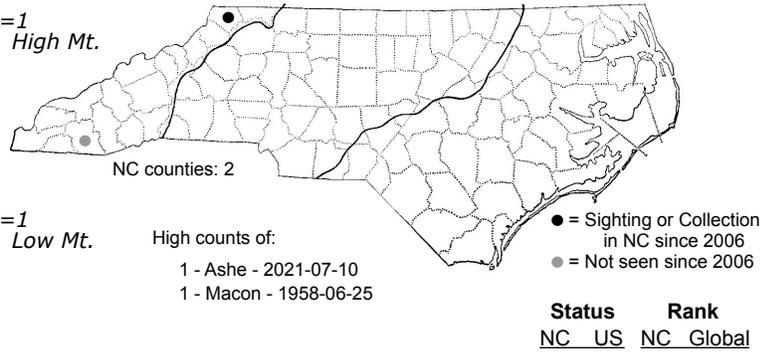
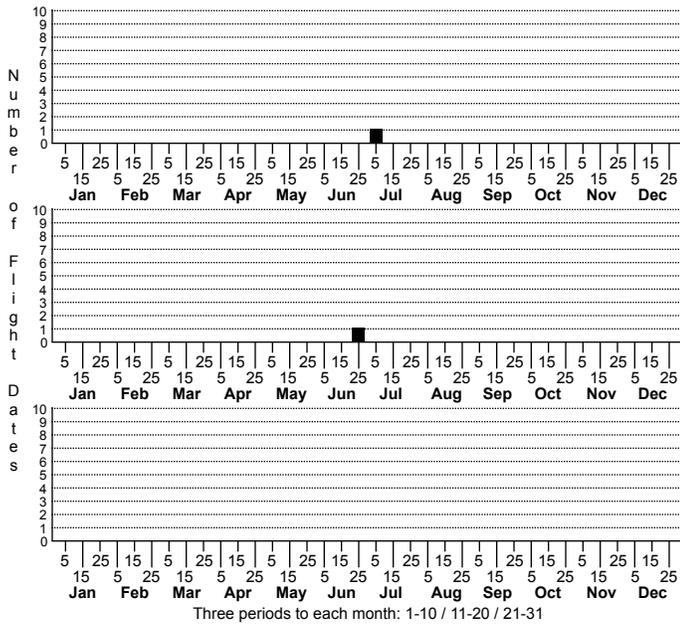


Cameraria arcuella None



FAMILY: Gracillariidae SUBFAMILY: TRIBE:
 TAXONOMIC_COMMENTS:

FIELD GUIDE DESCRIPTIONS:
 ONLINE PHOTOS:

TECHNICAL DESCRIPTION, ADULTS: Braun (1908).
 TECHNICAL DESCRIPTION, IMMATURE STAGES:

ID COMMENTS: *Cameraria arcuella* is a relatively large *Cameraria*, with a wingspan of around 10 mm. It has a reddish-orange forewing that has three pairs of large costal and dorsal white spots, with the second pair uniting to form an angulated fascia. The following detailed description is based in part on that of Braun (1908) and from barcoded specimens on BOLD. The antenna is pale with brown annulations and the palps are silvery white. The face is silvery white with a slight golden tinge, and the head tuft yellowish and mixed with orange at the sides. The thorax and forewing are shining reddish-orange with glistening white markings, including a longitudinal streak on each side of the thorax.

The forewing has three large costal and dorsal white spots that are margined with black scales outwardly, as well as a final, concave streak near the apex that is greatly reduced in size. The first costal spot at the basal third is short and broad, and the second pair near the middle is united to form an outwardly angulated fascia. The first dorsal spot begins nearer to the base than the first costal, and extends half way across the wing. Third costal streak is arcuate and opposite the more triangular third dorsal streak. A greatly reduced, concave, fourth streak is present near the apex and is heavily margined with black scales outwardly. The fringe is golden with a brownish marginal line, while the hindwing is bronzy gray with gray cilia. The tarsi on the forelegs are boldly marked with white and dark-brown to blackish bands, while the other legs are ochreous with unmarked whitish tarsi.

DISTRIBUTION: The distribution of *C. arcuella* is poorly documented due to the scarcity of records, but it appears to be associated with rich deciduous forests in the eastern US and adjoining areas of southern Canada. BOLD, MPG and iNat records include specimens from Ontario, Quebec, Minnesota, Wisconsin, Michigan, Maine, Virginia, eastern Tennessee and western North Carolina. Eiseman (2022) also reported what appears to be this species from Massachusetts. As of 2025, our two records are both from middle-elevational forests in the Blue Ridge.

FLIGHT COMMENT: The flight season is poorly documented. The adults have been taken in June and July and again in September and October, which suggests that two broods are produced annually, with the final brood overwintering in the blotch mine. As of 2025, our two records are from late-June and early-July.

HABITAT: This species is generally associated with rich, mesic hardwood forests.

FOOD: The larvae appear to specialize on oaks, and probably only on members of the red oak group. The known hosts include Northern Red Oak (*Quercus rubra*; BOLD) and possibly Bear Oak (*Q. ilicifolia*; Eiseman, 2022).

OBSERVATION_METHODS: We recommend seeking out the mines on oaks and rearing the adults.

NATURAL HERITAGE PROGRAM RANKS: GNR [S2S3]

STATE PROTECTION:

COMMENTS: This species appears to be uncommon throughout its range and may reach its southern limit in the Blue Ridge of western North Carolina and eastern Tennessee. As of 2025, we have only two records for the state, and both are from mid- to higher-elevation forests.