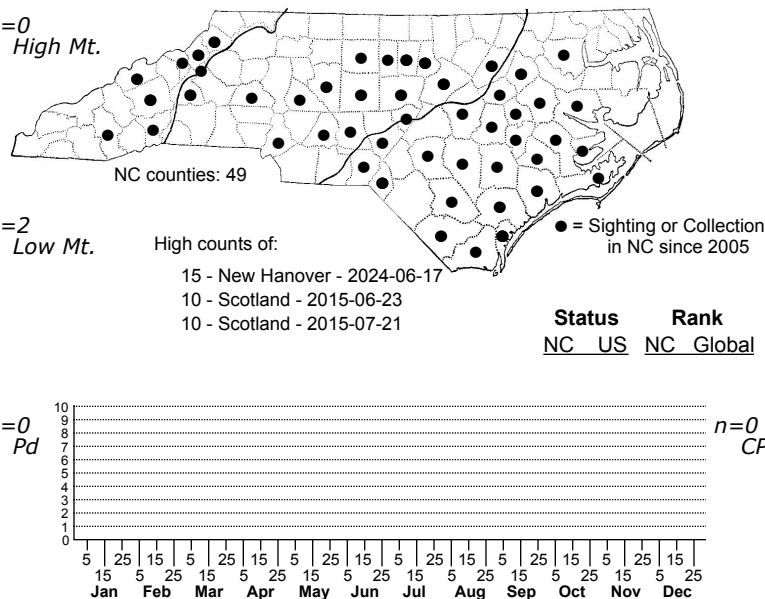
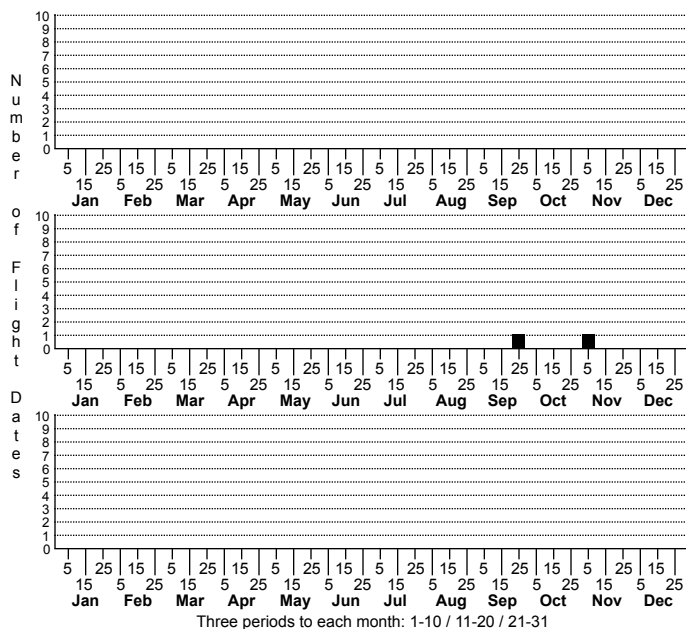


Phyllocnistis vitegenella None



FAMILY: Gracillariidae SUBFAMILY: Phyllocnistinae TRIBE: [Phyllocnistini]

TAXONOMIC COMMENTS: *Phyllocnistis* is a large genus with more than 125 described species worldwide, with 16 species currently recognized in North America. Davis and Wagner (2011) surmised that there may be hundreds of undescribed species in the neotropics. The adults of some species are very similar, and knowledge of the host plant and mine characteristics is helpful in identifying morphologically similar species (Eiseman, 2019).

FIELD GUIDE DESCRIPTIONS:

ONLINE PHOTOS:

TECHNICAL DESCRIPTION, ADULTS: Chambers (1871)

TECHNICAL DESCRIPTION, IMMATURE STAGES: Chambers (1871)

ID COMMENTS: In this species, the head and thorax are glistening snowy white, while the antenna is dark above. The ground color of the forewing is also glistening snowy white, but tinged with light golden towards the apex. Overlaying this are a series of narrow, blackish streaks or lines that are less than half the width of the forewing. An elongated dorsal spot is present on the dorsal margin just posterior to the base. Near the middle of the wing there is a narrow, oblique, blackish costal streak. Just behind it is a small, narrow blackish streak that is less oblique and opposes a similar small dorsal streak. These tend to meet to form a narrow, dark fascia (sometimes incomplete). There is a conspicuous circular black spot at the wing tip. Just anterior to this there are two relatively straight black costal streaks. At the tip of the wing are three blackish diverging streaks or thin lines in the cilia that tend to converge towards the apical spot. Finally, a blackish marginal line arches forward from near the apical spot towards the dorsal margin. There is often a broad area of golden wash that adjoins the marginal line on the anterior side. The hindwing and cilia are silvery white. Chambers (1871) noted that this species closely resembles *P. vitifoliella*, but differs in having antennae that are dark above (whitish in *P. vitifoliella*), a semi-oval dorsal spot (absent in *P. vitifoliella*), and the second costal streak that unites with the opposite dorsal streak to form a narrow fascia (these remain separated in *P. vitifoliella*).

DISTRIBUTION: *Phyllocnistis vitegenella* is found in eastern North America, and appears to have been introduced in the West based on disjunct populations in Arizona, California, Nevada, and Oregon. In the East, populations occur in Ontario, Quebec, and throughout much of the eastern US as far south as Florida, the Gulf Coast, and eastern Texas. As of 2024, we have records that range from the lower elevations in the mountains to the Coastal Plain.

FLIGHT COMMENT: Chambers (1871) reported that mines with larvae or pupae can be found from May-November, and the adults from June-November in Kentucky. As of 2024, our earliest record for mines is from early May, which suggests that the adults first start flying in late-April or very early May.

HABITAT: Local populations are strongly associated with wild grapes, which are the primary hosts. Grapes inhabit a variety of forest and edge habitats, and often become established after soil disturbance or timbering. Representative habitats include forest edges along roadways and trails, mature hardwood or mixed hardwood-pine forests, and floodplains where they often arch over trees and shrubs near the water's edge.

FOOD: Larvae feed on wild grapes (*Muscadinia* and *Vitis* spp.; Robinson et al., 2010; Eiseman, 2019). Some of the known hosts include Muscadine (*Muscadinia rotundifolia*), Possum Grape (*V. baileyana*), Fox Grape (*V. labrusca*), Riverbank Grape (*V. riparia*), and Frost Grape (*V. vulpina*). In North Carolina, Muscadine is a very common host in the Coastal Plain and Piedmont, while *Vitis* species, including Fox Grape, are the primary hosts in the mountains.

OBSERVATION METHODS: The adults rarely appear at lights and most records are based on leaf mines. Photographs of adults are needed to better document phenotypes that occur in North Carolina, and are best obtained by rearing adults from the mines.

NATURAL HERITAGE PROGRAM RANKS: GNR S4S5

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

COMMENTS: This species is often locally common where native grapes are present and appears to be secure within the state.