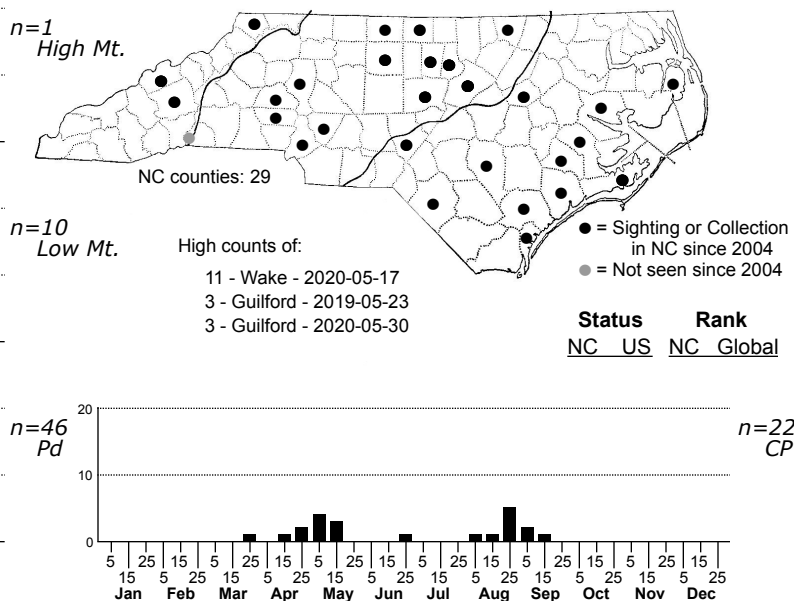
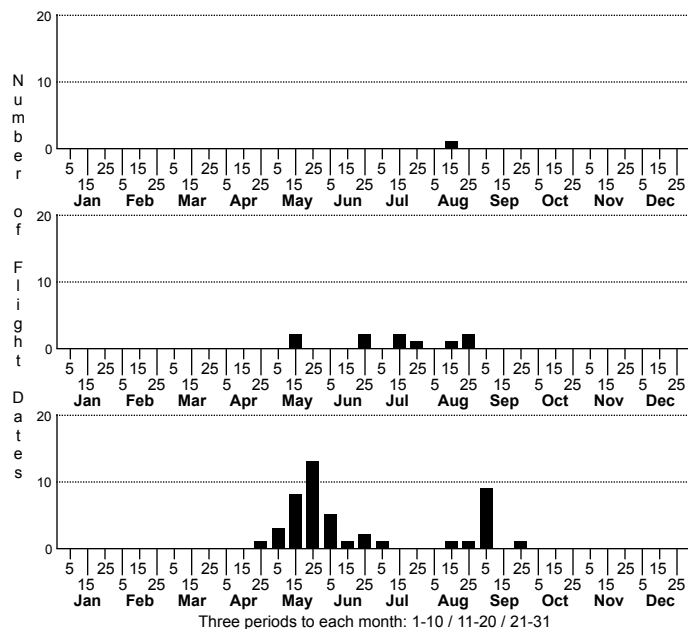


## *Epiblema otiosana* Bidens Borer Moth



FAMILY: Tortricidae SUBFAMILY: Olethreutinae TRIBE: Eucosmini  
 TAXONOMIC\_COMMENTS:

FIELD GUIDE DESCRIPTIONS: Covell (1984); Beadle and Leckie (2012)

ONLINE PHOTOS:

TECHNICAL DESCRIPTION, ADULTS: Pohl and Nanz (2023)

TECHNICAL DESCRIPTION, IMMATURE STAGES: Decker (1932)

ID COMMENTS: The following is mostly based on the description by Pohl and Nanz (2023). The palps, antennae, head, thorax and thoracic tuft are all dark brown to reddish-brown. The forewing is dark grayish-brown to reddish-brown except for a white, sharply-defined dorsal spot near the middle of the wing. The ocellus varies from whitish to grayish, and reddish-brown scaling occurs near the apex and along the termen. The dorsal spot extends from the inner margin to just beyond the middle of the wing and typically has a lateral projection on its distal margin that points toward the ocellus and attenuates distally. When an individual is resting with the wings folded, it has a distinctive notched appearance. On a small percentage of individuals the apex of the projection is joined to the ocellus by a thin white line (Pohl and Nanz, 2023). The ocellus is well defined and has gray bands along the lateral margins and three short black dashes on a whitish to grayish central field. The costa has one conspicuous whitish strigula just before the apex, and several rather obscure gray strigulae on the distal two-thirds of the wing. These are separated by lines of reddish-brown scales. A broad, irregular black stripe adjoins the ocellus between it and the apex.

DISTRIBUTION: *Epiblema otiosana* is found throughout most of the eastern U.S. and in adjoining areas of Ontario, Quebec and New Brunswick. The range in the U.S. extends from Maine southward to southern Florida, and westward to eastern Texas, central Oklahoma, eastern Kansas, central Nebraska, eastern South Dakota, Minnesota and northwestern North Dakota. It occurs statewide in North Carolina.

FLIGHT COMMENT: At southern locales such as Florida, Alabama and Louisiana, the adults fly during most months of the year except for November and December. Northern populations have a more restricted flight season, and typically are active from May through September. Most populations in North Carolina appear to be bivoltine, with the adults first flying from late-March to late-June, then again from mid-August to late-September.

HABITAT: Most of our records come from open areas or residential developments.

FOOD: Beggarticks (*Bidens* spp.) appear to be the primary hosts (Forbes, 1923; Decker, 1932; MacKay, 1959; Covell, 1984; Godfrey et al., 1987; Miller, 1987; Lam et al., 2011; Beadle and Leckie, 2012). The known hosts include Bearded Beggarticks (*B. aristosa*), Spanish-needles (*B. bipinnata*), Nodding Beggarticks (*B. cernua*), Devil's Beggarticks (*B. frondosa*) and Tall Beggarticks (*B. vulgata*). Decker (1932) found overwintering larvae in the stems of several other species that were near *Bidens* but found no evidence of feeding. He concluded that they were using these strictly as overwintering habitats and that they were not true host plants. The list included *Ambrosia trifida*, *Chenopodium album*, *Solidago* spp., *Amaranthus retroflexus*, *Polygonum* spp., a *Typha* and a *Carex*.

OBSERVATION\_METHODS: The adults are attracted to lights and the larvae can be found in the stems of beggarticks.

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 widespread and common within the state and appears to be secure.