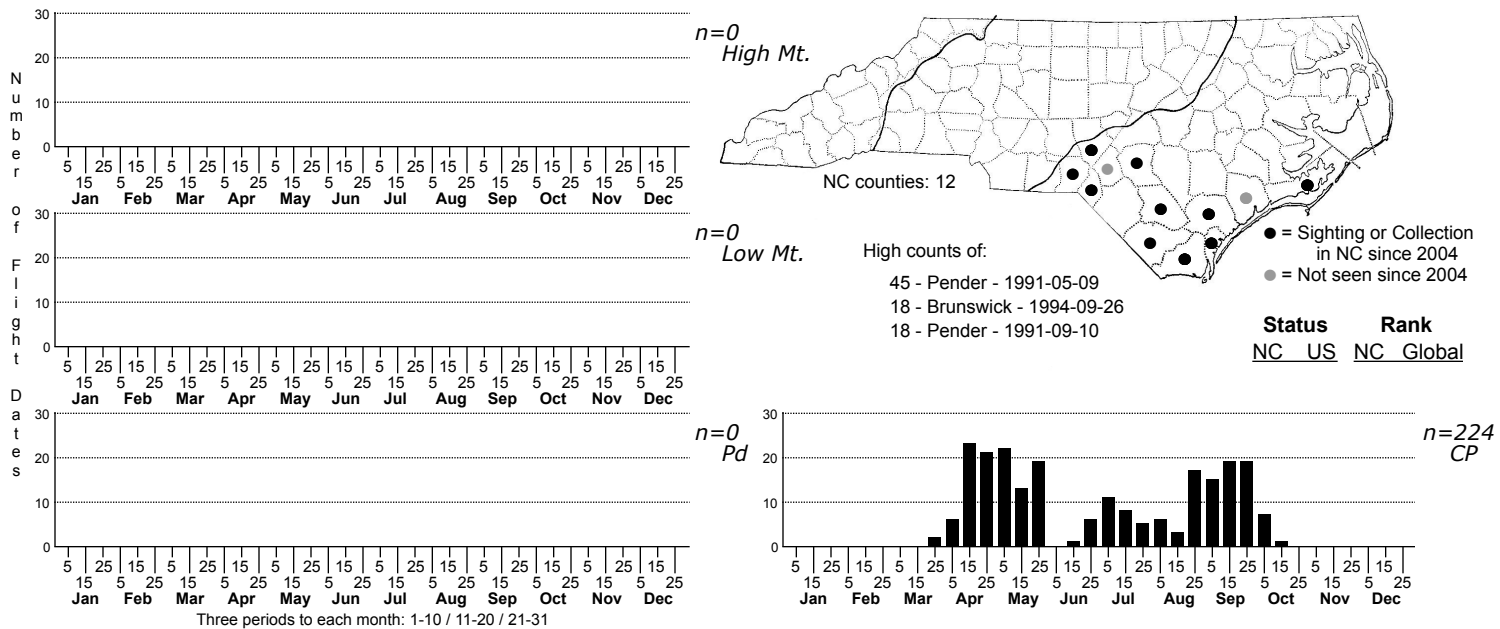


Euchlaena madusaria Scrub Euchlaena



FAMILY: Geometridae SUBFAMILY: Ennominae TRIBE: Angeronini

TAXONOMIC COMMENTS: One of sixteen species in this genus that occur in North America north of Mexico (Pohl et al., 2016), twelve of which have been recorded in North Carolina

FIELD GUIDE DESCRIPTIONS:

ONLINE PHOTOS: MPG, BugGuide, BAMONA, BOLD

TECHNICAL DESCRIPTION, ADULTS: Forbes (1948, as *E. vinnulentaria*); Rindge (1956b)

TECHNICAL DESCRIPTION, IMMATURE STAGES:

ID COMMENTS: The medial and basal areas are pale yellow, dusted with dark brown, with the veins and transverse lines usually dark and contrasting (Rindge, 1956). The outer area of the forewings is variably shaded with dark brown but usually has a pale streak or patch at the apex. The postmedian is doubled in the middle on all four wings, forming a geminate loop; this is especially noticeable on the undersides of wings (Rindge, 1956). Note that Forbes, 1948, described *E. astylusaria* as having many of these traits, as well as having the same features of the male genitalia. As a subspecies of *amoenaria*, however -- as it was treated by Rindge -- *astylusaria* is distinguishable by the swollen hind tibiae and hair pencils in the males.

DISTRIBUTION: All of our records come from the southern half of the Coastal Plain, including both the Fall-line Sandhills and Outer Coastal Plain

FLIGHT COMMENT: Recorded in North Carolina during most of the growing season, from late March to mid-October. The spring flight appears to be distinct, and there are also two peaks within the summer and fall period

HABITAT: All of our many records for this species come from Longleaf Pine habitats. Kons and Borth (2006) classify *madusaria* as a Xeric Oak-Pine habitat specialist, which is consistent with many of our records. However, we also have numerous records from wet-to-mesic savanna and flatwoods habitats. We consequently regard this species as more of a Longleaf Pine habitat generalist.

FOOD: McGuffin (1981) mentions records for Jack Pine, Douglas Fir, and Buffaloberry for Canadian populations. He also cites Woods for records on Blueberries. Based on the habitat preferences it displays in North Carolina, either Blueberries or Longleaf Pines seem possible as host plants here.

OBSERVATION_METHODS: Comes well to lights

NATURAL HERITAGE PROGRAM RANKS: G4 [S4S5]

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

COMMENTS: This species is a specialist in Longleaf Pine habitats but is regularly occurring in those habitats. As with other Longleaf habitat specialists, *madusaria* has undergone a major reduction in its range due to over-exploitation and conversion of its habitats since European colonization. Its habitat also continues to be degraded due to the effects of fire suppression. Conservation of large, well-connected examples of its habitat is necessary for its survival, but it appears to be relatively secure within the tracts currently managed to keep them in a natural state.