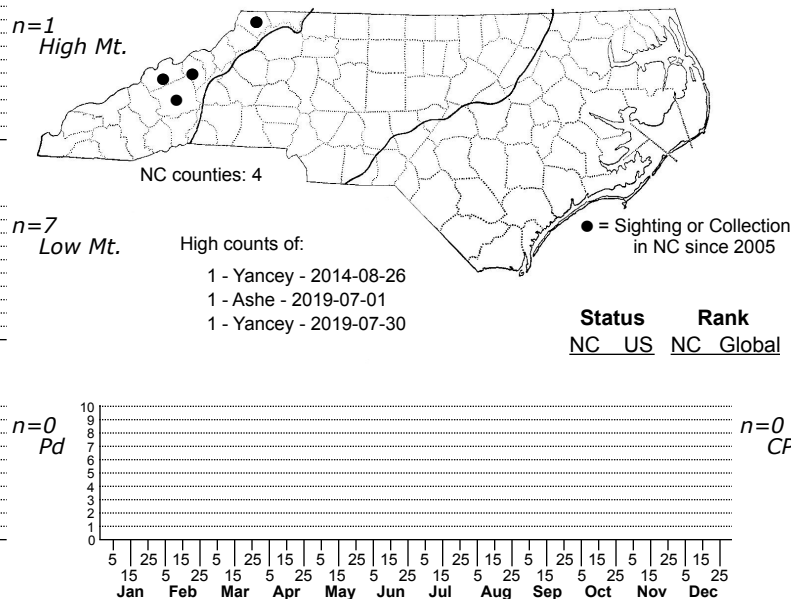
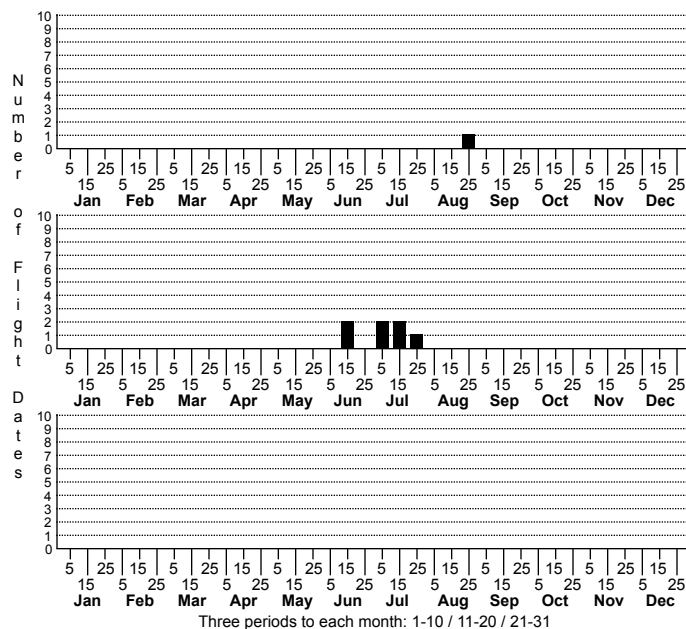


Coleotechnites atrupictella None



FAMILY: Gelechiidae SUBFAMILY: Gelechiinae TRIBE:

TAXONOMIC_COMMENTS: The genus *Coleotechnites* includes 49 very small species that occur in North America. Most species are specialists on conifers and tend to use on a single genus of host plant. Many of the *Coleotechnites* species have almost identical genitalia that are not very useful in delineating closely related forms (Freeman, 1960; 1965). Freeman (1960) noted that host plants and the mining characteristics often provide the most reliable way to identify closely related species.

FIELD GUIDE DESCRIPTIONS:

ONLINE PHOTOS:

TECHNICAL DESCRIPTION, ADULTS: Dietz (1900)

TECHNICAL DESCRIPTION, IMMATURE STAGES: (McLeod, 1962)

ID COMMENTS: The following is based in part on the description by Dietz (1900). The labial palp is ashy gray with a series of dark bands on the second and third joint. The second joint has a brush of bristly hairs and is noticeably thicker than the narrow terminal joint. The antenna has alternating light and dark brown to blackish annuli. The forewing has a dirty white ground with blackish markings. Black dusting is often present along the costal margin from the wing base to about one-fifth the wing length, where it meets an oblique and diffuse fascia that reaches, or nearly reaches, the dorsal margin at about one-third. A similar broad fascia begins at about one-half and usually terminates before reaching the dorsal margin. A third fascia is present at around two-thirds that is narrower than the second, slightly oblique, and also does not reach the dorsal margin. A long black stripe in the middle of the wing extends from the second fascia to the third. In some specimens, the entire region between the two fascias may be heavily dusted with black to produce a large blotch. The wing tip has a series of five or six large black spots that extend from the sub-apical region of the costa around the tip to the tornus. The cilia are light gray and dusted with dark fuscous scales near the wing tip. The hindwing and cilia are light grayish brown to pale cinereous.

DISTRIBUTION: *Coleotechnites atrupictella* is found at northern latitudes in North America in association with spruce-fir forests. The range includes the West Coast states, and almost all of southern Canada from British Columbia and the Northwest Territories eastward to Nova Scotia. In the US the range extends from Maine southward to Pennsylvania, and westward to northern Indiana and Michigan. A southern disjunct is present in western North Carolina, where we have records from both lower and higher elevations in the mountains.

FLIGHT COMMENT: Adults have been found in areas outside of North Carolina from April through September, with a seasonal peak in July and August. As of 2024, our records are from mid-June through late-August.

HABITAT: In eastern North America the larvae feed on spruce and fir trees, and probably hemlocks. We have records from the high mountains in regions with spruce-fir forests, but also from a lower elevation sites that are far from any spruce-fir forests. This species uses Western Hemlock on the West Coast, so it is possible that they use Eastern Hemlock in North Carolina.

FOOD: This wide-ranging species uses a variety of conifers that are found in Canada and the West Coast states (Prentice, 1966; Robinson et al., 2010). These include Balsam Fir (*Abies balsamea*), Grand Fir (*A. grandis*), White Spruce (*Picea glauca*), Black Spruce (*P. mariana*), Red Spruce (*P. rubens*), Sitka Spruce (*P. sitchensis*), Lodgepole Pine (*Pinus contorta*), Apache pine (*P. engelmannii*), Ponderosa Pine (*P. ponderosa*), Douglas Fir (*Pseudotsuga menziesii*), and Western Hemlock (*Tsuga heterophylla*). In North Carolina, we have records from Mt. Mitchell where this species presumably uses Red Spruce and possibly Fraser Fir. We also have low-elevation records from Buncombe and Madison County, which suggests that other conifers such as Eastern Hemlock may be used.

OBSERVATION_METHODS: The adults are attracted to lights. More information is needed on host use in North Carolina, so we encourage naturalists to search for the larvae on young growth.

NATURAL HERITAGE PROGRAM RANKS: GNR [S2S3]

STATE PROTECTION:

COMMENTS: We have an apparent southern disjunct of this species in western North Carolina. More information is needed on the host use, distribution, and abundance of this species within the state before we can accurately assess its conservation status.