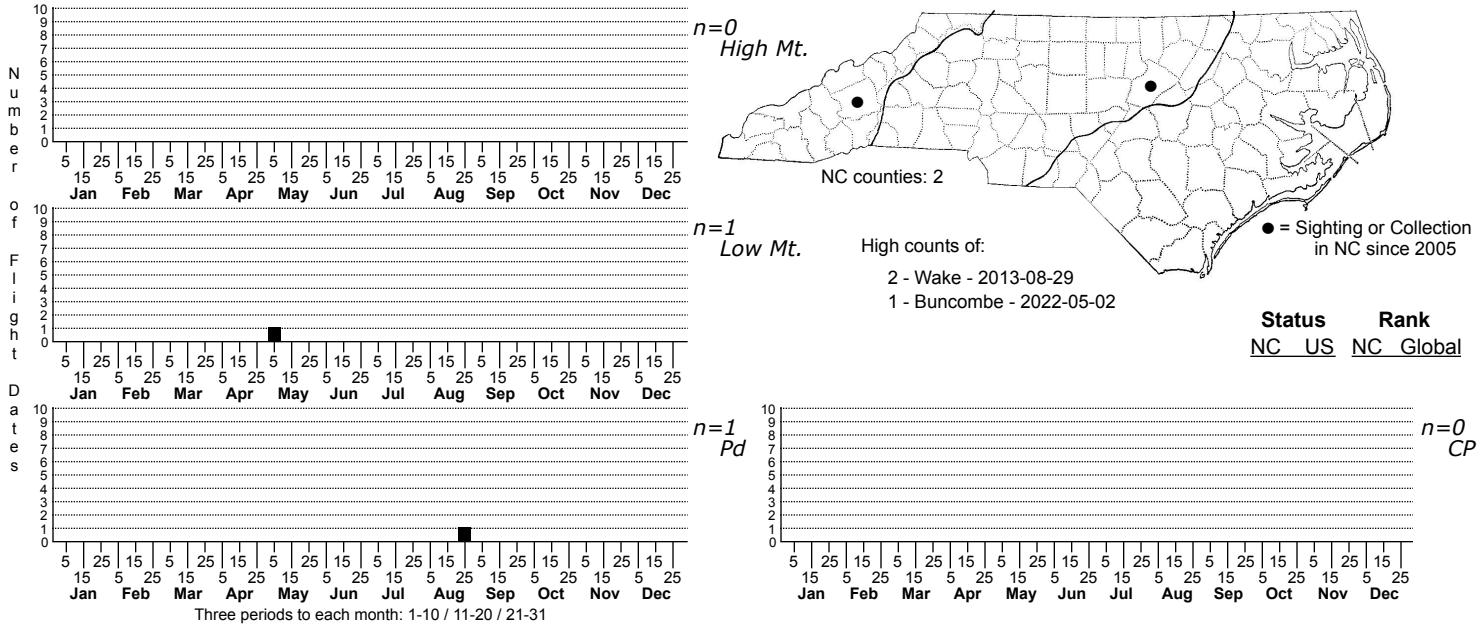
Phyllonorycter intermixta None



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, 1930.
TECHNICAL DESCRIPTION, IMMATURE STAGES: Braum, 1930; Eiseman, 2019.

ID COMMENTS: The following is largely based on Braun's (1930) original description from specimens from Ohio. The antenna is pale fuscous except for silvery white near the base. The tuft is white above and brownish ocherous laterally. The ground color of the thorax and forewing varies from golden to brownish ocherous. A broad white line extends along the anterior margin of the thorax and tegula, then becomes continuous with a broad, straight median basal streak on the forewing. The basal streak extends just beyond one-third the wing length, has a faint dark margin on the costal side, and a white margin on the dorsal side. There are four silvery white costal streaks and three dorsal streaks that all have dark margins on the anterior side. The first dorsal streak is oblique, curved, and its apex ends opposite that of a shorter, oblique costal streak. The second pair of streaks is less oblique and their apices curve towards the apex. The third pair of streaks is narrower, and the dorsal streak is slightly posterior to the costal streak. These are often joined by a silvery line in the middle of the wing. A small black mark is present at the apex that may be overlain with silvery scales anteriorly. The cilia is whitish with a brown marginal line. The hindwing and cilia are gray, with a distinct coppery tinge. The rear leg is whitish with faint fuscous shading. In addition to the markings described above, specimens from areas outside of Braun's collection site in Ohio often deviate in having a white streak on the dorsal margin between the base and the first oblique dorsal streak. This species superficially resembles P. propinquinella, but has three dorsal streaks instead of two. In addition, the white streaks on P. propinquinella often have dark margins on both the anterior and posterior sides.

DISTRIBUTION: Phyllonorycter intermixta is found in eastern North America. There are currently only a few scattered records that include Quebec, Ontario, Vermont, Massachusetts, Connecticut, Rhode Island, Ohio, and North Carolina. Our single record is from Wake Co. in the Piedmont.

FLIGHT COMMENT: Local populations appear to be multivoltine, with the first brood occurring around June. Braun (1930) collected mines in June, August, and October. As of 2020, our only record is from August.

HABITAT: Local populations only occur where hazelnuts are present. Our two native species of hazelnuts occur in a wide variety of habitats that range from dry, rocky, ridge tops and woods (Corylus cornuta) to more mesic forests, stream edges and even swamps (C. americana). Hazelnuts often thrive where there are open woods or thickets.

FOOD: Larvae and mines have been found on American Hazelnut (Corylus americana), Beaked Hazelnut (C. cornuta) and a hybrid ornamental Hazelnut (C. americana × C. avellana; Robinson et al., 2010; Eiseman, 2019).

OBSERVATION_METHODS: We recommend searching for the mines on hazelnuts during the summer and early fall months. Photographs of the adults are needed, so we encourage individuals to rear and photograph adults whenever possible.

NATURAL HERITAGE PROGRAM RANKS: GNR S1S2

STATE PROTECTION:

COMMENTS: This species is apparently known from just a few records globally (see Moth Photographers Group) and we currently have only one record for this species in North Carolina. Its host plant is fairly widespread (G5 S5), however, and this moth may have simply been overlooked.