



**Natural Heritage
& Endangered Species
Program**

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Massachusetts Division of Fisheries & Wildlife

**Northern Brocade Moth
*Neoligia semicana***

State Status: **Special Concern**
Federal Status: **None**

DESCRIPTION: The Northern Brocade Moth (*Neoligia semicana*) is a noctuid moth with a wingspan of 18-21 mm (Forbes 1954, MPG 2015). The forewing has a grayish-brown to grayish-green ground color, paler distal to the postmedial line, with dark patches at the outer margin and near the apex. The median area is shaded with brown toward the costal margin, and with a dark brown to black bar toward the inner margin. The postmedial and antemedial lines are white and smoothly curved. Both the reniform and orbicular spots are relatively large and cream-colored, though the orbicular spot may be obscure in some individuals. The hind wing is uniformly tan, with a faint discal spot. The head and thorax are concolorous with the forewing ground color, and the abdomen is tan with black-tipped tufts of elongated, dorsal setae on segments three and four. Two similar congeneric species occur in Massachusetts, *Neoligia atlantica* and *Neoligia subjuncta*; the former tends to have a more distinct black bar between the postmedial and antemedial lines, and the forewing of the latter tends to be more brown than grayish-brown to grayish-green (Troubridge & Lafontaine 2002). However, the wing patterns of *N. semicana*, *N. atlantica*, and *N. subjuncta* are so similar that genitalic dissection may be necessary for definitive identification.



Neoligia semicana ▪ Specimen from MA: Nantucket Co., Nantucket, collected 5 Jul 2005 by M. Mello

Adult Flight Period in Massachusetts

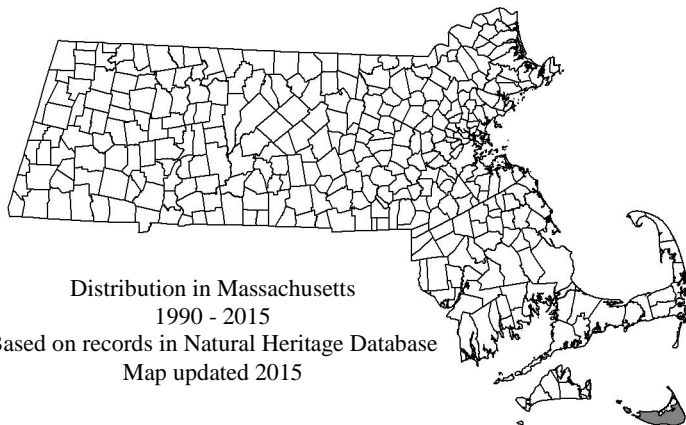
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec

HABITAT: In Massachusetts, the Northern Brocade Moth inhabits fresh or brackish coastal marshes and bogs.

LIFE HISTORY: In Massachusetts, adult Northern Brocade Moths fly from mid-June to mid-July. The larval host plant of this species is undocumented, but is likely a sedge (Cyperaceae) or wetland grass (Poaceae).

GEOGRAPHIC RANGE: The range of the Northern Brocade Moth extends from Maine south to Massachusetts, and west to southern Ontario and Ohio (Forbes 1954, Troubridge & Lafontaine 2002, MPG 2015). In Massachusetts, this species is currently only known from the Island of Nantucket.

STATUS AND THREATS: The Northern Brocade Moth is threatened by habitat loss and hydrologic alteration that disrupts the natural flooding of its habitat. Other potential



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

Massachusetts Division of Fisheries & Wildlife

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threats include invasion by exotic plants, eutrophication or other water pollution, aerial insecticide spraying, non-target herbiciding, off-road vehicles, and light pollution.

Literature Cited

- Forbes, W.T.M. 1954. *Lepidoptera of New York and Neighboring States*. Part III. Memoir 329, Cornell University Agricultural Experiment Station, Ithaca, New York. 433 pp.
- MPG. 2015. *Moth Photographers Group*. Mississippi Entomological Museum, Mississippi State University, Mississippi State, Mississippi.
<http://mothphotographersgroup.msstate.edu>.
- Troubridge, J.T. and J.D. Lafontaine. 2002. Revision of species of the “*Oligia*” semicana group (Lepidoptera: Noctuidae) with descriptions of a new genus and 12 new species. *Canadian Entomologist* 134 (2): 157-191.

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

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