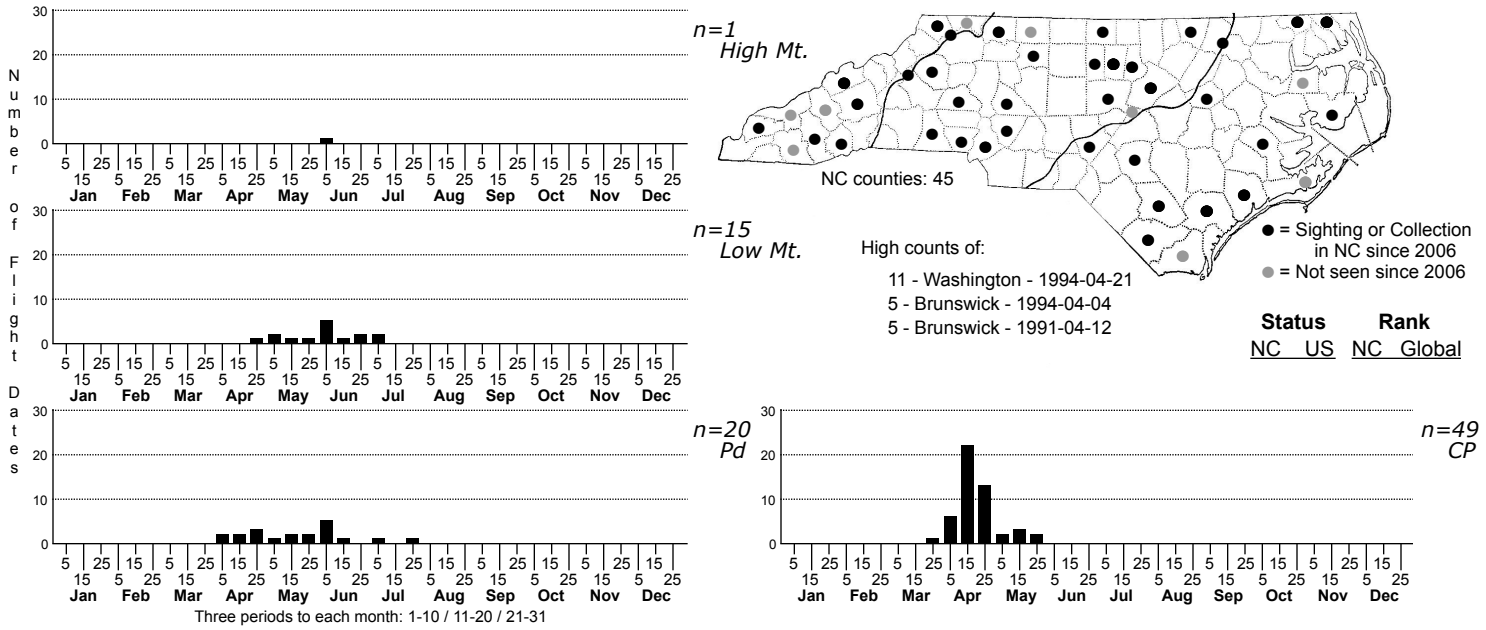
Hyalophora cecropia Cecropia Moth



FAMILY: Saturniidae SUBFAMILY: Saturniinae TRIBE: Attacini
TAXONOMIC_COMMENTS: One of two members of this genus that occurs in eastern North America and the only one in our area (the Columbia Silkmoth, Hyalophora columbia, occurs in eastern Canada and New England)

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: Covell (1984), Wagner (2005)

ID COMMENTS: Adults are unmistakable. Along with the Polyphemus Moth (Antheraea polyphemus), this is one of our largest resident moths, possessing a wingspan of 4-6 inches (exceeded in size only by the Black Witch, a tropical stray). This species is a darker grayish brown than the generally tan Polyphemus and also possesses distinctive white and red bands on the wings and extensive areas of red on the thorax and abdomen. Unlike the elliptical spots on the wings of the Polyphemus, the spots on the Cecropia are crescent-shaped.

DISTRIBUTION: Occurs state-wide but is generally not common (Brimley, 1938). Populations in the peatlands and flatwoods of the Coastal Plain appear to be the most robust, with multiple individuals often collected at UV traps (a maximum of 11 were recorded at one site).

FLIGHT COMMENT: Single brooded throughout the state. Adults fly only in the spring in the Coastal Plain and Piedmont and in early summer in the Mountains.

HABITAT: Most of our records come from shrubby peatland and flatwoods habitats in the Coastal Plain. We have also found it in a shrub-swamp in a Piedmont floodplain. Elsewhere in the Piedmont and Mountains, records come from upland stands of hardwoods, including at least one site located above 4,000 ft.

FOOD: Feeds on many species of hardwood trees and shrubs. Favored host plants include apple (Malus), ash (Fraxinus), Box-elder (Acer negundo), cherry (Prunus), poplar (Populus), Sassafras (Sassafras albidum), and willow (Salix), with birch (Betula), elm (Ulmus), larch (Larix), and maple (Acer) also being used (Wagner, 2005). Hall and Sullivan found a larvae feeding on Titi (Cyrilla racemosa) in a pocosin in the Croatan National Forest and Sullivan also found them on Loblolly Bay (Gordonia lasianthus); we believe this helps explain its abundance in Coastal Plain peatlands, which otherwise lack most of the reported host plants. Hall also discovered a larva feeding on Buttonbush (Cephalanthus occidentalis) in the western Piedmont. Other feeding records in North Carolina include Common Persimmon (Diospyros virginiana), willow, elderberry (Sambucus), Sweetgum (Liquidambar styraciflua), rose (Rosa), Sassafras, and Black Cherry (Prunus serotina). Based on larval records on iNaturalist and our own observations, Buttonbush and Persimmon seem to be the two most common hosts in North Carolina.

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. Their spindle-shaped cocoon -- tapered on both ends -- are frequently attached to twigs, where they may be searched for in the winter, serving as the basis for site records for this species.

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: Considered uncommon historically in North Carolina (Brimley, 1938) although populations in pocosins and other Coastal Plain peatlands appear to be fairly vigorous. The generalized habitats, use of a wide range of common host plants, and tolerance for urban environments (Schweitzer et al., 2011) should allow Hyalophora to recover from most localized extirpations. However, in the Northeast, this species has declined as a result of parasitism from a Tachinid fly, Compsilura concinnata, introduced to control Gypsy Moth populations (Boettner et al.; Wagner, 2005; Schweitzer et al., 2011; Wagner, 2012). Although this fly has not been used as a biocontrol in North Carolina, it appears to be expanding its range southward on its own and is now well established in Virginia (Kellogg et al., 2003). Arrival of this exotic species is likely to pose a pervasive threat to the Cecropia Moth as well as other moth species in our state. In the Northeast, where introduction of this fly began over a century ago, it is suspected to be one of the main factors leading to the massive decline of many of its most charismatic species (Wagner, 2012).