

***Callophrys lanoraieensis* (Sheppard), 1934**
Bog Elfin
(Lycaenidae: Theclinae: Eumaeini)

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SUMMARY

The Bog Elfin has one of the most restricted ranges of any butterfly in eastern North America. Although it is known from four New England States and four Canadian provinces, it is very rare (restricted to only one or a handful of sites in each state/province) in all areas except Maine. Since many of its acid spruce-tamarack bog habitats are inaccessible, this butterfly is facing less threat from habitat loss due to development and agriculture. In the past, impoundment of bogs has led to flooding of black spruce stands. One potential threat in some bogs is peat extraction for the horticultural trade. However, spraying for forest pest (especially spruce budworm), blackfly, and mosquito control has almost certainly impacted populations.

CONSERVATION STATUS

Xerces Red List Status: Vulnerable

Other Rankings:

Canada – Species at Risk Act:	None
Canada – provincial status:	None
Mexico:	N/A
USA – Endangered Species Act:	None
USA – state status:	MA: Threatened
NatureServe:	G3
IUCN Red List:	N/A

SPECIES PROFILE

DESCRIPTION

The Bog Elfin is a very small, drably colored, tailless butterfly. Its wingspan is 7/8 to 15/16 inch (22 to 24 mm). On the upperside, females are brown and males are more orange. The underside has an obscure or not clearly marked pattern, with a frosting of gray along the outer margin.

TAXONOMIC STATUS

Callophrys lanoraieensis (Sheppard), 1934. This species has also been placed in the genus *Incisalia* Scudder, 1871.

LIFE HISTORY

The preferred habitat is acid spruce-tamarack bogs. Even within seemingly suitable peat bogs, this butterfly will have a patchy distribution, usually associated with open water and stands of its hostplant, black spruce (*Picea mariana*).

There is a single adult flight period from mid-May to early-June, during which time the adults generally perch on tree tops or fly around during sunny weather. Caterpillars usually only feed on new growth of the black spruce. Early instar caterpillars feed inside spruce needles, while later instars feed from the outside. Larvae probably mature by the beginning of July. Most of the year is spent as a pupa.

DISTRIBUTION

The Bog Elfin has one of the most restricted ranges of any butterfly in eastern North America. In the U.S. it is known from New Hampshire, Maine, Massachusetts, and New York, and in Canada from southern Quebec, Nova Scotia, New Brunswick and eastern Ontario. It occurs in many bogs in Maine, but is very rare (restricted to only one or a handful of sites in each state/province) in the rest of its range.

THREATS

Since many habitats are inaccessible, this butterfly is facing less threat from habitat loss due to development and agriculture. In the past, impoundment of bogs has led to flooding of black spruce stands. One potential threat in some bogs is peat extraction for the horticultural trade. However, spraying for forest pest (especially spruce budworm), blackfly, and mosquito control has almost certainly impacted populations. Even some apparently protected sites, such as New York's Cicero Swamp State Natural Area, have been sprayed.

CONSERVATION STATUS

The Bog Elfin is rare throughout its range. It probably occurs at fewer than fifty sites, although it is difficult to spot and many suitable habitats are relatively inaccessible and there may be undiscovered populations. However, many seemingly suitable habitats have been surveyed and the Bog Elfin was absent.

Only one state/province includes the Bog Elfin in its endangered species lists, Massachusetts, which lists it as Threatened.

CONSERVATION NEEDS

It is important to maintain the integrity of spruce-tamarack bog habitats and protect them from pest control spraying, impoundment or drainage, and peat cutting.

RESEARCH NEEDS

Surveys of suitable habitats during the adult flight period would be good. A better understanding of the impacts of forest pest spraying would be valuable.

RESOURCES

CONTACTS

REFERENCES

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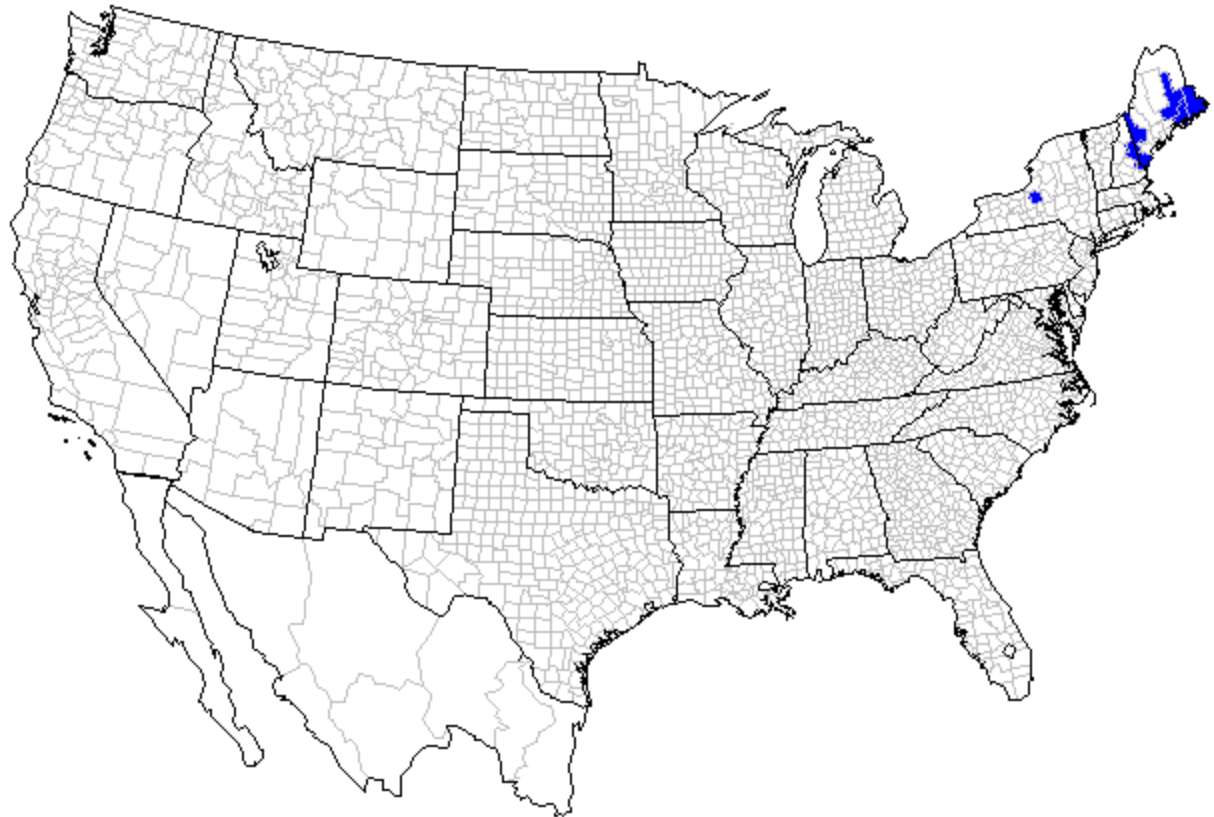
<http://www.natureserve.org/explorer/>

(Accessed 5/9/05)

DISTRIBUTION MAP (U.S. range)

(From: U.S. Geological Survey, Northern Prairie Wildlife Research Center.

<http://www.npwrc.usgs.gov/resource/distr/lepid/bflyusa/usa/288.htm>; accessed 3/8/05.)



Confirmed Records Unconfirmed or Dubious Records Data Not Yet Available