

## Appendix A: Birds

### Bobolink

*Dolichonyx oryzivorus*

Federal Listing	N/A
State Listing	N/A
Global Rank	G5
State Rank	S4
Regional Status	Very High



Photo by Pamela Hunt

#### Justification (Reason for Concern in NH)

Populations of most grassland birds are in strong decline, both in the Northeast and sometimes across larger portions of their continental ranges. For this reason, most species were included in the Northeast list of SGCN, with those that occur regularly in NH retained for the NH WAP revision. Based on BBS data (Sauer et al. 2014), Bobolink populations in New Hampshire have declined at 1.87% annually since 1966 (1.9%/year from 2003-2013). These trends are more negative in regional data: BCR 14 = -4.42%/year, BCR 30 = -2.48%/year. Although the declines seen in the BBS are widespread, they have not manifest as significant loss of range occupancy in repeated Breeding Bird Atlases in the northeast (McGowan and Corwin 2008, Renfrew 2013, MassAudubon 2014).

#### Distribution

Bobolinks breed across the northern United States and southern Canada from Oregon and British Columbia to Virginia and (rarely) Newfoundland. They winter east of the Andes in South America from Bolivia to northern Argentina. The species occurs throughout New Hampshire where suitable habitat is present.

#### Habitat

Bobolinks breed in a variety of grassland habitats, although these generally contain a mix of tall grasses and scattered leafy forbs such as legumes or dandelions (Martin and Gavin 1995). A relatively dense litter layer is also important, a feature that is more prevalent in older fields (e.g., eight or more years since planting/reseeding, Bollinger and Gavin 1992). Bobolinks, like many grassland birds, are area sensitive, and are more likely to occur at higher densities in fields over 30 hectares. However, unlike most grassland birds, they will successfully nest in fields as small as two hectares.

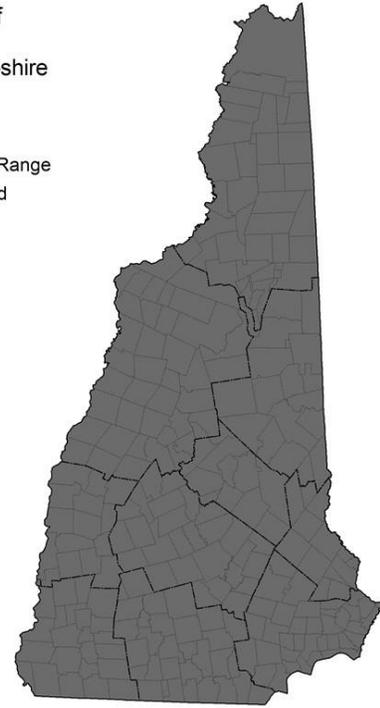
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### NH Wildlife Action Plan Habitats

- Grasslands

Distribution of  
BOBOLINK  
in New Hampshire

■ Current Range  
▨ Localized



Distribution Map

### Current Species and Habitat Condition in New Hampshire

Moderate population declines (see Justification).

### Population Management Status

Management is not currently in place for this species.

### Regulatory Protection (for explanations, see Appendix I)

- Migratory Bird Treaty Act (1918)

### Quality of Habitat

No information

### Habitat Protection Status

Highly variable – see grasslands habitat profile.

### Habitat Management Status

Habitat management has not been implemented specifically for this species.

### **Threats to this Species or Habitat in NH**

*Threat rankings were calculated by groups of taxonomic or habitat experts using a multistep process (details in Chapter 4). Each threat was ranked for these factors: Spatial Extent, Severity, Immediacy, Certainty, and Reversibility (ability to address the threat). These combined scores produced one overall threat score. Only threats that received a “medium” or “high” score have accompanying text in this profile. Threats that have a low spatial extent, are unlikely to occur in the next ten years, or there is uncertainty in the data will be ranked lower due to these factors.*

#### **Habitat conversion and impacts from airport construction (Threat Rank: Medium)**

Expansion of runways or addition of new infrastructure (e.g., hangers) has the potential to remove suitable grassland habitat at some of the more important sites for this species in the state. However, given the relatively small portion of the state’s Bobolink population that breeds at airports, this threat is not as significant as its ranking suggests.

#### **Habitat conversion due to development and impacts from fragmentation (Threat Rank: Medium)**

As a more widely distributed grassland bird, the Bobolink is subject to direct habitat loss as fields are lost or fragmented due to development. But because Bobolinks will use relatively small fields, the fragmentation component of this threat is less of an issue than it is for other grassland birds.

#### **Mortality and nest disturbance resulting from frequency and timing of mowing (Threat Rank: Medium)**

Mowing is generally considered the greatest threat to grassland birds because it either destroys nests outright or exposes them to greater predation risk. Frequency of mowing varies with location and land use. Airports are required to mow areas adjacent to runways and taxiways for safety reasons, while in active hayfields mowing is an economic activity. To maximize both quality and quantity of hay, farmers may harvest as many as 3-4 times a season, a frequency which generally does not allow for successful reproduction by grassland birds (Bollinger et al. 1990). Mowing at airports may be less detrimental since smaller areas are generally mowed, although mowing usually occurs more frequently.

#### **Habitat conversion to cropland or sod (excluding hay) (Threat Rank: Medium)**

Many of the existing sites for Bobolinks in New Hampshire are in river valleys, where they are subject to agricultural conversion from hayfields, which are suitable breeding habitat, to row crops or sod, which generally are not. See the grassland habitat profile for more details.

#### **Habitat degradation and conversion from a lack of field maintenance and associated succession (Threat Rank: Medium)**

In the absence of periodic mowing, grassland sites revert to shrublands and eventually to forest. Because Bobolinks will use smaller fields that are more at risk of abandonment or lapse of management, this is a more important (although still minor) threat to this species than most other grassland birds.

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### Habitat impacts from introduced or invasive plants (Threat Rank: Medium)

Non-native plants are an increasing problem in grasslands elsewhere in the Northeast. Their impacts on grassland birds are poorly known, but could include reduced availability of nesting microhabitat (Scheiman et al. 2003), and/or altered insect communities. See the grassland habitat profile for more information.

### Mortality and species disturbance from insecticide use on winter grounds (Threat Rank: Medium)

Significant mortality events associated with agricultural insecticides have been documented in migratory birds that winter in South America (Goldstein et al. 1999), and lethal/sublethal doses of these same chemicals have been documented in Bobolinks in Bolivia (R. Renfrew, unpubl. data).

### List of Lower Ranking Threats:

Habitat impacts and mortality from insecticide use

Habitat degradation and disturbance from airport runway maintenance

Habitat conversion and degradation from agriculture on winter grounds

Habitat degradation and species disturbance from overgrazing of grassland habitat

## Actions to benefit this Species or Habitat in NH

### Landowner outreach and conservation implementation

**Primary Threat Addressed:** Mortality and nest disturbance resulting from frequency and timing of mowing

**Specific Threat (IUCN Threat Levels):** Agriculture & aquaculture

**Objective:**

minimize mortality and nest loss from haying operations

**General Strategy:**

Provide landowners of important grasslands information on practices that benefit wildlife in this habitat. Specific actions include outreach about appropriate management practices (delayed mowing, etc.), cost-share programs, and other options for land protection and/or management. In a study conducted in the Connecticut River Valley of New Hampshire and Vermont, 64% of farmers and 92% of other grassland landowners were unaware of the financial assistance available for managing grassland habitats (Sydoriak 2014). For more information see the grassland habitat profile.

**Political Location:**

Statewide

**Watershed Location:**

Statewide

## References, Data Sources and Authors

### Data Sources

Trend data from Breeding Bird Survey (Sauer et al. 2014, above).  
NH distribution data from NHBR/NH eBird

### Data Quality

Because this species is easily detected and identifiable, data on distribution and habitat use are generally well known.

### 2015 Authors:

Pamela Hunt, NHA

### 2005 Authors:

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