



Horned Grebe



Photo: © Kyle Blaney

Scientific Name

Podiceps auritus

Taxon

Birds

COSEWIC status

Special concern

Canadian Range

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

Reason for designation

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

Wildlife Species Description and Significance

Horned Grebe (*Podiceps auritus*) is a small waterbird with a long neck and short bill. It is named after a patch of erectable, buff-coloured feathers on its head, which extend from its eyes to the back of its nape. In breeding plumage Horned Grebe has a black face and back with chestnut foreneck and flanks. Two subspecies are recognized globally: *P. a. auritus* breeds in Eurasia and *P. a. cornutus* breeds in North America.

Distribution

Horned Grebe is found in North America, Europe, and Asia. Approximately 92% of the North American breeding range is in Canada, ranging from Yukon and British Columbia to Quebec, but with most birds breeding in the Prairies and Northwest Territories. The North American population winters primarily within the United States, with the highest numbers along the Pacific and Atlantic coasts.



Horned Grebe breeding distribution and relative abundance during the breeding season (7 June to 27 July), based on eBird data from 2005 to 2020. Darker red shading indicates higher population density.

Source: COSEWIC. 2023. IN PRESS. COSEWIC assessment and status report on the Horned Grebe *Podiceps auritus* in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. xiii + 54 pp.

Habitat

The Horned Grebe breeds primarily in the prairie and boreal ecological regions, where it occupies small to moderately sized freshwater wetlands, and occasionally brackish or alkaline waterbodies. Suitable breeding ponds have a



mix of emergent vegetation for nesting and open water for foraging. Pairs may occasionally occupy constructed wetlands, including borrow pit ponds. Horned Grebe primarily winters at inshore saltwater sites, but also uses medium to large freshwater lakes and ponds.

Biology

The Canadian population of Horned Grebe is estimated to comprise 200,000 to 500,000 mature individuals. The Breeding Bird Survey primarily samples the southern portion of the Canadian breeding range and may not accurately reflect overall population trends. It indicates a long-term (1970-2019) Canadian trend of -1.71% per year (95% Credible Interval [CI] = -4.56, 0.67), amounting to an estimated -57.0% (95% CI = -89.9, 38.7) over 49 years. During the most recent three-generation period (2006-2019), the average trend was -1.11% per year (95% CI = -6.05, 4.54), or -13.5% (95% CI = -55.5, 78.0) over that period. Christmas Bird Count results at the continental scale likely better reflect the overall Canadian population, given that most birds winter in the United States. The long-term trend of 0.38% per year (95% CI = -0.54, 1.59) since 1970 amounts to an estimated increase of 21.3% (95% CI = -24.1%, 123.6%) over 51 years. Over the most recent three-generation period (2008-2021), the average annual trend was estimated at 1.23% (95% CI = -3.22, 5.88), equivalent to 17.2% (95% CI = -34.7, 110.2) for the entire period. However, these BBS and CBC trends are non-significant. In contrast, recently released trends derived from eBird data show significant 3-generation (2007-2020) declines per count cell, primarily at median rates of decline greater than 30%, across the continental wintering range of the species. A range-wide estimate is not yet available via this analysis.

Threats and Limiting Factors

Permanent loss of wetlands to activities associated with agriculture and aquaculture and energy production and mining threatens the Horned Grebe. Up to 70% of wetlands within the Prairie Region have disappeared since European settlement, with some loss ongoing. Ecosystem modification through invasive aquatic

plants reducing areas of open water, and eutrophication and degradation of nesting ponds due to agricultural activities, also pose a threat to Horned Grebe. Climate change is affecting this species: temporary drying of wetlands from precipitation changes can displace individuals or render habitat unsuitable. Horned Grebe is also at risk of mortality from collisions with utility and service lines (power lines) and renewable energy infrastructure (wind turbines). On the wintering grounds pollution from oil spills and being caught as bycatch in fisheries can also negatively impact the population. The overall threat impact for Horned Grebe over the next three generations (13 years) is estimated to be Medium.

Protection, Status, and Ranks

In Canada, Horned Grebe and its nest and eggs are afforded protection under the *Migratory Birds Convention Act*. Although the previous status report recognised two Horned Grebe Designatable Units (DUs), the Western and Magdalen Island populations, COSEWIC's current DU guidelines indicate that there is only one DU for this species in Canada. In December 2023, the Magdalen Islands population and the Western population were considered as a single unit by COSEWIC across the Canadian range and was designated Special Concern.

The Western population is however still listed as Special Concern, and the Magdalen Islands population as Endangered under the Species at Risk Act. In Quebec, this species is listed as "Threatened" under the "*Loi sur les espèces menacées ou vulnérables*," and is afforded protection under the "*Loi sur la conservation et la mise en valeur de la faune*". The species is also protected under the *Migratory Bird Treaty Act* in the United States. Horned Grebe is considered Globally Secure (G5) but ranked as Vulnerable by IUCN. In Canada, Horned Grebe is considered Secure (N5B, N4N5N). At a provincial or territorial level, Horned Grebe is listed as S1B, S3N, S4M (Critically Imperilled as a breeding population) in Ontario, and S3 (Vulnerable) in Alberta, Manitoba, and the Northwest Territories, with other subnational ranks more secure. In Quebec, NatureServe still



considers the species to have two subpopulations: the Western subpopulation has a rank of S3M, while that of the Magdalen Islands has a rank of S1B (Critically Imperilled).

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For more information, please visit

<https://species-registry.canada.ca/index-en.html>

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