





FAMILY: Gracillariidae SUBFAMILY: Gracillariinae TRIBE: [Gracillariini] TAXONOMIC\_COMMENTS: The genus <i>Cryptolectica</i> includes three recognized species in North America.

FIELD GUIDE DESCRIPTIONS: ONLINE PHOTOS: TECHNICAL DESCRIPTION, ADULTS: Braun (1914) TECHNICAL DESCRIPTION, IMMATURE STAGES: Braun (1914); Eiseman (2019).

ID COMMENTS: <i>Cryptolectica strigosa </i> has pale brownish forewings with a series of seven oblique white lines that are roughly equidistant and parallel. The third line forks below the fold, and the fourth and fifth are slightly interrupted in the middle. There is a short white streak at the apex and a similar one beyond it that crosses the cilia. The legs are whitish gray with broad dark annulations (Braun 1914). Individuals characteristically rest with the front of the body raised well above the surface of the substrate.

DISTRIBUTION:  $\langle i \rangle$ Cryptolectica strigosa $\langle i \rangle$  is found in eastern North America. Scattered populations occur in southern Canada (Ontario; Quebec) and in the US from Massachusetts and neighboring states westward to Ohio, and southward to KY, eastern Tennessee, and western NC. As of 2024, records for NC are mostly from lower-elevation sites in the Blue Ridge and the northern Piedmont. White Oak and Chestnut Oak are widespread in the eastern US, so factors other than host species availability likely determine this species southernmost and easternmost range limits.

FLIGHT COMMENT: Jim Petranka studied a population in Madison Co., North Carolina and observed the adults almost year-round. In this population the adults overwinter and occasionally appear at lights on warm fall and winter nights. Breeding and egg-laying occurs in late-March through early-May after the leaves of oaks are fully expanded. Occupied mines are present in oak leaves in May, followed by a seasonal peak in adult numbers in June and July. The adults at this site appeared to aestivate during the hottest summer moths then became active outside of shelters with the arrival of cooler seasonal temperatures. Jim Petranka observed a thousand or more adults on multiple occasions in a small tool shed in August through early September that appeared to be aestivating. They became more active by mid-September and dispersed into the surrounding forest shortly thereafter. The adults began reappearing in large numbers the following year in early to mid-July, which presumably represents the emergence of adults from the first brood. We have yet to see any evidence of a second brood being produced in North Carolina.

HABITAT: Local populations often reach high densities in mesic to drier hardwood forests that support White Oak and Chestnut Oak. White Oak and Chestnut Oak are primary hosts for the larvae, and local populations are presumably restricted to sites that have one or both of these species. The occurrence of large numbers of adults in a darkened tool shed in Madison County, and reports of large numbers gathering in dark outbuildings, suggest that large hollow trees may provide important microhabitats for these small moths.

FOOD: The larvae feed on members of the white oak group and have been observed using both White Oak ( $\langle i \rangle$ Quercus alba $\langle i \rangle$ ) and Chestnut Oak ( $\langle i \rangle$ Q. montana $\langle i \rangle$ ) in North Carolina. They also will readily use Burr Oak ( $\langle i \rangle$ Q. macrocarpa  $\langle i \rangle$ ) wherever it is planted as an ornamental.

OBSERVATION\_METHODS: The conspicuous leaf mines can be located by searching the foliage of White Oak or Chestnut Oak after the leaves are fully formed in the spring. The foliage of oak seedlings or small saplings often have numerous mines. The adults are attracted to both black lights and incandescent lights, but generally prefer areas with dim lighting such as window panes or areas that are several feet from a bright light.

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 appears to be locally common in some areas of the lower mountains. Local populations show no evidence of declines and the species appears to be secure in North Carolina.