Phyllonorycter diversella   None

n=0
High Mt.

n=7
Low Mt.

n=0
Pd

n=1
CP

NC counties: 6

High counts of:

20 - Scotland - 2021-08-24
20 - Scotland - 2021-08-18
4 - Transylvania - 2022-10-04

● = Sighting or Collection
in NC since 2005

Status   **Rank**
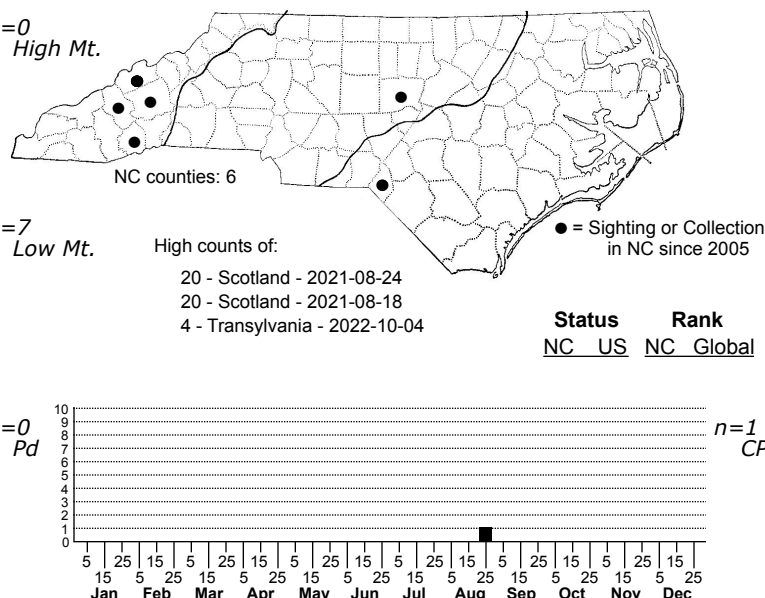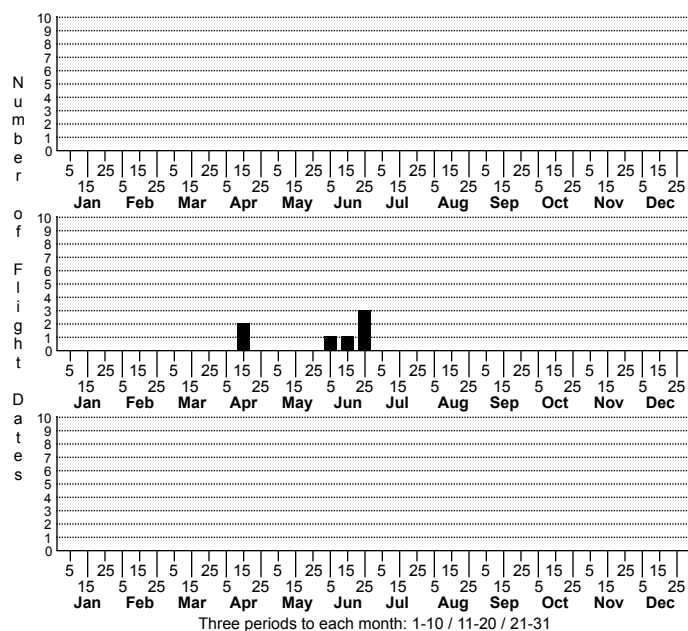NC   US   NC   Global

Three periods to each month: 1-10 / 11-20 / 21-31

FAMILY: Gracillariidae   SUBFAMILY: Lithocolletinae   TRIBE:

TAXONOMIC_COMMENTS: <i>Phyllonorycter</i> 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 (1916)
TECHNICAL DESCRIPTION, IMMATURE STAGES: Braun (1916), Eiseman (2019)

ID COMMENTS: The external morphology of <i>Phyllonorycter diversella</i> varies substantially and may possibly reflect sexual differences, geographic variation, or seasonal variation. Braun's (1916) originally described the species based on two specimens from Ohio that differed in antenna patterning and coloration. The following is a description of one, followed by comments about other specimens. The palps are whitish, the face metallic golden, and the tuft dark brown. The antenna is dark gray, with a dark terminal segment that is preceded by eight or nine whitish segments. The thorax and the extreme base of the forewing is deep metallic golden. The ground color of the remainder of the wing is golden or reddish brown and non-metallic. There is a short whitish basal streak just above the fold that is margined with dark brown toward the costa. At about one-third of the wing length, there there is an almost straight whitish fascia that is dark-margined on the anterior side. This is followed by two costal and two dorsal streaks that are whitish with dark anterior margins. The first dorsal streak has an apex that projects between the two smaller costal streaks. The base of the second dorsal streak is slightly posterior to the second costal streak and tends to project forward towards the second costal streak. Beyond this there is is a dark brown irregular apical spot that is often adjoined anteriorly by a small whitish streak. The cilia are grayish near the tornus, but golden elsewhere, and the terminal line of scales is dark brown. The hindwing is gray, with a reddish tinge. The legs are dark brown, with the spurs and terminal segments of tarsi whitish or silvery. A second specimen described by Braun (1916) deviated from the above description in several ways. The tuft was reddish ocherous, the antenna pale gray throughout, and the thorax and the extreme base of the forewing lacked the deep metallic golden color of the first. The colors in general were lighter and more subdued, but the overall patterning was essentially identical. Specimens from Canada (BOLD) often lack the fascia and have a matching set of curved, dorsal and costal streaks. Despite substantial variation among individuals, specimens from throughout the range of this species appear to comprise a single genetic group.

DISTRIBUTION: <i>Phyllonorycter diversella</i> is restricted to eastern North America where is occurs in southern Canada and adjoining areas of the northeastern US. From there, the range extends southward and westward to Ohio, Kentucky, eastern Tennessee and western North Carolina.

FLIGHT COMMENT: The flight season is poorly documented, but appears to extend from April through at least September. As of 2020, we have one record of an occupied mine from late September.

HABITAT: This species is polyphagous and uses several species in the Ericaceae that are typically associated with mesic to dry forests.

FOOD: The known hosts include Sourwood (<i>Oxydendrum arboreum</i>), and several species of <i>Gaylussacia</i> and <i>Vaccinium</i> (Eiseman, 2019). In North Carolina, we have records for Sourwood and Dangleberry (<i>Gaylussacia frondosa</i>).

OBSERVATION_METHODS: The adults appear to only rarely visit lights and are best obtained by rearing them from mines. This is the only species of <i>Phyllonorycter</i> that uses Sourwood, so mines found on this species can be reliably assigned to <i>Phyllonorycter diversella</i>.

NATURAL HERITAGE PROGRAM RANKS: GNR S2S4

STATE PROTECTION:

COMMENTS: As of 2022, we have records from only three sites in the state.