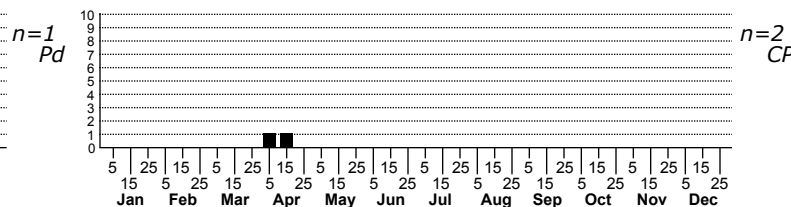
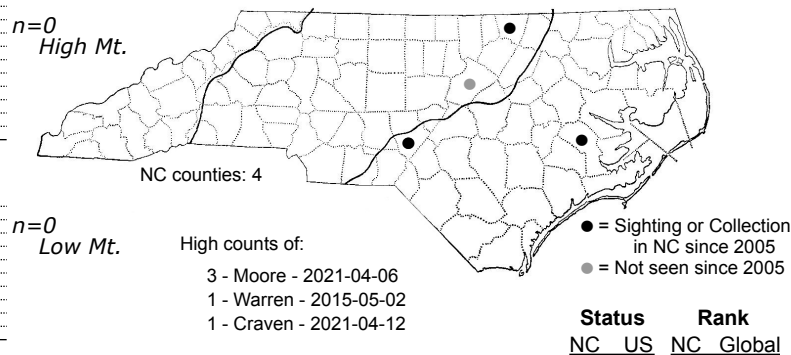
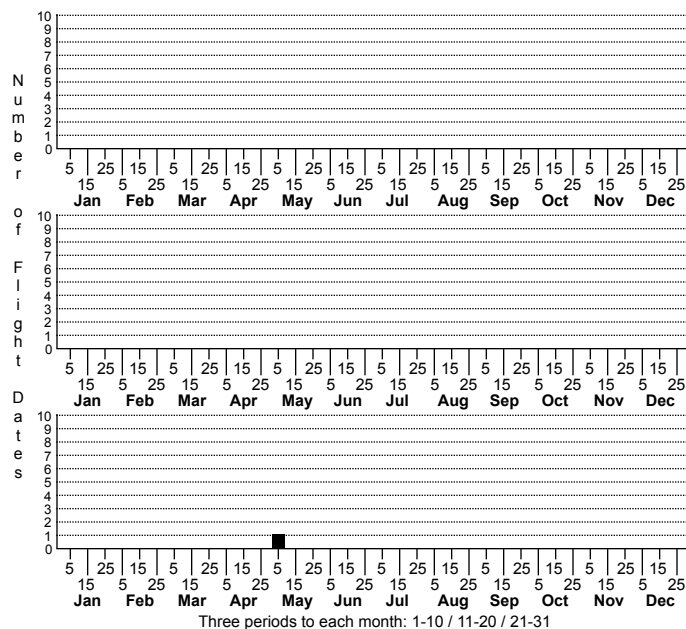


Paranthrene asilipennis Oak Clearwing



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: Covell (1984)

ONLINE PHOTOS:

TECHNICAL DESCRIPTION, ADULTS: Eichlin and Duckworth (1988)

TECHNICAL DESCRIPTION, IMMATURE STAGES: Solomon (1995)

ID COMMENTS: *Paranthrene asilipennis* is sexually dimorphic and is one of our largest clearwing moths. The male has a large, bipectinate, rufous-brown antenna with an orange tip, along with a black abdomen that has narrow yellow bands on most segments. The forewings and hindwings are transparent with dark edges, and there is a burnt-orange elliptical discal mark on the forewing. The female has a simple, rufous-brown antenna with a brownish-red tip. The abdomen is dark brown and most commonly has a single, narrow, yellow band near the base that is preceded by a faint semioval, diffuse, chestnut blotch and a more prominent black band. Specimens are occasionally found with one or more additional dorsal yellow bands. The forewing is mostly opaque with heavy darker dusting, except for a large, transparent, triangular area above the anal angle, and a reddish-orange discal mark. The hindwing is transparent, with the costa and discal mark heavily suffused with brown and red.

The following detailed description of the male is based on that of Engelhardt (1946). The antenna is strong, broadly bipectinate, and rufous-brown with an orange tip. The labial palp is buff and sordid white, with dark brown at the base and sides, and rufous above. The head is black, while the collar is black, with the lower edge yellow or buff. The thorax is brownish-black, with the shoulder chestnut-red, and the tegulae along the sides edged with yellow. The metathorax has a yellow transverse line curved basally and there is a yellow spot at the wing base. The ground color of the abdomen is blackish on the anterior three fifths, then grades into a mix of brownish and chestnut-colored shading on the posterior two-fifths. Segment 1 is black, while the remaining segments have yellow bands that progressively narrow in width towards the tip of the abdomen. The anal tuft is short, blunt, and brown, and the legs are rufous and touched with black and chestnut-red on the femora and tibiae. The forewing is transparent, with the costa and inner margin brownish black and shaded with red. The discal mark is mostly red with dark edges, and the outer margin narrow, with a mix of dull black and red. The fringes are brownish black. The hindwing is also transparent, with the margins and fringes narrow and brownish black, and the discal mark narrow and orange.

DISTRIBUTION: The adults have been found at scattered locations throughout much of the eastern US and adjoining areas of southern Ontario. In the US the range extends from southern Maine and New Hampshire southward to northern Florida, and westward to Louisiana, central Texas, eastern Kentucky, Iowa, Michigan and Wisconsin. Populations appear to be mostly absent from the Appalachian region despite the abundance of oaks in the region. As of 2024, all of our records are from the Coastal Plain and eastern Piedmont.

FLIGHT COMMENT: The adults have been observed from February through August in different areas of the range, with the date of emergence beginning as early as late-February in Florida, in April in North Carolina, and May and June farther north (Solomon, 1995). As of 2024, our records are from early-April through early-May.

HABITAT: Local populations are associated with hardwood forests with oaks, including on both xeric and mesic sites, and often where storm damage or timbering provides entry points for the larvae to bore.

FOOD: The larvae are borers in oaks and appear to use a wide variety of species (Engelhardt, 1946; MacKay, 1968; Solomon, 1995). Although the specific species used have rarely been reported, Solomon (1995) noted that they show a preference for members of the red oak group. The known hosts including Scarlet Oak (*Q. coccinea*), Pin Oak (*Q. palustris*), Northern Red Oak (*Q. rubra*), and Black Oak (*Q. velutina*). Forbes (1923) reported that this species bores in ash and alder roots, but this has not been verified by others. As of 2024, we lack host records for North Carolina.

OBSERVATION METHODS: Local populations are perhaps best documented by searching for evidence of larval borings, or for the adults in the immediate vicinity of freshly damaged trees or cut stumps.

NATURAL HERITAGE PROGRAM RANKS: GNR[S2S3]

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 the eastern US and feeds on oaks, it appears to be uncommon throughout most of its range, including North Carolina.