



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 <i> Speranza</i> and <i>Epelis</i> were treated as junior synonyms of <i>Macaria</i>. <i>Macaria aemulataria</i> is included in the hardwood-feeding Ulsterata Group (= the Notata Group of Ferguson, 2008), of which <i>M. ulsterata</i> and <i>M. promiscuata</i> are the other members that occur in North Carolina.

FIELD GUIDE DESCRIPTIONS: Covell (1984; as <i>Semiothisa aemulataria</i>); Beadle and Leckie (2012) ONLINE PHOTOS: TECHNICAL DESCRIPTION, ADULTS: Ferguson (2008)

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

ID COMMENTS: A pale tan species with the angled hindwings, semi-falcate forewings typical of this genus. $\langle i \rangle M$. aemulataria $\langle i \rangle$ is usually smaller but otherwise similar to several other species and best distinguished by a combination of structural features (see below). It is usually more strongly dusted, and consequently darker than $\langle i \rangle M$. promiscuata $\langle i \rangle$ or $\langle i \rangle M$. ulsterata $\langle i \rangle$ and with a smaller spot patch on the subterminal and a shallower subapical notch. The subterminal area is usually not contrastingly darker than the median area, as is frequent in $\langle i \rangle M$. promiscuata $\langle i \rangle$ and typical in $\langle i \rangle M$. bicolorata $\langle i \rangle$. The undersides of the wings -- frequently visible in $\langle i \rangle$ Macaria $\langle i \rangle$ when they hold their wings vertically -- are not contrastingly lighter or more ochre as they are in $\langle i \rangle M$. bicolorata $\langle i \rangle$, and the median band is not as contrastingly dark and red as it is in $\langle i \rangle M$. promiscuata $\langle i \rangle$. $\langle i \rangle M$. aequiferaria $\langle i \rangle$, which is confined to habitats containing cypress ($\langle i \rangle$ Taxodium sp. $\langle i \rangle$). Males are easily distinguished by structural features and $\langle i \rangle M$. aequiferaria $\langle i \rangle$ usually has a darker subterminal area and the spot patch on the subterminal line is usually not as dissected by yellow veins (Ferguson, 2008). As in other members of this species group, the head is yellow or ocher, contrasting with the paler gray thorax and abdomen.

DISTRIBUTION: Occurs throughout North Carolina, from the Barrier Islands to the High Mountains.

FLIGHT COMMENT: Adults are present throughout most of the growing season, with possibly four peaks in activity in the Piedmont and Coastal Plain.

HABITAT: We do not have any records from Peatlands, Longleaf Pine communities, Evergreen Maritime Forests and scrub, and dry ridges and barrens, habitats where maples -- including the ubiquitous Red Maple -- are essentially absent. All other forested habitats appear to be occupied, however, ranging from Deciduous Maritime Forests on the Outer Banks to floodplains, mesic slopes, and mesic-to-dry uplands throughout the state.

FOOD: Larvae are reportedly stenophagous, feeding on maples (Wagner et al., 2001; Ferguson, 2008). Reared larvae feed on Red Maple ($\leq i > A$ cer rubrum</i>) and Box-elder ($\leq i > A$. negundo</i>), but refuse plants other than maples (Ferguson, 2008). Other reported hosts require verification.

OBSERVATION_METHODS: Adults come well to 15 watt UV lights. We have no records from bait, however, or from flowers.

NATURAL HERITAGE PROGRAM RANKS: G5 SNR [S5]

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

COMMENTS: Widespread, common, feeding on a common host plant, and occupying a large range of habitats, this species is quite secure.

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The Moths of North Carolina - Early Draft