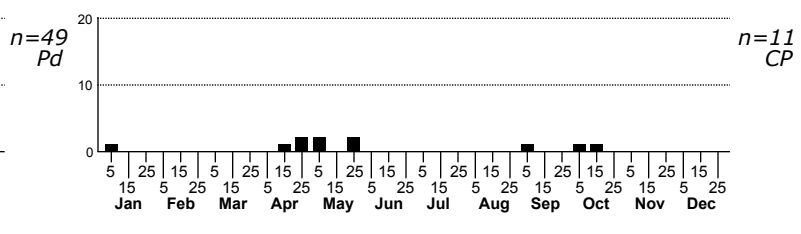
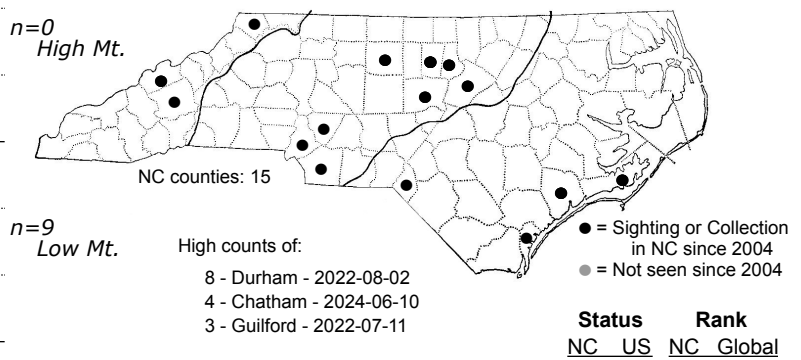
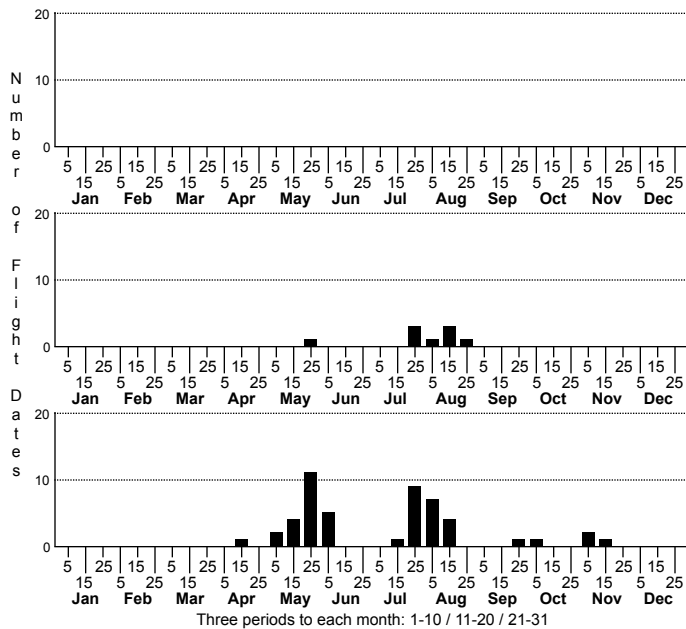


Glyphidocera juniperella Juniper Tip Moth



FAMILY: Glyphidoceridae SUBFAMILY: [Glyphidocerinae] TRIBE:

TAXONOMIC COMMENTS: *Glyphidocera* is a large but poorly studied genus with numerous undescribed species in the Neotropics, where they reach their greatest diversity. Adamski (2005) described 88 new species from Costa Rica alone. There are currently 11 described species in North America, and seven species in North Carolina. They are small to medium-sized moths and, with rare exceptions, vary from pale yellowish brown to dark brown. Most have few, if any, diagnostic markings on the wings. Host associations are unknown for almost all species, which suggests that they may be detritivores or fungivores that do not feed on living plants.

FIELD GUIDE DESCRIPTIONS: Leckie and Beadle (2018)

ONLINE PHOTOS:

TECHNICAL DESCRIPTION, ADULTS: Adamski and Brown (1987)

TECHNICAL DESCRIPTION, IMMATURE STAGES: Adamski and Brown (1987)

ID COMMENTS: The following is based on the description by Adamski and Brown (1987). The palps are strongly recurved and reach backwards to the middle of the head. The head, thorax, antenna, labial palp and forewing are covered with a mixture of dark brown and grayish orange scales. There are typically two conspicuous dark-brown spots near the middle of the wing, one just before one-half and the second at about two-thirds the wing length. The first may have an accompanying spot that is slightly anterior to the first and displaced towards the inner margin. In addition, specimens sometimes have a very small dark brown spot near the wing base. The fringe is brownish-gray. The hindwing is light orange-gray at the base, and more grayish-orange apically.

Glyphidocera juniperella resembles several other *Glyphidocera* in terms of the overall brownish appearance and spot pattern. This species is generally darker than the others, and the dark brown and lighter grayish-orange scales on the forewing are nearly equally represented, which gives a distinctive coarse-grained appearance to the forewings. In most of the other species, the lighter scales tend to predominate. *Glyphidocera democratica* is most similar, but the terminal region of the forewing and fringe is heavily dusted with grayish-black scales and the first dark-brown spot is noticeably larger than the second (both are about the same size in *G. juniperella*).

DISTRIBUTION: *Glyphidocera juniperella* is primarily found in the southeastern US. The range extends from Maryland and West Virginia southward to Florida, and westward through the Gulf Coast states to central Texas and Oklahoma. Isolated records also exist for Illinois, Indiana and Ohio. This species occurs statewide in North Carolina, from the Outer Banks to the lower elevations in the mountains. Populations are found locally where Eastern Red Cedar and other junipers are present.

FLIGHT COMMENT: Adults have been observed from March through October in areas outside of North Carolina. North Carolina populations appear to have two or more broods in the Coastal Plain and Piedmont, but only one in the mountains. Breeding begins in May and extends through late summer or early fall.

HABITAT: Local populations are dependent on junipers as host plants, and presumably use both Southern Red Cedar and Eastern Red Cedar as hosts. The former is common on barrier islands where it can be found in maritime forests, on dunes, and along the edges of tidal marshes. Eastern Red Cedar tends to be an early successional species and prefers neutral soils. It is common along fencerows, old fields, rocky slopes, and in hardwood or mixed pine-hardwood forests with openings and relatively dry, thin soils.

FOOD: Adamski and Brown (1987) described this species from larvae collected on cultivated *Juniperus horizontalis*. That species is native to the northern US and Canada, and red cedars seem like the most likely hosts in North Carolina. *Glyphidocera juniperella* is abundant at Fort Macon (J.B. Sullivan, pers. obs.), where Southern Red Cedar (*Juniperus silicicola*) is also common. Our other records come from farther west, where Eastern Red Cedar (*J. virginiana*) is the most likely host.

OBSERVATION_METHODS: The adults are attracted to lights. Observations of host use are needed, so we recommend searching for larvae and rearing adults.

NATURAL HERITAGE PROGRAM RANKS: GNR S4S5

STATE PROTECTION:

COMMENTS: This species occurs statewide and appears to be relatively secure.