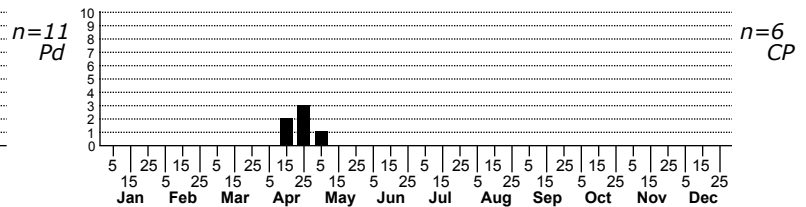
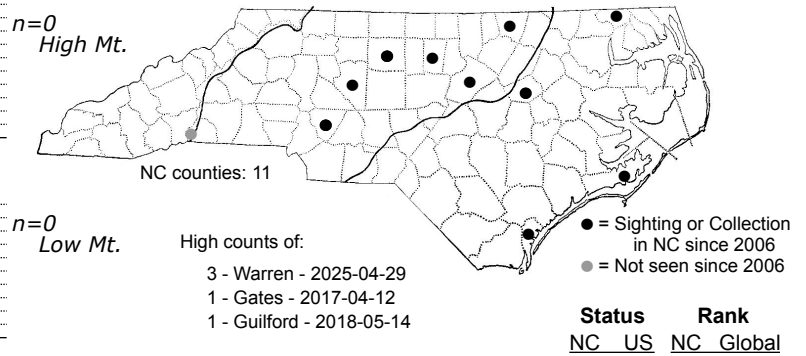
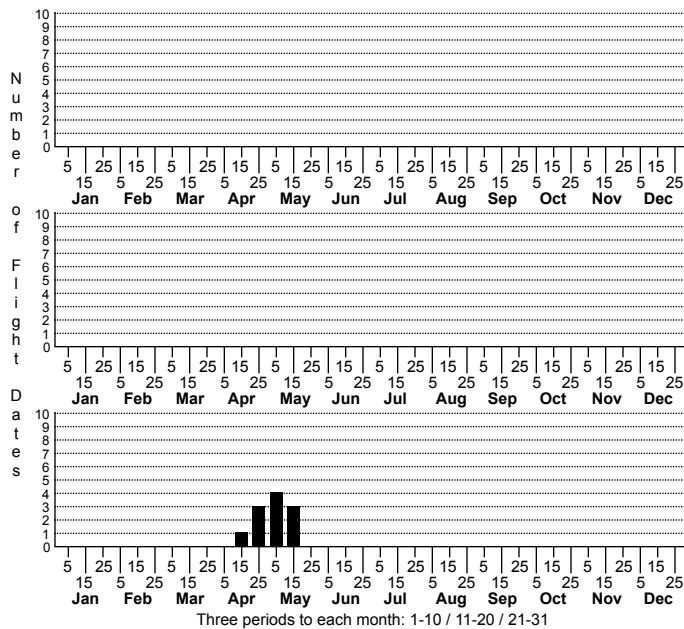


Europina cocana Shortleaf Pinecone Borer Moth



FAMILY: Tortricidae SUBFAMILY: Olethreutinae TRIBE: Eucosmini

TAXONOMIC_COMMENTS: *Europina* is a genus of tortricid moths with 12 North American species that were previously placed in the genus *Eucosma* (Gilligan and Wright, 2013). Members of this genus feed on conifers (Pinaceae), and the majority feed on the maturing cones of pines.

FIELD GUIDE DESCRIPTIONS:

ONLINE PHOTOS:

TECHNICAL DESCRIPTION, ADULTS:

TECHNICAL DESCRIPTION, IMMATURE STAGES:

ID COMMENTS: The head is predominately light orangish white to dull white, while the external surfaces of the palps are a contrasting darker orangish-brown or orangish-red. The forewing has complex patterning, but typically consists of a mosaic of relatively dark orangish-brown to orangish-red blotches that are interspersed with light orange or orangish-white blotches. Most of the darker blotches are defined by a thin margin of off-white scales, and many specimens have broader areas of silvery-gray scales between the larger blotches. The thorax has similar patterning, but with smaller blotches, and there is a pair of scale tufts on the posterior end. A series of small orangish-red spots with alternating lighter areas extends along the costa from about mid-wing posterior across the outer margin. The cilia on the forewing vary from gray to orangish-brown and are cut with white at the end of each vein. The hindwing is smoky brown and the cilia are paler.

DISTRIBUTION: The range is centered on the southeastern US, but specimens have been observed as far north as Massachusetts. From there, the range extends southward to central Florida and westward to Mississippi, western Tennessee, and southern Indiana. As of 2022, most of our records are from the Piedmont, with only one from the Coastal Plain.

FLIGHT COMMENT: Local populations are univoltine, with the adults flying from February-June. Southern populations in Florida are active from February-May, while April and May are the peak months in most areas of the range. As of 2022, all of our records are from April and May.

HABITAT: *Europina cocana* is typically associated with forests that support Shortleaf Pine. This species primarily occurs in upland areas with moderately dry soils and often becomes established in early successional habitats.

FOOD: As the name implies, the Shortleaf Pinecone Borer Moth mostly feeds on Shortleaf Pine (*Pinus echinata*) cones, but will occasionally feed on Loblolly Pine (*P. taeda*) and perhaps other pine species (Ebel et al., 1980).

OBSERVATION_METHODS: The adults appear to infrequently visit lights. More information is needed on host use in North Carolina and observations of infected pine cones are needed.

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: We currently do not have sufficient information on the distribution and abundance of this species in North Carolina to accurately assess its conservation status. Shortleaf Pine is in decline in many areas of its range, which suggests that this species may also be in decline.