# Nova Scotia Species At Risk Beneficial Management Practice Series

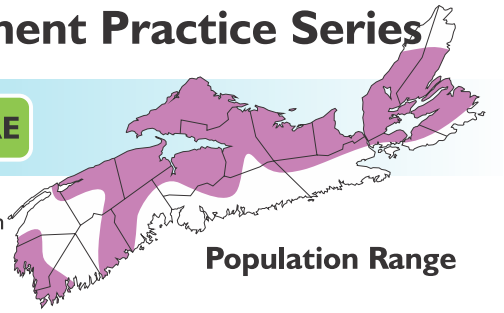
*Version 1, June 2022*

## Bobolink

*Dolichonyx oryzivorus*

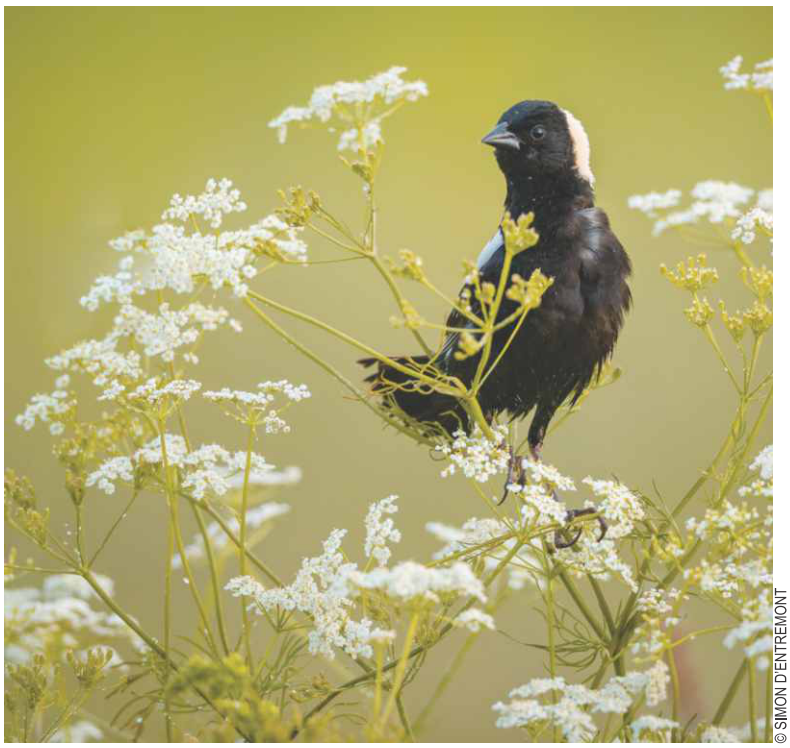
| STATUS | |
|---|---|
| | Threatened |
| | Vulnerable |

**AGRICULTURE**



Found throughout most of NS. Winters in South America. Has declined by 88% over the last 40 years in Canada.

**Population Range**



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Adult Male

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Example of Bobolink habitat used as cropland

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Example of Bobolink habitat used as grazed pasture

## SPECIES DESCRIPTION

- The Bobolink is a medium sized bird, 16-20 cm long, with a short, conical bill.
- Breeding males are black with a large pale yellow patch on the back of their heads and a white lower back and rump.
- Females are sparrow-like with a crown alternating in dark and light stripes, a brown breast, and brown, white and black patterning on the wings.
- Their pinkish bill and dark eyeliner can help to distinguish them from sparrows. Prior to migration in August, males moult to a plumage that looks more like females.
- Bobolinks are polygynous, meaning males will breed with multiple females (2-3) each year.
- Breeding adults will return to the same area to nest year after year if the habitat remains suitable.
- Bobolinks are a semi-colonial species and typically nest in colonies of 5-10 pairs.

## HABITAT DESCRIPTION

- During the breeding season, the Bobolink is found in open grassland habitats with species such as clover, tall grasses and broad-leaved plants. These habitats include hayfields, pastures, and abandoned farmland.
- Bobolinks prefer large areas for breeding, with square or circular field shapes being preferred to long narrow field, as they have less edge; most grassland birds will avoid fragmented habitats and areas near forested edges when selecting nesting habitat, as edges potentially expose them to predators.
- They are not typically found in fields with short grasses or monocultures of corn, soybean or wheat.
- Bobolink typically prefer areas 10 acres in size or larger, but will use smaller patches in high quality habitat.
- Nests look like shallow cups and are built directly on the ground, often at the base of a large plant to help keep them hidden.

## KEY TERMS

### Habitat fragmentation:

Habitat fragmentation is the process during which a large, connected expanse of habitat(s) is transformed into a number of smaller patches of smaller total area that are isolated from each other. Bobolink respond negatively to fragmented habitat, particularly habitats with forested edge.

### Ecological trap:

An ecological trap occurs when an animal selects what it thinks is high quality habitat, however in reality the habitat poses some risk to the individual. For example, an unmoved field can look like high quality breeding habitat when it arrives in May, however, it poses the impend risk of nest destruction if mowing takes place during the nesting season.

### Grassland birds:

Grassland birds are a guild (group) of birds that depend on grassland habitat for nesting. Various species of waterfowl, raptors, shorebirds, upland game birds and songbirds are included in this guild. In addition to the Bobolink, other grassland bird species in Nova Scotia include the Savannah Sparrow, Short-eared Owl, and Eastern Meadowlark.

## HOW YOU CAN HELP (BENEFICIAL PRACTICES)

- Learn to identify Bobolink and report all observations (see contact information below).
- Delay the haying of fields and other activities such as mowing or fertilizing until after July 15 during the Bobolink breeding season to reduce the risk of nest destruction.
- Reduce disturbance in nesting areas by using temporary fencing, or signage to explain the importance of remaining out of the area.
- Flushing bars can be used to drag chains ahead of hay mowers to scare wildlife away; it is important to note this will not prevent the destruction of nests, eggs or chicks, but may allow adults to escape.
- Consider changing how you manage grazing systems. Depending on how they are designed an managed, rotational grazing systems can be used to support habitat conservation for Bobolinks:
  - Manage stocking rates so pasture grasses are only lightly to moderately grazed in spring and early summer;
  - Don't allow livestock to graze shorter than 10-13 cm;
  - If you have 3 or more pastures, leave 1 to rest each year;
  - Rotate livestock through several fields so that each pasture is grazed only once or twice each season;
  - If you have a rotational grazing system, consider leaving 1 or 2 central paddocks ungrazed from May through mid-August, when chicks have fledged, to provide a safe area throughout the Bobolink breeding season;
  - Avoid high-intesity grazing/mob grazing systems.
- Allow areas of the property to seed with grass and maintain by mowing every 1-5 years to prevent the growth of woody vegetation.
- Reclaim field edges and reduce competition from woody shrubs by mowing every 1-5 years or by allowing livestock to graze down vegetation.
- Larger square blocks are more desirable than smaller or narrow linear fields for grassland nesting birds.
- Although Bobolink will not nest in cropfields, locating cropfields adjacent to hayfields or other grasslands will improve the openness of a habitat for Bobolink.
- Coordinate management practices with neighbours.

## THREATS

- Destruction of nests and eggs and mortality of young and adults from agricultural activities (e.g. haying).
- Grassland birds are vulnerable to ecological traps associated with hayfields.
- Hayfields will attract nesting birds in the spring but nests, eggs and nestlings will be destroyed if the hayfield is harvested during the nesting period.
- There is evidence that Bobolink do not learn from these events and will repeat this behaviour the following year.
- Habitat loss, such as conversion of hayfields/grasslands to row crops, the growth of woody shrubs and trees on unused hayfields/ grasslands, and urbanization.
- Habitat fragmentation leading to increased nest predation by predators using edge habitat or general avoidance of small habitat patches.
- Pesticide use in breeding and wintering grounds, which can cause direct mortality of Bobolink or reduce insect prey availability.

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Adult female

## REPORT SIGHTINGS

When possible, report any of your observations of species at risk. Details such as time, date, location (Geographic or UTM coordinates) as well as photos are valuable additions to all reports. **Contact:** 1-866-727-3447, *speciesatrisk.ca/sightings*, sightings@speciesatrisk.ca AND the Nova Scotia Department of Natural Resources and Renewables, biodiversity@novascotia.ca

## TO LEARN MORE

To learn more about the Bobolink or other species at risk view the **Species at Risk in Nova Scotia, Identification & Information Guide, 2nd Edition** available online at *http://www.sarguide.speciesatrisk.ca/*

**Additional resources for farming with Bobolink:**

Atwood, J., Collins, J., Kidd, L., Servison, M., & Walsh, J(2017). Best management practices for nesting grassland birds. Mass Audubon; Lincoln, MA. 10 pp. *https://www.massaudubon.org/content/download/19413/274073/file/Best-Management-Practices_Grasslands.pdf*

Hyde D., & Campbell, S. (2012). Agricultural practices that conserve grassland birds. Michigan State University Extension. 21 pp. *https://www.canr.msu.edu/uploads/resources/pdfs/agricultural_practices_that_conserve_grasslands_birds_(e3190).pdf*

Kyle, J., & Reid, R. (2016). Farming with Grassland Birds. *https://www.ontariosoilcrop.org/wp-content/uploads/2015/08/GrasslandBirdsWorkbook.pdf*

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