

Kennedy's Emerald

Somatochlora kennedyi

Federal Listing	N/A
State Listing	
Global Rank	G5
State Rank	S2
Regional Status	Moderate



Photo by Kete Redmond

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), Kennedy's Emerald was considered "moderate vulnerability," which would not justify its inclusion as a NH SGCN. However, extensive surveying of potential habitat during the NH Dragonfly Survey (Hunt 2012) failed to detect this species, and the most recent record is from 2006. It also went undetected during the NY Dragonfly and Damselfly Survey (White et al. 2010). This lack of recent records on statewide survey projects suggests the possibility of a population decline or range retraction.

Distribution

Bulk of distribution from southern Manitoba and Minnesota east to Massachusetts and Nova Scotia. Disjunct records from western Canada suggest that it may occur throughout the boreal region of North America. Records from NH are scattered across the state, although there are no records from the southwest.

Habitat

Generally occurs in a variety of bogs, fens and swamps, often with flowing water, and adults forage over adjacent uplands.

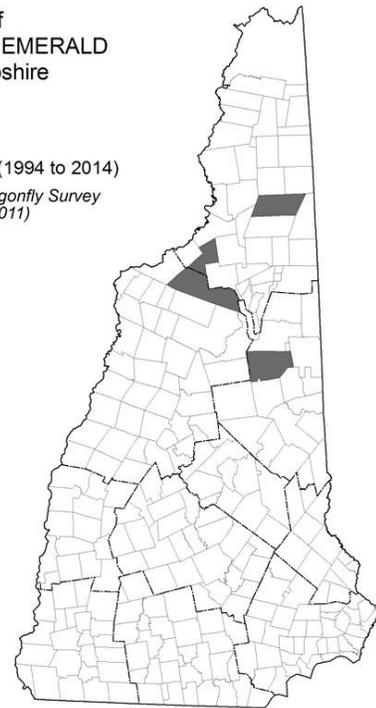
Appendix A: Insects

NH Wildlife Action Plan Habitats

- Peatlands
- Marsh and Shrub Wetlands
- Northern Swamps
- Temperate Swamps

Distribution of KENNEDY'S EMERALD 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, but lack of recent records suggests that the population in NH may be in decline.

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, and much of the older data lacks detail on specific locations that would allow for habitat assessment

Habitat Protection Status

Some recent sites are in protected areas (WMNF, Pondicherry), but generally protection status is variable. Lack of data on most historic sites precludes determination of protection status.

Habitat Management Status

Habitat management has not been implemented for this species

Appendix A: Insects

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)

Development may involve filling of wetlands to a variable degree, which reduces or degrades habitat for this species.

Although most habitat for this species is not at high risk for development, the potential exists in parts of its NH range. See the corresponding habitat profiles for more detail.

List of Lower Ranking Threats:

Habitat degradation from impervious surface run-off

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

Habitat degradation from the loss of adult upland forest habitat

Habitat degradation from roads that alter hydrology (culverts)

Mortality from extreme drought and reduced productivity; increased decomposition of peat

Actions to benefit this Species or Habitat in NH

Kennedy's Emerald surveys

Objective:

Maintain up-to-date information on the distribution and abundance of 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:

Watershed Location:

References, Data Sources and Authors

Data Sources

NH Dragonfly Survey (Hunt 2012). Limited to no data on condition other than distributional trend (Hunt 2012).

Data Quality

Species in this genus often occur in low densities and can be hard to find, capture, and even identify. As a result, their distributions are generally considered larger than the number of known sites would indicate. However, given the level of survey effort that went into the NH Dragonfly Survey, and the number of detections for other secretive/cryptic species, it is reasonable to conclude that Kennedy's Emerald is indeed quite rare and local in NH.

Appendix A: Insects

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.