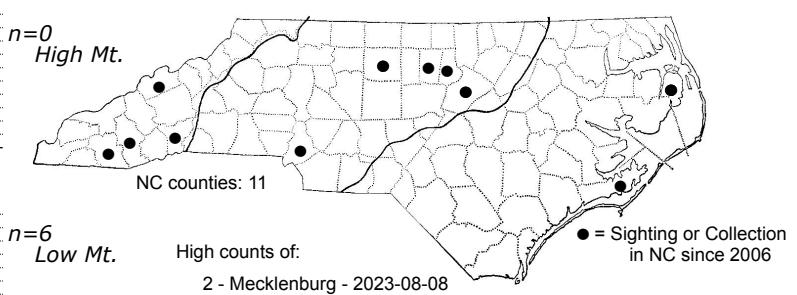
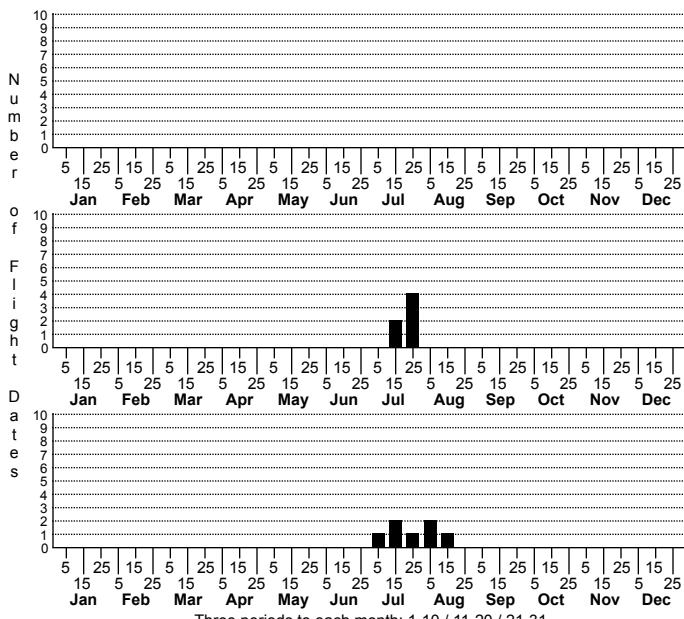


# Vitacea scepsiformis Lesser Grape Root Borer Moth



Status	Rank		
NC	US	NC	Global

n=8  
CP

FAMILY: Sesiidae SUBFAMILY: Tinthiinae TRIBE: Paranthrenini

TAXONOMIC COMMENTS: North America has 136 or more species in the family Sesiidae, with 37 species found in North Carolina. Many being similar in appearance to one another. Some are significant pests of commercial crops, and almost all are mimics of wasps and hornets.

FIELD GUIDE DESCRIPTIONS:

ONLINE PHOTOS:

TECHNICAL DESCRIPTION, ADULTS: Engelhardt (1946); Eichlin and Duckworth (1988)

TECHNICAL DESCRIPTION, IMMATURE STAGES: Engelhardt (1946)

ID COMMENTS: *Vitacea scepsiformis* is a mimic of two rust-colored paper wasps (*Polistes carolina*; *P. perplexus*) that occur in the eastern US. This species has dark forewings and an overall rusty-brown appearance, with the abdomen typically having a single yellowish band. The males have four prominent pencils that extend from the tip of the abdomen.

The following detailed description of the male is based on that of Engelhardt (1946) and Eichlin and Duckworth (1988). The antenna is bipectinate and black above, with orange at the tip and on the undersides. The palp is chestnut-red, with black mixed with brown at the base and along the sides. The head is purplish brown above, with the vertex often mixed with rust red, while the occipital fringe is chestnut-red to deep orange. The collar is blackish-brown and often grizzled at the lower edge. The thorax varies from dark brown to reddish-brown and has wide subdorsal patches of orangish-brown to rust-brown laterally. The posterior margin has a transverse reddish to yellowish edge, and there is a yellow spot above and below the wing base. The forewing is opaque and varies from being mostly purplish-black, to purplish-black with reddish-brown dusting or streaking. The hindwing is hyaline with brownish-black scales on the veins, discal spot, and the relatively wide outer and inner margins. An elongated, triangular, dark patch extends inward from the middle of the outer margin to near the discal spot. The abdomen is brownish-black with varying degrees of orangish-brown powdering on the segments. Segments 1 and 2 are often darker than the others, while segments 3 and 4 tend to be lighter. Most specimens have a single, narrow, yellow band on the posterior margin of segment two, but specimens are occasionally encountered that have a less prominent band on segment 4, and to some degree on segment 6 and the anal tuft. The anal tuft has four rusty black pencils with brown edges, with the two lateral ones relatively short. The femora of all legs are brownish-black with varying amounts of orange, and the tarsi yellow. The tibia of the hindleg is yellow with a heavy overlay of brownish-black scales. The females are generally similar to the males, but are larger with heavier bodies. They have a simple antenna and the forewings often have more reddish dusting and streaking.

*Vitacea scepsiformis* is very similar to *V. polistiformis* but has an elongated, triangular, dark streak on the hindwing that extends inward from the middle of the outer margin (missing on *V. polistiformis*), brownish-black scaling on the hind tibia (versus pure orange for *V. polistiformis*), and a single yellowish abdominal stripe on segment 2.

DISTRIBUTION: *Vitacea scepsiformis* is endemic to the eastern US where the range extends from New York and Massachusetts southward to southern Florida, and westward to central Texas, central Oklahoma, eastern Kansas, Missouri and Illinois. As of 2024, we have records from all three physiographic provinces, but with very few site records from the Coast Plain and none from the northern Blue Ridge.

FLIGHT COMMENT: The adults have been observed from April through October in Florida and from May through September elsewhere, with a seasonal peak commonly from June through August. As of 2024, our records extend from mid-June through early-September.

HABITAT: Local populations are commonly associated with residential neighborhoods, forests, and forest-edge habitats that support Virginia Creeper and perhaps other hosts.

FOOD: The larvae feed on members of the Vitaceae, including species of *Parthenocissus* and possibly cultivated grapes (*Vitis vinifera*) (Engelhardt, 1946; Heppner, 2007; Robinson et al., 2023). The only well-documented report of host use is that of Engelhardt (1946), who reared the adults from Virginia Creeper (*Parthenocissus quinquefolia*) and Boston Ivy (*P. tricuspidata*), which is an introduced ornamental. Robinson et al. (2023) listed *V. vinifera* as a host, but we are unaware of any specific documentation of this.

OBSERVATION METHODS: The adults are diurnal and are occasionally seen resting on vegetation during the day. They are not attracted to lights, but are attracted to pheromone traps.

NATURAL HERITAGE PROGRAM RANKS: GNR [S2S4]

STATE PROTECTION:

COMMENTS: *Vitacea scepsiformis* appears to occur more-or-less statewide, but is seemingly uncommon in many areas such as the Coastal Plain. Additional information is needed on its distribution, abundance and host use before we can accurately assess its conservation status within the state.