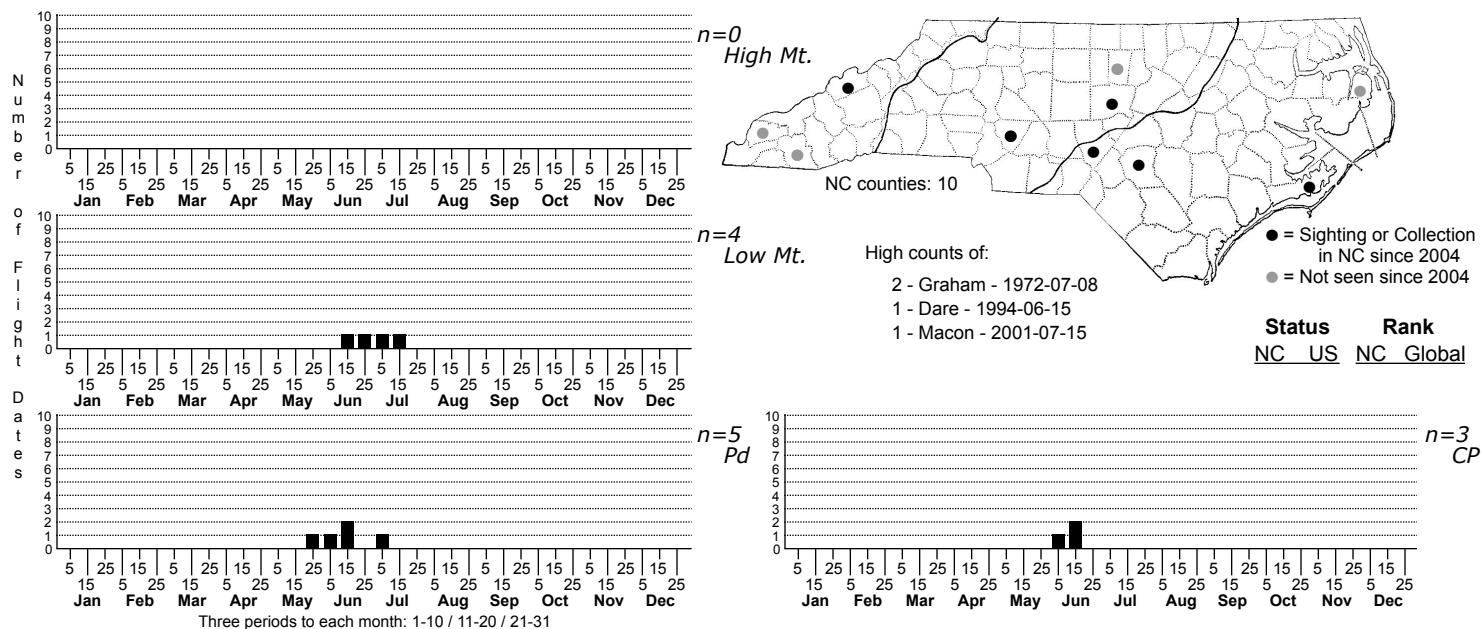


## *Catocala pretiosa* Precious Underwing



FAMILY: Erebiidae SUBFAMILY: Erebinae 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; described as *C. texarkana* under *C. crataegi*; not illustrated)

ONLINE PHOTOS:

TECHNICAL DESCRIPTION, ADULTS: Forbes (1954); Brower (1976); Sargent (1976); Schweitzer (1982); Schweitzer et al. (2011)

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

ID COMMENTS: A medium-sized Underwing, with strongly contrasting pale and dark areas on the forewing and yellow-and black-banded hindwings. The median area is characteristically whitish, with a brighter ring of white surrounding the reniform spot. The basal area is contrastingly black, with a dark band also variably paralleling the inner margin. In form *pretiosa*, the basal black patch ends abruptly at the anal vein, with the basal portion of the inner margin bordered by whitish-gray rather than dark brown (Forbes, 1954). The black basal patch also does not extend beyond the antemedian line, leaving a pale gap between the antemedian and postmedian in the fold. In form *texarkana*, the dark basal patch is joined with a dark band that connects the antemedian and postmedian, although this band usually becomes browner or grayer as it approaches the inner margin. In some specimens, the pale ground color of the median area extends all the way to the inner margin in the gap between the antemedian and postmedian; in others (form *bridwelli*), this area is completely blackened, similar to the pattern typical of *crataegi* (Brower, 1976). In all forms, the whitish median and bright white ring around the reniform is characteristic, distinguishing *pretiosa* from *crataegi*, *blandula*, *mira*, and *aestivalia*.

DISTRIBUTION: Recorded in all areas of the state except for the Barrier Islands and High Mountains

FLIGHT COMMENT: Univoltine, flying in June and July

HABITAT: Our records in the Coastal Plain come mainly from peatlands, where Chokeberry has been observed as a host plant. In the eastern Piedmont, records come from semi-wooded residential areas, where apple or other ornamental shrubs may be the hosts. Habitats and hosts used in the Mountains are unrecorded.

FOOD: Oligophagous, feeding on members of the Rosaceae. Wagner et al. (2011) specifically list Mountain-ash (*Sorbus*) as the most frequent host, but with apple, hawthorn, and serviceberry all used to some extent. Bo Sullivan recorded a larva (confirmed by Wagner) on *Aronia arbutifolia*.

OBSERVATION\_METHODS: Comes well to bait (Schweitzer, 1982) but comes to blacklights as well as porch lights to some extent.

NATURAL HERITAGE PROGRAM RANKS: G4 S2S3

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

COMMENTS: We have few records for this species but it appears to make use of wide range of host plants and habitats and is generally distributed across the entire state. The reasons for its apparent rarity are unknown, but its strong decline in the Northeast is suspected to be related to host plant loss due to the browsing impacts of deer (Schweitzer et al., 2011). More surveys are needed in North Carolina are needed both to document the range of host plants that are used here, as well as declines in those species due to deer.