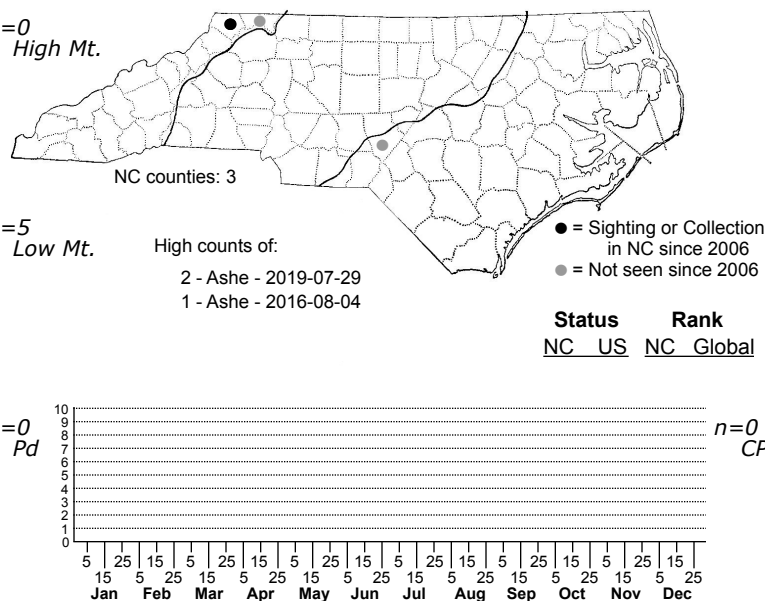
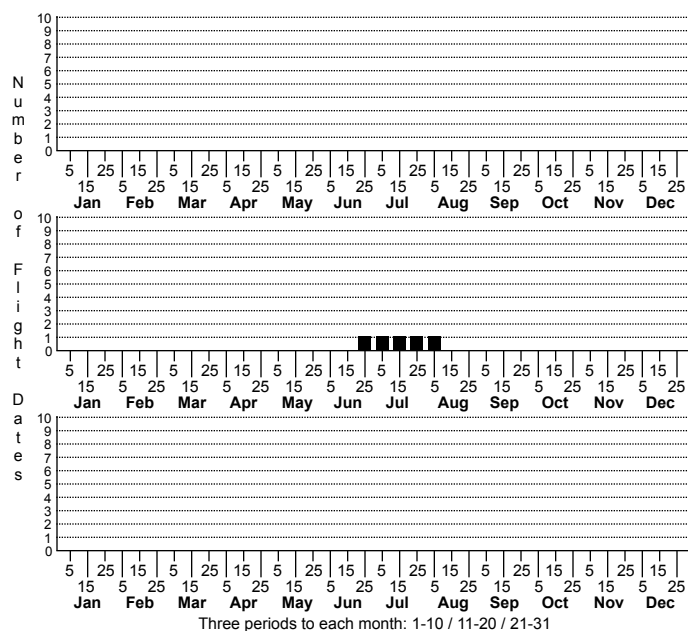


# *Pelochrista vagana* None



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: In this species the head, palps, thorax, and ground color of the forewings are concolorous and typically dark rusty brown. The forewing has vaguely discernible sub-basal and median fasciae that are represented by slightly darker shades of brown (Wright and Gilligan, 2017). The ocellus is inconspicuous and sometimes has two poorly delineated dark dashes. The costa has a series of inconspicuous light brownish-gray strigulae that are delimited by dark brown dashes, and the termen has a narrow salt-and-pepper-colored band from the tornus to the apex. The hindwing varies from light gray to light brown, and the tarsi have dark bands that are slightly darker than the ground color of the forewing.

This species is similar to *P. wandana*, which typically has heavier brown shading on the sub-basal and median fasciae, darker and better defined dark dashes on the costa, darker hindwings, and a mean forewing length of 7.8 mm versus 8.2 for *P. vagana*. It has not been found in North Carolina as of 2022, but occurs in nearby Kentucky and might be expected here.

DISTRIBUTION: Wright and Gilligan (2017) noted that this species is predominantly eastern in distribution, but specimens have been collected from a site in Washington state that agree with *P. vagana* in genitalia. Pohl et al. (2018) reported specimens from Alberta, Saskatchewan, Manitoba, Ontario, and Quebec, while Wright and Gilligan (2017) identified specimens in the eastern US from Arkansas, Georgia, Illinois, Indiana, Iowa, Kansas, Louisiana, Maine, Maryland, Missouri, New Jersey, New York, Ohio, Oklahoma, Pennsylvania, and Texas. As of 2022 we have only four site records, with three from lower elevations in the mountains, and one from a site in the Sandhills.

FLIGHT COMMENT: Local populations appear to be univoltine. Wright and Gilligan (2017) identified specimens that were collected from 29 May to 24 August, with most collected in June and July. As of 2022, our records extend from late-June through early August.

HABITAT: Limited observations suggest that the larvae use goldenrods as hosts. As of 2022, our records are from sites where goldenrods are present, including semiwooded residential areas, forest edges, and an early successional habitat in the Sandhills.

FOOD: Host use is poorly documented, with goldenrods (*Solidago* spp.) being the only documented host. The few host records include observations of larvae feeding on the roots of goldenrods in Washington state and one rearing record from goldenrods in Maryland (Wright and Gilligan, 2017).

OBSERVATION\_METHODS: The adults are attracted to lights.

NATURAL HERITAGE PROGRAM RANKS: GNR [S2-S3]

STATE PROTECTION:

COMMENTS: *Pelochrista vagana* appears to be uncommon to rare in the state, but we do not have sufficient information on host use, habitat requirements, and abundance to accurately assess its conservation status.