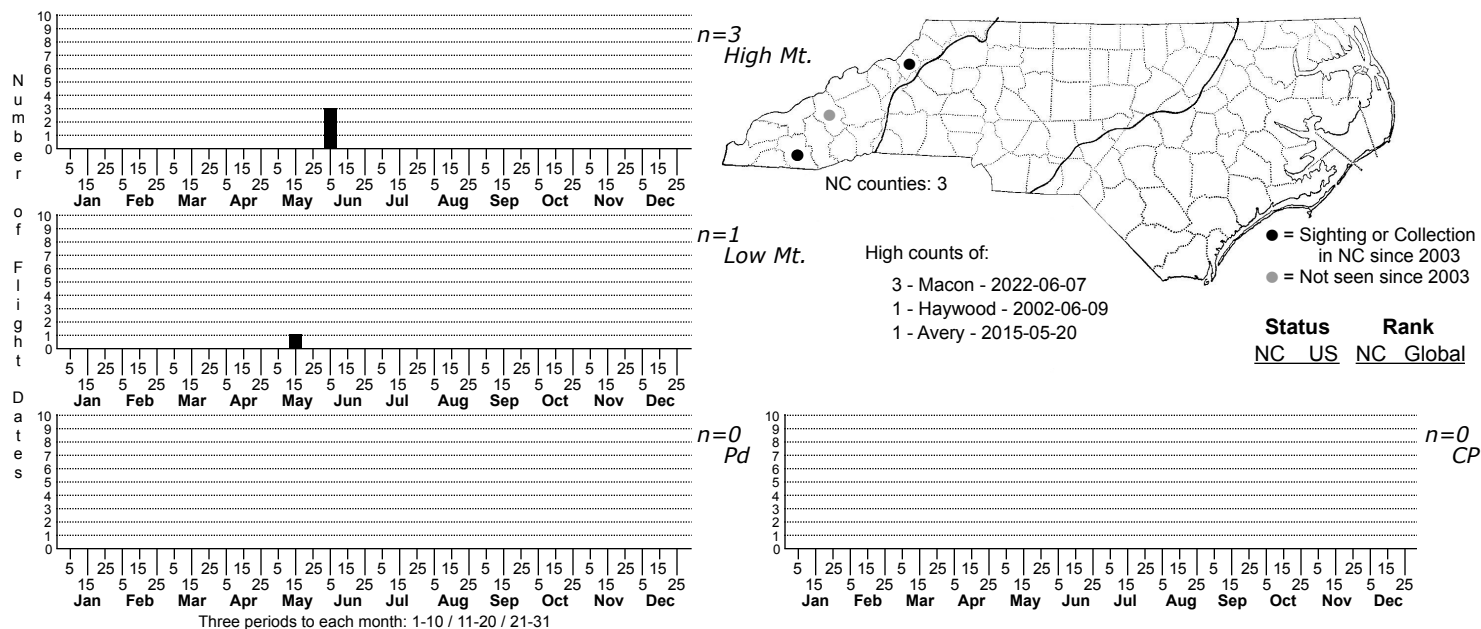


## *Sthenopis argenteomaculatus* Silver-spotted Ghost Moth



FAMILY: Hepialidae SUBFAMILY: [Hepialinae] TRIBE: [Hepialini]

TAXONOMIC\_COMMENTS: *Sthenopis argenteomaculatus* is a member of the Ghost Moth, or Swift family, a primitive group of over 500 species that is found worldwide. In North America the family is made up of at least 20 species in four genera, the vast majority having northerly or westerly affinities. *S. argenteomaculatus* is one of four species currently recognized in the genus, and one of two found in North Carolina.

FIELD GUIDE DESCRIPTIONS: Covell (1984); Beadle and Leckie (2012)

ONLINE PHOTOS: MPG, BugGuide

TECHNICAL DESCRIPTION, ADULTS: Forbes (1923); Solomon (1995)

TECHNICAL DESCRIPTION, IMMATURE STAGES: Forbes (1923); Solomon (1995)

ID COMMENTS: This species is among the largest of the primitive moth groups, whose members are almost all much smaller micromoths. The proportionally long forewing is narrow at the base, but widens broadly just past the middle. It then narrows again to a pointed, slightly falcate tip. The forewing is rich brown to bronzy orange, and has a strong, inverse "Y-shaped", ashen gray band. The band is pale-edged and suffused with pink, and runs from the outer third of the costa through the median area to the inner margin. Another grayish band runs obliquely from near the mid-inner margin along the base, and there is a pink-tinged, triangular gray patch about one-third of the way along the costa. Parallel pink lines also run through the terminal area and along the outer margin. There are two white spots (the larger of the two typically triangular in shape) that are located sub-basally, and darker veins stand out on the forewing. The hindwings are light brown to pale gray, and are about the same shape and length as the forewings. The antennae are greatly reduced and simple. In North Carolina this species is differentiated from our only other *Sthenopis* (*S. auratus*) by having more of a contrasting forewing pattern, and by the presence of the two white sub-basal spots.

DISTRIBUTION: *Sthenopis argenteomaculatus* is primarily restricted to eastern North America from southern Canada and adjoining areas of the Great Lakes region and the Northeast, southward along the Appalachians to North Carolina. As of 2020, our only records from the state are from three counties in the western mountains. The full distribution in that region is not known.

FLIGHT COMMENT: The adults fly in May and June, and are most active at or shortly after sunset. They fly close to the ground and perform unusual gyrations or dances when in flight (Solomon, 1995).

HABITAT: We have one record from a mountain bog and another from near a wetland complex. A third record is from a riparian habitat along a stream.

FOOD: This species presumably relies on Tag or Hazel Alder (*Alnus serrulata*) in North Carolina.

OBSERVATION\_METHODS: Although members of this family are generally not considered to come to lights, *S. argenteomaculatus* is attracted to ultraviolet and mercury vapor lights.

NATURAL HERITAGE PROGRAM RANKS: GNR [SU]

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

COMMENTS: Very little is known about this taxon in North Carolina. It appears to be uncommon to very uncommon in the Appalachians, with only three records to date from the mountains. Given the commonness of the host food plant, the dearth of records may be more an artifact of poor observer coverage, perhaps combined with the species' crepuscular habits, rather than a reflection of a genuinely rare status. Much remains to be learned about it in the state.