





FAMILY: Gracillariidae SUBFAMILY: Gracillariinae TRIBE: [Gracillariini] TAXONOMIC\_COMMENTS: The genus <i>Parornix</i> 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:

ID COMMENTS: The following description is based in part on those of Dietz (1907) and Forbes (1923). The head is roughhaired, 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, with the third joint having a wide, dark fuscous band in the middle. The second joint has a small, but distinct dot near the apex. The maxillary palp is distinct and projects forward, and the antenna is about as long as the forewing. The head is gray and strongly intermixed with brown on the vertex. The thorax is grayish-fuscous with the sides darker. The forewing is dark brown to blackish brown. There are seven to nine whitish costal striae that are nearly equidistant and extend about a third of the way across the wing. The ground color between the striae is dark brown. The plical spots are well-developed and reach the inner margin. The fringe of fresh specimens has three entire, dark lines that are most evident in the dorsal fringe. The lines tend to converge towards the apex so that the fringe at the apex is tipped with blackish scales.

DISTRIBUTION: <i>Parornix vicinella</i> is found in eastern North America and has northern affinities. Scattered populations have been found in southern Canada (Manitoba; Ontario; Quebec; Nova Scotia), and in the Appalachian region of Pennsylvania, Virginia, eastern Tennessee and western North Carolina. As of 2021, we have only two records from the southern mountains.

FLIGHT COMMENT: Adult records for areas outside of North Carolina are from May through August. We have a single adult record from June and a larval record from late September.

HABITAT: This species is only known to feed on Yellow Birch (Robinson et al., 2010), which is found in mesic hardwood forests at higher elevations in the mountains. We have one low elevation site in the mountains, which suggests that Sweet Birch or other birches may be used.

FOOD: Based on a very small number of observations, the only known host is Yellow Birch (<i>Betula alleghaniensis</i>) (Robinson et al., 2010).

OBSERVATION\_METHODS: The adults appear to occasionally visit lights. We recommend searching for the mines on Yellow Birch or other birches in the mountains to better document the larval ecology and habitat use.

NATURAL HERITAGE PROGRAM RANKS: GNR [SU]

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

COMMENTS: This is a seemingly rare species with only two documented records as of 2021.

March 2025

The Moths of North Carolina - Early Draft