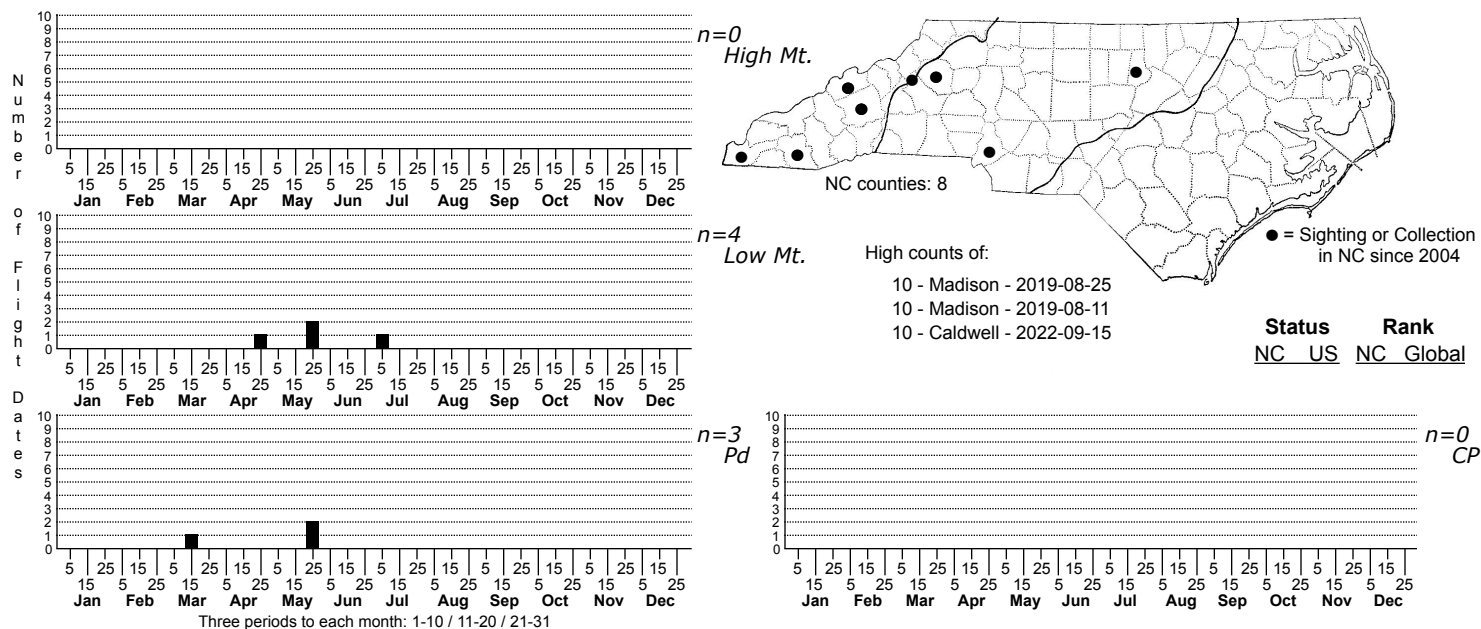


Cameraria corylisella Hazel Blotchminer Moth



FAMILY: Gracillariidae SUBFAMILY: Lithocolletinae TRIBE:

TAXONOMIC_COMMENTS: This is one of over 50 *Cameraria* species that have been described from North America.

FIELD GUIDE DESCRIPTIONS:

ONLINE PHOTOS:

TECHNICAL DESCRIPTION, ADULTS: Braun (1908); Eiseman (2017)

TECHNICAL DESCRIPTION, IMMATURE STAGES:

ID COMMENTS: The forewings of the adults have a light tawny ground color that is overlain with three narrow white bands that are edged on the posterior margin with black. The subterminal band is broken, and there is a small white spot with a black edge near the apex. *Cameraria corylisella* and *C. ostryarella* are very closely related and are often difficult to distinguish from each other (Eiseman 2017). *Cameraria ostryarella* closely resembles *C. corylisella*, but according to Braun (1908) the later lacks the brownish dusting on the apical third of the wing. However, this does not seem to be the case for North Carolina specimens where both species lack apical dusting. A better trait is the dorsal streak at about three-fourths that tends to be strongly oblique in *C. ostryarella*. In *C. corylisella* the dorsal streak is nearly erect and runs nearly parallel to the mid-wing fascia. However, there are occasional exceptions to this general rule. *Cameraria aceriella* is also similar, but lacks the marginal line in the cilia. Raising adults from leaf mines on hazelnuts is definitive since *C. corylisella* appears to only use *Corylus*, while *C. ostryarella* uses *Carpinus* and *Ostrya*.

DISTRIBUTION: Scattered records for this species occur from Manitoba, Ontario, Quebec, and Maine, southward to Wisconsin, Illinois and Kentucky (Pohl et al. 2018). *Cameraria corylisella* was only recently detected in North Carolina. As of 2022, populations have been found in the mountains and western Piedmont, with one record from the eastern Piedmont. Populations in North Carolina are likely restricted to the Blue Ridge and Piedmont provinces since our native hazelnut species -- which are the primary hosts -- are only rarely found in the Coastal Plain.

FLIGHT COMMENT: Almost no data is available on the flight season for North Carolina populations. The adults from areas outside of North Carolina are generally active from April through September, with a peak during the mid-summer months. As of 2022, we have observed mines in the mountains from June through late September. There appear to be two broods, with larvae overwintering in the mines and the adults of the first brood emerging with the spring warm-up.

HABITAT: This species primarily uses hazelnuts as hosts and local populations mostly occur where hazelnuts are present. Our two native species of hazelnuts occur in a wide variety of habitats that range from dry, rocky ridge tops and woods (*Corylus cornuta*) to more mesic forests, stream edges and even swamps (*C. americana*). Hazelnuts often thrive where there are open woods or thickets.

FOOD: *Cameraria corylisella* is a rather specialized leafminer that uses both beaked hazelnut (*Corylus cornuta*) and American Hazelnut (*C. americana*). It also uses American Hornbeam (*Carpinus caroliniana*), but apparently relatively rarely in North Carolina. As of 2024, we have rearing records for both species of hazelnuts and American Hornbeam.

OBSERVATION_METHODS: Local populations are most easily located by searching for the distinctive leaf mines that occur on hazelnut leaves. The adults appear to only occasionally come to lights.

NATURAL HERITAGE PROGRAM RANKS: GNR S2S4

STATE PROTECTION:

COMMENTS: North Carolina is at the southernmost range limit of *Cameraria corylisella*. This species was only recently discovered in North Carolina and we have only 10 records as of 2022. The previous southernmost records were from Kentucky. We are uncertain to what extent the scarcity of records for NC reflects this species being overlooked in the past. Without more information on the distribution, frequency of occurrence, and population trends of this species we cannot currently make any meaningful estimate of its conservation status.