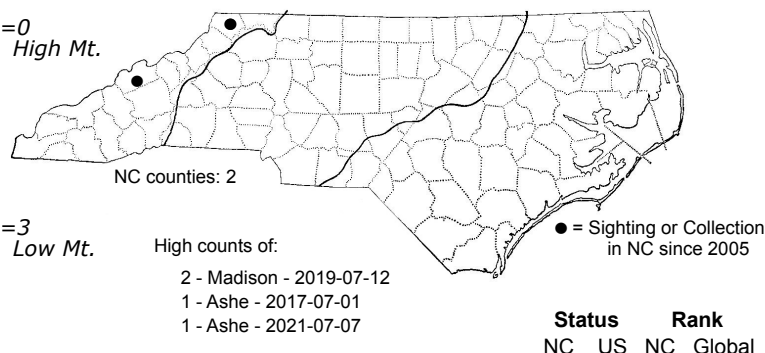
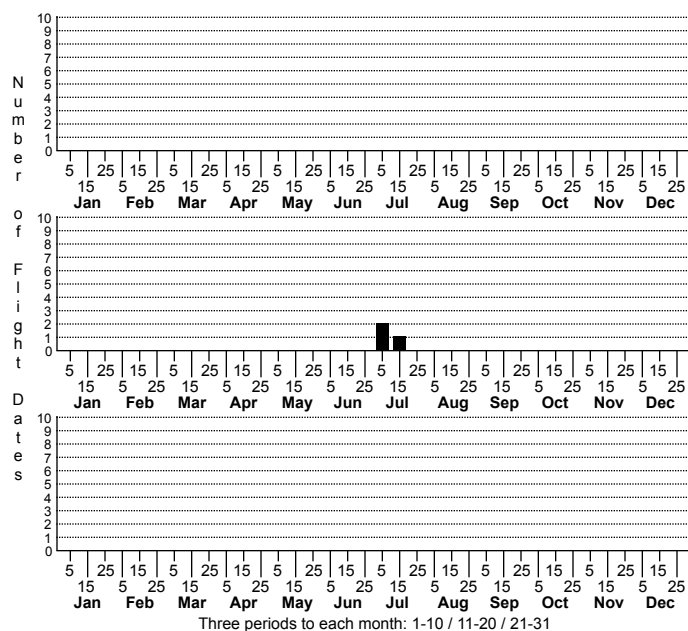


# *Paranthrene pellucida* Pin Oak Clearwing



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: Greenfield and Karandinos (1979a)

TECHNICAL DESCRIPTION, IMMATURE STAGES: Greenfield and Karandinos (1979a)

ID COMMENTS: *Paranthrene pellucida* is a sibling species of *P. simulans* and is morphologically indistinguishable from the latter except for the absence of extensive dark dusting on the forewing. Where they occur sympatrically, *P. pellucida* flies about a month later than *P. simulans* so that the flight seasons only slightly overlap. These two species also show no obvious differences in the male and female genitalia and have very similar life cycles, with a two-year larval period (Eichlin and Duckworth, 1988).

The following detailed description of the male is based on the original description by Greenfield and Karandinos (1979a). The bipectinate antenna has an apical tuft and is black dorsally except for more orange coloration distally. The labial palp is yellow below, with black along the sides. The head has a mixture of black and yellow patterning, with the vertex black. The collar is yellow on the posterior portion and black on the anterior portion, while the thorax is primarily black dorsally, with yellow patches directly anterior to and below the forewing. The tegulae that runs along the sides of the thorax is yellow posteriorly. There is a transverse yellow band posteriorly on the mesonotum, while the metathorax is black with yellow patches laterally. The forewing and hindwing are hyaline, except for a faint brown streak near the brownish discal spot of the forewing. The costal and anal margins are black, and the veins and fringe brownish-black. The abdomen is black and yellow, with segment 1 entirely black and the remainder striped with black and yellow, except for segment 7 that is almost entirely yellow. The tibiae and tarsi of all legs are yellowish-orange. The females are generally similar to the males, but they have a simple antenna and a mesonotum that lacks a transverse yellow band posteriorly. The mid- and hindlimb also have a femora that is more yellow than that of the male.

DISTRIBUTION: *Paranthrene pellucida* is endemic to the eastern US where it has been documented in Ontario, and in the US from Massachusetts and Connecticut westward to Minnesota, and southward through the Appalachian region to southern Ohio, West Virginia and western North Carolina. Specimens have also been taken in Missouri (Eichlin and Duckworth, 1988). As of 2024, we have only two site records from the central and northern Blue Ridge.

FLIGHT COMMENT: The adults have been found from May through August in different areas of the range, with a strong seasonal peak in July. As of 2024, the flight season records that we have for *P. simulans* and *P. pellucida* to not overlap, with *P. simulans* flying in May and June, and *P. pellucida* flying in July.

HABITAT: Our two site records as of 2024 are from lower-elevation mesic hardwood forests in the Blue Ridge.

FOOD: The larvae appear to specialize on oaks, but there are currently very few records of host use. Greenfield and Karandinos (1979) reported that adults were reared from branches of Pin Oak (*Quercus palustris*) that contained larvae, but other individuals were collected in areas where Black Oak (*Q. velutina*) was the most likely host. Sites in North Carolina where adults have been collected do not have either of these species present and other oak species are likely used.

OBSERVATION METHODS: The adults are most easily collected using pheromone traps. More information is needed on host use and the larval life history in North Carolina and elsewhere.

NATURAL HERITAGE PROGRAM RANKS: GNR[S2S3]

STATE PROTECTION:

COMMENTS: As of 2024, this species is only known from two sites in the Blue Ridge at the southern limit of the known geographic range. It may be more abundant and widely distributed than currently realized, and additional information is needed on its distribution both in North Carolina and elsewhere in the eastern US.