

Appendix A: Birds

Upland Sandpiper

Bartramia longicauda

Federal Listing	N/A
State Listing	E
Global Rank	G5
State Rank	S1
Regional Status	Very High



Photo by Pamela Hunt

Justification (Reason for Concern in NH)

The Upland Sandpiper probably did not occur in the state until the 1800s, after forest clearing allowed it to expand eastward from the Midwest (Silver 1957). It was primarily limited to major river valleys and coastal plain, where it occasionally reached high densities. Population declines in New Hampshire began as early as 1900 (Foss 1994), although detailed data are lacking. As recently as the early 1980s, Upland Sandpipers still bred in at least 5 locations (Foss 1994). Since 1990, breeding has only been confirmed at the Pease Airfield in Portsmouth and Newington (with at least one confirmed breeding event just off the airfield at the Great Bay National Wildlife Refuge), although sightings from Dover, Manchester, and southern Coos County in the last decade imply that birds are still visiting appropriate habitat elsewhere in the state. The Upland Sandpiper is of conservation concern throughout the Northeast. Many historic habitats in New England were on large dairy farms, and these have been gradually disappearing (A. Jones, personal communication). Over the range as a whole, Breeding Bird Survey data indicate an insignificant increase of 0.8% per year from 1966, but a 1.2% annual decline since 1980. In the Northeast, the corresponding values are both declines: 0.4% since 1966 and 1.7% since 1980 (Sauer et al. 2004). The steeper declines since 1980 coincide with the period of greatest decrease in the New Hampshire breeding population.

Distribution

From the 1960s onward, most of New Hampshire's Upland Sandpipers have occurred in 3 areas of the state: 1) the upper Connecticut River Valley (Haverhill through Northumberland), 2) the Merrimack Valley from Plymouth southward, and 3) the seacoast.

Only a small proportion of the continental Upland Sandpiper population occurs in New England, which supports roughly 250 breeding pairs. The majority of these (150 pairs) breed in eastern Maine, with another 50 to 60 pairs at Westover Air Force Base in western Massachusetts (Jones et al. 2001). New Hampshire's share of the regional population is thus extremely small. Currently Pease is the only confirmed location of breeding Upland Sandpiper in NH.

Habitat

Upland Sandpipers occupy a wide range of grassland habitats. In the East, these include airfields, blueberry barrens (Maine), and mixed agricultural areas. The species needs a mix of short (less than 20 cm) and tall (up to 60 cm) grasses for foraging and nesting, respectively. Taller structures—such as fence posts, runway lights or signs, and taller forbs such as mullein—are needed for singing perches. Upland sandpipers avoid grasslands with high densities of legumes or with a dense litter layer (Carter 1992, Houston and Bowen 2001).

Upland Sandpipers require large areas of grassland for breeding. Ideally, such fields should be over 60

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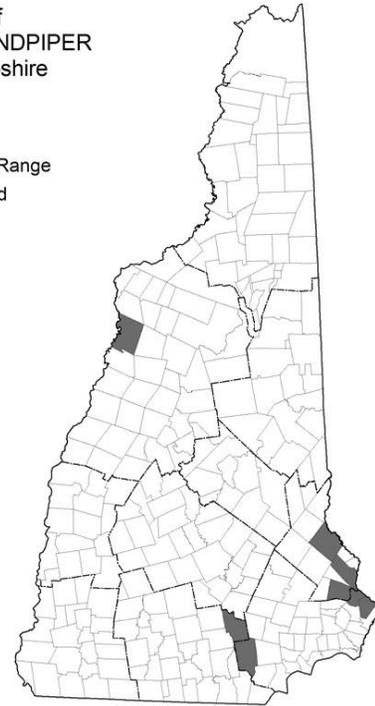
ha (150 acres), and even fields as large as 120 ha (300 ac) may not necessarily support the species (Carter 1992, Vickery et al. 1994). Territories average 8 to 12 ha (20 to 30 ac), and the species is often loosely colonial where it reaches higher densities (Carter 1992). Sites used by sandpipers in New Hampshire include large airfields (Pease, Manchester, Nashua) and large agricultural mosaics (Dover, Rochester, Haverhill).

NH Wildlife Action Plan Habitats

- Grasslands

Distribution of
UPLAND SANDPIPER
in New Hampshire

■ Current Range
▨ Localized



Distribution Map

Current Species and Habitat Condition in New Hampshire

The only population in New Hampshire occurs at the Pease Airfield in Portsmouth and Newington. Since 2005 yearly monitoring has continued at Pease Tradeport. This population has been monitored regularly since 1989 and has averaged 8 to 12 pairs during the period. A more extensive survey was done in 2011 of Pease Tradeport and the surrounding seacoast area. No sandpipers were found except for at the Tradeport (Kanter et al. 2013). It would appear that the number of pairs is declining slightly. However, this is likely due to surveys in 2013 and 2014 being less intensive. This population has produced a minimum of 10 to 15 chicks in most breeding seasons, although surveys have not always been comprehensive. 12 and 11 chicks were seen at the end of the 2013 and 2014 season so productivity seems to be remaining stable. Since 1990, single birds or pairs have appeared in nearby areas of Newington), suggesting that dispersing individuals occasionally settle in suitable habitat away from the airfield. Populations that once consistently occupied sites in Haverhill and Manchester were last recorded in 1984 and 1985, respectively, although the species was reported at the Manchester Airport in 1999. Since 1985, only 5 sites other than Pease have supported Upland Sandpipers for more than a year, and even in those cases there was little evidence of breeding activity. The 2013 surveys in Haverhill did not detect any sandpipers (Sydoriak, J.L. 2014). The repeat of the 1990's statewide grassland surveys in 2014-15 also did not detect any upland sandpipers (Massachusetts Audubon,

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unpubl. Data).

Population Management Status

No management specific to this species—other than periodic monitoring—is currently occurring in New Hampshire. See Habitat Management Status for details on habitat management at the only occupied site.

Regulatory Protection (for explanations, see Appendix I)

- Endangered Species Conservation Act (RSA 212-A)
- Migratory Bird Treaty Act (1918)

Quality of Habitat

The 4 potential places where Upland Sandpipers might occur, Pease Tradeport and vicinity, agricultural lands in southern Strafford County, Lower Merrimack River Valley (especially Manchester Airport) and Upper Connecticut River Valley (Haverhill to Lancaster), vary in type of land use, development pressures, and habitat management. At the Pease Airfield, sandpipers are being managed. Sandpipers are not being managed in adjacent areas of Newington, where occupancy is irregular. Strafford County agricultural lands are at greater threat from development, and because they are closer to the species' core range, they probably represent better potential habitat. The Manchester Airport has an extensive area of suitable habitat, but security and safety concerns have so far made it impossible even to determine the extent of sandpiper use at this site, much less implement management beneficial to the species. Finally, the northern agricultural areas are at somewhat lower risk from habitat conversion than those near the seacoast. In all areas, any assessment of habitat quality will need to consider both the composition (i.e., mix of grass heights) and size of available fields.

Habitat Protection Status

With the exception of the Weapons Storage Area at the Great Bay National Wildlife Refuge, none of the breeding areas identified above are protected. A memorandum of understanding is in place at the Pease Airfield.

Habitat Management Status

Starting in the 1990s, several entities cooperated to manage Upland Sandpiper habitat at the Pease Airfield. The resulting mowing regime meets airport safety regulations and protects sandpipers during vulnerable early stages of nesting (incubation and pre-flight chick). Mowing of safety areas begins by 1 May to discourage nesting attempts, and the infield areas are mowed after nest searching has taken place. The infield areas are no longer left until after July 31 because of Wildlife Services safety recommendations to keep grass height between 6 and 12 inches. Airport personnel are regularly informed of active nesting areas (when monitoring is being done) so that disturbance is minimized. Although a fence surrounding the habitat discourages large mammals from approaching the runway, sightings of fox and Coyote have increased (De Luca 2002). Given that these species pose a predation risk to sandpipers, there may be need to reconsider predator control at this site. Nests were originally left with a buffer around them however these areas seemed to become targets for predators. In response, nests were carefully mowed over to create a uniform grass height that would be less likely to invoke a predator response.

The Great Bay National Wildlife Refuge is managing its grassland areas, including the weapons storage

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area where sandpipers have recently bred. Management includes mowing and burning to maintain grassland, and such activities are not done until after the breeding season.

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.

Mortality from premature mowing (Threat Rank: High)

Mowing during the nesting season may result in mortality due to collision with tractor tires.

Although more Upland Sandpipers may be found in mowed vegetation than unmowed (Milroy 2007), loss of nests has been detected during annual mowing at the Pease Airport.

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

The small number of nesting birds at Pease Airport is vulnerable to higher rate of predators that are present in the developed landscape of Newington.

As development and agriculture increase in the landscape the number of raccoons and canid predators was observed to be higher (Litvaitis and Oehler 1996).

List of Lower Ranking Threats:

Disturbance from airport-related work activity
Habitat conversion due to development

Actions to benefit this Species or Habitat in NH

Monitor Upland Sandpiper nesting

Objective:

To locate and monitor the success of Upland Sandpiper nests at Pease Tradeport

General Strategy:

Nest searching by rope dragging is done before mowing takes place. Located Upland Sandpiper nests are marked and monitored for success or failure and for easy identification by mower operators. If possible in the future banding of birds would help provide information on population health.

Political Location:

Rockingham County

Watershed Location:

Coastal Watershed

Provide technical assistance to Pease Airport personnel

Primary Threat Addressed: Mortality from premature mowing

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Specific Threat (IUCN Threat Levels): Transportation & service corridors

Objective:

New Hampshire Fish and Game personnel will attend quarterly meetings regarding natural resource management at Portsmouth International Airport at Pease with other stakeholders including USFWS, USDA Wildlife Services and the Air National Guard.

General Strategy:

Attend scheduled meetings to provide technical assistance for conflicts with airport safety and Upland Sandpiper.

Political Location:

Watershed Location:

References, Data Sources and Authors

Data Sources

Basic natural history information in this profile was largely gathered from the literature cited. Data on Upland Sandpiper distribution in New Hampshire were compiled from NHBR and reports on breeding surveys at the Pease Airfield.

Summaries of population health were based on data from NHBR and reports of Upland Sandpiper monitoring produced by NHA and NHFG. Details of management practices at the Pease Tradeport were taken from the management agreement there.

Data Quality

The combination of an active amateur birder population and systematic grassland bird surveys over the last decade makes it unlikely that breeding sandpipers would have been overlooked in southern New Hampshire. Currently NHFG is only monitoring the population at Pease Tradeport. In 2013 large parts of Haverill, NH were surveyed (Sydoriak, J.L. 2014). In 2014-15 a repeat of the 1990's survey was conducted by Massachusetts Audubon.

With the exception of Pease Airfield, data are largely lacking for all areas of the state. Even there, current monitoring intensity may not be sufficient to detect productivity or to determine what factors may be responsible for recent population declines.

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