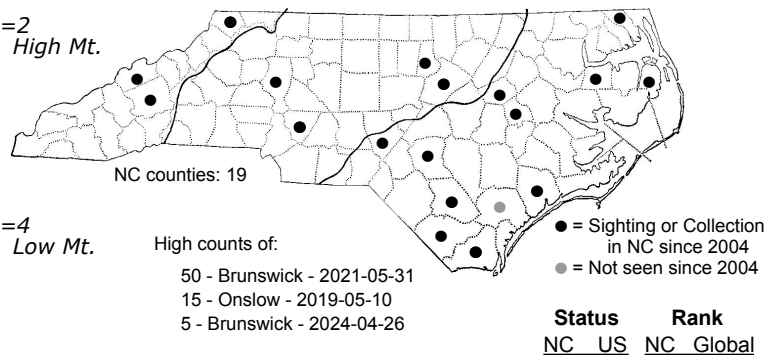
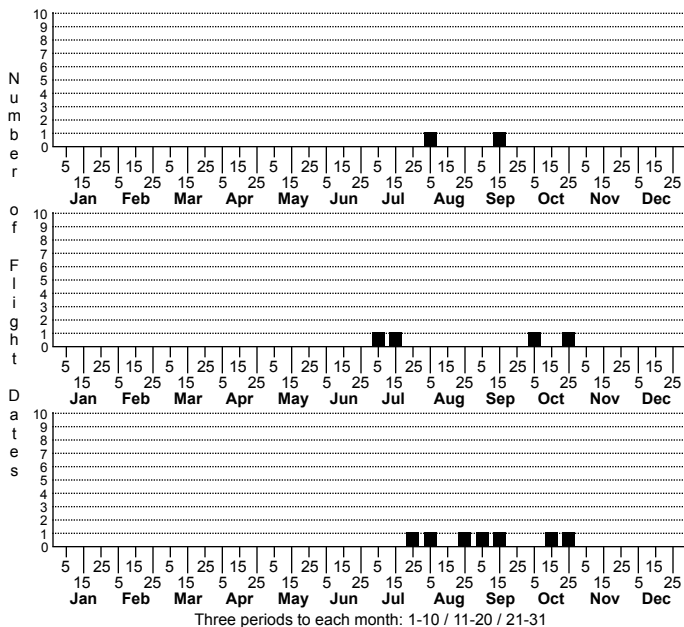


Herpetogramma theseusalis Herpetogramma Moth



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: Forbes (1923, as *Phyltaenia theseusalis*); Solis (2010)

TECHNICAL DESCRIPTION, IMMATURE STAGES:

ID COMMENTS: In this species the head, thorax and abdomen are concolorous with the forewing and hindwing ground color, which varies from warm brown to yellowish brown. The abdomen has a narrow white crossband on the posterior margin of each segment, and the forewing has dark brown to brownish-black marks that contrast with the ground color. The marks include a faint, circular, orbicular spot and a more prominent reniform that is curved or kidney-shaped. The area between the two lacks a whitish patch that is seen in some of our *Herpetogramma* species. The antemedial line is weakly sinuous and bends basally just before reaching the costa. The costa has dark shading from the base to the postmedial line, and the subterminal area lacks prominent dark shading, but is often a shade darker than the general ground color.

The postmedial projects inward from the costa at around three-fourths the wing length. The section near the costa is straight, then meets an outwardly bulged section with three small, rounded teeth. From there the line projects basally and forms a rounded bend near the adjoining reniform spot, then runs relatively straight and obliquely inward to meet the inner margin near the middle of the wing. The hindwing is generally similar, but lacks the antemedial line and has a single discal spot. The postmedial lines of both wings are bordered distally by a narrow, diffuse light tan band. The fringe of both wings is a shade lighter than the adjoining ground color, and there is a narrow, dark brown, marginal line on both the forewing and hindwing.

Herpetogramma centrostrigalis closely resembles *H. theseusalis*, but the latter is smaller, duskier, and has lines and spots that are darker and more contrasting. The subterminal area is also usually a shade darker than the overall ground color, as opposed to being concolorous in *H. centrostrigalis*. In addition, the line between M2 and the costa is relatively straight, as opposed to being curved on *H. centrostrigalis*. *Patania silicalis* is also similar, but lacks an orbicular spot. In addition, the area immediately behind the postmedial line is not conspicuously lighter than the overall ground color.

DISTRIBUTION: *Herpetogramma theseusalis* is broadly distributed across eastern North America. It occurs in southeastern Canada from Ontario eastward to Nova Scotia and vicinity. From there the range encompasses much of the eastern US east of the Mississippi River to as far south as southern Florida. Isolated populations have been found farther west in Minnesota, southern Louisiana, and eastern Texas. This species occurs statewide in North Carolina, with most records from the Coastal Plain and Piedmont.

FLIGHT COMMENT: The adults of this wide-ranging species have been found from April through November, with peak activity occurring in July. As of 2023, we have records from early-June through late-October, with Coastal Plain adults on the wing a few weeks earlier than those in the Piedmont and Blue Ridge. Local populations in North Carolina appear to produce two or three generations per year, with the larvae from the last brood overwintering in the soil.

HABITAT: The larva use several species of ferns that are generally associated with moist grounds.

FOOD: Several fern species are documented hosts (Forbes, 1923; LoPresti and Morse, 2013; Solis, 2010; BugGuide). Potential hosts in North Carolina include the Sensitive Fern (*Onoclea sensibilis*), Marsh Fern (*Thelypteris palustris*), Royal Fern (*Osmunda spectabilis*), Interrupted Fern (*Claytonia virginiana*) and Cinnamon Fern (*Osmundastrum cinnamomeum*). As of 2024, all of our records are for Cinnamon Fern, with one exception for Virginia Chain-fern (*Anchistea virginica*), which is a new host record.

OBSERVATION_METHODS: The adults are attracted to lights and can be reared from fern balls.

NATURAL HERITAGE PROGRAM RANKS: GNR S3S5

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 relatively uncommon throughout the state, perhaps because of its reliance on Cinnamon Fern and other fern hosts that frequent moist habitats and wetlands.