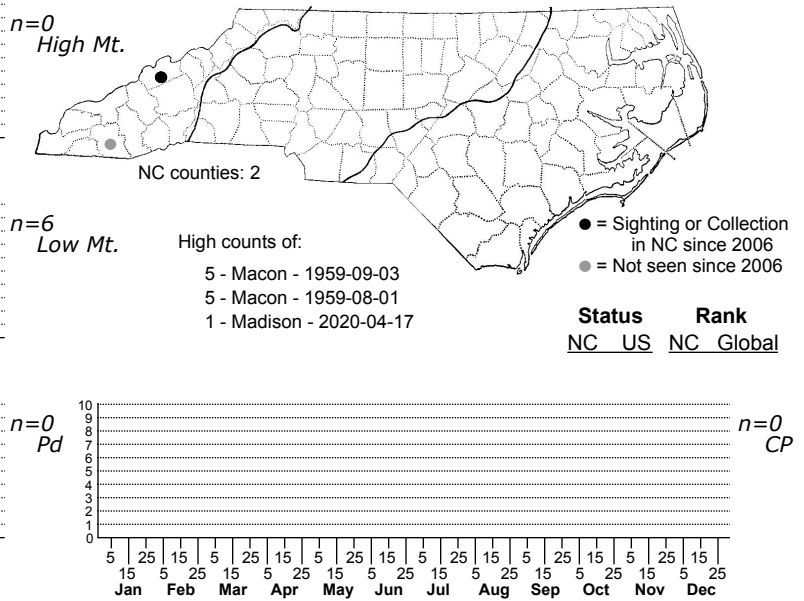
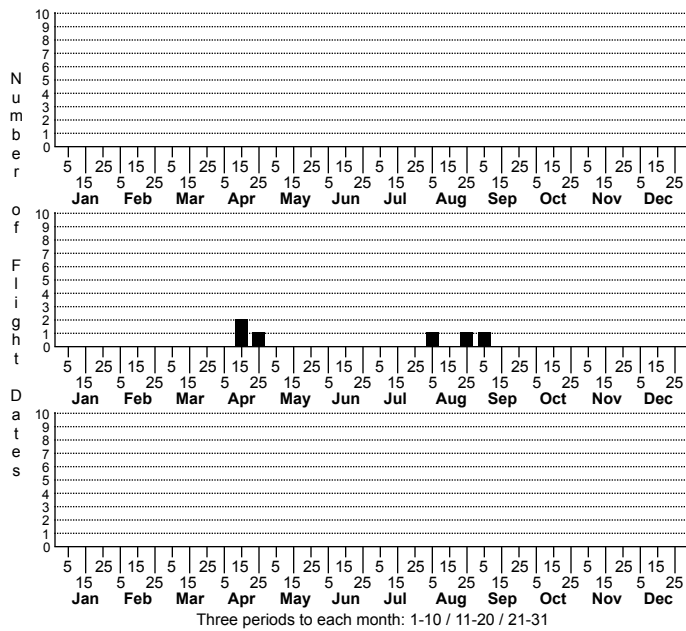


Bucculatrix luteella None



FAMILY: Bucculatricidae SUBFAMILY: TRIBE:

TAXONOMIC_COMMENTS: *Bucculatrix* 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:

ID COMMENTS: The following description is based on that of Braun (1963). The head is white, and the tuft white with a few yellow hairs in darker specimens. The eyecap is white, and the antennal stalk white with distinct brown annulations (pale females often have very obscure annulations). The thorax and ground color of the forewing are creamy white or pale yellow. The ground color shades to pale orange in the middle of the wing, where it forms the inner margin of an oblique costal streak of the pale yellow ground color. The streak eventually blends with the pale ground color below the fold. On the middle of the dorsum there is a patch of dark brown raised scales that varies in size, and is sometimes entirely absent. Beyond the oblique costal streak, the deeper color of the costal half of the wing borders a second pale streak which passes obliquely across the wing to the termen. In pale specimens these two oblique streaks are scarcely differentiated. In darker specimens, some of the orange scales are minutely dark-tipped. In the apical area, the scales are creamy white, with yellow and pale orange intermixed. Both the apical spot and ciliary line are missing. However, darker males have a slight deepening of color at the extreme tips of a few of the scales projecting into the cilia. The cilia is concolorous with the pale ground color. The hindwing varies from yellowish white in some females, to pale fuscous in the male. The legs are creamy white, while the abdomen has fuscous shading above.

Braun (1963) notes that the configuration of wing markings of this species is the same as in *B. packardella*, from which it is easily distinguished by the absence of any evidence of an apical spot, a ciliary line in the fringe, or speckling on the eye cap. There is also no overlap in size, with *B. luteella* having a wing span of 5-6 mm versus 8 mm for *B. packardella*.

DISTRIBUTION: The range of *Bucculatrix luteella* is poorly documented. Scattered populations have been found in many areas of the eastern US, including Iowa, Ohio, Kentucky, Pennsylvania, Maine, the District of Columbia, and North and South Carolina (Braun, 1963). As of 2025, all of our records are from lower elevations in the Blue Ridge.

FLIGHT COMMENT: Adults records from outside of North Carolina extend from May through September. As of 2025, our records are from April, August and September.

HABITAT: The hosts are poorly documented, with White Oak being the only definitive host. This common and widely distributed tree species is found in mesic to somewhat drier conditions, particularly in the Piedmont and lower elevations in the Blue Ridge. The moth, however, has only been recorded in mesic, montane forests.

FOOD: This species is an oak specialist. The only documented host (Eiseman, 2022) is White Oak (*Quercus alba*), but other members of the white oak group are likely used. We do not have any feeding records in North Carolina.

OBSERVATION_METHODS: The adults appear to rarely visit lights.

NATURAL HERITAGE PROGRAM RANKS: GNR SNR [S1S2]

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

COMMENTS: There are very few records for this species in the eastern US, and only two site records for North Carolina, one of which dates from 1959. It is uncertain if this reflects the fact that adults are not attracted to lights, or are truly rare.