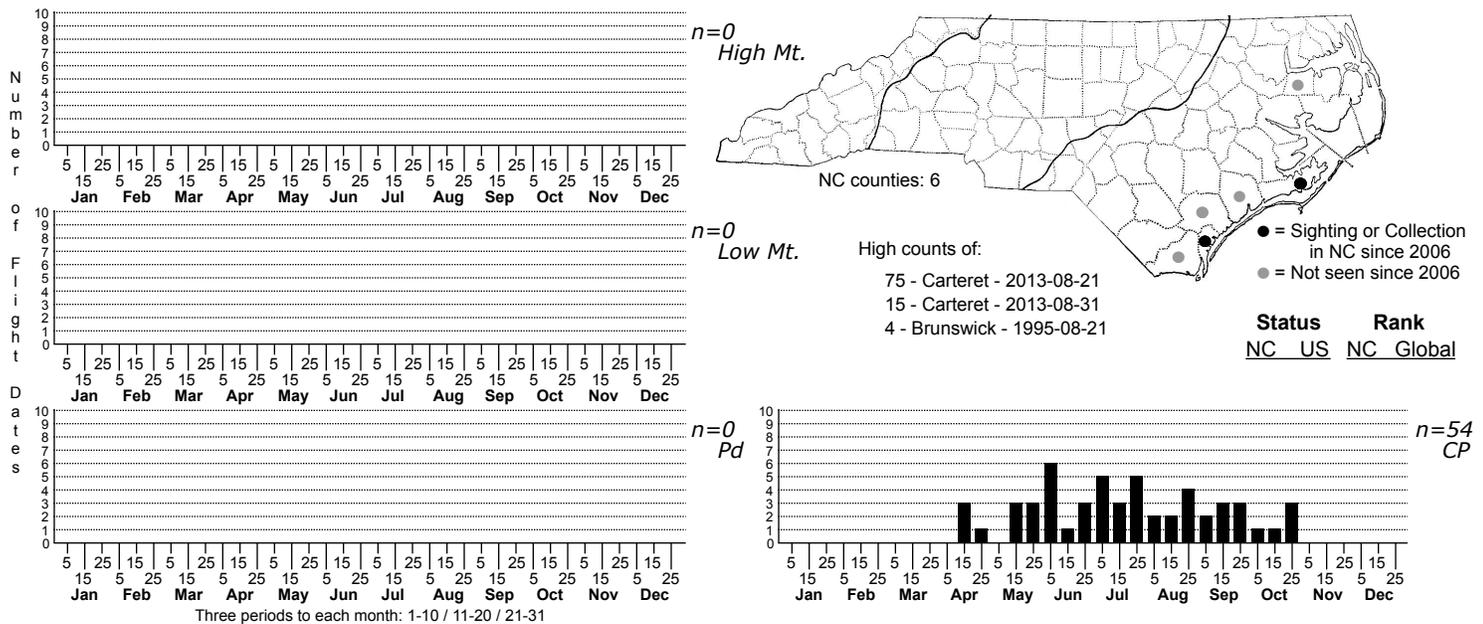


## *Macaria varadaria* Southern Angle



FAMILY: Geometridae SUBFAMILY: Ennominae TRIBE: Macariini

TAXONOMIC COMMENTS: This is one of 73 species in this genus that occur in North America, with 17 species occurring in North Carolina. In the latest checklist of North American Lepidoptera (Pohl and Nanz, 2023), North American members of the genus *Speranza* and *Epelis* were treated as junior synonyms of *Macaria*. Placed in the Baccharis-feeding Varadaria Species Group by Ferguson (2008), which also includes *M. marcescaria* and *M. imitata*, neither of which occurs in our region.

FIELD GUIDE DESCRIPTIONS: Covell (1984; as *Itame varadaria*)

ONLINE PHOTOS:

TECHNICAL DESCRIPTION, ADULTS: Ferguson (2008)

TECHNICAL DESCRIPTION, IMMATURE STAGES: Ferguson (2008)

ID COMMENTS: A moderately small, brown geometrid, with slightly pointed forewings. The ground color of both sets of wings is yellowish- to grayish-brown, dusted with darker brown (Ferguson, 2008). The antemedian, median, and postmedian are all dark brown, with the postmedian the strongest. The antemedian is convex or bent; the median is straight; and the postmedian is somewhat outwardly convex. The outer side of the postmedian is usually shaded with dark brown or reddish brown that may extend into the subterminal area (Ferguson, 2008). Discal dots are present on all wings, although often faint, which helps distinguish this species from the similar sized and patterned *Eumacaria madopata* and *Digrammias*.

DISTRIBUTION: Restricted to the Outer Coastal Plain

FLIGHT COMMENT: We have records for adults from April to October, with no sign of any separate flight periods.

HABITAT: Occurs on barrier islands, where it is probably naturally associated with marshes and other wetland edges. Also occurs further inland in the Coastal Plain in other shrubby habitats, including Long Leaf Pine and Peatland communities. However, in those areas, it may be associated with the growth of *Baccharis* associated with disturbed roadsides rather than with the natural communities themselves.

FOOD: Larvae are reportedly monophagous, feeding solely on Groundsel-tree (*Baccharis halimifolia*) (Ferguson, 2008), which was confirmed as a host in North Carolina by J.B. Sullivan.

OBSERVATION\_METHODS: Comes reasonably well to blacklight traps, although it is usually collected in small numbers in any one sample. None of our records come from bait or flowers.

NATURAL HERITAGE PROGRAM RANKS: G4 SNR [S2S4]

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

COMMENTS: Although this species is monophagous and probably was originally a habitat specialist, its host plant has spread far beyond its original range and in some areas is becoming an aggressive invader (Weakley, 2015). So far, however, the moth has not been recorded in North Carolina more than a few miles from the coast.