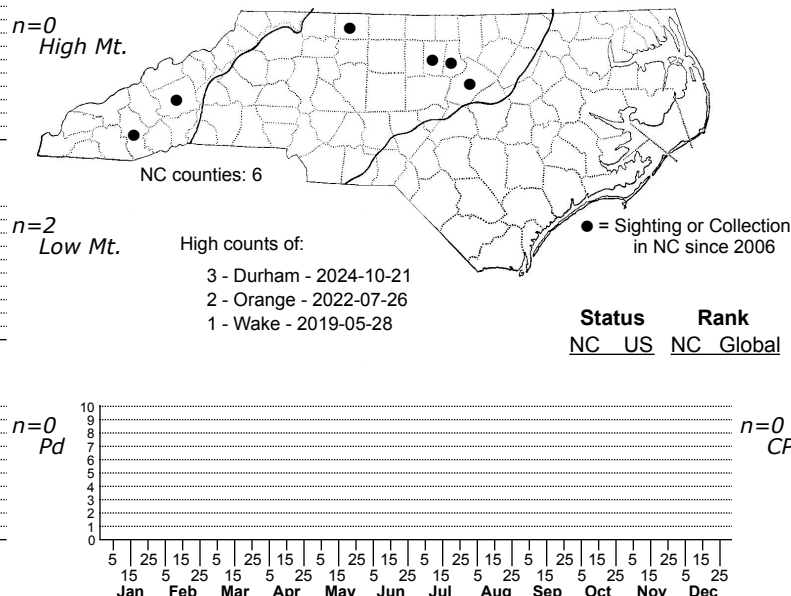
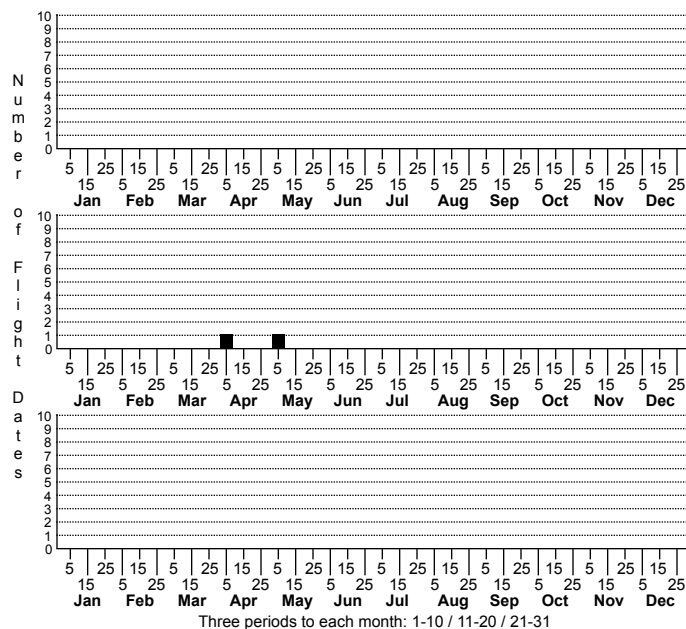


Parornix preciosella None



FAMILY: Gracillariidae SUBFAMILY: Parornichinae TRIBE:

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)

TECHNICAL DESCRIPTION, IMMATURE STAGES: Dietz (1907)

ID COMMENTS: This is a distinctively marked *Parornix* with five costal streaks and three dorsal streaks on a dark brown ground. The following detailed description is based on that of Dietz (1907). The labial palp is mostly white, with the second and third joints having a dark fuscous band occupying the middle portion of each. The face is silvery white, while the vertex is dark brown with sparsely interspersed white scales. The antenna is about as long as the forewing, and is dark brown with fine white annulations. The thorax is dark brown, with intermixed silvery white scales. The forewing ground color is dark bronze-brown, with markings that are pure silvery white. There are five short costal streaks. The first is close to the base, is slightly oblique posteriorly, and crosses the fold. The second is at one-third and is posteriorly oblique. It usually connects with the first dorsal streak to produce a curved fascia that is widest on the dorsal margin. The third streak is at one-half, is posteriorly oblique, and does not reach the fold. The fourth streak is at about four-fifths, runs perpendicular to the costal margin, and reaches to the middle of the wing. The fifth is just before the apex, extends into the cilia, and reaches nearly to the dorsal margin. There are three dorsal streaks. The first forms a fascia with second costal streak. The second and third are at about two-thirds and three-fourths, and in-between the two closest costal streaks. The fringe is dark brown with a diffuse, broad zone of white in the middle. The hindwing is grayish-fuscous, and the fringe concolorous. The legs are dark fuscous proximally, with white tarsi that are banded with dark fuscous.

DISTRIBUTION: *Parornix preciosella* is found in eastern North America at mostly northern latitudes. Scattered populations have been found in Ontario, Vermont, Connecticut, Massachusetts, New York, New Jersey, Pennsylvania, Maryland, Ohio, and North Carolina. As of 2024, we have records from the Piedmont and from both low and high-elevation sites in the Blue Ridge.

FLIGHT COMMENT: Adults have been observed from June through October in areas outside of North Carolina, with a seasonal peak in July through September. As of 2024, our two adult records are from early-April and early-May. Local populations in North Carolina are likely multivoline.

HABITAT: The preferred habitats are poorly documented, but are likely acidic woods that support blueberries. Blueberries appear to be the primary hosts in North Carolina. They can be found in a variety of habitats within the state, ranging from bogs, swamps, and other wetlands, to open woods, upland forests, and heath balds.

FOOD: The known hosts include both blueberries (*Vaccinium*) and Choke Cherry (*Prunus virginiana*) (Eiseman, 2022); specific hosts include Lowbush Blueberry (*V. angustifolium*), Northern Highbush Blueberry (*V. corymbosum*), and Black Highbush Blueberry (*V. fuscum*). In North Carolina, all of our records as of 2024 are from blueberries, including Black Highbush Blueberry.

OBSERVATION_METHODS: The adults are attracted to lights. We have much to learn about the larval ecology, and recommend searching for mines on blueberries or other hosts and rearing the adults.

NATURAL HERITAGE PROGRAM RANKS: GNR S3S4

STATE PROTECTION:

COMMENTS: This species appears to be at the southern limit of its range and is uncommon in the state, with only a few records as of 2024. Additional information is needed on its distribution and abundance before we can assess its conservation status.