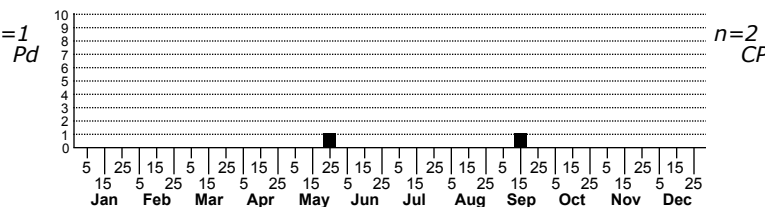
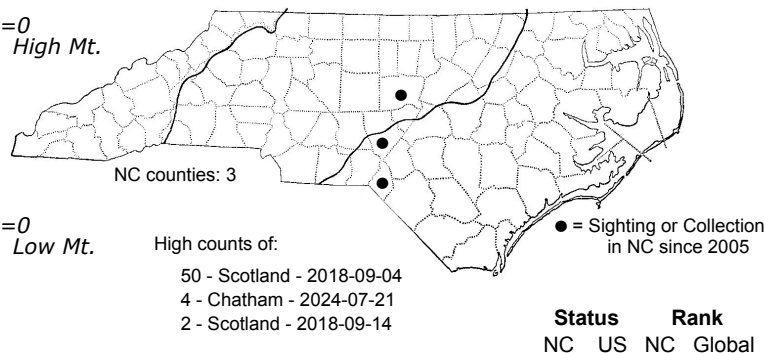
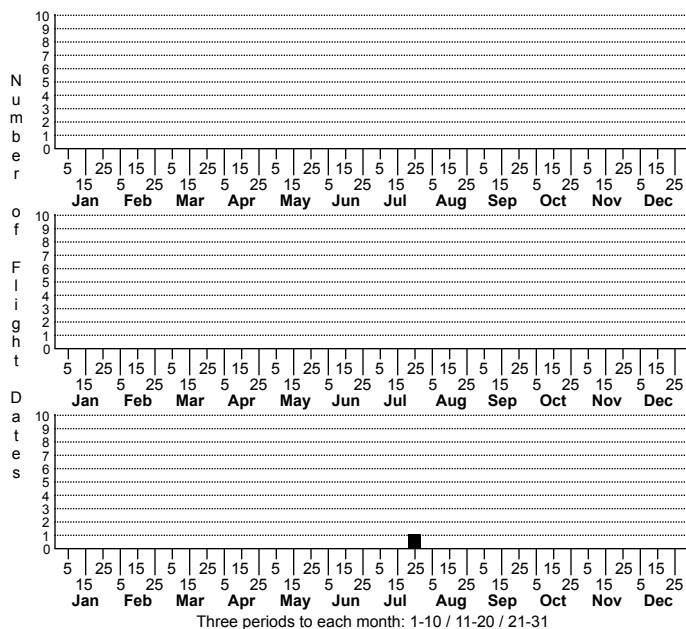


# Bucculatrix staintonella None



FAMILY: Bucculatricidae SUBFAMILY: TRIBE:

TAXONOMIC COMMENTS: <i>Bucculatrix</i> is a large genus of small leaf-mining moths, with around 300 species worldwide. A total of 103 Nearctic species have been described, and many others will likely be described in the future. Braun (1963) covered 99 species in her monograph, and four additional Nearctic species have been described since then.

FIELD GUIDE DESCRIPTIONS:

ONLINE PHOTOS:

TECHNICAL DESCRIPTION, ADULTS: Braun (1963)

TECHNICAL DESCRIPTION, IMMATURE STAGES: Eiseman (2019)

ID COMMENTS: This species is variable in coloration and patterning. The following description is based from Braun (1963). The face and head are white, while the tuft is typically white, but usually with ocherous or brown hairs centrally. The eye-cap is white and the antennal stalk pale ocherous gray. The thorax is white, with a pale ocherous median stripe. The forewings vary markedly in patterning among populations and individuals. Some individuals are pure white, with merely a few brownish black-tipped scales at the apex and in the cilia of the termen. In many cases individuals are creamy white with more or less well-defined oblique and longitudinal ocherous streaks. In addition, a more or less distinct line of blackish scales extends from just within the margin of the termen to the apex of wing, and a small, but often conspicuous dot of black raised scales is present beyond the middle of the fold.

Braun's (1963) description of distinctly marked individuals follows, but expect intermediates between these and the pure white forms. The costal margin near the base is often dark brown. Just within the costal margin there is a line of pale ocherous scales. This line of scales meets a very oblique narrow ocherous or dark-dusted streak before the middle of the costa. The streak bends and runs parallel to the costa just before reaching the middle of wing. Its apex meets a second, less oblique and broader costal streak with dark-tipped scales that sometimes crosses the wing. On the costa beyond the second oblique streak, there is a more or less defined triangular patch of ocherous or fuscous-tipped scales. These are sometimes represented as a third, subterminal costal streak. In addition to these marks, there is an ocherous streak along the fold, a rather broad ocherous streak or spot beyond the middle of the inner margin, and a small black dot on its inner edge on the fold. A small group of black raised scales is present just basally to a marginal row of scales on the termen. It continues as a black line to the apex of the wing. At the tornus, there sometimes is an elongate group of dark-tipped scales. The cilia may also have scattered, dark-tipped scales that sometimes form a line in the cilia of the termen. The hindwings and cilia are usually pale grayish, rarely ferruginous ocherous. The legs are whitish, with the tarsal segments tipped with dark brown. The abdomen has fuscous shading above.

Given the level of variation among individuals, this species is best identified by using either genitalia, genetic markers (barcoding), or rearing from known host plants. This is one of only three <i>Bucculatrix</i> species that are known to use asters (<i>Symphyotrichum</i> spp.) and the only one that uses Sneezeweed (<i>Helenium</i>).

DISTRIBUTION: Scattered populations of <i>Bucculatrix staintonella</i> have been found across a wide region of eastern and central North America, including South Dakota, Colorado, and New Mexico to the west. Populations farther east have been found in Louisiana, Florida, North Carolina, Tennessee, Missouri, Iowa, Illinois, and Massachusetts (Braun, 1963; Eiseman, 2019). As of 2024, we have records from two sites in the western Coastal Plain and one in the eastern Piedmont.

FLIGHT COMMENT: Most records of adults from areas outside on North Carolina are from March through July. As of 2021, our two state records are both from September.

HABITAT: The preferred habitats are poorly delineated. Our two records from Scotland County are from Yellow Sneezeweed, which is typically found in open, sunny habitats such as roadsides, heavily grazed pastures, and waste places. There is one record from the Tennessee side of the Great Smoky Mountains, suggesting that this species may use asters in the western part of the state.

FOOD: Documented hosts include species of aster (<i>Symphyotrichum</i>), including Heartleaf Aster (<i>S. cordifolium</i>), Smooth Blue Aster (<i>S. laeve</i>), Calico Aster (<i>S. lateriflorum</i>), as well as Yellow Sneezeweed (<i>Helenium amarum</i>), Early Goldenrod (<i>Solidago juncea</i>), and Gray Goldenrod (<i>S. nemoralis</i>). As of 2024, our only host record in North Carolina is for Yellow Sneezeweed.

OBSERVATION METHODS: Adults occasionally visit lights. We also recommend searching for the leaf mines and rearing the adults to better document the habitat requirements and host use in North Carolina.

NATURAL HERITAGE PROGRAM RANKS: GNR SNR [S1S3]

STATE PROTECTION:

COMMENTS: As of 2021, we have only two records for the state. This species has likely been widely overlooked within the state and additional information is needed on its distribution and abundance before we have assess its conservation status.