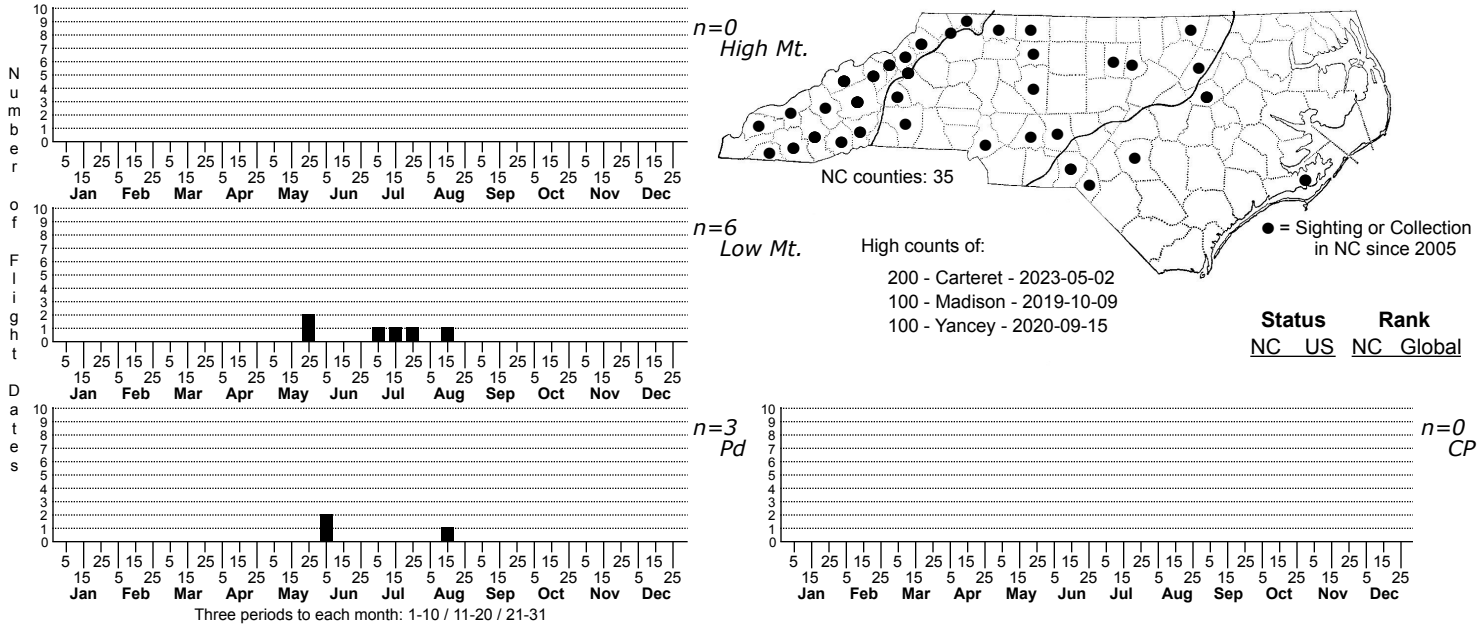
Parectopa robiniella Locust Digitate Leafminer Moth



FAMILY: Gracillariidae SUBFAMILY: Gracillariinae TRIBE: [Gracillariini]
TAXONOMIC_COMMENTS: The genus Parectopa contains around 40 species that are found worldwide, including nine species in North America. All are very small moths that are specialized leafminers.

FIELD GUIDE DESCRIPTIONS: Beadle and Leckie (2012); Leckie and Beadle (2018).
ONLINE PHOTOS:
TECHNICAL DESCRIPTION, ADULTS: (Eiseman 2019)
TECHNICAL DESCRIPTION, IMMATURE STAGES: Weaver and Dorsey (1967); Eiseman (2019).

ID COMMENTS: Adults have a dark brown head that is topped with elongated, white scale tufts. The forewings are dark brown with three oblique silvery costal streaks that alternate with three dorsal oval blotches or streaks. Near the tip of the wing, a transverse, curved silvery line passes from the costa to the tornus. There are also two converging dark brown to black lines at the base of the cilia that do not meet (Eiseman 2019). P. lespedezaefoliella is similar, but the curved silvery line is either absent or greatly reduced, and the two dark lines at the base of the cilia touch (or nearly touch) one another. This species is most easily documented by searching for the distinctive digitate blotch mines on Black Locust (Robinia pseudoacacia) or other legumes that serve as host plants.

DISTRIBUTION: Parectopa robiniella is native to eastern North America. Populations occur in southern Canada (Ontario; Quebec; Nova Scotia) and throughout much of the eastern US to as far south as Florida and the Gulf Coast. In North Carolina, P. robiniella occurs throughout much of the lower to upper-elevations of the Blue Ridge, as well as in the Piedmont and western Coastal Plain. Populations are restricted to sites where Black Locust or other host plants occurs locally. Records from iNaturalist include Stokes and Scotland counties.

FLIGHT COMMENT: Please refer to the flight charts.

HABITAT: This species is often found in open woodlands and along roadways with Black Locust and other legumes that are host species.

FOOD: Black Locust (Robinia pseudoacacia) appears to be the primary host plant, but the digitate leaf mines can be found on other legumes, including species of Amorpha, Desmodium, Galactia, and Lespedeza (Eiseman 2019). In North Carolina, we also have records of the species using American Groundnut (Apios americana), Bristly Locust (R. hispida), Dwarf Locust (R. nana), Shrub Lespedeza (Lespedeza bicolor), a Desmodium, and Smooth Milkpea (Galactia volubilis).

OBSERVATION_METHODS: This species can be easily detected by searching for the conspicuous leaf mines on Black Locust and other host plants.

NATURAL HERITAGE PROGRAM RANKS: GNR S4

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

COMMENTS: Populations are common in the Blue Ridge and western Piedmont, but more spotty further east. Overall, the species appears to be secure in the mountains; the status elsewhere is less certain.