Vaughan, D. M., and M. D. Shepherd. 2005. Species Profile: *Erora laeta*. In Shepherd, M. D., D. M. Vaughan, and S. H. Black (Eds). *Red List of Pollinator Insects of North America*. CD-ROM Version 1 (May 2005). Portland, OR: The Xerces Society for Invertebrate Conservation.

# *Erora laeta* (W.H. Edwards), 1862 Early Hairstreak (Lycaenidae: Theclinae: Eumaeini)

Profile Prepared by Mace Vaughan and Matthew Shepherd The Xerces Society for Invertebrate Conservation

## SUMMARY

The Early Hairstreak is found in a narrow band from northern Wisconsin across southeastern Canada to Maine and from there scattered through the Appalachian range from New England to northern Georgia. It is considered one of the rarest of butterflies throughout its range and in several states and provinces this species is critically imperiled. The habitat is mature deciduous and mixed woods containing its hostplants, American beech and beaked hazelnut. As a forest-dependent species, both logging activities and pest control spraying are possible threats.

### 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:	MD: Endangered
	MA: Threatened
	MI: Species of Concern
NatureServe:	G3
IUCN Red List:	N/A

## **SPECIES PROFILE**

#### DESCRIPTION

The Early Hairstreak is in the family Lycaenidae (gossamer-wing butterflies).

It is a small butterfly with a wingspan of 22 mm to 24 mm (? to 15/16 inch). The upperside of the wings are black and blue. On males the blue may be limited to the

margin of the hindwing; females have more extensive patches on both wings. The underside is pale turquoise blue, with two irregular bands of small orange spots on the hindwing and no tail.

### TAXONOMIC STATUS

Erora laeta (W. H. Edwards), 1862.

### LIFE HISTORY

The habitat is mature deciduous and mixed woods. The recorded hostplants are American beech (*Fagus grandifolia*) and beaked hazelnut (*Corylus cornuta*; certainly in Michigan beyond the natural range of American beech).

There are usually one flight (May – mid-June) in the north and two flights (mid-April – mid-May and late- June – July) in the east. Rarely, a partial third flight (late-August – early-September) in the southern Appalachians. Males perch in treetops on ridges and hilltops to watch for females. Adults nectar on fleabane (*Erigeron* sp.), oxeye daisy (*Leucanthemum vulgare*), and steeplebush (*Spiraea tomentosa*) Early Hairstreaks spend a considerable part of their life in the canopy. Some observers note that adults visit moist ground in the morning (for example, along dirt roads) before returning to the canopy in the afternoon.

Eggs are laid singly on the hostplant fruit. Caterpillars feed on nuts, initially the husk in early instars and later boring inside. Most of the year is spent as pupae, probably in the leaf litter.

### DISTRIBUTION

The Early Hairstreak is found in a narrow band from northern Wisconsin across southeastern Canada to Maine and from there scattered through the Appalachian range from New England to northern Georgia. Although it has a widespread distribution, it is rare and local in its range.

### THREATS

As a forest-dependent species, both logging activities and pest control spraying are possible threats to the Early Hairstreak. In addition, failure of the beechnut crop, even for a single year, may seriously impact populations.

### **CONSERVATION STATUS**

Overall, the Early Hairstreak may be stable, at least in the northern part of its range, but it is difficult to find butterflies and so the status is uncertain. However, it is considered one of the rarest of butterflies throughout its range and in several states and provinces this species is critically imperiled.

The Early Hairstreak has no protection at federal level in either country. It is listed as endangered in Maryland, threatened in Massachusetts, and as a species of concern in Michigan.

### **CONSERVATION NEEDS**

Habitats of all known populations should be protected from disturbance to ensure that both larval hostplants and adult nectar sources remain. Avoid spraying populations during pest control programs.

### **RESEARCH NEEDS**

Surveys to identify new populations and to monitor/assess status of currently known populations would be valuable. A better understanding of the impacts of forest management practices, particularly the timing of spraying, would be useful.

# RESOURCES

### CONTACTS

### REFERENCES

Opler, P. A., and G. O. Krizek. 1984. *Butterflies East of the Great Plains*. Johns Hopkins University Press, Baltimore, MD.

Opler, P. A., and V. Malikul. 1992. *A Field Guide to Eastern Butterflies. Peterson Field Guide #4*. Houghton-Mifflin Co., Boston, MA.

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

#### WEBSITES

U.S. Geological Survey, Northern Prairie Wildlife Research Center; The Butterflies of North America: Early Hairstreak.

http://www.npwrc.usgs.gov/resource/distr/lepid/bflyusa/usa/329.htm (Accessed 5/9/05)

Canadian Biodiversity Information Facility; Species Bank: Early Hairstreak. <u>http://www.cbif.gc.ca/spp\_pages/butterflies/species/EarlyHairstreak\_e.php</u> (Accessed 5/9/05)

Nearctica; The Butterflies and Skippers of North America: Early Hairstreak. http://www.nearctica.com/butter/plate10/Elaeta.htm (Accessed 5/9/05)

NatureServe Explorer. <u>http://www.natureserve.org/explorer/</u> (Accessed 5/9/05)

The Butterflies of Nova Scotia; Early Hairstreak, *Erora laeta*. http://www.chebucto.ns.ca/~aa095/NSLeps/eaha.htm (Accessed 5/9/05)

Wisconsin Butterflies; Early Hairstreak. <u>http://wisconsinbutterflies.org/species/143</u> (Accessed 5/9/05)

Carolina Nature Photos; Early Hairstreak. <u>http://www.carolinanature.com/pix/earlyhairstreak.html</u> (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/329.htm; accessed 5/9/05.)

