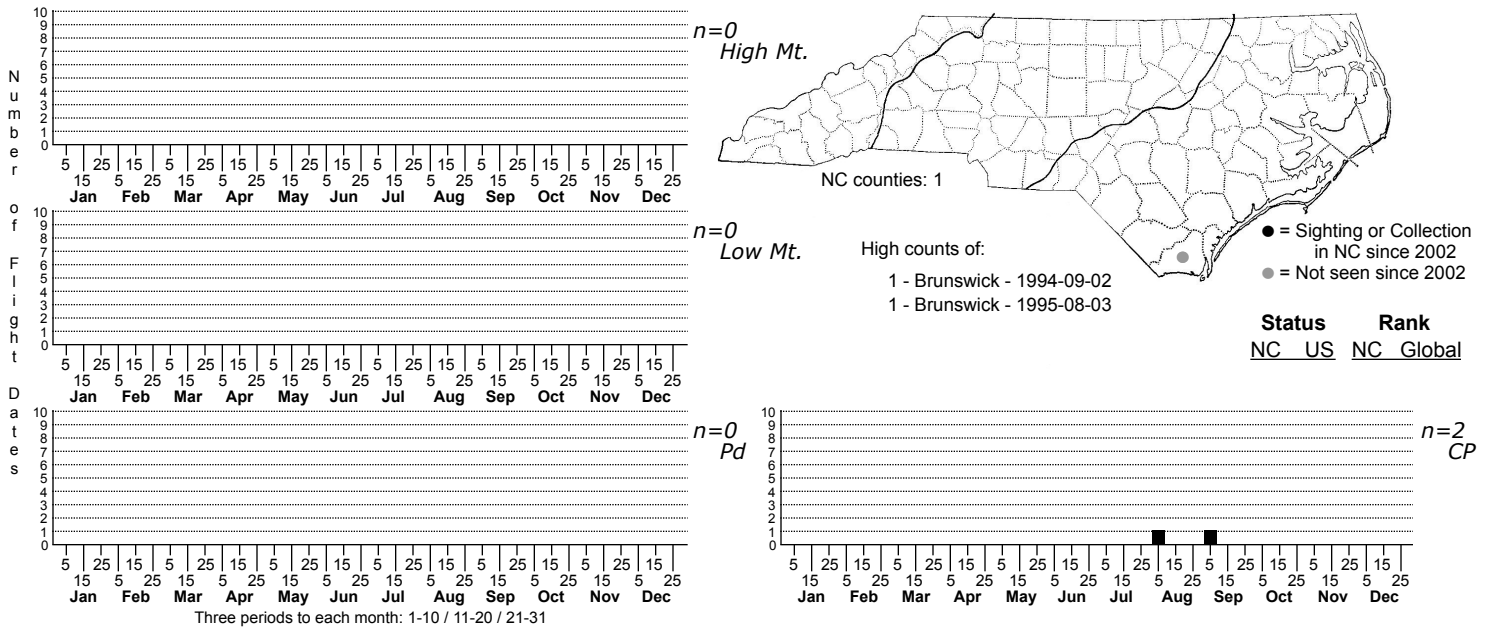


*Pimaphera sparsaria* No common name



FAMILY: Geometridae SUBFAMILY: Ennominae TRIBE: Boarmiini

TAXONOMIC\_COMMENTS: One of two species in this genus, both occurring in the southern United States (Cassino and Swett, 1927), only one of which has been recorded in North Carolina

FIELD GUIDE DESCRIPTIONS:

ONLINE PHOTOS: MPG, BugGuide, BAMONA, BOLD

TECHNICAL DESCRIPTION, ADULTS: Walker (1862); Cassino and Swett (1927; characteristics of the genus)

TECHNICAL DESCRIPTION, IMMATURE STAGES:

ID COMMENTS: A medium-small, pale gray Geometrid. The ground color of both fore and hindwings is cinereous (Walker, 1862) -- ash gray with a slight coppery tint. A dark discal dot exists on both sets of wings. The lines are single and thin, accented with points on the veins and waved in between; the antemedian is usually incomplete (Walker, 1862). A terminal row of dots also exists as does a dorsal line of single dark points running down the abdomen. The description of this species by Walker (1862) does not contain enough information to distinguish sparsaria from *P. percata* (see Species Comments). *Glenoides texanaria* is similar in markings and male antennae, but males possess conspicuous foveae on the forewings, which are absent in *Pimaphera* (Cassino and Swett, 1927). *Glena cribrataria* and *cognataria* are also similar and lack foveae but possess a double row of black points on the abdomen.

DISTRIBUTION: Known in North Carolina only from Bald Head Island

FLIGHT COMMENT: Our few records come from late summer

HABITAT: Our records come from an extensive stand of maritime forest that contains one of only two populations of Tough Bumelia in the state

FOOD: Possibly stenophagous on species of Bumelia (*Sideroxylon* spp.) (BugGuide, 2017; D. Wagner, pers. comm. to JB Sullivan)

OBSERVATION\_METHODS: All of our specimens were collected using blacklight traps. We have too few records, however, to estimate how well it comes to lights

NATURAL HERITAGE PROGRAM RANKS: [GNR S1S2]

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

COMMENTS: We have too few records to be completely certain about the status of this species in North Carolina. However, with the recently discovered association between *Pimaphera* and species of *Bumelia*, it seems no coincidence that this species has been found in one of the few places in the state where that plant species occurs. If a residential population does, in fact, exist at that site, then it is likely that sparsaria is narrow specialist on a highly restricted and declining habitat type. Along with maritime forests more generally, the stand at the one known site for this species is vulnerable to the effects of barrier island development as well as the naturally occurring -- and possibly increasing -- threat of hurricanes. If further studies confirm the residential status of this species, along with its restricted distribution and extreme host plant and habitat associations, then it clearly should be listed as Significantly Rare in North Carolina and given a high priority for conservation.