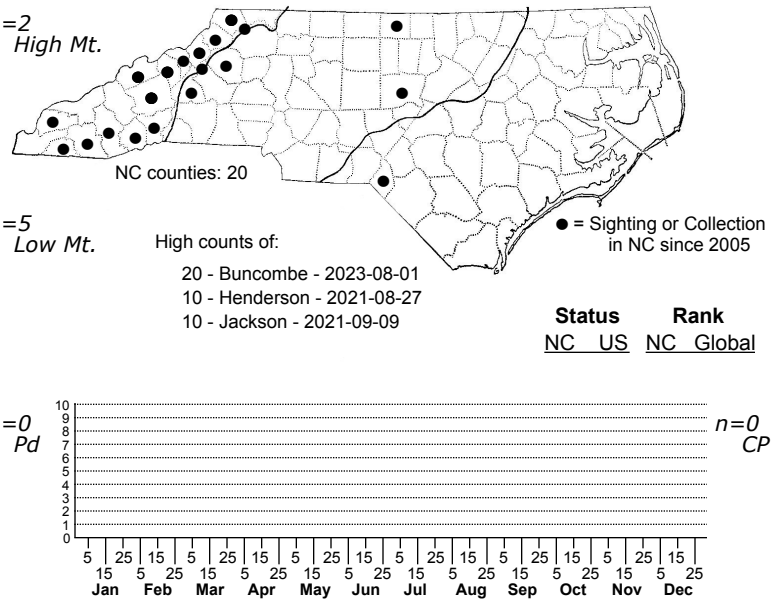
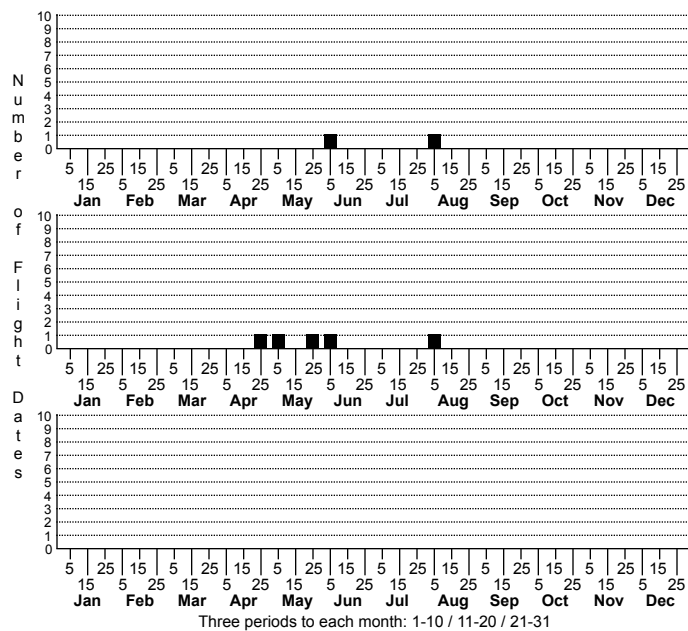


# *Cameraria hamameliella* Witch-hazel Leafminer Moth



FAMILY: Gracillariidae SUBFAMILY: Lithocolletinae TRIBE:

TAXONOMIC\_COMMENTS: *Cameraria* is a genus of leaf-mining micromoths. Many species are stenophagous and specialize on a small number of closely related host species. There are currently more than 50 described species in North America.

FIELD GUIDE DESCRIPTIONS:

ONLINE PHOTOS:

TECHNICAL DESCRIPTION, ADULTS: Braun, 1908.

TECHNICAL DESCRIPTION, IMMATURE STAGES: Braun, 1908; Eiseman, 2019.

ID COMMENTS: The following is mostly based on Braun's (1908) description of adults. The face and palpi are whitish, while the antennae are whitish ocherous with dark brown annulations. The head tuft is reddish orange, and the thorax and forewings are deep reddish orange. At the base of the wing there is a faint, silvery streak with a black margin posteriorly that extends from the margin to the fold. This is followed by two straight, oblique, and roughly parallel silvery bands that are black margined posteriorly. The first is at the basal fourth of the wing, and the second about midway. At three-fourths, there is a costal and dorsal streak with black posterior margins. The dorsal streak is longer and curved rearward, while the costal one is shorter, straight, and often reduced to a spot. At the beginning of the costal cilia there is a short apical streak that is dark margined. The cilia are reddish, but become gray at the tornus. The hindwings and cilia are reddish gray, and the abdomen is dark gray above and ocherous gray beneath. The tarsal joints of the legs are white and tipped with black, but less so on the hindlegs. Although *C. hamameliella* is very closely related to *C. aceriella*, *C. hamameliella* differs by having deeper and more reddish color on the tuft and wings. The hind tarsi of *C. hamameliella* are also usually tipped with black, whereas in *C. aceriella* they are either faintly blackish tipped or entirely pure white. There are exceptions to these general trends, and specimens are best identified by rearing or barcoding.

DISTRIBUTION: *Cameraria hamameliella* is widely distributed in eastern North America, including southern Ontario, southern Nova Scotia, and much of the eastern US where the host species are found. As of 2022, our records from North Carolina are mostly from lower elevation sites in the mountains.

FLIGHT COMMENT: Populations are bivoltine with a summer and autumn brood.

HABITAT: Local populations appear to rely heavily on American Witch-hazel (*Hamamelis virginiana*) as a host plant. This species is found in a variety of mesic to dry forests, and occasionally in floodplain forests.

FOOD: Larvae were once thought to be monophagous on American Witch-hazel (*Hamamelis virginiana*), but have recently been found on Large Witch-alder (*Fothergilla major*; Eiseman, 2019). As of 2024, we have records of mines on Witch-hazel and the non-native Persian Ironwood (*Parrotia persica*).

OBSERVATION\_METHODS: The adults are attracted to lights that are in the vicinity of Witch Hazel. Local populations are perhaps most easily documented by searching for the distinctive mines on Witch Hazel and *Fothergilla*. We encourage individuals to rear and photograph adults to better document phenotypes in North Carolina.

NATURAL HERITAGE PROGRAM RANKS: GNR S2S3

STATE PROTECTION:

COMMENTS: We currently do not have sufficient information on the distribution and abundance of this species in North Carolina to determine its conservation status. *Cameraria hamameliella* appears to be rather common in the mountains where Witch Hazel occurs locally.