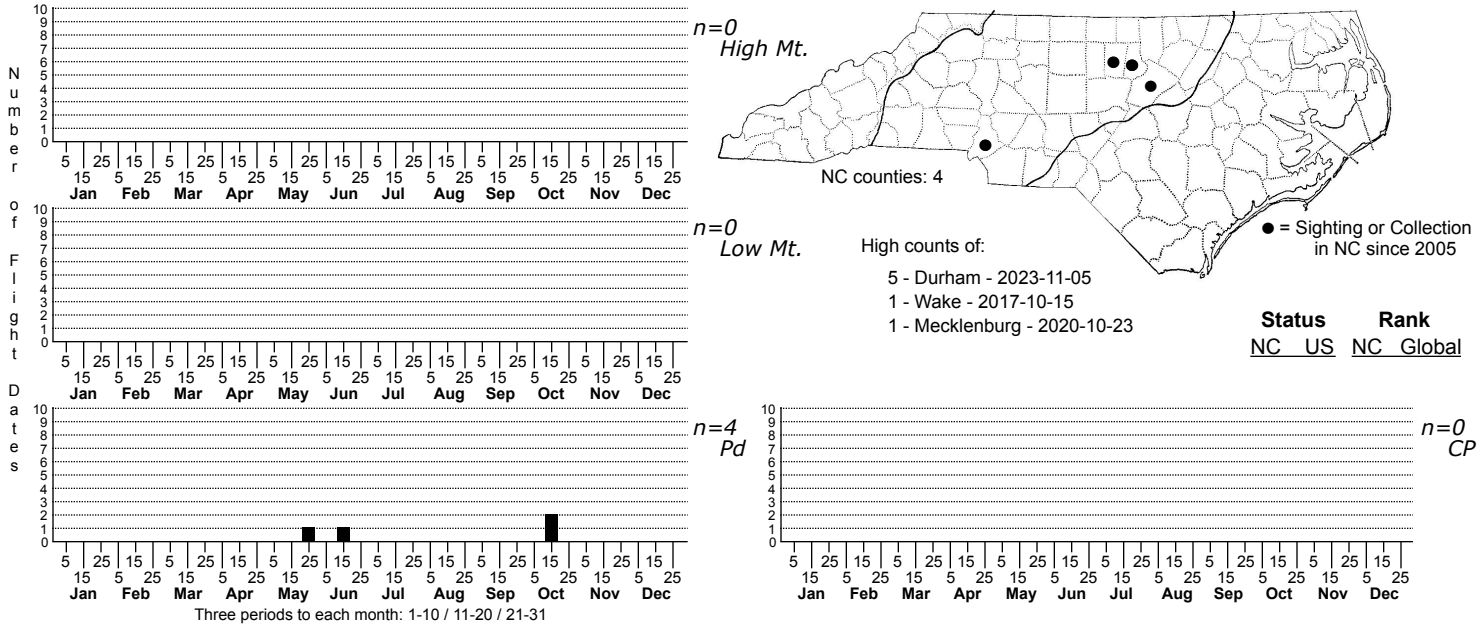
Phyllonorycter celtifoliella None



FAMILY: Gracillariidae SUBFAMILY: Lithocolletinae TRIBE:
TAXONOMIC_COMMENTS: Phyllonorycter is a genus of small and often colorful moths, with 79 described species in North America. The larvae of most form underside tentiform mines on woody plants and pupate within the mines.

FIELD GUIDE DESCRIPTIONS:
ONLINE PHOTOS:
TECHNICAL DESCRIPTION, ADULTS: Braun, 1908.
TECHNICAL DESCRIPTION, IMMATURE STAGES:

ID COMMENTS: Phyllonorycter celtifoliella exhibits significant individual variation in patterning and coloration. This is primarily due to the extent to which the scales develop dark pigmentation to produce a dusted appearance. The following description is based primarily on Chambers (1871) and Braun (1908). The face is silvery white, and the outer surface of the palps are saffron with brown flecks. The antennae are brown with white annulations, and flecked with blackish scales. The tuft is reddish saffron to brown, with white scales intermixed. The thorax is reddish saffron anteriorly, but grades into brown posteriorly. There is a white line (sometimes absent) that crosses the anterior margin of the thorax, then extends to the forewing where it connects with a narrow median white basal streak that terminates before the first fascia. The ground color of the forewing is reddish saffron, but often so heavily dusted with dark brown that the reddish coloration is obscured to varying degrees. There are two fasciae that have dark brown coloration anteriorly and whitish scales posteriorly. The first fascia is at about one-third and the second near the middle. Both are strongly angulated posteriorly, and the white edge on the posterior margin often extends from the angle posteriorly as a white streak. (On specimens that have little dark dusting, these may appear as mostly whitish fasciae on a saffron background.) Between the second fascia and wing tip there are often two or more dark patches or elongated dark bars, along with an irregular white line or short costal streak near the wing tip. The cilia vary from pale reddish saffron to light brown, and have a dark brown marginal line. The legs have a whitish ground color that is often heavily dusted with brown, along with dark brown spots and blotches along their lengths.

DISTRIBUTION: Phyllonorycter celtifoliella is found in the eastern US where the host plants occur locally. Populations are most abundant in the Midwest, but occur eastward to Kentucky and West Virginia, and southward to Florida. As of 2020, we have only two records for North Carolina, and both are from the Piedmont.

FLIGHT COMMENT: The adults emerge in late September.

HABITAT: This species is a specialist on hackberries (Celtis). One of the hosts, Celtis occidentalis, is uncommon in North Carolina and is mostly confined to the mountains and upper Piedmont where mafic or calcareous bedrocks occur. Celtis pumila prevails further east, and is also found in nutrient-rich, circumneutral soils.

FOOD: Larvae specialize on hackberries (Celtis spp.), including Common Hackberry (C. occidentalis), Sugarberry (C. laevigata), and Dwarf Hackberry (C. pumila = tenuifolia) (Eiseman, 2022). In North Carolina, we have records for Common Hackberry and Sugarberry.

OBSERVATION_METHODS: The adults are attracted to lights, and have been successfully reared from leaf mines. We encourage moth enthusiasts to search for the leaf mines on the lower leaves of hackberries. Phyllonorycter celtisella also mines hackberry leaves, but constructs mines on the upper surface of leaves.

NATURAL HERITAGE PROGRAM RANKS: GNR S2S3

STATE PROTECTION:

COMMENTS: