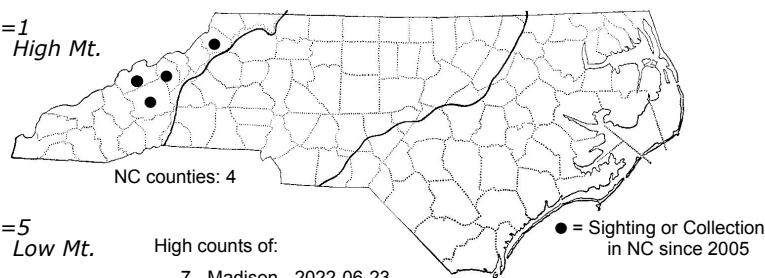
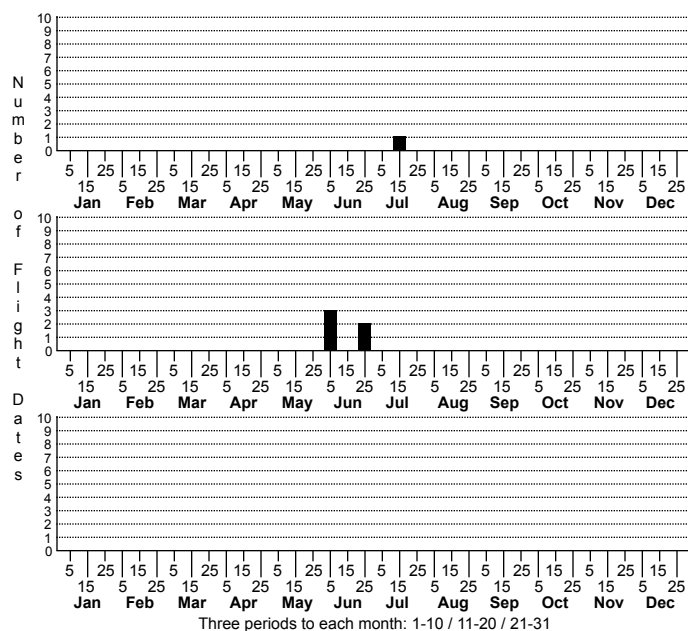


Synanthedon rhododendri Rhododendron Borer Moth



High counts of:

- 7 - Madison - 2022-06-23
- 3 - Madison - 2020-06-08
- 2 - Madison - 2019-06-30

Status Rank
NC US NC Global



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: Eichlin and Duckworth (1988)

TECHNICAL DESCRIPTION, IMMATURE STAGES: Neal (1982)

ID COMMENTS: This species is easy to distinguish from our other *Synanthedon* species based on its small size (forewing length = 5-7 mm) and dark abdomen with yellow bands on segments 2, 4 and 5. The following detailed description is based on that of Engelhardt (1946).

The antenna is black-violaceous and the labial palp black above and yellow beneath. The head is predominantly black, except for a lustrous green frons and a face that is well-marked with white. The collar is black on top and white along the sides and beneath. The thorax is black with steel-blue reflections and has a broad patch of shiny white or pale yellow on each side beneath. The abdomen is lustrous steel blue or coppery black, and with segments 2, 4, and 5 narrowly edged with yellow. Each side has a narrow yellow stripe from the base to the band on segment 2, while on the underside, segments 3, 4, 5, and 6 are whitish yellow. The fan-shaped anal tuft is lustrous black and touched with yellow to yellowish-white along the sides. The underside is black with yellow in the middle. The coxa of the foreleg is shiny white or pale yellow, with the femora steel blue or purplish-blue. The tibia of the hindleg is pale yellow at the spurs and violaceous-black between the spurs, while the tarsi are pale yellow and shaded with black above. The forewing is transparent, with the costa, margins, discal mark and inner veins violaceous-black. The outer margin between the veins is golden yellow, and the fringes rusty black. On the underside, the costa is heavily scaled with yellow, but otherwise as above. The hindwing is transparent and narrowly margined with shiny black, while the fringes are paler, with a mixture of black and yellow. The females resemble the males, except that abdominal segments 2, 4, and 5 are more broadly banded with yellow, and the short, rounded anal tuft is heavily mixed with pale yellow inwardly from the sides.

DISTRIBUTION: *Synanthedon rhododendri* is endemic to the eastern US where it occurs from New Hampshire and Massachusetts southward through Pennsylvania, Maryland, West Virginia, and Virginia to eastern Tennessee, western North Carolina and northern Georgia. The range extends westward in the northern part of the range to northeastern Ohio. As of 2024, all of our records are from the Blue Ridge, with elevations ranging from the lower valleys to Mt. Mitchell.

FLIGHT COMMENT: The adults have been observed from May through July in different areas of the range. Neal (1982) found that two local populations that he tracked with pheromone traps in Maryland had a flight season of around 5-6 weeks, while Jackson (2002) trapped specimens from mid-May to late-July in eastern Tennessee. As of 2024, our records range from early-June through mid-July.

HABITAT: Local populations rely heavily on native rhododendrons for successful reproduction and can be found in mesic habitats in the Blue Ridge from lower elevation sites to the highest peaks. They also will use ornamental varieties of rhododendrons in nurseries and residential settings.

FOOD: Native and ornamental rhododendrons (*Rhododendron* spp. and their hybrids) appear to be the primary hosts (Forbes, 1923; Craighead et al., 1950; Baker, 1972; Eichlin & Duckworth, 1988). Neal (1982) noted that the larvae will also use Mountain Laurel (*Kalmia latifolia*) and deciduous azaleas when grown with heavily infested rhododendrons in nurseries, but it is uncertain if these hosts are used in natural settings.

OBSERVATION_METHODS: The adults are diurnally active and do not come to lights or bait. They are occasionally seen visiting flowers or resting on vegetation, but are most easily obtained by using pheromone traps.

NATURAL HERITAGE PROGRAM RANKS: [GMR] S1S3

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

COMMENTS: *Synanthedon rhododendri* appears to be rare or uncommon in North Carolina where it approaches the southern limit of its range and is restricted to the Blue Ridge. Populations in the southern Appalachians may be disjunct from the main range that occurs farther north. More information is needed on its distribution, abundance and host use before we can accurately assess its conservation status within the state.