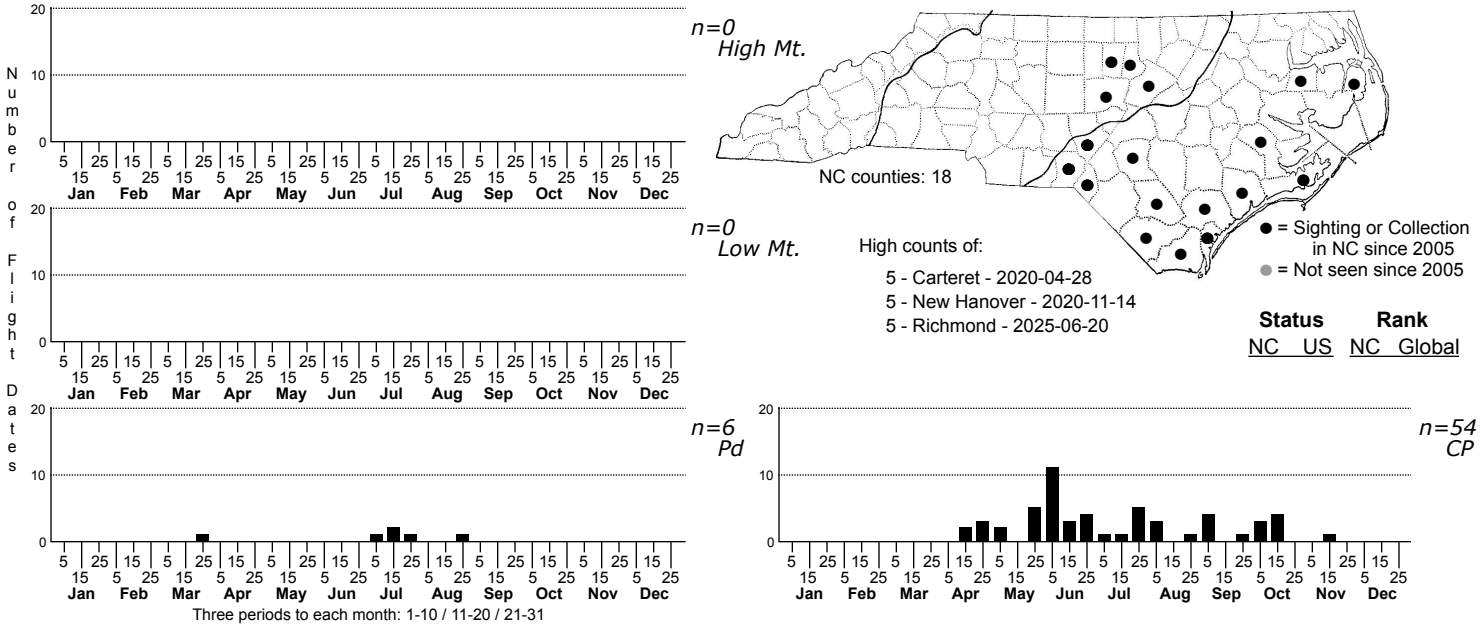
Parapoynx allionealis Watermilfoil Leafcutter Moth



FAMILY: Crambidae SUBFAMILY: Acentropinae TRIBE: Nymphulini
TAXONOMIC_COMMENTS: The genus Parapoynx contains around 60 described species with a nearly worldwide distribution. Seven species occur in North America, with the center of distribution being eastern North America. North Carolina has four species. The larvae are aquatic feeders and can be recognized by the presence of branched gills on all body segments except the prothorax.

FIELD GUIDE DESCRIPTIONS: Beadle and Leckie (2012)
ONLINE PHOTOS:
TECHNICAL DESCRIPTION, ADULTS: Munroe (1972a)
TECHNICAL DESCRIPTION, IMMATURE STAGES:

ID COMMENTS: This species is variable in coloration and patterning, with individuals ranging from being nearly white to uniformly dark brown. The forewing of well-marked individuals often show evidence of an oblique, wavy, fuscous or blackish antemedial line, a slightly stronger but similar postmedial line, a wide brownish to reddish-brown subterminal band, and a thin, black terminal line that parallels the outer margin. The hindwing commonly has four fine irregular parallel black lines, with the outermost the thinnest and similar to the black terminal line on the forewing. A wide brownish to reddish-brown subterminal band is also often present that matches the one on the forewing. Munroe (1972) noted that most specimens have fuscous dots on the discocellulars of both the forewing and hindwing, along with a fuscous dot in the cell of the forewing. These are unique to this species and are not present in any other North American Paraponyx species. In poorly marked specimens all of the markings above may be lost except for the dark discocellular spots of the forewing and hindwing, and even these spots may be only feebly indicated.

Munroe (1972) recognized populations in Florida and Georgia as a separate subspecies (P. a. allionealis) from those in the remainder of the range (P. a. itealis). The ground color of the former is suffused with dull brown in the male and almost uniformly brown in the female. In the male the black cell-spot and discocellular spots are distinct and the transverse lines and bands are reasonably well marked. In the female the markings are very indistinct, and the wings are almost unicolorous brown. Parapoynx a. itealis occurs in North Carolina and is generally lighter overall and with much less dark dusting. Many specimens are nearly white with inconspicuous markings, although the discal spots are almost always evident.

DISTRIBUTION: Parapoynx allionealis has a somewhat unusual range in the eastern US that extends from eastern Texas and Oklahoma eastward along the Gulf Coast states to Florida, then northward along the Atlantic Coast states to Maine. From there the range extends westward across the Great Lakes states to Minnesota and eastern North Dakota. The range also includes much of southern Canada from the easternmost provinces westward to Manitoba. This species appears to be conspicuously absent from several of the interior states such as Kentucky, Tennessee, West Virginia and Missouri. As of 2023, our records are from the eastern half of the state, including the eastern Coastal Plain, Sandhills, and the eastern Piedmont.

FLIGHT COMMENT: The adults can be found year-round in southern populations in Florida, Georgia, Alabama, Louisiana, and Texas, while those in northern populations mostly fly from June through August. Local populations in North Carolina appear to be multivoltine. As of 2023, our records extend from late-March through mid-November.

HABITAT: The larvae are aquatic and feed on submerged and floating plants. As such, local populations are centered around vegetated wetlands that support the host plants.

FOOD: The larvae are polyphagous and feed on a taxonomically diverse array of aquatic plants (Berg, 1950; McGaha 1954; Habeck, 1974; Balciunas and Minno, 1985; Stoops et al., 1998). Balciunas and Minno (1985) reported that the larvae occasionally feed on the stems and leaves of Hydrilla (H. verticillata), while Habeck (1974) provided a comprehensive list of hosts that included Viviparous Spikerush (Eleocharis vivipara), Southern Watergrass (Hydrochloa caroliniensis), Fragrant Water-lily (Nymphaea odorata), Eurasian Water-milfoil (Myriophyllum spicatum), Variable-leaf Water-milfoil (M. heterophyllum), Floating Pondweed (Potamogeton natans), Small Pondweed (P. pusillus), Swollen Bladderwort (Utricularia inflata), and Salvinia (Salvinia rotundifolia). Herlong (1979) and Stoops et al. (1998) surveyed sites in South Carolina and found larvae or pupae on Blue Water-hyssop (Bacopa caroliniana), Water-shield (Brasenia schreberi), Water-milfoil (Myriophyllum), Fragrant Water-lily, Big Floating-heart (Nymphoides aquatica), and Waterthread Pondweed (Potamogeton diversifolius).

OBSERVATION_METHODS: The adults are attracted to lights and the larvae can be found in aquatic vegetation. Rearing is recommended for this and most other species with aquatic larvae.

NATURAL HERITAGE PROGRAM RANKS: GNR S3S4

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

COMMENTS: This species is locally common in North Carolina where suitable wetlands and host plants are present.