



**Natural Heritage
& Endangered Species
Program**

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Massachusetts Division of Fisheries & Wildlife

**Phyllira Tiger Moth
*Grammia phyllira***

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

DESCRIPTION: The Phyllira Tiger Moth (*Grammia phyllira*) is an erebid moth with a wingspan of 35-40 mm (Covell 1984). The forewing is black, with a cream-colored, longitudinal band along the cubital vein, and three concolorous transverse bands (distal, median, and proximal) between the costa and the cubital band. The distal band is jagged, forming two triangles with the median band. The proximal band is reduced or absent in some individuals. The margins of the forewing are also cream-colored. The hind wing is red, with black costal and outer margins and spots. The head and thorax are cream-colored with black stripes. The abdomen is red, with dorsal and lateral black stripes. A second form of the Phyllira Tiger Moth has cream-colored scales outlining the longitudinal veins of the forewing, as in the individual figured at bottom right. This form was previously thought to be a separate species, *Grammia oithona*. It is actually a genetic variant of *G. phyllira*, with the cream-colored scales outlining the veins of the forewing following a simple Mendelian pattern of inheritance (Nelson 2010).

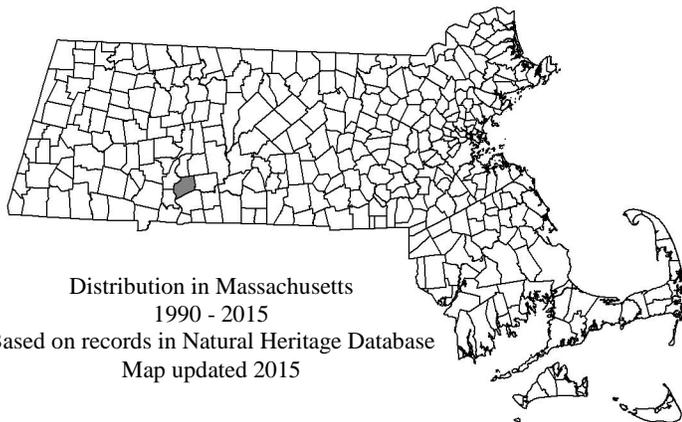
HABITAT: In Massachusetts, the Phyllira Tiger Moth inhabits xeric sandplain grasslands, including grasslands maintained by anthropogenic disturbance, such as pastures, old fields, airfields, and utility line rights-of-



Grammia phyllira, male • Specimen from MA: Hampden Co., Chicopee, adult female collected 19 Jun 2003 by M.W. Nelson, bred from captive stock and reared from egg, adult emerged 6 Dec 2003



Grammia phyllira, form *oithona*, male • Specimen from MA: Hampden Co., Chicopee, adult female collected 19 Jun 2003 by M.W. Nelson, reared from egg, adult emerged 15 Aug 2003



Distribution in Massachusetts
1990 - 2015

Based on records in Natural Heritage Database
Map updated 2015

Adult Flight Period in Massachusetts

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

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

Massachusetts Division of Fisheries & Wildlife

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way.

LIFE HISTORY: In Massachusetts, the Phyllira Tiger Moth has two broods, the first flying in June and the second in August. The female lays eggs loose, scattering them on the ground in the vicinity of suitable host plants. Eggs hatch within a week, and hatchlings commence feeding immediately upon locating a host plant. The larvae are ground dwelling and polyphagous, wandering to feed on a variety of low-growing forbs. Caterpillars pupate on the ground, in a cocoon composed of detritus loosely tied together with silk. Larvae from the August brood are about half-grown by October, at which time they seek a sheltered location to overwinter; they resume feeding in early spring, pupating in May.

GEOGRAPHIC RANGE: The Phyllira Tiger Moth ranges from Maine south to Florida, and west to Alberta, Colorado, and Texas, although populations are sparsely distributed throughout most of this range (Schmidt 2009, Nelson 2010). In Massachusetts, this species is only known to occur at a single site in the Connecticut River Valley, which is one of three known populations in New England.

STATUS AND THREATS: The Phyllira Tiger Moth is threatened by habitat loss and suppression of fire, which is needed to maintain the open structure of its habitat. Other potential threats include 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.
- Nelson, M.W. 2010. Breeding evidence for conspecific status of *Grammia phyllira* (Drury, 1773) and *Grammia oithona* (Strecker, 1878) (Erebidae: Arctiinae), with notes on natural history and conservation status. *Journal of the Lepidopterists' Society* 64(2): 57-68.
- Schmidt, B.C. 2009. Taxonomic revision of the genus *Grammia* Rambur (Lepidoptera: Noctuidae: Arctiinae). *Zoological Journal of the Linnean Society* 156: 507-597.

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

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