue Jay, American Crow, American toad and several species of mouse and snake. The adults probably deal with a less varied group of predators. During the breeding season, Golden-winged Warblers are strictly insectivores. While their diet consists primarily of harmful caterpillars belonging to the tortricid moth family, these warblers also eat other moths and their pupae, other winged insects, and spiders. Similar feeding habits are seen in regions where the warblers overwinter. Golden-winged and Blue-winged Warblers often breed together when they are in contact. This cross gives rise to two hybrids, Brewster's Warblers and Lawrence's Warblers, which resemble either of the first species.

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## Threats

The main factors threatening the survival of the Golden-winged Warbler in the areas where it breeds are the decrease in regeneration areas where young shrubs grow, as well as competition and hybridization with the Blue-winged Warbler, a closely related species whose breeding area extends north because of habitat change and, possibly, climate change. It is conceivable that if the Blue-winged Warbler's breeding range continues to expand, Golden-winged Warbler populations believed to be safe from hybridization will soon come into contact with the Blue-winged Warbler. This will increase the likelihood of hybridization and competition-related extinction. It has been observed that the Golden-winged Warbler disappears locally within 50 years of the arrival of the Blue-winged Warbler. No detailed study has yet been done on the threats in migration and hibernation areas. However, as is the case with most neotropical migrants, threats in these areas are probably connected with the decline in Golden-winged Warblers.

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## Protection



## Federal Protection

The Golden-winged Warbler is protected under the federal *Species at Risk Act* (SARA). More information about SARA, including how it protects individual species, is available in the [Species at Risk Act: A Guide](#).

The Golden-winged Warbler is protected under the federal Migratory Birds Convention Act, 1994. This statute prohibits harming, killing or collecting eggs, young or adults. The Golden-winged Warbler is not protected by any provincial legislation. The United States Migratory Bird Treaty Act of 1918 protects the Golden-winged Warbler when it is found on American territory, since it prohibits capture, destruction or possession of this species. Protected areas where the Golden-winged Warbler is found in Canada include a few private lands and national parks, as well as lands belonging to the Ontario Ministry of Natural Resources and to the National Capital Commission in the Ottawa-Gatineau region.

## Provincial and Territorial Protection

[To know if this species is protected by provincial or territorial laws, consult the provinces' and territories' websites.](#)

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## Recovery Team

**Golden-winged Warbler Christian Friis - Chair - Environment Canada**

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## Documents

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- [Permits and Related Agreements](#) (6 record(s) found.)
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## COSEWIC Status Reports

- [COSEWIC assessment and status report on the Golden-winged Warbler \*Vermivora chrysoptera\* in Canada](#) (2006)

The Golden-winged Warbler (*Vermivora chrysoptera* Linnaeus, Paruline à ailes dorées) is a small (9-11 g) wood warbler. Both sexes are grey with yellow wing patches and crown; males have black masks and bibs.



## Species at Risk Public Registry

[Home](#) > [Species profiles](#) > Species Profile (Peregrine Falcon anatum/tundrius)

## Species Profile

Peregrine Falcon *anatum/tundrius*Scientific Name: *Falco peregrinus anatum/tundrius*

Taxonomy Group: Birds

Range: Yukon, Northwest Territories, Nunavut, British Columbia, Alberta, Saskatchewan, Manitoba, Ontario, Quebec, New Brunswick, Nova Scotia, Newfoundland and Labrador

Last COSEWIC Assessment: April 2007

Last COSEWIC Designation: Special Concern

SARA Status: Schedule 1, Special Concern

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## Related Species

Species	COSEWIC Status	SARA Status
<a href="#">Peregrine Falcon tundrius subspecies</a>	Non-active	Special Concern

Quick Links: | [Taxonomy](#) | [Description](#) | [Habitat](#) | [Biology](#) | [Threats](#) | [Protection](#) | [Other Protection or Status](#) | [National Recovery Program](#) | [Documents](#)

Image of Peregrine Falcon *anatum/tundrius*

## Taxonomy

Of the 19 known subspecies of the Peregrine Falcon, three are found in North America: *F. p. anatum*, *F. p. tundrius* and *F. p. pealei*. As the differences currently noted between the *anatum* and *tundrius* subspecies are subtle, they are grouped here as a single unit.

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## Description

The Peregrine Falcon is a bird of prey the size of a common crow. It has long, pointed wings that allow it to fly at record speeds of up to 300 km/h in a stoop. Adults have a blackish facial stripe under each eye that gives the effect of a long "mustache." Adults have bluish-gray or darker upperparts and paler underparts that are whitish, greyish, or buffy with brown bars on the sides and legs, and brown spots on the belly. The underside of the wings is white with black streaks. The male and female are mainly distinguished by their size, with females being larger than the males. The immature bird resembles the adult but its face and upperparts are brown. Its facial stripe is black, its tail dark brown with whitish streaks and white tips, and the underparts are buffy with blackish streaks. The three subspecies that nest in Canada are very similar, with slight differences found in the colouring of the plumage and size of the bird. The *tundrius* subspecies is generally paler and smaller, while the underparts of the *anatum* subspecies are orange or brownish in color. These two subspecies are smaller and paler than the *pealei* subspecies.

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## Distribution and Population

The Peregrine Falcon is a species that breeds on all continents, except Antarctica. It is not found in



New Zealand, Iceland and islands of the eastern Pacific Ocean. The subspecies do not have the same distribution. The *anatum* Peregrine Falcon breeds in the interior of Alaska and throughout northern Canada up to southern Greenland, and across continental North America up to northern Mexico. In Canada it is found in all territories and provinces except Prince Edward Island, Nunavut and the Island of Newfoundland. The *tundrius* Peregrine Falcon breeds in Alaska and throughout northern Canada up to Greenland. It winters from northern Mexico and as far south as Chile and Argentina. In Canada, it breeds from northern Yukon, the low Arctic islands, northern Northwest Territories and northern Nunavut up to Baffin Island, Hudson Bay, Ungava and northern Labrador. Since 1970, national surveys aimed at determining trends of nesting Peregrine Falcon populations have been carried out every five years in Canada. These surveys reveal that the number of *anatum* and *tundrius* Peregrine Falcons has considerably increased since 1970, especially from 2000 to 2005. Populations increased by 43% in occupied sites in southern Ontario and by 107% in southern Quebec, which suggests that Peregrine Falcon populations are almost as abundant as they were before the collapse resulting from the use of organochlorine pesticides. Based on the data gathered, there were at least 969 mature *anatum* Peregrine Falcons and 199 *tundrius* Peregrine Falcons. The minimum size of the combined population of these groups was therefore at least 1168 mature individuals. These estimates are certainly lower than the actual numbers, especially for the *tundrius* subspecies, whose nesting area, which extends over a vast, relatively uninhabited arctic landscape, has not been fully surveyed. This recovery is the result of reintroductions in most of southern Canada and the natural growth in productivity following the ban on organochlorine pesticides in Canada, especially DDT. About 1500 *anatum* Peregrine Falcons raised in captivity were released in Canada from 1975 to 2001.

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## Habitat

The Peregrine Falcon is found in various types of habitats, from Arctic tundra to coastal areas and from prairies to urban centres. It usually nests alone on cliff ledges or crevices, preferably 50 to 200 m in height, but sometimes on the ledges of tall buildings or bridges, always near good foraging areas. Suitable nesting sites are usually dispersed, but can be common locally in some areas. The natural nesting habitat has not changed significantly since the population crash and is still largely available. In addition, structures built by humans in both rural and urban areas provide the Peregrine Falcon with other potential nesting sites. And though urbanization and other land uses have had a significant impact on some areas where they feed, Peregrine Falcons can usually modify their diet based on the prey species present in a given area.

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## Biology

The Peregrine Falcon primarily feeds on birds that it typically catches in flight. Its prey has also been known to include bats, rodents and other mammals. Peregrine Falcons begin breeding during their second year. Adults demonstrate a high degree of breeding site fidelity and are known to reuse the same nest site for decades. Nests are generally scraped in substrate on cliff ledges. Peregrine Falcons usually produce a single clutch of two to five eggs per year. Incubation, which is handled mostly by the female, lasts 32 to 35 days. Nestlings leave the nest after about 40 days and continue to be fed by adults. They remain in the vicinity of the nest site for three to six weeks after fledging. Most then disperse widely, up to hundreds of kilometres from natal areas. Peregrine Falcons have a life expectancy of 4 to 5 years, but some individuals have been known to live up to 20. Even though in some areas young falcons may be preyed on by the red fox, Golden Eagle and Great Horned Owl, predation is not a major threat for the species. The main causes of mortality are collisions with buildings and vehicles among fledglings, or unfavourable climatic conditions (cold, rain) for more northern populations. In the fall, most Peregrine Falcons migrate to the southern United States, Mexico, Central America and South America. However, some couples in coastal and northern areas may remain at the nesting site all winter if there is an abundant supply of food. This is particularly true for *anatum* Peregrine Falcons that nest in urban areas in Eastern Canada. Its capacity to adapt to and breed in an urban environment has been a key factor in the recovery of North American populations of *anatum* Peregrine Falcons.



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## Threats

Reproductive failure caused by exposure to organochlorine pesticides, in particular DDT, is the main factor for the historic decline of North American Peregrine Falcon populations. Use of these pesticides causes a thinning and subsequent breaking of the egg shells during incubation. Since organochlorine pesticides were banned in Canada and the United States in the early 1970s and in Mexico in 2000, there has been a decrease in the levels of these pesticides in Peregrine Falcon tissues, which has been associated with the increase in reproductive success over the last few years. However, pesticide levels still exceed critical limits in some individuals, and organochlorine pesticides are still used in some parts of the wintering grounds of the *anatum* and *tundrius* subspecies. It was recently shown that new pesticides regularly used in the country, i.e., polybrominated odiphenyl ethers, also represent a potential threat for the species. However, the effects of these chemicals, found in high concentrations in the tissues of some Peregrine Falcons, are unknown. The coastal populations of *anatum* and *tundrius* Peregrine Falcons may increase or decrease in keeping with fluctuations in seabird populations that they feed on, as is the case of the *pealei* subspecies. In some areas, seabirds are threatened by introduced mammalian predators, and the number of falcons may be reduced if their prey decrease in number. Disturbances caused by humans at nesting sites, the potential increase in the number of juvenile falcons legally harvested for falconry purposes, and poaching of eggs and young birds for the same purpose are also considered to be factors that may pose a threat to the species.

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## Protection

### Federal Protection

The Peregrine Falcon *anatum/tundrius* is protected under the federal *Species at Risk Act* (SARA). More information about SARA, including how it protects individual species, is available in the [Species at Risk Act: A Guide](#).

Like other diurnal birds of prey, the Peregrine Falcon is not protected under the federal Migratory Birds Convention Act, 1994 or the United States Migratory Bird Treaty Act of 1918 when found on American soil. However, the Peregrine Falcon is protected by provincial and federal laws on the protection of wildlife species and species at risk. Some nesting and feeding habitats are found on land that benefits from some protection. In Quebec, in particular, *anatum* Peregrine Falcons nest on federal land, at the Cap Tourmente National Wildlife Area and at Gros-Cacouna. In Nunavut and in the Northwest Territories, the nesting sites of the *tundrius* Peregrine Falcon are widely dispersed among Crown land, national parks and Aboriginal land, where they also benefit from some protection. In Labrador, 10% of nesting sites are found on federal land and 31% on Inuit land.

### Provincial and Territorial Protection

[To know if this species is protected by provincial or territorial laws, consult the provinces' and territories' websites.](#)

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### Other Protection or Status

The Peregrine Falcon is protected under the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), which restricts the import and export of birds and eggs in signatory countries.

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Hinterland Who's Who: Peregrine Falcon: <http://www.hww.ca/hww2.asp?pid=1&cid=7&id=60>





## Species at Risk Public Registry

[Home](#) > [Species profiles](#) > Species Profile (Rusty Blackbird)

### Species Profile

#### Rusty Blackbird

Scientific Name: *Euphagus carolinus*

Taxonomy Group: Birds

Range: Yukon, Northwest Territories, Nunavut, British Columbia, Alberta, Saskatchewan, Manitoba, Ontario, Quebec, New Brunswick, Prince Edward Island, Nova Scotia, Newfoundland and Labrador

Last COSEWIC Assessment: April 2006

Last COSEWIC Designation: Special Concern

SARA Status: Schedule 1, Special Concern

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#### Image of Rusty Blackbird

#### Taxonomy

There are two blackbird species in North America belonging to genus *Euphagus*: the Rusty Blackbird and Brewer's Blackbird. Since they are similar in size and colouring, one species is sometimes confused with the other in the Western provinces.

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#### Description

The Rusty Blackbird is a thrush-sized passerine. The slightly rounded tail is almost equal in length to the wings, which are narrow and pointed. This blackbird has pale yellow eyes and a slightly curved black bill. During the breeding season, the male's plumage turns completely black with a slight green iridescence on the body and violet iridescence on the head and neck. The female's plumage is greyish brown with no iridescence. In winter, the plumage of both sexes takes on a rusty hue, which explains the species' name. In the fall, it is difficult to distinguish juveniles from adults, although young birds have dark irises.

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#### Distribution and Population

The breeding range of the Rusty Blackbird includes a vast portion of Canada and Alaska, as well as parts of Minnesota, Michigan, Vermont, New Hampshire, Maine, New York, and Massachusetts. Its winter range includes most of the central and eastern United States, although a very small number of Rusty Blackbirds winter, albeit sporadically, in the southern part of most Canadian provinces. In Canada, the Rusty Blackbird occurs in all of the provinces and territories, which represent 70% of the North American breeding range. The Canadian population, estimated to be between 110 400 and 1.4 million individuals, represents 70% of the worldwide breeding population. Every indication is that this population has declined significantly since the mid-1960s: the total population is believed to have declined by approximately 85%.

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## Habitat

The Rusty Blackbird nests in the boreal forest and favours the shores of wetlands such as slow-moving streams, peat bogs, marshes, swamps, beaver ponds and pasture edges. In wooded areas, the Rusty Blackbird only rarely enters the forest interior. During the winter, the Rusty Blackbird mainly frequents damp forests and, to a lesser extent, cultivated fields. In Canada, the conversion of wetlands into farmland or land suitable for human habitation is the primary cause of habitat loss, particularly in the Rusty Blackbird's wintering grounds.

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## Biology

Typically, Rusty Blackbirds are monogamous and couples nest in isolated pairs on the margins of wetlands. Depending on the latitude, birds usually reach their breeding grounds in April or May. The female builds her nest in riparian vegetation near or above a body of water. Nests are generally constructed with conifer twigs, dead grasses with small roots or other plant parts, moss, and lichen. They are lined with a layer of fine grasses and, occasionally, feathers, hairs, and sphagnum. The female generally produces one clutch per year. She incubates the eggs herself and the male brings her food. A clutch contains three to six eggs and incubation lasts two weeks. The nestlings generally remain in the nest for 11 to 13 days and they may leave several days before they are able to fly. Migration begins in late August and lasts until early October. The Rusty Blackbird feeds mainly on invertebrates, particularly aquatic insect larvae, crustaceans, and snails associated with aquatic environments. It also feeds on salamanders and small fish. During the winter, the Rusty Blackbird supplements its diet with seeds and small fruits.

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## Threats

The most serious threat to the Rusty Blackbird is thought to be the conversion of its main wintering grounds, the forests in the Mississippi Valley flood plains, for agricultural or human habitation purposes. Other activities, such as the conversion of wetlands and the creation of hydroelectric reservoirs, could lead to further habitat destruction in the species' breeding range. In addition, it is quite likely that Rusty Blackbird populations are affected by bird control programs designed to reduce populations of birds that ravage crops. These programs, which have been ongoing in the southeastern United States since the 1970s, seek to reduce "blackbird" populations, such as the Red-winged Blackbird, the Common Grackle, the European Starling, and the Cowbird. The Rusty Blackbird is indirectly affected by these programs, since it intermingles with these species along its migratory routes and in its winter range. Finally, the Rusty Blackbird may also be affected by the degradation of wetlands and the invasion of dominant species, such as the Red-winged Blackbird, in these wetlands.

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## Protection

### Federal Protection

The Rusty Blackbird is protected under the federal *Species at Risk Act* (SARA). More information about SARA, including how it protects individual species, is available in the [Species at Risk Act: A Guide](#).

In Canada, the Rusty Blackbird is not protected under the Migratory Birds Convention Act, 1994. However, on American soil, the species is protected by the United States' Migratory Bird Treaty Act of 1918, which prohibits the capture, destruction, and possession of this bird.

### Provincial and Territorial Protection

[To know if this species is protected by provincial or territorial laws, consult the provinces' and](#)





## Species at Risk Public Registry

[Home](#) > [Species profiles](#) > Species Profile (Short-eared Owl)

## Species Profile

### Short-eared Owl

Scientific Name: *Asio flammeus*

Taxonomy Group: Birds

Range: Yukon, Northwest Territories, Nunavut, British Columbia, Alberta, Saskatchewan, Manitoba, Ontario, Quebec, New Brunswick, Prince Edward Island, Nova Scotia, Newfoundland and Labrador

Last COSEWIC Assessment: April 2008

Last COSEWIC Designation: Special Concern

SARA Status: Schedule 1, Special Concern

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### Image of Short-eared Owl



© Jim Flynn

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### Description

The Short-eared Owl has a large, round head, with small tufts of feathers that look like ears. This medium-sized owl measures approximately 34 to 42 cm in length. It has fairly long wings and a short tail. Adults have a brown back and creamy-buff chest with brown streaks. Sexes are similar in appearance, but females are slightly larger and tend to be darker. Juveniles resemble adults, but their plumage is somewhat more buff in colour. With its sober coloration, which acts as excellent camouflage, the Short-eared Owl is conspicuous only when it flies, often at dawn and dusk. It can easily be identified by its irregular flight, which resembles that of a foraging moth. It is characterized by deep wingbeats, occasional hovering, and a habit of skimming patches of grassland or marsh.

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### Distribution and Population

The Short-eared Owl is a bird that breeds on many continents and islands. In North America, it breeds sporadically in arctic areas, coastal marshes and interior grasslands, where voles and other small rodents



proliferate. The Short-eared Owl breeds in all of Canada's provinces and territories, but is most frequently found in the Prairie provinces—Alberta, Saskatchewan and Manitoba—and along the Arctic coast. It generally heads southward in the winter and is found in open habitats along the extreme southern coast of British Columbia and in southern Ontario. It is also occasionally seen in coastal areas of Atlantic Canada or in the Prairie provinces, where the number of wintering individuals fluctuates significantly from one year to the next. It is believed that the owls that breed in the Prairie provinces travel south in winter and spend winter mainly in the Great Plains of the United States. The nomadic nature of the species makes it difficult to quantitatively assess population trends. In 2008, the Canadian population was estimated at 350 000 birds. Christmas Bird Count data suggest that the number of Short-eared Owls has declined at a rate of about 3% per year over the past 40 years, including a 23% decline over the past decade alone. Despite a recent increase in the Short-eared Owl population of the United States Great Plains grasslands, where a large number of these owls winter, there has been no notable increase in the breeding population in Canada.

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## Habitat

The Short-eared Owl makes use of a wide variety of open habitats, including arctic tundra, grasslands, peat bogs, marshes, sand-sage concentrations and old pastures. It also occasionally breeds in agricultural fields. Preferred nesting sites are dense grasslands, as well as tundra with areas of small willows. While the Short-eared Owl has a marked preference for open spaces, the main factor influencing the choice of its local habitat is believed to be the abundance of food, in both summer and winter. Suitable breeding, migration and wintering habitat has declined significantly throughout the 20th century, resulting in a reduction in the number of owls.

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## Biology

The Short-eared Owl is a nomadic bird, and most individuals in the species wander widely both seasonally and annually. However, owls on islands appear to show higher fidelity to breeding sites. They group together in areas where prey populations are high. Unlike other owls, the individuals of this species build new nests instead of using abandoned ones. Only the female builds the nest, which typically consists of a single hole dug in the ground, lined with grass and a few feathers. Canadian populations generally raise a single clutch per year. If nests or eggs are destroyed, females will produce a second clutch. Between late April and early June, the female lays an average of four to seven eggs. Clutch size is directly related to prey abundance. The female incubates the eggs by herself for an average of 27 days, while the male guards the nest and brings the female food. Even before they can fly, nestling owls disperse short distances from the nest, hiding in nearby vegetation. Although its diet consists mainly of voles, the Short-eared Owl also feeds on a variety of small mammals, including shrews, pocket gophers, mice, kangaroo rats and lemmings. Many mammals, including foxes, skunks and feral cats and dogs, are predators of the eggs and nestlings. Avian predators include the Great Horned Owl, Snowy Owl, Red-tailed Hawk, Rough-legged Hawk, Northern Harrier, Northern Goshawk, Peregrine Falcon, Herring Gull and Common Raven. The species seems to be sensitive to human activity during the egg-laying and incubation stages, since females typically desert the nest if disturbed during this period.

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## Threats

Loss and alteration of habitat, especially coastal marshes and grasslands that were formerly heavily used by wintering owls, as well as grasslands of the Canadian Prairies and in southern Ontario, constitute the primary factors affecting Short-eared Owl populations. The disappearance of these habitats is mainly attributable to wetland drainage, urban development and increasing farm activity. Widespread and intensive livestock grazing occurs over much of the remaining pastures on the Canadian Prairies. This factor is a direct threat to Short-eared Owl habitat, as tall grasslands are typically preferred nesting sites for this species. In areas where the Short-eared Owl breeds amid crop fields, mowing and harvesting of hay and grains can be a significant source of egg and nestling mortality. Greater nest predation as a result of habitat fragmentation may also constitute a threat to the species. A decrease in the abundance of prey as a result of habitat changes, as well as the collision of adults with vehicles, utility lines and barbed-wire fences, may also contribute to population decline. Although elevated concentrations of pesticides, particularly organochlorines, have been detected in Short-eared Owl eggs, the effects of these contaminants are not yet well known.

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## Protection



## Federal Protection

The Short-eared Owl is protected under the federal *Species at Risk Act* (SARA). More information about SARA, including how it protects individual species, is available in the [Species at Risk Act: A Guide](#).

The Short-eared Owl is protected under a large number of provincial wildlife protection acts (e.g. Ontario's Fish and Wildlife Conservation Act and Quebec's Act Respecting the Conservation and Development of Wildlife). Legislation in most Canadian provinces prohibits the hunting, possession and selling of this species.

## Provincial and Territorial Protection

[To know if this species is protected by provincial or territorial laws, consult the provinces' and territories' websites.](#)

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## Other Protection or Status

In Canada, the Short-eared Owl is not protected under the Migratory Birds Convention Act, 1994. It is, however, protected under the United States' Migratory Bird Treaty Act when found on American soil. This Act prohibits the harming of birds, their nests or their eggs.

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## Recovery Initiatives

### Status of Recovery Planning

#### Recovery Strategies :

**Name** A Management Plan for the Short-eared Owl (*Asio flammeus flammeus*) in Newfoundland and Labrador  
**Status** Review/consultation complete  
**Number of Action Plans** 0

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## Recovery Progress and Activities

**Summary of Progress to Date** This species is included within the South Okanagan - Similkameen Conservation Program (SOSCP) multi-species association. The goals of the SOSCP are to (1) maintain a diversity of habitats that will sustain ecosystem function; (2) maintain viable populations of all native species in the ecosystem; and (3) balance the ecological, economic, and social needs of local communities in the area. The draft strategy ([www.soscp.org/media/Sokrecovery.pdf](http://www.soscp.org/media/Sokrecovery.pdf)) integrates a landscape-level approach to conservation planning with species-specific recovery planning. Since the SOSCP started in the 1980s substantial progress has been made in the protection and restoration of natural habitat, including landowner awareness of stewardship practices that protect habitat for species at risk. Over this time, knowledge has been gathered on local species at risk, the ecosystems upon which they depend, and conservation practices that can protect them. However, over the same twenty years, a great deal of habitat has been lost, as urban and agricultural developments have grown. The need to protect remaining parcels of natural habitat and to improve stewardship of agricultural and other modified lands is as urgent as ever. **Summary of Research/Monitoring Activities** Research projects conducted under SOSCP's "umbrella" have attempted to answer questions at the ecosystem level, the habitat level and the species level. For example, one project is evaluating the use of a computer modeling technique for identifying sets of areas across the landscape that, if protected, would provide the greatest contribution of biodiversity to existing conservation networks. This project is helping to prioritize areas to focus conservation effort. A project at the habitat level is comparing the effect of several cattle grazing prescriptions on plant communities that provide habitat for endangered or threatened plants and animals. Results from this research will be used to produce recommendations for "biodiversity friendly grazing practices". Research at the species level includes assessments of endangered species' habitat requirements as well as other projects informing species-level recovery planning. The result of years of research, the Habitat Atlas for Wildlife at Risk in the South Okanagan and Lower Similkameen (<http://wlapwww.gov.bc.ca/sir/fwh/wld/atlas/index.html>) includes 32 species accounts with descriptions of threats and management recommendations. The Habitat Atlas also describes broad habitat types, activities that degrade these habitats and stewardship options available to landowners. Many SOSCP conservation initiatives include a research and monitoring component in order to continually improve the techniques used for habitat protection and restoration. For example, the Nature Trust is currently testing the





## Species at Risk Public Registry

[Home](#) > [Species profiles](#) > Species Profile (Yellow Rail)

### Species Profile

#### Yellow Rail

Scientific Name: *Coturnicops noveboracensis*

Taxonomy Group: Birds

Range: Northwest Territories, British Columbia, Alberta, Saskatchewan, Manitoba, Ontario, Quebec, New Brunswick

Last COSEWIC Assessment: November 2009

Last COSEWIC Designation: Special Concern

SARA Status: Schedule 1, Special Concern

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#### Image of Yellow Rail



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#### Description

The minute size, buffy plumage with black and white markings, very short tail, light eyebrow, and small bill of the Yellow Rail are reminiscent of a quail. It is one of the smallest rails in the world, weighing only 60 g (females slightly less), and measuring 15-19 cm in length. A white wing patch is visible in flight. As in all rails, the body is laterally compressed, and the toes are long, adapted for maneuvering through aquatic vegetation.

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#### Distribution and Population

Except for a very small area in Mexico where a few birds may still breed, the Yellow Rail breeds exclusively in Canada and the northern U.S. Its breeding distribution appears to be quite local and disjunct. It winters in the U.S., near the east coast from North Carolina to eastern Texas. The Canadian breeding range includes the Mackenzie District of the Northwest Territories, eastern Alberta,



central Saskatchewan, most of Manitoba and Ontario, the southern half of Quebec, all of New Brunswick, and northern Nova Scotia. There are thought to be roughly a few thousand pairs of Yellow Rails breeding in the Hudson/James Bay region, and another roughly 2000 pairs in the rest of Canada (1998 estimates). Habitat availability has declined and is still declining throughout its southern breeding range and relatively small wintering range. In certain parts of the Hudson/James Bay region, habitat may be declining as a result of habitat degradation by Snow Geese (*Chen caerulescens*).

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## Habitat

Nesting Yellow Rails are typically found in marshes dominated by sedges, true grasses, and rushes, where there is little or no standing water (generally 0-12 cm water depth), and where the substrate remains saturated throughout the summer. They can be found in damp fields and meadows, on the floodplains of rivers and streams, in the herbaceous vegetation of bogs, and at the upper levels (drier margins) of estuarine and salt marshes. Nesting habitats usually have a dry mat of dead vegetation from previous growing seasons. A greater diversity of habitat types is used during migration and winter than during the breeding season. In winter, the rails are known to use coastal wetlands and rice fields.

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## Biology

Yellow Rails probably start breeding when they are a year old. Pair formation likely occurs on the breeding grounds. Males in the wild may breed successively with two or more females, as observed in captivity. Females have only one brood per season, but they may reneest if the first clutch of eggs is not successful. The nest is a crude scrape in the vegetation, on the ground or just a few centimetres above it, and is typically covered with a concealing canopy of dead vegetation. The 7-10 eggs are laid a day apart. Once the clutch is complete, the female incubates the eggs until they hatch some 17-18 days later. Hatching is synchronous (all eggs hatch at about the same time), and within a few hours the semiprecocial young can stand. Hatching success is likely very high. Two days after hatching, the entire brood follows the hen away from the nest, at five days of age the young can feed themselves, and at 35 days of age they are capable of flying. Adults eat invertebrates and seeds; the diet of chicks is unknown.

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## Threats

The loss and degradation of wetlands due to agricultural and human development is the greatest threat to this species throughout its breeding range. On the wintering grounds, habitat loss has been so extensive that the wintering range may no longer be contiguous, and the rails are becoming largely restricted to a narrow band of coastline. Coastal marshes are threatened throughout the Gulf states.

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## Protection

### Federal Protection

The Yellow Rail is protected under the federal *Species at Risk Act* (SARA). More information about SARA, including how it protects individual species, is available in the [Species at Risk Act: A Guide](#).

The Yellow Rail is protected by the federal Migratory Birds Convention Act. Under this Act, it is prohibited to kill, harm, or collect adults, young, and eggs.

### Provincial and Territorial Protection

[To know if this species is protected by provincial or territorial laws, consult the provinces' and](#)



## Species at Risk Public Registry

[Home](#) > [Species profiles](#) > Species Profile (Monarch)

### Species Profile

#### Monarch

Scientific Name: *Danaus plexippus*

Taxonomy Group: Arthropods

Range: British Columbia, Alberta, Saskatchewan, Manitoba, Ontario, Quebec, New Brunswick, Prince Edward Island, Nova Scotia

Last COSEWIC Assessment: April 2010

Last COSEWIC Designation: Special Concern

SARA Status: Schedule 1, Special Concern

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Quick Links: | [Photo](#) | [Description](#) | [Distribution and Population](#) | [Habitat](#) | [Biology](#) | [Threats](#) | [Protection](#) | [Other Protection or Status](#) | [Recovery Initiatives](#) | [National Recovery Program](#) | [Documents](#)

#### Image of Monarch



Photo/image: Bob Graham, Point Pelee National Park

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#### Description

The adult Monarch is a bright orange butterfly with heavy black veins and a wide black border containing two rows of white spots. The wingspan is about 10 cm. Males can be distinguished from females by the presence of black coloured scent glands on each of their hind wings. Monarchs can be distinguished from the smaller but similar Viceroy by the absence of an inner margin of black on the hind wings. Monarch larvae or caterpillars are striped yellow, black and white; they grow to about 5 cm in length. The distinctive gold-green chrysalis suspends from a milkweed leaf or branch.

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#### Distribution and Population

The Monarch is widely distributed from Central America to southern Canada, and from coast to coast.



There are three populations of the Monarch: western, central, and eastern. The western population includes all Monarchs found west of the Rocky Mountains to the Pacific Coast, from southwestern USA to southern Canada. The entire western population overwinters along the coast of California in Eucalyptus trees (native to Australia, brought to California in the 1850s). The central population occurs in Guatemala, El Salvador, Honduras, Belize, Nicaragua, Costa Rica, Panama, and southern Mexico. This population is relatively sedentary; the butterflies make short seasonal migrations and are reproductively active throughout the year (unlike the butterflies of the other two populations). The eastern population of the Monarch is the largest of the three, and includes all Monarchs that occur east of the Rocky Mountains, from the Gulf coast to southern Canada, and from the Great Plain States and Prairie Provinces east to the Atlantic coast. The entire population overwinters annually at approximately 12 sites in the Transverse Neovolcanic Belt, a mountain range in central Mexico. These sites are located within 800 km of each other and occur in the high-altitude Oyamel Fir forest. The Monarchs arrive at these sites between early November and late December, and form large aggregations of millions of butterflies. Generally, they remain inactive throughout the winter. The mass of butterflies breaks up in March and early April and the Monarchs begin their migration north. They fly to the Gulf Coast where the females lay eggs, and it is these offspring that continue the migration back to the northern breeding range. It takes several generations of butterflies to reach the northern part of the range, each generation responding to the availability of milkweed plants. Presently the eastern population numbers in the tens of millions, while the western population numbers in the millions. However, each population varies dramatically from year to year, depending on the climatic conditions.

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### Habitat

Monarchs in Canada exist primarily wherever milkweed (*Asclepius*) and wildflowers (such as Goldenrod, asters, and Purple Loosestrife) exist. This includes abandoned farmland, along roadsides, and other open spaces where these plants grow. Monarch wintering habitats include Eucalyptus trees along the Californian coast, and the Oyamel Fir forest in central Mexico. The distribution of the Monarch has gradually shifted eastward over the past century, due to a combination of clearing of deciduous forests in the eastern USA and southeastern Canada, and loss of habitat to agricultural development in the Great Plains.

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### Biology

The eastern and western populations of the Monarch annually migrate south, beginning in August and continuing until mid-October. The butterflies actively seek nectar from wildflowers to increase their strength and build up a fat reserve that will maintain them throughout the winter and the early spring (when no nectar is available). Large aggregations of Monarchs may be seen in the fall along the north shores of Lakes Ontario and Erie, as they prepare to cross the open water. There are 2 or 3 generations of Monarchs from June to September each year. Development through the four stages of the life cycle (egg, larva, pupa, adult) may take between 20 and 45 days, depending on the weather conditions. A female may lay up to 400 eggs per fertilization. The pinhead-sized green eggs are laid one by one on leaves of various milkweed species, the primary food of the caterpillars that will hatch from the eggs after 3 to 12 days. When full-grown (which takes 9 to 18 days of serious chewing), the caterpillar attaches itself upside down to a milkweed leaf or branch, and forms a light green pupa. The adult butterfly emerges after a further 9 to 18 days. The adults have a 1:1 sex ratio. Monarch larvae store poison from the milkweed leaves they eat and pass it along to the adults, which makes the butterfly unpalatable and provides some protection against predation.

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### Threats

Environmental conditions and loss of breeding habitat pose threats to all Monarchs. However, there are population-specific threats as well. The eastern population of the Monarch is limited by loss of habitat



to logging, human disturbance, and predation, especially while wintering in Mexico. Widespread and increasing use of herbicides in North America is another significant threat, which kills both the milkweed needed by the caterpillars and the nectar-producing wildflowers needed by the adults. Threats for the western population include real estate development along the Californian coast, which infringes on the wintering sites of the western population; programs to actively eliminate the Eucalyptus trees (an exotic species); and a protozoan disease.

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## Protection

### Federal Protection

The Monarch is protected under the federal *Species at Risk Act* (SARA). More information about SARA, including how it protects individual species, is available in the [Species at Risk Act: A Guide](#).

The Monarch occurs in Point Pelee National Park in Ontario, where it is protected under the Canada National Parks Act. Point Pelee, as well as Long Point and Prince Edward Point, are designated as Monarch Butterfly Reserves.

### Provincial and Territorial Protection

[To know if this species is protected by provincial or territorial laws, consult the provinces' and territories' websites.](#)

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### Other Protection or Status

The Monarch Butterfly Conservation Program was created by the Mexican government to conserve wintering grounds for the species as well.

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### Recovery Initiatives

#### Status of Recovery Planning

#### Recovery Strategies :

**Name** Canadian Management Plan for the Monarch

**Status** Submitted for peer review/ review by F/P/T partners

**Number of Action Plans** 0

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Hinterland Who's Who: Monarch: <http://www.hww.ca/hww2.asp?id=34>

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### Documents

PLEASE NOTE: Not all COSEWIC reports are currently available on the SARA Public Registry. Most of the reports not yet available are status reports for species assessed by COSEWIC prior to May 2002. Other COSEWIC reports not yet available may include those species assessed as Extinct, Data Deficient or Not at Risk. In the meantime, they are available on request from the [COSEWIC](#)