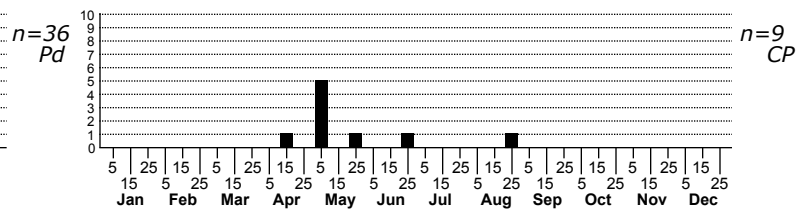
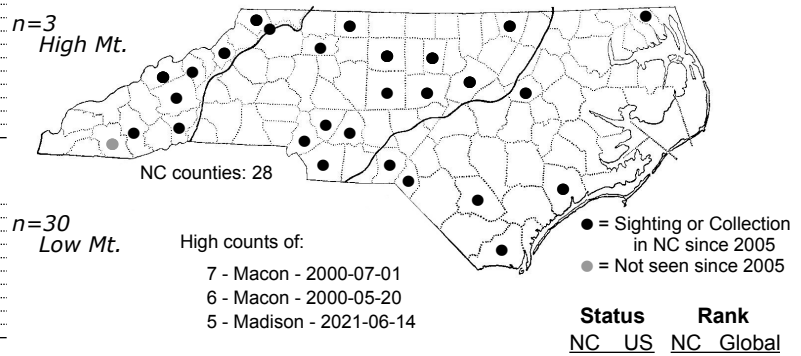
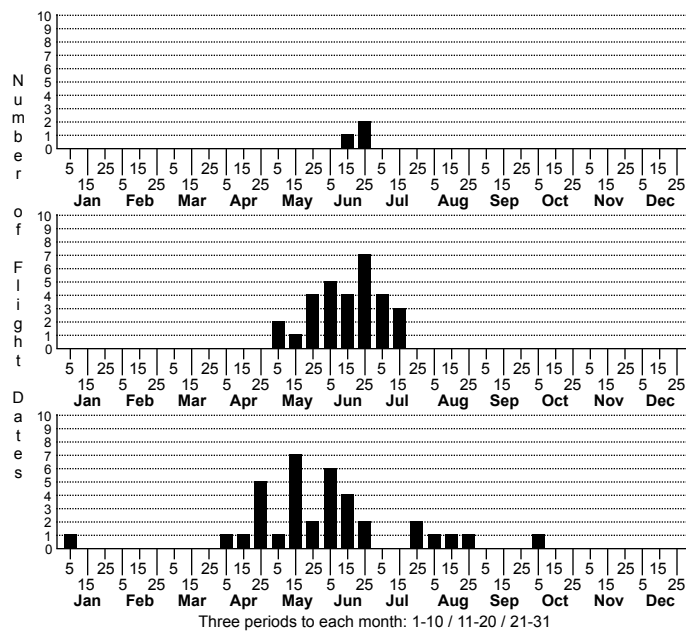


# *Synanthedon acerni* Maple Callus Borer Moth



FAMILY: Sesiidae SUBFAMILY: Sesiinae TRIBE: Synanthedonini

TAXONOMIC COMMENTS: North America has 136 or more species in the family Sesiidae, and the large genus *Synanthedon* constitutes around half of the 37 species found in North Carolina, many being similar in appearance to one another. Some sesiids, known broadly as clearwing borers, are significant pests of commercial crops, and most are mimics of wasps and hornets.

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

ONLINE PHOTOS:

TECHNICAL DESCRIPTION, ADULTS: Eichlin and Duckworth (1988)

TECHNICAL DESCRIPTION, IMMATURE STAGES:

ID COMMENTS: *Synanthedon acerni* is best recognized by its orangish vertex and collar, brownish-orange thorax, and mostly orange anal tuft. The forewing is hyaline, and has a large black discal mark and yellowish-orange between the veins on the outer one-third. Engelhardt (1946) described two color variants ("buscki" and "tepperi") that occur in Georgia, Florida, Alabama and Mississippi and are not present in North Carolina. The following detailed description of the male is based on those of Engelhardt (1946) and Eichlin and Duckworth (1988) and is for the typical form that occurs in North Carolina and throughout most of the eastern US.

The antenna is long, slender and shiny black or brown-black, while the palps are orange. The head has an orange or orange-red vertex, while the front is brown with orange or yellow medially and white laterally. The occipital fringe (collar) is orange, while the thorax is dark orange above and pale orange beneath. The abdomen is covered with varying amounts of orange and blackish scales that are more or less mixed, with darker scales predominating on segment 3, and faint transverse striping often evident on the last four segments. The anal tuft is broadly fan-shaped, bright orange, and touched with black at the base. The legs are mostly yellow to orangish, with the tibia of the hindleg bluish-black between the spurs, or sometimes wholly bluish-black above. The forewing is mostly transparent and narrow, with the costa, veins, marginal border and the large discal mark all black. Yellowish to yellowish-orangish dusting is present on the costa, the inner margin, and between the veins on the apical third of the wing. A small, diffuse, black spot is also usually present just beyond the larger discal mark. The hindwing is transparent and has a conspicuous black discal mark. The females are very similar to the males, but with the wings more contrastingly black and pale yellow, and with the orange or reddish anal tuft shorter and depressed in the center.

DISTRIBUTION: *Synanthedon acerni* is found throughout most of the eastern US and in adjoining areas of southern Canada from Ontario eastward to Nova Scotia and Prince Edward Island. In the US the range extends from Maine southward along the Atlantic Seaboard states to southern Florida, and westward to eastern Texas, eastern Oklahoma, eastern Kansas, eastern Nebraska, Iowa, Minnesota and northeastern North Dakota. This species appears to occur essentially statewide, but it is far less common in the Coastal Plain compared to the Piedmont and Blue Ridge.

FLIGHT COMMENT: The adults have been observed during all months of the year in different areas of the range, with the southernmost populations flying essentially year-round, and northernmost populations for only 2-4 months, and commonly from May through August. As of 2024, our records are from early-April through early-October, with a seasonal peak from May through July. Local populations in North Carolina are univoltine, with about a year required to complete the life cycle.

HABITAT: Populations are commonly found in bottomland and mesic forest communities with maples, and in residential neighborhoods where maples are planted as shade trees.

FOOD: The larvae are borers that feed on both ornamental and native species of maples (Felt, 1905; Engelhardt, 1946; Baker, 1962; Eichlin and Duckworth, 1988). Native species that are used include Red Maple (*Acer rubrum*), Silver Maple (*A. saccharinum*) and Sugar Maple (*A. saccharum*).

OBSERVATION METHODS: The largely diurnally-active adults are attracted to lights in the early-evening. They are frequently seen resting on vegetation and nectaring on wildflowers during the day. The males are attracted to pheromone lures.

NATURAL HERITAGE PROGRAM RANKS: GNR[S4S5]

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

COMMENTS: *Synanthedon acerni* is common and widespread in the state and appears to be secure.