

Appendix A: Birds

Rusty Blackbird

Euphagus carolinus

Federal Listing	N/A
State Listing	SC
Global Rank	G4
State Rank	S3
Regional Status	Very High



Photo by Len Medlock

Justification (Reason for Concern in NH)

The Rusty Blackbird has experienced one of the most dramatic declines of any North American songbird (Niven et al. 2004, Greenberg and Matsuoka 2010, Sauer et al. 2014). BBS data indicates a range-wide annual population decline of 5.12% between 1966 and 2013, and a 5.45% annual decline in BCR 14 (Sauer et al. 2014). The rate of decline appears to have lessened somewhat since 2003, with BBS trends of -3.04 range-wide and -4.58 for BCR 14. Neither figure is statistically significant, but this may be an artifact of low numbers and small sample sizes. Data from Maine indicate a range retraction of 65-100 km during the twentieth century, with a particularly dramatic contraction during the final two decades (Greenberg et al. 2011). Repeated Breeding Bird Atlases in the northeastern United States document a 25% loss of formerly occupied areas (McGowan and Corwin 2008, Renfrew 2013), and apparent extirpation from Massachusetts (Massachusetts Audubon Society 2014). In Ontario, the species declined by 30% in the southern portion of the province, but may have increased by a similar amount in the north (Cadman et al. 2007). In NH, limited BBS data show a significant annual decline of 9.5% year since 1966, although targeted surveys demonstrate that the majority of occupied territories are in remote locations. Because of these declines, the Rusty Blackbird is a high priority regional SGCN in USFWS Region 5, and also on the continental Watch List for Partners in Flight. Descriptions of this species' abundance in bird distribution books, annotated checklists, and local checklists published during the twentieth century suggest a large scale, long-term decline that began between 1921 and 1950 (Greenberg and Droege 1999). Definitive causes of the decline remain elusive. Hypotheses include habitat loss and pesticide use on the breeding and wintering grounds, acidification and mercury contamination of waterbodies on the breeding grounds, and efforts to control blackbirds on winter roosts.

Distribution

Rusty Blackbirds breed across northern North America from Alaska to Maritime Canada, with extensions south into northern New England and the Adirondacks (Avery 2013). They winter in the southeastern United States, west to the Mississippi Alluvial Valley and north to southern New England. In New Hampshire, breeding occurs in the Connecticut Lakes, Mahoosuc Rangeley Lakes, White Mountains, and Sunapee Uplands ecoregions. Breeding occurs primarily from the White Mountains north, with scattered records in the western highlands (e.g., Antrim in 2014).

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Habitat

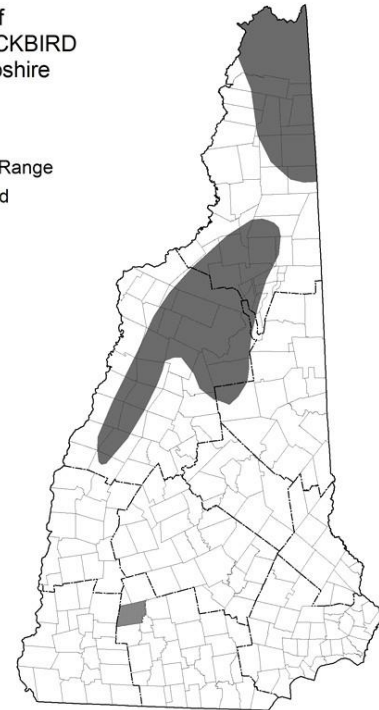
Breeding habitat for the Rusty Blackbird in New Hampshire consists of stunted or regenerating spruce-fir or mixed spruce-fir-hardwood forest within 500 meters of a stream, pond, fen, or beaver pond.

NH Wildlife Action Plan Habitats

- Lowland Spruce-Fir Forest
- Marsh and Shrub Wetlands
- Peatlands

Distribution of
RUSTY BLACKBIRD
in New Hampshire

■ Current Range
▨ Localized



Distribution Map

Current Species and Habitat Condition in New Hampshire

Significant range-wide population declines and limited range retraction (see Justification). The New Hampshire breeding population appears to be concentrated in the Upper Androscoggin watershed of eastern Coos County, where targeted surveys have documented more than 100 occupied territories since 2009. This population appears to be stable in recent years (2009-2014), but its full geographic extent is not yet known.

Biologists located and monitored 47 nests within a seven-township area during the 2014 breeding season. Recent trends in the White Mountains ecoregion are unknown, but observers report breeding season activity from several locations annually. The discovery of a breeding pair in Antrim in 2014 raises the possibility of a small breeding population in the western highlands.

Population Management Status

Specific management is not currently occurring for Rusty Blackbirds in New Hampshire. However, it is a focal species for the Umbagog and Silvio O. Conte national wildlife refuges, where future management plans will address the species' habitat needs.

Regulatory Protection (for explanations, see Appendix I)

- Migratory Bird Treaty Act (1918)

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Quality of Habitat

- Connecticut Lakes Subsection: Active forest management in lowland spruce-fir and mixed stands combined with widespread beaver activity maintain extensive areas of excellent breeding habitat.
- Mahoosuc-Rangeley Lakes Subsection: Active forest management in lowland spruce-fir and mixed stands combined with widespread beaver activity maintain extensive areas of excellent breeding habitat.
- White Mountains Subsection: Habitat patches are smaller and more scattered than in the more northern subsections, but are of good quality.
- Sunapee Uplands Subsection: The number and extent of habitat patches in this subsection are unknown. Potential habitat exists in the Enfield/Springfield/Grantham area, the Antrim/Stoddard area, and the Dublin/Harrisville area.

Habitat Protection Status

- Connecticut Lakes Subsection: The majority of known territories are on large forestry holdings. Additional breeding habitat exists within the easement area of the Connecticut Lakes Headwaters.
- Mahoosuc-Rangeley Lakes Subsection: Known breeding territories in this subsection are located on large forestry holdings, national wildlife refuge lands, the Nash Stream Forest, and the Kilkenny section of the White Mountain National Forest. Additional potential habitat exists on The Nature Conservancy's Bunnell Preserve.
- White Mountains Subsection: Most of the breeding habitat in this subsection is within the White Mountain National Forest.
- Sunapee Uplands: The territory occupied in 2014 is within a preserve owned by The Nature Conservancy.

Habitat Management Status

Habitat management has not been implemented specifically for this species. However, the Rusty Blackbird is a focal species for the Umbagog and Silvio O. Conte national wildlife refuges, and management plans for these refuges will address the species' habitat needs.

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 on winter grounds (Threat Rank: High)

Forested wetland was the only wetland type to decrease in area in the coterminous U.S. during 2004-2009 and development represented the largest cause of permanent loss (Dahl 2011).

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Habitat conversion from agriculture on winter grounds (Threat Rank: High)

Widespread conversion to agriculture has occurred in the bottomland hardwood forests in the Rusty Blackbird's primary wintering range (Mississippi Alluvial Valley and southeastern coastal plain) (Hefner and Brown 1984, Hefner et al. 1994, Twedt and Loesch 1999, Dahl 1990)

List of Lower Ranking Threats:

Disturbance from mercury toxicity

Disturbance from persistent organic compounds

Species impacts and habitat degradation from acid deposition that impacts food supply

Species impacts from various diseases (West Nile Virus, EEE (?))

Mortality resulting from blackbird control on winter grounds

Habitat conversion from the direct filling of wetlands for development

Actions to benefit this Species or Habitat in NH

Non-breeding site conservation

Primary Threat Addressed: Habitat conversion from agriculture on winter grounds

Specific Threat (IUCN Threat Levels): Agriculture & aquaculture

Objective:

Develop and implement conservation plans for important migration stopover and wintering areas

General Strategy:

Using data collected from Rusty Blackbird migration blitz and geolocators, identify important stopover and wintering sites and prioritize these for future conservation. Develop plans for these areas that include land conservation and management options that benefit the species.

Political Location: National

Watershed Location:

Acidified habitat research

Objective:

Assess the degree to which Rusty Blackbird distribution and abundance are affected by patterns of acid deposition

General Strategy:

Overlay water body acidification data with historical and current New England Rusty Blackbird distribution.

Political Location:

Northeast

Watershed Location:

Statewide

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Rusty Blackbird population research

Objective:

Document survival and reproductive success of Rusty Blackbirds breeding in northern NH.

General Strategy:

Several components include: Continue to document nesting success and productivity Continue to investigate survivorship through annual color-banding Investigate migratory connectivity (including stopover and winter locations) through geolocators, PinPoint GPS tags, and radio-telemetry Investigate genetics of breeding population

Political Location:

Coos County

Watershed Location:

Androscoggin-Saco Watershed, Upper CT Watershed

References, Data Sources and Authors

Data Sources

Documented occupied territories 2009-2014; nesting success data 2010-2014.

Data Quality

New Hampshire Audubon biologists have been conducting research on breeding Rusty Blackbirds in Coos County since 2009. Two S.U.N.Y. Environmental Science and Forestry M.S. students have conducted research on this population..

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