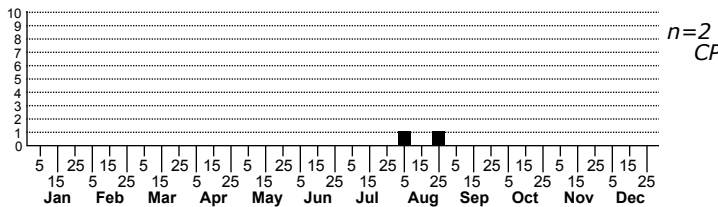
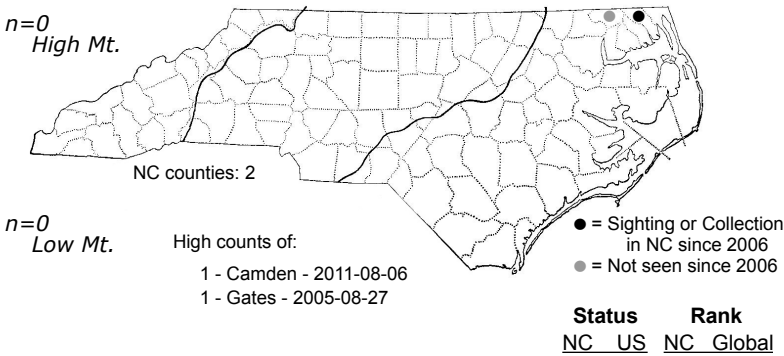
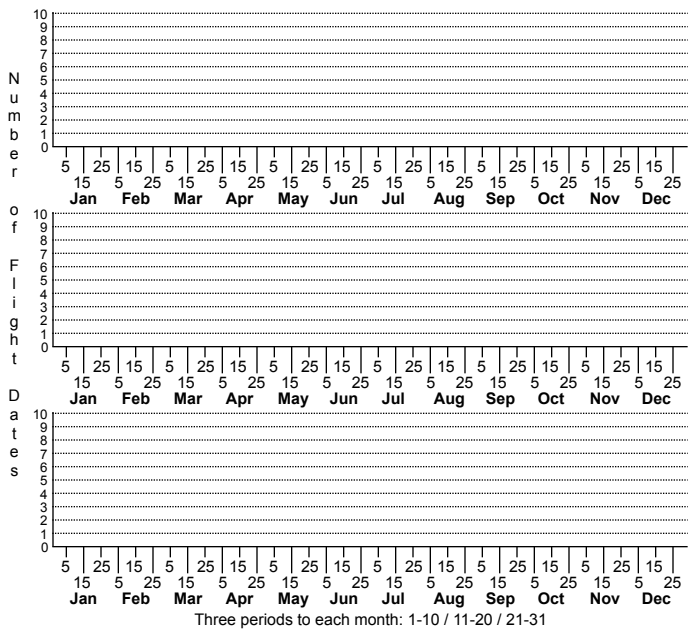


*Paranthrene dollii* Poplar Clearwing



FAMILY: Sesiidae SUBFAMILY: Sesiinae TRIBE: Paranthrenini  
TAXONOMIC COMMENTS: North America has 136 or more species in the family Sesiidae, with 37 species found in North Carolina. Many are similar in appearance to one another, and some 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:

ID COMMENTS: *Paranthrene dollii* is a large, reddish, clearwing moth that mimics red paper wasps (e.g., *Polistes carolina*). The forewing is opaque and dark-brown, with a violet or coppery reflection. Abdominal segments 1-3 are black, while 4-7 are reddish. Segments 2 and 4 each have a narrow reddish-yellow band. Males have a prominent, bipectinate antenna that is strongly dilated at the tip (Solomon, 1995). Females are generally similar, but have a simple antenna, a more robust abdomen, and a very short anal tuft.

The following detailed description of the males is based on that of Engelhardt (1946) and applies to North Carolina specimens. The robust antenna is ochreous with black shading above, broadly bipectinate, and strongly dilated at the tip. The labial palp is rough and rusty red, with black at the bases and on the sides. The head is mostly reddish above and the face shiny sordid white. The thorax varies from black to reddish-black, with the prothorax having a collar of flat scales that are black and edged with rusty red. The tegula and sides are dull brown, and the metathorax has buff and reddish tufts along the sides. The abdomen has segments 1-3 black, 4-7 rufous, and segments 2 and 4 narrowly ringed with pale yellow. Segment 3 is shaded with yellow along its lower margin and segments 5-7 are narrowly edged with black. Banding on the underside is much more pronounced on all segments. The anal tuft is short, narrow, and sordid brown, while the legs are pale rufous with the femora black. The forewing is dark brown, opaque, and has a short reddish bar at the wing base, while the fringe is lighter and blackish-brown. The hindwing is semitransparent and brown, with transparent areas near the wing base and just beyond the discal mark.

Engelhardt (1946) noted that this species shows substantial geographic variation in coloring, with populations from Virginia southward grading into forms where the black and brown on the thorax and abdomen are replaced with bright chestnut and reddish-brown. Specimens in the Midwest typically are darker overall with pale rufous wings and an abdomen with all segments striped with yellow.

DISTRIBUTION: *Paranthrene dollii* is found primarily in the eastern US. There also are isolated records from southeastern Arizona, and in Ontario and New Brunswick. In the eastern US the range extends from Massachusetts southward along the Atlantic Seaboard to southern Florida, and westward to central Texas, central Oklahoma, Missouri, eastern Kansas, Iowa, Wisconsin and southern Minnesota. As of 2024, we have only two records, with both from the northeastern Coastal Plain.

FLIGHT COMMENT: The adults have been found from February through November in the southern portion of the range, but typically fly from April through August elsewhere. As of 2024, our two records are both from August.

HABITAT: Local populations are generally found along the borders of streams, swamps and other natural wetlands where willows and poplar are present. Engelhardt (1946) noted that the best places for collecting are in suburban districts where real-estate developments are interfering with plant growth, leaving trees and shrubs in a weakened and mutilated condition. Our two records as of 2024 are both from natural wetland habitats with swamplands.

FOOD: The larvae appear to specialize on willows and poplars (Engelhardt, 1946; Solomon, 1995), but the specific hosts have rarely been documented. The known hosts include Black Willow (*Salix nigra*), Balsam Poplar (*Populus balsamifera*), Eastern Cottonwood (*P. deltoides*), and ornamental hybrid poplars, but other species of willows and poplars are likely used.

OBSERVATION\_METHODS: The diurnally-active adults are occasionally seen in and around wetlands with the host plants, and the larval bore holes and galleries are often evident at the bases of trees. The adults are also attracted to artificial pheromone lures.

NATURAL HERITAGE PROGRAM RANKS: GNR SNR [S1S2]

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

COMMENTS: This species appears to be rare in North Carolina, with only two records as of 2024, and both from the extreme northeastern Coastal Plain.