

FAMILY: Tortricidae SUBFAMILY: Olethreutinae TRIBE: Eucosmini TAXONOMIC_COMMENTS: <i>Gretchena</i> is a New World genus with 12 recognized species. Eleven species occur in North America, and eight of these are endemic to eastern North America.

FIELD GUIDE DESCRIPTIONS: ONLINE PHOTOS: TECHNICAL DESCRIPTION, ADULTS: Heinrich (1923); Gilligan et al. (2008) TECHNICAL DESCRIPTION, IMMATURE STAGES:

ID COMMENTS: The following description is based in part on that of Heinrich (1923) who examined specimens from Texas, Pennsylvania and West Virginia. The antenna is fuscous brown. The labial palps, upper face, head and thorax are sordid brown, while the inner sides of the palps are sordid white, and the lower face dirty ocherous white. The forewing has an overall brownish cast and is marked with black scaling. The inner margin has a light brownish, semicircular mark just beyond the middle that is followed posteriorly by a similarly-colored ocellus. Blackish scaling is concentrated as a wide boundary around the anterior half of the semicircular mark, and near the anterior and costal edges of the ocellus as patches, so that when viewed from above, resting individuals often appear to have the mark on the inner margin more-or-less surrounded by black. Raised scale patches are usually evident on the semicircular mark and along the inner margin at around one-fourth the wing length. The costa has four or five dark, thick dashes along the outer half, with the one at the apex most conspicuous. The cilia are dark fuscous with a couple of very faint pale dashes below the apex. The hindwing is smoky fuscous, and has smoky cilia with a pale median shade and a very fine pale line at the base.

Gilligan et al. (2008) note that specimens in good condition can be identified by the brownish cast of the forewing (worn specimens appear to be more grayish). The oval-shaped mark on resting individuals that is surrounded by blackish scales when viewed dorsally also appears to be a good field mark for North Carolina specimens. Males also have black sex scaling that is diagnostic for this species (see structural features below).

DISTRIBUTION: <i>Gretchena concitatricana</i> is rather broadly distributed across much of the eastern US and in adjoining areas of Ontario. In the US the range extends from Maine southward to South Carolina and Florida, then westward to Texas, Oklahoma, Kansas, western Tennessee and Illinois. As of 2024, our records are all from the Piedmont and lower-elevation sites in the Blue Ridge.

FLIGHT COMMENT: The adult have been observed from April through August in different areas of the range. As of 2024, most of our records are from March and April, with two records from June and July that may reflect a second generation.

HABITAT: Local populations are generally associated with forested habitats, as well as forest edges and semi-wooded residential neighborhoods.

FOOD: Naughton (1970) reported that the larvae feed on walnuts, and Black Walnut ($\langle i \rangle$ Juglans nigra $\langle i \rangle$) has been reported as a host (Miller, 1987; Lam et al., 2011).

OBSERVATION_METHODS: The adults are attracted to lights.

NATURAL HERITAGE PROGRAM RANKS: GNR[S2S3]

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 uncommon in North Carolina, but more information is needed on its distribution, abundance and life history before we can accurately assess its conservation status.