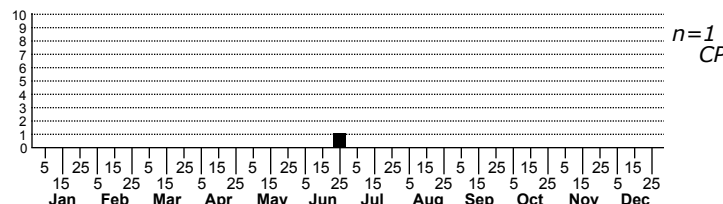
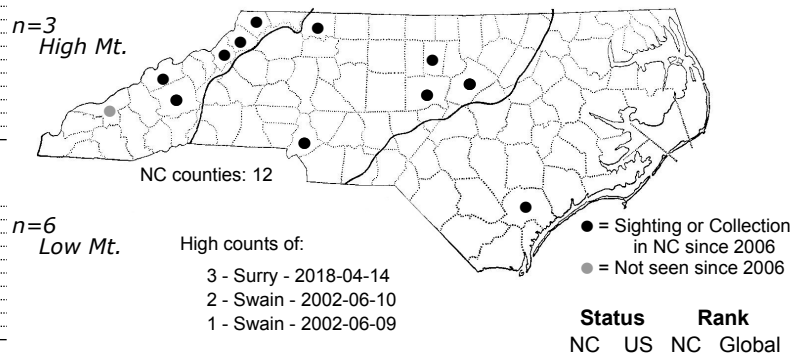
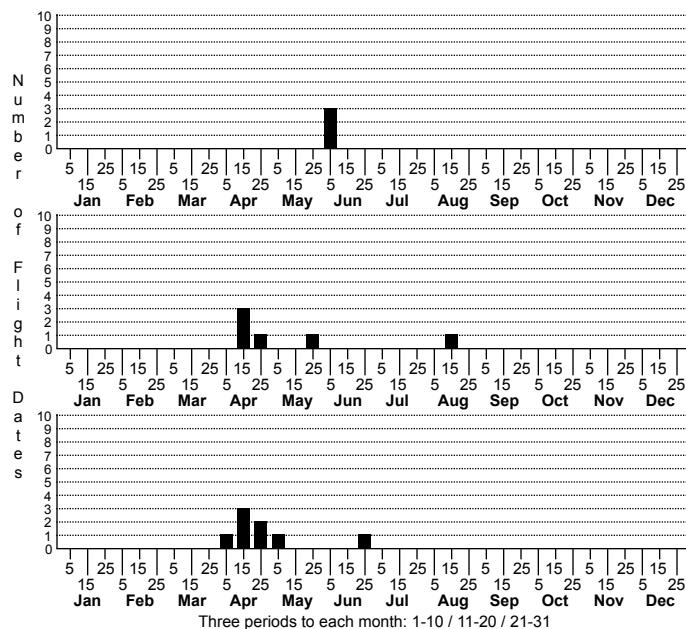


# Dichomeris setosella Hairy Dichomeris



FAMILY: Gelechiidae SUBFAMILY: Dichomerinae TRIBE:

TAXONOMIC COMMENTS: <i>Dichomeris</i> is a large genus with several hundred species that occur throughout the world. Hodges (1986) recognized 74 species in North America north of Mexico, with 19 species groups. Most are leaf-tiers and they use a taxonomically diverse array of plant hosts, including members of 18 families of plants in North America. As of 2025, North Carolina has 35 documented species, and at least one undescribed species from the Sandhills.

FIELD GUIDE DESCRIPTIONS:

ONLINE PHOTOS:

TECHNICAL DESCRIPTION, ADULTS: Hodges (1986)

TECHNICAL DESCRIPTION, IMMATURE STAGES:

ID COMMENTS: <i>Dichomeris setosella</i> and <i>D. bilobella</i> are two closely related species that have very similar patterning and coloration on the forewing. The following is a general description that applies to both. 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 that can vary from straight to wavy, particularly in the medial area. 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 North Carolina specimens that have been identified using genitalia (J.B. Sullivan, pers. comm.), the wing length of <i>D. bilobella</i> typically varies from 8-9 mm versus 6-7 mm for <i>D. setosella</i>. The scaling on the second segment of the labial palps is also diagnostic (Hodges, 1986), with <i>D. setosella</i> having a strong ventral tuft at the apex that projects forward. In contrast, <i>D. bilobella</i> lacks a prominent 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 <i>D. setosella</i> may not have an obvious projecting tuft and can cause confusion. Another feature that is helpful is that the third palp segment is much wider in <i>D. bilobella</i>, about twice the width of that in <i>D. setosella</i> (J.B. Sullivan, pers. comm.).

<i>Dichomeris vindex</i> is a second species that is very similar to <i>D. setosella</i> and is best identified by using either the genitalia, or by examining technical features such as the color of the scale tuft arising from the mesothoracic anepisternum in the male. Hodges (1986) noted that in <i>D. setosella</i>, 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 <i>D. vindex</i> this line is straight medially and angled slightly toward the apex on the costal margin. In <i>D. bilobella</i> the line is waved medially and more broadly angled toward the apex on the costal margin. However, exceptions to these general patterns exist. As of 2025, <i>D. vindex</i> 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 of these species, specimens should be submitted with either a wing length measurement or a lateral view of the labial palps whenever feasible.

DISTRIBUTION: Hodges (1986) noted that <i>D. setosella</i>, <i>D. bilobella</i>, and <i>D. vindex</i> (a more northern species) have commonly been misidentified or confused and many records are unreliable. They reported this species to occur from northwestern New York southward to southern Florida, and westward to Manitoba, eastern Kansas, central Oklahoma, and Brownsville, Texas. This species probably occurs statewide in North Carolina, although as of 2025 we have no records from the northern Coastal Plain.

FLIGHT COMMENT: Hodges (1986) reported that the adults are present from May to September or October in the northern US and from March to November in Florida. As of 2025, our records for North Carolina are from early-April through mid-August, with most from April.

HABITAT: Local populations are generally associated with open woods, woodland edges or fields where the host plants occur.

FOOD: The larvae are leaf folders that feed mostly on members of the Asteraceae, including species of <i>Ageratina</i>, <i>Eupatorium</i>, <i>Pluchea</i>, <i>Solidago</i>, <i>Verbesina</i> and <i>Vernonia</i> (Hodges, 1986; Heppner, 2007; Robinson et al., 2010). Specific hosts that have been reported include White Snakeroot (<i>Ageratina altissima</i>), Saltmarsh Fleabane (<i>Pluchea odorata</i>) and White Crownbeard (<i>Verbesina virginica</i>). As of 2025, we also have a rearing record for <i>Verbesina occidentalis</i>. Prentice (1966) reported two isolated cases of this species using Northern White Cedar (<i>Thuja occidentalis</i>) and Eastern White Pine (<i>Pinus strobus</i>) in Canada that seem unlikely (Hodges, 1986) and need additional verification.

OBSERVATION\_METHODS: The adults occasionally visit lights. More information is needed on host use and the larval life history, particularly in North Carolina.

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: GNR [S3S4]