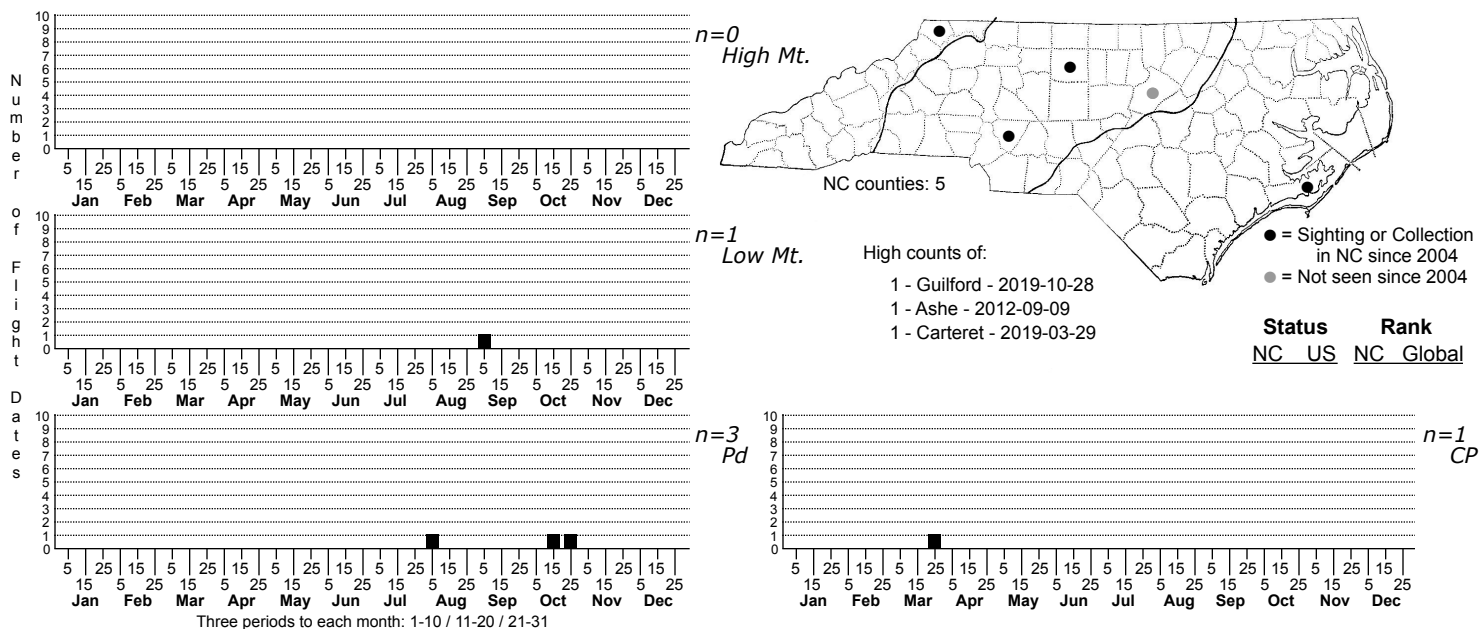


# *Gnorimoschema gallaesolidaginis* Goldenrod Gall Moth



FAMILY: Gelechiidae SUBFAMILY: Gelechiinae TRIBE: Gnorimoschemini

TAXONOMIC\_COMMENTS: The genus *Gnorimoschema* contains over 115 species of small moths. There are more than 80 species in North America, and most are found in the southwestern US. They appear to specialize on members of the Asteraceae and have a diverse array of feeding niches that includes leafminers and gall-makers.

FIELD GUIDE DESCRIPTIONS: Covell (1984)

ONLINE PHOTOS:

TECHNICAL DESCRIPTION, ADULTS: Riley (1869)

TECHNICAL DESCRIPTION, IMMATURE STAGES: Leiby (1922); Miller (1963)

ID COMMENTS: The following is based in part on the description by Riley (1869). The head, thorax and labial palp are pale with varying levels of dark brown dusting. The antenna has faint brown with pale annulations. The forewing ground is mostly dark brown. A pale fascia with darker speckling begins on the costa at about one-fifth the wing length. It curves gently towards the inner margin, where it fuses with a concolorous longitudinal band along the inner margin. The band along the inner margin is narrow and extends from near the wing base to around four-fifths, where it often tends to deflect inward and continue towards the wing tip. The apical third is variable, but tends to be paler than the ground in the remainder of the wing and heavily speckled with darker coloration. There is often a poorly defined, pale costal blotch at about four-fifths. The head, thorax, and the base of the forewing before the fascia are usually paler than the central area of the wing where a broad region of dark brown is present. The cilia are concolorous with the ground in the apical third, and the hindwing is gray with lighter cilia. The legs are dark brown to blackish with pale to whitish annulations.

DISTRIBUTION: *Gnorimoschema gallaesolidaginis* is found throughout much of southern Canada (British Columbia to Nova Scotia) and in the eastern US from Maine southward to Florida, and westward to central Texas, Oklahoma, Illinois, Wisconsin, and Minnesota. As of 2021, we have a few scattered records from all three physiographic regions of the state.

FLIGHT COMMENT: Adults have been collected during almost every month of the year in areas outside of North Carolina, but most are from August and September. Populations are univoltine, and breeding occurs in the late summer or early autumn (Riley, 1869; Leiby, 1922; Miller 1963). Records from late autumn through early spring may reflect post-reproductive adults that survived through the winter. As of 2021, our records are from early September through late October, with one record from the coast from late March.

HABITAT: The larvae feed on Tall Goldenrod and Giant Goldenrod in North Carolina. The first species is common in a variety of open, sunny settings such as fields, infrequently mowed roadways, the edges of agricultural fields, forest clearings, and clearcuts. Giant Goldenrod is also found in open, sunny sites, but grows in wet habitats.

FOOD: The larvae feed on goldenrods. Tall Goldenrod (*Solidago altissima*) and Giant Goldenrod (*S. gigantea*) are the primary hosts (Leiby, 1922; Miller 1963; Nason et al., 2002). Leiby (1922) also reported that Gray Goldenrod (*S. nemoralis*) is used, but apparently only rarely.

OBSERVATION\_METHODS: The adults are attracted to lights, but many records are from adults that were reared from the conspicuous galls.

NATURAL HERITAGE PROGRAM RANKS: GNR S2S3

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

COMMENTS: We have a few scattered records from throughout the state. More information is need on the distribution and abundance of this species before we can assess its conservation status.