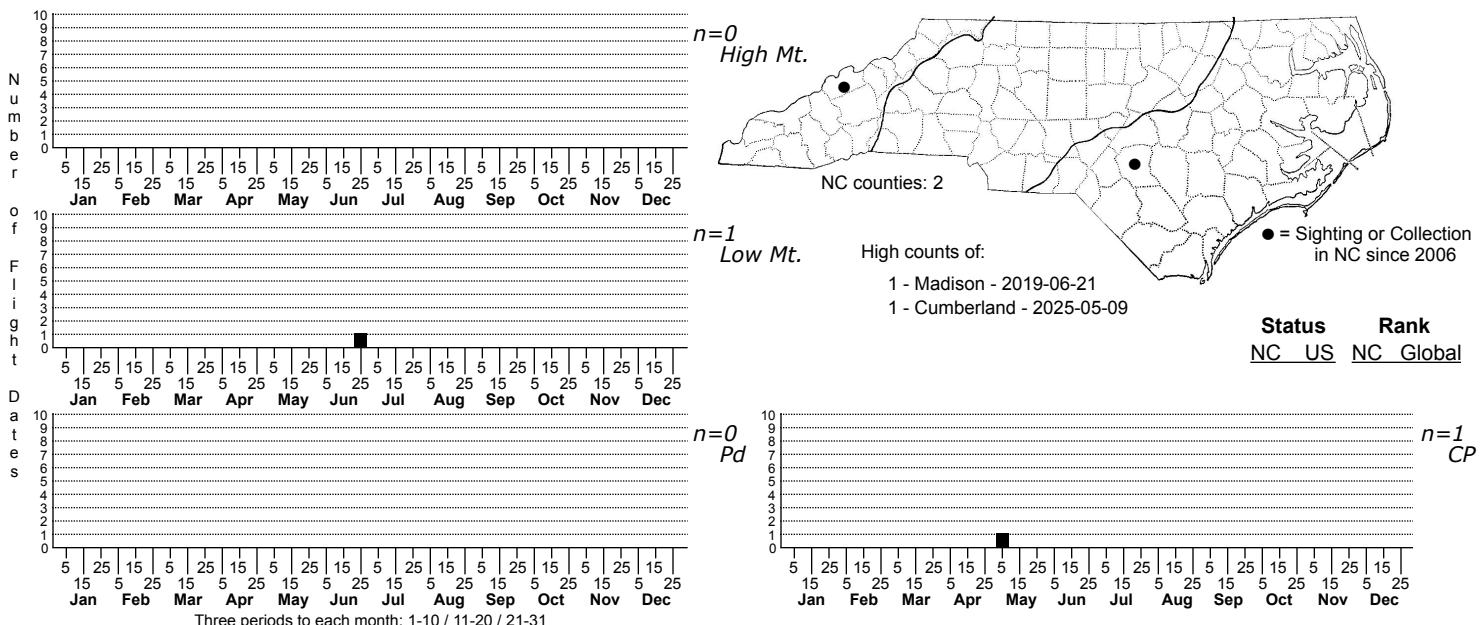


Synanthedon fatifera Lesser Viburnum Clearwing



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:

ONLINE PHOTOS:

TECHNICAL DESCRIPTION, ADULTS: Hedges (1962)

TECHNICAL DESCRIPTION, IMMATURE STAGES:

ID COMMENTS: *Synanthedon fatifera* is a predominantly black species, with the head, thorax, antenna, and abdomen all metallic bluish-black (Brown and Mizelle, 1993). The anal tuft is wedge-shaped and bluish-black, and thinly edged with pale yellow. Both wings are transparent and bordered in bluish-black. Females are similar to the males, but have the terminal third of the antenna whitish to pale-yellow, except for the black tip. The following detailed description of the male mostly is based on those of Hedges (1962) and Eichlin and Duckworth (1988).

The head has a bluish-black vertex, and often with some pale yellow posteriorly. The front is bluish-black, while the occipital fringe (collar) is bluish-black dorsally, but often mixed with some pale yellow laterally. The labial palp is smooth and pale yellow, with brownish-black dorsolaterally to the apex. The antenna is bluish-black with a few pale-yellow scales at three-fourths, and slightly dilated apically with a short apical tuft. Rarely, the males may have pale-yellow on the terminal third similar to that of the female (see Brou and Brou, 2019). The thorax is bluish-black with a pale-yellow spot beneath the wing and a very narrow, pale-yellow subdorsal stripe. A pale-yellow tuft is also present laterally on the metathorax. The abdomen is bluish-black with pale yellow laterally on segments one and four, while the anal tuft is wedge-shaped, bluish-black, and edged thinly with pale yellow. The legs are predominantly bluish-black above, with pale yellowish scales at the joint of segments four and five of the tarsi, and on the spurs of the tibia. The females are generally similar, but the antenna is pale-yellow to white on the terminal third except for the blackish tip. The mark on the side of the fourth abdominal segment is also larger and more conspicuous than that of the male.

Males of *Synanthedon pictipes* are similar to males of *S. fatifera*, but the former has a white patch in front of the eye and below the antenna (see Taft et al., 1991), and a collar on the back of the head that is black above and distinctly white or pale-yellow on the sides.

DISTRIBUTION: Scattered populations of this species have been found in the eastern US, Colorado and throughout southern Canada in Alberta, Manitoba, Ontario, Quebec and New Brunswick. In the eastern US, populations are known from New York, Massachusetts and Connecticut southward to eastern Tennessee, western North Carolina, Georgia and northern Florida. The range extends westward to Louisiana, Missouri, northern Illinois, southern Wisconsin, Minnesota and southeastern Nebraska. As of 2024, we have a single record of this species from Madison County in the Blue Ridge.

FLIGHT COMMENT: Local populations are univoltine and the adults have been documented from March through August in different areas of the range. In Louisiana, Brou and Brou (2019) reported a peak in flight activity in early-May, while the peak in central and northern populations most commonly occurs in June and July. As of 2024, our one record is from 21 June.

HABITAT: Local populations are generally associated with forested or more open sites with viburnums, which are the host plants.

FOOD: The larvae are thought to specialize on species of *Viburnum*. *Synanthedon fatifera* was first discovered in *Viburnum opulus* 'Nanum' (European Cranberrybush), which is a dwarf ornamental shrub that is native to Europe, Asia and North Africa (Hedges, 1962). It presumably feeds on native viburnums, but we are unaware of any records for this. At a site in Madison County where an adult was collected, Mapleleaf Viburnum (*V. acerifolium*) and Smooth Blackhaw (*V. prunifolium*) are present on site and were the likely hosts.

OBSERVATION METHODS: The adults are diurnally active and not attracted to lights or bait. They are occasionally seen resting on vegetation during the day or nectaring on flowers. They are also attracted to pheromone traps.

NATURAL HERITAGE PROGRAM RANKS: GNR [S1S2]

STATE PROTECTION:

COMMENTS: This species appears to be rare in North Carolina and the southern Appalachian region as a whole. As of 2024, we have a single site record for North Carolina; there is also one other known record from eastern Tennessee.