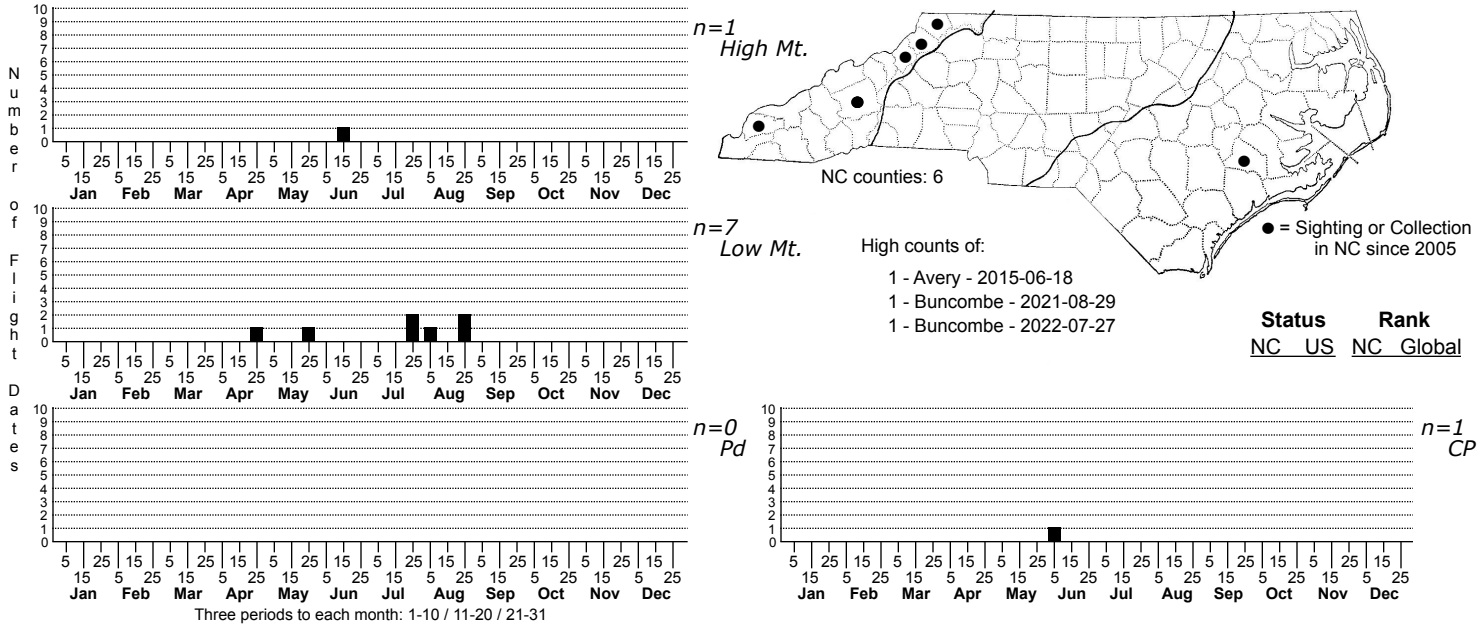
# *Dichomeris bilobella* Bilobed Dichomeris




FAMILY: Gelechiidae SUBFAMILY: Dichomeridinae TRIBE:
TAXONOMIC_COMMENTS:

FIELD GUIDE DESCRIPTIONS: Beadle and Leckie (2012)
ONLINE PHOTOS:
TECHNICAL DESCRIPTION, ADULTS: Hodges (1986)
TECHNICAL DESCRIPTION, IMMATURE STAGES:

ID COMMENTS: Dichomeris bilobella and D. setosella are two closely related species that have very similar patterning and coloration on the forewings. The basal half has a dull, pale-yellow wash except for a conspicuous dark mark along the inner margin. The mark begins basally as a roughly triangular-shaped feature that contracts posteriorly to a narrow neck before expanding again into a broad, weakly curved, diagonal bar that projects towards the costa. The bar terminates before reaching the costa and is followed posteriorly by a wide zone of grayish to grayish-black wash in the post-medial area. Within this is a small black spot at the end of the cell that is bordered basally and distally to varying degrees with pale-yellow scales. The grayish zone is followed by a narrow, pale-yellow, transverse line. The line can vary from straight to wavy, with it most commonly being wavy in the medial area, and in most specimens tends to bend towards the apex near the costa. The subterminal portion of the forewing has a similar grayish to grayish-black wash, but is often a shade darker than that in the postmedial region. A line of dark dots is present at the base of the termen, with the dots having varying degrees of yellow scaling posteriorly. The prominent dark mark on the basal half of the wing extends to the inner margin.

North Carolina specimens are best identified using either genitalia, size, or the morphology of the labial palps. For a large series of specimens that have been identified using genitalia (J.B. Sullivan, pers. comm.), the wing length of D. bilobella in North Carolina typically varies from 8-9 mm versus 6-7 mm for D. setosella. The scaling on the second segment of the labial palps is also diagnostic (Hodges, 1986), with D. setosella having a strong ventral tuft at the apex that projects forward. In contrast, D. bilobella lacks a prominent ventral tuft and has scales on the ventral side that are more or less appressed to the second segment. The most conspicuous scaling is on the dorsal surface. Worn specimens of D. setosella may not have an obvious projecting tuft and can cause confusion. Another feature that is helpful is the width of the third palp segment. It is much wider in D. bilobella and about twice the width of that of D. setosella (J.B. Sullivan, pers. comm.).

Dichomeris vindex is a second species that is very similar to both D. bilobella and D. setosella and is best identified by using either genitalia, or by examining technical features such as the color of the scale tuft arising from the mesothoracic anepistemum in the male. Hodges (1986) noted that in D. setosella, the pale-yellow transverse line at two-thirds the wing length usually is slightly waved medially and angled slightly toward the base on the costal margin. In D. vindex this line is straight medially and angled slightly toward the apex on the costal margin. In D. bilobella the line is waved medially and often more broadly angled toward the apex. As of 2025, D. vindex has only been found at a single site in Madison County and probably does not occur east of the Appalachians (Hodges, 1986).

Because external patterning on the forewing widely overlaps between all three species, specimens should be submitted with both a wing length measurement and a lateral view of the labial palps whenever feasible.

DISTRIBUTION: Hodges (1986) noted that D. setosella, D. bilobella, and D. vindex (a more northern species) have commonly been misidentified or confused and many records are unreliable. He reported this species to occur from Nova Scotia, southern Quebec and Ontario southward to Maryland, and westward to Minnesota, Missouri, and eastern Kansas. Current records indicate that the range extends at least as far south as Oklahoma, Arkansas and North Carolina. As of 2025, all of our records are from the Blue Ridge, except for a single specimen from near the coast that was identified using genitalia and palp morphology.

FLIGHT COMMENT: Hodges (1986) reported that the adults fly from mid-May until late August, which is consistent with our records from North Carolina.

HABITAT: This species is unusual in preferring forests with goldenrods and asters more so than woodland edges and large open fields (Loeffler, 1994). In New York and vicinity, Loeffler (1994) noted that the larvae can reach high densities in wooded hillsides where Bluestem Goldenrod and other hosts were abundant. It was rarely encountered in large, open fields where other Dichomeris species were found. As of 2025, most of our records are from forested sites or semi-wooded residential neighborhoods.

FOOD: Loeffler (1994) conducted a comprehensive study of host use by this and other Dichomeris species in the Northeast that use goldenrods and asters and documented the following hosts: White Wood-aster (Eurybia divaricata), Bigleaf Aster (Eurybia macrophylla), Tall Goldenrod (Solidago altissima), Cutleaf Goldenrod (S. arguta), White Goldenrod (S. bicolor), Bluestem Goldenrod (S. caesia), Canada Goldenrod (S. canadensis), Zigzag Goldenrod (S. flexicaulis), Giant Goldenrod (S. gigantea), Early Goldenrod (S. juncea), Gray Goldenrod (S. nemoralis), Wrinkle-leaf Goldenrod (S. rugosa), Heartleaf Aster (Symphyotrichum cordifolium), White Panicle Aster (S. lanceolatum), Calico Aster (S. lateriflorum) and Wavyleaf Aster (S. undulatum. Charley Eiseman also has a record on BugGuide for White Wood-aster (Eurybia divaricata). As of 2025, we do not have any feeding records from North Carolina.

OBSERVATION_METHODS: The adults are occasionally found at lights, and the larvae can be found in leaf folds on goldenrods and asters. More information is needed on host use and the larval life history for North Carolina populations.

NATURAL HERITAGE PROGRAM RANKS:

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

COMMENTS: