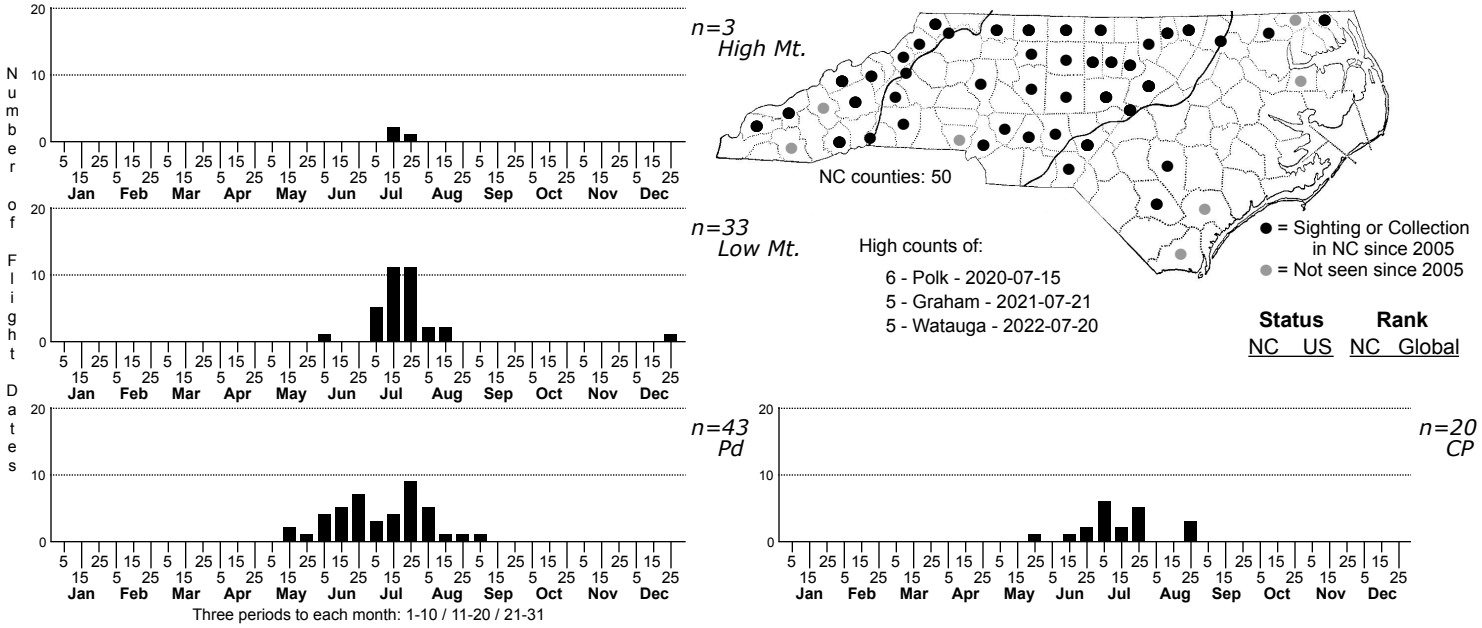
Citheronia regalis Regal Moth



FAMILY: Saturniidae SUBFAMILY: Caratocaminae TRIBE:
TAXONOMIC_COMMENTS: One of two species in this genus that occurs in North Carolina (a third species, Citheronia splendens, occurs in the US in southern Arizona)

FIELD GUIDE DESCRIPTIONS: Covell (1984); Beadle and Leckie (2012)
ONLINE PHOTOS:
TECHNICAL DESCRIPTION, ADULTS: Forbes (1923), Ferguson (1971), Tuskes et al. (1996)
TECHNICAL DESCRIPTION, IMMATURE STAGES: Forbes (1923), Ferguson (1971), Covell (1984), Tuskes et al. (1996), Wagner (2005)

ID COMMENTS: The large gray, red-veined, and yellow spotted adults are unmistakeable.

DISTRIBUTION: Occurs state-wide (Brimley, 1938)

FLIGHT COMMENT: Brimley (1938) stated that Citheronia regalis is at least partially two-brooded in North Carolina. However, it appears to be a univoltine, summer-flying species over much of its range (Ferguson, 1971; Tuskes et al., 1996), which appears to be supported by our data.

HABITAT: Occurs in a wide variety of forests, ranging from peatland and longleaf pine communities in the Coastal Plain to bottomland and upland hardwoods in the Piedmont and Mountains, including those located above 4,000 ft in elevation. We have no records from the Outer Banks, however, or from other barrier islands.

FOOD: Larvae are polyphagous on many species of hardwood trees and shrubs. Brimley (1938) lists the following host plants used in North Carolina: cotton (Gossypium), hickories (Carya) including Pecan (C. illinoinensis), Sweetgum (Liquidambar styraciflua), Black Walnut (Juglans nigra), American Persimmon (Diospyros virginiana), Sourwood (Oxydendrum arboreum), and the introduced Princess Tree (Paulownia). Wagner (2005) adds ash (Fraxinus), Butternut (Juglans cinerea), cherry (Prunus), lilac (Syringa), sumac (Rhus), and sycamore (Platanus). We have observed larvae on hickory, Persimmon, Sweetgum, and sumac.

OBSERVATION_METHODS: Comes moderately well to 15 watt UV lights and also to incandescent lights, almost always showing up as single individuals (the maximum number we have trapped on a given occasion is two). Adults do not feed and consequently are not attracted by bait or flowers. Larvae can be detected by their large droppings (Wagner, 2005) and when mature become quite conspicuous as they wander over the ground searching for a place to pupate. Pupation occurs underground.

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 and statewide distribution, this species should easily recover from most localized and temporary losses. That may not be true, however, with respect to more pervasive, permanent threats. In the Northeast, populations of this moth have been widely and perhaps permanently extirpated, probably due to parasitism by Compsilura concinnata, a Tachinid fly widely introduced to combat Gypsy Moths and other pest Lepidoptera (Schweitzer et al., 2011; Wagner, 2012). Compsilura has now spread as far south as Virginia (Kellogg et al., 2003) and the situation in North Carolina needs to be monitored.