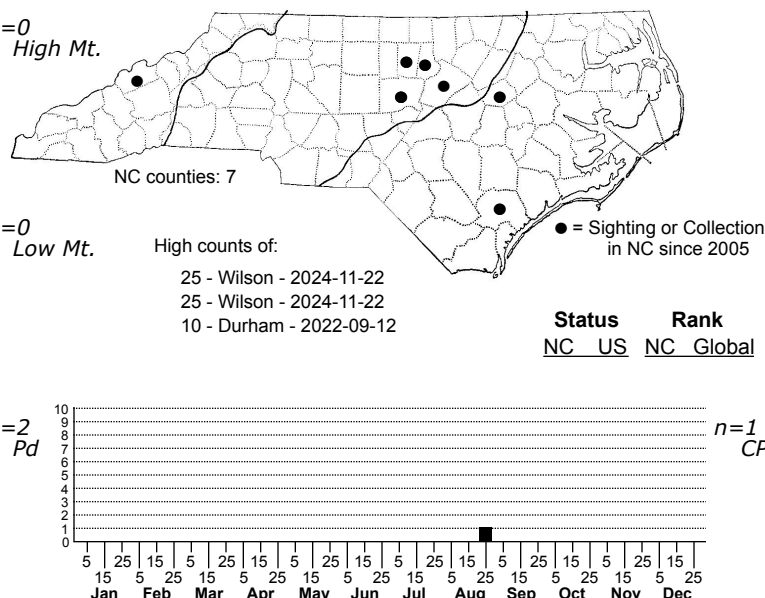
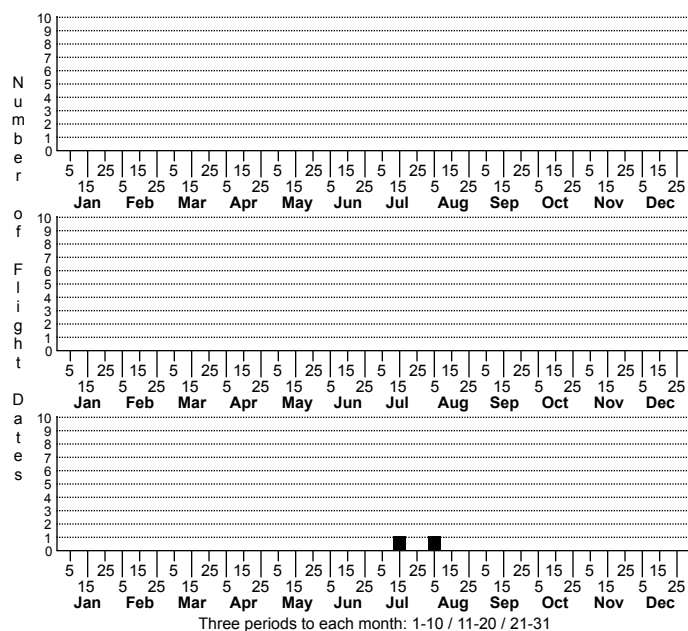


Marmara new species 2 - on Clematis No common name



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 Japanese Virgin's-bower (*Clematis terniflora*) and at least one native species of *Clematis*. Tracy Feldman, Charley Eiseman and Jeff Niznik have all reared the adults from North Carolina and this species hopefully will be described in the coming years. One adult from Orange County that was reared by Jeff Niznik is pictured above.

DISTRIBUTION: Please refer to the dot map.

FLIGHT COMMENT: Please refer to the flight charts.

HABITAT: Local populations commonly use Japanese Virgin's-bower, which commonly occurs on road banks, roadside thickets, disturbed areas along stream banks and other disturbed habitats.

FOOD: The larvae feed on *Clematis* species. Most of our records are for Japanese Virgin's-bower (*Clematis terniflora*), which is an invasive species. As of 2024, our only record for a native species is for Swamp Leatherflower (*C. crispa*).

OBSERVATION_METHODS: Records are best obtained by searching for mines on *Clematis* leaves. The adults should be reared, photographed and collected whenever possible.

NATURAL HERITAGE PROGRAM RANKS: GNR[SU]

STATE PROTECTION:

COMMENTS: