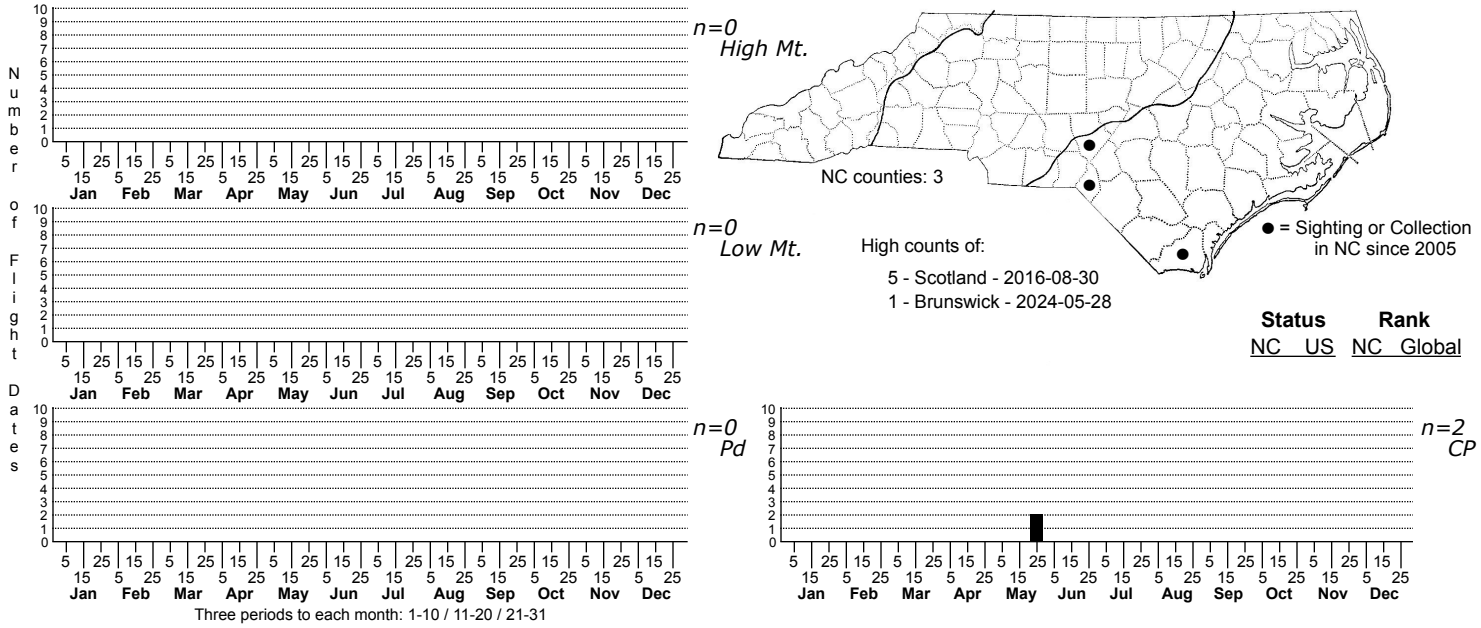
Cosmopterix astrapias None



FAMILY: Cosmopterigidae SUBFAMILY: Cosmopteriginae TRIBE:
TAXONOMIC_COMMENTS: Cosmopterix is a very large genus of small, colorful moths that are found on every continent except Antarctica. There are 31 species that are currently recognized in North America, and all are leafminers.

FIELD GUIDE DESCRIPTIONS:
ONLINE PHOTOS:
TECHNICAL DESCRIPTION, ADULTS: Koster (2010)
TECHNICAL DESCRIPTION, IMMATURE STAGES:

ID COMMENTS: The following description focuses on forewing and antenna patterning, and is based on a more detailed description presented by Koster (2010). The vertex is shining bronze brown with two white lateral lines. The thorax lacks white lines, but sometimes has a posterior white spot. The antenna is dark brown with a white line near the base that extends to one-third thewing length. From there it changes into an interrupted line to two-thirds the length. This is followed when moving towards the apex by the following sequence of antennal segments: six dark brown segments, one white segment, one blackish white segment, four white segments, ten dark brown segments and seven white segments at the apex. This combination can vary among individuals. The white subapical ring of four segments can be narrowed by a few (partly) brown scales, or widened to six segments and sometimes even followed by a narrow white ring of two segments. The white apex can be reduced by up to three white segments. The forewing is dark olive-brown with a bright orange-yellow transverse fascia midway. A narrow silver fascia borders the orange-yellow fascia basally, and two silver spots border the fascia externally. There are six silver-blue lines in the basal area. These include 1) one that runs along the costa from the base to one-fourth of the wing length, then bends dorsally, 2) one that is slightly in from the costa at one-third, 3) two lines of approximately equal length that are near the medial area at one-fourth, 4) a short line from the base near the dorsal margin that runs diagonally, and 5) a line on the dorsal margin from one seventh to one-third. Finally, there is a silver-blue line that extends along the dorsal margin to the apex that starts beyond the dorsal silver spot. Cosmopterix astrapias specializes on species of Morning-Glory (Ipomoea), and is the only Cosmopterix in North Carolina that uses Ipomoea as a host. Thus, any Cosmopterix reared from Ipomoea in North Carolina can be safely assumed to be this species. The short diagonal line from the base of the forewing near the dorsal margin is diagnostic for this species. The early instar larvae are plain yellowish-white, but the mature larvae have red dorsal and lateral stripes (Eiseman, 2019).

DISTRIBUTION: C. astrapias has a very large range that extends from Argentina through Central America to the US. It occurs in the US from Massachusetts south and westward to southern Florida, southern Texas and southern Arizona.

FLIGHT COMMENT: Please refer to the flight charts.

HABITAT: Populations are restricted to habitats with Ipomoea. Members of this genus are generally found in open, disturbed habitats such as roadsides, fields, fences, and thickets.

FOOD: This species specializes on Ipomoea, including Common Morning-Glory (I. purpurea) which is native to South America. In North Carolina, Tracy Feldman has reared a larva from Common Morning-glory.

OBSERVATION_METHODS: The adults appear to rarely visit lights and are perhaps best obtained by rearing adults from mines on Morning Glories.

NATURAL HERITAGE PROGRAM RANKS: GNR SU

STATE PROTECTION:

COMMENTS: