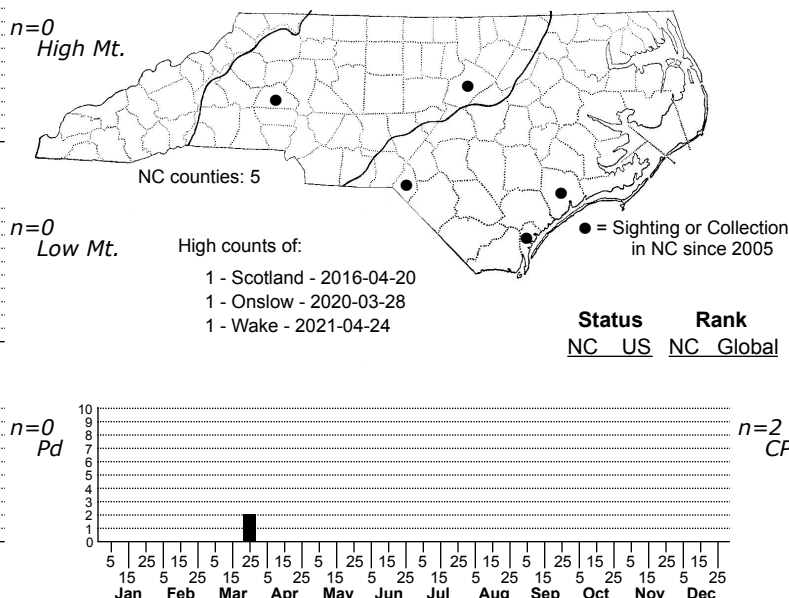
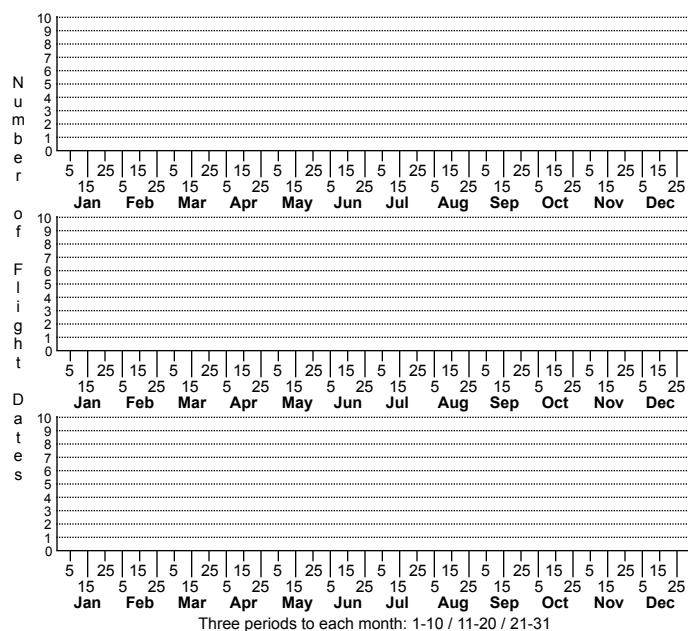


Eriocraniella mediabulla None



FAMILY: Eriocraniidae SUBFAMILY: TRIBE:

TAXONOMIC_COMMENTS: *Eriocraniella* is a genus of primitive moths with eight described Nearctic species that specialize on oaks.

FIELD GUIDE DESCRIPTIONS:

ONLINE PHOTOS:

TECHNICAL DESCRIPTION, ADULTS: Davis and Faeth (1986).

TECHNICAL DESCRIPTION, IMMATURE STAGES: Davis and Faeth (1986).

ID COMMENTS: *Eriocraniella mediabulla* is a small moth with shiny black to dark fuscous wings. The forewings are uniformly black with a distinct golden to sometimes bluish luster. The hindwings are slightly paler, and are fuscous with a purplish luster along the costal half (Davis and Faeth, 1986). The legs are rather uniformly fuscous without distinct markings or annulations. The head is sparsely covered with mostly white to light buff piliform scales. The antennae are black, about one-half the length of the forewings, and have 29-34 segments. The maxillary palpi are mostly fuscous and suffused with grayish white mesally. The apex has a relatively large lobe that bears four stout setae, along with two pairs of smaller, subapical lobes that each bear a single large seta. The labial palps are sparsely covered with grayish white scales and have a relatively dense brush of fuscous, piliform scales. The mature larvae are typically no more than 9 mm long and 1.5 mm wide (Davis and Faeth, 1986). The head of the larva is uniformly light brown to straw-colored, with darkly outlined frontal sutures. *Dyseriocrania griseocapitella* is similar, but has metallic golden wings that are uniformly peppered with iridescent bluish purple scales, as well as pronounced hair tufts on the head and thorax (these are less pronounced and lighter colored in *E. mediabulla*). *Eriocraniella platyptera* is also similar, but is a northern form that appears to be restricted to the northeastern US.

DISTRIBUTION: *Eriocraniella mediabulla* is primarily found in the Coastal Plain from eastern Texas to Florida, Georgia, and extreme southern North Carolina. As of 2020, our two county records are the northernmost records for this species.

FLIGHT COMMENT: Adults are active from early March to mid April. Local populations are univoltine, as is the case for all other members of the Eriocraniidae.

HABITAT: Populations are found in coastal and Piedmont hardwood forests with oaks. Populations in Florida appear to rely primary on *Quercus nigra*, which is associated with bottomland forests. One of our NC records is from a xeric upland habitat with *Q. laevis*, suggesting that this species may also frequent Xeric-Mesic, Sandy Woodlands and Scrub habitat. Additional records are needed for North Carolina to determine the full range of habitats used by this species within the state.

FOOD: *Eriocraniella mediabulla* has been reared from Water Oak (*Quercus nigra*), and the mines have been found on Sand Laurel Oak (*Q. hemisphaerica*), Southern Red Oak (*Q. falcata*), White Oak (*Q. alba*) and Live Oak (*Q. virginiana*) in northern Florida (Heppner, 2007; Robinson et al., 2010; Eiseman, 2022). As of 2024, our records for North Carolina include Turkey Oak (*Q. laevis*), Water Oak, Southern Red Oak, and Willow Oak (*Q. phellos*).

OBSERVATION_METHODS: This species appears to be at the northern edge of its range in North Carolina. Searching for active mines may be the best way to document populations, but rearing is challenging since the adults require almost a year to develop after the larvae enter soil. The mines of *E. mediabulla* are generally similar to those of *Dyseriocrania griseocapitella*, which is the only other sympatric species of Eriocraniidae. Both have an initial linear portion that abruptly broadens to form a large blotch. However, the initial linear portion of a *D. griseocapitella* mine is usually obliterated by the blotch, which eventually causing a fissure to form in the leaf (Eiseman, 2019). The linear portion remains intact in *E. mediabulla* mines, and a fissure does not form. Another difference between the mines is that a small, oval hole normally develops around the egg scar of *D. griseocapitella* as the leaf expands. This hole is usually not evident on *E. mediabulla* mines (Davis and Faeth, 1986).

NATURAL HERITAGE PROGRAM RANKS: GNR S2S4

STATE PROTECTION:

COMMENTS: *Eriocraniella mediabulla* was previously known to occur no further north than Florida and Georgia, which suggest that our North Carolina populations may be disjunct from the main range to the south.