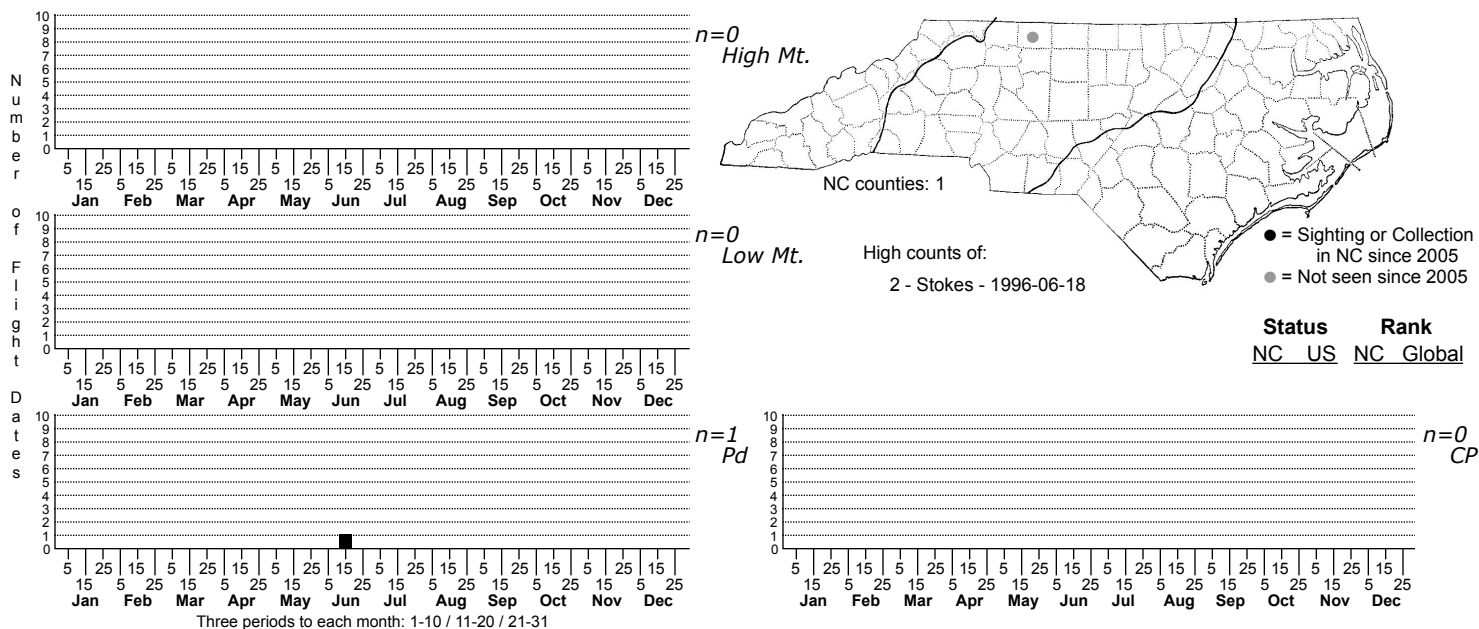


Hesperumia sulphuraria Sulphur Moth



FAMILY: Geometridae SUBFAMILY: Ennominae TRIBE: Boarmiini

TAXONOMIC COMMENTS: A genus of 6 species, 2 from Japan and 4 from the United States. One species, the type for the genus, occurs in our area but is far more common in California.

FIELD GUIDE DESCRIPTIONS: Covell (1984); Beadle and Leckie (2012)

ONLINE PHOTOS:

TECHNICAL DESCRIPTION, ADULTS: Forbes (1948)

TECHNICAL DESCRIPTION, IMMATURE STAGES: Wagner et al. (2001)

ID COMMENTS: This medium sized pale yellow geometrid with a large brown discal spot is unlikely to be mistaken for any other species. In addition to the typical form, three other named forms are known (see Forbes, 1948), none of which have been recorded in North Carolina.

DISTRIBUTION: This is a northern and western species known in North Carolina only from Hanging Rock State Park. A record is also shown on the Moth Photographers Website for the Tennessee side of the Great Smoky Mountains National Park and one from eastern Kentucky; otherwise it occurs sparsely in the East from West Virginia northward.

FLIGHT COMMENT: Known specimens collected in mid-June and single brooded.

HABITAT: Wagner et al., (2001) describe this species as occurring in forests, woodlands, and shrubby habitats. The habitat at Hanging Rock was a pine-hardwood mixture including Virginia and Short Leaf pines among oaks and hickories in a dry-mesic ericaceous environment. However, we have too little information to determine its full range of habitats used in the extreme southern part of its range.

FOOD: Larvae are widely polyphagous. Among the hosts listed by Wagner et al. (2001) are alder (<i>Alnus</i>), serviceberry (<i>Amelanchier</i>), birch (<i>Betula</i>), New Jersey Tea (<i>Ceanothus americanus</i>), huckleberry (<i>Gaylussacia</i>), larch (<i>Larix</i>), cinquefoil (<i>Potentilla</i>), cherry (<i>Prunus</i>), oak (<i>Quercus</i>), currant (<i>Ribes</i>), rose (<i>Rosa</i>), willow (<i>Salix</i>), mountain-ash (<i>Sorbus</i>), dogwood (<i>Swida</i>), and hemlock (<i>Tsuga</i>).

OBSERVATION_METHODS: Collected at light traps, not expected at bait but may occasionally be active during the day.

NATURAL HERITAGE PROGRAM RANKS: G5 SNR [SH]

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

COMMENTS: This species appears to be at the southern edge of its range in North Carolina, where it is currently known only from a single site and date. While several other species have well-known disjunct populations at Hanging Rock State Park -- e.g., *Catocala herodias*, *Stenoporpia polygrammaria*, and the salamander, *Plethodon wehrlei* -- the nature of its host plant use and habitat associations need to be better understood and a greater effort needs to be made to look for this species at other comparable sites along the Blue Ridge before its conservation status can be truly assessed.