

Cameraria guttifinitella Poison Ivy Leafminer Moth



FAMILY: Gracillariidae SUBFAMILY: Lithocolletinae TRIBE: [Lithocolletini] TAXONOMIC_COMMENTS: <i>Cameraria</i> 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: Clemens (1859) TECHNICAL DESCRIPTION, IMMATURE STAGES: Clemens (1859), Eiseman (2019)

ID COMMENTS: The adults closely resemble several other species of <i>Cameraria</i>, but can be identified from high-quality images that show both lateral and dorsal views. The adults appear to rarely visit lights and are best obtained by collecting leaves with mines and raising larvae to eclosion. The following is mostly based on Clemens (1859) original description of the adults. The front is silvery with a reddish hue, while the tuft and thorax are reddish orange. The antenna varies from light to blackish brown. The forewing is a rather deep reddish orange, with two silvery bands that are black margined behind. One is in the middle of the wing and nearly straight, while the other is midway between this and the base of the wing and somewhat obliquely placed. A costal silvery spot or streak is present before the costo-apical cilia and is black margined on both sides. A similar opposing silvery streak is present dorsally that is margined with black only on the posterior edge. The apical portion of the wing is dusted with blackish scales, and there is a white spot or short, faint streak near the tip above the middle of the wing. One or two dark marginal lines are sometimes evident: one near the margin of the dispersed scales and the second just posterior and in the cilia. This species lacks a pale or whitish streak at the base of the dorsal margin, which helps to distinguish it from other <i>Cameraria</i>

DISTRIBUTION: This species is broadly distributed in North America and occurs as far west as Washington State and British Columbia. In eastern North America, it occurs from southern Canada south to Texas and Florida (Eiseman, 2019). In North Carolina, most of our records are from the lower elevations in the mountains and the Piedmont where Poison Ivy is the primary host. As of 2023, we have only three records from the Coastal Plain.

FLIGHT COMMENT: Eiseman (2019) reported that this species is bivoltine, which is consistent with our North Carolina records based on occupied mines. As of 2023, our earliest records of occupied mines are from late March. The first brood in centered around June-July, with the second beginning in September. Mines can be found with larvae through late-October, with the larvae overwintering and pupating in the spring.

HABITAT: Populations have been found in North Carolina in habitats that range from mid-elevation hardwood forests in the Blue Ridge to wetland habitats near the coast. Local populations occur in a variety of forested or edge habitats that support Poison-ivy and other host plants.

FOOD: The larvae typically use either Poison-ivy ($\langle i \rangle$ Toxicodendron radicans $\langle i \rangle$), Poison-oak ($\langle i \rangle$ T. pubescens $\langle i \rangle$), or Poison Sumac ($\langle i \rangle$ T. vernix $\langle i \rangle$) for feeding and shelter, but on rare occasion will use Fragrant Sumac ($\langle i \rangle$ Rhus aromatica $\langle i \rangle$). In North Carolina, all of our records are from Poison-ivy, with one from Poison Sumac and one from Fragrant Sumac. We have no records of this species using Poison-oak even though it is often locally abundant in some areas of the Coastal Plain such as the Sandhills.

OBSERVATION_METHODS: Local populations of this species are most easily detected by searching for the distinctive blotch mines that are on Poison-ivy and other species of <i>Toxicodendron</i>. Two other moth species mine <i>Toxicodendron</i> leaves in the eastern US. These produce either very elongated, narrow mines (<i>Stigmella rhoifoliella</i>), or linear mines that eventually widen and become tentiform (<i>Caloptilia rhoifoliella</i>). Both are easily distinguished from the large linear-blotch mines of <i>C. guttifinitella</i>. The adults appear to rarely come to lights.

NATURAL HERITAGE PROGRAM RANKS: GNR S4S5

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

COMMENTS: Searches for leaf mines have added many new records for this species since 2015. Populations are often locally abundant where stands of Poison-ivy are present in mesic woods.