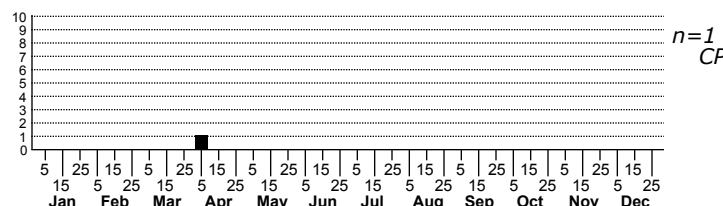
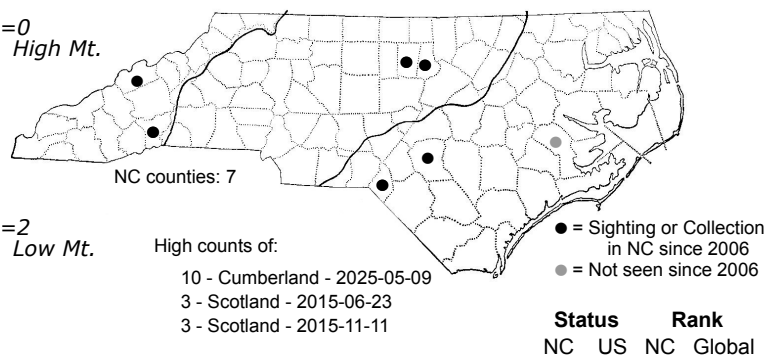
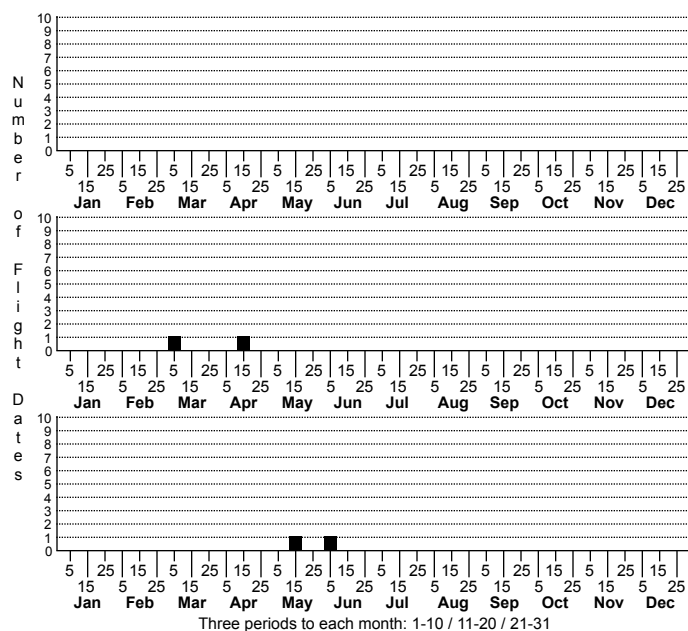


Parornix geminatella Unspotted Tentiform Leafminer Moth



FAMILY: Gracillariidae SUBFAMILY: Gracillariinae TRIBE: [Gracillariini]

TAXONOMIC_COMMENTS: The genus *Parornix* contains around 70 species of small moths that are mostly found in north temperate regions. They are well represented in North America, but many are difficult to distinguish on external morphology and require the examination of genitalia. The last major taxonomic treatment was by Dietz (1907). There are several undescribed species that are known, and a modern taxonomic treatment is needed.

FIELD GUIDE DESCRIPTIONS:

ONLINE PHOTOS:

TECHNICAL DESCRIPTION, ADULTS: Dietz (1907); Forbes (1923)

TECHNICAL DESCRIPTION, IMMATURE STAGES: Eiseman (2019)

ID COMMENTS: The following description is based on those of Dietz (1907) and Forbes (1923). The head is rough-haired, with the hairs more or less appressed on the face. There are two large tufts on the vertex that are directed more or less forward. The labial palp is smooth scaled, curved, and more or less ascending. It is mostly white, except for the third joint that has a wide, dark fuscous band (sometimes obscure) that leaves only the base and extreme apex white. The maxillary palp is distinct and projects forward. The antenna is grayish brown with darker annulations, and about as long as the forewing. The thorax and head are grayish fuscous, and the tufts darker. The ground color of the forewing is a mixture of dark brown and powdery gray. It is uniformly colored and does not have whitish scales intermixed near the inner margin, as seen on some closely related forms. The costal striae are rather obscure and more distinct on the costa. The outer four or five striae usually extend beyond the middle of the wing, and the spaces between the striae are conspicuously darker. There is a patch of blackish, semi-erect scales near the middle of the dorsal margin. The cilia are grayish with a well-defined dark line through the middle that extends from the tornus to just beyond the apex. The legs are grayish brown on the proximal half, while the tarsi are white with dark marks near the joints. The adults typically rest with the front of the body raised far above the substrate. This species is similar to at least one undescribed species of *Parornix* (microleps.org) and perhaps others. It is best identified by genitalia, barcoding, the leaf mines, or adults that were reared from the mines.

DISTRIBUTION: *Parornix geminatella* appears to be widespread in the eastern and central North America, but there are relatively few records that are scattered across a wide area. The range extends from Ontario and Quebec, southward to northern Florida, and westward to Minnesota, South Dakota, Colorado, and Arkansas. This species appears to occur statewide in North Carolina.

FLIGHT COMMENT: Copenhafer and Parker (1938) reported that adults emerged in April in Kansas. The life cycle takes about a month and there can be up to eight overlapping broods that continue through the fall. As of 2023, We have only two dated record from April and May.

HABITAT: The larvae are polyphagous on members of the rose family and feed on both commercial species (apples; pears) and on native species. They occupy a variety of habitats, including hardwood forests, forest edges, fencerows, orchards, and urban environments.

FOOD: Larvae feed on members of the Rosaceae. Eiseman (2022) lists species of hawthorn (*Crataegus*), quince (*Cydonia*), apple (*Malus*), cherry (*Prunus*), and pear (*Pyrus*). In North Carolina, we have records for Black Cherry (*Prunus serotina*) and a serviceberry (*Amelanchier* sp.).

OBSERVATION_METHODS: The adults appear to only rarely visit lights. We recommend rearing adults from leaf mines.

NATURAL HERITAGE PROGRAM RANKS: GNR S2S4

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

COMMENTS: