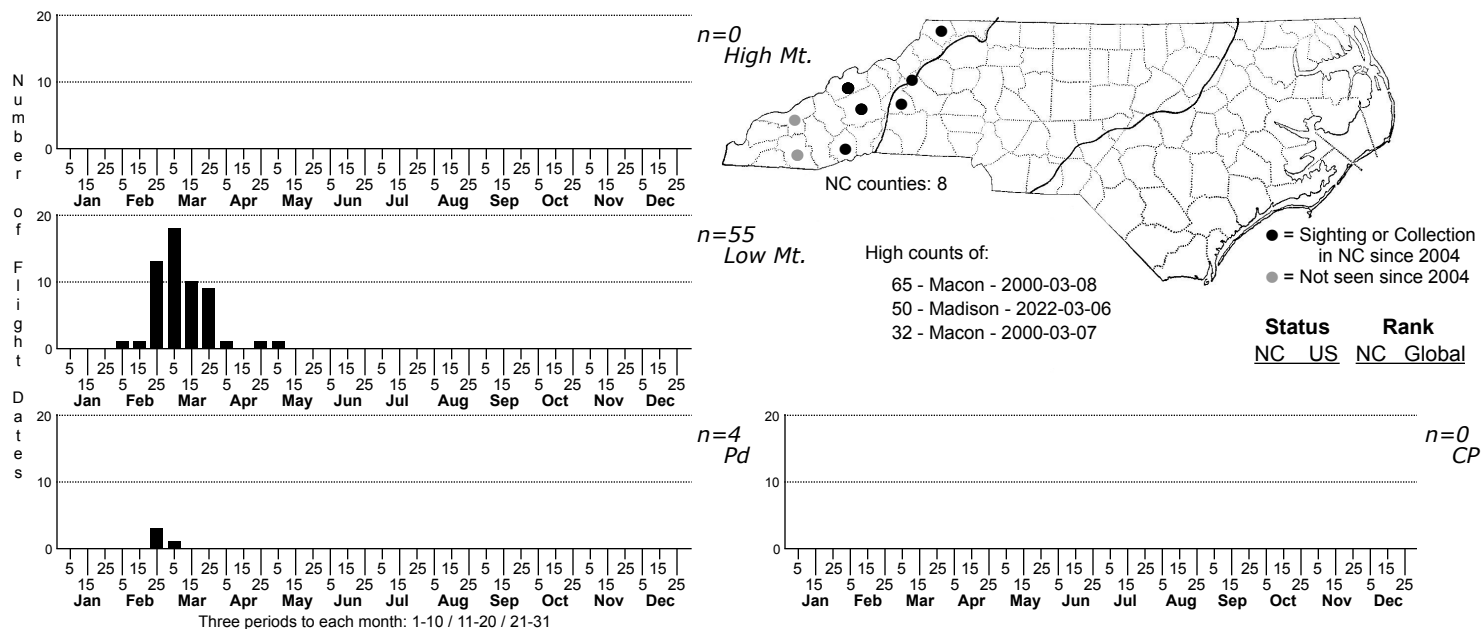


Feralia jocosa Joker Moth



FAMILY: Noctuidae SUBFAMILY: Amphipyriinae TRIBE: Psaphidini

TAXONOMIC_COMMENTS: An isolated genus with 7 species worldwide, 1 palearctic, the other 6 nearctic, with 3 occurring in North Carolina.

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

ONLINE PHOTOS:

TECHNICAL DESCRIPTION, ADULTS: Forbes (1954); Poole (1995)

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

IDENTIFICATION COMMENTS: This spectacularly patterned moth is perfectly camouflaged for life among the mossy evergreens and lichens of our mountain forests. It is similar to *Feralia major* and both species have normal green and black, melanic forms, although so far all of ours are the normal green form. *Jocosa* has darker hindwings, which are uniformly dark fuscous in *jocosa* but pale green along the margins in freshly caught *major*. Green forms of *major* (lacking the dark shading) are very similar in pattern and the color of the hindwings must be used to tell them apart. Most *F. major* we have seen are of the dark form. The dark form of *jocosa* has not yet been recorded in North Carolina, but we do have a greenish tan morph from the mountains that appears late in the season. *Feralia comstocki* normally flies later than both *jocosa* and *major* in the mountains, is brighter green, and has several dark patches not usually found in the other two species. Sexes identical.

DISTRIBUTION: All of our records come from the low Mountains.

FLIGHT COMMENT: Single brooded, on the wing in late March and early April, before most collectors are active.

HABITAT: Mesic montane forest with abundant hemlock, including Cove Forests at mid elevations and Northern Hardwoods at higher elevations.

FOOD: Balsam fir, hemlock, spruce and other evergreens (Maier et al, 2004) but there is probably specificity. No information on foodplant preferences in North Carolina, but larvae of *Feralia* have been found on hemlocks below Grandfather Mountain.

OBSERVATION_METHODS: Comes to light but no records from bait.

NATURAL HERITAGE PROGRAM RANKS: GNR [SU]

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

COMMENTS: We have only a few site records for this species, probably due in part to its late winter flight period, but it can be locally common. To the extent that this species is dependent on Hemlock or Fraser Fir, it may be highly vulnerable to the effects of the introduced adelgids that are decimating those species. It is also likely to be vulnerable to the effects of global climate change, including the drying out of mesic forests and particularly in the retreat of Spruce-fir Forests to even smaller high elevation refugia than they currently occupy. More surveys need to be conducted of adults or larvae in order to determine its current distribution and habitat associations, as well as to monitor its population trends as its environments change.