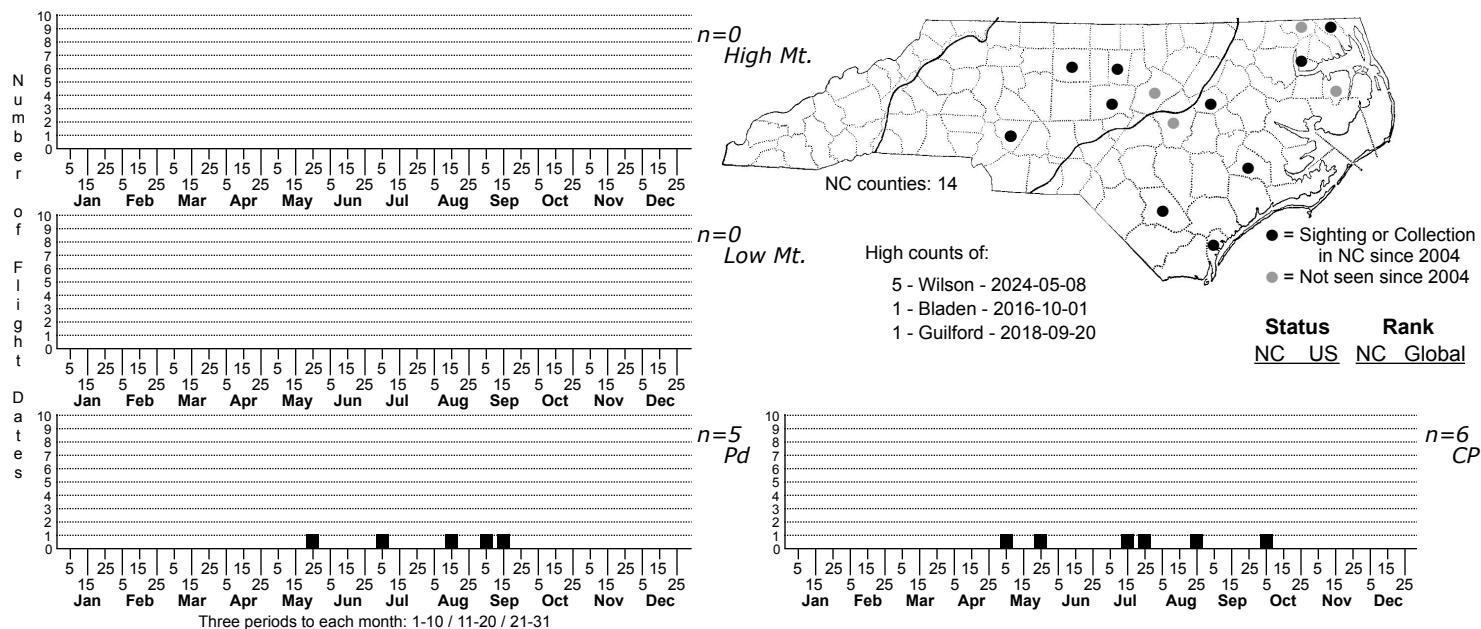


Elophila tinealis Black Duckweed Moth



FAMILY: Crambidae SUBFAMILY: Acentropinae TRIBE: Nymphulini

TAXONOMIC COMMENTS: The genus *Elophila* contains nearly 50 described species that occur on most continents worldwide. Nine species occur in North America -- including seven in North Carolina -- and all have aquatic larvae that feed on floating and submerged plants. The larvae live in cases that are constructed from cut-out portions of leaves or leaf fragments, with pupation occurring within the case. The larvae are gill-less and appear to obtain oxygen by storing air in their cases.

FIELD GUIDE DESCRIPTIONS: Beadle and Leckie (2012; as *Synclita tinealis*)

ONLINE PHOTOS:

TECHNICAL DESCRIPTION, ADULTS: Munroe (1972)

TECHNICAL DESCRIPTION, IMMATURE STAGES:

ID COMMENTS: *Elophila tinealis* is the smallest member of this genus in North Carolina (forewing length = 3-5 mm) and is more-or-less unicolorous with relatively narrow, dark-fuscous wings that lack lighter-colored markings. The following description is mostly based on the description by Munroe (1972). The frons is more rounded and the labial palps are more closely and smoothly scaled than in other species of the genus. The head, thorax, and wings are uniformly blackish fuscous above, although some individuals may have a dusting of whitish scales on the forewing that are sometimes organized as a faint, subcostal spot at around two-thirds the wing length. In general, males tend to be slightly darker than females. The forewings are smoothly rounded, and the legs are grayish fuscous and lack conspicuous marks.

DISTRIBUTION: *Elophila tinealis* is found throughout the eastern US and in Ontario and Quebec. In the US the range extends from the New England states westward to Minnesota and southward to southeastern Texas, the Gulf States, and southern Florida. As of 2023, our records are restricted to the Coastal Plain and eastern Piedmont.

FLIGHT COMMENT: The adults fly year-round or nearly so in the southernmost areas of the range, but mostly from May through October farther north. AS of 2023, our records are from late-May to early October.

HABITAT: The larvae are aquatic and use vegetated wetlands, including those with running water such as canals.

FOOD: The larvae likely feed on a variety of aquatic plants as is the case for most aquatic crambids. Stoops et al. (1998) reported that Water-shield (*Brasenia shreberi*) and duckweeds (*Lemna*) appeared to be important hosts. Kinser and Neunzig (1981) also found that duckweeds (*Lemna*; *Spirodella*) appeared to the most important hosts species. When presented with several other aquatic plants, the larvae fed on *Azolla* and *Elodea* and *Myriophyllum* moderately, while largely avoiding *Potamogeton*, *Polygonum*, and *Nuphar*.

OBSERVATION_METHODS: The adults are attracted to lights and larvae can be found by searching aquatic plants.

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: