Actias luna Luna Moth

n=16 High Mt.

n=176 Low Mt.

n=256 Pd

n=229 CP

Three periods to each month: 1-10 / 11-20 / 21-31

NC counties: 100

High counts of:
30 - Stokes - 1996-04-17
18 - Pender - 1995-04-17
10 - Stokes - 2000-04-30

● = Sighting or Collection in NC since 2006
● = Not seen since 2006

Status   **Rank**
NC   US   NC   Global
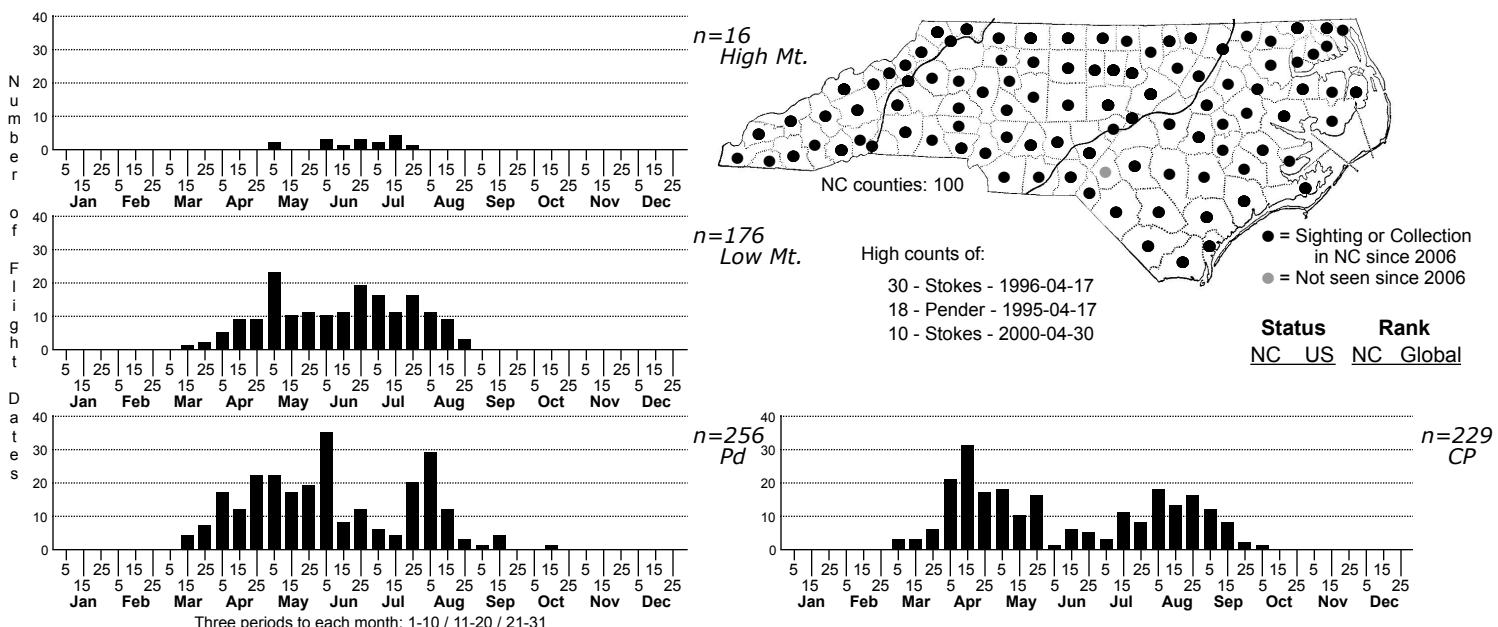
FAMILY: Saturniidae   SUBFAMILY: Saturniinae   TRIBE: Attacini

TAXONOMIC_COMMENTS: This is the only member of its genus found north of Mexico. A painting of this species was done by Mark Catesby, dated 1743, possibly from specimens collected in the Carolinas. According to Ferguson (1972), Linnaeus mentioned this painting in his description of the species, although the actual type material may have been collected in the Northeast.

FIELD GUIDE DESCRIPTIONS: Covell (1984); Beadle and Leckie (2012)
ONLINE PHOTOS:
TECHNICAL DESCRIPTION, ADULTS: Forbes (1923), Ferguson (1972), Tuskes et al. (1996)
TECHNICAL DESCRIPTION, IMMATURE STAGES: Forbes (1923), Ferguson (1972), Tuskes et al. (1996); Covell (1984), Wagner (2005)

ID COMMENTS: Adults are unmistakable: no other large moth in our area is pale green in color and has long "tails" on its hindwings. Spring individuals typically have narrow red or purplish bands along the outer margins of both wings. In summer individuals, these areas are yellowish.

DISTRIBUTION: Occurs state-wide (Brimley, 1938)

FLIGHT COMMENT: Has two distinct broods over most of the state (Brimley, 1938). The pattern is less clear in the high mountains.

HABITAT: Occurs in virtually all types of hardwood forests in the state, from barrier islands (e.g., Fort Macon) to the high mountains (e.g., Great Smoky Mountains National Park). It is also frequently encountered in wooded residential areas.

FOOD: Larvae feed on many species of hardwood trees and shrubs but not on conifers or herbs (Wagner, 2005). Brimley (1938) reported it feeding on the following species in North Carolina: Sweetgum (*Liquidambar styraciflua*), American Persimmon (*Diospyros virginiana*), hickory (*Carya*), Black Walnut (*Juglans nigra*), and Pecan (*Carya illinoinensis*). Other reported host plants include alder (*Alnus*), birch (*Betula*), hazel (*Corylus*), beech (*Fagus*), cherry (*Prunus*), willow (*Salix*), and Black Tupelo (*Nyssa sylvatica*) (Covell, 1984; Wagner, 2005). In the Piedmont, Sweetgum seems to be the primary host, but we have also observed larvae feeding on Winged Elm (*Ulmus alata*) and hickory.

OBSERVATION_METHODS: Comes well to 15 watt UV lights and also to incandescent light to some extent. Adults do not feed and consequently are not attracted by bait. Adult females can be tethered in order to attract males via the pheromones they release. Larvae can be detected in low trees and shrubs through their droppings. Like other Saturniids, larvae can be successfully raised in captivity from eggs obtained from captured females (see Tuskes et al., 1996 and Wagner, 2005).

NATURAL HERITAGE PROGRAM RANKS: G5 SNR [S5]

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

COMMENTS: Populations are locally vulnerable to the effects of weather, outbreaks of disease, parasites, and predators, and to the effects of pesticides. However, given the commonness of their host plants, wide habitat range -- including suburban areas -- and statewide distribution, this species can easily recover from localized losses. In the Northeast, Luna Moths apparently escaped the declines shown in other species of Saturniids and Wagner (2012) considers them to be stable or becoming more frequent. On the other hand, Kellogg et al. (2003) found that Luna Moth caterpillars in central Virginia are parasitized by a Tachinid fly, *Compsilura concinnata*, that was widely introduced in the Northeast to control Gypsy Moths and other pest Lepidoptera. While the rate of parasitism in Virginia was found to be much lower than in other species studied farther north (see Boettner et al., 2000), this fly represents a serious and pervasive threat for many species of moths and is suspected to be responsible for the marked declines in Saturniids, in particular, farther north. While such impacts have not yet been documented in North Carolina, *Compsilura* will probably continue to expand its range southward and the situation needs to be monitored.