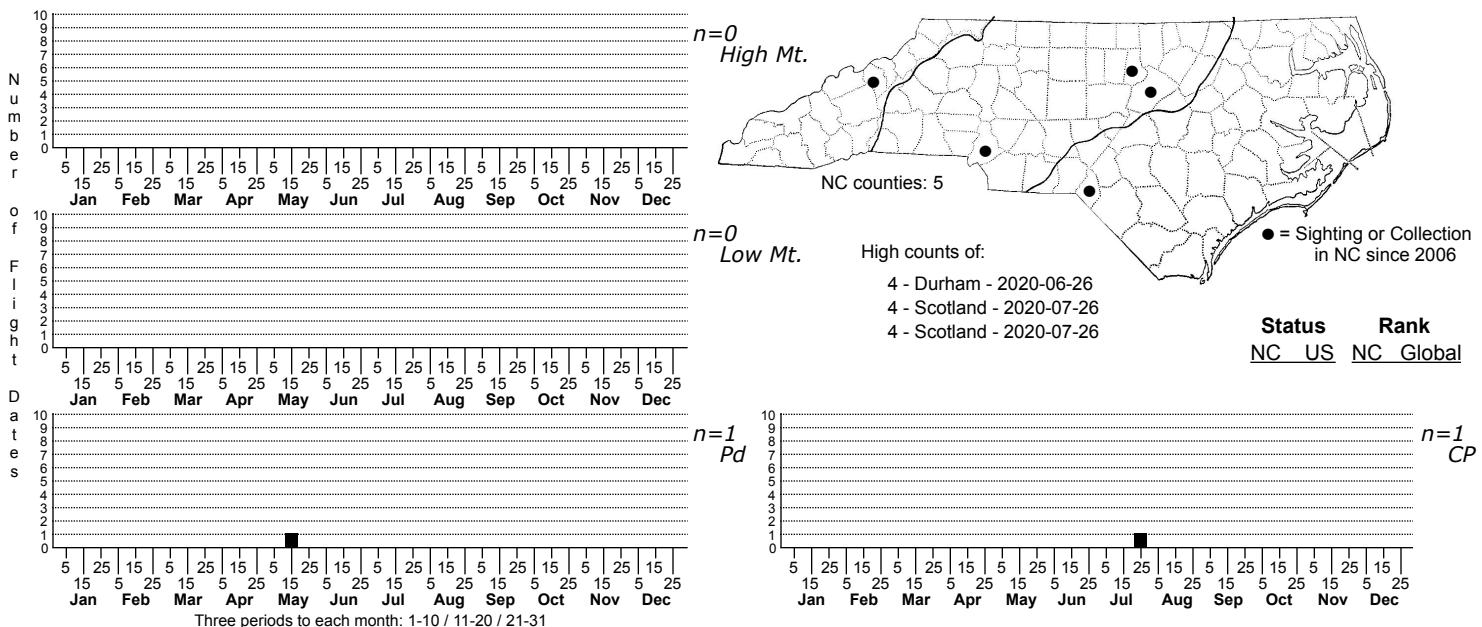


# Phyllonorycter crataegella Apple Blotch Leafminer Moth



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: Landry and Wagner (1995)

TECHNICAL DESCRIPTION, IMMATURE STAGES: Landry and Wagner (1995); Maier (1985)

ID COMMENTS: The following is based on the description by Braun (1908). The antenna is dark silvery gray, and the face and labial palp silvery. The tuft is dark brown and mixed with whitish scales. The thorax and forewing are brownish golden, with a silvery basal streak that is continuous with a white line on each side of the thorax. It extends for two-fifths of the wing length, and is black margined toward the costa and around its pointed apex. The dorsal margin is narrowly white toward the base. There are four costal and two or three white dorsal streaks. The first costal and the first two dorsal streaks are dark margined on both sides, while the others only have a dark margin on the anterior side. The first costal streak begins at two-fifths the wing length, is oblique and rounded beneath, and terminates before the middle. The other three costal streaks are nearly perpendicular or slant slightly forward. The first dorsal streak is somewhat nearer the base than the first costal streak and is also posteriorly oblique. Its apex often terminates a little beyond that of the first costal streak. The second dorsal streak is triangular, and is just before the tornus and opposite the second costal streak. A streak or heavy dusting of dark scales extends from the space between the second pair of streaks to the apex. The marginal line in the cilia is blackish, with a decided bluish luster. The cilia are grayish ocherous, and the hindwing and cilia are gray. The abdomen is dark gray above, and silvery beneath, with a more ocherous anal tuft. The legs are grayish, and the hind tarsi spotted with fuscous above. *Phyllonorycter blancardella* is an introduced species that is very similar, but only feeds on apples and ornamental crab-apples. This species can usually be distinguished by the fact that the basal patch of *P. blancardella* tends to bulge towards the basal streak, the basal streak is relatively broad, and the mesostellum has a prominent patch of white scales (few or no scales of *P. crataegella*). *Phyllonorycter propinquella* is also very similar to *P. crataegella*. Braun (1908) noted that *P. propinquella* differs in being larger (wingspan 8-9 mm versus 6.5-7 mm for *P. crataegella*), and in having a more oblique first dorsal streak that is nearer the base of the wing relative to that of *P. crataegella*. All of these species are most reliably identified by using genitalia or molecular markers (Landry and Wagner, 1995).

DISTRIBUTION: *Phyllonorycter crataegella* is found in eastern North America, particularly in apple-growing regions of the East. The range extends from southern Canada (Manitoba eastward to Nova Scotia) and the New England states southward to at least North Carolina and Tennessee, and westward to Arkansas, Illinois, and Michigan. As of 2024, we have a few scattered records from the western Coastal Plain, eastern Piedmont and the Blue Ridge.

FLIGHT COMMENT: The adults are present from April through September in regions outside of North Carolina and have multiple broods. As of 2024, we have larval records from early June through late July.

HABITAT: This species is found in hardwood forests with Black Cherry or native host plants in the Rosaceae, as well as apple orchards.

FOOD: The larvae are polyphagous on members of the Rosaceae, including commercial apples and ornamental crab-apples (Maier, 1985; Maier and Davis, 1989; Landry and Wagner, 1995). Genera that are used as hosts include *Amelanchier*, *Aronia*, *Crataegus*, *Cydonia*, *Malus*, *Prunus*, *Pyrus*, and *Sorbus*. Native species that are used as hosts are Canadian Serviceberry (*Amelanchier canadensis*), American Plum (*Prunus americana*), Fire Cherry (*P. pensylvanica*), Black Cherry (*P. serotina*), Choke Cherry (*P. virginiana*), and American Mountain-ash (*Sorbus americana*). As of 2024, we have records for Black Cherry and American Mountain-ash.

OBSERVATION METHODS: The adults occasionally come to lights, but many records are from reared adults. In North Carolina, the mines of this species are often found on the undersides of Black Cherry.

NATURAL HERITAGE PROGRAM RANKS: GNR S2S4

STATE PROTECTION:

COMMENTS: As of 2021, we currently have only a few records based on reared adults. More information is needed on the distribution and abundance of this species before we can assess its conservation status.