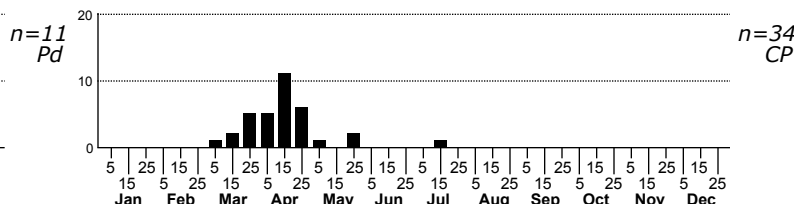
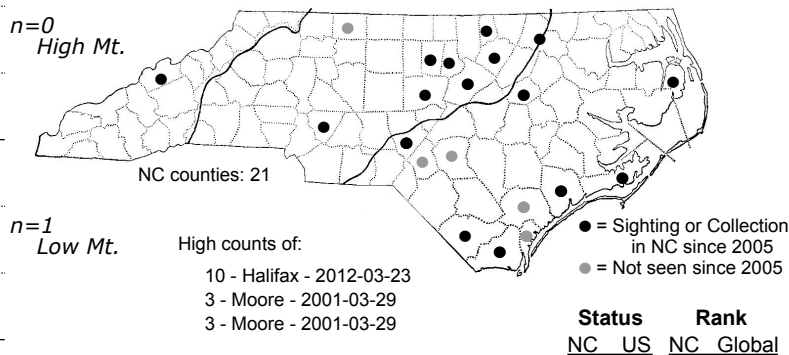
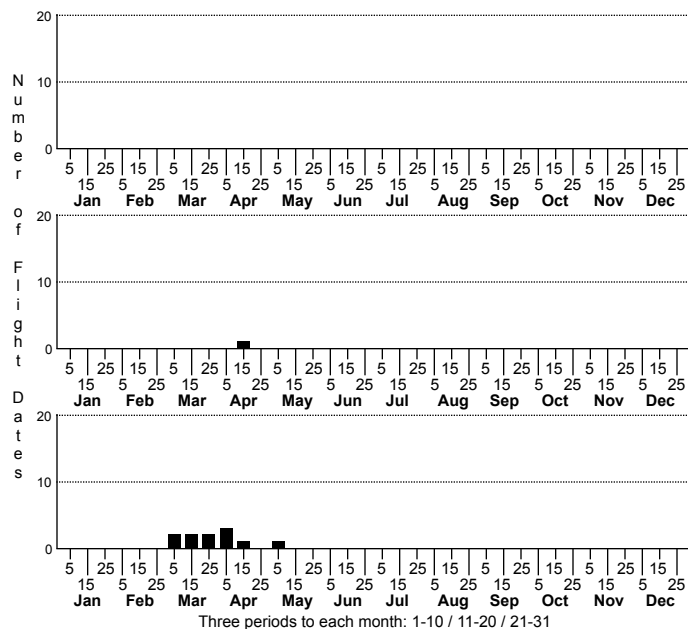


Zale buchholzi Buchholz's Zale



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. An almost identical undescribed species has also been found in North Carolina; the two are distinguished primarily by genitalic features and different flight dates.

FIELD GUIDE DESCRIPTIONS: (Not included in either field guide but good photos of adults are provided by Wagner et al., 2011)

ONLINE PHOTOS:

TECHNICAL DESCRIPTION, ADULTS: McDunnough (1943); Forbes (1954)

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

ID COMMENTS: *Buchholzi* (and the undescribed species) is the most plainly marked species in the group, with a dull brown ground color covering the entire wing with none of the contrasting light and dark zones shown by the other species. The median line is typically obscure and both the antemedian and postmedian are also usually inconspicuous. The reniform is narrow and dark and has the usual yellowish patch located just beyond it, but neither are as contrasting as in the other members of this group. While a good photograph can be used to distinguish *buchholzi* from all of the named pine-feeding *Zales*, dissection is the only definitive way to tell it apart from the undescribed species, although flight dates usually offer a good clue.

DISTRIBUTION: With the exception of one record from Hanging Rock State Park in the western Piedmont, all of our records come from the Coastal Plain

FLIGHT COMMENT: True *buchholzi* has an early spring flight, with most adults out in March and April; adults found in May and June probably all represent the undescribed species (D. Schweitzer, pers. comm. to J.B. Sullivan, 1999).

HABITAT: Most of our records come from Longleaf Pine habitats. While Pond Pine (*P. serotina*) is also probably present at many of these sites -- associated with peatlands that usually closely adjoin Longleaf communities -- we do not have any records from Pond Pine Woodlands or other purely peatland habitats. In the Roanoke floodplain site, Loblolly is the most likely host plant. At Hanging Rock and the Mountains, a variety of pines are present, including Pitch Pine (*P. rigida*), believed to be the host farther north.

FOOD: Larvae are probably stenophagous, feeding on a narrow range of hard pines. Wagner et al. (2011) report it feeding on Pitch Pine (*Pinus rigida*) and Pond Pine (*P. serotina*) in New Jersey, but associated with Longleaf Pine (*P. palustris*) and Loblolly Pine (*P. taeda*) southward. In North Carolina, our only feeding record is from Loblolly Pine.

OBSERVATION_METHODS: Appears to come moderately well to blacklights, with up to ten having been caught in a single trap. Probably comes well to bait, like other *Zale*.

NATURAL HERITAGE PROGRAM RANKS: G5 SNR [S3S4]

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

COMMENTS: Although a uncommonly collected species in North Carolina, too little is known about the distribution and habitat affinities of *buchholzi* to estimate its conservation needs.