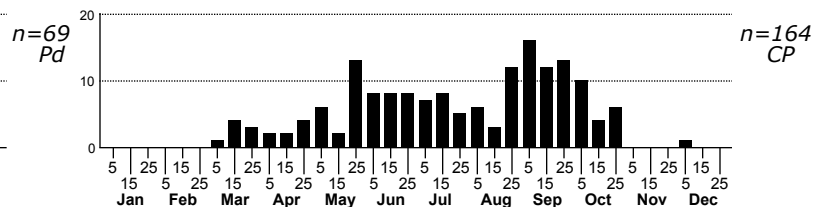
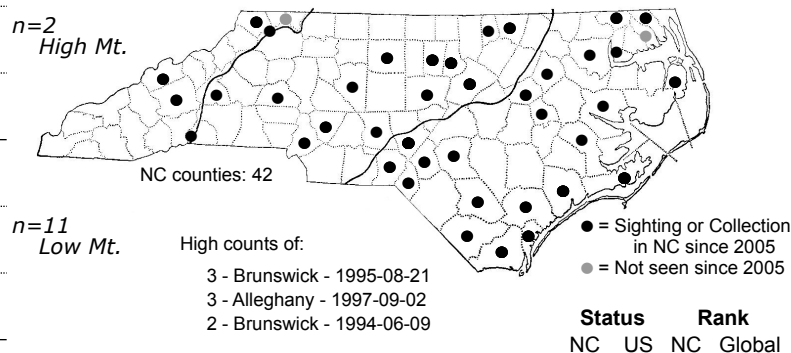
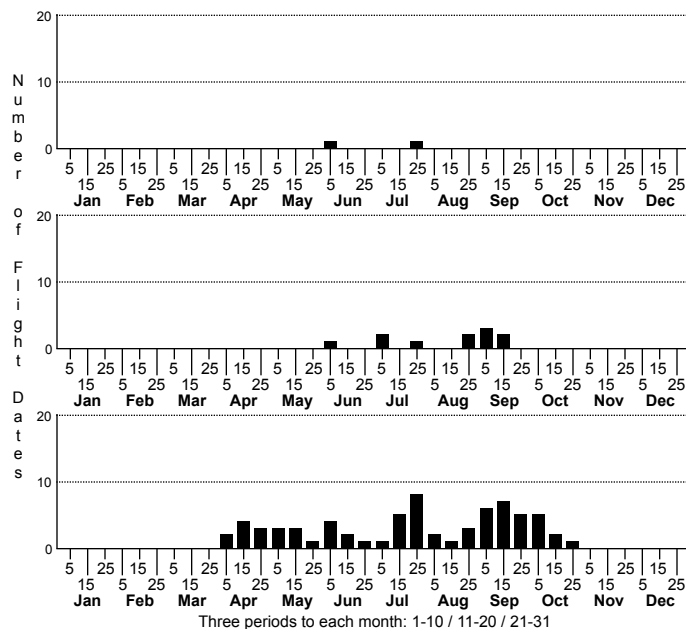


Synchlora frondaria Southern Emerald



FAMILY: Geometridae SUBFAMILY: Geometrinae TRIBE: Synchlorini

TAXONOMIC COMMENTS: One of eight species in this genus that occur north of Mexico (Ferguson, 1985), two of which are found in North Carolina.

FIELD GUIDE DESCRIPTIONS: Covell (1984); Beadle and Leckie (2012)

ONLINE PHOTOS:

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

TECHNICAL DESCRIPTION, IMMATURE STAGES: Ferguson (1969, 1985); Wagner (2005)

ID COMMENTS: This species and *Synchlora aerata* are both small, bright green Emeralds, with narrow white antemedian and postmedian lines, a dorsal white stripe on the abdomen, and with little or no red on the wings (Ferguson, 1985). In *S. frondaria*, the lines are conspicuously dentate and there is a strong outward bulge in the postmedian of both wings located between M3 and Cu2 (some *aerata* show a slight offset in the postmedian on the hindwings but not on the forewings). In *S. aerata*, the lines on the wings are fairly even, particularly on the forewing, and are usually only slightly dentate or waved, if at all. *Nemoria bifilata* has a similar white abdominal stripe, but has a red terminal line that is absent in both of our *Synchlora* species.

DISTRIBUTION: Probably occurs statewide

FLIGHT COMMENT: Flies throughout the growing season from March to October; no strong evidence of separate flights. Broadly overlaps with *Synchlora aerata*.

HABITAT: Most of our records come from open, forb-rich habitats. These include old fields and disturbed areas but also natural habitats such as maritime dunes and marshes; Longleaf Pine savannas, flatwoods, and sandhills; and lake and river shorelines. Very few of our records come from deep within closed-canopy forests, especially where herbaceous species are scarce. Habitats used by *Synchlora frondaria* strongly overlap with those used by *S. aerata*.

FOOD: Both of our species of *Synchlora* are polyphagous, feeding on the flowers and seed heads of many species of herbaceous plants. Composites may be favored, with several species listed by Ferguson (1985). Blackberries (*Rubus* spp.) are also used, as are several species of legumes, including Soybean and Mesquite (Ferguson, 1985). No clear differences have been reported separating the diets of our two species of *Synchlora*.

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

NATURAL HERITAGE PROGRAM RANKS: G5 SNR [S4S5]

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

COMMENTS: This species is widespread, polyphagous on a extensive range of common plants, and occupies a broad set of habitats, including disturbed areas. Consequently, it appears to be secure within our state.