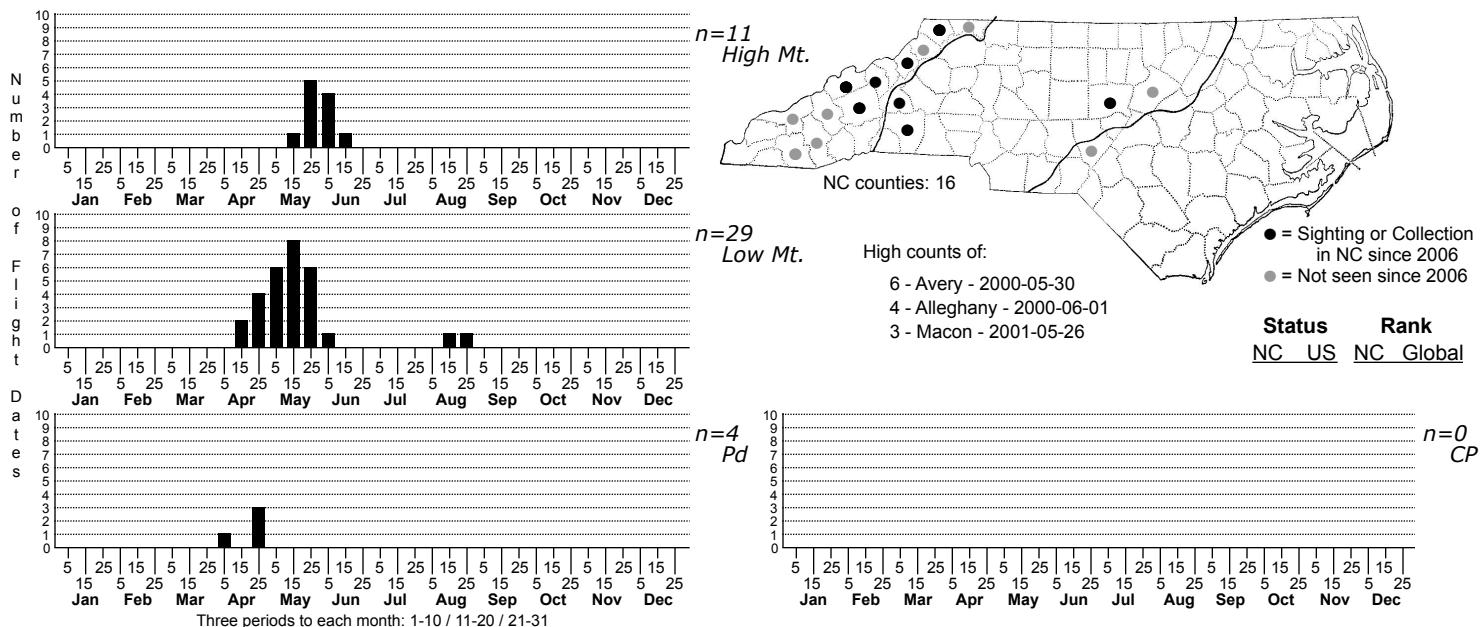


Nemoria mimosaria White-fringed Emerald



FAMILY: Geometridae **SUBFAMILY:** Geometrinae **TRIBE:** Nemoriini

TAXONOMIC COMMENTS: One of 35 species in this genus that occur in North America (Ferguson, 1985), nine of which have been recorded in North Carolina. Ferguson (1969) included *mimosaria* in his *Bistriaria* Species Group (VIII), which also includes *bifilata*, *bistriaria*, and *rubrifrontaria* in North Carolina, as well as eight others in the West.

FIELD GUIDE DESCRIPTIONS: Beadle and Leckie (2012)

ONLINE PHOTOS:

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

TECHNICAL DESCRIPTION, IMMATURE STAGES: Ferguson (1969, 1985); Wagner et al. (2001); Maier et al. (2011)

ID COMMENTS: *Nemoria mimosaria* is a medium-sized, light pea-green Emerald; no reddish-brown spring form is known (Ferguson, 1985). The antemedial line is usually convex and waved; the postmedian is usually straight and even. No red terminal line is present and the fringe is typically pure white. A spot of pure white also exists at the base of the abdomen and is not surrounded by red as in other species of *Nemoria*. This spot, along with the lack of a terminal line and presence of all white fringes are diagnostic of this species. *N. tuscarora* is similar in size and color but lacks any white spots on the abdomen. *N. rubrifrontaria* has red-ringed spots on the abdomen and typically has a pinkish fringe.

DISTRIBUTION: All except the two records from Brimley (1938) come from the Mountains (or the base of the Blue Ridge in the case of the McDowell County record).

FLIGHT COMMENT: Has a single flight period in mid-summer

HABITAT: The majority of our records come from stands of mesic, montane forests, including both riparian habitats and Northern Hardwoods growing on high ridges.

FOOD: Larvae are polyphagous, feeding on a wide variety of hardwood trees and shrubs and also on conifers (Ferguson, 1969; Maier et al., 2011). Wagner et al. (2001) specifically list fir (*Abies*), alder (*Alnus*), birch (*Betula*), American Hornbeam (*Carpinus caroliniana*), hawthorn (*Crataegus*), larch (*Larix*), spruce (*Picea*), oak (*Quercus*), willow (*Salix*), American Basswood (*Tilia americana*), hemlock (*Tsuga*), and elm (*Ulmus*).

OBSERVATION METHODS: Comes well to blacklights but we have no records from bait or from flowers.

NATURAL HERITAGE PROGRAM RANKS: GNR SNR [S3S4]

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

COMMENTS: This species appears to be fairly widespread in the Mountains and given its wide range of host plants and habitats, is probably secure. Like other species associated with montane, mesic forests, however, its range may contract due to the effects of global warming.