

Appendix A: Birds

Eastern Meadowlark

Sturnella magna

Federal Listing	N/A
State Listing	SC
Global Rank	G5
State Rank	S3
Regional Status	Very High



Photo by Len Medlock

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), Eastern Meadowlark populations in New Hampshire have declined at 8.33% annually since 1966 (8.25%/year from 2003-2013). These trends are similar in regional data: BCR 14 = -7.07%/year, BCR 30 = -6.9%/year. There have also been declines of 25-75% based on repeated Breeding Bird Atlases in the northeast (Cadman et al. 2007, McGowan and Corwin 2008, Renfrew 2013, MassAudubon 2014).

Distribution

Eastern Meadowlarks breed in the eastern half of the United States and southern Canada, west to central Arizona, and south through Mexico and Central America to northern South America (Jaster et al. 2012). A separate subspecies also occurs in Cuba. The species winters through most of this range, although it withdraws from Canada and the northern tier of states in the U.S. In New Hampshire, meadowlarks occur statewide, but populations are extremely local. Concentrations occur near the Seacoast and in parts of the Merrimack and Connecticut River valleys, including the latter north of the White Mountains. This current distribution is significantly reduced from that documented during the Breeding Bird Atlas in the early 1980s (Foss 1994). Recent resurveys (2013) of sites in the Upper Valley documented meadowlarks in roughly the same locations where they were present in 1997-99 (Hunt and Sydoriak, unpubl. data).

Habitat

Eastern Meadowlarks breed in a variety of grassland habitats, including natural grasslands, hayfields, pastures, abandoned grassy fields, and airports (Jaster et al. 2012). Occupied areas can have a wide range of vegetation, including long and/or short grasses, areas of bare ground, or small clumps of shrubs. Territories often contain prominent singing perches such as trees and fence posts. Meadowlarks preferentially breed in larger fields, usually over 5 ha, although the minimum size varies geographically (Heckert 1994, Vickery et al. 1994).

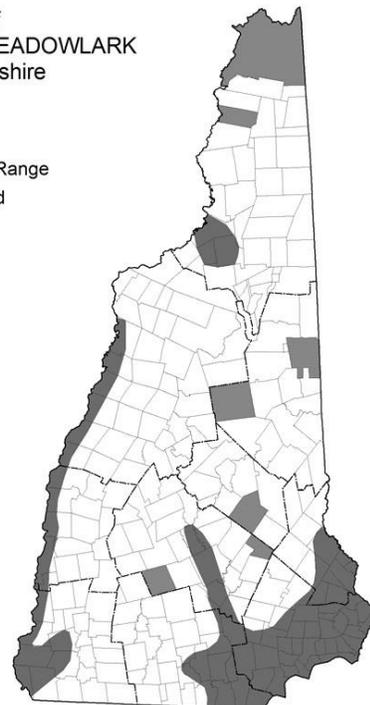
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NH Wildlife Action Plan Habitats

- Grasslands

Distribution of
EASTERN MEADOWLARK
in New Hampshire

■ Current Range
▨ Localized



Distribution Map

Current Species and Habitat Condition in New Hampshire

Significant population declines and range retraction in the Northeast, including New Hampshire (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.

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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.

Habitat degradation and disturbance from airport runway maintenance (Threat Rank: Medium)

This threat is separate from both mowing and construction, and pertains to human activity associated with existing infrastructure. Such activity includes paving, light installation, and other things that might result in vehicles and other equipment being parked off-runway in potential meadowlark habitat.

Habitat degradation and conversion to cropland or sod (excluding hay) (Threat Rank: Medium)

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

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

As a more widely distributed grassland bird, the Eastern Meadowlark is subject to direct habitat loss as fields are lost or fragmented due to development. The species' area sensitivity makes it potentially more vulnerable to this threat than other species in this group.

Habitat impacts from invasive or introduced 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 disturbance to nests due to the 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.

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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. However, since most sites for Eastern Meadowlarks in New Hampshire are at airports or active hayfield, this is not in reality a significant threat to the species.

List of Lower Ranking Threats:

Habitat degradation and species disturbance from overgrazing of grassland habitat

Habitat impacts and mortality from insecticide use

Actions to benefit this Species or Habitat in NH

Grassland bird monitoring

Objective:

Monitor trends for rare grassland birds in NH

General Strategy:

Periodic surveys of key areas for grassland birds (e.g., focal areas, see grasslands habitat profile) are needed to assess trends in distribution and abundance because broad-scale surveys like the BBS fail to capture these species in sufficient numbers. Surveys need not be annual, but should employ consistent methodology among years. Because Eastern Meadowlarks remain more common than most grassland birds, there is less need for careful systematic surveys, but periodic surveys are recommended to determine if the species continues to decline in peripheral areas. For more information see the grassland habitat profile.

Political Location:

Statewide

Watershed Location:

Statewide

Location Description:

For key areas, see grasslands habitat profile

Landowner outreach and conservation implementation

Primary Threat Addressed: Mortality and disturbance to nests due to the 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,

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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).

Political Location:

Statewide

Watershed Location:

Statewide

Location Description:

statewide, although focused on grassland focal areas (see grasslands habitat profile)

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, although the species' apparent decline in Coos County warrants more careful investigation.

2015 Authors:

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2005 Authors:

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