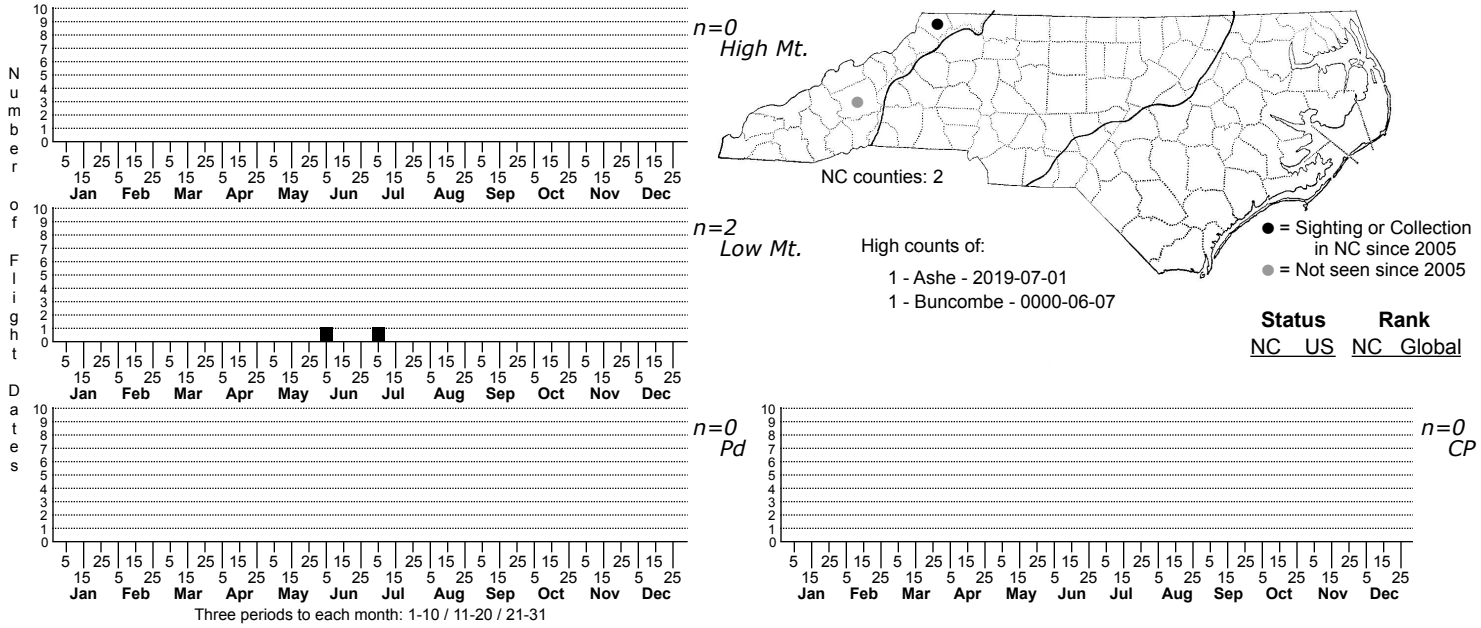
Olethreutes merrickana No common name



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: This species is best recognized by the prominent black subapical patch that is embedded within a large, reddish apical triangle. The following description is based mostly on that of Kearfott (1907) who examined 40 specimens from the eastern US. The head is yellowish-gray and the palp whitish yellow, with a blotch of fuscous on the outer end of the second segment, and a tiny dot of the same color at the base. The terminal segment is black and the antenna is light brown. The thorax is ashy gray mixed with olivaceous scales and has an olivaceous tuft.

The forewing lacks many of the marks that are commonly seen on Olethreutes species. These are replaced by fine mix of pale, dull brown, dull gray, and olivaceous striations. A faint dusting of dark scales extends over much of the wing base to the middle of the costa. The most conspicuous mark is a black subapical patch that is enclosed within a large, diffuse, triangular region of brownish-red to olivaceous-red scales near the apex. Three dark and rather diffuse olivaceous patches are usually evident. These include one that extends from the inner margin near the wing base to the fold near the center of the wing, a second below the fold just beyond the middle of the wing, and a third, subtornal mark along the inner margin. The subtornal patch is followed by a small costal patch of whitish shining scales with reddish and brown strigulae that forms the inner boundary for the red apical triangle.

Other marks of the forewing include a small reddish-blackish spot at the center of the wing and just basal to the larger black subapical patch, and a quadrate spot of red and black scales at the middle of the costa. The basal half of the costa is dotted with cream and black dots, while the apical half has pairs of whitish costal dashes that alternate with reddish-brown patches. The costal dashes continue as leaden-metallic lines which curve posteriorly and run towards the reddish, apical triangle. The fringe is pinkish, with a nearly black patch at the apex and three or four groups of blackish scales between the apex and the tornus. The hindwing is smoky brown with a white fringe.

This species is similar to O. hamameliana, but the latter has more reddish suffusion on the apical fifth of the forewing and there is only a trace of the black blotch that is so prominent on the postmedian band of O. merrickana (McDunnough, 1944a; Gilligan et al., 2008).

DISTRIBUTION: Olethreutes merrickana is endemic to eastern North America where it prefers cool climates. Specimens have been taken in southern Canada (Ontario; Quebec; PrinceEdward Island), and in the US from Maine and other New England states westward to Iowa and eastern Nebraska, and southward to eastern Tennessee, western North Carolina, West Virginia and Maryland. As of 2024, we have only two records - one is historical from Beutenmuller's expeditions to the Black Mountains and a more recent genitalia-based identification from Ashe County.

FLIGHT COMMENT: The adults have been found from May through August in different areas of the range, with a seasonal peak typically in June and July. Our two records as of 2024 are from early-June and early-July.

HABITAT: Local populations appear to be associated with rich woods.

FOOD: A series of adults were reared from American Hop-hornbeam (Ostrya virginiana; McDunnough, 1944a). Prentice (1965) also reported a larva from a hickory (Carya sp.) that requires additional verification.

OBSERVATION_METHODS: The adults are attracted to lights.

NATURAL HERITAGE PROGRAM RANKS: GNR[S1S2]

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 rare in North Carolina, with only one recent record from Ashe County.