

Coppery Emerald

Somatochlora georgiana

Federal Listing	N/A
State Listing	SC
Global Rank	G3G4
State Rank	S1
Regional Status	High



Photo by Pamela Hunt

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. The Coppery Emerald was identified as "high vulnerability" in the Northeast Odonata Conservation Assessment (White et al. 2014) due to a combination on restricted/dispersed range and high habitat specificity.

Distribution

Found along coastal plain from LA to NH, although populations in RI, MA, and NH are disjunct from the next most northerly sites in NJ. In NH this species is known only from a single site in Kingston.

Habitat

Generally occurs in forested peatlands or forest streams. In NH, known only from adults captured over fields near an Atlantic White Cedar swamp, which is the presumed breeding site.

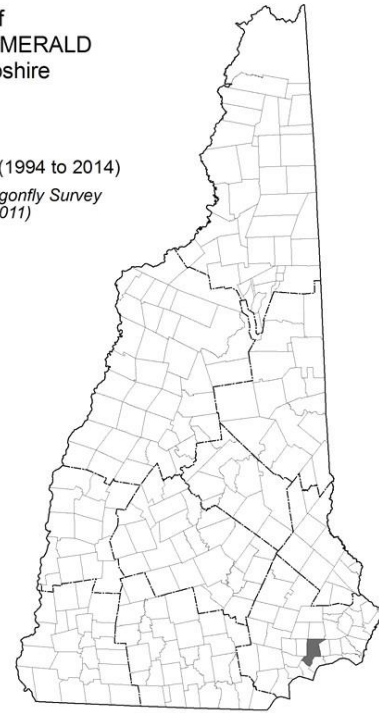
Appendix A: Insects

NH Wildlife Action Plan Habitats

- Temperate Swamps
- Appalachian Oak Pine Forest

Distribution of COPPERY 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

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

Known site is currently protected

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 the known site for this species is protected, other potential sites in heavily developed southeastern NH could be at risk. See the Temperate Swamp profile 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

Determine breeding site for NH population

Specific Threat (IUCN Threat Levels): None

Specific Action: Research, survey or monitoring - fish and wildlife populations

Objective:

Confirm breeding site for this species in NH

General Strategy:

Search suitable microhabitats in the vicinity of all adult records for signs of mating, oviposition, larvae, or exuviae.

Political Location:

Hillsborough County

Watershed Location:

Merrimack Watershed

Coppery Emerald surveys

Specific Threat (IUCN Threat Levels): None

Objective:

Maintain an up-to-date database on this species' distribution in NH

Appendix A: Insects

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). No information on condition

Data Quality

Data on actual breeding site is still not available. This species, like many in its genus, generally occurs at low densities and can be hard to capture. As a result, there is a good possibility that it occurs elsewhere in southeast NH but has not been detected.

no data

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.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.