

Appendix A: Birds

Eastern Towhee

Pipilo erythrophthalmus

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 many shrubland 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 Towhee populations in New Hampshire have declined at 9.83% annually since 1966 (-10.88% from 2003-2013). These trends are similar in regional data: BCR 14 = -7.5%/year, BCR 30 = -5.26%/year. There have also been variable declines based on repeated Breeding Bird Atlases in the northeast (Cadman et al. 2007, McGowan and Corwin 2008, Renfrew 2013, MassAudubon 2014). At a finer scale, local declines in New England generally seem to be more prevalent at higher elevations (Renfrew 2013, MassAudubon 2014, Hunt unpubl. data), perhaps because these areas have had a greater rate of reforestation.

Distribution

The Eastern Towhee breeds across the U.S. and southern Canada east of the Great Plains, and winters in the southeastern United States. It occurs throughout New Hampshire although it is generally less common and more local from the White Mountains north. There is also some indication that the species is becoming less common to the north based on perusal of route-specific BBS data (PDH).

Habitat

Like all shrubland birds, this species occurs in habitats dominated by shrubs or young trees, sometimes interspersed with mature trees (e.g., pine barrens) or open bare or grassy areas. Typical examples in New Hampshire include regenerating timber harvests, power line rights-of-way, shrubby old fields and edges, and pine barrens. From a bird perspective, such habitats can be subdivided into those dominated by shrubs vs. dominated by saplings. The former – sometimes referred to as “scrub-shrub” – is more typical of abandoned old fields, utility rights-of-way, and open areas within pine barrens. Such habitats often persist for relatively long periods without the need for additional management. Saplings, on the other hand, are typical of areas subject to timber harvest, and rarely retain early successional characteristics beyond 15-20 years. These are also regularly referred to as “young forest.” Although Eastern Towhees will use young forest in early successional stages, it is generally much more common in either scrub-shrub or pine barrens (Hunt 2013). Towhees also occur in some peatlands, openings in mature forest, and on rocky outcrops with shrubby vegetation.

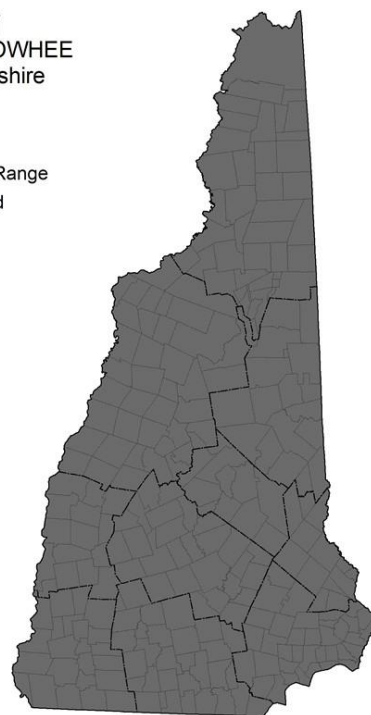
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NH Wildlife Action Plan Habitats

- Shrublands
- Pine Barrens
- Appalachian Oak Pine Forest
- Peatlands
- Rocky Ridge
- Cliff
- and Talus

Distribution of
EASTERN TOWHEE
in New Hampshire

■ Current Range
▨ Localized



Distribution Map

Current Species and Habitat Condition in New Hampshire

Significant population declines and limited range retraction (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

Highly variable – see shrubland and pine barrens habitat profiles.

Habitat Protection Status

Highly variable – see shrubland and pine barrens habitat profiles.

Habitat Management Status

Habitat management has not been implemented specifically for this species, although management does occur for other species (American Woodcock, New England Cottontail) that often use the same

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habitats. See also shrubland and pine barrens habitat profiles.

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 due to development and impacts from fragmentation (Threat Rank: High)

Ongoing residential and commercial development results in permanent loss of habitats for wildlife. Because many of the habitats used by shrubland birds are already embedded in developed landscapes (e.g., right-of-way, old fields) or viewed as “undesirable” or “waste” habitats, they may be more vulnerable to this threat.

Habitat degradation and conversion due to natural succession or lack of active management (Threat Rank: High)

In the absence of disturbance or management, the early successional and edge habitats preferred by this species generally revert to closed forest systems that are not heavily used, and as a result forest maturation is generally considered the most significant threat facing birds that use shrublands and young forests. See Shrubland habitat profile for more information.

Habitat degradation due to fire suppression and associated succession (Threat Rank: Medium)

In the absence of fire, pine barrens have fewer open areas and eventually become closed-canopy pine forests. Although many shrubland birds can persist in such areas for a time, densities are often lower than in more open and shrub-dominated habitats. See pine barrens habitat profile for more information.

Habitat degradation from aspects of right-of-way management (Threat Rank: Medium)

Rights-of-way need to be maintained as short vegetation so as to reduce risks associated with trees and powerlines. As a result these corridors are regularly treated by mechanical (rarely chemical) means to remove or cut back vegetation. In general, such practices create habitat suitable for shrubland birds, although in extreme cases a site may be rendered unsuitable for 1-2 years large areas of vegetation are completely removed. If management occurs during the breeding season, reproductive success will be reduced. See also Shrubland habitat profile.

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

Non-native plants, particularly shrubs, have been demonstrated to have several negative effects on birds using shrubland habitats. Insect prey (particularly caterpillars) are usually less common on non-native shrubs (Burghardt et al. 2008, Fickenscher et al. 2014), while data on the nutritional value of fruit are more equivocal (e.g., Davis 2011). In some cases, birds experience lower reproductive success in non-native shrubs, although there is considerable variation (Rodewald et al. 2010,

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Schlossberg and King 2010), and local predator communities play an important role as well. In all cases, the effects of invasives on shrubland birds depend to a large extent on their relative abundance. If plant diversity is high, the negative effects are diluted and less likely to impact bird populations. However, if the habitat tends toward a monoculture, reduced insect supplies and/or higher predation may reduce reproductive success to the extent that the habitat becomes a sink.

Mortality from subsidized or introduced predators (Threat Rank: Medium)

Many predators (e.g., skunks, raccoons, feral cats) occur in relatively high densities in developed landscapes, often because of direct association with humans or food that is provided either intentionally or unintentionally. Most early successional birds nest on or near the ground, and as a result are more susceptible to nest predation. The problem is compounded because much early successional habitat is near human population centers.

List of Lower Ranking Threats:

Habitat degradation from sand and gravel pit reclamation practices that make habitat unsuitable

Actions to benefit this Species or Habitat in NH

Research on response to management

Primary Threat Addressed: Habitat degradation and conversion due to natural succession or lack of active management

Specific Threat (IUCN Threat Levels): Natural system modifications

Objective:

To best conserve this and other shrubland birds, there is a recognized need for information on how it responds to management implemented for other early successional species.

General Strategy:

Collect standardize data on occupancy and abundance of Eastern Towhees at sites managed for New England Cottontail, American Woodcock, Karner Blue Butterfly, and other species. Combine these data with data on habitat availability at the state and regional scale, to estimate actual or potential population size, which in turn could be compared to population objectives that also need to be developed.

Political Location:

Statewide

Watershed Location:

Statewide

See also shrubland and pine barrens habitat profiles

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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:

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2005 Authors:

Literature

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