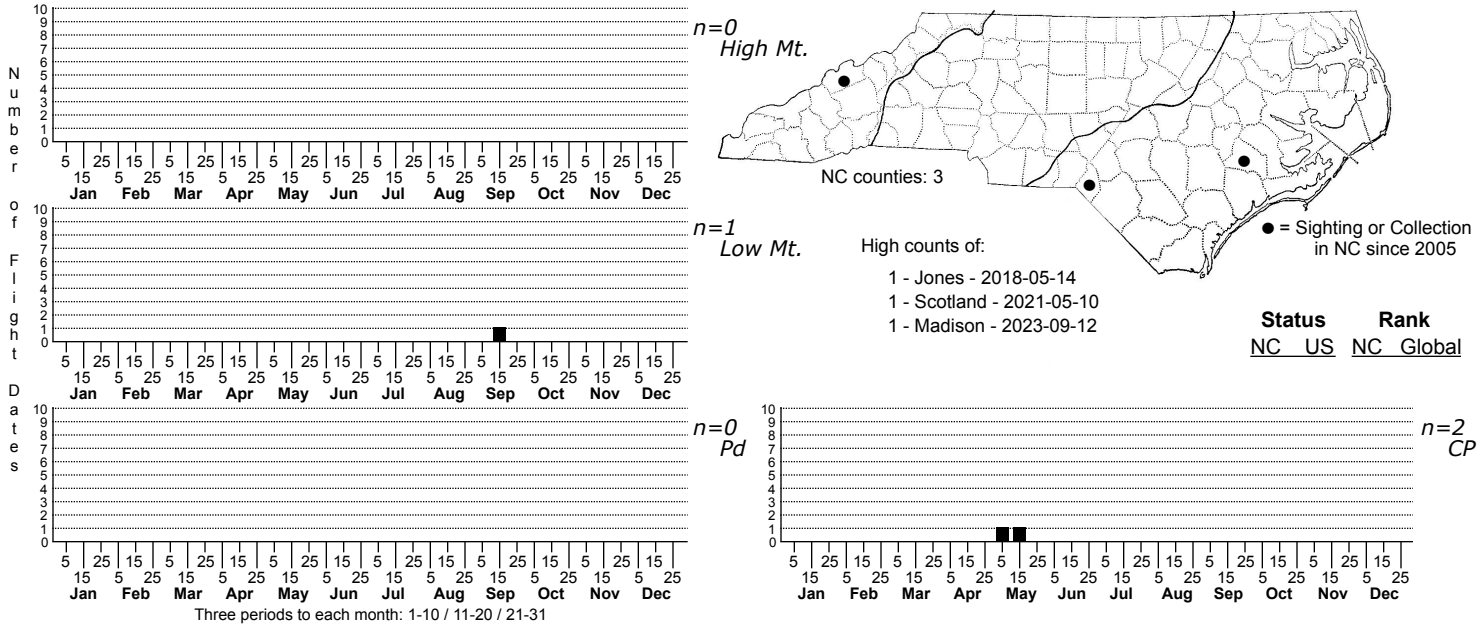
Walshia miscecolorella Sweetclover Root Borer Moth



FAMILY: Cosmopterigidae SUBFAMILY: Chrysopeleiinae TRIBE: [Chrysopeleiini]
TAXONOMIC_COMMENTS:

FIELD GUIDE DESCRIPTIONS: Covell (1984); Beadle and Leckie (2012)
ONLINE PHOTOS:
TECHNICAL DESCRIPTION, ADULTS: Hodges (1978)
TECHNICAL DESCRIPTION, IMMATURE STAGES:

ID COMMENTS: Most of the Walshia in the eastern US cannot be reliably distinguished based on external features and require the examination of genitalia (Hodges, 1978). In addition, W. miscecolorella, which was once thought to be a single species, appears to contain a group of cryptic species (12 BINS currently recognized on BOLD). There are an undetermined number of undescribed species in the W. miscecolorella complex, including at least one that occurs in North Carolina.

The following is a general description that applies to all of these cryptic species, including W. floridensis, W. similis, and members of the W. miscecolorella complex. The face and vertex are dark brown. The labial palp is recurved and brownish exteriorly. The antenna is brownish with a whitish tip, and has a pecten that consists of a single scale at the base of the first segment. The thorax and basal third of the forewing are dark brown, and the posterior edge of the dark brown area extends obliquely from the costa to the inner margin. It adjoins a broad lighter band at one third to one-half that runs roughly parallel to it from the costa to the inner margin. Beyond the light band there is a darker zone on the apical half. This area is darker than the median band, but lighter than the basal one-third. There are several patches of large raised scales, including a pair of dark patches at one-fifth. The first of these is just below the costa, while the second is just posterior to the first and between the fold and the dorsal margin. At about two-fifths there is a pair of light patches, including one that occurs from the costa to the fold, and a second smaller patch that is just posterior to this and between the fold and the dorsal margin. A final dark patch is often evident at about four-fifths near the middle of the wing. In addition to these prominent patches, there are six small patches that are evenly distributed from the tornus to the apex, and three or four similar patches along the costal margin from about three-fourths to the apex. Many of the patches may be missing in worn specimens. The cilia are fuscous to grayish. The hindwings are dark fuscous and the cilia slightly lighter. The abdomen is dark brown dorsally and pale buff ventrally. The legs are dark brown on the outer surface, shining buff on the inner surface, with light gray to white rings at the middle and apices of the tibiae. The tarsal segments are light gray apically.

Walshia miscecolorella appears to be uncommon in North Carolina. As of 2020, we have only a single confirmed record based on identification from genitalia. Stilbosis tesquella is similar, but has a light golden region on the head, thorax, and extreme base of the wing and a different pattern of raised patches.

DISTRIBUTION: Hodges (1976) reported that W. miscecolorella occurs from Washington, D.C., the Prairie Provinces and southern British Columbia south to Florida and southern California. This statement applies to what was thought to be a single species, but it now considered to be a species complex with several undescribed species. The exact range of W. miscecolorella (sensu stricto) is poorly resolved. Records from iNaturalist, MPG and other sites are unreliable since most are not based on genitalic traits or barcoding. As of 2020, we have a single record from Jones Co. near the coast.

FLIGHT COMMENT: Hodges (1976) reported that moths of this species complex have been collected from spring through fall over much of the range. As of 2020, our one record is from mid-May.

HABITAT: The habitat requirements are unknown.

FOOD: Larvae of members of the W. miscecolorella species complex are stem and root borers in several legumes, including species of Lupinus, Astragalus, Arachis, and Melilotus (Hodges, 1978). It is uncertain if any of these are used by W. miscecolorella (sensu stricto) in North Carolina.

OBSERVATION_METHODS: The adults are attracted to lights. Collecting and examination of genitalia is essential for identification.

NATURAL HERITAGE PROGRAM RANKS: GNR SU

STATE PROTECTION: Has no legal protection, although permits are required to collect it on state parks and other public lands.

COMMENTS: We currently do not have sufficient information on the distribution and abundance of this species to assess its conservation status.