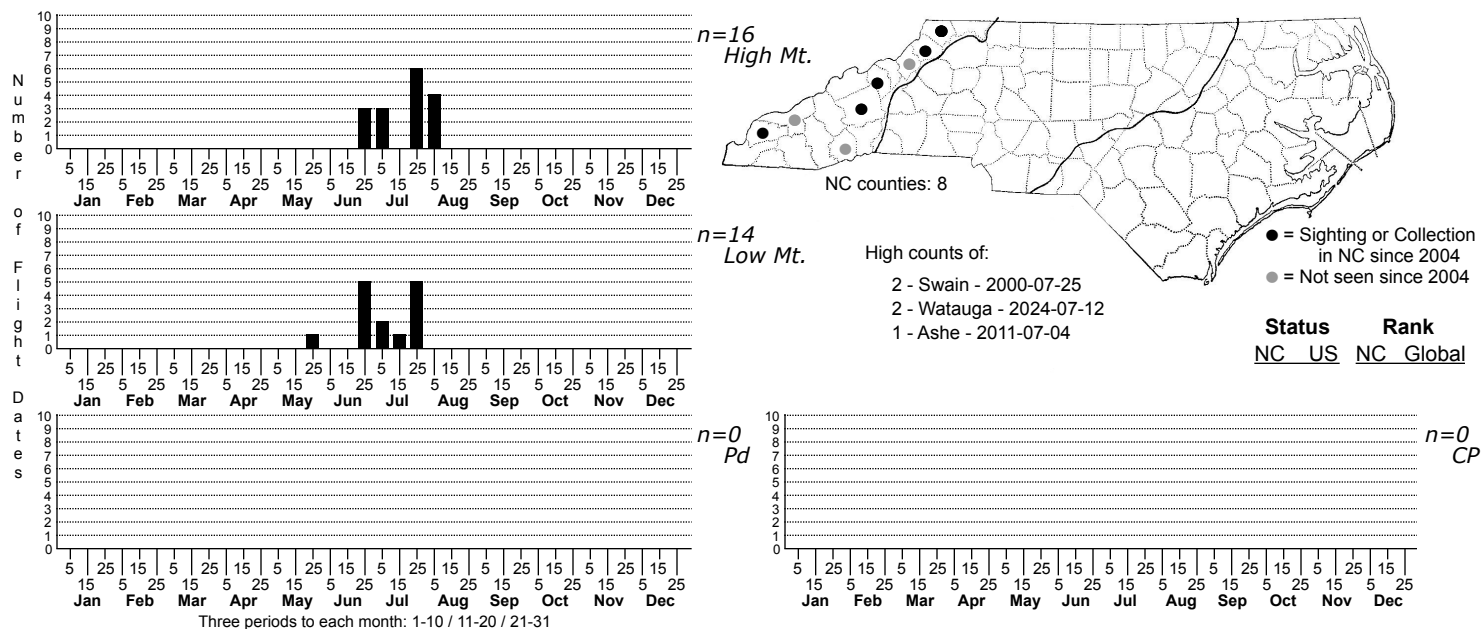


Macaria subcessaria Barred Angle



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 Ribes-feeding Bitactata Species Group by Ferguson (2008), which includes five other species in addition to *subcessaria*, none of which occur in our state.

FIELD GUIDE DESCRIPTIONS: Covell (1984; as *Itame subcessaria*); Beadle and Leckie (2012)

ONLINE PHOTOS:

TECHNICAL DESCRIPTION, ADULTS: Forbes (1948); Ferguson (2008)

TECHNICAL DESCRIPTION, IMMATURE STAGES: Wagner et al. (2001); Ferguson (2008)

ID COMMENTS: A medium-sized geometrid whose ground color is a uniform light gray on the forewings and contrastingly whitish- to yellowish-brown on the hindwing (Ferguson, 2008). The costa is marked with four black to dark brown spots located where the upper ends of the transverse lines normally occur but in this case with no other trace of the lines. The second of these spots is elongated, however, forming a black bar that extends to the lower end of the cell; the lower end of this bar is rounded, squared off or angled at the end (Forbes, 1948; Ferguson, 2008).

DISTRIBUTION: Restricted to the Blue Ridge and occurs primarily at high elevations.

FLIGHT COMMENT: Our records possibly indicate only a single, summer flight in North Carolina.

HABITAT: Most of our records come from the High Mountains, from habitats that include Spruce-Fir Forests (e.g., Clingman's Dome, Grandfather Mountain), Northern Hardwoods (e.g., Bluff Mountain, Three-top Mountain) and High Elevation Red-oak Forests (Mt. Jefferson State Park). At lower elevations, cove forest appear to be the primary habitat.

FOOD: Stenophagous, feeding solely on species of *Ribes* (Forbes, 1948; Wagner et al., 2001; Ferguson, 2008). In North Carolina, *Ribes cynosbati*, *Ribes glandulosum*, *Ribes rotundifolium* are the native species in this genus and are mostly found at high elevations (Weakley, 2015).

OBSERVATION METHODS: All of our records were obtained through blacklight trapping, with typically only a few species collected at any one time.

NATURAL HERITAGE PROGRAM RANKS: G4 S2S3

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

COMMENTS: We currently have just 19 records for this species in North Carolina, from eleven different sites. It occurs mainly in the High Mountains, where its host plants are most common, although a few have been found at lower elevations, almost all from Rich Cove habitats. Although its host plants grow in both forested and open habitats, all appear to be associated with cool, moist conditions and are likely to be at high risk due to climate change.