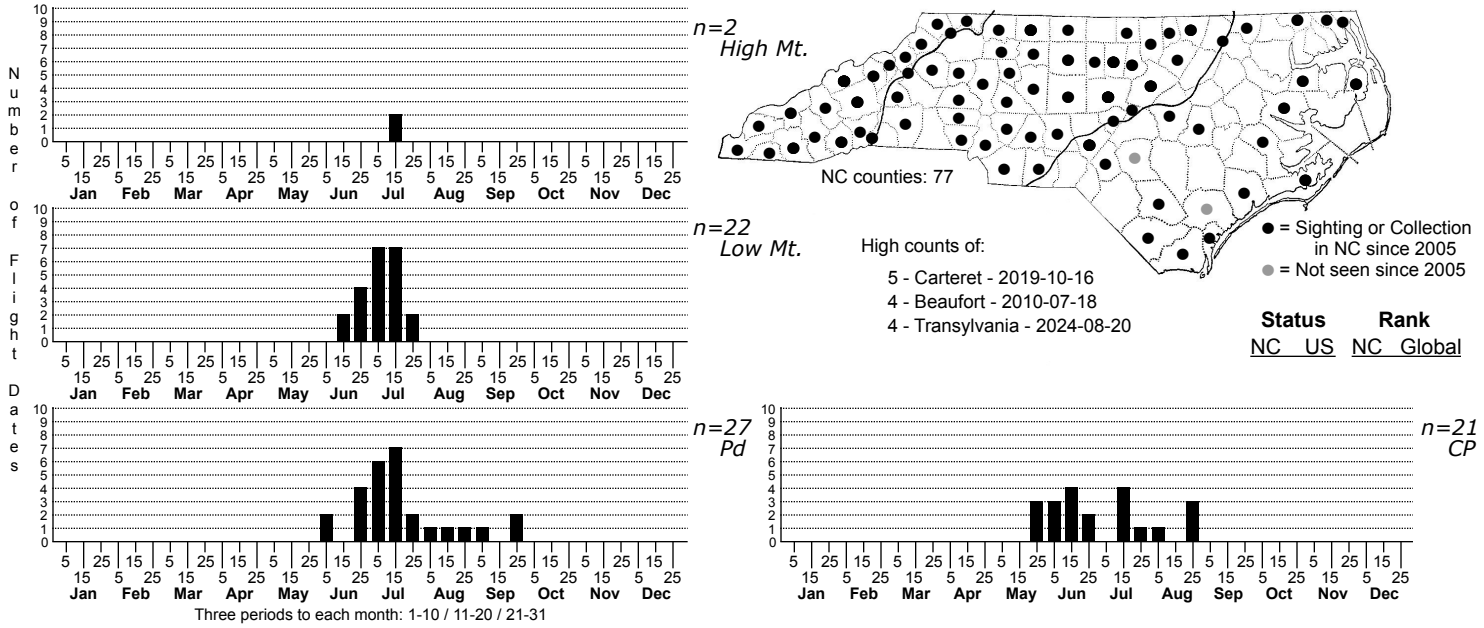
Acharia stimulea Saddleback Caterpillar Moth



FAMILY: Limacodidae SUBFAMILY: TRIBE:
TAXONOMIC_COMMENTS: This is one of two representatives of this genus that occur in North America and the only one that is found in North Carolina. This species was placed in the genus Sibine in older references.

FIELD GUIDE DESCRIPTIONS: Covell (1984; as Sibine stimulea); Beadle and Leckie (2012)
ONLINE PHOTOS:
TECHNICAL DESCRIPTION, ADULTS: Forbes (1923)
TECHNICAL DESCRIPTION, IMMATURE STAGES: Wagner (2005)

ID COMMENTS: Acharia stimulea is the largest of our slug moths, with the length from the tip of head to the apex of the forewing at rest averaging 18.5 mm (n = 5) for North Carolina specimens. The body is stout and dark brown, with heavy, brown, furry legs and broad, dark reddish-brown to dark brown forewings. The only conspicuous marks on the forewing are white dots, with one (occasionally two) centered near the base of the forewing and two (rarely one or three) in the subcostal region at around three-fourths the distance from the wing base to the apex. There are also broad longitudinal swaths of silvery-blue scales that are largely concentrated through the middle of the wing, along the costa, and along the inner margin. These impart a shiny appearance when stuck by light at certain angles. When combined with brown or reddish-brown areas that lack the silvery-blue scales, it gives the forewing a distinctive appearance.

DISTRIBUTION: Acharia stimulea occurs throughout much of the eastern US and adjoining areas on southern Ontario, as well as in Central America and northwestern South America. In the US the range extends from Massachusetts and Connecticut southward to southern Florida, and westward to eastern Texas, Arkansas, eastern Oklahoma, Missouri, northeastern Kansas, southeastern Nebraska, Illinois, and southeastern Iowa. This species occurs statewide in North Carolina, from the barrier islands to higher elevations in the Blue Ridge, but is relatively uncommon in the Coastal Plain where hardwoods are less prevalent.

FLIGHT COMMENT: Populations in southern Florida are active year-round and appear to produce two generations per year, while those farther north are univoltine, with the adults typically flying from May through September. Local populations in North Carolina are also univoltine. As of 2023, our records extend from late-May through mid-October, with a seasonal peak in June and July.

HABITAT: We have records from a wide variety of habitats, including maritime forests and scrub, sandhills, peatlands, lake and pond shorelines, and both mesic forests and drier ridge tops. This species is also commonly found in residential areas, in gardens, and in corn fields.

FOOD: The larvae are highly polyphagous (Baker, 1972; Wagner, 2005; Heppner, 2007; Robinson et al., 2010; Bibbs and Frank, 2012; Murphy et al., 2011; Marquis et al., 2019). Bibbs and Frank (2012) provide a comprehensive lists that includes members of 41 plant families, including many with tropical or subtropical affinities. We are not including a comprehensive list here, but do list native species that are used in temperate communities and are relevant to North Carolina. These include Boxelder (Acer negundo), Silver Maple (A. saccharinum), Common Pawpaw (Asimina triloba), Pignut Hickory (Carya glabra), Pecan (C. illinoinensis), Shagbark Hickory (C. ovata), chestnuts (Castanea), hackberries (Celtis), Buttonbush (Cephalanthus occidentalis), Flowering Dogwood (Cornus florida) and other dogwoods, American Beech (Fagus grandifolia), Northern Spicebush (Lindera benzoin), Black Cherry (Prunus serotina), White Oak (Quercus alba), Scarlet Oak (Q. coccinea), Bur Oak (Q. macrocarpa), Pin Oak (Q. palustris), Chestnut Oak (Q. montana), Northern Red Oak (Q. rubra), Black Oak (Q. velutina), Black Locust (Robinia pseudoacacia), willows (Salix), Sassafras (Sassafras albidum), American Basswood (Tilia americana), Poison-oak (Toxicodendron pubescens), elms (Ulmus), blueberries (Vaccinium) and grapes (Vitis). Many non-native ornamentals and corn are also commonly used.
As of 2024, we have observed the species feeding on apple, beech, buttonbush, cherry, grape, greenbrier, hickory, maple, spicebush, serviceberry, and willow, as well as a variety of garden plants.

OBSERVATION_METHODS: The adults are attracted to lights, but like other limacodids do not appear to come to bait or to visit flowers. Many of our records are for the boldly marked larvae that often feed in the open in communal groups, and are well-recognized by the general public.

NATURAL HERITAGE PROGRAM RANKS: G5 [S5]

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

COMMENTS: Acharia stimulea is common across the state and uses a wide range of habitats and host plants. It appears to be quite secure within the state.