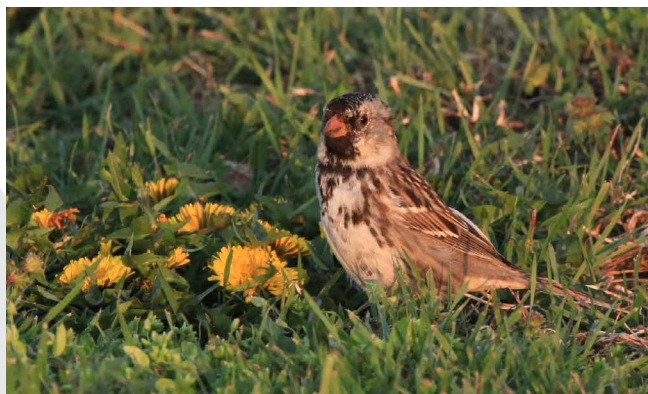




Harris's Sparrow

Photo: © Mark Gilmore



Scientific name
Zonotrichia querula

Taxon
Birds

COSEWIC Status
Special Concern

Canadian range
Northwest Territories, Nunavut, Alberta,
Saskatchewan, Manitoba, Ontario

Reason for Designation

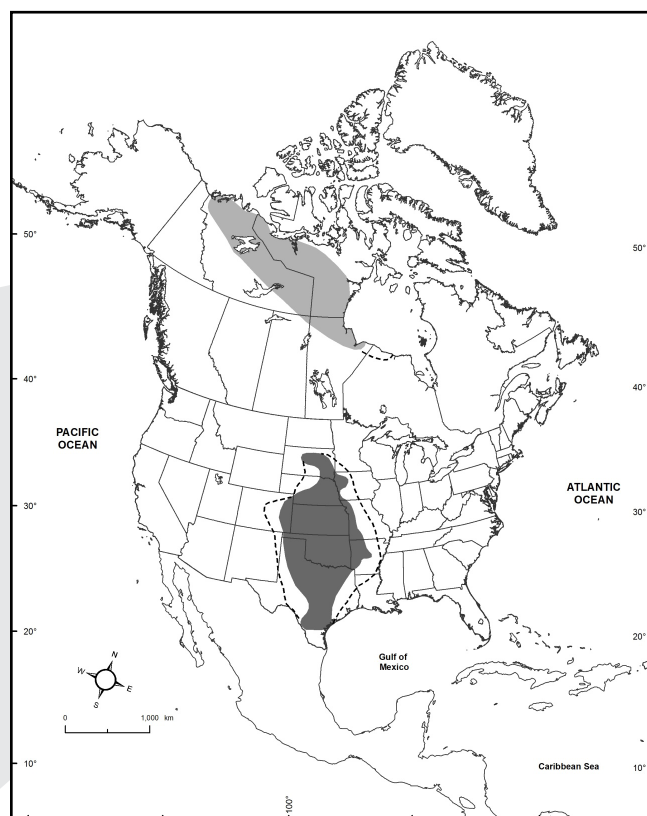
This northern ground-nesting bird is the only songbird that breeds exclusively in Canada. Data from Christmas Bird Counts in the US Midwest wintering grounds show a significant long-term decline of 59% over the past 35 years, including 16% over the past decade. The species may be affected by climate change on the breeding grounds, while threats on the wintering grounds include habitat loss, pesticide use, road mortality, and predation by feral cats.

Wildlife Species Description and Significance

Harris's Sparrow is a large sparrow with a distinctive black hood and bib. Both sexes have similar plumage. Non-breeding and first-year birds are similar to each other in plumage, lacking much of the black bib and facial patterning found in breeding individuals. Harris's Sparrow is the only passerine that breeds exclusively in Canada.

Distribution

Harris's Sparrow is a long-distance temperate migrant that is found exclusively in North America. The species breeds along the tree-line in northern Canada (Northwest Territories, Nunavut, Saskatchewan, Manitoba, and irregularly Ontario), and winters in the central Midwest region of the United States (regularly in Nebraska, Kansas, Oklahoma, Texas, and irregularly in Arkansas, Missouri, Iowa, and South Dakota). Because of limited accessibility of the breeding range, relatively little is known about the species in Canada.



Global distribution of Harris's Sparrow during breeding (light gray; adapted from James et al. 1976; Cadman 2007) and wintering (dark gray; adapted from National Audubon Society 2015; eBird 2016; Norment et al. 2016) seasons, including irregular occurrences within dashed lines.

Habitat

Harris's Sparrow favours a mosaic of upland and tundra, with scattered lakes. Breeding territories typically include coniferous trees; densities are highest where forest stands are dominated by spruce or tamarack, interspersed with shrubs typically <1 m tall. In winter and during migration, the species frequents a variety of habitats, with riparian thickets, grasslands, woodland edges, hedgerows, and willow thickets commonly used.

Biology

Harris's Sparrow is a socially monogamous breeder that consumes fruits, seeds, and insects. Throughout the breeding season, the species is initially heavily dependent on fruits, before switching its diet as the breeding season progresses to include more insects and seeds as snow cover disappears. Nests are constructed and incubated by the female and are placed on the ground in densely concealed ground vegetation. Average clutch size is 4.07 eggs, with a range of 3 – 5 eggs. Incubation lasts 12 – 13.5 days and young fledge after 8.5 – 10 days. Research on the Thelon River in Northwest Territories documented a hatching rate of 76%, fledging rate of 62.5%, and overall nest success rate of 47.5%, with 2.07 fledged young per pair.

Population Sizes and Trends

The global population, which breeds exclusively in Canada, is estimated at 500,000 – 5,000,000 individuals, with the most recent estimates indicating ~2,000,000 individuals.

Christmas Bird Count (CBC) data indicate a significant long-term rate of annual decline of -2.58% between 1980 and 2014, amounting to a total population loss of 59% over the last 35 years. Over the most recent 10-year period (2004 to 2014), CBC data show a decline of -1.77% per year amounting to a cumulative loss of 16%.

Threats and Limiting Factors

Throughout the wintering grounds in the Midwestern United States, the conversion of grassland and fringe lands for agricultural purposes is thought to be a factor in the decline of Harris's Sparrow. Pesticide use throughout the wintering grounds has been linked to declines in Harris's Sparrow; while the relative influence of this factor is unknown, it is anticipated to be negative and potentially considerable in severity.

Within the breeding range, concerns include habitat loss linked to deforestation near the northern edge of the species' range associated with forest fires, quarries and mine development, and climate change, which may reduce suitable breeding habitat while allowing ectoparasites and mammalian predators, such as Red Fox, to spread north.

More studies are needed to assess the species throughout its annual life cycle and assess the relative importance of different threats on its breeding and wintering grounds.

Protection, Status, and Ranks

Harris's Sparrow and its nest and eggs are protected in Canada under the *Migratory Birds Convention Act*. The Act prohibits the sale or possession of migratory birds and their nests, and any activities that are harmful to migratory birds, their eggs, or their nests, except as permitted under the *Migratory Birds Regulations*. It is protected in the United States under the *Migratory Birds Treaty Act*.

Harris's Sparrow is ranked as globally secure by NatureServe. Within Canada the species is ranked as secure nationally, secure in Alberta and Saskatchewan and vulnerable in Manitoba and the Northwest Territories. COSEWIC assessed this species as Special Concern in April 2017.

Source: COSEWIC. 2017. COSEWIC assessment and status report on the Harris's Sparrow *Zonotrichia querula* in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. x + 36 pp.

For more information, please visit
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