



**Natural Heritage
& Endangered Species
Program**

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Massachusetts Division of Fisheries & Wildlife

**Three-lined Angle Moth
*Digrammia eremiata***

State Status: **Historic**
Federal Status: **None**

DESCRIPTION: The Three-lined Angle Moth (*Digrammia eremiata*) is a geometrid moth with a wingspan of 20-22 mm (Covell 1984). Both the forewing and the hind wing 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 toward the outer wing margin. The forewing has brown postmedial, median, and antemedial lines that are smoothly curved and relatively parallel. The hind wing has brown postmedial and median lines that are also smoothly curved and relatively parallel. The head and thorax are concolorous with the wings, the abdomen similar in color dorsally, tan ventrally. The wing pattern of *Digrammia eremiata* is very similar to that of *Digrammia equivocata*. The postmedial, median, and antemedial lines of *D. equivocata* are typically wider and more distinct as compared to those of *D. eremiata*; however, this difference is variable, 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 grasslands and heathlands.

LIFE HISTORY: In Massachusetts, the Three-lined



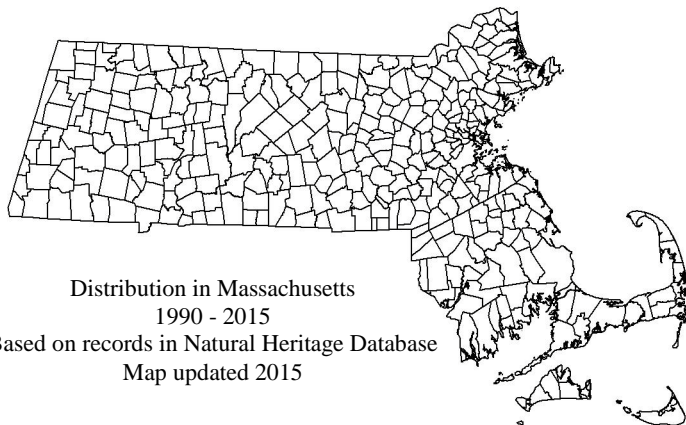
Digrammia eremiata • Specimen from SC: Charleston Co., Francis Marion National Forest, larva collected 26 Jun 2009 by D.L. Wagner, adult emerged 17 Jul 2009

Adult Flight Period in Massachusetts

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

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: 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). 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.



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

Massachusetts Division of Fisheries & Wildlife

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STATUS AND THREATS: Potential threats to the Three-lined Angle Moth include habitat loss, fire suppression, introduced generalist parasitoids, aerial insecticide spraying, non-target herbiciding, off-road vehicles, and light pollution.

Literature Cited

- Covell, C.V. 1984. *A Field Guide to Moths of Eastern North America*. Peterson Field Guide Series. Houghton Mifflin, Boston, Massachusetts. 496 pp.
- Ferguson, D.C. 2008. Geometroidea, Geometridae (part): Ennominae (part): Abraxini, Cassymini, Macariini. 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.

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

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