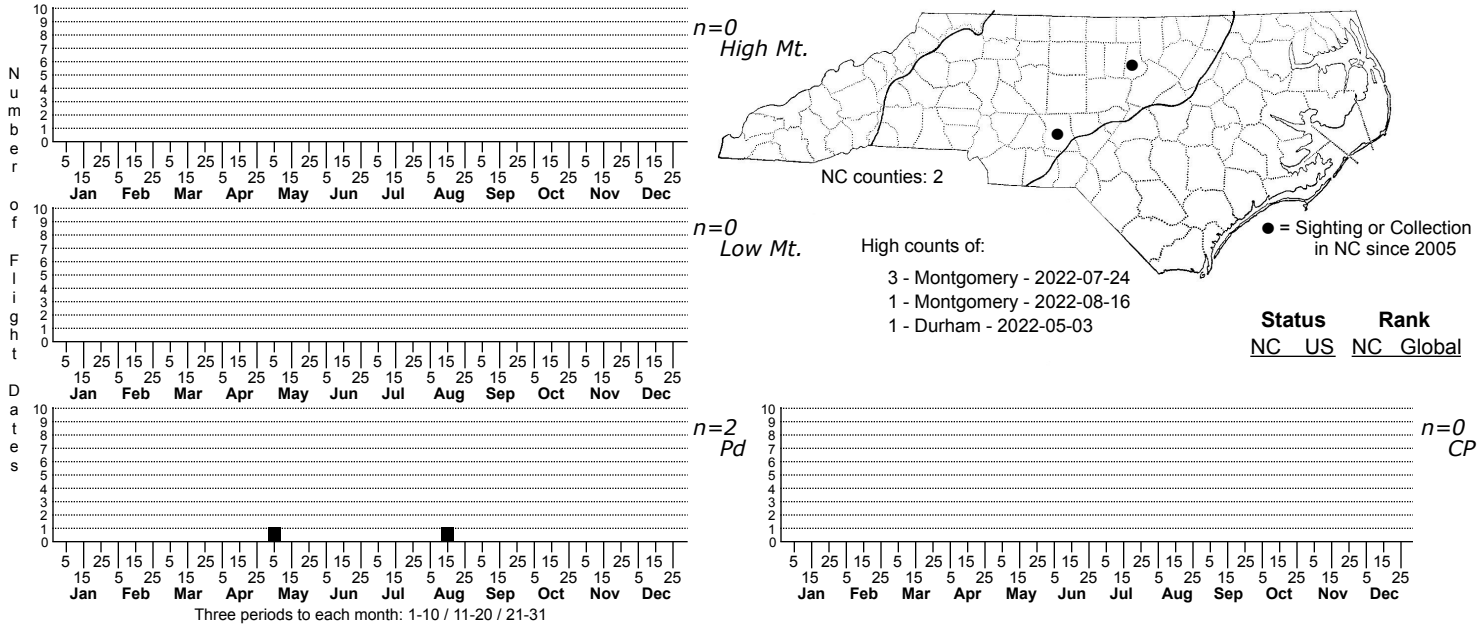
Cosmopterix teligera None



FAMILY: Cosmopterigidae SUBFAMILY: 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: Hodges (1978) as Cosmopterix abdita; 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 head and dorsal thorax region have three white lines (two lateral; one medial). The scape is white below and dark brown above with a white anterior line. The antenna is dark brown, with a short white line at the base that changes into an interrupted line that extends to beyond one-half the wing length. This is followed towards the apex by the following sequence: six dark brown segments, two or three white segments, two dark brown segments, two white segments, ten dark brown segments, and eight white segments at the apex. The forewing is dark brown with four narrow white lines in the basal area. These consist of 1) a subcostal line that extends from the base to one-quarter of the wing length and bends away from the costa in the distal half, 2) a short medial line that is above the fold in the center and under the apex of the subcostal, 3) a subdorsal line that is about twice as long as the medial, but slightly further from the base, and 4) a short and very narrow dorsal line from beyond the base to one-quarter the length of the wing. The white lines in the basal area can differ in length, especially the subcostal which starts from the base in the North American specimens and beyond the base in the Neotropical ones. An orange-yellow fascia is present just beyond the middle that narrows towards the dorsum. The facia has a narrow apical protrusion, and is bordered at the inner edge by a tubercular silver to pale golden metallic fascia. There is a small subcostal patch of blackish brown scales on the outside. The outer edge of the orange-yellow fascia is bordered by two tubercular, silver or pale golden, metallic costal and dorsal spots. The dorsal spot is more than three times as large as the costal spot and more towards the base. Both spots are irregularly lined with dark brown on the inside. The transverse fascia, tubercular fascia, and spots are variable in width. There is a narrow white costal streak that extends from the costal spot to the costa. Finally, there is a white apical line that extends from or just beyond the apical protrusion to the cilia. This line is sometimes interrupted in the middle. The cilia are dark brown, but paler towards the dorsum. The hindwing is brownish gray and the cilia brown.

Cosmopterix teligera closely resembles several other Cosmopterix species (e.g., C. lespedezae) and cannot be identified with certainty using external characters (Koster, 2010). Accurate identification is best achieved by using genitalia or by rearing adults from host plants.

DISTRIBUTION: Cosmopterix teligera has a very large range that extends from Distrito Federal of Brazil, northward through Columbia, Costa Rica, Mexico, and the eastern US all the way to southern Canada (Koster, 2010, Eiseman, 2019). Koster (2010) documented one specimen in the British Museum of Natural History that was collected from North Carolina in 1883 by Morrison. This is the only specimen that was known from the state before Jim Petranka successfully reared an adult from River Oats (Chasmanthium latifolium) in 2022. The county for the 1883 record was not recorded.

FLIGHT COMMENT: Please refer to the flight charts.

HABITAT: The larvae feed on grasses that are found in both woodland settings and open, disturbed habitats. Chasmanthium latifolium appears to be an important host. It is commonly found along streambanks and in bottomland forests over mafic or calcareous rocks (Weakley, 2015).

FOOD: The only documented hosts to date are River Oats (Chasmanthium latifolium) and Paspalum, including P. pubiflorum in Oklahoma (Eiseman, 2019). In North Carolina, Jim Petranka has reared a larva from River Oats.

OBSERVATION_METHODS: The adults occasionally come to UV-lights, but identification will require dissection of the genitalia. Any adults that are reared from mines on Chasmanthium latifolium can be safely assumed to be this species.

NATURAL HERITAGE PROGRAM RANKS: GNR S1S3

STATE PROTECTION: Has no legal protection, although permits are required to collect it on state parks and other public lands.

COMMENTS: We currently have insufficient data on the abundance and distribution of this species in the state to access its conservation status. We have only one historic record and one recent record.