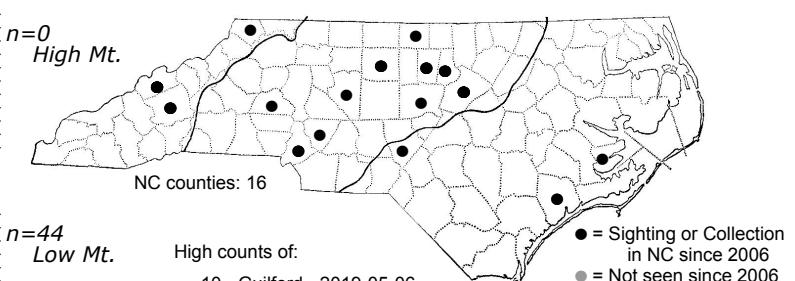
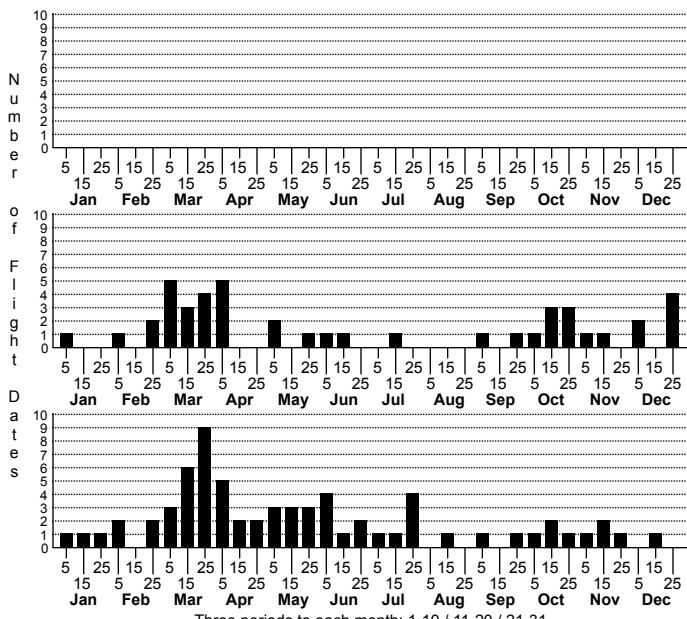


Gretchenia bolliana Pecan Bud Moth



Status	Rank		
NC	US	NC	Global

n=7
CP

FAMILY: Tortricidae SUBFAMILY: Olethreutinae TRIBE: Eucosmini

TAXONOMIC COMMENTS: <i>Gretchenia</i> is a New World genus with 12 recognized species. Eleven species occur in North America, and eight of these are endemic to eastern North America.

FIELD GUIDE DESCRIPTIONS:

ONLINE PHOTOS:

TECHNICAL DESCRIPTION, ADULTS: Gilligan and Epstein (2014)

TECHNICAL DESCRIPTION, IMMATURE STAGES: MacKay (1959)

ID COMMENTS: This species most commonly has an overall grayish color with varying amounts of light brownish dusting and fine blackish speckling, but some individuals may have a more brownish caste. The inner margin of the forewing has two prominent grayish marks that include an inwardly directed, triangular mark at around one-fourth, and a much larger and more rectangular-shaped mark that extends from around one-half the wing length to the outer edge. The anterior edge of the latter is outwardly oblique and both marks extend inward to near the center of the wing. Patches or irregular lines of blackish scaling are usually present where the two grayish marks on the inner margin meet, and along the outer margin of the posterior mark. The latter commonly form an irregular, jagged, black streak that narrows and projects to the apex. The raised scale tufts are prominent on the two grayish marks along the inner margin and give the forewing a bumpy appearance. The ocellus is poorly-defined, and the hindwing is uniformly grayish-brown.

<i>Gretchenia bolliana</i> resembles several other <i>Gretchenia</i>, especially <i>G. deludana</i> (Gilligan and Epstein, 2014). The latter has a much shorter flight season and tends to fly earlier in the year than <i>G. bolliana</i>. In addition, the black streaks on the forewing are noticeably narrower on <i>G. deludana</i>. Worn specimens of <i>G. bolliana</i> -- or the occasional specimen with poorly developed black streaks -- may require the examination of genitalia for a positive identification.

DISTRIBUTION: <i>Gretchenia bolliana</i> occurs throughout much of the eastern US and in bordering areas of Ontario. In the US, the range extends from Massachusetts and New York southward to central Florida, and westward to central Texas, central Oklahoma, central Kansas, central Nebraska, southern Wisconsin and Minnesota. As of 2024, most of our records are from the Piedmont and lower elevations in the Blue Ridge, with one site record from the Coastal Plain.

FLIGHT COMMENT: The adults fly year-round in the southernmost areas of the range and mostly from April through October at northern locales. Local populations in North Carolina appear to produce two or more generations per year that in many cases are overlapping. Adults from the final generation overwinter and begin breeding with the spring warm-up and leaf-out. They are often active in small numbers during warm winter nights. As of 2024, our records extend from January through December.

HABITAT: Most of our records come from semi-wooded residential neighborhoods where the larvae are likely using hickories and walnuts. Records from natural areas include mesic slopes and bottomland hardwoods.

FOOD: The larvae feed on walnuts and hickories (Kearfott, 1908; Forbes, 1923; Moznette et al., 1931; MacKay, 1959; Kimball, 1965; Prentice, 1966; Mizell and Schiffhauer, 1986; Godfrey et al., 1987; Robinson et al., 2010; Lam et al., 2011; Beadle and Leckie, 2018). The reported hosts include Water Hickory (<i>Carya aquatica</i>), Pecan (<i>C. illinoiensis</i>), Butternut (<i>Juglans cinerea</i>) and Black Walnut (<i>J. nigra</i>). Moznette et al. (1931) noted that this species has been reported using various species of hickories, but the specific species were not reported. Pecan may have been the primary host where <i>C. illinoiensis</i> grew naturally prior to its widespread planting elsewhere in the eastern US. Other members of the Juglandaceae were presumably used outside of the natural range of <i>C. illinoiensis</i>. In North Carolina, Tracy Feldman has reared a larva from Black Walnut.

OBSERVATION METHODS: The adults are attracted to lights.

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: