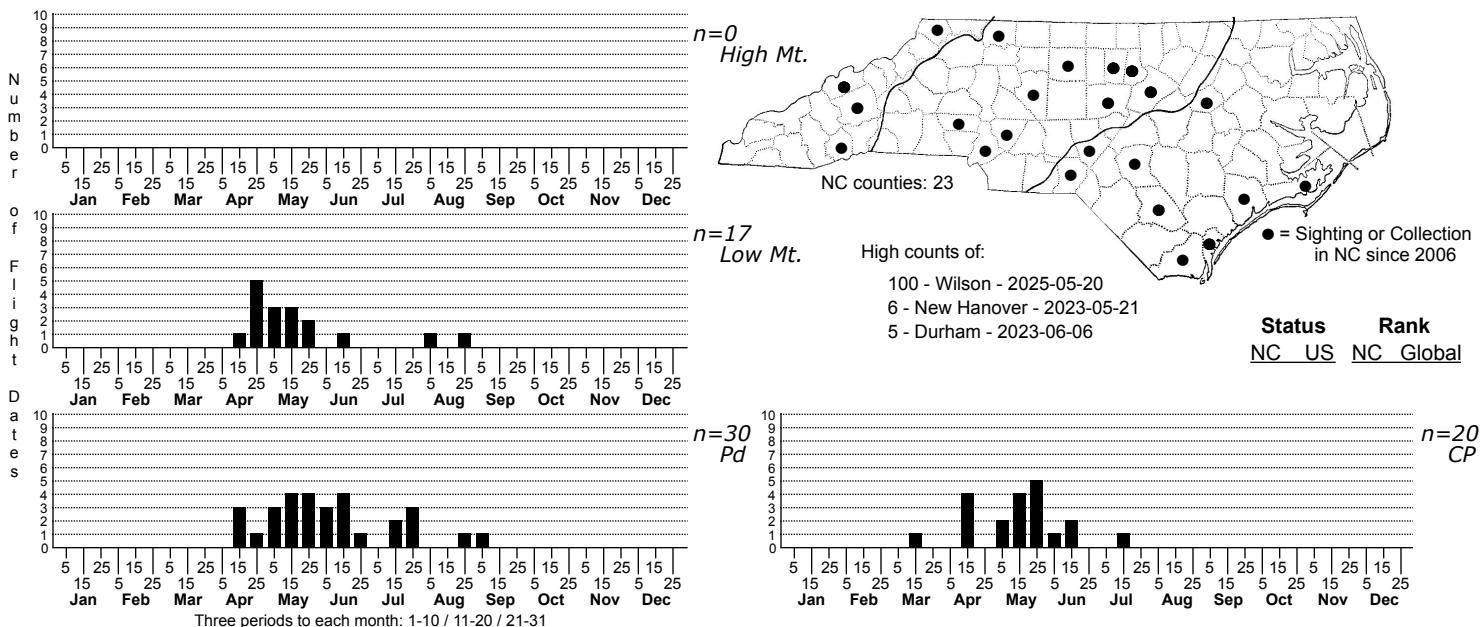


Holcocera immaculella None



FAMILY: Blastobasidae SUBFAMILY: Blastobasinae TRIBE: Holcocerini

TAXONOMIC COMMENTS: The genus *Holcocera* is represented by about 70 species worldwide, with its center of diversity in the New World tropics. There are many undescribed species, including some in the US. A major taxonomic revision of North American forms is needed for this and many other members of the subfamily Blastobasinae.

FIELD GUIDE DESCRIPTIONS:

ONLINE PHOTOS:

TECHNICAL DESCRIPTION, ADULTS: David Adamski

TECHNICAL DESCRIPTION, IMMATURE STAGES:

ID COMMENTS: This is a rather plain species that has forewings that are unmarked. The brownish head region contrasts with the lighter forewings. Note the two-toned thorax that is darker anteriorly. The following description is based primarily on that of McDunnough (1930). The antenna is brownish with faint annulations. The basal joint has a strong pecten, and the male antenna has a distinct notch beyond the basal joint. The labial palp, head, and anterior portion of the thorax are smoky brown, while the posterior portion of the thorax is light yellowish brown and matches the color of the forewing. The head and thoracic region are noticeably darker than the forewing, which is uniformly light yellowish brown and lacks any markings. The hindwing and the fringe on both wings are pale gray to light smoky. The first two pairs of legs are smoky, while the hindleg is paler with light ocherous tufts. The abdomen is gray to yellowish brown above, with narrow transverse blackish bands. Specimens from some areas of the range deviate from the description above by being light charcoal gray rather than yellowish brown. Our specimens are the usual yellowish brown as described above. We also find individuals that lack the brownish head and thoracic region. We are currently assigning these to this species.

DISTRIBUTION: *Holcocera immaculella* is found throughout a wide area of the US and southern Canada in association with spruce and pine forests. Western populations are genetically distinct (BOLD) and may constitute an undescribed species. In the East, populations occur from the northeastern US and adjoining areas of southern Canada westward to Minnesota and Michigan, and southward to Florida, Louisiana, eastern Texas and Arkansas. We have records from all three physiographic regions of the state.

FLIGHT COMMENT: Adults have been observed from March through August in areas outside of North Carolina, with a peak in seasonal activity in June and July. As of 2021, our records extend from May through August.

HABITAT: The larvae feed on conifer seeds, and presumably rely on Eastern White Pine and other pines in North Carolina.

FOOD: The larvae feed on the seeds and cones of conifers, including pines and spruces. The documented hosts (Robinson et al., 2010) include Douglas Fir (*Pseudotsuga menziesii*), Black Spruce (*Picea mariana*), Jack Pine (*Pinus banksiana*), Lodgepole Pine (*P. contorta*), Ponderosa Pine (*P. ponderosa*), Red Pine (*P. resinosa*), Eastern White Pine (*P. strobus*), and Scots Pine (*P. sylvestris*). There is also a BugGuide record (Gouvernement du Québec, 2022) for a larva reared from Red Spruce (*Picea rubens*). Eastern White Pine is presumably an important host in North Carolina, but other pines are probably used since this species ranges well beyond the southernmost limits of Eastern White Pine.

OBSERVATION METHODS: The adults are attracted to lights.

NATURAL HERITAGE PROGRAM RANKS: GNR SNR [S4]

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

COMMENTS: We have a few scattered records from throughout the state. More detailed information is needed on the distribution, abundance, and habitat use before we can assess the conservation status of this species.