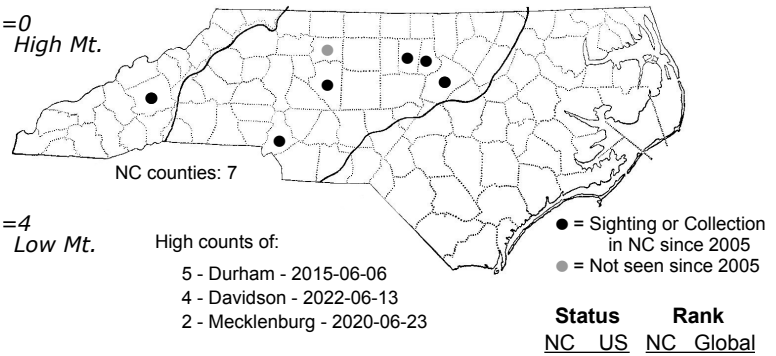
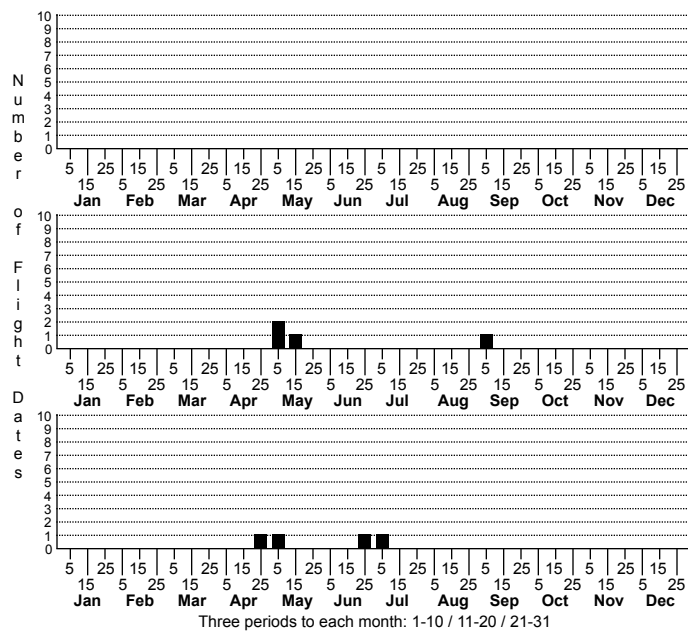


Cameraria cincinnatiella Gregarious Oak Leafminer Moth



FAMILY: Gracillariidae SUBFAMILY: Lithocolletinae TRIBE: [Lithocolletini]

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:

ID COMMENTS: The following is primarily based on Chambers' (1871) original description of the species. The face and palpi are silvery white, while the legs are silvery white with brownish spots and bands. The tuft is white centrally and golden on the sides. The antenna is silvery white beneath and golden brown above with narrower white rings. The thorax and forewing ground color is rusty to bright golden. The forewing has a short, white, median basal streak with dark dusting on the posterior side. The anterior margin and sides of the thorax are also often white and may touch or nearly touch the basal streak. There are two conspicuous fasciae at approximately the middle and basal third of the forewing that are white, strongly angulated posteriorly, and with a wide dark margin behind. In North Carolina specimens the first is often broken, with the dorsal fragment displaced more basally relative to the costal fragment. The dark margin (dusting) is largely restricted to the dorsal half of each fascia. On the middle fascia the dusting extends away from the white portion towards the apex. A long, oblique, white dorsal streak also occurs near the base of the dorsal cilia, and has a conspicuous dark posterior margin (dusting) that continues towards the apex. There are one or two smaller white costal marks (often connected) that adjoin the region with dark dusting. The cilia is golden and has a dark brown line.

Traits that are helpful for identifying this species include the dorsal median streak and white marks on the thorax that creates a circular or semicircular pattern, the tuft that is white centrally and golden on the sides, the two conspicuous fasciae on the forewings (the first sometimes interrupted near the middle), and the dark dusting on the middle fascia that extends away from the white portion towards the apex. This is one of numerous *Cameraria* that feed on oaks, but unlike most species, the larvae are distinctive in feeding gregariously within a single leaf mine.

DISTRIBUTION: *Cameraria cincinnatiella* occurs through much of the eastern US and adjoining areas in southern Canada. Populations occur from the Great Lakes region and Ontario and Quebec eastward to Connecticut, and south and southwestward to Florida, Georgia, and Texas. Our records for North Carolina as of 2019 are from the Blue Ridge and Piedmont.

FLIGHT COMMENT: Local populations appear to have two or more broods per year. Adults are first active after the spring leaf-out and remain active through late summer or early fall.

HABITAT: *Cameraria cincinnatiella* is strongly affiliated with White Oak, which is common throughout the state in urban landscapes and in dry to mesic hardwood forests.

FOOD: White Oak (*Quercus alba*) is the primary host, but larvae have also been found on Swamp White Oak (*Q. bicolor*), Bur Oak (*Q. macrocarpa*), Chestnut Oak (*Q. montana*), and Post Oak (*Q. stellata*) (Eiseman, 2022). In North Carolina, we only have records for White Oak.

OBSERVATION_METHODS: The adults occasionally visit lights. Local populations are best documented by searching for the conspicuous upper-surface leaf mines on White Oak and rearing the adults. These typically contain three or more larvae or pupae per mine, which is helpful in distinguishing this species from other *Cameraria* that use White Oak and have a single larva per mine.

NATURAL HERITAGE PROGRAM RANKS: GNR S2S4

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

COMMENTS: