



FAMILY: Gelechiidae SUBFAMILY: Gelechiinae TRIBE:

TAXONOMIC COMMENTS: *Sinoe* was traditionally treated as a monotypic genus that is restricted to the eastern US. It has since been split into four species. In a revision of the genus, Lee and Brown (2012) redescribed *S. robiniella* and recognized two additional species (*S. chambersi*; *S. kwakae*) that occur in North Carolina.

FIELD GUIDE DESCRIPTIONS:

ONLINE PHOTOS:

TECHNICAL DESCRIPTION, ADULTS: Lee and Brown (2012)

TECHNICAL DESCRIPTION, IMMATURE STAGES:

ID COMMENTS: The following is based on the description in Lee and Brown (2012). The head is white with a mixture with gray and brown scales, while the thorax is gray mixed with white scales. The antenna is brown and about two-thirds the length of the forewing. On each flagellomere the basal row of scales is dark brown and the apical row gray. On the labial palp, the outer side of the second segment is dark brown with white annuli at two-thirds the length and at the apex. The inner side is white, and the third palp segment is white with two dark brown annuli. The ground color of the forewing varies from brown to gray. The costa has two conspicuous brownish black spots at one-third and two-thirds the wing length, and a smaller one at the wing base. The subbasal fascia is dark brown with a dark brown median spot often at the base. It extends from the dorsum obliquely toward the first costal blotch, but ends at about the middle of the wing. The dark scaling (basal patch) in front of the fascia is either absent or does not extend all the way to the wing base. There are two dark brown to blackish median longitudinal streaks. The first is often surrounded by brown and begins at about one-half, while the second is posterior to this. The hindwing is light brown to gray with silvery brown to gray fringe.

This species is similar to *S. robiniella* and *S. chambersi* and is best separated by phenology and patterning. *Sinoe chambersi* is active in winter through early spring (typically Jan-March), has dark scaling that extends from the fascia to the wing base, and typically has two dark, longitudinal streaks in the middle of the wing. *Sinoe kwakae* is similar to *S. chambersi*, but has dark scaling that does not extend from the fascia all the way to the wing base. This is a more southern form that flies year-round in Florida, Alabama, Mississippi, and other southern locales. *Sinoe robiniella* also has dark scaling that does not extend from the fascia all the way to the wing base, but has the first longitudinal median streak reduced to a spot.

DISTRIBUTION: *Sinoe kwakae* is found in the southeastern US, including Louisiana, Mississippi, Alabama, Florida, Georgia, and North Carolina. As of 2020, our only records are from two southern counties in the lower mountains and Coastal Plain.

FLIGHT COMMENT: Adults have been collected in almost every month of the year. As of 2020, our two state records are from July and September.

HABITAT: The habitat requirements for this newly described species are unknown.

FOOD: The hosts are unknown.

OBSERVATION\_METHODS: Adults occasionally visit lights, but the larvae have not been discovered to date and are in need of study.

NATURAL HERITAGE PROGRAM RANKS: GNR SU

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

COMMENTS: We currently do not have sufficient information on the distribution and abundance of populations within the state to assess the conservation status of this species.