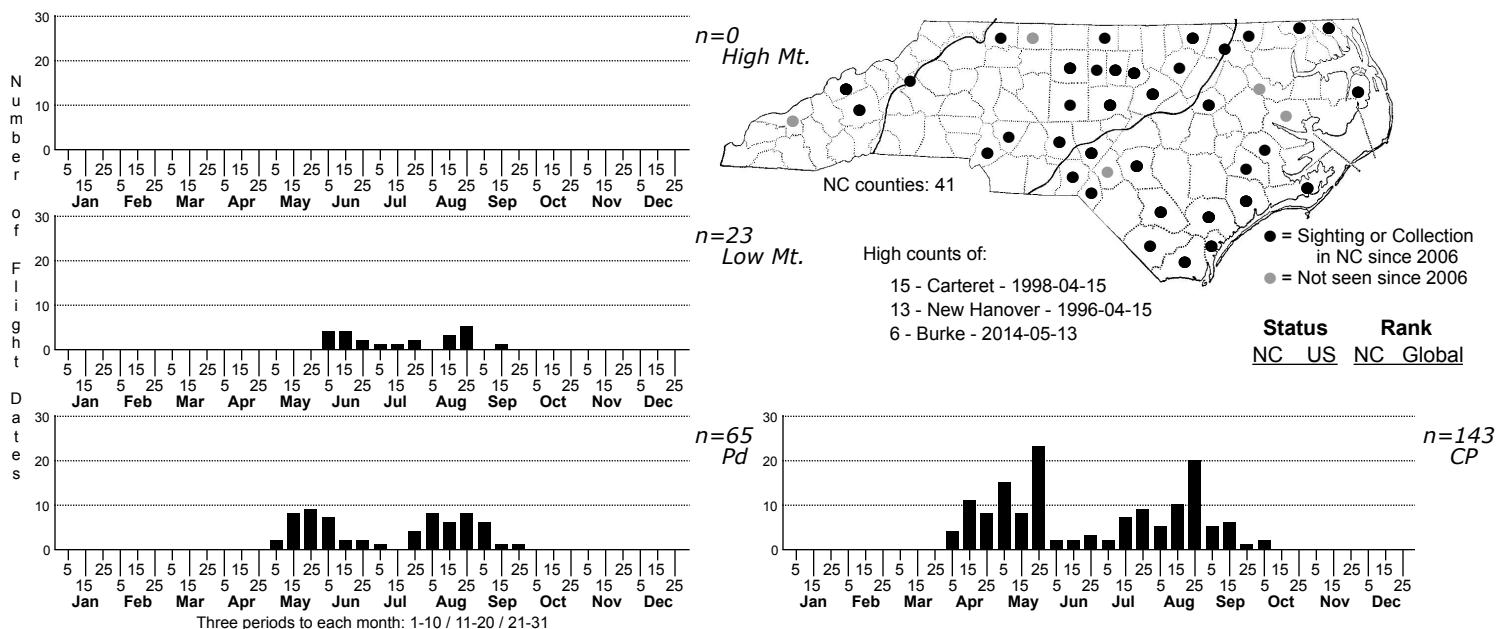


Chloropteryx tepperaria Angle-winged Emerald



FAMILY: Geometridae **SUBFAMILY:** Geometrinae **TRIBE:** Hemitheini

TAXONOMIC COMMENTS: One of three species in this genus that occur north of Mexico (Ferguson, 1985), and the only one found in North Carolina

FIELD GUIDE DESCRIPTIONS: Covell (1984)

ONLINE PHOTOS:

TECHNICAL DESCRIPTION, ADULTS: Forbes (1948); Ferguson (1969, 1985)

TECHNICAL DESCRIPTION, IMMATURE STAGES: Ferguson (1969, 1985); Wagner et al. (2001)

ID COMMENTS: A small olive-, gray-, or blue-green Emerald, with sharply pointed hindwings and a contrasting brown blotch on the second abdominal segment (Ferguson, 1985). The antemedian and postmedian lines are usually discontinuous, usually consisting of separate pales spots. Both lines are irregular, with a strong offset present in the middle of the line in the postmedian on both wings; the antemedian line is more evenly curved and only present on the forewing. A dark brown terminal line is present on both wings and the fringe is often checkered with brown. The costa may also have a series of brown spots on a contrasting yellow ground color, particularly in the outer half. *Hethemia pistaciaria* is the only Emerald in our area with a similarly pointed hindwing. However, the point is more rounded over in *Hethemia* than in *Chloropteryx*. It also lacks the dark brown blotch on the abdomen; lacks a dark brown terminal line and spots on the fringe; the postmedian is more regular, although also consisting of separate dots (Ferguson, 1985).

DISTRIBUTION: Most of our records come from the Coastal Plain and eastern Piedmont, but there are at least a few from the western half of the state, suggesting that this species could occur statewide

FLIGHT COMMENT: Adults are present throughout the growing season, from late March to early October at least in the Coastal Plain. Two main peaks exist, one in the spring and one in the summer.

HABITAT: The majority of our records come from swamps and bottomland forests in the Coastal Plain where Bald Cypress or Pond Cypress are present. Most of the rest also come from riparian or mesic forests, although without cypresses being present. Records from dry to xeric habitats are absent except for records coming from maritime forest and scrub habitats at Fort Macon State Park.

FOOD: Larvae are possibly oligophagous, having been found feeding on Bald Cypress (*Taxodium distichum*) in the wild, but accepting hemlock (*Tsuga*) and fir (*Abies*) in captivity (Wagner et al., 2001). Ferguson (1985) also reports rearing them on Winged Sumac (*Rhus copallina*). The full dietary range needs to be better documented, with the moth having been found in several Piedmont locations that lack both cypress and hemlock (as has been noted elsewhere - Wagner et al., 2001). There is no habitat correlation that we have seen, however, between the occurrences of this species and the presence of Winged Sumac.

OBSERVATION METHODS: Appears to come well to blacklights but not to bait or flowers.

NATURAL HERITAGE PROGRAM RANKS: G4 SNR [S4S5]

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

COMMENTS: Host plants and habitat associations still need to be clarified for this species. However, it is found over a wide area of the state and does not appear to be restricted to rare types of habitats. Consequently, it appears to be fairly secure within North Carolina.