



RARE SPECIES OF MASSACHUSETTS

FADED GRAY GEOMETER

Sternoporia polygrammaria

Massachusetts Status: Threatened

Federal Status: None

DESCRIPTION

The Faded Gray Geometer (*Stenoporia polygrammaria*) is a geometrid moth with a wingspan of 30-40 mm (Forbes 1948, McGuffin 1977). Both the forewing and the hind wing have a pale, whitish-gray ground color, peppered with dark gray and brownish-gray scales. The outer margin of the forewing is scalloped with a black to brownish-black terminal line. The forewing subterminal line is white and scalloped, sometimes obscure; shading between the postmedial and subterminal lines is typically more pale than distal to the subterminal line. The postmedial, median, and antemedial lines of the forewing are relatively smoothly curved, black to brownish-black in color. The postmedial and median lines are widely spaced at the costal margin, curving outward and then sharply inward in the vicinity of the radial veins, becoming relatively straight and closely parallel and extending to the inner margin; the two lines are typically connected by a concolorous patch of scales at the intersection of veins Cu1 and M3 at the outer edge of the discal cell. The postmedial line is bordered distally with a narrow band of brown scales, especially toward the inner margin. The antemedial line is double, and like the postmedial and median lines, widely spaced at the costal margin, curving outward and then inward to become closely parallel, extending to the inner margin and outlining an oval area in the basal portion of the wing. Like the forewing, the outer margin of the hind wing is scalloped with a black to brownish-black terminal line. Also like the forewing, the hind wing has a white, scalloped, sometimes obscure subterminal line, with shading between the postmedial and subterminal lines typically more pale than distal to the subterminal line. The hind wing has black to brownish-black, shallowly-curved postmedial and median lines, the



former bordered distally with a narrow band of brown scales. A discal spot is present, concolorous with the postmedial and median lines. The wing fringes are white. The head, thorax, and abdomen match the pale, whitish-gray ground color of the wings, and are similarly peppered with dark gray and brownish-gray scales; additionally, the abdomen has black to brownish-black bands. Superficially, the Faded Gray Geometer resembles the Common Gray (*Anavitrinella pampinaria*), but the latter is on average smaller and darker; details of the description and image above should suffice to separate the two.

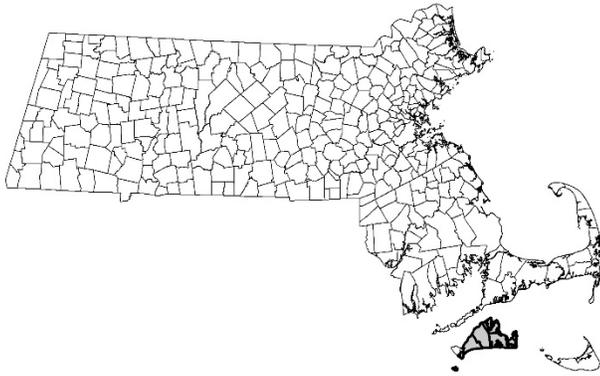
POPULATION STATUS

The Faded Gray Geometer is threatened by habitat loss and fire suppression. Other potential threats include introduced generalist parasitoids, aerial insecticide spraying, non-target herbiciding, off-road vehicles, and light pollution.

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RANGE

The Faded Gray Geometer ranges from Maine south to Georgia, and west to Saskatchewan and Arkansas (Forbes 1948, McGuffin 1977, Wagner et al. 2001). It is rare and locally distributed throughout much of its range. In Massachusetts, this species is only known to occur on the Island of Martha's Vineyard.



Distribution in Massachusetts 1995-2020
based on records in NHESP database

HABITAT

In Massachusetts, the Faded Gray Geometer inhabits pitch pine-scrub oak barrens and scrub oak thickets, occasionally also open oak woodland.

LIFE CYCLE AND BEHAVIOR

In Massachusetts, adult Faded Gray Geometer moths fly from early of June through the beginning of July. Larvae feed on oaks (*Quercus* spp.), becoming fully grown by August or early September. The pupa overwinters.

CONSERVATION

The Faded Gray Geometer is threatened by habitat loss and fire suppression. Other potential threats include introduced generalist parasitoids, aerial insecticide spraying, non-target herbiciding, off-road vehicles, and light pollution.

ADULT FLIGHT PERIOD IN MASSACHUSETTS

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

Forbes, W.T.M. 1948. Lepidoptera of New York and Neighboring States. Part II. Memoir 274, Cornell University Agricultural Experiment Station, Ithaca, New York. 263 pp.

McGuffin, W.C. 1977. Guide to the Geometridae of Canada (Lepidoptera). Volume II. Subfamily Ennominae, part 2. Memoirs of the Entomological Society of Canada No. 101: 1-191.

Wagner, D.L., D.C. Ferguson, T.L. McCabe, and R.C. Reardon. 2001. Geometroid Caterpillars of Northeastern and Appalachian Forests. Forest Service, U.S. Dept. of Agriculture, Washington, DC. 239 pp.

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