



Barn Swallow

Photo: © Gordon Court



Scientific name

Hirundo rustica

Taxon

Birds

COSEWIC status

Special Concern

Canadian range

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

Reason for designation

This aerial insectivore is among the world's most widespread birds, with about 6.4 million mature individuals in Canada. It experienced a substantial population decline in North America over more than two decades, beginning in the mid- to late 1980s. However, the Canadian population has remained largely stable over the past ten years (2009-2019), with a substantial increase in Saskatchewan largely offsetting ongoing declines in several other provinces. Key threats include declining populations of insect prey, increasing frequency of severe temperature fluctuations during spring migration and the breeding season, and in some regions, loss of suitable nesting sites. Although the Canadian population remains large and overall declines

have abated, the species may once again become Threatened if threats continue or worsen.

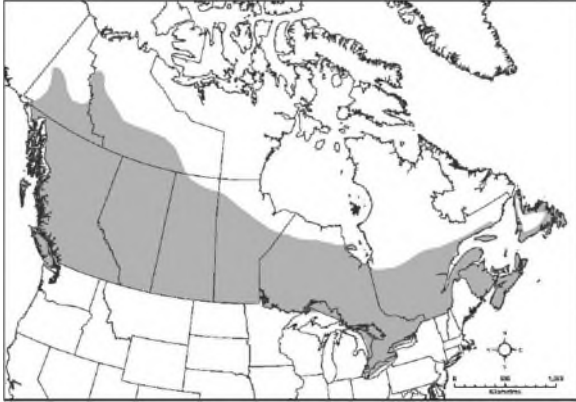
Wildlife Species Description and Significance

Barn Swallow is a medium-sized passerine with metallic blue upperparts, cinnamon underparts, and a chestnut throat and forehead. Its most recognizable feature is a deeply forked tail with long outer feathers. Males have a longer tail, somewhat glossier upperparts and a darker breast.

Barn Swallow is a member of the ecological guild known as aerial insectivores, of which many members are in decline globally.

Distribution

Barn Swallow is the most globally widespread species of swallow, occurring on every continent except Antarctica. In the western hemisphere, it breeds in Canada primarily south of the treeline, the United States and Mexico; Argentina also has a small breeding population. Barn Swallow has been documented breeding in every province and territory. Barn Swallow is a long-distance migrant, overwintering in the southern United States, parts of Mexico, and Central and South America.



Canadian breeding range of Barn Swallow

Source: COSEWIC. 2021. COSEWIC assessment and status report on the Barn Swallow *Hirundo rustica* in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. xii + 60 pp.

Habitat

Before European colonization of North America, Barn Swallows largely nested on fissures in cliffs, rock overhangs, and caves. Thereafter, their preferred nest sites became human-made structures, including barns, stables, houses, sheds, and bridges. Barn Swallows prefer to forage over open spaces such as grasslands, agricultural fields, shorelines, woodland clearings, wetlands, sand dunes, tundra, and roads.

Biology

Barn Swallows nest in colonies or independently. They construct a small cup-shaped nest and affix it to a vertical, or occasionally a horizontal surface. The breeding season in Canada is typically from May through July. Most clutches contain 4-5 eggs; a second brood is often reared, particularly in southern Canada. Some Barn Swallows of both sexes breed in their first year. Barn Swallows forage mostly on the wing, actively pursuing and catching flying insects; however, they may forage on the ground opportunistically. Generation length is estimated to be approximately 3 years.

Population Sizes and Trends

In Canada, the Barn Swallow population is currently estimated to be at least 6.4 million mature individuals. This represents approximately 3.4% of the global Barn Swallow population and 13.6% of the population in the United States and Canada. Over 60% of the Canadian population currently breeds in the Prairie provinces.

Population trend estimates for Barn Swallow are based on Breeding Bird Survey data. For the period 1970-2019, there was a statistically significant annual trend of -2.34% (95% CI = -2.66% to -2.05%) per year in Canada, corresponding to an overall decline of 68.6% over 49 years. During the most recent 10-year period (2009-2019) the Canadian population has been close to stable, changing at -0.12% (95% CI = -1.07% to 0.89%) per year, amounting to a decrease of -1.2% over the decade. However, at a regional scale there has been a large increase in Saskatchewan, offsetting substantial ongoing declines in Ontario and Quebec. Comparisons of first and second generation breeding bird atlases in Alberta, Ontario, Quebec, and the Maritimes show results consistent with long-term declines of populations across Canada, with the largest reductions in eastern provinces (Ontario, Quebec, and the Maritimes).

Threats and Limiting Factors

Substantial research is still required to better understand threats affecting Barn Swallow. Currently the most pertinent concerns are thought to be modifications to the natural system (indirect threats such as pesticides and habitat loss reducing prey quality and quantity), climate change, housing and commercial development, changes in agriculture (annual and perennial non-timber crops, and livestock farming and ranching), roads and railroads, and pollution. These threats are thought to be reducing the quantity and quality of insect prey, causing lowered reproductive success and direct

mortality. Threats on the wintering grounds are not currently well understood, but are likely related to changes in land-use, resulting in the destruction of suitable foraging habitat, as well as the intensification of agricultural practices that reduce insect populations. The overall impact of threats on Barn Swallow over the next decade is considered to be medium. Limiting factors for Barn Swallow include a dietary dependence on insect prey and low post-fledging survival rates.

Protection, Status and Ranks

In Canada, the *Migratory Birds Convention Act*, 1994 protects Barn Swallow, its nests, and eggs. The species is also listed as Threatened under Schedule 1 of the *Species at Risk Act*, 2002. In Canada, Barn Swallow is listed as N3N4 (Vulnerable to Apparently Secure) nationally, and S2 (Imperilled) in the Yukon Territory, New Brunswick, Prince Edward Island and Newfoundland, S2? (Imperilled?) in the Northwest Territories, S2S3 (Imperilled to Vulnerable) in Nova Scotia, S3 (Vulnerable) in Alberta and Quebec, S3S4 (Vulnerable to Apparently Secure) in British Columbia, S4 (Apparently Secure) in Manitoba, and S5 (Secure) in Saskatchewan and Ontario. In the United States, Barn Swallow is protected under the *Migratory Bird Treaty Act*, and ranked nationally as N5 (Secure). Globally, Barn Swallow is considered G5 (Secure).

Source: COSEWIC. 2021. COSEWIC assessment and status report on the Barn Swallow *Hirundo rustica* in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. xii + 60 pp.

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