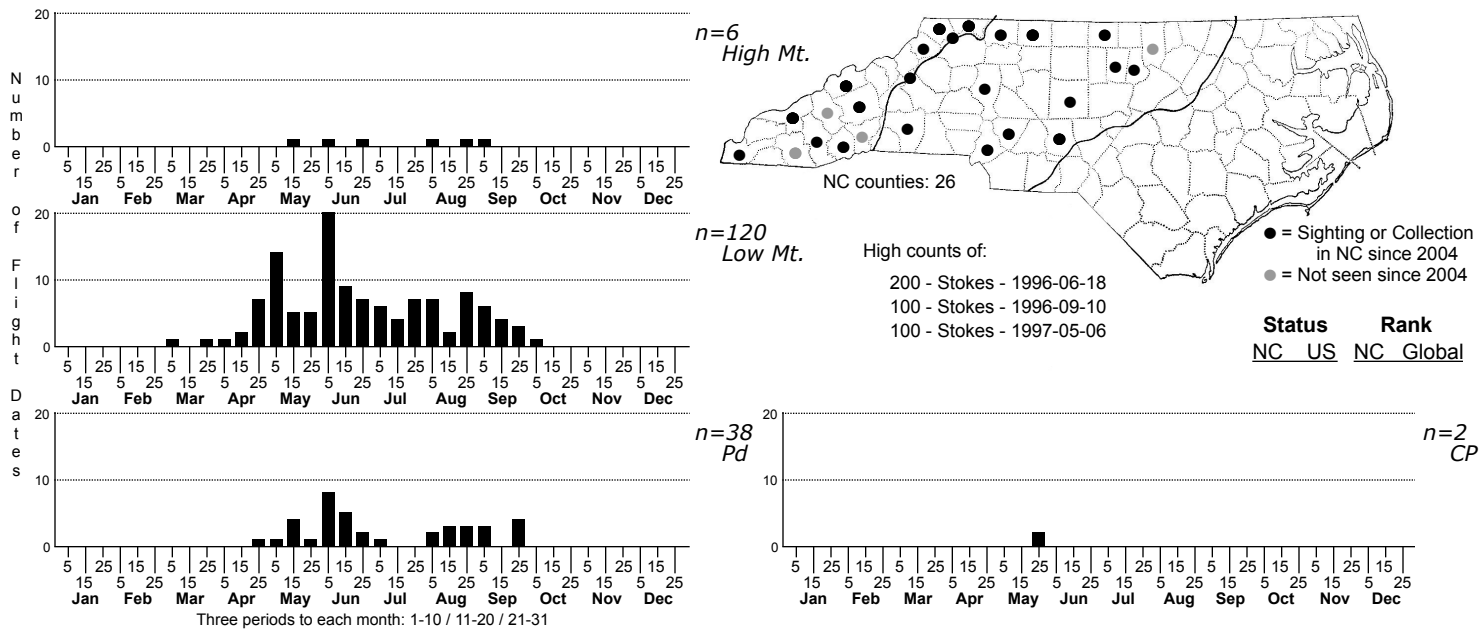


## *Macaria granitata* Granite Moth



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*.

FIELD GUIDE DESCRIPTIONS: Covell (1984; as *Semiothisa granitata*)

ONLINE PHOTOS:

TECHNICAL DESCRIPTION, ADULTS: Ferguson (2008)

TECHNICAL DESCRIPTION, IMMATURE STAGES: Maier et al. (2013)

ID COMMENTS: Similar to other *Macaria* in their angled hindwings and sub-falcate forewings, but members of this species group are distinguished from all other North Carolina *Macaria* in possessing a grayish rather than a yellowish head (Forbes, 1948). All members of this group are generally similar in their pattern of lines and spots. *Granitata* is the most mottled member of this group, with strong contrasts between the gray basal area, white or cream area between the median and postmedian lines, and the dark gray subterminal area. All lines and spots are well-marked, with the postmedian being waved and undulate rather than straight; the median and antemedian lines are often jagged or dentate. The large pre-apical spot at the costal end of the subterminal line is usually reddish-brown rather than the darker brown or black spot typical of *pinistrobata*, which can otherwise be very similar in appearance (see Ferguson, 1974, 2008, and Covell, 1984, for details).

DISTRIBUTION: This is the only member of this species group whose range extends well into the Piedmont. It has not been recorded in the Coastal Plain, however, including areas where Pond Pine (*P. serotina*), a close relative of Pitch Pine, occurs.

FLIGHT COMMENT: Appears to occur throughout the growing season, with peaks in late spring and late summer.

HABITAT: Both Pitch Pine and Scrub Pine are associated primarily with dry ridges and other upland habitats; Scrub Pine also occurs in a variety of successional habitats. In the Mountains, *Macaria granitaria* occurs both on slopes and ridges as well as lower areas, such as New River State Park, where old field habitats are common. In the Piedmont, records come again from dry ridges, including monadnock habitats in the Uwharries, as well as dry barrens and successional habitats.

FOOD: Stenophagous, feeding solely on hard pines, particularly Pitch Pine (*Pinus rigida*) and Scrub Pine (*P. virginiana*) (Ferguson, 1974; Wagner et al., 2001; Ferguson, 2008; Maier et al., 2013). In North Carolina, its range extends well beyond the limits of Pitch Pine, which is confined to the Mountains. Across the Piedmont, it probably feeds primarily on Scrub Pine.

OBSERVATION\_METHODS: Comes well to 15 watt blacklights but we do not have any records from either bait or flowers.

NATURAL HERITAGE PROGRAM RANKS: G5 S4S5

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

COMMENTS: Although fairly narrow in its host plant preferences, *granitaria* feeds on fairly common to abundant species and occupies a fairly wide range of upland habitats, including successional stands. It also has a fairly wide geographic range in the state and appears to be secure.