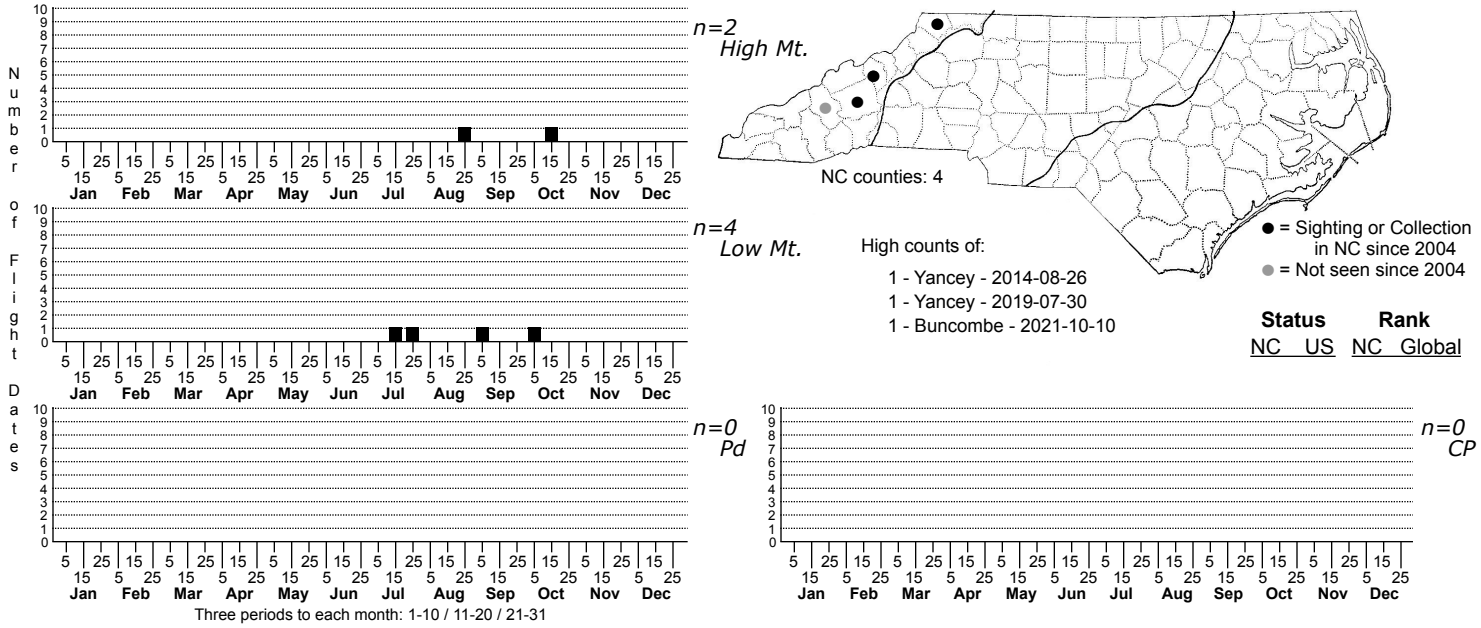
Acleris variana Eastern Black-headed Budworm Moth



FAMILY: Tortricidae SUBFAMILY: Tortricinae TRIBE: Tortricini
TAXONOMIC_COMMENTS:

FIELD GUIDE DESCRIPTIONS: Beadle and Leckie (2012)
ONLINE PHOTOS:
TECHNICAL DESCRIPTION, ADULTS:
TECHNICAL DESCRIPTION, IMMATURE STAGES: Gilligan and Epstein (2014)

ID COMMENTS: Acleris variana has many highly variable color morphs (see MPG for representative examples). Many of the color forms have prominent reddish or orangish longitudinal bands that are margined with white scales, while others have transverse whitish or grayish bands that contrast with the general ground color. Still others may be nearly pure white or have a combination of heavy whitish mottling on the basal half, along with a longitudinal band. The few records that we have as of 2024 are predominantly reddish forms with a reddish longitudinal stripe that is margined with white scales. We have one example of a specimen with transverse whitish bands that contrast with a blackish ground color. For identification purposes, the best approach may be to visit MPG, BugGuide and iNaturalist to find a phenotypic match.

DISTRIBUTION: Acleris variana is generally associated with cool climates. The range includes Alaska and portions of central and southern Canada, including the Yukon and Northwest Territories, and a broad swath from British Columbia eastward to New Brunswick, Nova Scotia and Prince Edward Island. In the U.S., the range extends from the New England states westward across the Great Lakes region to Minnesota and eastern North Dakota, and southward mostly through the Appalachian regions of West Virginia, Kentucky, Virginia, North Carolina and Tennessee. Isolated records are also known from central Mississippi, Montana and central California. As of 2024, our records are all from middle to higher-elevation sites in the Blue Ridge, including Mt. Mitchell.

FLIGHT COMMENT: The adults have been found from May through October in different areas of the range, with the peak seasonal activity typically in August and September. As of 2024, our records extend from mid-July through mid-October.

HABITAT: Our records as of 2024 are from mesic, middle- to high-elevation sites that support conifers such as hemlocks, spruce and fir.

FOOD: The larvae feed primarily on spruces and firs but also use other taxa such as hemlocks (Forbes, 1923; McDunnough, 1934; Keen, 1952; Schaffner, 1959; Powell, 1964; Prentice, 1966; Maier et al., 2004; Brown et al., 2008; Gilligan and Epstein, 2014). The reported hosts include Amabilis Fir (Abies amabalis), Balsam Fir (A. balsamea), Grand Fir (A. grandis), Alpine Fir (A. lasiocarpa), Tamarack (Larix laricina), Western Larch (L. occidentalis), Norway Spruce (Picea abies), Engelmann Spruce (P. engelmannii), White Spruce (P. glauca), Black Spruce (P. mariana), Colorado Spruce (P. pungens), Red Spruce (P. rubens), Sitka Spruce (P. sitchensis), Lodgepole Pine (Pinus contorta), Douglas-fir (Pseudotsuga menziesii), Eastern Hemlock (Tsuga canadensis), Western Hemlock (T. heterophylla), Mountain Hemlock (T. mertensiana) and Western Redcedar (Thuja plicata). The hosts have not been documented for North Carolina, but Eastern Hemlock and Red Spruce are the most likely candidates.

OBSERVATION_METHODS: The adults are attracted to lights.

NATURAL HERITAGE PROGRAM RANKS: GNR [S1S3]

STATE PROTECTION: Has no legal protection, although permits are required to collect it on state parks and other public lands.

COMMENTS: This species seems to reach its southern limits in the southern Appalachian Mountains of North Carolina and Tennessee and appears to be rare in the state. As of 2024, we have only four site records, including Mt. Mitchell.