

***Mitoura hesseli* Rawson & Ziegler, 1950**
Hessel's Hairstreak
(Lycaenidae: Theclinae: Eumaeini)

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SUMMARY

Hessel's Hairstreak has a scattering of populations along the Atlantic coastal plain from southern Maine to Georgia, and on the Gulf Coast of the Florida panhandle. Hessel's Hairstreak is rare throughout its range, except for the southern New Jersey pinelands. Habitat for Hessel's Hairstreak is swamps and streambanks where its hostplant, Atlantic white cedar (*Chamaecyparis thyoides*) grows. The major threats to this butterfly are spraying for gypsy moth and mosquito vector control and loss of habitat to development. In New Jersey, salt water intrusion due to rising sea levels has killed significant areas of white cedar habitat. Although it has no protection at the federal level, it is listed at the state level as endangered in Connecticut, Delaware, Maine, and New York and is a Species of Concern in Massachusetts and Rhode Island.

CONSERVATION STATUS

Xerces Red List Status: Vulnerable

Other Rankings:

Canada – Species at Risk Act:	N/A
Canada – provincial status:	N/A
Mexico:	N/A
USA – Endangered Species Act:	None
USA – state status:	CT, DE, ME, NY: Endangered MA, RI: Species of Concern
NatureServe:	G3G4
IUCN Red List:	N/A

SPECIES PROFILE

DESCRIPTION

Hessel's Hairstreak is a small butterfly in the family Lycaenidae (gossamer-wings). Its wingspan is 25 to 28 mm (1 to 1 1/4 inches).

The upperside is dark brown with few obvious markings other than a pale fringe. It has two tails on each hindwing. The underside is mostly blue-green, with the hind half and margin of the forewing red-brown. The marginal band contains a line of white spots. A postmedian line of white spots crosses both wings, flanked on the inner side by a narrow, red-brown band. The first (costal) white spot on the forewing is set inwards from the rest, a unique feature of this hairstreak. On the hindwing is a pair of submedian white/red-brown spots.

TAXONOMIC STATUS

Mitoura hesseli Rawson & Ziegler, 1950. This butterfly was previously placed in the genus *Callophrys* Billberg, 1820.

LIFE HISTORY

Habitat for Hessel's Hairstreak is swamps and streambanks where its hostplant, Atlantic white cedar (*Chamaecyparis thyoides*) grows.

There are either one or two flight periods, depending on latitude. From New Jersey northwards, one flight is the norm (in May). South of New Jersey, there are two flights approximately two months apart between April and July. Males perch on tree tops to spot females; females lay eggs singly on terminal shoots of cedars. Caterpillars eat both new growth and older foliage, complete development, and hibernate as chrysalids.

Adults will drink nectar from a wide variety of flowers, including swamp milkweed (*Asclepias incarnata*), shadbush (*Amelanchier* sp.), sand myrtle (*Leiophyllum buxifolium*), sweet pepperbush (*Clethra* sp.), highbush blueberry (*Vaccinium* sp.), buttonbush (*Cephalanthus* sp.), and dogbane (*Apocynum* sp.).

DISTRIBUTION

Hessel's Hairstreak is found as a scattering of disjunct populations along the Atlantic coastal plain from southern Maine to South Carolina, Georgia, and on the Gulf Coast of the Florida panhandle. In southern New Jersey, Hessel's Hairstreak appears to be fairly abundant; outside of this area it is rare.

THREATS

Spraying of DDT in the past to control gypsy moth appears to have been the major reason for population declines in New England. Spraying continues to be a threat, both for gypsy moth and other forest pest suppression and for mosquito vector control, the latter particularly in New York and Massachusetts. Loss of habitat to development is a second major, range-wide threat.

In New Jersey, the apparent stronghold for this butterfly, salt water intrusion due to rising sea levels has killed significant areas of white cedar habitat. Wildfire is a second threat in the state, especially when combined with browsing of cedar regrowth by abundant deer populations. In other states, clearcutting of cedar stands is an obvious threat.

CONSERVATION STATUS

Hessel's Hairstreak is rare throughout its range, except for the southern New Jersey pinelands.

Although it has no protection at the federal level, it is listed at the state level as endangered in Connecticut, Delaware, Maine, and New York and is a Species of Concern in Massachusetts and Rhode Island.

The butterfly's hostplant, Atlantic white cedar (*Chamaecyparis thyoides*), is itself considered rare in at least two states, Georgia and New York, is a Species of Concern in Maine, and is extirpated from Pennsylvania.

CONSERVATION NEEDS

All known populations of Hessel's Hairstreak should be conserved. The butterfly is reliant on Atlantic white cedar as a hostplant but its caterpillars will feed on white cedars of any age. Stands of this tree must be protected from development and spraying and regeneration ensured.

In areas where forest pest or mosquito spraying programs exist, care must be taken to protect colonies of this butterfly.

RESEARCH NEEDS

Much research is needed into management of the white cedar stands to ensure that the hostplant remains. Additional surveys and monitoring of known populations would be valuable. This butterfly is not easy to spot and is confused with the Juniper Hairstreak (*Mitoura gryneus*) and it is likely that some records have been confused, leading either to over- or under-reporting of this species.

RESOURCES

CONTACTS

REFERENCES

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Scott, J. A. 1986. *The Butterflies of North America*. Stanford University Press, Stanford, CA.

WEBSITES

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Massachusetts Division of Fish and Wildlife, Natural Heritage and Endangered Species Program; Massachusetts Species of Special Concern: Hessel's Hairstreak.

<http://www.mass.gov/dfwele/dfw/nhosp/nhfact/mithes.pdf>

(Accessed 5/6/05)

DISTRIBUTION MAP

(U.S. Geological Survey, North Prairie Wildlife Research Center

<http://www.npwrc.usgs.gov/resource/distr/lepid/bflyusa/usa/299.htm>)

