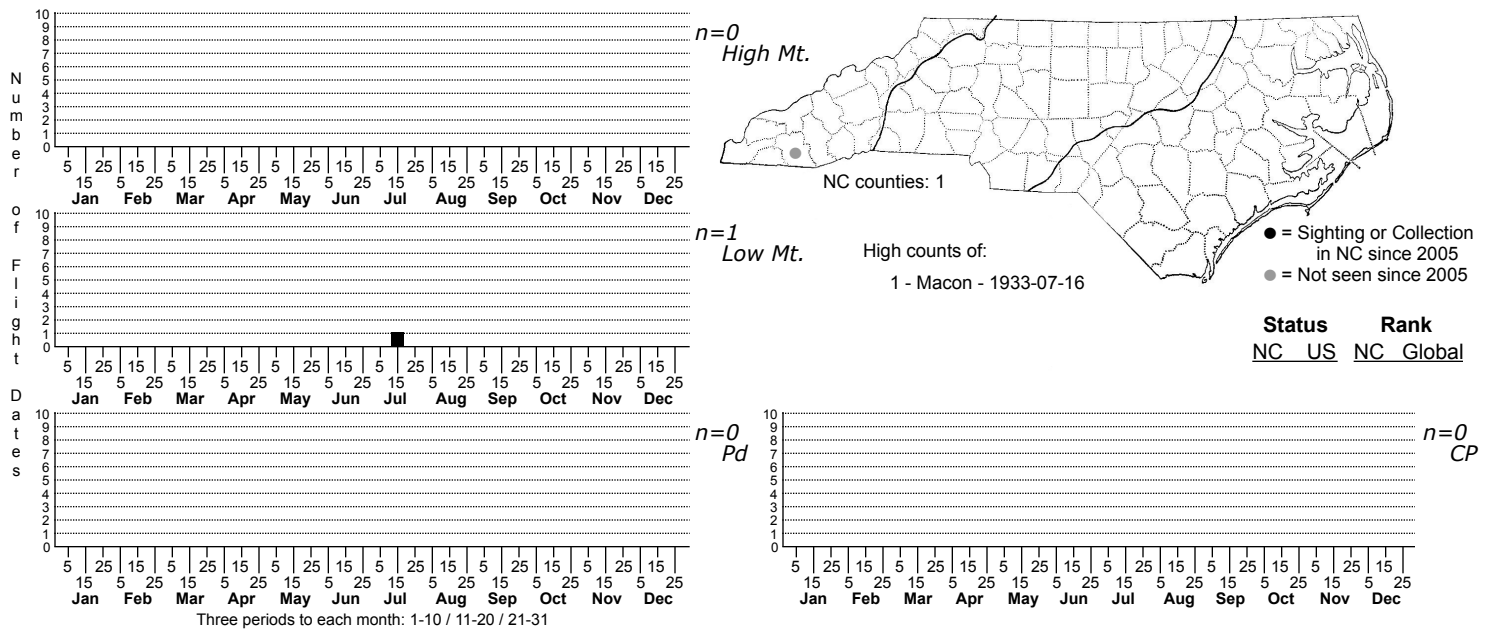


## *Schinia indiana* Phlox Moth



FAMILY: Noctuidae SUBFAMILY: Heliiothinae TRIBE:

TAXONOMIC COMMENTS: One of 126 species in this genus that occur in North America (Lafontaine and Schmidt, 2010, 2011), the majority of which occur in the West; 25 have been recorded in North Carolina.

FIELD GUIDE DESCRIPTIONS:

ONLINE PHOTOS:

TECHNICAL DESCRIPTION, ADULTS: Forbes (1954); Hardwick (1958); Hardwick (1996); Schweitzer et al. (2011)

TECHNICAL DESCRIPTION, IMMATURE STAGES: Hardwick (1958)

ID COMMENTS: A small, purplish-red Flower Moth. The head and thorax are dark brown to olive. The abdomen is also dark but with fine pale lines at the ends of the segments and a yellow tuft at the posterior tip. The forewings are violet red, with variations in intensity between zones -- the basal and subterminal areas are darker than the median and terminal areas -- but there are no dark or pale lines separating these region (e.g., no distinct antemedian, postmedian, or subterminal lines). The hindwings are chocolate brown and both pairs of wings have contrasting whitish-gray fringes. Sexes are similar. In our area, only *Schinia sanguinea* form *gloriosa* has purplish forewings and dark hindwings, but it also has more distinct white lines on the forewings.

DISTRIBUTION: Our only known record comes from the vicinity of Highlands in the southern mountains

FLIGHT COMMENT: Univoltine, with adults flying early in the season -- unusual for *Schinias* -- with collections in the vicinity of Chicago ranging from late May to mid-June (Hardwick, 1958).

HABITAT: Most of the habitats where this species has been recorded in the Midwest consist of open sand ridges (Kwiat, 1908), barrens, dry woodlands, and ecotonal or disturbed habitats (Schweitzer et al., 2011). The habitat where the North Carolina specimen was collected is unknown, but dry ridges and rocky barrens are found in the vicinity.

FOOD: Larvae are possibly monophagous, with Downy Phlox (*Phlox pilosa*) being the only host plant observed in the wild (Kwiat, 1908; Hardwick, 1959; Schweitzer et al., 2011). However, Hardwick (1958) was able to rear captive larvae on *Phlox divaricata* -- a blue-flowered species -- which suggests that other *Phlox* species could be used. This seems likely in North Carolina, since Downy Phlox has not been recorded in the area where the moth was found (it does occur, however, in the eastern Piedmont and Coastal Plain). Several other species of *Phlox* occur in the southern Mountains, with the pink-flowering species the most likely hosts.

OBSERVATION\_METHODS: Adults apparently do not come to lights (Schweitzer et al., 2011) and most, if not all, records have come from direct searching for adults or larvae resting on the flowers of their host plants.

NATURAL HERITAGE PROGRAM RANKS: G2G4 SH

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

COMMENTS: This species is known from fewer than twenty locations throughout its range, which is located mainly in the upper Midwest, although apparently disjunct populations have been reported in Texas, Georgia, and North Carolina (Schweitzer et al., 2011). Few factors other than general habitat loss and fragmentation have been implicated in the decline of this species. It may also be possible that this species has simply been undersampled in standard moth surveys, which rely heavily on lights or bait, both of which appear to be particularly ineffective in sampling for this species. More surveys need to be conducted employing direct searches of Phlox beds in the late spring.