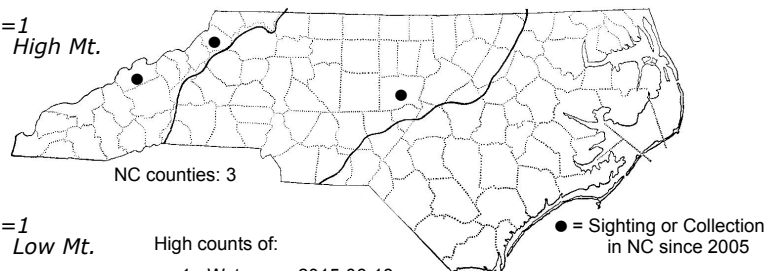
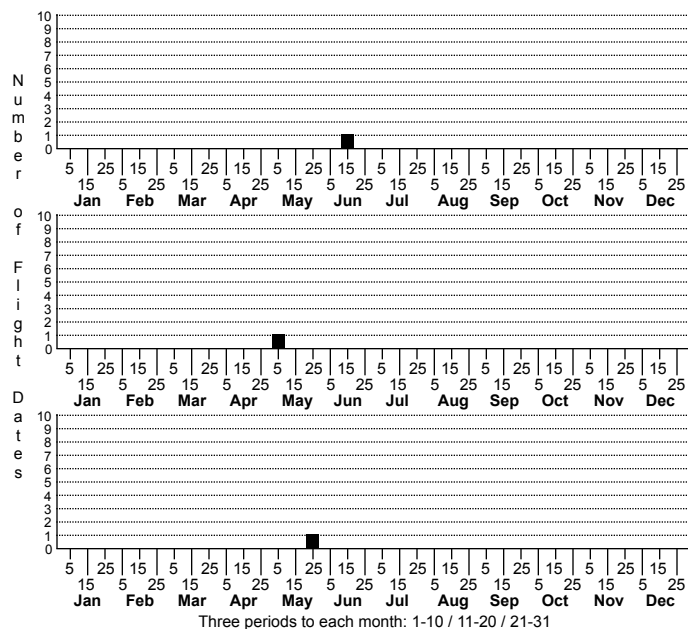


# *Elachista madarella* None



Status	Rank
NC	US
NC	Global



FAMILY: Elachistidae SUBFAMILY: Elachistinae TRIBE: Elachistini

TAXONOMIC\_COMMENTS: *Elachista* is a large genus of small moths that occur worldwide. Around 135 Nearctic species are currently recognized. They specialize on monocots and most feed on either grasses (Poaceae) and sedges (Cyperaceae).

FIELD GUIDE DESCRIPTIONS:

ONLINE PHOTOS:

TECHNICAL DESCRIPTION, ADULTS: Braun (1948, p. 84)

TECHNICAL DESCRIPTION, IMMATURE STAGES: Braun (1948, p. 84)

ID COMMENTS: This is a minute blackish moth with white-tipped antennae, two silvery bands on its forewings, a pair of subterminal spots, and a centrally placed terminal spot. The following detailed description is based on the description by Braun (1948). The head is dark silvery gray, the lower part of the face paler, and the posterior margin of the head dark shining brown. The palp is nearly straight, dark gray, paler above, and concolorous with the face. The antenna is dark brown, with the apical fifth yellowish white. The thorax is dark brown in the anterior half, and dark bluish metallic in the posterior half. The forewing is dark brown with faint golden reflections. The base of the wing is silvery gray, with bluish reflections on the costa, and golden reflections toward the dorsum. Before the middle there is a slightly oblique metallic band that is silvery or pale golden. It often extends along the wing below the fold. Sometimes this extension is represented by a small detached silvery or golden dot. At two-thirds the wing length, there is a silvery or pale golden costal spot with a similar opposing spot on the dorsal margin. Beyond these there is a silvery spot in the middle of the wing near the apex. The cilia are grayish brown and paler around the apex. The apical row of scales is black-tipped and forms a sharply contrasting line. The hindwing is grayish brown and the cilia somewhat darker, especially in the female. The wing is broader in the male. The legs are dark silvery gray to blackish. The hind tibia is mostly silvery in the male and brown, except at apex, in the female. The abdomen is dark brown with some metallic luster above, and yellowish white beneath. *Elachista madarella* is similar to *E. enitescens* and *E. argentosa*. The latter two lack the white antenna tip and have not been found south of Ohio. Both are rare and only known from extreme southern Ohio and perhaps Maine.

DISTRIBUTION: *Elachista madarella* is found in eastern North America where scattered populations have been found in Ontario, Maine, New Hampshire, New York, New Jersey, Pennsylvania, Ohio, Indiana and Illinois and Missouri. The first North Carolina record was obtained in 2015 in Watauga County. Our only record comes from a high elevation bog in the northern mountains.

FLIGHT COMMENT: The flight season is poorly documented due to the paucity of adult records, and many are based on rearing records. Most are from late May through mid-July, with a seasonal peak in June. Our one record as of 2020 is from mid-June.

HABITAT: This species uses hosts that are found in freshwater wetlands such as marshes, fens, bogs, and the edges of beaver ponds. Our one record as of 2020 comes from a high elevation bog.

FOOD: Braun (1921) found mines and reared adults from Dark-green Bulrush (*Scirpus atrovirens*), and from several species of sedges (*Carex*). The most common hosts were Pubescent Sedge (*C. hirtifolia*) and Crested Sedge (*C. cristatella*). As of 2024, our only larval record is for an unknown sedge.

OBSERVATION\_METHODS: The adults are attracted to lights, but many records are from reared adults. We encourage naturalists to search for the mines to better document host and habitat use in North Carolina.

NATURAL HERITAGE PROGRAM RANKS: GNR [SU]

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

COMMENTS: This species is reported to be common at lights in deciduous forests in Illinois (Harrison, 2017). However, it may be associated with high elevation bogs in North Carolina and as such could be a Pleistocene relict. Much more information needs to be obtained on the distribution, abundance, and habitat associations of this species in North Carolina before its conservation status can be evaluated.