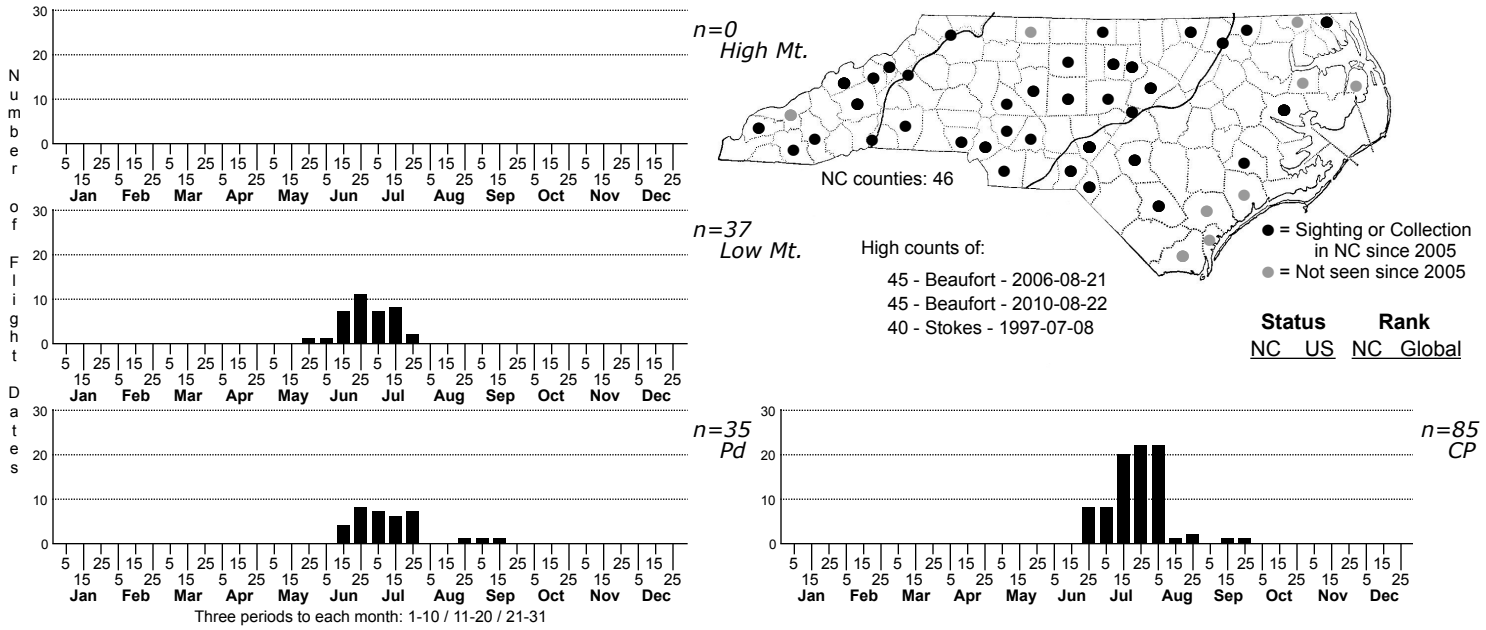
Anisota stigma Spiny Oakworm Moth



FAMILY: Saturniidae SUBFAMILY: Caratocaminae TRIBE:
TAXONOMIC_COMMENTS: One of four species in this genus that occurs in North Carolina (3 others occur north of Mexico -- Tuskes et al. 1996)

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: Adult males are distinctive. Compared to the males of other species of Anisota, they are unique in possessing opaque reddish wings with dark specklings and a well-defined, if diffuse, postmedian line; they are the only males that fly during the night and that are attracted to lights. Some confusion might be possible with male Sphingicampa bicolor, but the inner margin of the forewing is much shorter than the outer margin in Anisota species, whereas it is nearly equal in length in Sphingicampa (Forbes, 1923). Adult females differ from S. bicolor in this same respect, and the speckling on their forewings is shared among Anisota species only by A. senatoria. Female A. stigma can be distinguished from A. senatoria by the presence of a well-defined medial line on the hindwing and by similar coloration on both sets of wings; in senatoria, the hindwings are typically paler than the forewings. Photographs showing only the forewings may not provide enough information to separate these two species, but female A. stigma tend to be darker colored and possess more extensive speckling; they also are usually larger and have broader wings.

DISTRIBUTION: Probably found throughout the state except at high elevations where oaks are uncommon

FLIGHT COMMENT: Single brooded, flying primarily in mid-summer

HABITAT: Probably associated with most types of oak forests in the state. The majority of our records come from upland habitats, particularly dry-to-xeric sandhills in the Coastal Plain, where they may feed predominantly on Turkey oak, and monadnocks in the Piedmont (in the Northeast, this species is now more or less restricted to barrens habitats; Wagner, 2005). However, we also have records from lowlands and mesic slopes from across the state, indicating some use of non-xerophytic oaks.

FOOD: Larvae are oligophagous, feeding primarily on oaks, including Northern Red Oak (Quercus rubra) and Turkey Oak (Q. laevis), but have also been reported on hazel (Corylus) and basswood (Tilia) (Ferguson, 1971; Wagner, 2005). In North Carolina, larvae have been observed feeding on Blackjack Oak (Q. marilandica).

OBSERVATION_METHODS: Both sexes come fairly well to blacklights and incandescent lights. Adults do not feed and consequently do not come to bait. Spiny oakworms feed more solitarily than other species of Anisota, are less likely to have outbreak years, and are generally more difficult to find (Tuskes et al., 1996)

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, however, this species has been extirpated from Connecticut and other areas where it once occurred (Wagner, 2012), possibly due to parasitism by a Tachinid fly, Compsilura concinnata, that was widely introduced in the Northeast to control Gypsy Moths and other pest Lepidoptera. This fly represents a serious and pervasive threat for many species of moths and is suspected to be responsible for the marked declines in several Saturniids. While such impacts have not yet been documented in North Carolina, Compsilura has spread as far south as Virginia (Kellogg et al., 2003) and will probably continue to expand its range southward. The situation in North Carolina needs to be monitored.