

Appendix A: Birds

Least Bittern

Ixobrychus exilis

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



Photo by Pamela Hunt

Justification (Reason for Concern in NH)

Secretive marsh birds like the Least Bittern have generally been considered conservation priorities because of known losses of wetland habitats, combined with often poor data on species' distribution, abundance, and trend. In the case of the Least Bittern, there are only a handful of potential breeding sites in New Hampshire, and some of these (plus a couple of historic sites) are in the more developed southeastern part of the state. Range-wide, Least Bittern populations appear stable (Sauer et al. 2014), although data are limited, and Breeding Bird Atlases in the Northeast did not document significant range retractions in most areas.

Distribution

Breeds locally across the eastern United States, primarily in the Mississippi Valley and along the Atlantic and Gulf coastal plains. The species is highly dispersed and local in the West, and patchily distributed in Mexico, Central America, and the Caribbean, and extends well south into South America (Poole et al. 2009). Northern populations withdraw to the southern U.S., Caribbean, and Central America in winter.

Least Bitterns have been recorded during the breeding season (conservatively June-July) at eight New Hampshire locations since 1990, as follows:

- Tuttle Swamp, Newmarket (1999)
- Stubb's Pond, Newington (1999-2001)
- Jewell Brook wetlands, Stratham (2006)
- Surrey Lane marsh, Durham (2006-2014)
- Lake Wantastiquet marshes, Hinsdale (2007-2013)
- North River Road, Epping (2009)
- Thompson Wildlife Sanctuary, Sandwich (2009)
- World End Pond, Salem (2014)

Of these, three are considered sites where the species is considered a probable or confirmed breeder. The sites in Hinsdale and Durham have had sightings over several years, with the former hosting up to three birds in 2007 and 2008. What appears to be the first confirmed breeding for the state was documented in 2014 at World End Pond, where observers discovered a nest and followed it to fledging. The other locations near the coastal plain can be considered possible nesting sites, although the inconsistency of use suggests breeding is rare at best.

Habitat

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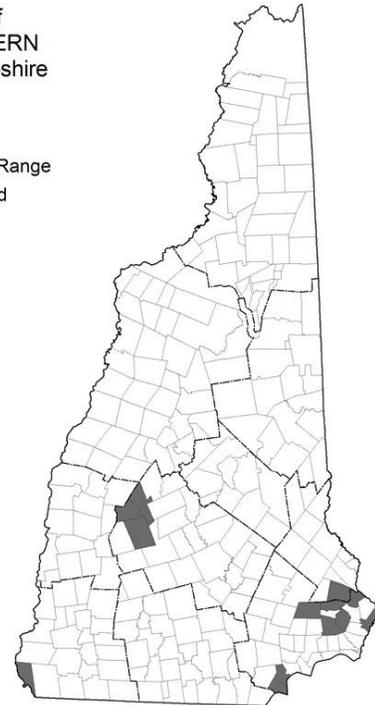
Carex, *Sagittaria*, etc.), often with scattered woody vegetation and patches of open water (Poole et al. 2009). Occasionally nests in brackish or salt marshes, but neither of these habitats has been used in New Hampshire.

NH Wildlife Action Plan Habitats

- Marsh and Shrub Wetlands

Distribution of
LEAST BITTERN
in New Hampshire

■ Current Range
▨ Localized



Distribution Map

Current Species and Habitat Condition in New Hampshire

Although historic declines have been noted in the Northeast, recent Atlas data suggest only small declines in New York (McGowan and Corwin 2008) and small but stable distributions in Vermont and Massachusetts (Renfrew 2013, MassAudubon 2014).

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
- Comprehensive Shoreland Protection Act - NHDES
- Migratory Bird Treaty Act (1918)

Quality of Habitat

No information

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Habitat Protection Status

No information

Habitat Management Status

Habitat management has not been implemented for this species

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

There are limited data on specific responses by Least Bitterns to invasive plants (see Whitt et al. 1999), but such plants (e.g., purple loosestrife, Phragmites) are known to alter wetland plant community structure.

List of Lower Ranking Threats:

- Habitat degradation from mercury deposition
- Habitat conversion and mortality from drawdowns or removal of dams
- Habitat degradation from removal or management of vegetation
- Disturbance to nests by watercraft
- Habitat conversion from the direct filling of wetlands for development

Actions to benefit this Species or Habitat in NH

Marshbird Monitoring

Objective:

Assess population status of secretive marshbirds

General Strategy:

Although Least Bitterns are too scarce in New Hampshire to warrant any species-specific inventory or monitoring projects, birders frequenting appropriate habitat should be familiar with its calls and report it if found. In addition, any broad wetland bird monitoring project should include this species, and should ensure that observers can identify it.

Political Location:

Statewide

Watershed Location:

Statewide

References, Data Sources and Authors

Data Sources

NH distribution data from NHBR/NH eBird

Data Quality

Many of the wetlands where Least Bitterns have been recorded in recent decades are not regularly surveyed, and the species may persist undetected. It can also be very secretive and may not even be detected when present. These points are reinforced by the 2014 discovery of a nest at World End Pond, a site with no prior records of the species.

2015 Authors:

Pamela Hunt, NHA

2005 Authors:

Literature

Massachusetts Audubon Society. 2014. Massachusetts Breeding Bird Atlas. Online results at: <http://www.massaudubon.org/our-conservation-work/wildlife-research-conservation/statewide-bird-monitoring/breeding-bird-atlases/bba2/>

McGowan, K.J., and K. Corwin (eds.). 2008. The Second Atlas of Breeding Birds in New York State. Cornell University Press, Ithaca, NY.

Poole, A.F., P. Lowther, J.P. Gibbs, F.A. Reid and S.M. Melvin. 2009. Least Bittern (*Ixobrychus exilis*), The Birds of North America Online (A. Poole, Ed.). Ithaca: Cornell Lab of Ornithology; Retrieved from the Birds of North America Online: <http://bna.birds.cornell.edu.bnaproxy.birds.cornell.edu/bna/species/017doi:10.2173/bna.17>

Renfrew, R.B. 2013 (ed.). The Second Atlas of Breeding Birds in Vermont. University Press of New England, Hanover, NH.

Sauer, J.R., J.E. Hines, J.E. Fallon, K.L. Pardieck, D.J. Ziolkowski, Jr., and W.A. Link. 2014. The North American Breeding Bird Survey, Results and Analysis 1966 - 2013. Version

Whitt, M.B., H.H. Prince, and R.R. Cox, Jr. 1999. Avian use of purple loosestrife dominated habitat relative to other vegetation types in a Lake Huron wetland complex. *Wilson Bulletin* 111: 105-114.