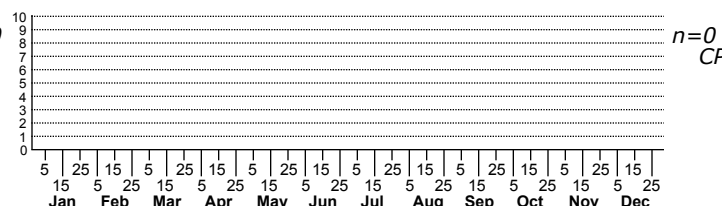
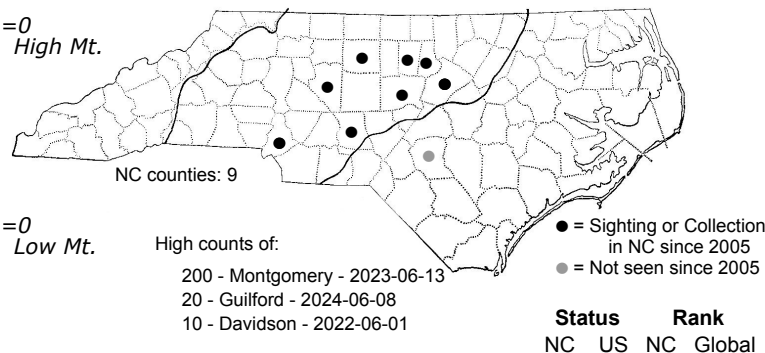
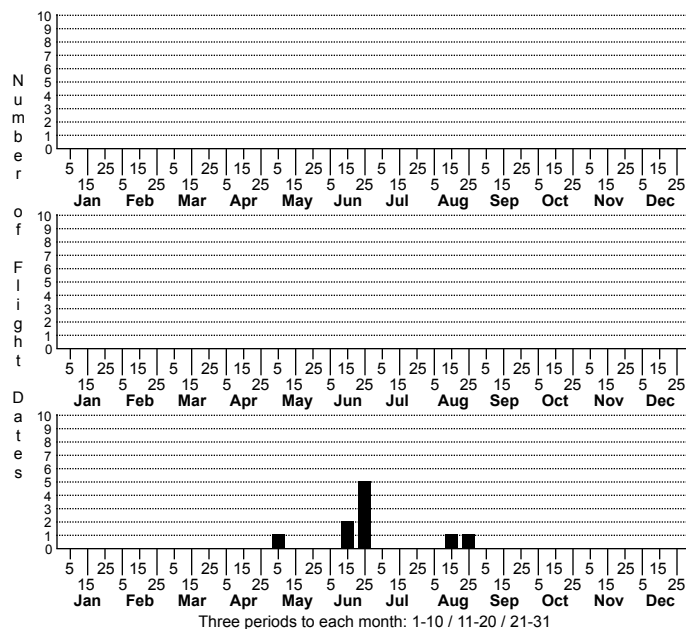


Cameraria hamadryadella Solitary Oak Leafminer Moth



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: Covell (1984)

ONLINE PHOTOS:

TECHNICAL DESCRIPTION, ADULTS:

TECHNICAL DESCRIPTION, IMMATURE STAGES:

ID COMMENTS: The following description of the adults is based on Braun (1908). The antennae are white with dark annulations. The face and thorax are white, while the tuft is white mixed with gray. The forewing is white, with two angulated, shining, ochereous fasciae. The first is just before the basal third and is margined internally with dispersed blackish scales. The second is just behind the middle and margined internally with dispersed scales which are produced in the middle, dividing it into two parts. In the space between the fasciae are a few scattered ochereous scales and an irregular line of blackish scales through the middle. Near the apex is a costal and a dorsal ochereous patch that sometimes meet. The space between them and the second fascia is more or less marked with a line of irregular dark dusting, and separated from each other by a more or less dense cloud of dusting that is sometimes connected with the margining of the second fascia. The apical portion is white, mixed with ochereous, and densely dusted with black scales connected with the line separating the costal and dorsal ochereous patches. The basal third of the wing is whitish and more or less dusted with black and marked with ochereous. There is also a small patch of black scales on the costa near the base, followed by a black dusting that is sometimes arranged into two irregular bands upon an ochereous ground, of which the more basal one is the broader. The apical cilia are tinged with saffron and have a marginal line of blackish scales. The hindwings and cilia are gray. The legs are white, with the tibiae and tarsi spotted with black. *Cameraria hamadryadella* is distinctive among *Cameraria* in the eastern US in having forewings with a white ground color. This is most evident in the basal third of the wings.

DISTRIBUTION: *Cameraria hamadryadella* occurs throughout much of the eastern US and southern Canada, including British Columbia, Manitoba, and Quebec. Populations occur as far south as Florida and Texas. Braun (1908) noted that this species is very common throughout the Atlantic States, and Conner and Beck (1993) observed population irruptions in the Piedmont of Georgia, the Carolinas, Virginia, and New Jersey. We have relatively few records for North Carolina, even though the primary host species (White Oak) is common in most areas of the state.

FLIGHT COMMENT: Populations are bivoltine in most areas, but have three generations per year in northern Florida near the southern limit of the range.

HABITAT: Populations are strongly dependent of White Oak, which is found throughout the state in a variety of habitats such as hardwood forests, suburban neighborhoods, and pastures with scattered shade trees.

FOOD: *Cameraria hamadryadella* primarily uses White Oak (*Quercus alba*) as its host, but has been recorded on many other oaks, as well as reports from Hop Hornbeam (*Ostrya virginiana*) and *Magnolia* (Eiseman, 2022). Reported hosts include White Oak, Swamp White Oak (*Q. bicolor*), Scarlet Oak (*Q. coccinea*), Bear Oak (*Q. ilicifolia*), Bur Oak (*Q. macrocarpa*), Blackjack Oak (*Q. marilandica*), Swamp Chestnut Oak (*Q. michauxii*), Chestnut Oak (*Q. montana*), Dwarf Chinquapin Oak (*Q. prinoides*), Northern Red Oak (*Q. rubra*), Post Oak (*Q. stellata*), and Black Oak (*Q. velutina*). In North Carolina, we have rearing records from White Oak, Overcup Oak (*Q. lyrata*), and Post Oak.

OBSERVATION_METHODS: The adults visit lights. Local populations can also be documented by searching for the leaf mines on White Oak and rearing the adults.

NATURAL HERITAGE PROGRAM RANKS: GNR S3S4

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

COMMENTS: