



**Natural Heritage  
& Endangered Species  
Program**

[www.mass.gov/nhesp](http://www.mass.gov/nhesp)

*Massachusetts Division of Fisheries & Wildlife*

**New Jersey Tea Inchworm  
*Apodrepanulatrix liberaria***

State Status: **Endangered**  
Federal Status: **None**

**DESCRIPTION:** The New Jersey Tea Inchworm (*Apodrepanulatrix liberaria*) is a geometrid moth with a wingspan of 25-31 mm (Rindge 1949). The wings are variably colored, ranging from pale yellow, to tan, to dark, reddish-tan (as in the individual figured at right). The forewing subterminal line is broken into dark brown dots. The forewing postmedial, median, and antemedial lines are wavy, dark brown, and typically complete; there is a dark brown apical dash. The hind wing subterminal line is broken into dark brown dots, but some or all of these may be obscure in some individuals. The hind wing postmedial and median lines are dark brown, though one or both of these may be obscure. The body is concolorous with the wings. The larva is a green, or less often, brown inchworm; it has white longitudinal stripes, and grows to a length of about 30 mm. The larva coils into a ball when disturbed (Wagner 2001).

**HABITAT:** In Massachusetts, the New Jersey Tea Inchworm inhabits xeric, open habitats with New Jersey tea, including pitch pine-scrub oak barrens and associated sandplain communities, as well as rocky outcrops and ridges.

**LIFE HISTORY:** In Massachusetts, adult New Jersey



*Apodrepanulatrix liberaria* • Specimen from MA: Franklin Co., Montague, collected 10 Sep 2002 by M.W. Nelson

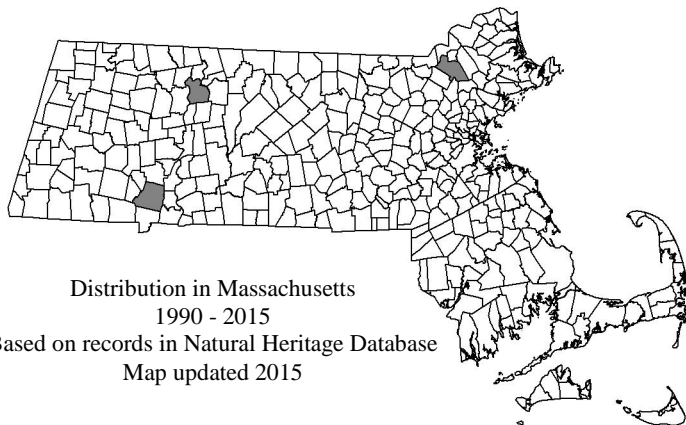
**Adult Flight Period in Massachusetts**

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec

Tea Inchworm moths fly from the last few days of August through late September. Eggs overwinter, hatching in the spring. Larvae feed on new foliage of New Jersey tea (*Ceanothus americanus*), and pupate by late June.

**GEOGRAPHIC RANGE:** The New Jersey Tea Inchworm is spottily distributed from southern Quebec south to Pennsylvania, and west to Michigan and Illinois, also extending south in the Appalachian Mountains to Georgia, northern Florida, and Mississippi (Rindge 1949, Schweitzer et al. 2011). In Massachusetts, this species occurs in the Connecticut River Valley and the Shawsheen River Valley.

**STATUS AND THREATS:** The New Jersey Tea Inchworm is threatened by habitat loss and fire suppression. Fire promotes growth of New Jersey tea, and maintains the open habitat structure needed by both the



**A Species of Greatest Conservation Need in the Massachusetts State Wildlife Action Plan**

**Massachusetts Division of Fisheries & Wildlife**

1 Rabbit Hill Road, Westborough, MA 01581; tel: 508-389-6300; fax: 508-389-7890; [www.mass.gov/dfw](http://www.mass.gov/dfw)

Please allow the Natural Heritage & Endangered Species Program to continue to conserve the biodiversity of Massachusetts with a contribution for 'endangered wildlife conservation' on your state income tax form, as these donations comprise a significant portion of our operating budget.

[www.mass.gov/nhesp](http://www.mass.gov/nhesp)

New Jersey Tea Inchworm and its host plant. Other potential threats include introduced generalist parasitoids, aerial insecticide spraying, non-target herbiciding, excessive deer browse of larval host plants, off-road vehicles, and light pollution.

### Literature Cited

- Rindge, F.H. 1949. A revision of the geometrid moths formerly assigned to *Drepanulatrix* (Lepidoptera). *Bulletin of the American Museum of Natural History* 94(5): 231-298.
- Schweitzer, D.F., M.C. Minno, and D.L. Wagner. 2011. *Rare, Declining, and Poorly Known Butterflies and Moths (Lepidoptera) of Forests and Woodlands in the Eastern United States*. Forest Service, U.S. Dept. of Agriculture, Washington, DC. 517 pp.
- Wagner, D.L., D.C. Ferguson, T.L. McCabe, and R.C. Reardon. 2001. *Geometroid Caterpillars of Northeastern and Appalachian Forests*. Forest Service, U.S. Dept. of Agriculture, Washington, DC. 239 pp.

Authored by M.W. Nelson, NHESP Invertebrate Zoologist, May 2015

### **A Species of Greatest Conservation Need in the Massachusetts State Wildlife Action Plan**

Please allow the Natural Heritage & Endangered Species Program to continue to conserve the biodiversity of Massachusetts with a contribution for 'endangered wildlife conservation' on your state income tax form, as these donations comprise a significant portion of our operating budget.

[www.mass.gov/nhesp](http://www.mass.gov/nhesp)