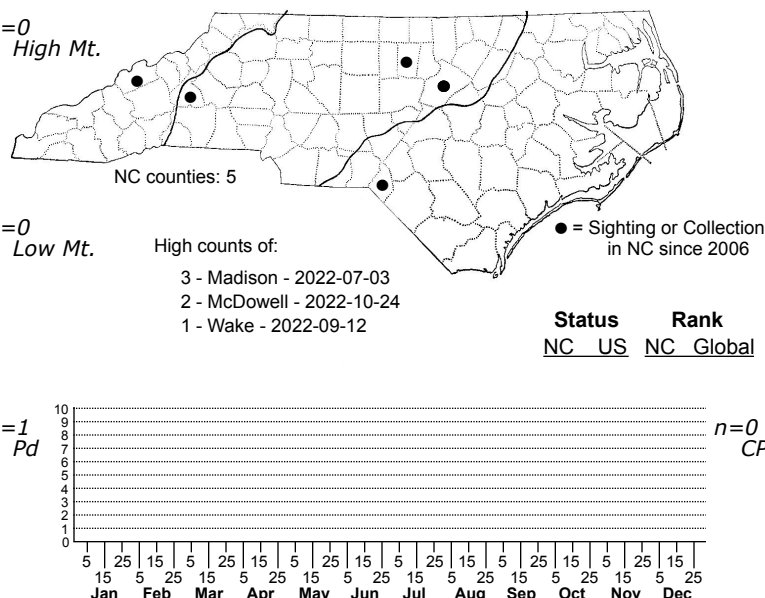
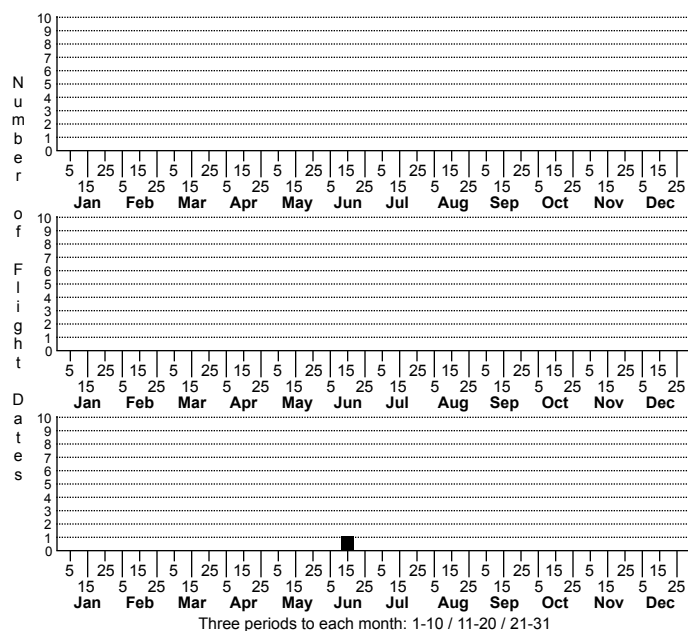


Marmara new species 21 - on Oxydendrum leaf No common name



FAMILY: Gracillariidae SUBFAMILY: Gracillariinae TRIBE: [gracillariini]

TAXONOMIC_COMMENTS: The genus *Marmara* contains 19 described species from North America and numerous undescribed species. Most species are monophagous, and the mines have been found on over 80 North American plant genera that belong to 40 families (Eiseman et al., 2017). Given the small number of described species relative to the large number of hosts, there appear to be dozens of undescribed species in the US. Many of the species are difficult to rear and are only known from leaf or stem mines. North Carolina appears to have numerous undescribed species based on host preferences and mine characteristics, and Tracy Feldman has spearheaded efforts to document these within the state. We have included *Marmara* that we believe are probably undescribed species (ca. 30) and have listed these by their host plants. We encourage individuals to submit any leaf or stem mines that they find based on the plant hosts in order to better document the distribution and relative abundance of these forms in North Carolina.

FIELD GUIDE DESCRIPTIONS:

ONLINE PHOTOS:

TECHNICAL DESCRIPTION, ADULTS:

TECHNICAL DESCRIPTION, IMMATURE STAGES: Eiseman (2022)

ID COMMENTS: This species mines the leaves of Sourwood. The adults have been successfully reared, but have yet to be described.

DISTRIBUTION: As of 2024, the leaf mines have been found in Ohio and North Carolina where we have records from the Piedmont and lower elevations in the Blue Ridge.

FLIGHT COMMENT: Occupied mines have been found in May and June.

HABITAT: This species is generally found in mesic to drier hardwood or mixed pine-hardwood forests where Sourwood is present.

FOOD: Sourwood (*Oxydendrum arboreum*) is the only known host.

OBSERVATION_METHODS: We recommend searching Sourwood leaves for occupied mines during the spring and summer months. The adults should be reared, photographed and collected whenever possible.

NATURAL HERITAGE PROGRAM RANKS: GNR[SU]

STATE PROTECTION:

COMMENTS: