



Olethreutes concinnana None

FAMILY: Tortricidae SUBFAMILY: Olethreutinae TRIBE: Olethreutini

TAXONOMIC_COMMENTS: <i>Olethreutes</i> is a large genus with over 130 recognized species worldwide. North America has around 80 recognized species, with at least 37 species occurring in North Carolina. Some species are very difficult to identify due to interspecific similarities in color and forewing pattern and only subtle differences in genitalia (Gilligan et al., 2008). In many instances, knowledge of the host plant is essential for a confident determination. All of the Nearctic species are leaf-tiers or leaf-rollers on deciduous trees and shrubs.

FIELD GUIDE DESCRIPTIONS: ONLINE PHOTOS: TECHNICAL DESCRIPTION, ADULTS: TECHNICAL DESCRIPTION, IMMATURE STAGES:

ID COMMENTS: This species has an overall olive-brown to yellowish-brown appearance and is polymorphic, with individuals being either heavily dusted with black scales over the basal four-fifths of the wing, or with little dusting so that the underlying patterning is visible. The following description is for the undusted forms. The thorax and head has a mixture of light-brown and blackish scale patches, and the thoracic tuft is black. The larger marks on the forewing have a mixture of black and olive-brown to reddish-brown scales, with the black scales tending to dominate and produces an overall dark appearance. All of the larger marks are margined with a line of pale scales, while the striated areas between the marks vary from yellowish-brown to leaden-black and usually do not contrast strongly with the larger marks. A blackish, lobed, basal patch extends from the inner margin at around one-fourth the wing length to the center of the wing where it meets an interfascial band that separates it from the medial fascia. The medial fascia consists of relatively wide costal and middle teeth that have acute tips, and a dorsal patch that narrows posteriorly and usually fuses with the subtornal patch. The costal tooth is blackish at the base and is followed by three or four small, dark, costal spots and a prominent blackish apical spot. The basal half of the costa has a black spot about midway between the wing base and the costal tooth. The remaining mark is a postmedial bar that extends from the subcostal region at around four-fifths the wing length to the middle of the outer margin. The fringe has a mixture of alternating light brown and dark-brown patches, along with a dark basal line. The hindwing is brown, with a whitish fringe that has a dark brown basal line.

DISTRIBUTION: <i>Olethreutes concinnana</i> is primarily found in the eastern US, but also in a broad region of southern Canada that extends from British Columbia and Alberta eastward to Nova Scotia and Prince Edward Island. In the US, the range extends from Maine and other New England states westward across the Great Lakes region to Iowa and southern Wisconsin, and southward to Arkansas, western Tennessee, northern Georgia, South Carolina and North Carolina. As of 2024, most of our records are from the eastern Piedmont, with two from the northern Blue Ridge. The long flight season in the Piedmont suggests that local populations there may have two generations per year.

FLIGHT COMMENT: The adults have been observed from April through October in different areas of the range, with a seasonal peak in activity typically from June through August. As of 2024, our records range from early-May to late-September.

HABITAT: Local populations have been found in a variety of habitats such as meadows, forest edges, bottomlands, mesic forests and road corridors.

FOOD: Heinrich (1926) reported that blackberry ($\langle i \rangle$ Rubus $\langle i \rangle$) was a host, but Miller (1979) was unable to confirm the record (Gilligan et al., 2008). MJ Hatfield reared an adult from Cutleaf Coneflower ($\langle i \rangle$ Rubbeckia laciniata $\langle i \rangle$; BugGuide), and Ken Kneidel recently reared this species in North Carolina from Spotted Jewelweed ($\langle i \rangle$ Impatiens capensis $\langle i \rangle$).

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 host use, preferred habitats, and distribution and abundance before we can accurately assess its conservation status.