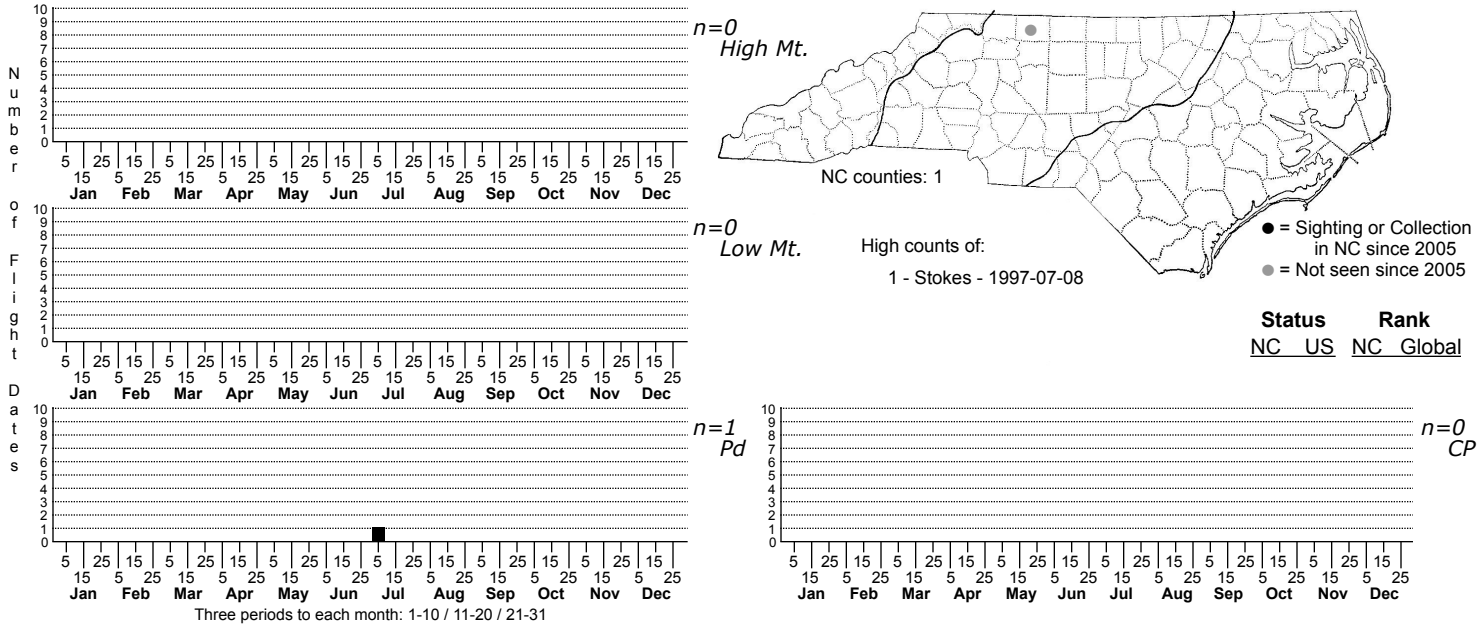
Catocala herodias Herodias Underwing



FAMILY: Erebidae 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

FIELD GUIDE DESCRIPTIONS: Covell (1984)
ONLINE PHOTOS:
TECHNICAL DESCRIPTION, ADULTS: Forbes (1954); Sargent (1976); Schweitzer et al. (2011)
TECHNICAL DESCRIPTION, IMMATURE STAGES: Forbes (1954); Schweitzer et al. (2011); Wagner et al. (2011)

ID COMMENTS: Catocala herodias is a medium-sized Underwing with a fairly smooth gray-brown ground color on the forewings, marked with streaks or broader shading of darker brown; the hindwings are crimson red with the usual marginal and postmedial black bands. In subspecies gerhardi, the costa of the forewing is distinctly shaded with pale gray (Sergent, 1976).

DISTRIBUTION: Known from only a single collection from a monadnock in the western Piedmont.

FLIGHT COMMENT: Our one recorded date is from July, which is consistent with flight dates recorded farther north (Schweitzer et al., 2011); the flights are likely to persist into August.

HABITAT: Habitat is only known from the site in Stokes County, a monadnock that contains one of the few known populations of Bear Oak in the state, although the specimens were collected down slope in an area of mixed hardwoods and pines. Habitats at the sites mentioned by Schweitzer et al. (2011) are not known, but we have no records from areas in the Piedmont and Coastal Plain where Blackjack Oak is a common constituent.

FOOD: Larvae are stenophagous; subspecies gerhardi is strongly associated with Bear Oak (Quercus ilicifolia) in the Northeast, but there are several sites in North Carolina where Bear Oak is not known to occur (Gall, cited in Schweitzer et al., 2011). That suggests that other species of oaks may be used, and larvae have been reared on Blackjack Oak (Q. marilandica) and other species in captivity (Schweitzer et al.). According to Forbes (1954), larvae may prefer to feed on buds and catkins, but Schweitzer et al. found that larvae feed mainly on young, expanding leaves and must reach maturity before the foliage hardens. We do not have any feeding records in North Carolina.

OBSERVATION_METHODS: Males may be highly attracted to blacklights but only a few have been found at bait (Schweitzer et al., 2011). Adults appear to rest on the ground rather than on tree trunks and have been rarely found during the day (Schweitzer et al., 2011).

NATURAL HERITAGE PROGRAM RANKS: G3 SH

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

COMMENTS: This species is considered rare and local throughout its range and currently has only one confirmed population in North Carolina (although that record itself is now nearly 20 years old). Although the habitat used at all of the sites where this species has been recorded in North Carolina need to be determined, the habitat present at the Stokes County site is consistent with its being a specialist on dry woodlands, especially where Bear Oak is present. These habitats require fire, at least at intervals to maintain their composition and structure. Where populations of the moth are confined to very small areas of relict habitats, however, care must be taken when prescribed burns are done to make sure that not all of the habitat is burned as a single unit. Ideally, several years will be allowed between burns for the previously burned areas to recover their populations before another unit is burned. As pointed out by Schweitzer et al. (2011), oak-dominated habitats are vulnerable to the defoliating attacks by Gypsy Moths, and the moths are vulnerable to the effects of spraying Btk or other control agents that are not specific in their effects to Gypsy Moths. In areas known to support Catocala herodias, we strongly recommend that either pheromone flakes or Gypchek be used in place of Btk.