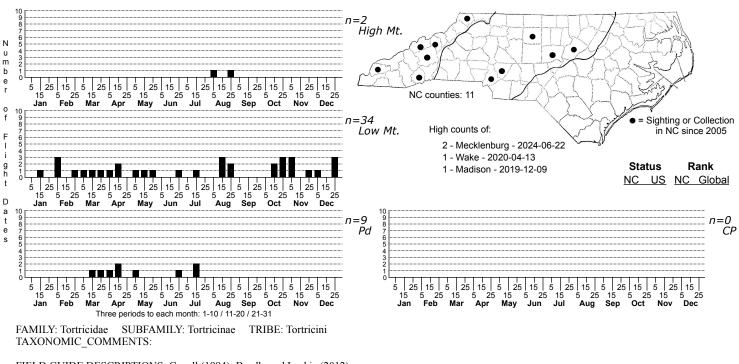
Acleris chalybeana Lesser Maple Leafroller Moth



FIELD GUIDE DESCRIPTIONS: Covell (1984); Beadle and Leckie (2012) ONLINE PHOTOS: TECHNICAL DESCRIPTION, ADULTS: TECHNICAL DESCRIPTION, IMMATURE STAGES: Geise et al. (1964).

ID COMMENTS: The following description is based in part on those of Fernald (1882) and Forbes (1923) and is most relevant to North Carolina specimens. The palps and head are light tan, while the thorax is concolorous except for a transverse, anterior blackish band behind the collar, and one or two black spots at the posterior tip. The ground color of the forewing is concolorous with the head and thorax and is overlain with dark brown to blackish marks, including widely-spaced specks. The most distinct mark is a broad, triangular patch on the middle of costa that extends from around one-fourth the wing length to three-fourths the length and terminates near the middle of the wing. The patch is commonly mottled with a mixture of light tan and dark brown scales, with the region along the proximal and distal edges often appearing as two diffuse, dark parallel lines. A diagonal, broken ridge of raised scales is present that begins on the inner margin near the middle of the wing and extends along the proximal edge of the trangular costal patch to the costa. The raised scales are commonly whitish and defined with black distally. A parallel line of scale patches that are more widely spaced and generally less distinct occurs at around one-fourth the wing length, with those near the inner margin contacting an oblique blackish dash. A third linear group of scale patches is often evident at around three-fourths the wing length that extends as a curved ridge from the proximal edge of the triangular costal patch. The hindwing is more or less concolorous with the forewing ground, but with a much lighter shade.

Most specimens in North Carolina conform to the description above, but specimens are occasionally encountered with a diffuse, blackish, longitudinal basal band that parallels the inner margin to about one-quarter of the wing length. Specimens from the northern U.S. have often been described as having a steel gray or pearly-gray ground color, but unworn specimens in North Carolina typically have a light tan ground.

DISTRIBUTION: <i>Acleris chalybeana</i> is found throughout most of the eastern U.S. and in adjoining regions of southern Canada (Ontario; Quebec; New Brunswick; Nova Scotia). In the U.S. the range extends from Maine southward through the Atlantic Coast states to northern Florida, and westward to northern Mississippi, Arkansas, eastern Kansas, Illinois, Wisconsin and Minnesota. This species is absent or rare in most areas of the southeastern Coastal Plain. As of 2024, our records are restricted to the Piedmont and Blue Ridge.

FLIGHT COMMENT: The adults have been observed during every month of the year in different areas of the range, with seasonal peaks typically in April and May, and again around October. As of 2024, we have records from mid-January through late-December. Based on data from the Blue Ridge, which provides our most comprehensive data set, local populations in North Carolina appear to have two or perhaps three generations per year, with adults from the final brood overwintering.

HABITAT: This species is generally associated with hardwood forests, particularly those where maples are well-represented.

FOOD: Maples appear to be an important host group, but several other deciduous hardwoods are used (Ferguson, 1975; MacKay, 1962; Geise et al., 1964; Prentice, 1966; Covell, 1984; Drooz, 1985; Brown et al., 2008; Beadle and Leckie, 2018; Blair, 2023). The reported hosts include Red Maple (<i>Acer rubrum</i>), Silver Maple (<i>A. saccharinum</i>), Mountain Maple (<i>A. spicatum</i>), Yellow Birch (<i>Betula alleghaniensis</i>), Paper Birch (<i>B. papyrifera</i>), American Hornbeam (<i>Carpinus caroliniana</i>), hazels (<i>Corylus</i>), American Beech (<i>Fagus grandifolia</i>), apples (<i>Malus</i>), American Hop-hornbeam (<i>Ostrya virginiana</i>), and Northern Red Oak (<i>Quercus rubra</i>). As of 2024, we have several records for individuals that were reared from rolled leaves of Red Maple (<i>Acer rubrum</i>).

OBSERVATION_METHODS: The adults are attracted to UV lights, and will visit bait during the cooler months of the year.

NATURAL HERITAGE PROGRAM RANKS: GNR [S3S4]

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

COMMENTS: This species can be locally abundant in the Blue Ridge, but is uncommon in the Piedmont.

March 2025

The Moths of North Carolina - Early Draft