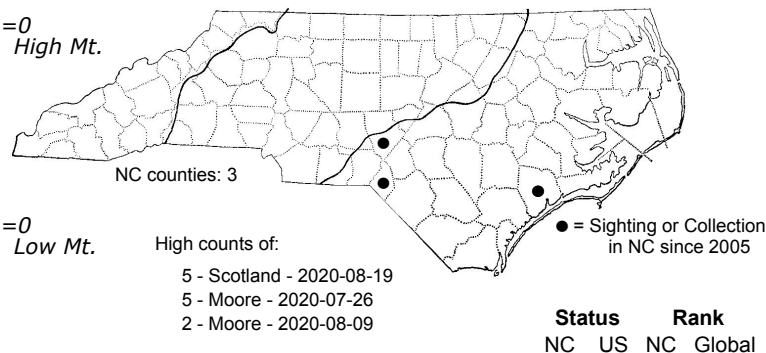


Caloptilia glutinella None



FAMILY: Gracillariidae SUBFAMILY: Gracillariinae TRIBE:

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:

ONLINE PHOTOS:

TECHNICAL DESCRIPTION, ADULTS: Ely, 1915.

TECHNICAL DESCRIPTION, IMMATURE STAGES: Ely, 1915.

ID COMMENTS: The following is based in part on Ely's (1915) original description of the type specimen from Connecticut. The face is yellow and the antenna is brown annulate with yellowish coloration at the joints of the segments. The labial and maxillary palps are straw colored, and the labial palps are often shaded with dark brown just before the apex. The head and thorax are reddish bronze and sometimes have a lighter straw-colored wash. The forewing is reddish bronze, and may have a few straw colored scales along the costa that are most abundant toward the apex. There is a shining golden triangle on the costal margin that extends from the basal fourth to just beyond the middle of the wing. The apex of the triangular mark extends inward to about the middle of the wing where it becomes truncated. A series of fine dark spots are usually present along the costal margin within the yellowish mark. There are two dark lines in the cilia around the apex, while the rest of the fringe is gray. The hindwing is dark gray with paler cilia. The abdomen is pale yellow gray above and pale yellow below. The tibia and femora of the front and middle legs are reddish bronze, while the tarsi are white and very faintly touched with a few dark scales at the joints. The hindleg is pale yellowish gray, with the tibia shaded with brown near the tarsal joint. The femora and coxa are pale yellow at their juncture, but elsewhere reddish bronze. Ely (1915) collected darker specimens later in the year, but was uncertain if these belonged to the same species. Eiseman (2019) found that moths that emerged in July and August from leaf cones collected in early July had reddish-bronze forewings with a shining golden triangle, while those collected in August yielded adults in September with dark purplish forewings and a faint, straw-colored costal triangle. Thus, there appears to be two seasonal color forms of this species. We see examples of both in North Carolina. *Caloptilia glutinella* is similar to *C. coroniella*, but the latter tends to have a lighter colored head and thorax and the triangular mark is asymmetrical, with the posterior edge draw out or skewed towards the apex. *Caloptilia stigmatella* has a single yellowish patch like *C. glutinella*, but it has a rich, dark brown ground color and the triangular costal patch typically is hooked backwards near the tip. *Caloptilia packardella* is also similar, but the yellowish patch on the forewing reaches nearly to the inner margin, and typically lacks fine spots along the costal margin. In addition, the palps are whitish and the base of the wing, upper thorax, upper head and cilia are all shaded with pale golden coloration.

DISTRIBUTION: The distribution is poorly known. Specimens have been found in Connecticut, Massachusetts, New Jersey, Virginia, eastern Kentucky, and North Carolina. As of 2021, our records are all from the Coastal Plain.

FLIGHT COMMENT: Although poorly documented, the adults appear to be most active during the late spring and summer months (May-August). As of 2021, our records are from mid-May and August, with larval records from late July through mid-August.

HABITAT: *Caloptilia glutinella* is a specialist on alders, which are typically found in wetlands or wetland margins. Representative habitats include wet thickets, marshes, stream edges, and the margins of beaver ponds, farm ponds, and swamps.

FOOD: The species was originally found on European Alder Black (*Alnus glutinosa*) but presumably uses several of our native alder species. The only documented host in North Carolina is Hazel Alder (*Alnus serrulata*).

OBSERVATION METHODS: The adults occasionally visit lights. We recommend looking for the curled leaf tips on alders during the summer months and rearing the adults.

NATURAL HERITAGE PROGRAM RANKS: GNR [SU]

STATE PROTECTION:

COMMENTS: This species appears to be uncommon in North Carolina, where it is perhaps at the southern limit of its range. The host plant is common throughout the state, and more information is needed on the distribution and abundance of this species before we can accurately assess its conservation status.