



FAMILY: Meessiidae SUBFAMILY: Meessiinae TRIBE: [Meessiini] TAXONOMIC\_COMMENTS: The genus <i>Eudarcia</i> contains 70 or more species of small moths that occur in both the Old and New World. <i>Eudarcia eunitariaeella</i> is one of only two species in this genus that occur in North America north of Mexico (Pohl et al., 2016).

FIELD GUIDE DESCRIPTIONS: ONLINE PHOTOS: TECHNICAL DESCRIPTION, ADULTS: Dietz (1905, as <i>Eudarcia caemitariella</i>, p. 75); Forbes (1923, as <i>Eudarcia caemitariella</i>, p. 77) TECHNICAL DESCRIPTION, IMMATURE STAGES: Forbes (1923) ID COMMENTS: <i>Eudarcia eunitariaeella</i> is a minute black-and-white moth with an orange head. The face and top of the head are ochraceous and roughened. The antenna is yellowish with dark annulations, somewhat thickened, and about as long as the body. Both the head and antennae strongly contrast with the forewings, which are dark, purplish brown to black, with a series of narrow, transverse white streaks or spots. A broken white band occurs about 1/3 from the base of the forewing. It is composed of an oblique streak extending down and back from the costa and a similar streak extending inward from the inner margin. A second pair of white streaks is located just beyond midway. The paired streaks or spots along the costa, the outermost of which may run obliquely inward or form a curved subapical spot. The hindwing is fuscous (Chambers, 1873; Dietz, 1905; Forbes,

1923).  $\leq$  Eudarcia simulatricella</i> is similar but the white streaks are broader and less oblique, and the apical cilia are tipped with white rather than being all brown.

DISTRIBUTION: <i>Eudarcia eunitariaeella</i> is found in eastern North America. It occurs in southern Canada (Ontario; Quebec), and throughout much of the eastern US, although it is seemingly absent from most of the southeastern Coastal Plain. As of 2022, we have only three site records and all are from the Piedmont.

FLIGHT COMMENT: Adults are active from May-August. As of 2022, our four records are from mid-July through early August.

HABITAT: The habitat requirements are poorly documented. As of 2022, one of our two site records is from a rocky area of a monadnock, while the other is from an urban neighborhood where there are lichen and moss-covered rocks.

FOOD: The larvae feed on lichens (Forbes, 1923), but also possibly algae, given Chambers' observation of larval cases on rocks that were devoid of lichens.

OBSERVATION\_METHODS: The adults come to lights to some extent. We encourage field biologists to search for larvae on lichen-covered rocks to better document the larval life history and ecology.

NATURAL HERITAGE PROGRAM RANKS: [GNR SU]

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

COMMENTS: While this species may be somewhat specialized in terms of its habitats, we have too few records to assess its distribution or exact habitat requirements, precluding any determination of its conservation status in North Carolina.