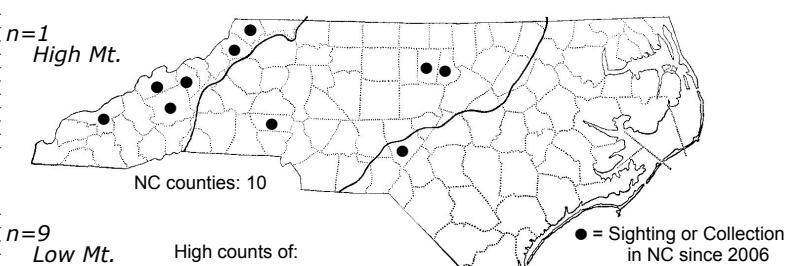
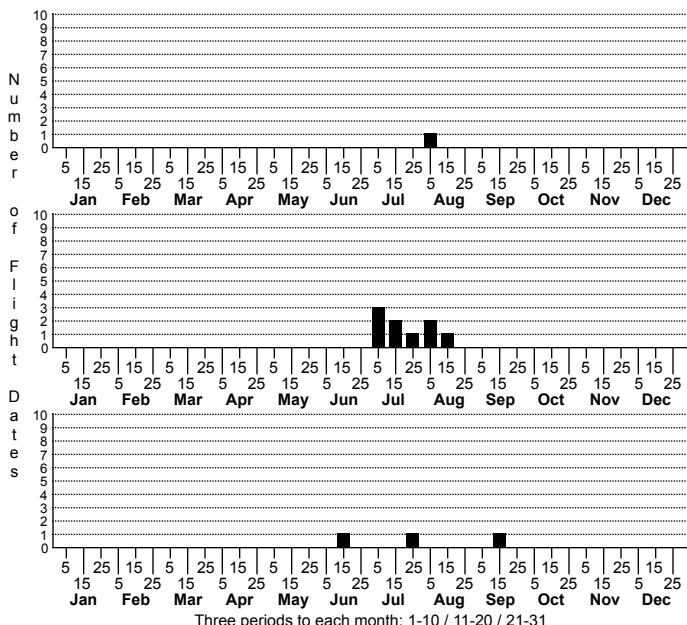


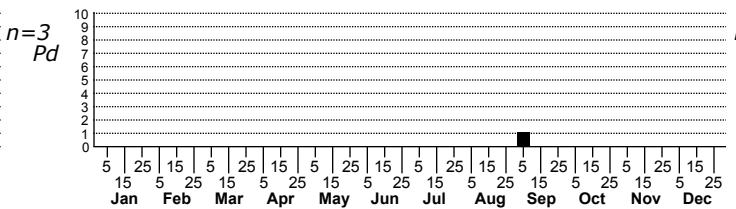
Olethreutes lacunatum Lacuna Moth



High counts of:
 1 - Madison - 2018-07-04
 1 - Durham - 2020-09-16
 1 - Moore - 2020-09-10

Status Rank
 NC US NC Global

n=1
CP



FAMILY: Tortricidae SUBFAMILY: Olethreutinae TRIBE: Olethreutini

TAXONOMIC COMMENTS: *Olethreutes* 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: The forewing of this species has tawny to light grayish-brown interfascial regions that are reticulated with darker striations. The median fascia and other larger marks tend to be reddish-brown to brown and are marginated with a line of pale scales. The medial fascia consists of three posterior projections that include a relatively large patch along the inner margin, an elongated tooth in the middle that is curved and often widest near the middle before tapering to an acute tip, and an elongated costal tooth that is similar to the middle tooth, but shorter and narrower, and with a more elongated tip. The costal and middle tooth are typically joined at their bases, but the patch along the inner margin is often separated from the two teeth by a gap. The other dark marks include an outwardly oblique basal patch that extends from the base of the inner margin before terminating near the center of the wing, a large pretornal patch along the inner margin, and an elongated, elliptical, postmedial bar. The pretornal patch and the first projection of the median fascia (patch) along the inner margin are usually separated by a gap and not fused. The area of the costa beyond the costal tooth has four small, reddish to blackish, triangular spots that alternate with paler strigulae. The fringe has a series of alternating dark brown and whitish patches, along with a dark basal line. The hindwing varies from brownish-gray to medium brown, and has a whitish fringe with a dark basal line.

Olethreutes lacunatum closely resembles *O. tilianum*, *O. permundana* and certain forms of *O. nigranum* (Heinrich, 1926; Gilligan et al., 2008). The costal and median teeth of *O. tilianum* are normally not joined at the base, or very weakly so, and are more finely tapered to a sharp point, while *O. permundana* typically has the two clearly joined at the base, with the costal tooth rounded and the median tooth more irregular and often bluntly rounded at the end. The light forms of *O. nigranum* are also similar, but the costal and median teeth are shorter. Specimens of *O. nigranum* that we have found to date tend to have heavy black dusting along the inner margin and can be readily distinguished from *O. lacunatum*. All of these species exhibit significant variation in patterning and in some instances may be difficult to assign to species based on external morphology.

DISTRIBUTION: *Olethreutes lacunatum* is found throughout much of the eastern US and in adjoining areas of southern Ontario and Quebec. In the US the range extends from Maine southward to South Carolina and Georgia, and westward to Mississippi, Louisiana, western Tennessee, Illinois, Iowa and Minnesota. This species is rare in most of the southeastern Coastal Plain. As of 2024, our records are all from the Piedmont and Blue Ridge, except for one record from the western Coastal Plain.

FLIGHT COMMENT: The adults have been observed from May through August in different areas of the range, with a peak seasonal flight in June and July. As of 2024, our records are from mid-June through mid-September.

HABITAT: Specimens are often taken in mesic hardwood forests and in semi-wooded residential neighborhoods.

FOOD: The host plants are poorly documented. Lam et al. (2011) report blueberry (*Vaccinium*), but this needs verification.

OBSERVATION METHODS: The adults are attracted to lights.

NATURAL HERITAGE PROGRAM RANKS: GNR[S2S4]

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 additional information is needed on its host plants, preferred habitats, and distribution and abundance before we can accurately assess its conservation status.