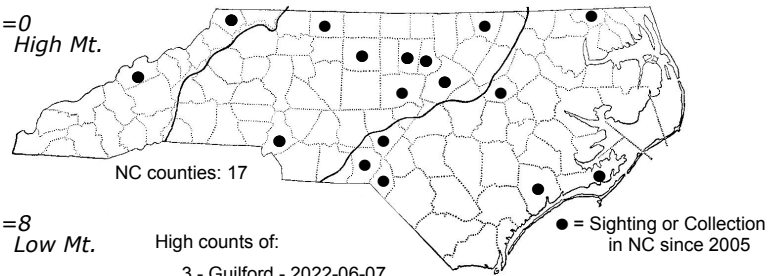
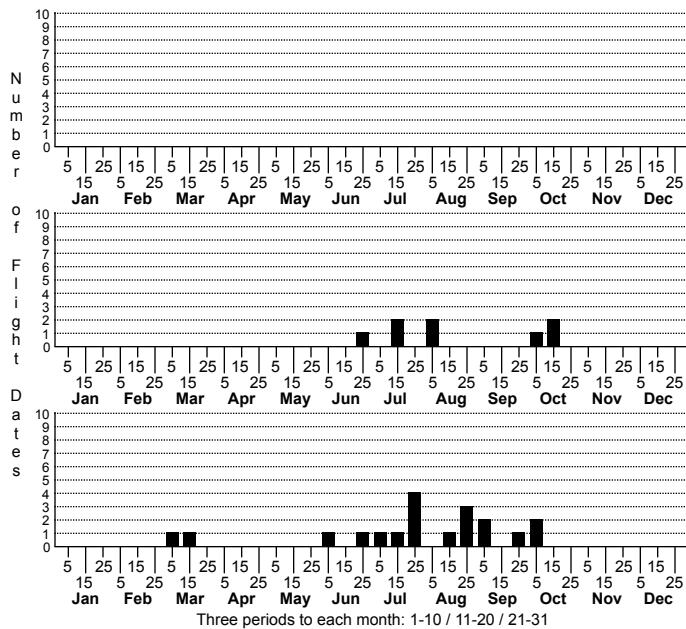


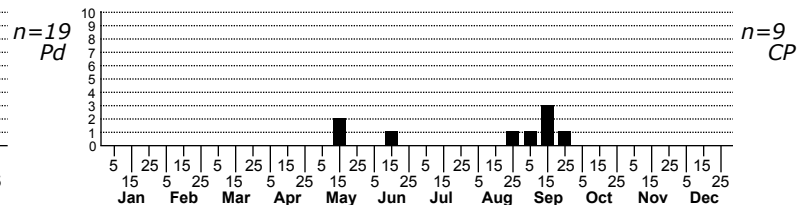
## *Caloptilia violacella* Tick-trefoil Caloptilia



High counts of:

- 3 - Guilford - 2022-06-07
- 3 - Durham - 2022-07-05
- 2 - Gates - 2014-09-12

Status Rank  
NC US NC Global



FAMILY: Gracillariidae SUBFAMILY: Gracillariinae TRIBE: [Gracillariini]

TAXONOMIC\_COMMENTS: *Caloptilia* is a large genus with nearly 300 described species; 64 species have been described in North America north of Mexico. The larvae begin as leaf-mining sap-feeders, but 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: Beadle and Leckie (2012)

ONLINE PHOTOS:

TECHNICAL DESCRIPTION, ADULTS:

TECHNICAL DESCRIPTION, IMMATURE STAGES: Eiseman, 2019

ID COMMENTS: The ground color of the head, upper thorax, antenna, and forewing is light bronze brown to pale violet brown. The face is pale yellowish and the labial palps are yellowish white with brown tips. An extensive area of yellowish wash occur from the base of the forewing to near the apex on the costal half. A series of fine spots are usually evident along the costal margin. There is a conspicuous dark blotch slightly beyond the middle of the wing and near the boundary of the yellow wash and darker ground color. A second, smaller spot is sometimes evident about mid-way between the first spot and the termen. The femur and tibia of the front and middle leg are dark brown and contrast sharply with the white tarsi below. Faint to well-developed dark spots are usually evident at the tarsal joints. The rear leg has a yellowish wash that matches the wash on the forewings.

DISTRIBUTION: *Caloptilia violacella* is broadly distributed in eastern North America, with populations ranging from southern Canada and the Great Lakes Region southward to southern Florida and eastern and central Texas. Except for the highest elevations in the mountains, it is found statewide wherever appropriate host plants occur.

FLIGHT COMMENT: The adults have been collected from different areas of the range from February through November, with peak activity during the summer months. As of 2020, we have records from March through mid-October, with a peak in seasonal activity from June through September.

HABITAT: This species uses a variety of herbaceous legumes as hosts. Many of the host species prefer sunny to partially shaded habitats in disturbed or early successional habitats, but some can tolerate more shaded situations. Representative habitats include roadsides, abandoned fields, fencerows, powerline corridors, and residential neighborhoods, along with open woods, woodland paths, and forest clearings.

FOOD: *Caloptilia violacella* specializes on members of the Phaseoleae clade of legumes. Species of *Desmodium* appear to be the primary hosts, including Panicked Tick-trefoil (*D. paniculatum*), Perplexed Tick-trefoil (*D. perplexum*), and Prostrate Tick-trefoil (*D. rotundifolium*); larvae also feed on *Lespedeza* species, including Roundhead Lespedeza (*L. capitata*), Chinese Bush-clover (*L. cuneata*), Hairy Lespedeza (*L. hirta*), and Wand Lespedeza (*L. violacea*) (Eiseman, 2024). Eiseman also reports records from *Glycine* and *Rhynchosia*. In North Carolina, we have records for Panicked Tick-trefoil, Chinese Bush-clover, Hairy Lespedeza, and Wand Lespedeza.

OBSERVATION\_METHODS: Adults are attracted to UV lights. Searching for the tentiform mines on host plants is an effective way to document new locality records.

NATURAL HERITAGE PROGRAM RANKS: GNR S4S5

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

COMMENTS: This species is found statewide and populations appear to be secure.