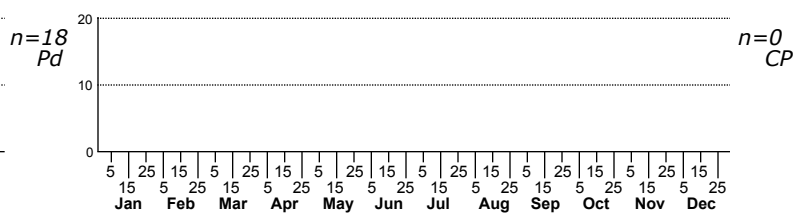
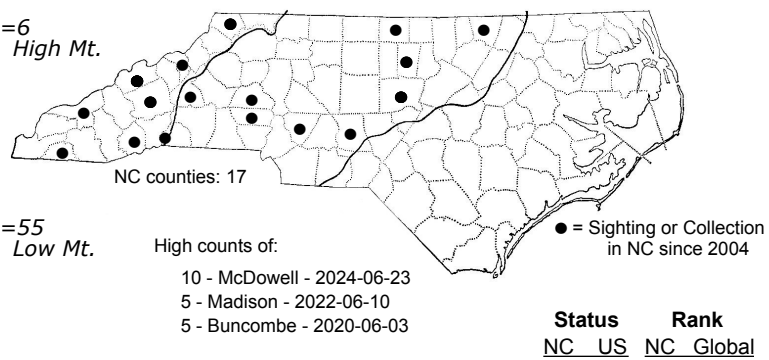
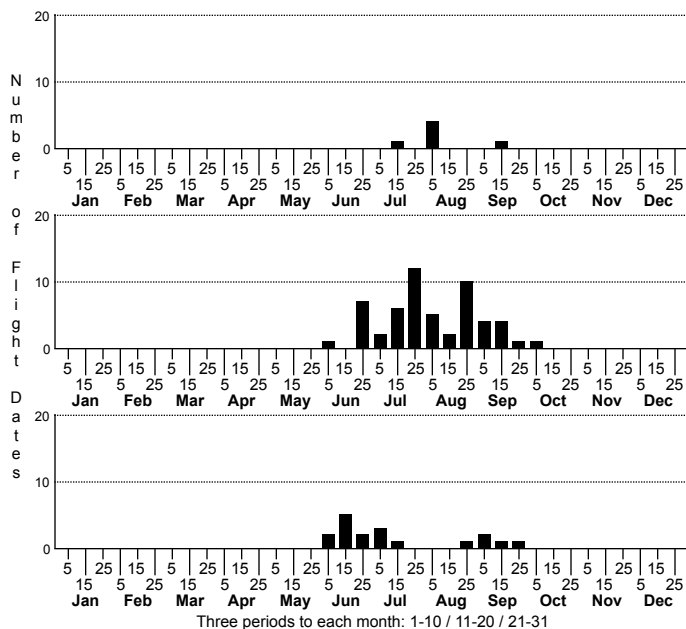


Herpetogramma sphingialis No common name



FAMILY: Crambidae SUBFAMILY: Pyraustinae TRIBE: Spilomelini

TAXONOMIC_COMMENTS: Over 20 species of *Herpetogramma* have been described from North America that are based mostly on external morphology. The most recent treatment consolidates these into only nine species (Solis, 2010) and all nine occur in North Carolina.

FIELD GUIDE DESCRIPTIONS:

ONLINE PHOTOS:

TECHNICAL DESCRIPTION, ADULTS: Handfield and Handfield (2011)

TECHNICAL DESCRIPTION, IMMATURE STAGES:

ID COMMENTS: Among the eastern North American *Herpetogramma*, this is a relatively large species with the wingspan around 31–37 mm (Handfield and Handfield, 2011). The forewing is mostly uniformly dark-brown and the transverse lines that are usually conspicuous on other *Herpetogramma* are obscure. The upperside of the head, thorax, and abdomen are concolorous with the brown forewings. The most conspicuous marks are small, dark orbicular and reniform spots that are separated by a cream-colored rectangular patch, and a white patch on the fringe at the anal angle that contrast with the otherwise brown fringe. A dark terminal line is present at the base of fringe. The hind wing is dark brown with a dark discal spot and concolorous with the forewing. The fringe is dark brown except for a zone of white scales that extends from the anal angle to about one-fourth the length of the fringe.

DISTRIBUTION: The main range of *H. sphingialis* extends from southern Quebec and the adjoining New England states southward and westward through the Appalachian region and Piedmont to central Alabama and central Mississippi. The range extends westward to eastern Ohio, central Kentucky, and throughout most of Tennessee westward to the Ozarks. Isolated populations have been found in southern Louisiana and northern Florida. In North Carolina, this species appears to be restricted to mesic forests in the Piedmont and Blue Ridge.

FLIGHT COMMENT: The adults have been observed from May through September depending on the latitude. Many of these records likely reflect adults that are emerging seasonally from fern balls. It is uncertain if the adults overwinter or simply lay eggs on or near fern fronds, with hatching occurring the following spring in association with the spring warm-up. The known hosts plant are evergreen, which suggests that the latter may be the case. As of 2023, we have records that extend from early-June to early-October. Populations in North Carolina appear to be bivoltine.

HABITAT: This species uses ferns as hosts, and typically uses medium to large species that are found in mesic forested settings.

FOOD: The larvae and associated fern balls are commonly found on Christmas Fern (*Polystichum acrostichoides*) and occasionally on wood ferns (*Dryopteris* spp.). As of 2023, we have reared adults from both the Christmas Fern and Intermediate Wood-fern (*Dryopteris intermedia*), although Christmas Fern appears to be the most commonly used host (Handfield and Handfield, 2011).

OBSERVATION_METHODS: The adults are attracted to lights and can be reared from the fern balls on Christmas Ferns and wood ferns. The presence of fern balls does not provide conclusive evidence of this species since *H. theseusalis* also produces similar fern balls. Rearing is recommended for fern ball records.

NATURAL HERITAGE PROGRAM RANKS: GNR S4S5

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

COMMENTS: Populations are associated with mesic hardwood forests and many local populations have undoubtedly been lost historically due to development, deforestation, and the conversion of hardwoods to commercial pine stands.