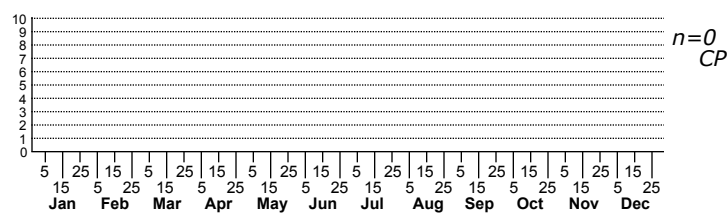
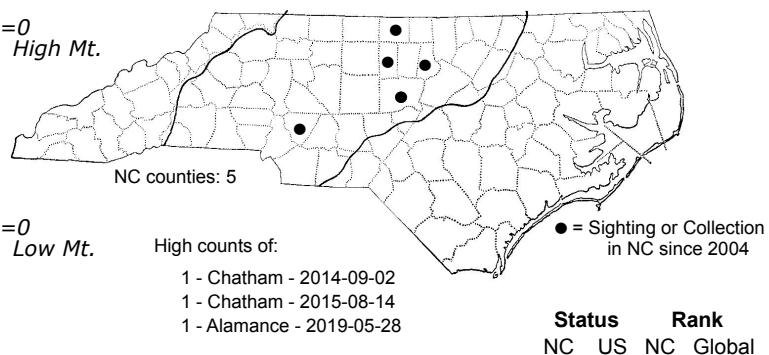
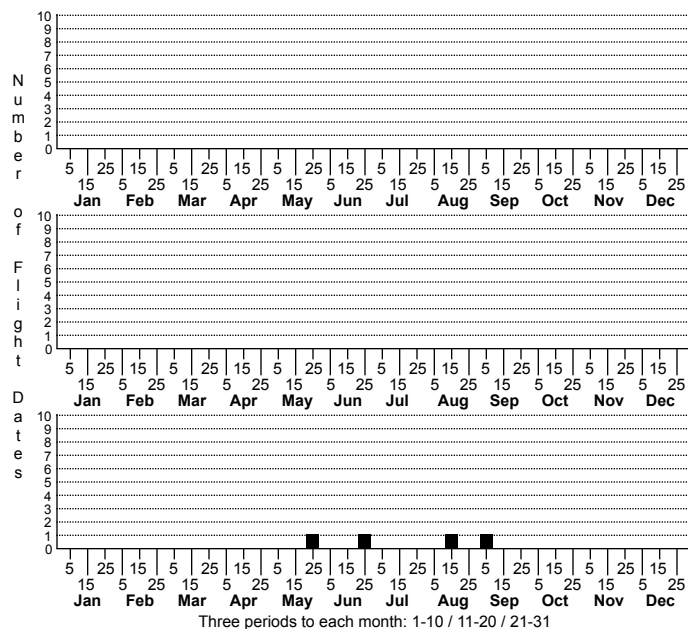


# *Syssphinx bisecta* Bisected Honey Locust Moth



FAMILY: Saturniidae SUBFAMILY: Caratocaminae TRIBE:

TAXONOMIC\_COMMENTS: One of two species in this genus found in our area (six others occur in the western US -- Tuskes et al., 1996)

FIELD GUIDE DESCRIPTIONS: Covell (1984); Beadle and Leckie (2012; as *Syssphinx bisecta*)

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 yellow- or reddish-orange color, brown speckling, and two-toned forewings are shared with *Sphingicampa bicolor* and *Anisota stigma* and *senatoria*. It is usually easy to distinguish from those species, however, by its fine, dark lines, which are more diffuse and brown in the others. The postmedian also distinctively runs a straight course from the inner margin to the apex of the wing (or close to it), whereas in the other species it tends to be more curved and ending at the costal margin short of the apex.

DISTRIBUTION: Known in North Carolina only from a single population located along the Deep River near Goldston. As late as 1971, Ferguson knew of no records for this species east of the Appalachians and Tuskes et al. (1996) knew of only two populations subsequently discovered in Georgia and South Carolina. Although Tuskes et al. speculated based on those discoveries that *bisecta* occurs at least sporadically east of the mountains, the Deep River population -- located close to the Fall-line -- appears to be remarkably disjunct, raising many new questions about its distribution along the Atlantic Slope.

FLIGHT COMMENT: Bivoltine over most of its range in the Mid-west (Ferguson, 1971; Tuskes et al., 1996). All of our records, so far, are from the late summer but adults are also likely to be flying in May and June.

HABITAT: The naturalness of the habitats used by *S. bicolor* in North Carolina is uncertain, since neither of the two host plants recorded for this species is believed to be native here (Alan Weakley, pers. comm. to S. Hall, 2014). While it is possible that the Deep River population is associated with groves of *Gleditsia* planted around old homesites or escaped into pastures, the high concentration of *Gleditsia*-feeding moth species recorded in the vicinity of Goldston is difficult to account for based solely on random and highly infrequent colonizations from the Mid-west. A large sill of diabase occurs in that area along the Deep River floodplain and could provide a least an approximation of the calcium-rich floodplains that are some of the main habitat for *Gleditsia*, *Gymnocarpus*, and their associated moths in the Ohio and Mississippi Valleys. Whether this site actually represents a natural, relict habitat, however, needs much further investigation.

FOOD: Honey locust (*Gleditsia triacanthos*) and Kentucky coffeetree (*Gymnocladus dioicus*) are the only recorded host plants (Ferguson, 1971; Tuskes et al., 1996; Wagner, 2005). In North Carolina, both of these trees are considered non-native introductions from the Mid-west and only *Gleditsia* occurs widely, if sporadically, over most of the state.

OBSERVATION\_METHODS: Comes to both blacklights and business lights fairly well; Parker Backstrom has observed up to two individuals at a time on several occasions. Adults do not feed, however, so do not come to bait. *Sphingicampa* larvae are reported to be fluorescent and can be searched for using blacklights (Stahnke, 1972, cited in Tuskes et al., 1996).

NATURAL HERITAGE PROGRAM RANKS: G5 [S1S2]

STATE PROTECTION: Currently not given any protection in North Carolina and has not yet been listed as Significantly Rare by the Natural Heritage Program

COMMENTS: With only a single known population in North Carolina, this species appears to be one of the rarest species in the state. The naturalness of the habitats used by this species still need to be assessed before its conservation status can be determined. If it makes use primarily of cultivated *Gleditsia*, particularly those commonly planted in parking lots, then its habitat may actually be increasing in the state. On the other hand, if it is associated with relict communities, such as mafic floodplain forests, then it could be extremely vulnerable to extirpation.