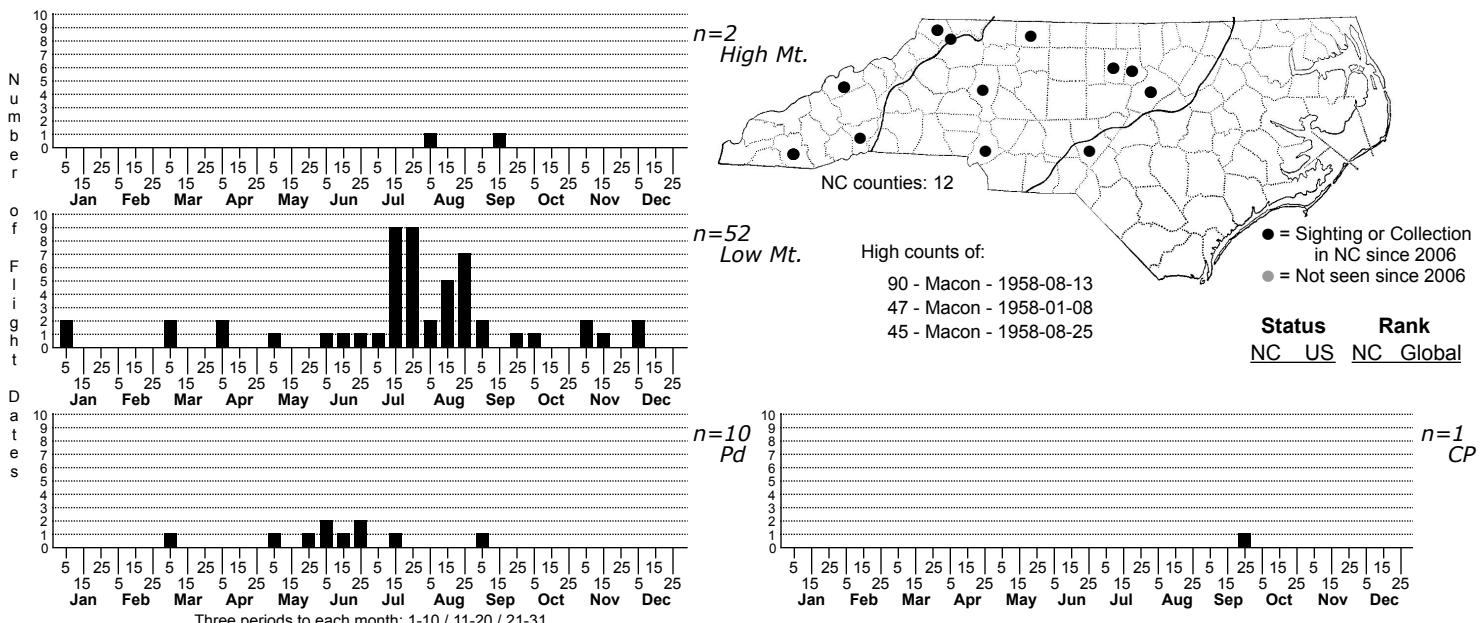


Chionodes thoraceochrella None



FAMILY: Gelechiidae SUBFAMILY: Gelechiinae TRIBE: Gelechiini

TAXONOMIC COMMENTS: The genus *< i>Chionodes* is the most species rich genus of gelechiid moths in the Western Hemisphere, with 187 recognized species. Our knowledge of the diverse array of species in North America is largely due to the monumental work of Hodges (1999), who spent decades working on the group and described 115 new species (Powell and Opler, 2009). Many exhibit substantial variation within species and have drab coloration, typically with brown, dark gray, or blackish patterning on the forewings. These can only be confidently identified by examining secondary sexual characteristics and/or the genitalia of one or both sexes. Others are more boldly marked and can be identified by wing patterning. Many of our state records are based on Hodges (1999) database of over 19,000 specimens that he examined from major collections in the US. These include North Carolina specimens that he collected mostly from Highlands, and from a few other areas within the state.

FIELD GUIDE DESCRIPTIONS:

ONLINE PHOTOS:

TECHNICAL DESCRIPTION, ADULTS: Hodges (1999)

TECHNICAL DESCRIPTION, IMMATURE STAGES:

ID COMMENTS: The following is based in part on the description by Hodges (1999). The head and thorax are pale yellowish gray, and the antenna dark brown with pale and dark brown annulations. The labial palp is mainly dark grayish brown, with the apex of the second segment medium orangish gray. The third segment is mainly dark brown, but with scattered yellowish-white mottling beyond two-fifths, and a yellowish white tip. The forewing is often dark gray with scattered blackish blotches, but individuals are often lighter and have a slightly blotched appearance with pale yellowish-gray, orange-brown, or off-white scales. North Carolina specimens can be dark, but are often lighter and frequently have a posteriorly oblique, irregular dark band that begins on the costa at about one-third and terminates before reaching the inner margin. A dark costal spot is present at about four-fifths that is followed by a pale blotch that is often part of a posteriorly angled pale fascia. The dorsal surface of the abdomen is medium gray and overlain with paler scales on T1 and T2. The posterior margin of each tergum is pale gray. The upper portion of the legs are mottled with pale gray and dark brown, while the tarsi are dark brown with pale annulations. The foreleg is more boldly marked than the remaining two. The forewing patterning is variable on this species and individuals are best identified by dissection.

DISTRIBUTION: *< i>Chionodes thoraceochrella* is found in southern Canada from Saskatchewan eastward to Prince Edward Island and Nova Scotia, and throughout much of the US. Scattered populations occur in the western US, including the Pacific Coast states, Utah, Colorado, Arizona, and North Dakota. Populations are also widespread and common in most of the eastern US in association with the eastern deciduous forest. As of 2021, our records are all from the Piedmont and lower elevations in the Blue Ridge Mountains.

FLIGHT COMMENT: The adults primarily fly from May to October in areas outside of North Carolina. Most records are from July through September, with a few from the colder months of the year. We have records within the state for most months of the year, with a seasonal peak in July and August.

HABITAT: The larvae appear to specialize on oaks and our records are mostly from areas with hardwood forests or mixed pine-hardwood forests.

FOOD: The larvae feed on oaks (Hodges, 1999) and American Beech (*< i>Fagus grandifolia*). The known oak hosts include White Oak (*< i>Quercus alba*), Swamp White Oak (*< i>Q. bicolor*), and Northern Red Oak (*< i>Q. rubra*). Other oak species are undoubtedly used given the wide range of this species. Records of this species using Northern Highbush Blueberry (*< i>Vaccinium corymbosum*) and the catkins of Sweetgum (*< i>Liquidambar styraciflua*) in the eastern US are questionable and need to be verified (Hodges, 1999).

OBSERVATION METHODS: The adults are attracted to lights.

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: Hodges (1999) noted that this may be one of the most common gelechiid moths in the eastern US. It appears to be secure within the state.