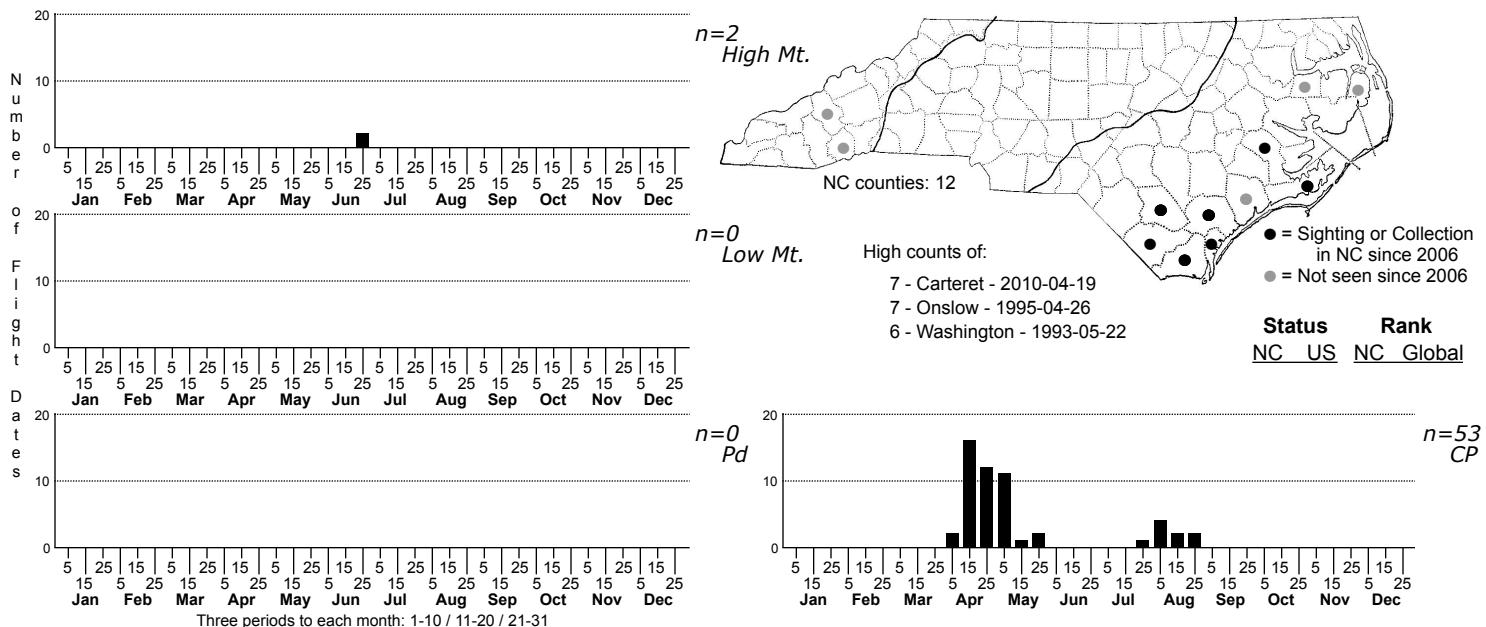


## *Sphinx gordius* Apple Sphinx



FAMILY: Sphingidae SUBFAMILY: Sphinginae TRIBE: Sphingini

TAXONOMIC COMMENTS: This large genus of some 27 species ranges from England to Japan and down through the Americas. There are approximately 14 resident species in North America and at least 5 in North Carolina. Two very different larval types occur in the genus and it is likely that *Sphinx* is composed of more than one genus.

FIELD GUIDE DESCRIPTIONS: Covell (1984)

ONLINE PHOTOS:

TECHNICAL DESCRIPTION, ADULTS: Forbes (1948); Hedges (1971); Tuttle (2007)

TECHNICAL DESCRIPTION, IMMATURE STAGES: Forbes (1948); Wagner (2005); Tuttle (2007)

ID COMMENTS: A medium sized gray sphinx moth streaked with narrow black dashes and variably shaded with brown; thorax is contrastingly black, edged with white and the hindwings are also banded with black and white. As in the similar *Paratrea plebeja*, *gordius* possesses a small, white discal spot but *gordius* shows more contrast between its darker thorax and abdomen and its lighter gray ground color on the wings. Sexes are similar.

DISTRIBUTION: Common in the Coastal Plain but known farther west from just two records from the Blue Ridge.

FLIGHT COMMENT: Although Tuttle (2007) states that the species is single brooded throughout its range, it is clearly double brooded in the coastal plain of North Carolina.

HABITAT: The vast majority of our records come from the Coastal Plain from peatlands, including Pond Pine Woodlands and High Pocosins, and low-lying Longleaf Pine Flatwoods and Savannas. None come from maritime habitats, including maritime scrub habitats, floodplain forests, or from dry sandhills habitats. The two records from the Blue Ridge come from within or near expansive areas of heath thickets.

FOOD: Larvae are polyphagous. Northern populations have been reported primarily on Rosaceae with most larval records from apple (<i>Malus</i>), plum and cherry (<i>Prunus</i>). Many other woody species are also used, including ash (<i>Fraxinus</i>), blueberry (<i>Vaccinium</i>), Waxmyrtle and bayberry (<i>Morella</i>), and Sweet-gale (<i>Myrica gale</i>); conifers, such as spruce (<i>Picea</i>) and larch (<i>Larix</i>), have also been reported (Forbes, 1948; Wagner, 2005). Interestingly these records from non-rosaceous plants match the records of foodplant for <i>Sphinx poecilia</i> and are different from the foodplants (willow, poplar, and birch) of <i>S. luscitiosa</i>. Given the strong association between our populations and peatland and flatwoods habitats in the Coastal Plain, we strongly suspect that heaths are a major host in North Carolina. Heath barrens were also located at the sites where <i>S. gordius</i> has been recorded in the Blue Ridge. On the other hand, the absence of records from maritime habitats suggest that wax myrtles (<i>Morella</i>), which are abundant in those habitats, are not a major host plant in our area. Our only larval record was for a parasitized caterpillar on <i>Lyonia</i> in New Hanover County.

OBSERVATION METHODS: Adults come to lights and to flowers but not to baits. 15 watt blacklights appear to be effective for sampling this species, with multiple individuals often collected in a single trap.

NATURAL HERITAGE PROGRAM RANKS: G5 SNR [S3S4]

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

COMMENTS: *Gordius* appears to be a strong habitat specialist in our area, found solely in areas with abundant heaths and other shrubs. Although its habitats are still fairly widespread in the Coastal Plain, large areas have been converted for agriculture and tree plantations. Sea level rise also threatens some of the large peatdome pocosins where this species is currently abundant. Unlike some of the other species associated with peatlands, *gordius* has not been recorded in Streamhead Pocosins in the Sandhills region. While more populations associated with heath balds and rocky outcrops are likely to be discovered, the distribution of *gordius* outside of the Outer Coastal Plain still needs to be determined, as is true for its genetic identity.