SOME NEW HOST PLANT RECORDS AND PARASITES OF PHYTOBIA (AMAURYMYZA) MACULOSA IN FLORIDA (DIPTERA: AGROMYZIDAE)¹

C. E. Stegmaier, Jr.²
11335 N. W. 50th Avenue, Hialeah, Florida

Malloch in 1913 described Agromyza maculosa. Blanchard (1938) placed this species as Dizygomyza maculosa (Malloch) and Frick (1952) placed this leaf miner in its present generic position as Phytobia (Amaurymyza) maculosa (Malloch).

Frick (1959) reported the larvae to form large blotch mines on the leaves of its host plants. He cited the distribution for P. maculosa as widespread in the United States and also recorded from Bermuda, Jamaica, Puerto Rico, Uruguay, Argentina, and Hawaii.

Spencer (1963) cited the species as oligophagous on the family Compositae and reported them to form characteristic greenish blotch-mines on Emelia sonchifolia Benth. Spencer (1963) stated that he had reared P. maculosa from Erechtites valerianaeifolia (Wolf) DC. and from Emelia sonchifolia Benth. in Brazil and Venezuela respectively. He reported capturing specimens from Jamaica and also cited the genera Ageratum, Dahlia, and Synedrella as hosts for P. maculosa. Frick (1959) recorded the following as known host plants for the species: Aster spp., cult. var., Artemisia vulgaris L., Arctium lappa L., Baccharis douglasii DC., Bidens pilosa var. radiata Sch., Chrysanthemum indicum L., Chrysanthemum spp. cult. var., Erigeron canadensis L., Helianthus annuus L., and Lactuca sativa L.

The author and other Florida entomologists have reared P. maculosa from numerous Compositae growing in peninsular Florida. The search for the host plant range within the composite group began in 1962. Since that year, the rearing records disclosed some plants that had not yet been designated as host plants for P. maculosa. The author’s rearing records are as follows.

Bidens pilosa L.: Hialeah, 24 Aug. 1962 (C.E.S.). Bidens seems to be infested severely during the winter months in south Florida.
Chrysanthemum sp. cult. var.: Hialeah, 8 Sep. 1962. (C.E.S.).
Emelia sagittata DC.3; Miami, 21 Dec. 1964 (C.E.S.).
Eupatorium odoratum L.4; Hialeah, 16 Feb. 1964 (C.E.S.).

¹ Contribution No. 84, Entomology Section, Division of Plant Industry, Florida Department of Agriculture, Gainesville.
² Research Associate, Florida State Collection of Arthropods, Division of Plant Industry, Florida Department of Agriculture.
³ Bailey (1947) places Emelia sagittata DC. as a synonym of Emelia flammea Cass.; however, the author elects to use the determination cited by Professor Erdman West, Botanist and Mycologist, University of Florida in personal communication.
⁴ Bailey (1941) cites Eupatorium odoratum as (Osmia odorata). Dr. Leonard J. Brass, Botanist, Archbold Biological Station, Lake Placid, Florida, stated in personal communication that, “E. odoratum L. is Osmia odorata (L.).” Small (1930) cites a synonym of O. odorata as Eupatorium conyzoides Vahl.
Gnaphalium spathtatum Lam.: Hialeah, 26 Feb. 1963 (C.E.S.).
Senecio glabellus Poir.: Sanford, 21 Apr. 1964 (G. W. Desin).
Sonchus asper (L.) Hill. Delray Glade, 7 Apr. 1964 (E. D. Harris, Jr.).

The author reared four species of hymenopterous parasites belonging to the family Eulophidae. All of the parasites of *P. maculosa* were found at the bottom of the rearing container after and during the time adult agromyzids had issued from their puparium. Dr. R. D. Burks (Entomology Research Division, U. S. Department of Agriculture) identified the eulophid parasites as the following: *Chrysocharis* sp., *Diaulonopsis callichroma* Cwfd., *Derostenus variipes* Cwfd., and *Derostenus species*.

Fig. 1. Typical mines of *Phytobia (Amauromyza) maculosa* on leaves of the Spanish Needle, *Bidens pilosa*. The leaf on the left is a typical blotch mine produced by more than one larva. The leaflet (right), silvery, is completely mined; the light glare spoiled the mine's details. Photograph, courtesy of the Division of Plant Industry, Florida Department of Agriculture, Mildred Eaddy, Photographer.
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LITERATURE CITED


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