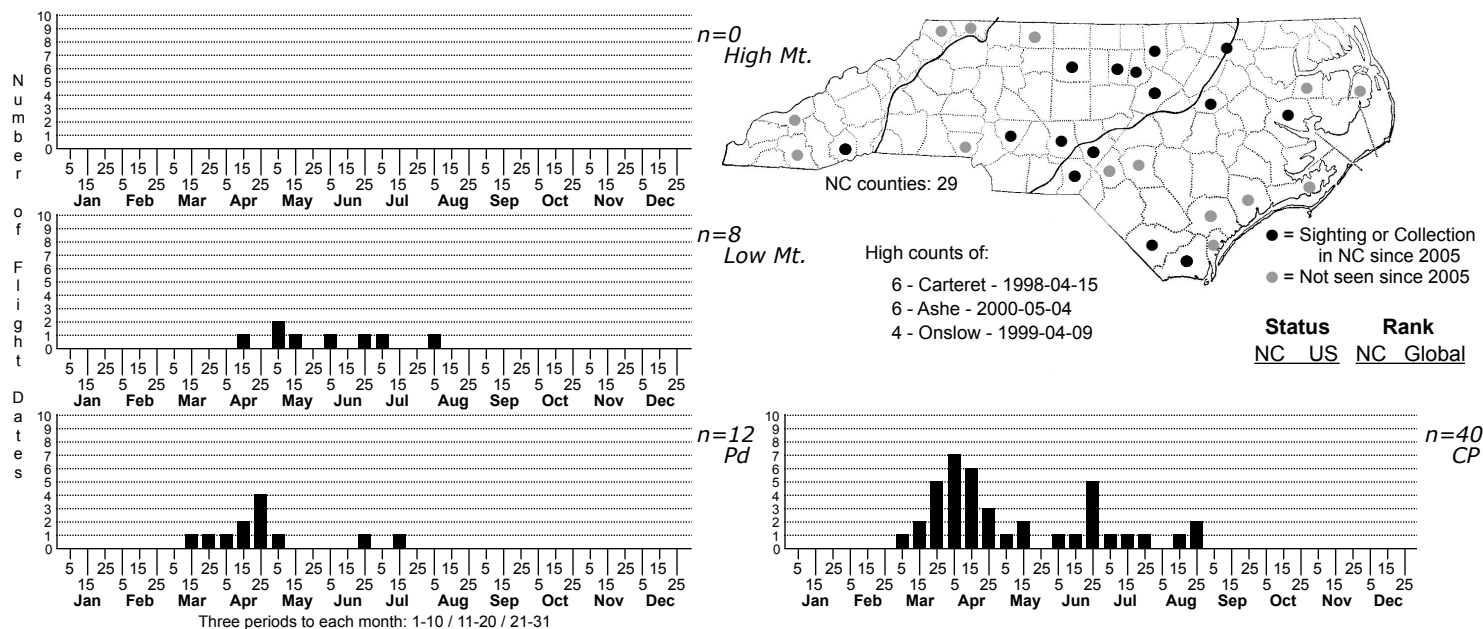


Zale squamularis Gray-banded Zale



FAMILY: Erebidae SUBFAMILY: Erebinae TRIBE: Ophiuini

TAXONOMIC COMMENTS: One of 39 species in this genus that occur north of Mexico, 23 of which have been recorded in North Carolina. *Zale squamularis* and *obliqua* are closely related and apparently form a species complex with one or more undescribed species (Wagner et al., 2011)

FIELD GUIDE DESCRIPTIONS: Covell (1984)

ONLINE PHOTOS:

TECHNICAL DESCRIPTION, ADULTS: McDunnough (1943); Forbes (1954); Rings et al. (1992)

TECHNICAL DESCRIPTION, IMMATURE STAGES: Wagner et al. (2011)

ID COMMENTS: *Squamularis* is smoothly patterned pale brown and gray, with a strong contrast between the antemedial and postmedial areas (before and after the medial line). The medial line is contiguous with the inner edge of the reniform, as in *Z. obliqua*, but different from the other members of this group where the line crosses the wing before the reniform. *Squamularis* is reportedly smaller than *obliqua*, although there are forms in North Carolina that appear to be equally large (sometimes considered an undescribed species). *Squamularis* also differs from *obliqua* by having a much more contrasting medial line (blackish in *squamularis*) and showing much more contrast between the pale antemedial area and the darker postmedial area.

DISTRIBUTION: Probably occurs statewide except for the Outer Banks and other barrier islands and from the High Mountains

FLIGHT COMMENT: Appears to have just a single brood in the Mountains but may have a spring and summer brood in the Piedmont and Coastal Plain

HABITAT: Occurs primarily in wetter or more mesic sites than *obliqua*. In the Coastal Plain, we have records from Pond Pine Woodlands and other peatland habitats where Pond Pine is present; blackwater floodplain forests and Non-riverine Swamp Forests; and Wet Longleaf Pine Savannas and Flatwoods (but none from more xeric sandhill habitats). Riparian or shoreline forests are also used in the Piedmont and Mountains and there is at least one record from an upland site at Slick Rock in the Mountains.

FOOD: Larvae are stenophagous, apparently feeding on just a few species of pine. Wagner et al. (2011) specifically mention Pitch Pine (*Pinus rigida*), Pond Pine (*Pinus serotina*), and state that perhaps other species of hard pine are also used. While we have records for several peatland habitats where Pond Pine is the sole species of pine, at many other sites Loblolly Pine (*P. taeda*) is the most likely host plant. Unlike *Zale obliqua*, none of our records come from sites where Longleaf Pine (*P. palustris*) is the sole pine present; even where we have recorded it in Longleaf Pine Savannas and Flatwoods, there are almost always Pond Pines present in closely adjoining peatlands.

OBSERVATION METHODS: Appears to come moderately well to blacklights, although in lower numbers than *obliqua*. Also comes well to bait.

NATURAL HERITAGE PROGRAM RANKS: G5 SNR [S3S5]

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

COMMENTS: Given that *squamularis* occurs across much of the state in a wide variety of pine-containing habitats, this species appears to be secure.