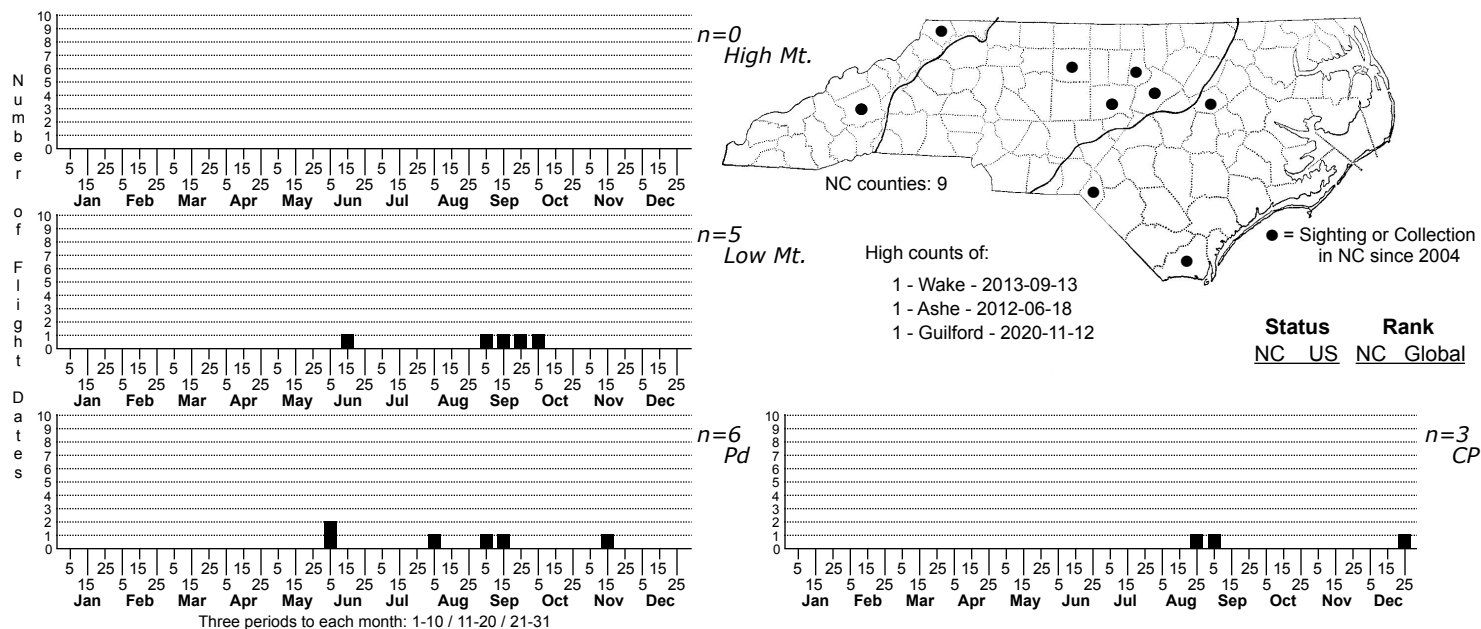


Frumenta nundinella Mottled Twirler



FAMILY: Gelechiidae SUBFAMILY: Gelechiinae TRIBE: Gnorimoschemini

TAXONOMIC_COMMENTS: *Frumenta* is a small genus with only three currently recognized species that are found in North America.

FIELD GUIDE DESCRIPTIONS:

ONLINE PHOTOS:

TECHNICAL DESCRIPTION, ADULTS: Murtfeldt (1881)

TECHNICAL DESCRIPTION, IMMATURE STAGES: Murtfeldt (1881)

ID COMMENTS: The following is based in part on the description by Murtfeldt (1881) and Hayden et al. (2013). The ground color of the head, body and forewings is pale buff to yellowish white, with ochreous to dark gray shadings and a sparse dusting of blackish scales. The labial palp extends beyond the vertex. The second joint is thickened but smooth, and the terminal joint has two broad dusky bands. The forewing has numerous and rather poorly defined dark spots or blotches that produce a somewhat mottled appearance. These tend to be arranged in narrow, inconspicuous longitudinal rows. The region along the dorsal margin has less dark coloration than the remainder of the wing, and a series of 7-10 dark spots are present around the wing tip. The hindwing is grayish yellow or light gray, with a sub-rectangular, rounded apex. The fringe has long hairs that are paler than the wing proper. The abdomen has dense, white scales at the base of the dorsal surface of the first segment and yellowish orange scales on the dorsal surfaces of the first three segments. The legs are pale with darker banding, and the tibia of the hind leg is densely tufted.

DISTRIBUTION: *Frumenta nundinella* is found in eastern North America in the southern and midwestern US to as far north as Ontario. The range in the US extends from Massachusetts and New York southward to Florida, and westward to central Texas, Oklahoma, Missouri, Illinois, and Wisconsin. As of 2023, we have records from all three physiographic provinces in the state.

FLIGHT COMMENT: The adults overwinter and have been found from March through October in areas outside of North Carolina. Most populations appear to be bivoltine, with the first brood occurring as the host plant begins to leaf out. As of 2023, we have records from early-June through late-November.

HABITAT: The host plant is a widespread native weedy species that is associated with old fields, cow pastures, roadsides, and ruderal habitats.

FOOD: The only documented host is Carolina Horsenettle (*Solanum carolinense*).

OBSERVATION_METHODS: The adults are attracted to lights, and the larvae can be found on Carolina Horsenettle during the summer and early fall.

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: As of 2021, we have only eight site records for the state. More information is needed on the distribution and abundance of this species before we can assess its conservation status.