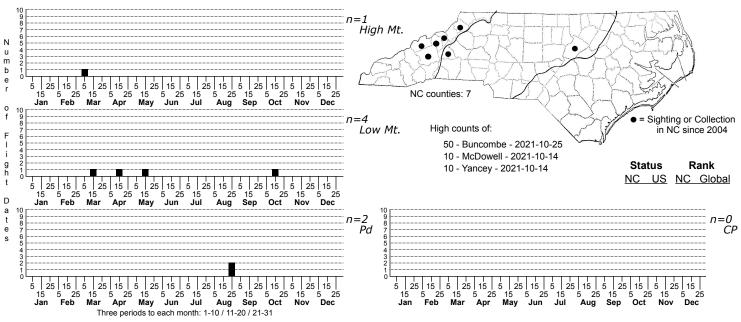


## Acrocercops astericola Aster Tentiform Blotchminer



FAMILY: Gracillariidae SUBFAMILY: Gracillariinae TRIBE: [Gracillariini]

TAXONOMIC\_COMMENTS: The genus <i>Acrocercops</i> includes six recognized species in North America. Four of these are misapplied, including <i>Acrocercops astericola</i>, but the correct genus to assign them to has not been determined. The genus name is sometimes placed in quotation marks (&ldquo;Acrocercops&rdquo; astericola) to indicate the misapplied name. The adults of most species are rather boldly marked, and the larvae are leaf miners that produce linear blotch mines (Pohl and Nanz, 2023).

FIELD GUIDE DESCRIPTIONS: ONLINE PHOTOS: TECHNICAL DESCRIPTION, ADULTS: TECHNICAL DESCRIPTION, IMMATURE STAGES: Eiseman, 2019

ID COMMENTS: The following is based in part on Forbes (1923). The head and thorax vary from white to light tan, and the palps are whitish, with a dark blotch often evident near the middle. The eyes are reddish. The antenna is white with dark annulations, and about as long as the forewing. The ground color of the forewing is luteous with heavy brown dusting. The forewing has a series of either paired white blotches and streaks, or complete fascias, all with blackish anterior margins. These typically include a pair of small costal and dorsal blotches just before the mid-point of the wing, a complete or nearly complete fascia just beyond the mid-point that terminates just before the inner margin, and two thinner and smaller fascias (sometimes incomplete) just before the wing tip. At the apex there is a white spot with a dark anterior margin. The fringe has two dark bars that parallel the base of the fringe. The legs are light tan with darker bands and blotches. The upper portions of the front and middle legs are heavily marked with black, while the lower tarsi are whitish with small black blotches near the joints. Adults often posture with the front of the body strongly elevated above the substrate. <i>Leucospilapteryx venustella</i> is superficially similar to <i>Acrocercops astericola</i>, but the latter lacks a well-defined white streak that extends along the inner margin from the base to near the first dorsal blotch.

DISTRIBUTION: <i>Acrocercops astericola</i> is widely distributed in North America. Most records are from eastern North America, including southern Canada (Ontario; Quebec) and much of the eastern US, but populations also occur in western Canada (British Columbia; Alberta) and Colorado. In the eastern US, the range extends from the northeastern states to as far south as northern Florida, and as far west as Wisconsin, Oklahoma and Texas. As of 2021, our records are from the eastern Piedmont and the mid- to higher elevations in the Blue Ridge.

FLIGHT COMMENT: Adults or occupied mines have been found from March-October in this wide-ranging species. Local populations typically breed after asters have fully leafed out. As of 2021, our records for mines are from June through October.

HABITAT: This species uses a variety of asters that are found in both mesic forests and forest edges, as well as more open, sunny habitats. Representative habitats include mesic hardwood and mixed-hardwood forests, the edges of woodlands and forest roads, and moist to somewhat drier habitats in sunny sites such as abandoned agricultural fields, ditches, and road corridors.

FOOD: The larvae mine the leaves of a variety of asters, including species of  $\langle i \rangle$ Doellingeria $\langle i \rangle$ ,  $\langle i \rangle$ Eurybia $\langle i \rangle$ ,  $\langle i \rangle$ Oclemena $\langle i \rangle$ ,  $\langle i \rangle$ Symphyotrichum $\langle i \rangle$  and  $\langle i \rangle$  Euthamia $\langle i \rangle$ . Some of the known hosts include Tall Flat-top Aster ( $\langle i \rangle$ Doellingeria umbellata $\langle i \rangle$ ), White Wood-aster ( $\langle i \rangle$ Eurybia divaricata $\langle i \rangle$ ), Bigleaf Aster ( $\langle i \rangle$ E. macrophylla $\langle i \rangle$ ), Grass-leaved Flat-top Goldenrod ( $\langle i \rangle$ Euthamia graminifolia $\langle i \rangle$ ), Whorled Wood-aster ( $\langle i \rangle$ Oclemena acuminata $\langle i \rangle$ ), Heartleaf Aster ( $\langle i \rangle$ Symphyotrichum cordifolium $\langle i \rangle$ ), White Panicle Aster ( $\langle i \rangle$ S. lanceolatum $\langle i \rangle$ ), Calico Aster ( $\langle i \rangle$ S. lateriflorum $\langle i \rangle$ ), New England Aster ( $\langle i \rangle$ S. novae-angliae $\langle i \rangle$ ), New York Aster ( $\langle i \rangle$ S. novi-belgii $\langle i \rangle$ ) and Purplestem Aster ( $\langle i \rangle$ S. puniceum $\langle i \rangle$ ) (Eiseman, 2022). As of 2021, we have records for Mountain Wood-aster ( $\langle i \rangle$ Eurybia chlorolepis $\langle i \rangle$ ),  $\langle i \rangle$ E. divaricata $\langle i \rangle$ ,  $\langle i \rangle$ Symphyotrichum cordifolium $\langle i \rangle$ ).

OBSERVATION\_METHODS: The adults regularly visit UV lights. The leaf mines are rather conspicuous on native asters and the adults have been successfully reared from mines.

## 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: It can be locally common at mid- to higher elevations in the mountains and is probably more widespread than our limited records suggest.

The Moths of North Carolina - Early Draft