



Natural Heritage & Endangered Species Program

Massachusetts Division of Fisheries & Wildlife

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Three-lined Angle Moth

Digrammia eremiata

NOTE: Formerly *Semiothisa eremiata*

State Status: **Threatened**

Federal Status: **None**

Description: The Three-lined Angle Moth (*Digrammia eremiata*) is a geometrid moth with a forewing length of 9.5-12.5 mm (Ferguson 2008). Both forewings and hind wings are mottled grayish-brown, or grayish-olive green (as in the individual figured at right), with gray predominating proximally and brown or olive green becoming more prominent towards the outer margins of the wings. Each forewing has three smoothly curved, relatively parallel dark lines (antemedial, median, and postmedial). Each hind wing has two smoothly curved, relatively parallel dark lines (median and postmedial). The wing pattern of *Digrammia eremiata* is very similar to that of *Digrammia equivocata*. The dark lines on the forewings and hind wings of *D. equivocata* are typically wider and more distinct as compared to those of *D. eremiata*; however, this difference is variable among individuals, and genitalic dissection may be necessary to confirm the identity of some specimens (Ferguson 2008).

Habitat: In Massachusetts, the Three-lined Angle Moth inhabits sandplain grassland and heathland.

Life History: In Massachusetts, the Three-lined Angle Moth has two broods, the first flying in June and the second in August. The larval host plant is Goat's Rue (*Tephrosia virginiana*). The pupa overwinters.

Geographic Range: In Massachusetts, Jones & Kimball (1943) reported *Digrammia eremiata* from both Martha's Vineyard and Nantucket. D.F. Schweitzer collected the Three-lined Angle Moth on Martha's Vineyard in 1983, which is the most recent Massachusetts record. However, this species may persist in the state, particularly on Martha's Vineyard. The Three-lined Angle Moth is widely but locally distributed throughout much of eastern North America, from New Hampshire south to Florida, and west to Manitoba and Texas (Ferguson 2008).



Digrammia eremiata • Specimen from SC: Charleston Co., Francis Marion National Forest, larva collected 26 Jun 2009 by D.L. Wagner, adult emerged 17 Jul 2009

Adult Flight Period in Massachusetts

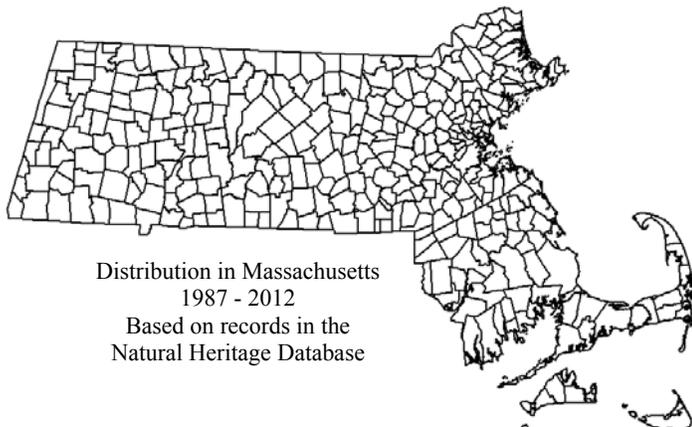
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec

Status and Threats: Potential threats to the Three-lined Angle Moth include habitat loss, fire suppression, invasion by exotic plants, introduced generalist parasitoids, insecticide spraying, off-road vehicles, and light pollution.

Literature Cited

- Ferguson, D.C. 2008. Geometroidea, Geometridae (part): Ennominae (part): Abraxini, Cassymini, Macarini. Fascicle 17.2. 431 pp. in: Hodges, R.W. (ed.). *The Moths of North America*. Allen Press, Lawrence, Kansas.
- Jones, F.M., and C.P. Kimball. 1943. The Lepidoptera of Nantucket and Martha's Vineyard Islands, Massachusetts. *Publications of the Nantucket Maria Mitchell Association* 4: 3-217.

Acknowledgements: Massachusetts observation data provided by D.F. Schweitzer. Fact sheet authored by M.W. Nelson, NHESP Invertebrate Zoologist, September 2012.



Distribution in Massachusetts
1987 - 2012

Based on records in the
Natural Heritage Database

Updated September 2012

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