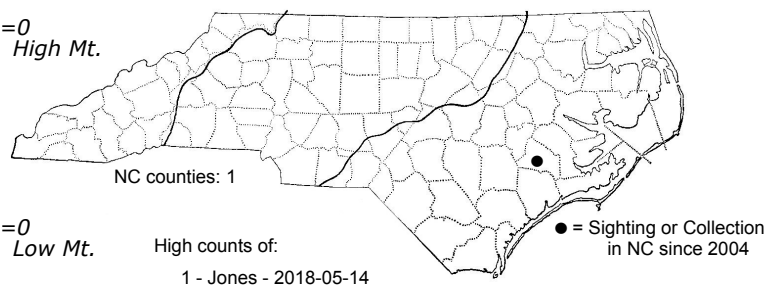
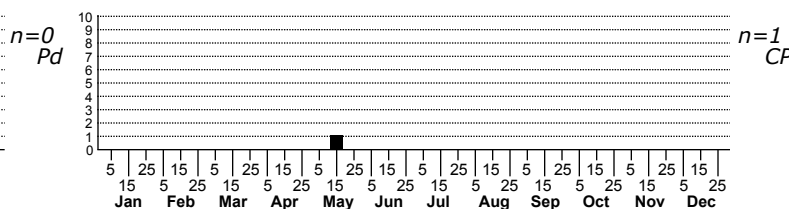


Grapholita tristrigana Three-lined Grapholita Moth



Status		Rank	
NC	US	NC	Global



FAMILY: Tortricidae SUBFAMILY: Olethreutinae TRIBE: Grapholitini
TAXONOMIC_COMMENTS:

FIELD GUIDE DESCRIPTIONS:

ONLINE PHOTOS:

TECHNICAL DESCRIPTION, ADULTS: Forbes (1923); Gilligan et al. (2008)

TECHNICAL DESCRIPTION, IMMATURE STAGES:

ID COMMENTS: This species is essentially identical to *Grapholita delineana* and the following description is based in part on those by Clemens (1865) and Forbes (1923). 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 patch 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 to 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 further 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 tristrigana is difficult to distinguish from *G. delineana*, which is an introduced species from East Asia. In the latter the white stripes in the dorsal patch are often 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 many specimens appear identical. 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 tristrigana* occurs from Vermont and Massachusetts southward to southern Florida, and westward to eastern Texas, eastern Oklahoma, Nebraska, Iowa, and Wisconsin. Populations have also been found in Ontario, Canada.

FLIGHT COMMENT: Please refer to the flight charts.

HABITAT: This species is typically found in prairies, fields, roadways, and open woodlands that support the host plants.

FOOD: Legumes appear to be the primary hosts (Heinrich, 1926; MacKay, 1959; Kimball, 1965; Miller, 1982; Robinson et al., 2010), including lupines (*Lupinus*), White Wild Indigo (*Baptisia alba*), Yellow Wild Indigo (*B. tinctoria*), and probably other *Baptisia* species. Marijuana (*Cannabis sativa*) has been reported to be a host, but this likely reflects misidentified specimens of *G. delineana* (Miller, 1982).

OBSERVATION_METHODS: The adults are attracted to lights and the larvae can be found in seed pods of lupines and *Baptisia* species.

NATURAL HERITAGE PROGRAM RANKS: GNR [S2-S3]

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 uncommon in North Carolina, but additional information is needed on its distribution and abundance before its conservation status can be evaluated.