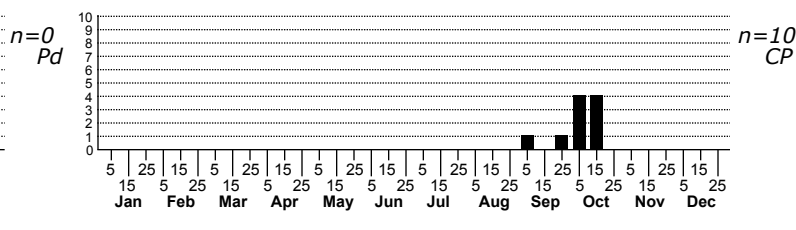
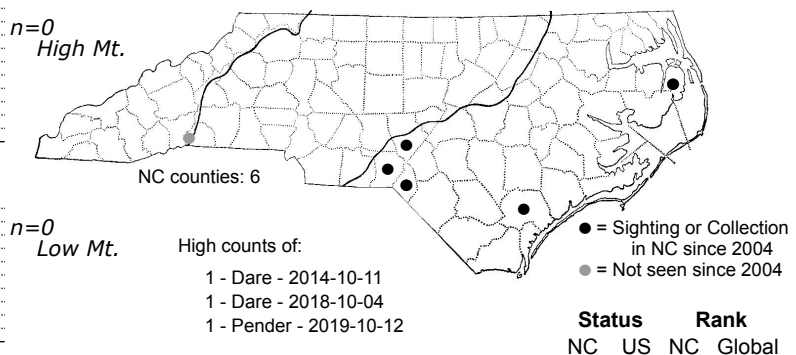


*Pelochrista quinquemaculana* Five-spotted Eucosma Moth



FAMILY: Tortricidae SUBFAMILY: Olethreutinae TRIBE: Eucosmini

TAXONOMIC\_COMMENTS: *Pelochrista* is a large Holarctic genus of tortricids with around 75% of the 226 described species being native to North America (Wright and Gilligan, 2017). The highest species richness occurs in the western half of North America. The genus has a long and confusing taxonomic history, with many of the species formerly placed in the genus *Eucosma*. Gilligan et al. (2014) conducted a comprehensive phylogenetic analysis of *Pelochrista*, *Eucosma*, and related genera and redefined the genus *Eucosma* and *Pelochrista* based on differences in female genitalia. The great majority of *Pelochrista* species are known only from adults, which likely reflects the fact that the larvae of most species bore into stem bases and roots and are concealed from view. Members of the Asteraceae are the likely hosts for most species (Wright and Gilligan, 2017), but much work need to be done to identifying the hosts.

FIELD GUIDE DESCRIPTIONS:

ONLINE PHOTOS:

TECHNICAL DESCRIPTION, ADULTS: Wright and Gilligan (2017)

TECHNICAL DESCRIPTION, IMMATURE STAGES:

ID COMMENTS: This is a boldly marked and distinctive species. The head, palps, and thorax are medium brown. The forewing is also medium brown -- but sometimes with fine darker striations -- and has several bold white marks (Wright and Gilligan, 2017). A small round white spot is present at the base that is followed by a broad white sub-basal band that extends from the inner margin to the costa. The band is widest in the middle and has a prominent bulge on the posterior half. Three large white spots are present in the postmedian area. One is a subapical spot on the costa, and the other two a pair (one costal and one dorsally in the position of the ocellus) at around three-fourths. We have one specimen in which the two costal spots are fused. The hindwing is brown with a paler fringe.

This species somewhat resembles *P. robinsonana* but the latter has a whitish head, a thorax with a median white streak, a smaller white basal spot, two transverse white bands in the proximal half of the wing (instead of just one), and a white spot with pinkish transverse bars in the position of the ocellus (Wright and Gilligan, 2017).

DISTRIBUTION: *Pelochrista quinquemaculana* is primarily found in the southeastern Coastal Plain and Piedmont. The main range extends from southern Louisiana eastward through the Gulf Coast states to Florida, then northward through the Atlantic Coast states to New Jersey and New York. Isolated populations also occur in east-central Kentucky. As of 2022, all of our records are from the Coastal Plain, except for one historical record from Polk County in the Piedmont.

FLIGHT COMMENT: Populations appear to be univoltine, with most adult flying from August through mid-November. Specimens have also been collected in Florida in February and April. As of 2022, out records are from early September through mid-October.

HABITAT: Almost all of our records are from xeric habitats that support pines and a diverse herbaceous ground layer.

FOOD: The host are undocumented.

OBSERVATION\_METHODS: The adults are attracted to lights, but perhaps only weakly so given that there are surprisingly few records across the range of this species.

NATURAL HERITAGE PROGRAM RANKS: GNR S2S3

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

COMMENTS: This is an apparently uncommon species both in North Carolina and throughout its range.