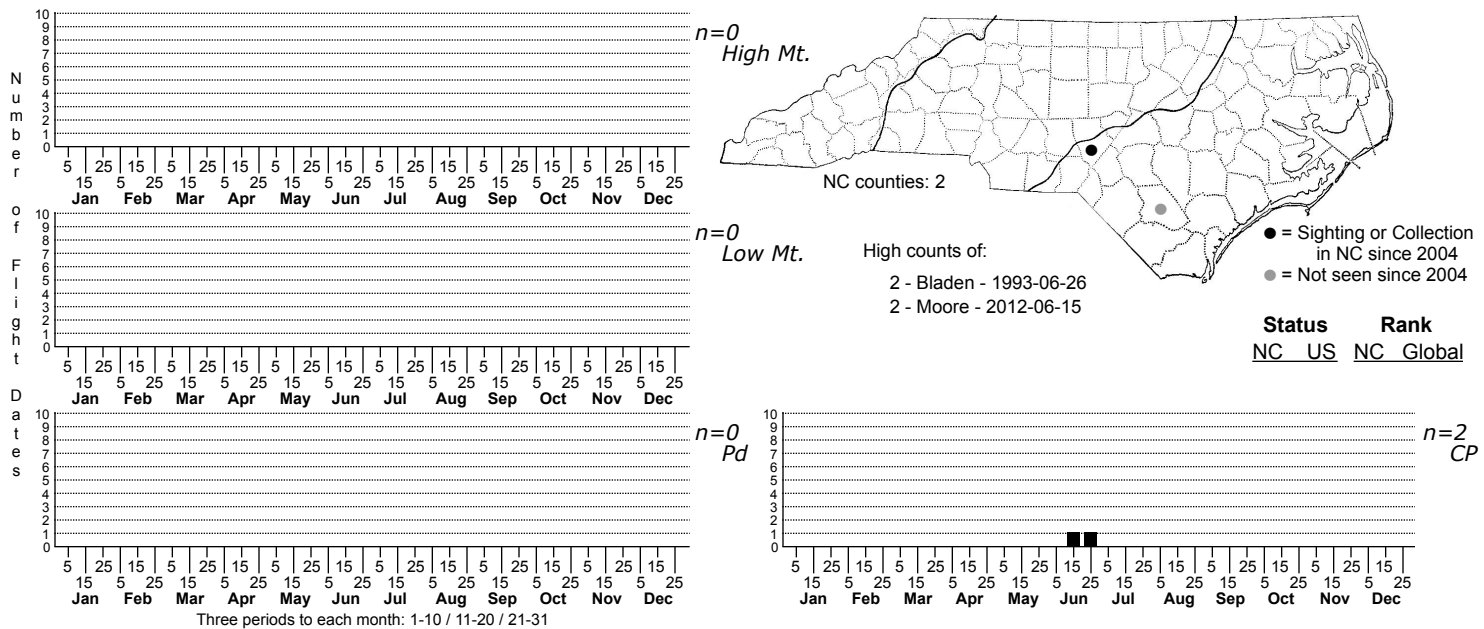


Catocala grisatra Grisatra Underwing



FAMILY: Erebiidae SUBFAMILY: Erebinae TRIBE: Catocalini

TAXONOMIC COMMENTS: One of 103 species in this genus that occur in North America (Gall and Hawks, 2010; Kons and Borth, 2015a,b), 67 of which have been recorded in North Carolina.

FIELD GUIDE DESCRIPTIONS: Covell (1984)

ONLINE PHOTOS:

TECHNICAL DESCRIPTION, ADULTS: Sargent (1976); Schweitzer et al. (2011)

TECHNICAL DESCRIPTION, IMMATURE STAGES: Schweitzer et al. (2011); Wagner et al. (2011)

ID COMMENTS: A medium-sized *Catocala*, with blue-gray to dark gray forewings, with a basal dash and often with a curvifascia mark -- a dark colored arc that extends from near the apex at the costal margin down to the reniform; hindwings are yellow to orange, with the usual dark postmedian band (Sargent, 1976). Schweitzer et al. (2011) also note that "the frosted appearance of the gray parts of the forewings is usually distinctive."

DISTRIBUTION: Probably is restricted to the southern Coastal Plain, including both the Fall-line Sandhills and Carolina Bay region of the Inner Coastal Plain

FLIGHT COMMENT: Our records are from June, which is consistent with flight dates in Florida (Schweitzer et al., 2011).

HABITAT: W.J. Cromartie collected the first two North Carolina specimens on a xeric sand ridge on the north side of a Carolina Bay (i.e., a bay-rim). The site was dominated by a mixture of Longleaf Pine and Bluejack Oak (*Quercus incana*), with Scrubby Post Oak (*Q. margarettae*) and Turkey Oak (*Q. laevis*) also present. *Crataegus munda* was common in the shrub layer, as were Persimmons and Sparkleberries. Herbs were sparse but *Yuccas* and *Cladonia* lichens were common in sandy openings (Hall pers. obs.).

FOOD: Stenophagous, feeding solely on Hawthorns (*Crataegus* spp.) and probably only on a few species associated with xeric sandhills habitats. Schweitzer et al. (2011) specifically mention the use of *C. flava* in Florida (a species with a problematic taxonomy -- Weakley, 2015) and it has also been reared on *C. uniflora*. In North Carolina, *Crataegus munda* (= *geniculata*) is the one that prevails at the Bladen County site where Cromartie first found *C. grisatra*.

OBSERVATION METHODS: Comes to light to some extent, but Kons (cited by Schweitzer et al.) states they come only rarely to lights or to bait and have not been observed during the day (presumably where tapping was used in attempts to flush the adults); larvae are more often recorded than adults (Schweitzer et al., 2011).

NATURAL HERITAGE PROGRAM RANKS: G1G3 S1

STATE PROTECTION: Listed as Significantly Rare by the Natural Heritage Program. That designation, however, does not confer any legal protection, although permits are required to collect it on state parks and other public lands.

COMMENTS: Considered Globally Rare by NatureServe and apparently occurs as an extremely rare disjunct in North Carolina. Following Cromartie's initial discovery of the species in North Carolina, several attempts were made to find it, both at the original site and at other Carolina bay-rims in the area that possessed similar communities of Hawthorns and Bluejack Oaks. None were found in Bladen County but Jeff Slotten eventually discovered a second population in the Fall-line Sandhills. Habitat at the original site was partially destroyed by clearcutting and application of herbicides to prevent the resprouting of hardwoods and promote the growth of pines. Such practices may be the greatest threat to *grisatra*, as well as other Hawthorn-feeding moths that were identified at these sites (e.g., *Catocala alabamiae* and *praeclara*). The careful use of prescribed burns is likely to be less harmful, but the natural fire regime affecting these xeric bay-rims is not well-established. Whatever the management at any site that supports a population of this moth, careful monitoring should be done to determine any impacts, positive or negative, and the practices adapted accordingly.