Samea multiplicalis Salvinia Stem-borer Moth



FIELD GUIDE DESCRIPTIONS: ONLINE PHOTOS: TECHNICAL DESCRIPTION, ADULTS: TECHNICAL DESCRIPTION, IMMATURE STAGES: Center et al. (2002)

ID COMMENTS: This species is very similar to <i>S. castellalis</i>, with the ground color of the forewing being overlain with an array of nearly translucent, whitish patches. The patches are roughly arrayed in three bands, with the whitish patches either thinly margined basally and apically with black, or divided by a black line. The basal band has three or four very small whitish patches, while the median band has a squarish white patch below the costa that is followed by two or three additional patches inwardly. The subterminal band consists of a cluster of small white patches. The costa has four blackish spots in the subapical area, while the fringe is white with a row of evenly spaced blackish spots at the base. There is often a matching group of blackish spots along the termen. The hindwing has a large translucent area on the basal two-thirds, while the apical third of the wing is brown to reddish-brown. Wavy antemedial and postmedial lines are present within the basal two-third of the wing.

<i>Samea castellalis</i>is very similar to <math><i>S. multiplicalis</i>is. It can be distinguished by the darkened area of the fringe midway along the margin (<i>S. multiplicalis</i>is has a row of unfused, equally spaced spots along the termen), and by the pale and white spots in the forewing median area near the inner margin that are separated by a black line. In <i>S. castellalis</i>is the spots are of equal size, while in <i>S. multiplicalis</i>is, the more basal spot is noticeably larger than the other (see the <i>S. castellalis</i>is castellalis</i>is

DISTRIBUTION: <i>Samea multiplicalis</i> was originally described from Brazil and is widely distributed throughout warmer regions of North and South America. In the U.S., this species is primarily found in the southeastern Coastal Plain from North Carolina southward to southern Florida, and westward to eastern and central Texas. Isolated records are also known from areas farther north, including Oklahoma, northern Virginia, Rhode Island, Ohio, New York and Ontario. As of 2023, we have only four site records for this species, with three in the Coastal Plain and one in the Piedmont.

FLIGHT COMMENT: Local populations are multivoltine in Florida, Louisiana, and Texas, with the adults flying year-round or nearly so. Populations farther north have relatively short flight periods. As of 2023, our records range from early-August through mid-October, with populations appearing to be univoltine.

HABITAT: Local populations are generally centered around sluggish aquatic habitats such as swamps, permanent ponds, lakes, marshes and canals that support aquatic vegetation.

FOOD: The larvae are moderately polyphagous and feed on aquatic plants (Knopf and Habeck, 1976; Center et al., 2002; Heppner, 2007; Robinson et al., 2010; Tewari and Johnson, 2011; Beadle and Leckie, 2018). The reported hosts include Carolina Mosquito-fern (<i>Azolla caroliniana</i>), Feathered Mosquito-fern (<i>A. pinnata</i>), Water Lettuce (<i>Pistia stratiotes</i>), Pickerelweed (<i>Pontederia cordata</i>), Water Spangles (<i>Salvinia minima</i>), Giant Salvinia (<i>S. molesta</i>), and a duckweed (<i>Spirodela</i>). Knopf and Habeck (1976) noted that the moths on rare occasion will also use Common Water-hyacinth (<i>Oshuna crassipes</i>).

OBSERVATION_METHODS: The adults are attracted to lights and the larvae can be found on floating aquatic plants.

NATURAL HERITAGE PROGRAM RANKS: GNR [S2S4]

STATE PROTECTION: Has no legal protection, although permits are required to collect it on state parks and other public lands.

COMMENTS: This species reaches the northern limit of its main range in North Carolina and is uncommon within the state. We need additional information on host use, distribution and abundance before we can accurately assess its conservation status.

March 2025

The Moths of North Carolina - Early Draft