



**Natural Heritage
& Endangered Species
Program**

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Massachusetts Division of Fisheries & Wildlife

**Pitcher-plant Borer
*Papaipema appassionata***

State Status: **Threatened**
Federal Status: **None**

DESCRIPTION: The Pitcher-plant Borer (*Papaipema appassionata*) is a noctuid moth with a wingspan of 30-41 mm (Covell 1984). The median and basal areas of the forewing are yellow in color, with maroon shading between the reniform and orbicular spots and solid maroon distal to the postmedial line and proximal to the antemedial line. The postmedial, antemedial, and basal lines are double and maroon in color; the median line is single, also maroon. The reniform spot is a large, elongate white ring, extending to the inner postmedial line and filled with yellow. The orbicular and claviform spots are white, typically large and fused, occasionally smaller and separate (as in the individual figured at right). The hind wing is pale, yellowish-tan, with pale red shading distally. The elongate scales of the head and thorax are predominantly maroon in color, mixed with a variable amount of yellow; the abdomen is pale, yellowish-tan tinged with pale red.



Papaipema appassionata ▪ Specimen from MA: Norfolk Co., Canton, collected 28 Aug 2002 by M.W. Nelson

HABITAT: The Pitcher-plant Borer inhabits acidic *Sphagnum* bogs with pitcher-plants (*Sarracenia purpurea*).

LIFE HISTORY: Adult Pitcher-plant Borer moths fly in late August and September. Eggs overwinter, hatching in

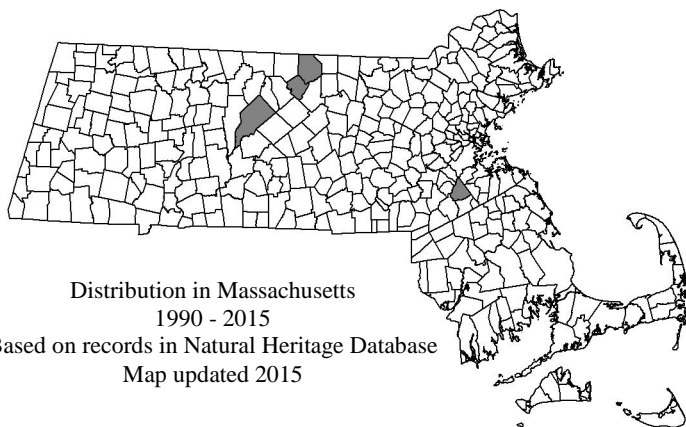
Adult Flight Period in Massachusetts

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

the spring. Larvae bore into and feed internally on the roots of pitcher-plants (*Sarracenia purpurea*), also consuming leaves in later instars. Larvae pupate by August.

GEOGRAPHIC RANGE: The Pitcher-plant Borer is found from Nova Scotia south along the coastal plain to Florida, and in the north, west to Minnesota. Populations are rare and localized throughout this range. In Massachusetts, this species is known to occur in northern Worcester County, as well as the southeastern part of the state.

STATUS AND THREATS: The Pitcher-plant Borer is threatened by habitat loss and hydrologic alteration that disrupts the natural seasonal flooding of its habitat. Other potential threats include invasion by exotic plants, eutrophication or other water pollution, aerial insecticide



Distribution in Massachusetts
1990 - 2015
Based on records in Natural Heritage Database
Map updated 2015

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

Massachusetts Division of Fisheries & Wildlife

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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.

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