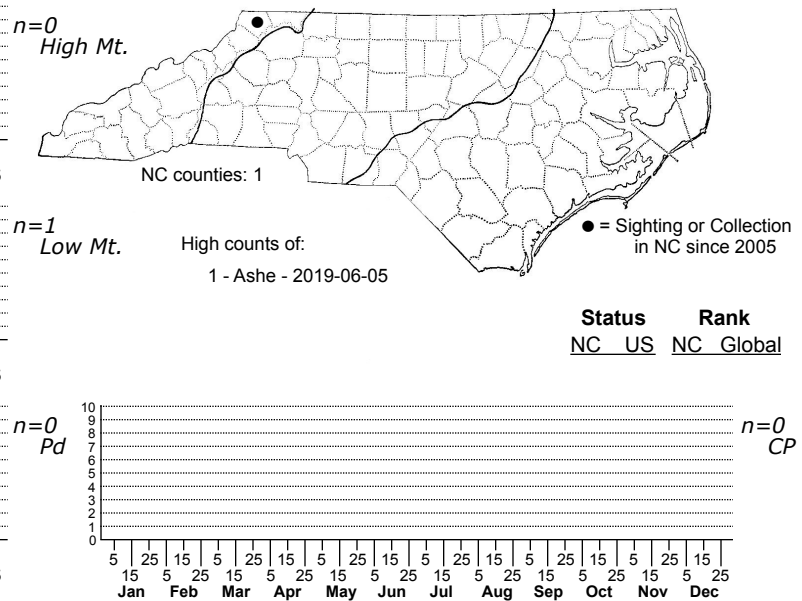
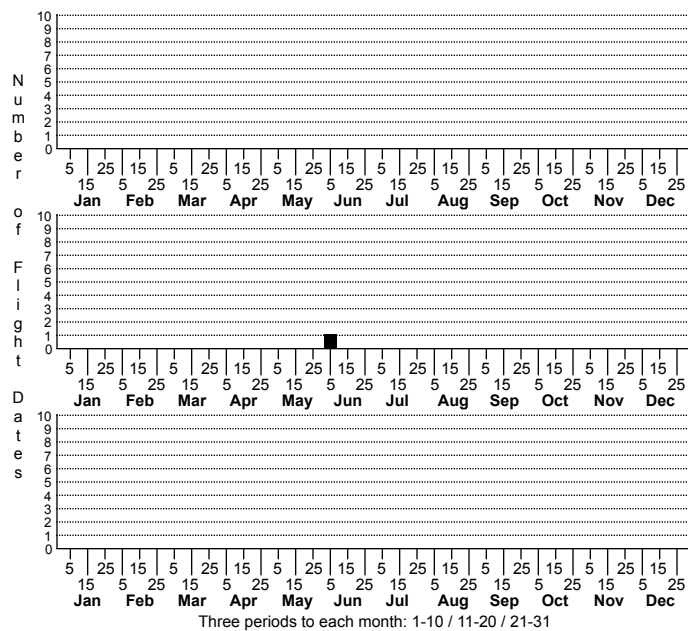


Eucosma formosana Beautiful Eucosma



FAMILY: Tortricidae SUBFAMILY: Olethreutinae TRIBE: Eucosmini

TAXONOMIC COMMENTS: *Eucosma formosana* is a member of the *radiatana* species group of Wright and Gilligan (2015). This group includes a complex of 9-13 species that have been difficult to resolve due to their overall external appearances, suspected sexual dimorphism in forewing coloration and patterning in some species, and a scarcity of well-defined diagnostic features in the genitalia. Wright and Gilligan (2015) recognized only nine species in North America and relegated four previously recognized species to synonymy.

FIELD GUIDE DESCRIPTIONS:

ONLINE PHOTOS:

TECHNICAL DESCRIPTION, ADULTS: Wright and Gilligan (2015)

TECHNICAL DESCRIPTION, IMMATURE STAGES:

ID COMMENTS: The head, palps, and antennae vary from reddish brown to grayish brown. The thorax varies from warm brown to cream-colored and has a thin central dark line and a broader dark lateral line along each side. The forewing has a pale ground color that varies from tan to light grayish brown and is overlain with dark brown to rusty brown shading and horizontal streaking that may cover much of the wing. The apical third of the costa has a series of irregular dull silvery to tan streaks that tend to anastomose and fill much of the area between the costa and the ocellus. The ocellus is well-defined and is pale in the middle with two horizontal black streaks. The proximal and distal margins have dull silvery to tan lines that often connect with the irregular lines of similar color that extend from the costa. The light ground color in some areas of the range tends to be well developed below the dorsal margin near the middle of the wing. The fringe is reddish-brown to grayish-brown, and the hindwing varies from brown to blackish with a paler fringe. Females tend to have darker markings and dark brown to black hindwings, but otherwise resemble the males in size and forewing pattern (Wright and Gilligan, 2015).

DISTRIBUTION: The range extends across much of southern Canada from British Columbia to Prince Edward Island. In the US specimens have been observed from the New England states westward to Minnesota, and southward to West Virginia, Ohio, and Illinois. Scatter records also occur in Virginia, North Carolina and Tennessee. As of 2022, our one record is from a mountain bog in Ashe County.

FLIGHT COMMENT: The adults have been observed from April through August, with a strong seasonal peak typically in May and June. As of 2022, our one record is from early June.

HABITAT: This species is commonly found in open habitats such as old fields, roadways, prairies, and open woodlands.

FOOD: *Eucosma formosana* is known to feed on goldenrods (Heinrich, 1923; Cappuccino, 2000), particularly Tall Goldenrod (*Solidago altissima*).

OBSERVATION_METHODS: The adults are attracted to lights.

NATURAL HERITAGE PROGRAM RANKS: GNR [S1-S2]

STATE PROTECTION:

COMMENTS: This species is at the southern limit of its range in western North Carolina and is seemingly rare within the state.