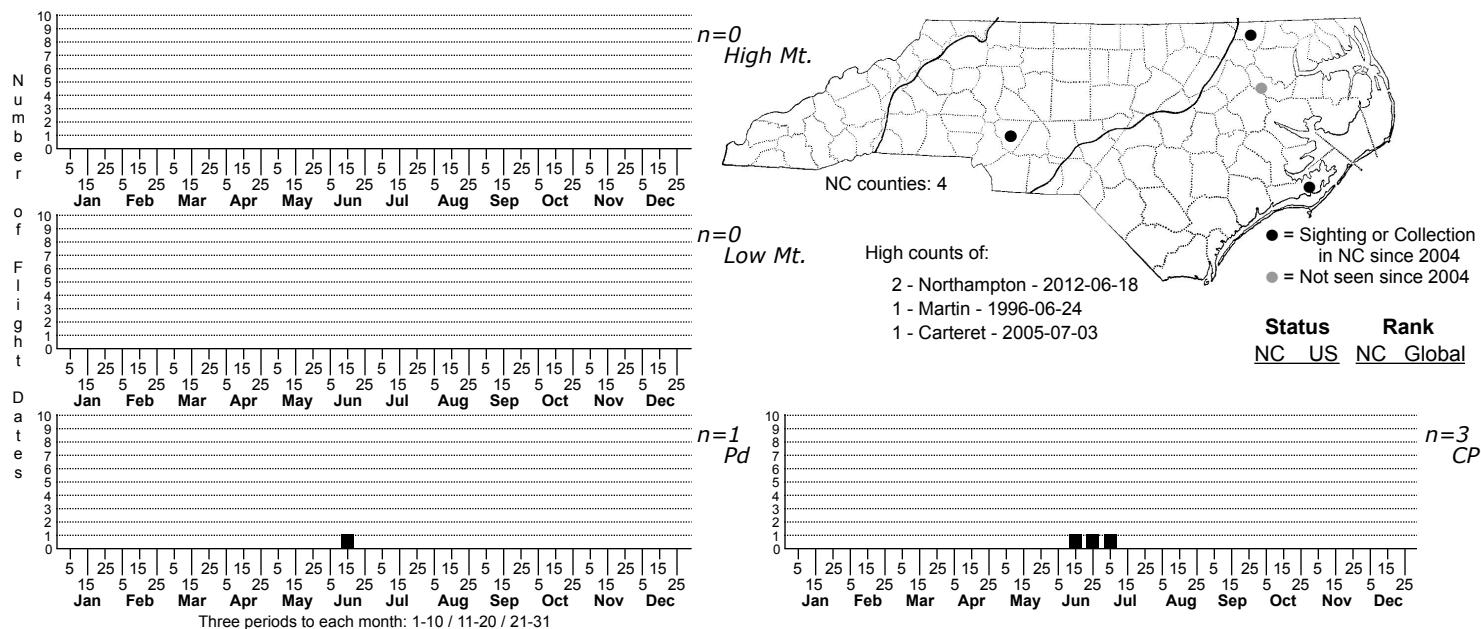


## *Catocala orba* Orb Underwing



FAMILY: Erebiidae SUBFAMILY: Erebiinae TRIBE: Catocalini

TAXONOMIC\_COMMENTS: One of 103 species in this genus that occur in North America (Lafontaine and Schmidt, 2010, 2015), 67 of which have been recorded in North Carolina. Included by Barnes and McDunnough (1918) in their Group XVII (also adopted by Forbes, 1954), which feed mainly on members of the Rosaceae; 12 other members of this group (as redefined by Kons and Borth, 2015b) also occur in North Carolina.

FIELD GUIDE DESCRIPTIONS: Covell (1984)

ONLINE PHOTOS:

TECHNICAL DESCRIPTION, ADULTS: Forbes (1954) and Sargent (1976) both mention *orba*, but only as a large form of *miranda*.

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

ID COMMENTS: A medium-sized *Catocala* with a pale gray forewing and black hindwings. It differs from *C. miranda* primarily in size (Sargent, 1976); our specimens of *orba* exceed 50 mm in wingspan, whereas Sargent states that *miranda* ranges only from 40-45 mm. Schweitzer et al. (2011) also mention that *miranda* usually has some darker shadings, particularly towards the inner margin, whereas *orba* is more uniformly pale. *C. orba* also resembles *C. judith* in size, color, and pattern, but is paler and has narrower forewings. The pattern on the undersides of the wings easily separates the two, with *orba* possessing nearly all black hindwings but those of *judith* having a broad pale area located towards the base (Forbes, 1954; Sargent, 1976). Records submitted for this species should give some indication of size (e.g., a coin included in the photograph).

DISTRIBUTION: Most of our records come from the Coastal Plain but there is at least one from the western Piedmont that indicates it could be more widely distributed

FLIGHT COMMENT: Univoltine, with adults flying in June and early July

HABITAT: Our records all come from rich alluvial forests. Sites along the lower Roanoke, a brownwater river with its origin in the Ridge and Valley Province of Virginia, contain some of the richest alluvial soils in the state. Parsley Hawthorn (*Crataegus marshallii*) is common in this area, as are other bottomland species of *Crataegus*. Although we also have at least one record from a small blackwater stream in Carteret County, there are several plants at that site that are indicative of rich soils, suggesting there may be a marl layer close to the surface. The site where this species has been recorded in the Piedmont appears to support a stand of Basic-Mesic Hardwood Forest. The presence of alluvial species of Hawthornes at that site is unreported.

FOOD: Larvae are stenophagous, feeding on hawthorn. Jeff Slotten (cited in Wagner et al., 2011) states that Parsley Hawthorn (*Crataegus marshallii*) is used in Florida, along with possibly other lowland species of hawthorn.

OBSERVATION\_METHODS: Comes to blacklight and bait, but we have too few records to estimate how well they are attracted.

NATURAL HERITAGE PROGRAM RANKS: G4 S2S3

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

COMMENTS: This species is considered uncommon but apparently widespread in southeastern swamps and alluvial forests (NatureServe Explorer, 2016). However, we have very few records for this species, currently represented by just five specimens from only four sites. It seems to be very much a habitat specialist, found in rich bottomlands where it is associated with alluvial species of Hawthornes.