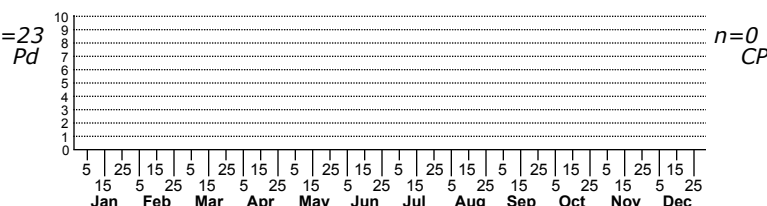
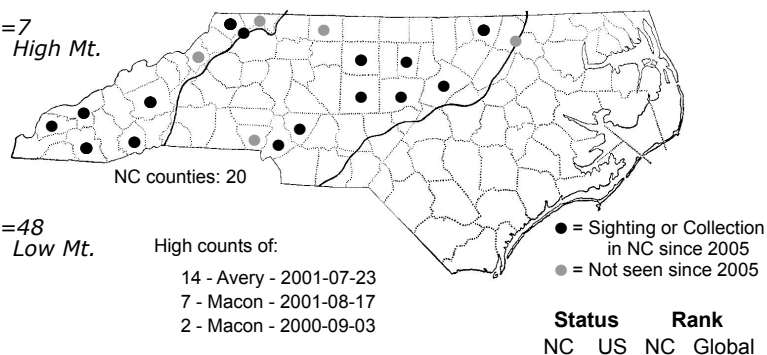
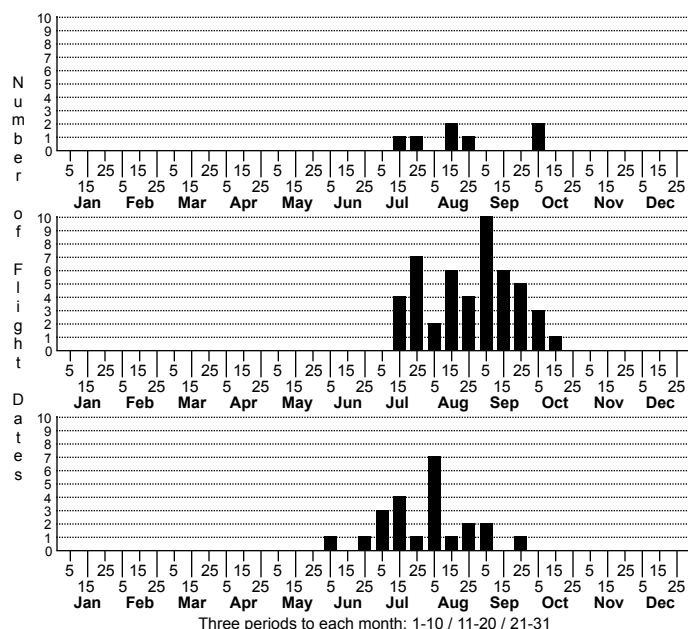


## *Catocala flebilis* Mourning Underwing



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 V (also adopted by Forbes, 1954). This groups comprises 10 species, all of which feed on Hickories or Walnuts (Juglandaceae). In addition to flebilis, other members of this group that occur in North Carolina include habilis, serena, robinsonii, judith, angusi, obscura, residua, and sappho.

FIELD GUIDE DESCRIPTIONS: Covell (1984)

ONLINE PHOTOS:

TECHNICAL DESCRIPTION, ADULTS: Forbes (1954); Sargent (1976)

TECHNICAL DESCRIPTION, IMMATURE STAGES: Forbes (1954); Wagner et al. (2011)

ID COMMENTS: A medium-large gray Underwing with black hindwings. The ground color is blue-gray, with a dark shade (sometimes faint) or black band running obliquely across the wing, often from close to the basal line to the outer margin, interrupted by the pale subterminal spot. A dark basal dash is also present, located below the oblique band and the lower loop of the postmedian. The reniform is usually brown but preceded with a pale patch that also interrupts the oblique band. The undersides are strongly and distinctively marked with black and white (Forbes, 1954; Sargent, 1976). The smaller size and blue-gray ground color of the forewings help distinguish this species from other underwings with a dark oblique shade on the forewings and black hindwings, including some forms of *Catocala robinsonii*, *myristica*, *angusi*, and *rectata*. The white fringe on the hindwings also rules out *C. angusi* and the pattern on the undersides of the wings separates *C. flebilis* from the rest: the white postmedian band on underside of the forewing is narrow and diffuse -- much more so than in *C. robinsonii* and *myristica* -- and the white patch at the base of the hindwing is a clearer white and the postmedian again narrower than in the other species. The postmedian also lacks the outward bulge on M3 and C1 that is characteristic of *C. rectata*.

DISTRIBUTION: Probably found throughout the Low Mountains and Piedmont. Records in the Coastal Plain may be limited to the nutrient-rich floodplains and adjoining slopes of brownwater rivers.

FLIGHT COMMENT: Univoltine, flying from mid-summer to early fall

HABITAT: Our records all come from stands of hardwoods, but range widely in terms of both moisture regime and soil chemistry. We have records from both mesic and dry nutrient-rich habitats, including the slopes along the Roanoke River and a dry ridge of gabbro in the Uwharrie Mountains. Similarly, we have records from both mesic and dry habitats associated with more acidic, nutrient-poor habitats in monadnocks in the Piedmont as well as ridges in the Blue Ridge. However, we have no records from dry-to-xeric habitats in the Coastal Plain, despite the presence of several species of hickories in such areas.

FOOD: Larvae are stenophagous, feeding on several species of hickories, including Pignut Hickory (*Carya glabra*), Mockernut Hickory (*C. tomentosa*), and Shagbark Hickory (*C. ovata*); also feeds on Black Walnut (*Juglans nigra*) (Forbes, 1954; Sargent, 1976; Wagner et al., 2011). We do not have any feeding records in North Carolina.

OBSERVATION\_METHODS: Appears to come well to lights. Like other Underwings, probably also comes well to bait. Wagner et al. (2011) describe finding larvae resting under shags or along the fissures in the bark of hickories, from about waist-height to just above the ground. Larvae can also be effectively sampled by tying burlap bags around the trunks, under which the larvae often hide.

NATURAL HERITAGE PROGRAM RANKS: G5 SNR [S4S5]

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

COMMENTS: This species appears to be somewhat uncommon but found over a large part of the state and occurring in still common and extensive types of habitats. Consequently, we believe it is currently secure within the state.