

Appendix A: Insects

Pine Barrens Bluet

Enallagma recurvatum

Federal Listing	N/A
State Listing	SC
Global Rank	G3
State Rank	S1
Regional Status	High



Photo by Blair Nikula

Justification (Reason for Concern in NH)

Several species of Odonata are specialized on peatlands of various types, and while many are widespread in appropriate habitat in New Hampshire, a handful appear to be sufficiently rare to warrant additional considerations. In the Northeast Odonata Conservation Assessment (White et al. 2014), Pine Barrens Bluet was considered "high vulnerability" due to habitat specificity and a restricted range in the Northeast.

Distribution

Endemic to the northeastern United States, where it is found along the coastal plain from extreme southern NH to southern New Jersey. In NH known only from a single site in Amherst.

Habitat

Generally considered a coastal plain pond species over most of its range. Such sites are characterized by sandy bottoms, low pH, and emergent shoreline vegetation, and some also have peatland elements (White et al. 2010). In NH, the species is only known from a single site, where records have all come from the herbaceous fringe of the open water pool in the center of a peatland.

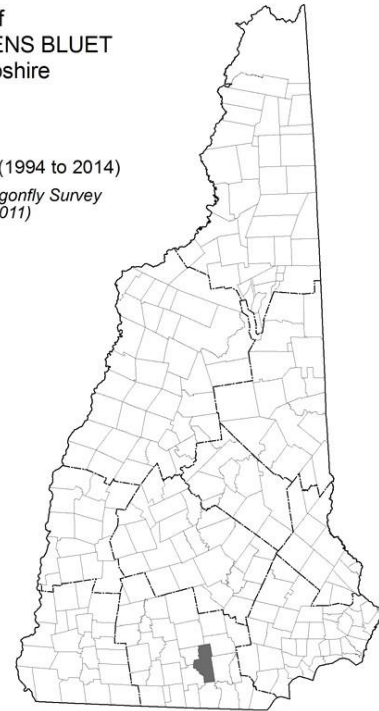
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NH Wildlife Action Plan Habitats

- Peatlands

Distribution of PINE BARRENS BLUET in New Hampshire

■ Current (1994 to 2014)
*Includes NH Dragonfly Survey
records (1987-2011)*



Distribution Map

Current Species and Habitat Condition in New Hampshire

Unknown

Population Management Status

Not managed

Regulatory Protection (for explanations, see Appendix I)

- Fill and Dredge in Wetlands - NHDES
- Comprehensive Shoreland Protection Act - NHDES

Quality of Habitat

Unknown

Habitat Protection Status

Single known site is protected by NH Audubon

Habitat Management Status

Not managed

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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 (Threat Rank: Medium)

Although the known site for this species is protected, other potential sites in heavily developed southeastern NH could be at risk. See the peatland profile for more detail on this threat.

List of Lower Ranking Threats:

Habitat degradation from impervious surface run-off

Habitat degradation from agricultural run-off (nutrients and sediment)

Habitat degradation from roads that alter hydrology (culverts)

Actions to benefit this Species or Habitat in NH

Pine Barrens Bluet Surveys

Objective:

Status assessment

General Strategy:

Conduct periodic surveys at known site to determine if population persists

Political Location:

Hillsborough County

Watershed Location:

Merrimack Watershed

Pine Barrens Bluet Surveys

Objective:

Determine if other sites exist for this species in the state

General Strategy:

Experienced observers working in suitable habitat should be aware of this species' potential occurrence and report it if found and documented.

Political Location:

Hillsborough County, Rockingham County

Watershed Location:

Merrimack Watershed, Coastal Watershed

References, Data Sources and Authors

Data Sources

NH Dragonfly Survey (Hunt 2012)

Data Quality

This species is sparsely distributed and occurs at low densities. Although at the northern edge of its range, it likely occurs elsewhere in NH but has not been documented. Identification is complicated by its extreme similarity to several more common species in the genus *Enallagma*.

2015 Authors:

Pamela Hunt, NHA

2005 Authors:

Literature

Hunt, P.D. 2012. The New Hampshire Dragonfly Survey: A final report. Report to NH Fish and Game Department, Nongame and Endangered Species Program. New Hampshire Audubon, Concord, NH.

White, E., J.D. Corser, and M.D. Schessinger. 2010. The New York dragonfly and damselfly survey: Distribution and status of the odonates of New York. New York Natural Heritage Program, Albany.

White, E.L., P.D. Hunt, M.D. Schessinger, J.D. Corser, and P.G. deMaynadier. 2014. A conservation status assessment of Odonata for the northeastern United States. Report to Northeastern Association of Fish and Wildlife Agencies. New York Natural Heritage Program, Albany, NY.