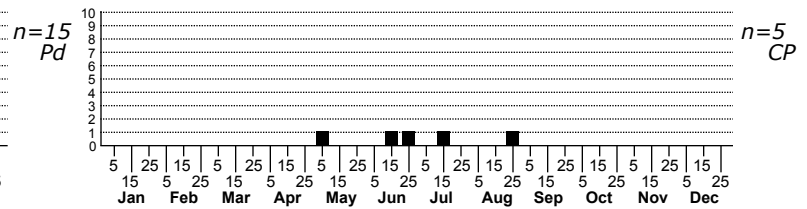
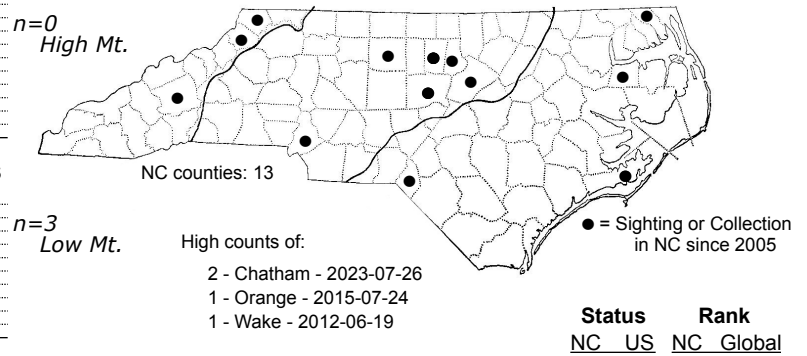
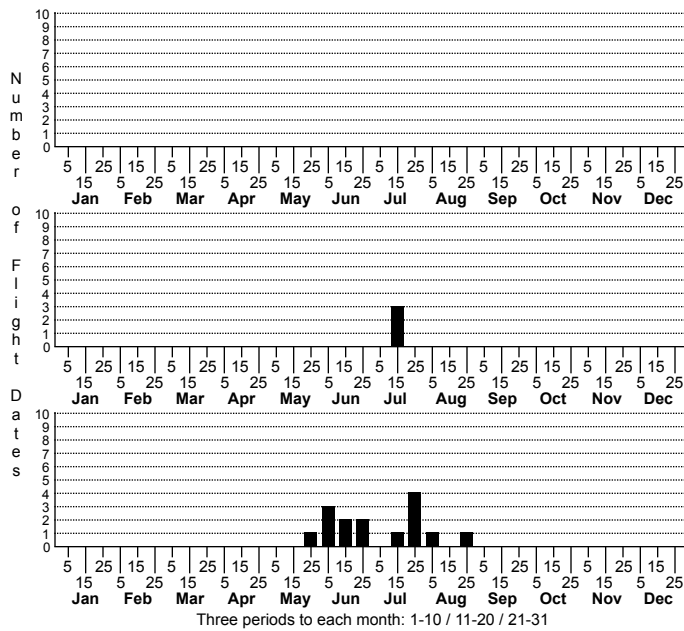


Coleotechnites albicostata White-edged Coleotechnites



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: Freeman (1965)

TECHNICAL DESCRIPTION, IMMATURE STAGES:

ID COMMENTS: The following is based on the description by Freeman (1965). The head and thorax are smooth and shining ivory-white. The antenna has alternating black and whitish annuli, and is about two-thirds as long as the forewing. The second joint of the labial palp is whitish inwardly and black outwardly, while the apical joint is white with a black apex and a sub-basal black band. The forewing has three equally spaced tufts of dark scales along the inner margin that appear as dots. The ground color is ochreous-white, and there is a broad, black longitudinal streak that extends from the base through the center of the wing almost to the apex. The streak is straight along its lower margin, and somewhat wavy or irregular along its dorsal margin. Just before the middle of the costa there is a very short, black, outwardly-oblique streak. Beyond the middle there is a broader, longer, outwardly-oblique, black streak that tapers from the costa and extends almost to the black longitudinal streak. The apical third of the wing is ochreous-white, with scattered small black spots. The apical fringe scales are speckled with a mixture of ochreous, gray, and black. The fringe of the trailing margin is shiny gray. The hindwing is dirty white with a shiny, slightly ochreous fringe. The abdomen of the male is ochreous above, and that of the female shiny lead colored. The legs are black with ochreous patches and bands.

DISTRIBUTION: *Coleotechnites albicostata* is found in eastern North America. The range extends from Ontario, Quebec, Connecticut, and New Hampshire, southward to Alabama and Mississippi, and westward to central Texas, Oklahoma, and Tennessee. This species occurs statewide in North Carolina, except for perhaps the southeastern portions of the Coastal Plain. Populations require Eastern Red Cedar and other junipers for reproduction, and are only found locally where the hosts occur.

FLIGHT COMMENT: Populations are univoltine. The adults have been observed from May through August in areas outside of North Carolina, with a seasonal peak in June and July. As of 2021, our records are from early June through late August.

HABITAT: Local populations are found where junipers occur locally. Eastern Red Cedar is the most important host. This species is common in early successional or disturbed habitats such as fencerows, road corridors, and abandoned fields. It is also found in natural areas with thin, dry, rocky soils such as cliff faces and dry ridgelines. This species is a calciphile that thrives in circumneutral or basic soils.

FOOD: Eastern Red Cedar (*Juniperus virginiana*) is the most important host, but other junipers such as Southern Red Cedar (*J. silicicola*) likely serve as hosts (Eiseman, 2022). It is uncertain if this species uses any of the ornamental junipers that are used for landscaping in the state.

OBSERVATION_METHODS: The adults are attracted to lights, and the larvae and their damage can be observed on juniper foliage.

NATURAL HERITAGE PROGRAM RANKS: GNR [S4S5]

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

COMMENTS: This species appears to be secure within the state given its statewide distribution and the wide availability of its host plants.