



FAMILY: Gracillariidae SUBFAMILY: Gracillariinae TRIBE: [Gracillariini] TAXONOMIC\_COMMENTS: This is a small genus with only two described species in North America.

Leucanthiza amphicarpeaefoliella None

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

ID COMMENTS: The adults are easily identified by their bold orange, black, and metallic silvery patterning on the forewings, in combination with the dark antennae with white tips. The ground color of the forewing is orange. One of the most distinctive features is a conspicuous dark brown, oval, basal blotch that is bordered on both ends by silvery metallic bands. <i>Leucanthiza dircella</i> is a similar species that specializes on Leatherwood. According to Braun (1914), <math><i>L. dircella</i> differs in several ways (see Microleps. org). In particular, the dark brown patch at the base of the forewing does not reach the dorsal margin. There is a short golden streak near the middle of the dorsum, along with an inwardly-oblique, longer one at the tornus. In addition, a straight, full-width transverse golden fascia on the outer edge of the basal dark patch encloses a small patch of orange. The adults of <i>Leucanthiza dircella<math></i> have rarely been collected and almost all records are for leaf mines. We are unaware of any specimens from North Carolina, which likely reflects the fact that the host plant (<i>Dirca palustris</i>) is rare or very uncommon in North Carolina.

DISTRIBUTION: <i>Leucanthiza amphicarpeaefoliella</i> has been documented in eastern North America from Ontario, Quebec and the northeastern US, southwestward to Iowa, Kentucky, and the southern Appalachians to as far south as western North Carolina and northern Georgia (Eiseman, 2019; Pohl et al., 2018, iNaturalist). In North Carolina it is common throughout the Blue Ridge at sites where the host plant occurs locally, but uncommon in the Piedmont.

FLIGHT COMMENT: This species appear to be bivoltine or multivoltine in areas outside of North Carolina (Eiseman, 2019). Local populations in North Carolina have two broods, with the first centered around June and July and the second from late August through mid-October. As of 2024, the adults have been collected in North Carolina beginning in early May, with the exception of one early-season record from early March.

HABITAT: The host plant is mostly found in forests or along forest edges with moist soils. It can also tolerate fairly dry conditions (Weakley, 2015).

FOOD: This species is a specialist on American Hog-peanut (<i>Amphicarpaea bracteata</i>) (Godfrey et al., 1987), which has been confirmed as the host in North Carolina.

OBSERVATION\_METHODS: Searching for the presence of leaf mines on  $\langle i \rangle$ Amphicarpaea $\langle i \rangle$  may be the best way to document local populations. Adults also are attracted to blacklights. The leaf mines are sometimes secondarily colonized by a leaf-mining beetle,  $\langle i \rangle$ Odontota mundula $\langle i \rangle$ , so care should be taken to check the identity of resident larvae.  $\langle i \rangle$ Odontota mundula $\langle i \rangle$  produces a full-depth mine and pupates within the mine, while  $\langle i \rangle$ L. amphicarpaeafoliella $\langle i \rangle$  produces an upper-surface mine and pupates externally.

## NATURAL HERITAGE PROGRAM RANKS: GNR S4S5

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

COMMENTS: The host plant, American Hog-peanut, is listed as S5 and occupies a fairly wide range of habitats from the Blue Ridge eastward across the Piedmont. <i>Leucanthiza amphicarpeaefoliella</i> is often locally common in the mountains and foothills wherever Hog-peanut is present. On that basis, we estimate that this species is secure within the state.