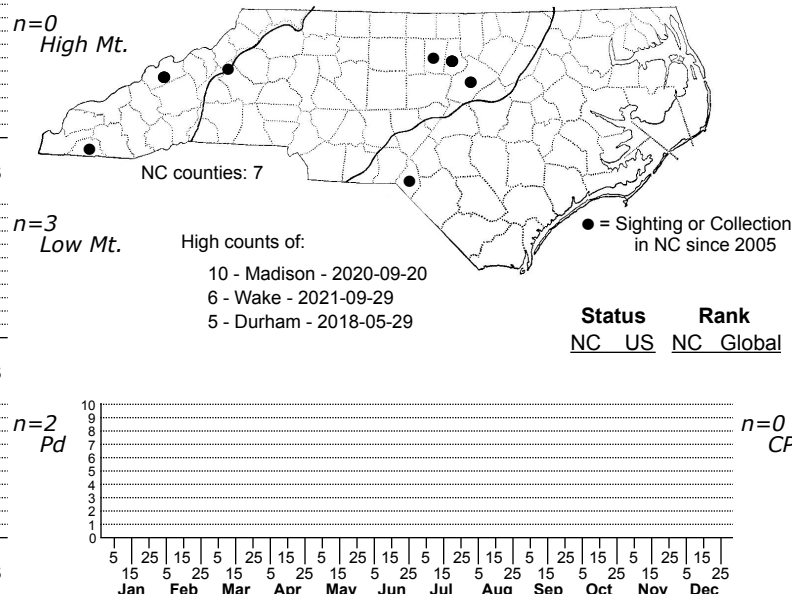
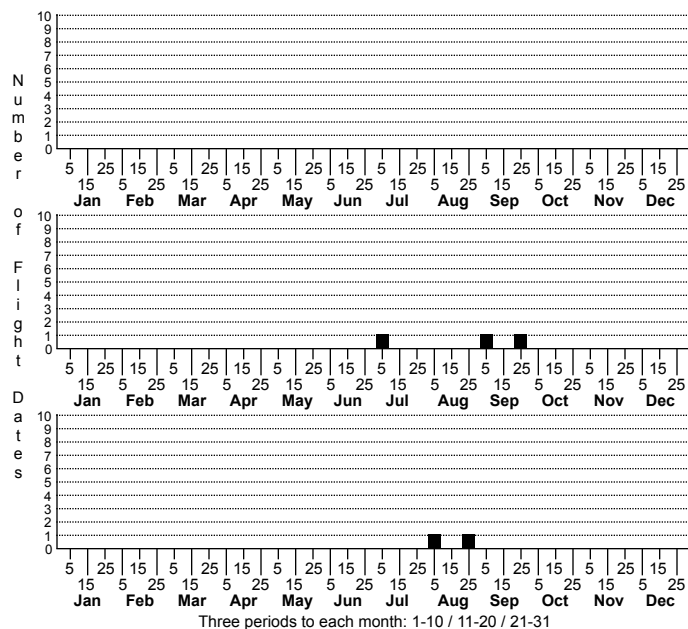


# *Astrotischeria solidagonifoliella* None



FAMILY: Tischeriidae SUBFAMILY: [Tischeriinae] TRIBE: [Tischeriini]

TAXONOMIC\_COMMENTS: The genus *Astrotischeria* contains 13 Nearctic species that are leafminers, and most specialize on members of the Asteraceae.

FIELD GUIDE DESCRIPTIONS:

ONLINE PHOTOS:

TECHNICAL DESCRIPTION, ADULTS: Braun (1972)

TECHNICAL DESCRIPTION, IMMATURE STAGES: Braun (1972)

ID COMMENTS: The following is Braun's (1972) verbatim description of adults based on studies of 89 specimens from throughout the range of the species. Head varying in color from cream to pale ochreous, antennae whitish, becoming darker toward apex, ciliate in both sexes, cilia very long in male, long in female. Fore wings variable in ground color, pale cream or whitish to ochreous; markings formed by groups of dark-tipped scales with sometimes a scattering of fuscous scales over the entire wing surface; there is great variation in the presence of the patches of darker scales, some of which may form clearly defined markings; in some specimens, there is no grouping of dark scales, but merely a dusting of fuscous scales, a little denser along costa, in the area where the costal patch (as described by Clemens) lies. Well-marked specimens may be described as follows: a small spot in disc at about one third the wing length, with a few scattered dark scales or a small spot before it; a line of dark scales along dorsum, which may form a well-defined spot at mid-dorsum; a relatively large patch just above tornus, costal margin more or less darkened with fuscous scales, which may form a dark spot on costa opposite the space between the mid-dorsal and tornal spots; apical area of the wing darkened with scattered fuscous scales, somewhat grouped at apex and on termen. Cilia pale cream or whitish ochreous. Hind wings whitish to pale fuscous ochreous. Legs whitish, shaded with fuscous in darker specimens. Abdomen whitish to pale brownish ochreous. *Astrotischeria solidagonifoliella* varies markedly in the degree to which dark marking are present on the fore wings and cannot always be reliably separated from other *Astrotischeria*. This species lacks the oblique dark bar or streak from the basal third of costa that is usually evident in *A. astericola* and *A. ambrosiaeella*. Positive identifications are best achieved by using either genitalia, molecular markers, or by finding leaf mines and rearing adults. *Astrotischeria* species have non-overlapping host preferences and most locality records in the eastern US are based on leaf mines or adults that were reared from mines.

DISTRIBUTION: *Astrotischeria solidagonifoliella* is found in eastern North America from southern Canada southward to Missouri, Arkansas, and North Carolina. As of 2019, we currently have only a few records for North Carolina that include Madison, Scotland, Wake, and Durham Counties (BugGuide). Searches for leaf mines will likely yield many new locality records for the state.

FLIGHT COMMENT: Based on records in Braun (1972) the adults are most active from May-September. Two leaf mines were collected in mid and late October in North Carolina that each contained what appeared to be an overwintering pupa.

HABITAT: The larvae feed entirely on goldenrods (*Solidago* spp.) and are found in a variety of habitats with the host species. These include open, disturbed habitats such as roadsides and abandoned lots, old fields, and forests and forest edges.

FOOD: The larvae mine the leaves of goldenrods. Documented host species include Tall Goldenrod (*S. altissima*), Bluestem Goldenrod (*S. caesia*), Canada Goldenrod (*S. canadensis*), Hairy Goldenrod (*S. hispida*), Early Goldenrod (*S. juncea*), Gray Goldenrod (*S. nemoralis*), Wrinkle-leaf Goldenrod (*S. rugosa*), Stiff Goldenrod (*S. rigida*), Autumn Goldenrod (*S. sphacelata*), and Elmleaf Goldenrod (*S. ulmifolia*) (Eiseman, 2022). In North Carolina, we have records from *S. altissima*, *S. canadensis*, and *S. nemoralis*.

OBSERVATION\_METHODS: This species appears to rarely visit lights, and most records are based on leaf mines or adults raised from leaf mines. We recommend searching for mines on goldenrod during the summer and early autumn months, and rearing adults whenever possible.

NATURAL HERITAGE PROGRAM RANKS: GNR S2S4

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

COMMENTS: This small leafminer has been undercollected within the state and may be more abundant and widespread than our current records suggest. We currently do not have sufficient information to assess its conservation status.