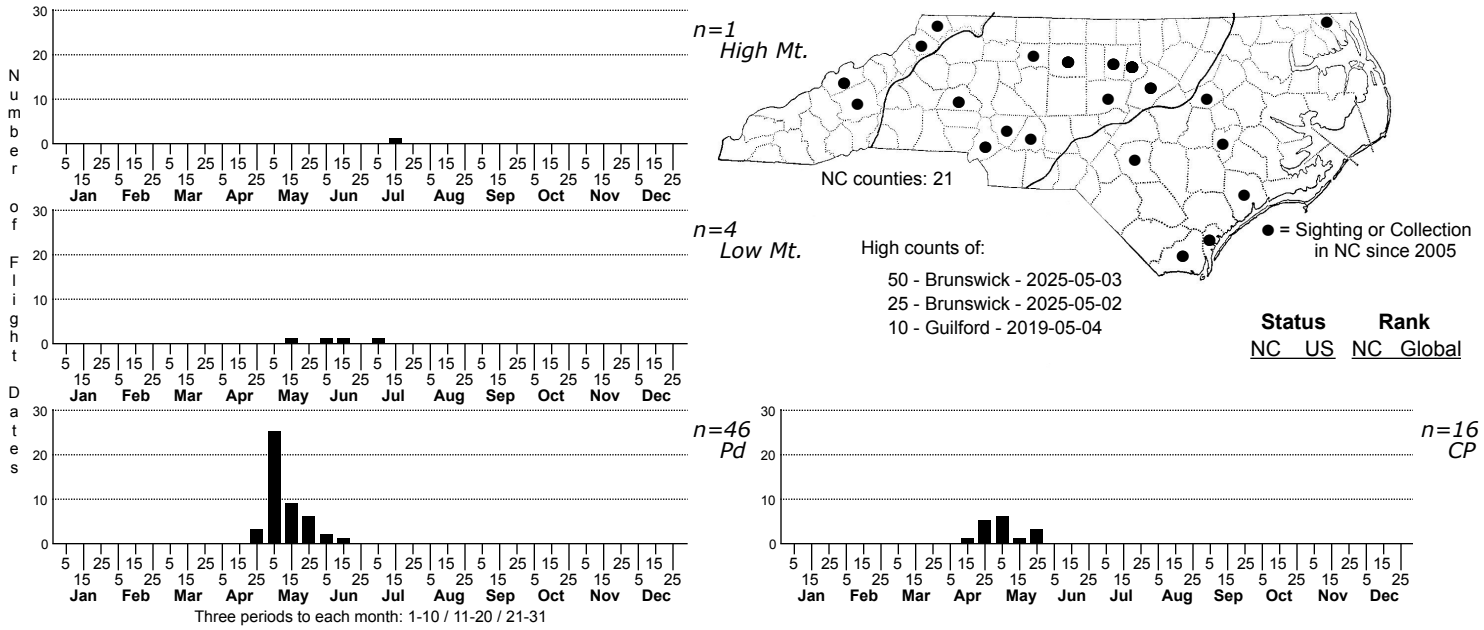
Acleris semipurpurana Oak Leaftier Moth



FAMILY: Tortricidae SUBFAMILY: Tortricinae TRIBE: Tortricini
TAXONOMIC_COMMENTS:

FIELD GUIDE DESCRIPTIONS: Covell (1984; as Croesia semipurpurana); Beadle and Leckie (2012)
ONLINE PHOTOS:
TECHNICAL DESCRIPTION, ADULTS:
TECHNICAL DESCRIPTION, IMMATURE STAGES:

ID COMMENTS: Acleris semipurpurana has several color forms, with most involving the variable expression of a purplish-brown central region on a lemony-yellow to yellowish-white ground color. The palps, head and thorax vary from whitish to lemon-yellow, and are often lighter than the ground color of the forewings. The forewing ground is most commonly various shades of lemon-yellow, with the apical third often having suffusions of white. The yellowish ground color typically fills most of the basal fifth of the wing, the central portion of the costa where it is often represented as a rectangular patch, and the subterminal area. The remainder of the wing is filled with purplish-brown coloration that is variably expressed. It can vary from a solid, prominent patch that fills the entire area, to isolated, smaller patches or bands that are separated by the ground color. A line of raised, dark scale patches that occur in the middle of the wing and on the apical fifth are often evident in specimens where the purplish-brown coloration is poorly expressed. In addition to the typical forms described above, specimens are occasionally seen that are entirely yellow to yellowish-white, with the usual markings showing as a different shade of yellow or white, or merely as wide reticulations (Forbes, 1923). Acleris semipurpurana might be confused with A. curvalana, but the latter has a raised yellow discal spot and brown coloration along the basal third of the costa that is not present on A. semipurpurana.

DISTRIBUTION: Acleris semipurpurana is found throughout the eastern U.S. and in adjoining areas of southern Canada from Ontario eastward to Nova Scotia and Prince Edward Island. In the U.S. the range extends from Maine southward to southern Florida, and westward to central Texas, Oklahoma, Kansas, Missouri, eastern Iowa, Illinois, Minnesota and northeastern North Dakota. Populations have also been found in Washington State that may reflect introductions. This species occurs statewide in North Carolina, but is relatively uncommon in the Blue Ridge and northern Coastal Plain.

FLIGHT COMMENT: The adults have been observed from February through October in different areas of the range, with individuals in the southernmost part of the range flying from February through May, and those in the northernmost areas from June through October. Populations in North Carolina are univoltine. As of 2024, our records range from late-April through early-July.

HABITAT: The majority of our records come from semi-wooded residential areas, where either oaks or cultivated plants such as roses and cherries could be used. The records from natural habitats come primarily from hardwood forests with oaks.

FOOD: Oaks appear to be the primary hosts, but other hosts are occasionally used (Forbes, 1923; Meyrick, 1938; Schaffner, 1959; Prentice, 1966; Nichols, 1968; Ferguson, 1975; Covell, 1984; Godfrey et al., 1987; Wagner et al., 1995a; Brown et al., 2008; Gilligan and Epstein, 2014; Marquis et al., 2019). The reported hosts include White Oak (Quercus alba), Scarlet Oak (Q. coccinea), Scrub Oak (Q. ilicifolia), Pin Oak (Q. palustris), Northern Red Oak (Q. rubra) and Black Oak (Q. velutina). Other reported hosts that appear to be used much less frequently include cherries (Prunus), roses (Rosa) and grapes (Vitis).

OBSERVATION_METHODS: The adults are attracted to lights and the larvae can be found in lead folds and ties on oaks.

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 is a fairly common species in oak forests and appears to be relatively secure within the state.