Seaside Sparrow

Ammodramus maritimus

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

Justification (Reason for Concern in NH)

Birds that breed in salt marsh are widely recognized as conservation priorities by virtue of their specialized habitat needs, in combination with known high threats to salt marsh habitat.

Distribution

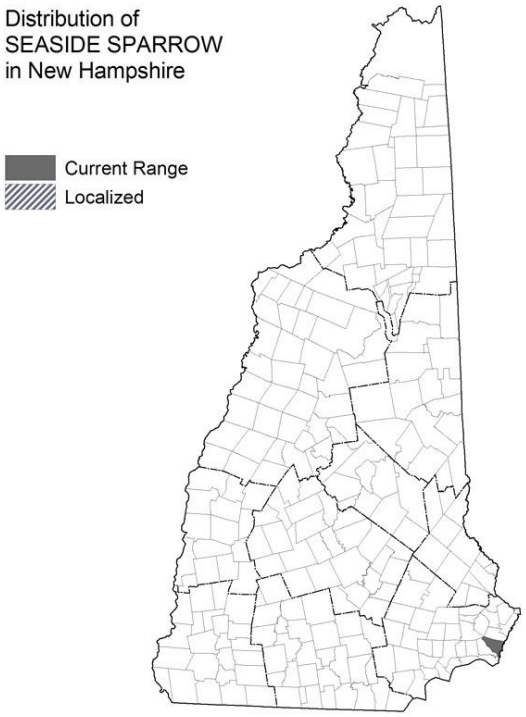
Seaside Sparrows breed from southern New England (uncommon in southern Gulf of Maine south and west along the coast to central Texas. They winter within the breeding range largely south of Virginia (Post et al. 2009). The species is extremely rare in New Hampshire, and is not recorded annually. Almost all recent records have been from the extensive non-ditched marsh at the northeast corner of the Hampton-Seabrook Estuary.

Habitat

The Seaside Sparrow is restricted to salt marshes, where it tends to occur more commonly in the high marsh zone dominated by *Spartina patens* and the short form of *Spartina alterniflora* (Post et al 2009). Like most other salt marsh obligates in the Northeast, it appears area sensitive (Shriver et al. 2004), and in Connecticut only occupied marshes over 60 hectares in size (Benoit and Askins 2002).

NH Wildlife Action Plan Habitats

- Salt Marshes



Distribution Map

Current Species and Habitat Condition in New Hampshire

Populations of Seaside Sparrows in the northeastern U.S. appear stable (M. Correll, pers. comm.). In New Hampshire, a breeding population of 6-8 pairs occurred at Hampton in 1985 (Gavutis, in Foss 1994), but that level of abundance has not been recorded in subsequent years. In the breeding seasons from 1986 to 2001, few Seaside Sparrows were reported, and from 2002 to 2004 only 1 individual was reported each breeding season. In 2004, a complete survey of all potential breeding sites in New Hampshire revealed no evidence of breeding activity, although one individual was observed during at the historic location (McElroy and Babbitt, WAP 2005). The species was not detected during subsequent surveys in 2007 (McKinley and Hunt 2008), and since then there are single records for 2009 and 2010 (eBird).

Population Management Status

Management is not currently in place for this species.

Regulatory Protection (for explanations, see Appendix I)

- Fill and Dredge in Wetlands - NHDES
- Marsh and shrub wetlands
- Migratory Bird Treaty Act (1918)

Quality of Habitat

The area of salt marsh where Seaside Sparrows have been recorded is one of the highest quality

patches in the state, as it lacks extensive ditching (Eberhardt and Burdick. 2009). See salt marsh habitat profile for more information.

Habitat Protection Status

The remaining salt marshes in NH are largely protected from development by wetlands regulations, and some parcels are additionally under conservation ownership by public and private entities.

Habitat Management Status

Habitat is not specifically managed for this species, although broader salt marsh restoration efforts would potentially benefit it, depending on project size and landscape context. See the salt marsh habitat profile for further detail.

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 sea level rise (Threat Rank: High)

Rising sea levels will flood salt marshes and convert them to more open water habitats. In some cases, marsh will migrate inland, although rates and locations for such migration are poorly known. It is likely that existing human infrastructure will limit the extent to which marshes will migrate, resulting in a net loss of this already limited habitat in coastal New Hampshire. Species that nest in salt marsh will this have less available habitat, and that which remains may be degraded and/or more vulnerable to flooding (see flooding threat) or other disturbance. See the salt marsh habitat profile for more information.

Habitat impacts from tidal restriction (Threat Rank: High)

Dams and channelized streams alter the normal flow of tides in salt marsh habitats, often resulting in conversion to freshwater marshes (e.g., above dams), invasion by non-native plants, or altered sedimentation patterns. The resulting habitat changes generally reduce an area's suitability for nesting salt marsh birds. See the salt marsh habitat profile for more information.

Habitat degradation from mosquito ditching (Threat Rank: High)

Historic ditching in salt marshes was used in attempts to control mosquito populations, and generally resulted in significant impacts to habitat conditions and salt marsh function. A study of breeding birds in the Hampton-Seabrook Estuary, McKinley and Hunt (2008) documented significantly higher populations of Saltmarsh Sparrows in the least-ditched portion of marsh, the same area historically used by Seaside Sparrows. See the salt marsh habitat profile for more information.

Disturbance from increased nest flooding (Threat Rank: Medium)

Birds nesting in salt marsh are vulnerable to nest flooding during extreme high tides (e.g., Gjerdrum et al. 2008). To the extent that habitat alteration, human response to sea level rise, and increased

storm

frequency may affect tidal heights, this species should be considered additionally vulnerable to reduced reproductive success in addition to overall habitat loss.

Disturbance from mercury toxicity (Threat Rank: Medium)

Relatively high levels of methylmercury have been documented in salt marsh sparrows (Schriver et al. 2006, Lane et al. 2011), which are believed the result of the high proportion of spiders in this species' diet. Mercury is known to interfere with neurological function and may ultimately reduce reproductive success, although there have been no studies to date on its effects in salt marsh birds.

Habitat impacts from insecticide use (mosquito treatment) (Threat Rank: Medium)

Insecticide spraying to control disease-bearing mosquito occurs regularly in coastal New Hampshire. To date there are no specific data on the effects of this spraying on non-target organisms, including birds. While direct toxic effects are unlikely, there are no data on whether reduced mosquito populations can have bottom-up effects on sparrow prey availability and thus reproductive success.

List of Lower Ranking Threats:

Habitat degradation and disturbance from oil spills

Habitat degradation due to invasive or introduced plants

Habitat conversion due to development

Actions to benefit this Species or Habitat in NH

See actions for Saltmarshes.

Primary Threat Addressed: Habitat conversion due to development

Specific Threat (IUCN Threat Levels): Residential & commercial development

References, Data Sources and Authors

Data Sources

NHBR/NH eBird

Occurrence data are largely limited to reports submitted by birders (NHBR/eBird), and supplemented by statewide marshbird surveys in 2004 (McIlroy and Babbit, unpub. data) and 2007 (McKinley and Hunt 2008). More recent surveys conducted regionally (SHARP) have not included the area of Hampton where Seaside Sparrows typically occur.

Data Quality

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Hampton where Seaside Sparrows typically occur.

2015 Authors:
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2005 Authors:
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Literature

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