

Appendix A: Insects

Hessel's Hairstreak

Callophrys hesseli

Federal Listing	N/A
State Listing	
Global Rank	
State Rank	S1
Regional Status	



Photo by Pamela Hunt

Justification (Reason for Concern in NH)

Hessel's Hairstreak is a rare butterfly whose larval food plant is Atlantic White Cedar (*Chamaecyparis thyoides*). It is locally distributed along the Atlantic coastal plain from Maine to Florida. Many populations have gone extinct in recent decades (Natureserve). Formerly believed extirpated in NH, with historical records from Hampstead. Hessel's Hairstreak was rediscovered in Kingston in 2010 (Hunt, pers. obs.).

Distribution

Found along coastal plain from Maine to Florida, although distribution is not continuous. Apparently most common in southern New Jersey (Natureserve). Historically known from Hampstead New Hampshire, but there were no additional records until the species was documented in Kingston in 2010-11.

Habitat

Larvae feed exclusively on Atlantic White Cedar (*Chamaecyparis thyoides*), and the species is thus limited to swamps containing this species. These swamps do not need to contain mature or virgin trees (Natureserve).

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NH Wildlife Action Plan Habitats

- Temperate Swamps

Distribution of
HESSEL'S HAIRSTREAK
in New Hampshire

■ Current (1994 to 2014)



Distribution Map

Current Species and Habitat Condition in New Hampshire

Unknown.

Population Management Status

Management is not currently in place for this species.

Regulatory Protection (for explanations, see Appendix I)

N/A

Quality of Habitat

Unknown.

Habitat Protection Status

Only known site is on conservation land.

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.

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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 Temperate Swamp habitat profile for more detail.

List of Lower Ranking Threats:

Species impacts from insecticide use (mosquito and gypsy moth treatment)
Habitat degradation from the loss of adult upland forest habitat

Actions to benefit this Species or Habitat in NH

Research and Monitoring

Primary Threat Addressed: Research

Specific Threat (IUCN Threat Levels):

Objective: Conduct targeted searches of historic and potential sites so as to determine the species' actual status 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:
Rockingham, Hillsborough

Watershed Location:
Merrimack, Coastal

References, Data Sources and Authors

Data Sources

Data Quality

This species is sparsely distributed and occurs at low densities. Although at the northern edge of its range, it may occur elsewhere in NH but has not been documented.

2015 Authors:

Pamela Hunt, NHA

2005 Authors:

N/A

Literature

Natureserve. <http://explorer.natureserve.org/>.