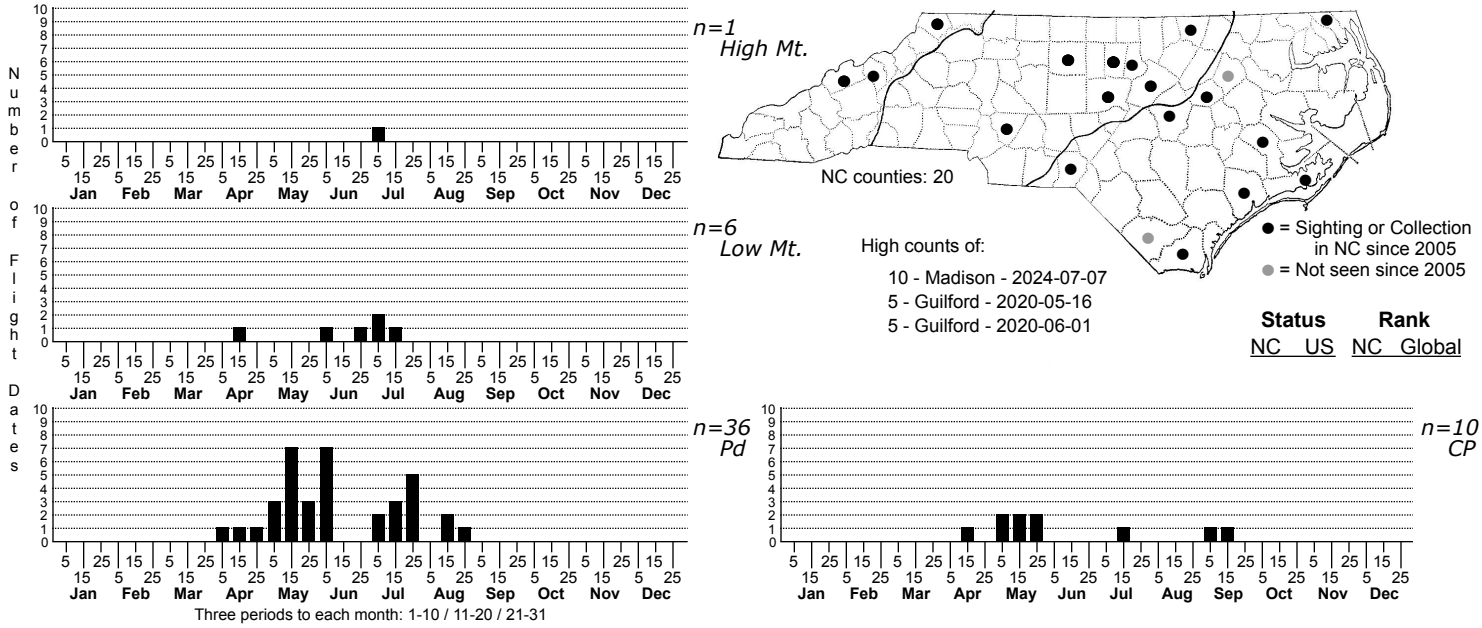
Psilocorsis cryptolechiella Black-fringed Leaftier Moth



FAMILY: Depressariidae SUBFAMILY: [Amphisbatinae] TRIBE: [Amphisbatini]
TAXONOMIC_COMMENTS: Psilocorsis is a small genus with around 15 described species and several undescribed forms. They range from southeastern Canada to northern South America, but appear to be absent from the West Coast (Hodges, 1974). Seven species occur in North America north of Mexico (Pohl et al., 2016), three of which have been recorded in North Carolina.

FIELD GUIDE DESCRIPTIONS: Covell (1984); Leckie and Beadle (2018).
ONLINE PHOTOS:
TECHNICAL DESCRIPTION, ADULTS: Chambers (1872); Clarke (1941); Hodges (1974)
TECHNICAL DESCRIPTION, IMMATURE STAGES: Chambers (1872); Clarke (1941)

ID COMMENTS: The following description is primarily based on descriptions in Forbes (1923), Clarke (1941), Hodges (1974). The head and thorax are dark yellowish brown and the labial palp is slender, strongly recurved, and pointed. The second segment of the labial palp is ochreous with a dark fuscous longitudinal stripe beneath, while the third segment is fuscous with a median and lateral longitudinal whitish stripe. The antenna is yellowish brown above with darker annulations. The head, thorax, and base of the forewing are reddish-orange and darker than the ground color of the rest of the forewing, which is pale yellow to orange. The forewing is striated with narrow, well-defined, elongated lines of dark brown. The scales of the forewing are somewhat reflective, producing a shimmering effect (Hodges, 1974). Chambers (1872) described the wings as "pale golden, with the lustre of 'watered' silk, produced by a multitude of transverse, narrow, wavy, dark brown lines". An adterminal line of dark spots is present that usually extends from the apex to about mid-way across the outer margin, where they either stop or become greatly reduced in size. The fringe is dark gray with a blackish marginal band at the base.

Psilocorsis quercicella is similar in size and also has dark adterminal spots and a gray fringe. However, it lacks the narrow, long striations found in P. cryptolechiella, having more diffuse, somewhat elongated blotches that dust the forewing. In P. quercicella the dark suffusion of the forewing at two-thirds is usually in the form of a diffuse blotch that extends from the middle of the wing to the inner margin. In specimens where it extends beyond the middle, the costal portion is less developed. In P. cryptolechiella the region typically has a dark, diffuse band or dark dusting across the entire wing. P. reflexella is much larger than the other two species and usually has a darker ground color, a more poorly marked adterminal line, and a lighter, non-contrasting fringe.

DISTRIBUTION: Psilocorsis cryptolechiella occurs throughout much of the eastern US. and in adjoining areas of southern Canada (Manitoba; Ontario; Quebec; New Brunswick; Nova Scotia). In the US, the range extends from the northeastern states westward to Illinois, eastern Kansas, central Oklahoma, and eastern Texas, and southward to the Gulf Coast and northern Florida. As of 2020, our records extend from coastal forests to lower elevations in the mountains. Populations are well represented in the Coastal Plain and eastern Piedmont, but less so farther west.

FLIGHT COMMENT: Hodges (1974) noted that most local populations appear to be bivoltine, with the first brood in mid-spring to late-spring, and a second in mid-summer. As of 2020, we have records from early May through mid-September. The Piedmont populations show evidence of being bivoltine, but sample sizes are too small in the remaining provinces to assess seasonal broods.

HABITAT: The larvae are polyphagous and feed on a variety of hardwoods, particularly oaks (Marquis et al., 2019). Many of our records come from wooded residential neighborhoods, and a few are from rich upland hardwood slopes in the mountains. Local populations can be expected in a variety of other habitats that support hardwood forests.

FOOD: The larvae are polyphagous and utilized a variety of hardwood trees. The principal host plants are various species of oaks (Hodges, 1974; Marquis et al., 2019), but the larvae also feed to a lesser extent on other hardwoods in different areas of the range (Robinson et al., 2010). These include Yellow Birch (Betula alleghaniensis), Paper Birch (B. papyrifera), Gray Birch (B. populifolia), Pecan (Carya illinoinensis), American Beech (Fagus grandifolia), Northern Bayberry (Morella pensylvanica), Black Locust (Robinia pseudoacacia), and American Chestnut (Castanea dentata). Oaks that are used include White Oak (Quercus alba), Shingle Oak (Q. imbricaria), Overcup Oak (Quercus lyrata), Chinquapin Oak (Q. muehlenbergii), Post Oak (Q. stellata), Black Oak (Q. velutina), and Northern Red Oak (Quercus rubra).

OBSERVATION_METHODS: The adults are attracted to lights. We have little data on the host plants that are used in North Carolina, so we encourage naturalists to search for the leaf-bound nests on oaks, beeches and other hosts.

NATURAL HERITAGE PROGRAM RANKS: GNR [S3S5]

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

COMMENTS: Too little is currently known about the distribution, habitat associations, and host plant range to make any estimate about this species conservation status in North Carolina.