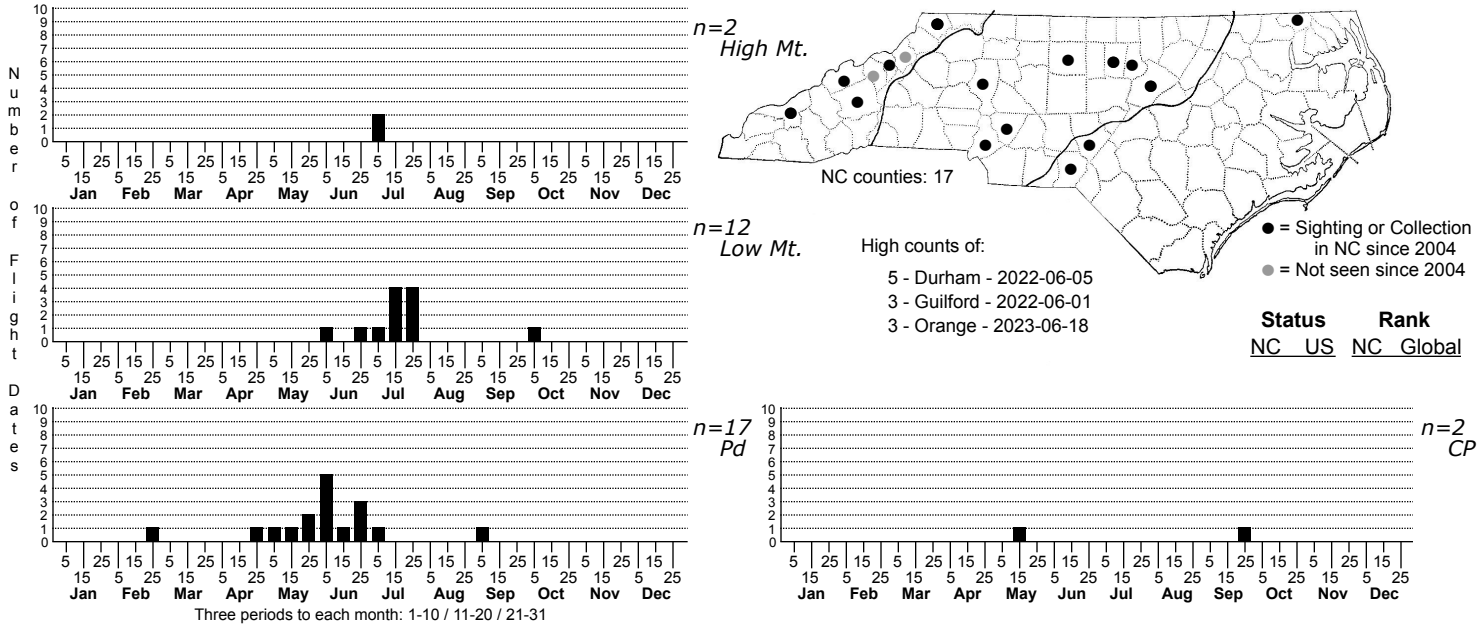
Scoparia basalis Many-spotted Scoparia Moth



FAMILY: Crambidae SUBFAMILY: Scopariinae TRIBE: [Scopariini]
TAXONOMIC_COMMENTS:

FIELD GUIDE DESCRIPTIONS: Beadle and Leckie (2012)
ONLINE PHOTOS:
TECHNICAL DESCRIPTION, ADULTS: Munroe (1972)
TECHNICAL DESCRIPTION, IMMATURE STAGES:

ID COMMENTS: The following description is based mostly on that of Munroe (1972). In this species the basal and interfacial areas of the forewing are heavily peppered with grayish to light brown coloration. The pale antemedial line is generally obtusely angulate at or near Cu, is seldom evenly bowed, and has darker pigmentation on its distal margin. The dark orbicular and claviform spots are usually distinct, and one or both are usually produced as a short black dash. The reniform is well-formed and variable. In general, It tends to be less x-shaped as seen in some Scoparia. The postmedial line is often somewhat incurved before and behind the median flexure. The pale element of the postmedial line is distinct, and the dark pretornal patch is usually large and distinct. The outer margin has a row of 2-5 black dots, and the fringe is pale and either has a narrow sub-basal line or weak checkering.

Munroe (1972) noted that the name S. basalis has often been badly misapplied in the past. Most of the specimens placed under this name in collections have actually been S. biplagialis, but other small gray species of Scoparia -- as well as Eudonia heterosalis and other Eudonia species -- have also been mislabelled as S. basalis. This species is very similar to S. dominicki and generally requires genitalia dissections to distinguish between the two. In North Carolina, these species tend to sort out geographically, with S. dominicki occurring in the Coastal Plain and eastern Piedmont, and S. basalis occurring from the Blue Ridge eastward to the eastern Piedmont and northeastern Coastal Plain. Specimens from areas of geographic overlap will require dissection. Scoparia basalis is also generally similar to S. biplagialis, but the latter has an evenly bowed antemedial line and a postmedial line that either zig-zags or is dentate on the costal half.

Scoparia basalis is often confused with Eudonia heterosalis. In the former, the whitish AM and PM lines tend to be wider and better defined, and the outer margin has a row of 2-5 black dots. In E. heterosalis the outer margin typically has a dark and somewhat triangular-shaped mark near the middle -- along with an adjoining dark, subapical patch -- rather than a distinct row of black dots. The two patches are often separated by a pale bar. The fringe of E. heterosalis also tends to be more heavily checkered than that of S. basalis. Worn specimens of the two species are often difficult to distinguish, and specimens of these and other similar forms may require dissection based on the degree of wear and phenotypic overlap.

DISTRIBUTION: Scoparia basalis occurs throughout much of the eastern US, and in southern Canada from Ontario eastward to Nova Scotia and Prince Edward Island. In the US the range extends from Maine southward to northern Florida, and westward to Alabama, western Tennessee, Kentucky, Illinois and northeastern Iowa.

FLIGHT COMMENT: The adults have been found from April through October in different areas of the range. As of 2023, our records range from late-April through early September, with seasonal peaks in May and June.

HABITAT: Specimens in North Carolina are generally associated with hardwood forests, including bottomland forests in the Piedmont and mesic forests in the Blue Ridge. We also have a few records from wooded residential areas.

FOOD: The larval food resources are unknown. This species presumably does not feed on the leaves of vascular plants given the absence of larval records.

OBSERVATION_METHODS: The adults are attracted to lights.

NATURAL HERITAGE PROGRAM RANKS: GNR S3S4

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

COMMENTS: This species appears to be somewhat uncommon in North Carolina. More information is needed on its distribution, feeding ecology, and abundance before we can accurately assess its conservation status.