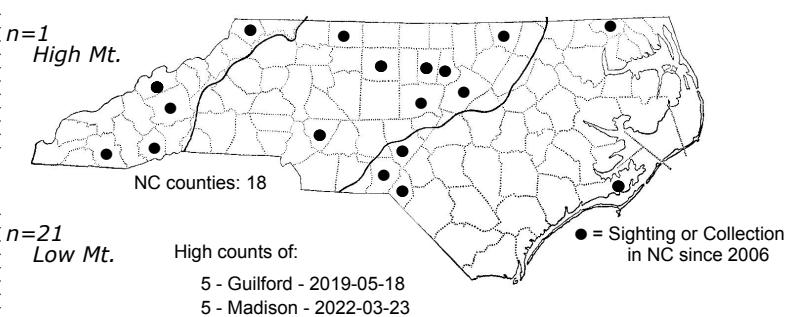
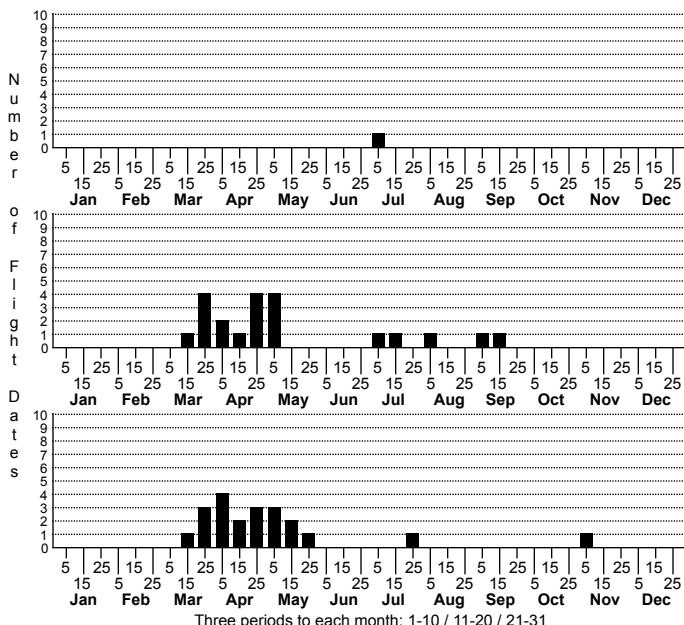


Coleotechnites quercivorella None



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 feed 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:

TECHNICAL DESCRIPTION, IMMATURE STAGES:

ID COMMENTS: The antenna is dark brownish black with faint lighter bands. The terminal joint of the labial palp is white with two dark rings. Individuals vary in general body patterning, but most have a band of grayish white to dirty white coloration that extends from the vertex to the thorax, and then as a narrow, wavy light stripe that extends along the dorsal margin from the wing base to near the apex. The thorax is often heavily dusted and on some individuals appears darker than the head. The remainder of the wing is heavily dusted with dark brown or blackish scales. Very heavily dusted individuals, which tend to prevail in North Carolina specimens, may have most of the area beneath the dorsal light stripe almost entirely black. There are three equally-spaced patches of dark, raised scales along the inner margin at about one-fourth, one-half, and three-fourths that are centered on the indentations on the dorsal stripe. On many individuals these are completely masked by the heavy black dusting. Lightly dusted individuals often show evidence of three blackish, diffuse, oblique bars that begin along the costa at about one-fourth, one-half, and three-fourths, but these are usually not evident due to the heavy black dusting on the wing. The dark bars are sometimes separated by dusted whitish blotches near the costa, but these are usually masked by the heavy black dusting on the forewing. A faint whitish costal spot is sometimes evident at about four-fifths, but is not prominent. The hindwing is silvery gray, and the fringe on both wings is mostly light gray. The front and middle legs are black with white banding, while the hind leg is creamy-white with black bands. *Coleotechnites florae* is a closely related species that closely resembles *C. quercivorella*. Both may be members of a species complex involving these two species and closely related genetic lineages (BOLD). They are most reliably determined by rearing adults from host plants, as is the case with many *Coleotechnites* species (Freeman, 1961). In North Carolina populations, *C. quercivorella* tends to be darker overall and lacks a well-developed whitish costal spot at about four-fifths that is present in *C. florae*. Intermediates are sometimes found that are difficult to place.

DISTRIBUTION: As currently recognized, *Coleotechnites quercivorella* is a wide-ranging species that appears to be a member of a species complex (seven BINS on BOLD). Populations that conform to this species have been found in many area of North America, including California, portions of southern Canada (British Columbia; Manitoba; Ontario; Quebec; Nova Scotia), and much of the eastern US westward to eastern Texas, Oklahoma, Wisconsin, and Minnesota.

FLIGHT COMMENT: Adults have been found from March through November in areas outside of North Carolina, with a seasonal peak in April and May. As of 2021, our records extend from late March through early September, with the main breeding bout during April and May.

HABITAT: Populations rely on oaks as host plants and can be found in a variety of hardwood and mixed conifer-hardwood forests, as well as semi-wooded residential neighborhoods with oaks.

FOOD: The larvae are known to use oaks (Marquis et al., 2019; Forbes, 1023), but details about host species are largely lacking. Northern Red Oak (*Quercus rubra*) and White Oak (*Q. alba*) are two of the known hosts, but other species are likely used.

OBSERVATION METHODS: The adults are attracted to lights. More detail is needed on host plant use and the larval ecology, so we encourage individuals to search for and rear this and other oak feeders.

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 relatively secure within the state, given its wide distribution and use of oaks as hosts.