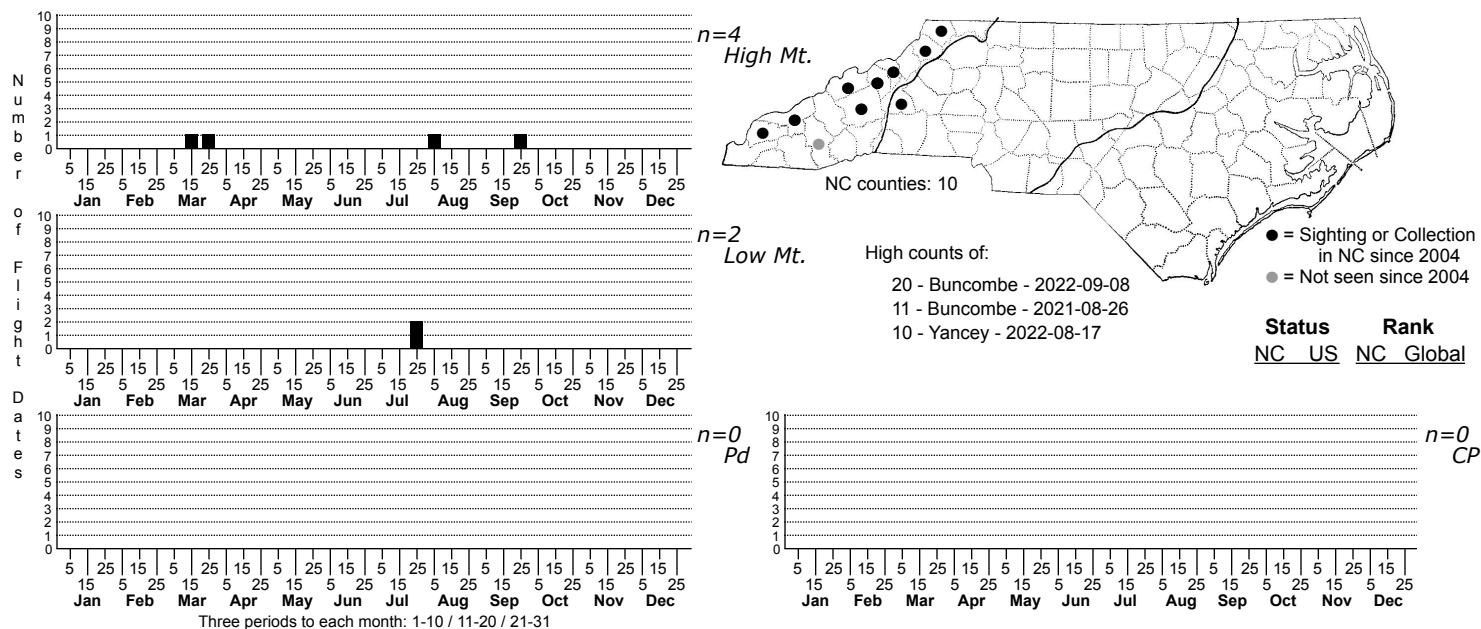


## *Cameraria betulivora* Birch-leaf Blotchminer Moth



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: Walsingham (1891); Braun (1908)

TECHNICAL DESCRIPTION, IMMATURE STAGES: Eiseman (2019)

ID COMMENTS: The following is based primarily on the original description of a single female by Walsingham (1891) and illustrated by Braun (1908), as well as our own specimens from North Carolina. The antenna is grayish above and white beneath. The palps, head, and face are white, while the crown tuft and thorax is reddish saffron. The forewing is shining reddish saffron and has a small dull white costal spot at one fourth of the wing length. Opposite this, and slightly more basally, is a small dorsal spot that is dull white. There is a slender white fascia at the middle of the wing that is angulated outwardly near the costal margin. The fascia has a series of black scales on its outer edge that vary among individuals from a few isolated scales to a well-defined black margin. Beyond this a small costal streak and an opposite dorsal streak, both dull white, with blackish scales on their outer edges. A group of black scales at the apex of the wing is preceded by either a small dull whitish mark or a dull white streak. The apical cilia are grayish with saffron-tinged bases, and on some individuals have a slender blackish line along their middle that passes around the apex. The hindwings are dark gray with gray cilia. The abdomen is gray and tinged with saffron posteriorly. The front and middle legs are whitish with blackish banding on the lower portions. The hind legs are mostly whitish, with a very faint indication of darker scaling on the penultimate tarsal joint.

DISTRIBUTION: *Cameraria betulivora* has been documented in Ontario, Quebec, Maine, and in the Blue Ridge Mountains of North Carolina. Braun (1912) first found this species in Jackson Co., and it was not until 2010 that it was collected again in North Carolina (BOLD). It has since been found at several additional sites in association with birch trees.

FLIGHT COMMENT: The flight season is poorly documented. As of 2021, we have records for occupied mines from mid-July through September.

HABITAT: Our one historic record for this species (Braun, 1912) probably comes from a Cove Forest. The most recent collections are from mid- to higher elevation sites where birches are present locally.

FOOD: The reported larval hosts include Yellow Birch (*Betula alleghaniensis*), Paper Birch (*B. papyrifera*), and Gray Birch (*B. populifolia*) (Robinson et al., 2010; Eiseman, 2019). In North Carolina, we have observed mines on both Yellow Birch and Sweet Birch (*B. lenta*).

OBSERVATION\_METHODS: This species appears to be uncommon in North Carolina, with most of our records from mid- to higher elevations in the mountains. We recommend searching for the mines on the upper surfaces of Yellow Birch or Sweet Birch during the summer months.

NATURAL HERITAGE PROGRAM RANKS: [GNR] SU

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

COMMENTS: Populations that have been collected in North Carolina are mostly associated with mid- to higher-elevation communities with Yellow Birch (*Betula alleghaniensis*) or Sweet Birch (*B. lenta*). Populations in our mountains may be disjunct from those from the main range in Canada and Maine.