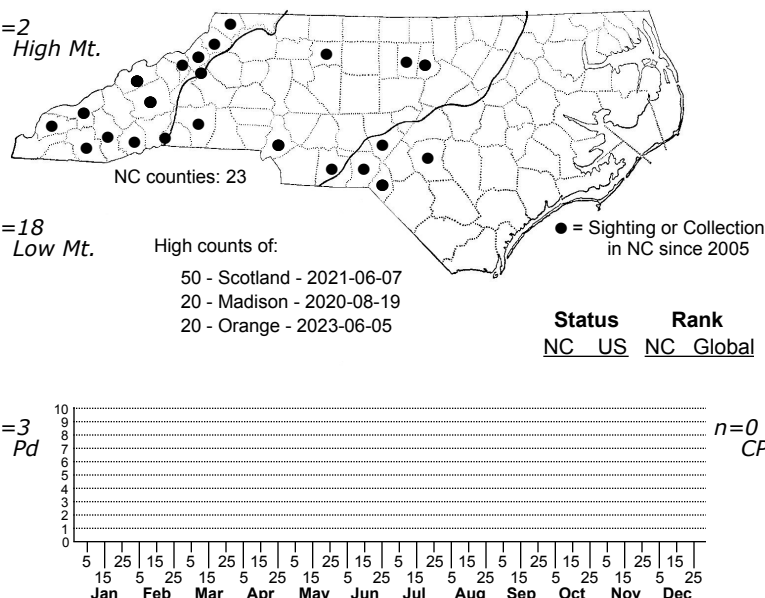
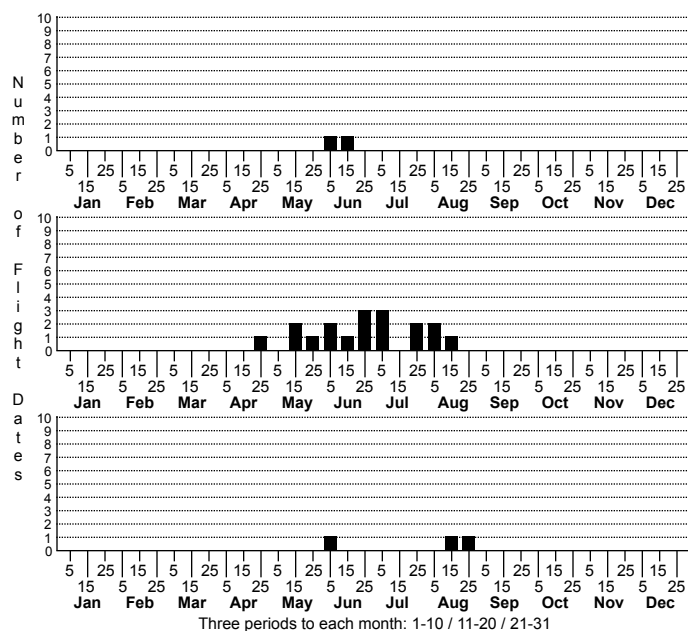


# *Chrysaster ostensackenella* None



FAMILY: Gracillariidae SUBFAMILY: Lithocolletinae TRIBE: [Lithocolletini]

TAXONOMIC\_COMMENTS: *Chrysaster* is a small genus of leaf-mining moths with only two described species. *Chrysaster ostensackenella* is the only representative in North America.

FIELD GUIDE DESCRIPTIONS:

ONLINE PHOTOS:

TECHNICAL DESCRIPTION, ADULTS: Braun, 1908

TECHNICAL DESCRIPTION, IMMATURE STAGES: Eiseman, 2019

ID COMMENTS: The following description is based primarily on Braun (1908). The face and palps are silvery white, with a purplish and golden iridescent luster. The antenna and tuft are dark brown. The ground color of the forewing is brilliant golden brown, and that of the thorax a shade darker. There are two silvery fascias that are margined anteriorly with dark brown, one at about one-fourth and the second near the middle of the wing. The dark margin on the first fascia shades gradually into the ground color of the wing. Beyond the second streak there are two pairs of opposing dorsal and costal streaks that are also dark margined anteriorly. On a small proportion of specimens, the first pair meets to form a third fascia. The second pair is reduced and often extends into the cilia. The cilia has a band of dark brown marginal scales at the base, but is otherwise silvery gray. The hindwings and cilia are gray. The legs are gray with varying levels of dark banding. This is a distinctively patterned and colored species that is difficult to confuse with other species.

DISTRIBUTION: *Chrysaster ostensackenella* is found primarily in eastern North America. It occurs in southern Canada (Ontario; Quebec; Nova Scotia) and the northeastern states, westward to Iowa and Wisconsin, and as far south as the Carolinas, Tennessee, and Mississippi. Possible disjunct populations have been found in Colorado and Arizona, and the species has been introduced into China (Eiseman, 2019). As of 2021, our records extend from the lower elevations in the mountains to the western Coastal Plain and Sandhills.

FLIGHT COMMENT: Local populations presumably have two or more broods per year. The adults are active from after the spring warm-up until late summer, with peak activity between May and August. As of 2020, our records for adults extend from late April through August.

HABITAT: Local populations primarily depend on Black Locust as a host. This species is common in open woodlands, and along fencerows, roadways, and other open, sunny habitats. Older trees are often present in rich, deciduous forests. This species reproduces poorly in full shade and the presence of large trees generally reflects past disturbance that allowed seedling establishment.

FOOD: The primary host is Black Locust (*Robinia pseudoacacia*), but other *Robinia* are occasionally used, including Bristly Locust (*R. hispida*) and Dwarf Locust (*R. nana*) (Eiseman, 2022). In North Carolina, all of our host records are for Black Locust except for two records for Dwarf Locust in the Sandhills and one record for Bristly Locust from xeric habitats in Burke County.

OBSERVATION\_METHODS: The adults occasionally visit UV lights. We also encourage naturalists to search for the leaf mines on Black Locust or other hosts and rear the adults.

NATURAL HERITAGE PROGRAM RANKS: GNR SU

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

COMMENTS: This species is fairly common in the lower elevations of the mountains, but less so in the Piedmont and Coastal Plain. We currently do not have adequate information on its distribution and abundance to accurately assess its conservation status.