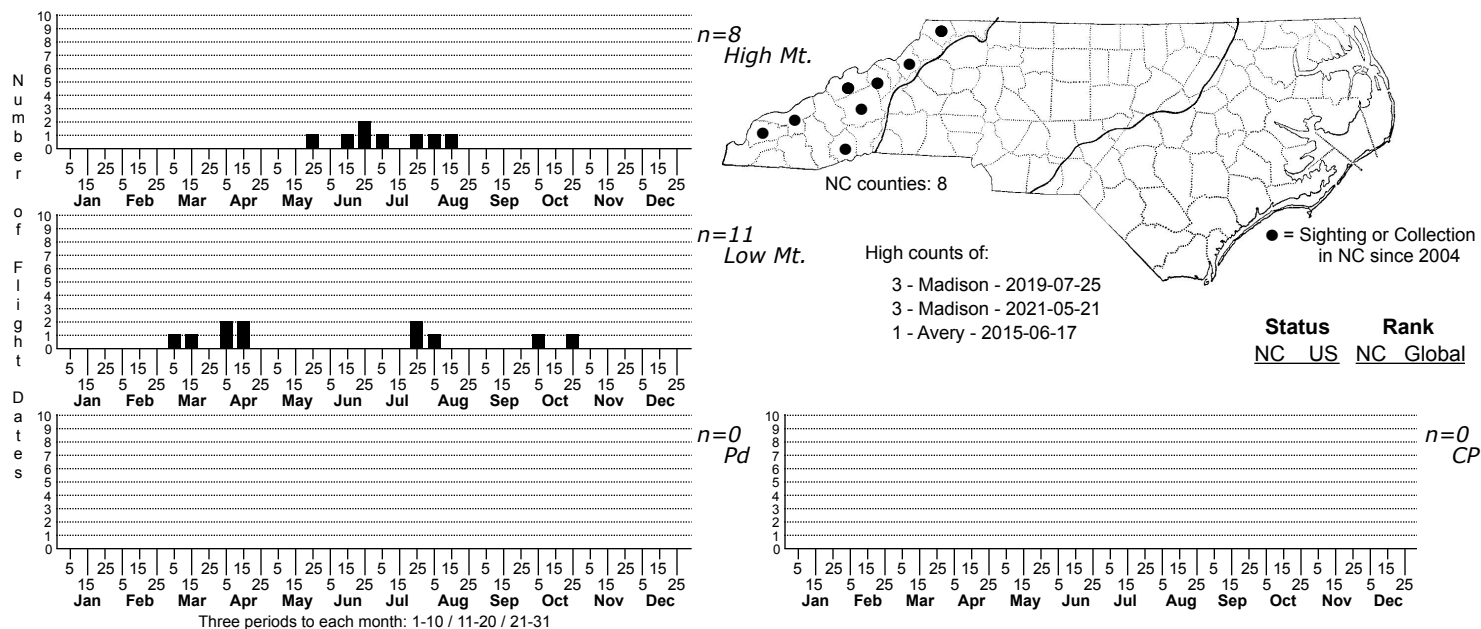


Caloptilia invariabilis Cherry Leaf-cone Caterpillar Moth



FAMILY: Gracillariidae SUBFAMILY: Gracillariinae TRIBE: [Gracillariini]

TAXONOMIC COMMENTS: *Caloptilia* is a large genus with nearly 300 described species; 64 species have been described from North America north of Mexico. The larvae mostly feed on woody plants and begin as leaf-mining sap-feeders. The latter instars usually exit the mines and feed within a conical roll that begins at the leaf apex or at the tip of a leaf lobe.

FIELD GUIDE DESCRIPTIONS:

ONLINE PHOTOS:

TECHNICAL DESCRIPTION, ADULTS:

TECHNICAL DESCRIPTION, IMMATURE STAGES: (Braun 1927, 1935; Eiseman 2019).

ID COMMENTS: The adults are rather uniformly colored on the forewings, upper thorax, upper head, and labial palps with deep saffron. Crimson and pale blue reflections are sometimes evident on the forewings, and the costal margin is often lighter than the remainder of the forewing. Some specimens have a row of minute brown costal specks (Eiseman, 2019). The tibia and femur of the front and middle leg are dark reddish fuscous to black, and are noticeably darker than the forewing ground color. The tarsi are white with dark spots near the tarsal joints and varying amounts of fuscous dusting. The rear legs are lighter than the front and middle legs and uniformly dusted with fuscous coloration.

DISTRIBUTION: Specimens that conform to the description of *C. invariabilis* has been found in scattered localities in the West in British Columbia, Washington and California. This species is more broadly distributed in eastern North America from southern Canada southward to eastern Tennessee and western North Carolina (Eiseman, 2019; BugGuide; iNaturalist). Other than Buncombe Co. (iNaturalist), most records for North Carolina are from moderate to high elevations in the Blue Ridge and include Madison, Avery, and Watauga counties (BugGuide).

FLIGHT COMMENT: Our very limited records for North Carolina indicate a flight season from June through late October.

HABITAT: Populations in North Carolina appear to be common at higher elevations, perhaps because of the strong reliance of this species on Fire Cherry.

FOOD: *Caloptilia invariabilis* specializes on *Prunus* species, particularly Fire Cherry (*P. pensylvanica*). Braun (1935) found specimens on Chickasaw Plum (*P. angustifolia*) in the Great Smoky Mountains, while Robinson et al. (2002) listed *P. serotina* and *P. virginiana* as hosts for Canadian populations (Eiseman, 2019).

OBSERVATION METHODS: Adults are attracted to UV lights. Larvae can be located by searching for curled leaf-tips on Fire Cherry or other *Prunus* species in the mountains.

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: