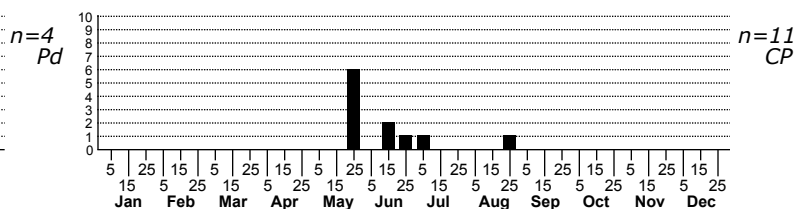
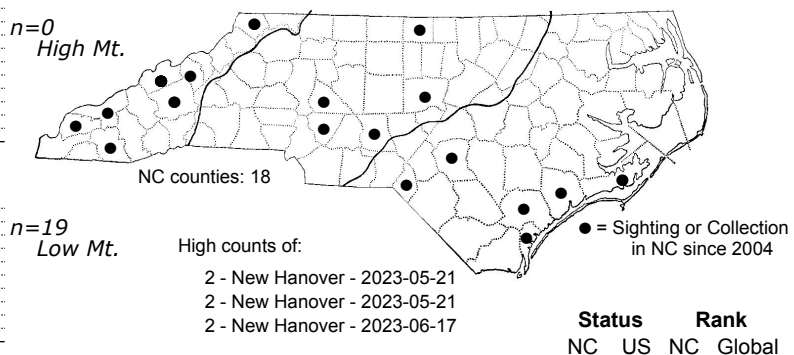
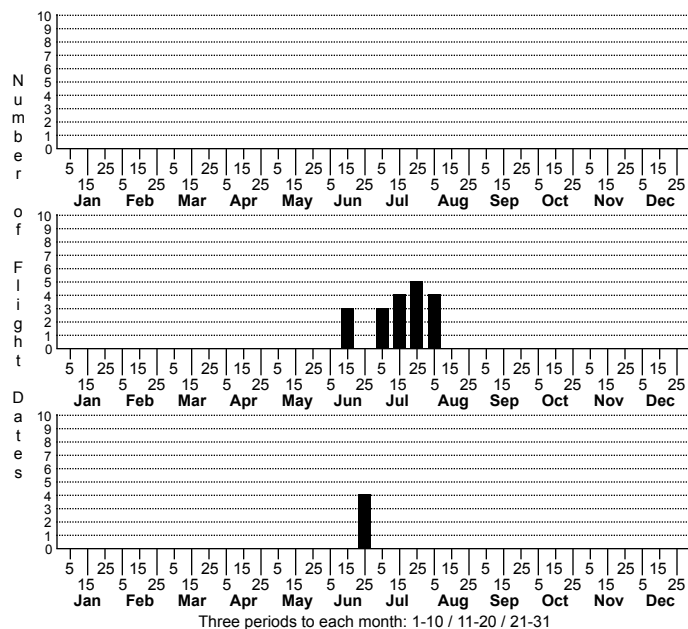


Cenopis directana Chokecherry Leafroller Moth



FAMILY: Tortricidae SUBFAMILY: Tortricinae TRIBE: Sparganothini

TAXONOMIC COMMENTS: The genus *Cenopis* has 19 described species. Seventeen of these are restricted to North America, and all 17 occur in the eastern United States (Brown and Sullivan, 2018). Males of *Cenopis* are easily distinguished from those of *Sparganothis* by the presence of complex scaling on the frons of the head that forms an unusual "hood" of scales. The males also have a deeply invaginated or folded anal area of the hindwing that bears a distinctive hair pencil.

FIELD GUIDE DESCRIPTIONS:

ONLINE PHOTOS:

TECHNICAL DESCRIPTION, ADULTS: Powell and Brown (2012)

TECHNICAL DESCRIPTION, IMMATURE STAGES: MacKay (1962)

ID COMMENTS: *Cenopis directana* exhibits marked phenotypic variation that reflects individual variation, sexual dimorphism, and geographic variation across its broad range (Powell and Brown, 2012). The head, palps, and fore part of the thorax are orange to rusty-brown and the palp often has a tiny white tip. The forewing ground color ranges from cream tan to pale orangish-brown and is reticulated or striated with faint, darker orangish-brown. The reticulations may cover the entire wing or be restricted to the apical one-fourth of the wing. Specimens in the eastern US typically have a pale rusty-red to dark rusty-red ground color that is overlain with purplish-brown patterning. Male often have a distinct, purplish-brown, outwardly directed, median fascia. The fascia is triangular-shaped and widest on the costa, and narrows as it projects to the middle of the dorsal margin. A faint costal patch is also present at around three-fourths that often has lighter spots within. Males can vary from being well marked to showing varying degrees of indistinctness, including individuals that show only a trace of the dark pattern. Females usually have dark rusty-brown forewings with only a faint, shining purplish indication of the male forewing. The hindwing is pale tan to rust tan. In addition to the typical form described above, a pale variant occurs in North Carolina and elsewhere in the eastern US where the males have a whitish to tan or pale-ocherous forewing. The forewing has rusty- or purplish-brown maculation in the same pattern as the typical race described above, but it is expressed consistently and strongly (Powell and Brown, 2012). Females are golden tan and either have a thin, faint pattern like that of the males, or have the pattern reduced to a trace. The hindwing is whitish to pale brown and averages darker in females. The male forewing costal fold is well developed and extends about 0.17 the length of the forewing.

DISTRIBUTION: *Cenopis directana* is broadly distributed across much of southern Canada. In the US it is found in northern California and from the Rocky Mountains eastward to the Atlantic Coast. Populations occur in Canada from Alberta eastward to Nova Scotia and Prince Edward Island. In the US the range extends from Maine to southern Florida, and westward to southeastern Texas, central Oklahoma, Colorado, Nebraska, and Montana, with a disjunct in northern California. We have scattered records from all three physiographic regions of North Carolina.

FLIGHT COMMENT: The adults have been observed during almost every month of the year in different areas of the range, but most commonly fly from April through August. As of 2023, our records extends from late May through early August. North Carolina populations are univoltine.

HABITAT: Local populations are typically found in or near hardwood forests, along forest edges, and in early successional habitats. Many of our records are from mesic forests, but also from coastal dune habitats and semi-wooded residential neighborhoods.

FOOD: The larvae are polyphagous and feed primarily on trees and shrubs (McDunnough, 1933; MacKay, 1962; Prentice, 1966; Godfrey et al., 1987; Wagner et al., 1995; Heppner, 2007; Robinson et al., 2010; Powell and Brown, 2012; Marquis et al., 2019). Choke Cherry is an important host in northern populations, but many other species are used. The reported hosts include Downy Serviceberry (*Amelanchier arborea*), White Birch (*Betula populifolia*), hickories (*Carya*), Eastern Redbud (*Cercis canadensis*), cotton (*Gossypium*), walnuts (*Juglans*), apples (*Malus domestica*), Western Choke Cherry (*Prunus emarginata*), Fire Cherry (*P. pensylvanica*), Choke Cherry (*P. virginiana*), White Oak (*Quercus alba*), Scarlet Oak (*Q. coccinea*), Northern Red Oak (*Q. rubra*), Post Oak (*Q. stellata*), Black Oak (*Q. velutina*), Hillside Blueberry (*Vaccinium pallidum*) and grapes (*Vitis*).

OBSERVATION_METHODS: The adults are attracted to lights.

NATURAL HERITAGE PROGRAM RANKS: GNR [S3S4]

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

COMMENTS: We have records for scattered populations across the state, but more information is needed on host use, distribution and abundance before we can accurately assess the conservation status of this species.