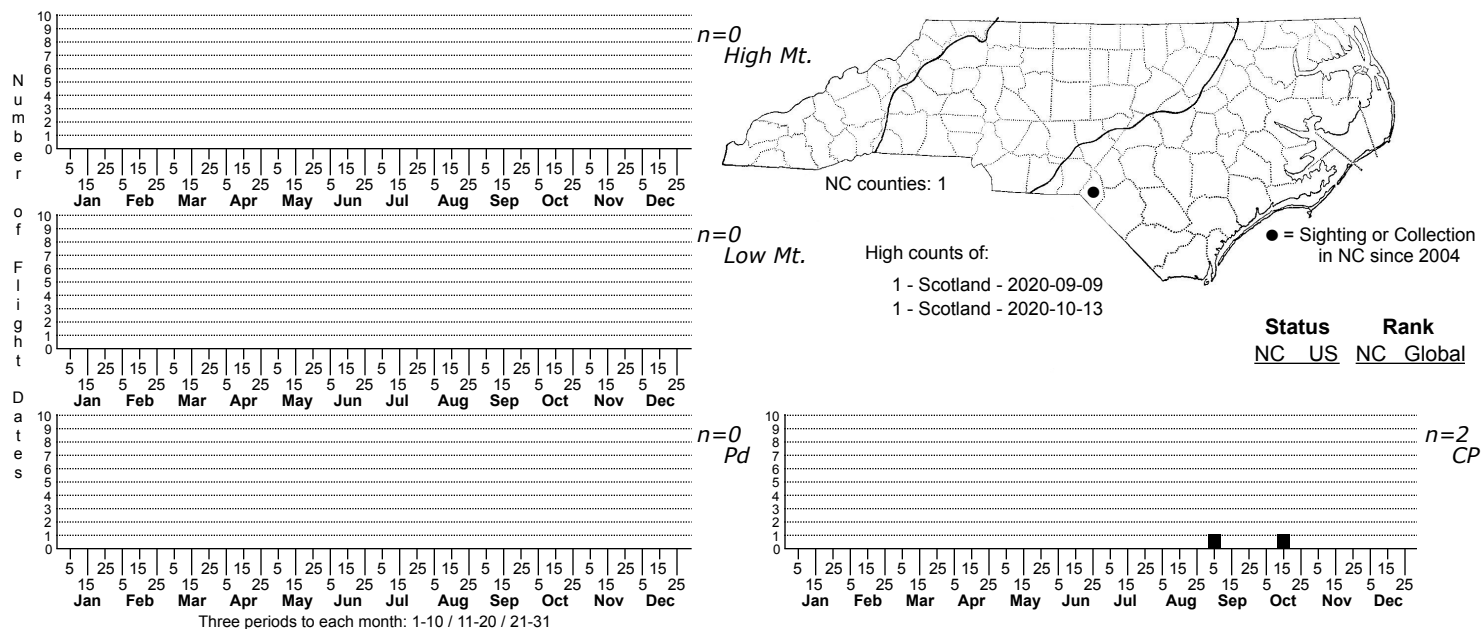


Grapholita delineana Eurasian Hemp Moth



FAMILY: Tortricidae SUBFAMILY: Olethreutinae TRIBE: Grapholitini
 TAXONOMIC_COMMENTS:

FIELD GUIDE DESCRIPTIONS:

ONLINE PHOTOS:

TECHNICAL DESCRIPTION, ADULTS: Gilligan et al. (2008)

TECHNICAL DESCRIPTION, IMMATURE STAGES:

ID COMMENTS: This species is essentially identical to *Grapholita tristrigana* and the following description applies to both. The palps are dull white, while the head, thorax, antennae, and ground of the forewing vary from dark brown to brownish gray. The most conspicuous mark is a large pale-yellow to off-white blotch on the middle of the dorsal margin that is divided by three brownish-black lines. The patch curves outwardly and stops near the middle of the wing where it adjoins a small bluish metallic spot. The ocellus is poorly expressed and is represented by a lead-colored bar only. A blackish spot is present at the apex, and the costa has a series of 10 or 12 closely crowded but clean-cut white costal striae. These extend from around one-fourth to the apex and alternate with blackish streaks that extend farther into the interior of the wing. Three or four of the white striae have bluish-metallic extensions that terminate before reaching the middle of the wing. The fringe is grayish and a black terminal line is present along the termen. The hindwing is concolorous with the forewing ground and has a gray to whitish fringe.

Grapholita delineana is difficult to distinguish from *G. tristrigana*. In the former the white stripes in the dorsal patch are sometimes narrower and distinctly separated by the darker lines, while those in *G. tristrigana* may be confluent. However, there is much overlap in variation between the species and the two are best separated using genitalia (Miller, 1982). Until we have a better understanding of how to distinguish these species, dissection will be required for a positive identification. Additional specimens are needed for study.

DISTRIBUTION: *Grapholita delineana* is native of East Asia, but has been introduced around the world in association with the commercial production of hemp. It was first recorded from North America in 1943 and has spread widely since then (Miller, 1982). Specimens have been documented in Ontario, Canada, and from Massachusetts westward to Iowa and Wisconsin, and southward to Kentucky, North Carolina, and Georgia.

FLIGHT COMMENT: Please refer to the flight charts.

HABITAT: Local populations as commonly found in open, weedy settings where either marijuana and other members on the Cannabaceae are present.

FOOD: The larvae feed on members on the Cannabaceae (McPartland, 2002; Park 1983; Robinson et al. 2010). The known hosts include marijuana or hemp (*Cannabis sativa*), Japanese Hops (*Humulus japonicus*), and Common Hops (*H. lupulus*). A smartweed (*Polygonum*) has also been reported to be a host (Robinson et al. 2010), but has not been verified by rearing and is questionable.

OBSERVATION_METHODS: The adults are attracted to lights and the larvae and stem galls can be found on the host plants.

NATURAL HERITAGE PROGRAM RANKS: GNR SNA

STATE PROTECTION:

COMMENTS: This is an introduced species in North America and does not merit protection.