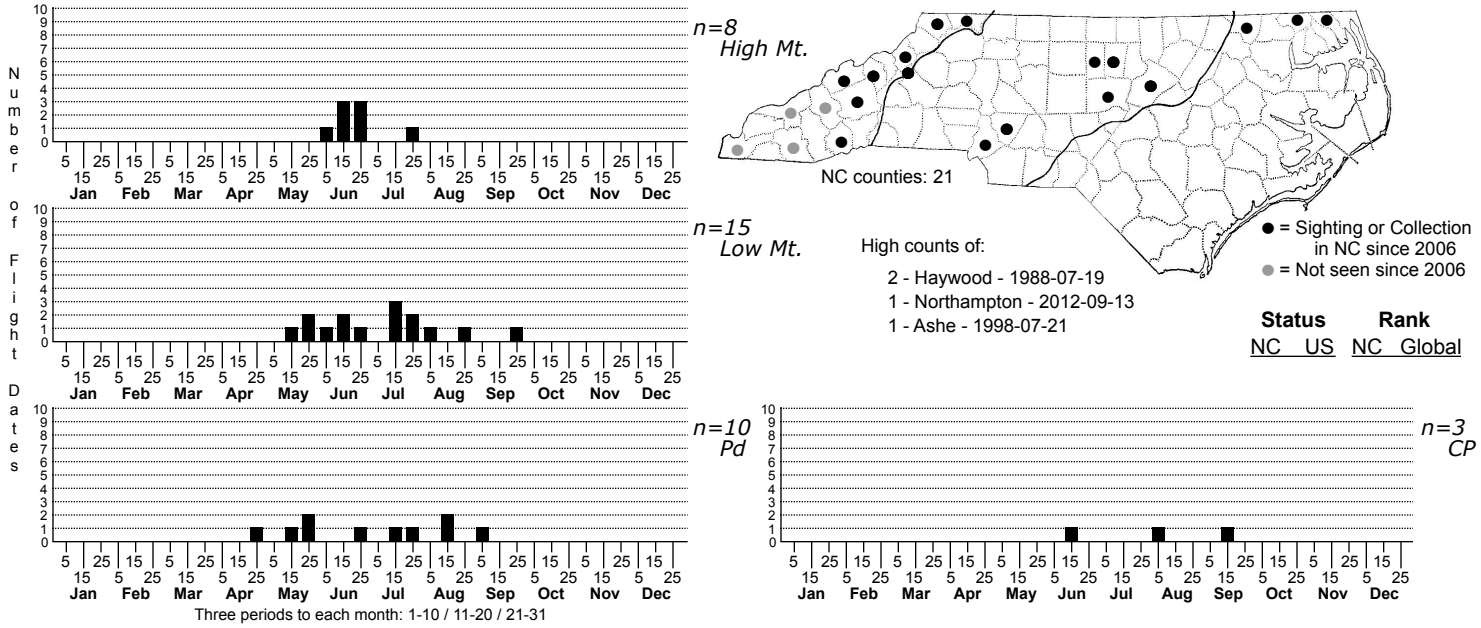
Sphinx kalmiae Laurel Sphinx



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); Beadle and Leckie (2012)
ONLINE PHOTOS:
TECHNICAL DESCRIPTION, ADULTS: Forbes (1948); Hodges (1971); Tuttle (2007)
TECHNICAL DESCRIPTION, IMMATURE STAGES: Forbes (1948); Wagner (2005); Tuttle (2007)

ID COMMENTS: This beautiful yellow-brown sphinx is easy to identify and one of our more common species in this genus. This looks like a smaller version of S. frankii but the abdominal spots are white and the moth is more tailored in appearance. Similar to Xylophanes tersa in size and wing color but has a darker brown marks on the thorax and abdomen. Other brown-colored sphingids are duller brown or have a heavier pattern of streaks. Sexes are similar.

DISTRIBUTION: Relatively common in the Mountains but rare in the Coastal Plain; we have only a couple of recent records from the Piedmont.

FLIGHT COMMENT: Seems to have an early summer flight in the mountains but coastal plain records are later in the season, perhaps indicating two broods there.

HABITAT: Records from the Coastal Plain come from a rich, brownwater floodplain along the Roanoke River but also from a blackwater area at the Great Dismal Swamp State Park; several species of Ash are common at the first but the second site probably contains only the swamp species of Ash, i.e., Carolina and Pumpkin Ash, along with privet. Records in the Mountains come from riparan habitats, rich cove forests and other sites with rich soils (e.g., Mount Jefferson State Park). Habitats at some of the mountain sites are unknown, however, as are the habitats where kalmiae was historically collected in the Piedmont.

FOOD: Larvae are stenophagous. Originally thought to be associated with laurel (Kalmia) - hence the misleading scientific and common names. However, this was discounted by Forbes (1948); instead it appears to feed on various members of the Oleaceae, including ash (Fraxinus), Fringetree (Chionanthus virginicus), lilac (Syringa), and privet (Ligustrum) (Forbes, 1948; Wagner, 2005). In North Carolina, all of our feeding records are from ash.

OBSERVATION_METHODS: Adults visit flowers at night and also are attracted to lights. Most of our records come from 15 watt UV blacklights, but only as single individuals; use of mercury-vapor or other high intensity UV lights is likely to be more effective, as it is for other members of this genus. Searching for larvae on small ash saplings may be profitable.

NATURAL HERITAGE PROGRAM RANKS: G5 SNR [S2S3]

STATE PROTECTION: Not currently listed by the Natural Heritage Program but probably should be considered for addition to the Watch List, based mainly on degree of threat due to the Emerald Ash Borer.

COMMENTS: This handsome species is always a treat to see. As with many Sphinx species, records are few and one can question whether or not we know how to locate the species outside the mountains. This species, along with other Ash-feeding Sphingids, is threatened to some extent by the spread of the Emerald Ash Borer (Wagner, 2007). However, its use of alternative host plants, including the highly invasive privets, may allow it to survive, although we have seen no increase in numbers of this species where privet has become one of the dominant plants of bottomland forests.