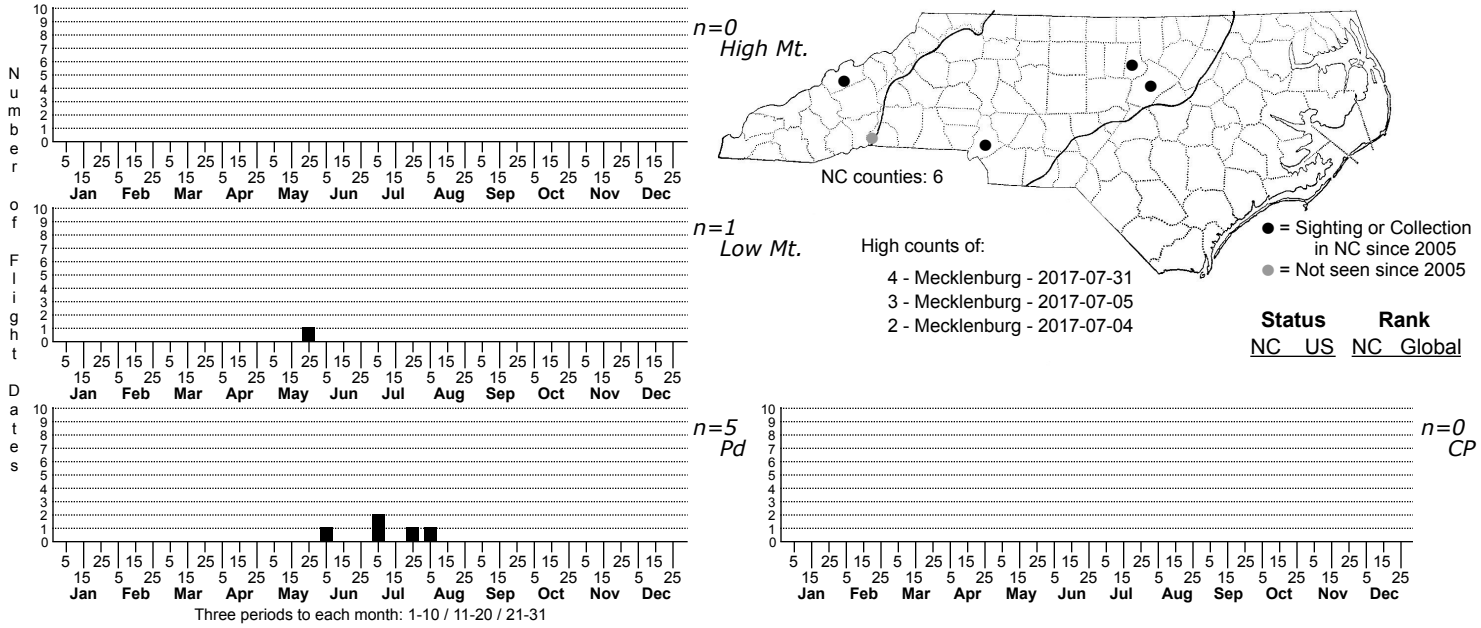
Synanthedon pictipes Lesser Peachtree Borer Moth



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. Almost all are mimics of wasps and hornets.

FIELD GUIDE DESCRIPTIONS: Covell (1984); Beadle and Leckie (2018)
ONLINE PHOTOS:
TECHNICAL DESCRIPTION, ADULTS: Eichlin and Duckworth (1988)
TECHNICAL DESCRIPTION, IMMATURE STAGES: King (1917)

ID COMMENTS: Synanthedon pictipes resembles a few other of our Synanthedon species and can be distinguished by the black antenna, the white mark in front of the eye, the clear, transparent wings, the banding pattern on the abdomen, and the predominantly black legs with contrasting white hair tufts. The following description of the male is based mostly on the descriptions by Engelhardt (1946) and Eichlin and Duckworth (1988).

The antenna is black, while the labial palp is black above and yellowish beneath. The head and vertex are bluish-black, and often mixed with pale yellow on the posterior margin, while the face is bluish-black and broadly white before the eyes. The occipital fringe (collar) is bluish-black dorsally and pale yellow laterally. The thorax is bluish- or coppery-black, with two narrow, pale-yellow, lateral stripes above, and two broader, yellow marks on the underside before the wing base. The forewing is hyaline with the margins, discal spot, and veins bluish-black. Some of the veins and the wing margins may be weakly powdered with pale yellow scales, while the discal spot and costal margin are strongly dusted with pale yellow below. The hindwing is hyaline. The abdomen is predominantly black overall with blue or coppery reflections. Paired pale yellow or white spots are typically present on the anterior dorsal margin of segment 1. Segments 2 and 4 have fine pale-yellow to white markings that are limited largely to the sides of the posterior margins, but sometimes extend partially or fully across the top of those segments. The anal tuft is wedge-shaped and bluish-black, with a trace of white on the lateral margins. The legs are mostly bluish-black or coppery black, with pale yellow and white on the forecoxa laterally, on the tufts at the tibial spurs, and around the joints of the tarsal segments. Females are very similar to the males, with the discal mark and outer wing margin slightly broader. The yellow banding on the abdominal segments are the same as the male, but often more pronounced, and the anal tuft is straight and narrow.

Males of Synanthedon pictipes are similar to males of S. fatifera, but the former has a white patch in front of the eye (see Taft et al., 1991), and a collar on the back of the head that is black above and white or pale-yellow on the sides. Synanthedon pictipes is also similar to S. exitiosa, but the latter has an amber tint to the hyaline wings, and lacks the patch of white scales in front of eyes that are present on S. pictipes (see comparison above). Synanthedon pictipes is also very similar to S. castaneae, which was rediscovered in North Carolina in 1985 after it was thought to have been extirpated due to the loss of American Chestnut. The easiest way to distinguish between the two is by examining the collar behind the head, along with the hind tibia. In S. pictipes the collar is yellow along the sides and the tibia is tufted with yellow at both the anterior and posterior spurs, whereas in S. castaneae the collar is black and the tibia is tufted with yellow only at the posterior spurs.

DISTRIBUTION: Synanthedon pictipes is found in southern Canada from Alberta and Saskatchewan eastward to Manitoba, Ontario, Quebec and Nova Scotia, and throughout most of the eastern US. The range in the US extends from Maine southward along the Atlantic Seaboard to northern Florida, and westward to eastern Texas, Arkansas, Illinois, Iowa, Wisconsin, Minnesota and southeastern North Dakota. As of 2024, we have only a few scattered records from the Piedmont. This species occurs in peach orchards in North Carolina, but locality records are poorly documented.

FLIGHT COMMENT: The adults fly from March through December in Florida and Texas, and mostly from May through July or August in the northern part of the range. As of 2024, our records are from early-June through early-August.

HABITAT: Local populations are found in forests, orchards and residential areas where the food plants are present.

FOOD: The larvae feed on native trees that are members of the Rosaceae, as well as cultivated peaches, plums, and cherries (King, 1917; Forbes, 1923; Eichlin and Duckworth, 1988; Solomon, 1995; Heppner, 2007; Cottrell et al., 2008; Robinson et al., 2023). Reports of this species using American Chestnut and Northern Red Oak may be due to misidentification of S. castaneae or other Synanthedon species (King, 1917) and need additional verification. The reported native hosts include Canadian Serviceberry (Amelanchier canadensis), American Plum (Prunus americana), Chickasaw Plum (P. angustifolia), Carolina Laurel Cherry (P. caroliniana), Beach Plum (P. maritima), Fire Cherry (P. pensylvanica), and Black Cherry (P. serotina). Adults were reared in North Carolina from American Chestnuts from Polk County that were girdled (Girault, 1907), but see the comment above concerning possible misidentification. Engelhardt (1946) also noted that swellings and distortions caused by the Black-knot Fungus (Apiosporina morbosa) on branches of Black Cherry often are inhabited by the larvae.

OBSERVATION_METHODS: The adults are diurnal and are not attracted to lights or bait, but frequently visit flowers for nectar, and are often spotted resting on vegetation. The males are strongly attracted to artificial pheromone lures and traps.

NATURAL HERITAGE PROGRAM RANKS: GNR [S3]

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

COMMENTS: Although this species is widespread in eastern North America, it is almost certainly more common in the state than records indicate. The dearth of records is likely more of an artifact due to the inconspicuous nature of S. pictipes, combined with so few observers deploying the specialized methods required to sample for it.