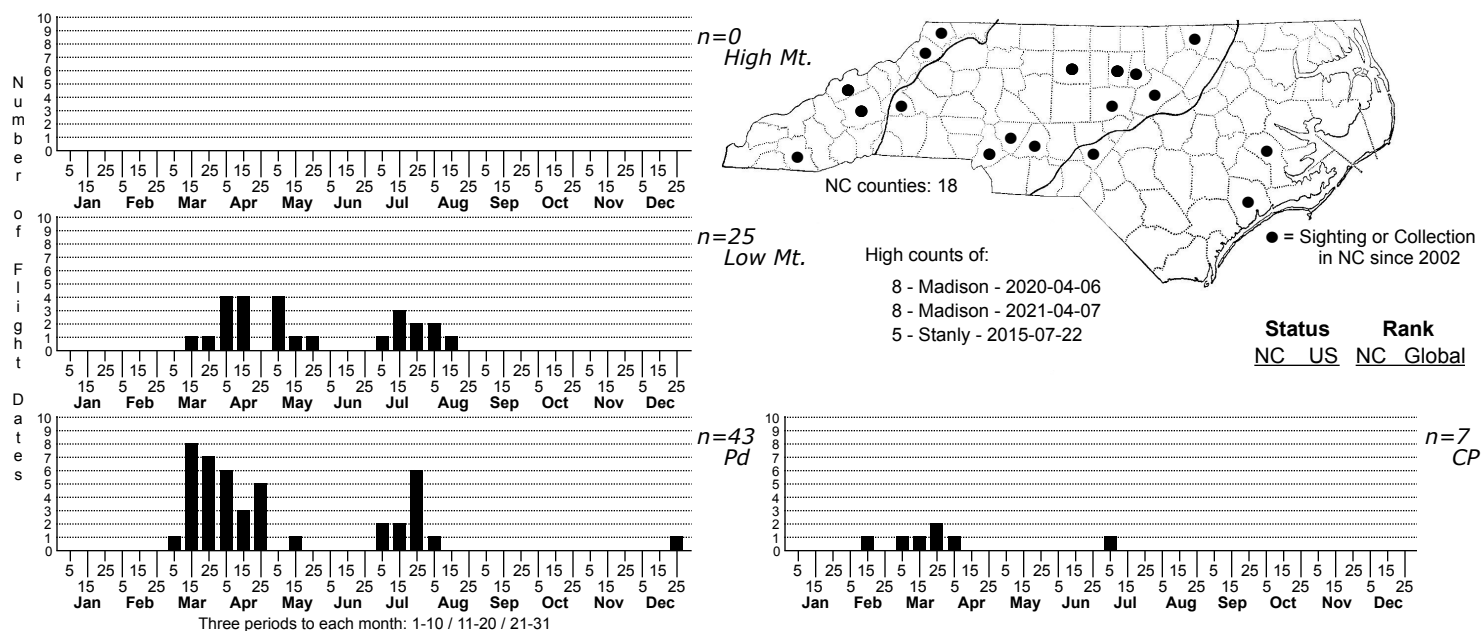


Arogalea cristifasciella Stripe-backed Moth



FAMILY: Gelechiidae SUBFAMILY: Gelechiinae TRIBE: Gelechiini

TAXONOMIC COMMENTS: *Arogalea* is a small genus of New World moths with only seven recognized species. Most have subtropical and tropical affinities, and only one is found in the eastern US.

FIELD GUIDE DESCRIPTIONS: Beadle and Leckie (2012); Leckie and Beadle (2018)

ONLINE PHOTOS:

TECHNICAL DESCRIPTION, ADULTS: Forbes (1923)

TECHNICAL DESCRIPTION, IMMATURE STAGES: Marquis et al. (2019)

ID COMMENTS: This is a distinctive small white moth with a bold fascia that projects forward from the costa towards the dorsal margin. The following description is primarily based on the description by Forbes (1923). The head, thorax, and ground color of the forewing are white. The terminal segment of the labial palp is white, and has a sub-basal and sub-terminal black band. The antenna is white with black annulations, and is about two-thirds the forewing length. The most conspicuous mark is a black, oblique fascia that begins on the costa at about two-fifths the wing length and slants forward to the inner margin where it terminates at a black scale tuft. About three-fifths, there is a black costal spot and a matching dorsal spot and dark scale tuft. A small, black costal spot is also usually present near the wing base. In addition to these large marks, scattered black or fuscous scales are present in the white ground, and faint black spots are often evident around the margin of the wing tip. The hindwing is yellowish, and the legs are white with blackish banding.

DISTRIBUTION: *Arogalea cristifasciella* is found in eastern North America from New England and extreme southern Canada (Manitoba; Ontario; Quebec) southward to Florida, and westward to central Texas, Oklahoma, Kansas, Illinois, and Wisconsin. This species occurs statewide in North Carolina, although it is uncommon in the Coastal Plain relative to the Piedmont and lower elevations in the mountains.

FLIGHT COMMENT: The adults have been found in almost every month of the year, but are mostly on the wing from March through August in areas outside of North Carolina. Local populations are bivoltine in most areas of the range, with the first brood occurring soon after the spring leaf-out, and the second during mid-summer. Our populations are also bimodal, with the first breeding bout peaking in March and April, and the second in July.

HABITAT: Local populations depend on oaks and are found in a variety of settings with oak trees. These include semi-wooded residential neighborhoods, as well as oak-hickory forests, mixed pine-hardwood forests, and other forest communities with oaks. Most of the documented hosts are found in mesic to somewhat drier sites.

FOOD: The larvae specialize on oaks and use a variety of species (Robinson et al., 2010; Marquis et al. 2019). The documented hosts include White Oak (*Quercus alba*), Scarlet Oak (*Q. coccinea*), Shingle Oak (*Q. imbricaria*), Pin Oak (*Q. palustris*), Post Oak (*Q. stellata*), Blackjack Oak (*Q. marilandica*), Chinquapin Oak (*Q. muehlenbergii*), Northern Red Oak (*Q. rubra*), and Black Oak (*Q. velutina*).

OBSERVATION_METHODS: The adults are attracted to lights, and the colorful larvae can be found between layered oak leaves that are tied together.

NATURAL HERITAGE PROGRAM RANKS: GNR S4S5

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

COMMENTS: This is a common and widespread species that appears to be relatively secure in North Carolina.