



**Natural Heritage
& Endangered Species
Program**

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Massachusetts Division of Fisheries & Wildlife

**Buck Moth
*Hemileuca maia***

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

DESCRIPTION: The Buck Moth (*Hemileuca maia*) is a day-flying saturniid moth with a wingspan is 50-75 mm (Covell 1984), with females larger than males. Both the forewing and hind wing are black proximally and distally, the median area with a white band extending from the costa to the inner margin; the reniform and discal spots are yellow and elongate. The head, thorax, and abdomen are black overall, with long, hair-like scales; the front of the thorax (just behind the head) is yellowish-white, the rear (adjacent to the abdomen) bright orange; the abdomen is frosted with white; the male has a brush of bright orange scales at the tip of the abdomen. The larva is black with a yellow spiracular stripe and/or yellow speckling, a maroon head and prolegs, and long, branching spines that can inflict a painful sting; it reaches a length of up to 65 mm (Wagner 2005). The New England Buck Moth (*Hemileuca lucina*) is very similar in appearance, but typically with more translucent wings and a wider white band on the forewing (Tuskes et al. 1996). The New England Buck Moth is found in or near wetland habitats, while in Massachusetts the Buck Moth is primarily a species of pitch pine-scrub oak barrens.

HABITAT: In Massachusetts the Buck Moth inhabits xeric, open habitats with extensive scrub oak thickets,



Hemileuca maia • MA: Plymouth Co., Plymouth • 5 Oct 2001 • Photo by M.W. Nelson

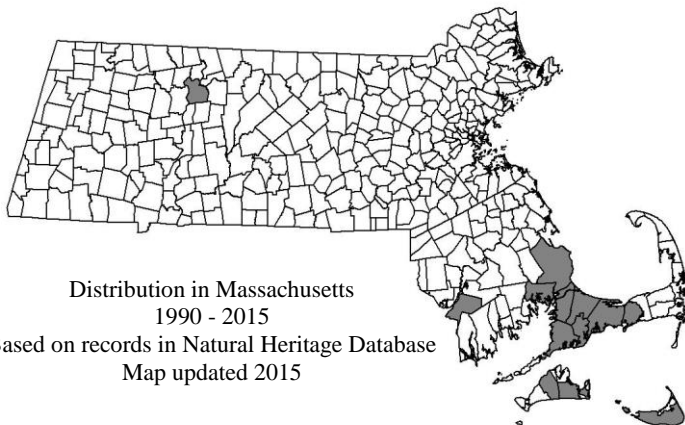
Adult Flight Period in Massachusetts

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
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particularly sandplain pitch pine-scrub oak barrens.

LIFE HISTORY: In Massachusetts, adult Buck Moths fly on sunny days from late September through October. Females lay eggs in clustered rings around twigs of scrub oak (*Quercus ilicifolia*), occasionally on other species of shrubby oaks. Eggs overwinter and hatch in May. Larvae feed in gregarious clusters through June into July, when late instar larvae disperse and become more solitary; they may be found on plants other than oak at this stage. Pupation occurs in July or early August, and pupae diapause until the fall.

GEOGRAPHIC RANGE: The Buck Moth is found from extreme southern Maine south to central Florida, and west



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

Massachusetts Division of Fisheries & Wildlife

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through southeastern New York, Pennsylvania, southern Ohio, southern Indiana, southern Illinois, and southern Missouri to southeastern Kansas, and south through eastern Oklahoma, extreme eastern Texas, and Louisiana (Tuskes et al. 1996). In Massachusetts the Buck Moth is restricted to the coastal plain in the southeastern part of the state, with one inland population in the Connecticut River Valley.

STATUS AND THREATS: The Buck Moth is threatened by habitat loss and fire suppression. Other potential threats include introduced generalist parasitoids, aerial insecticide spraying, non-target herbiciding, and off-road vehicles.

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.
- Tuskes, P.M., J.P. Tuttle, and M.M. Collins. 1996. *The Wild Silk Moths of North America: A Natural History of the Saturniidae of the United States and Canada*. Cornell University Press, Ithaca, New York. 250 pp.
- Wagner, D.L. 2005. *Caterpillars of Eastern North America*. Princeton University Press, Princeton, New Jersey. 512 pp.

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

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