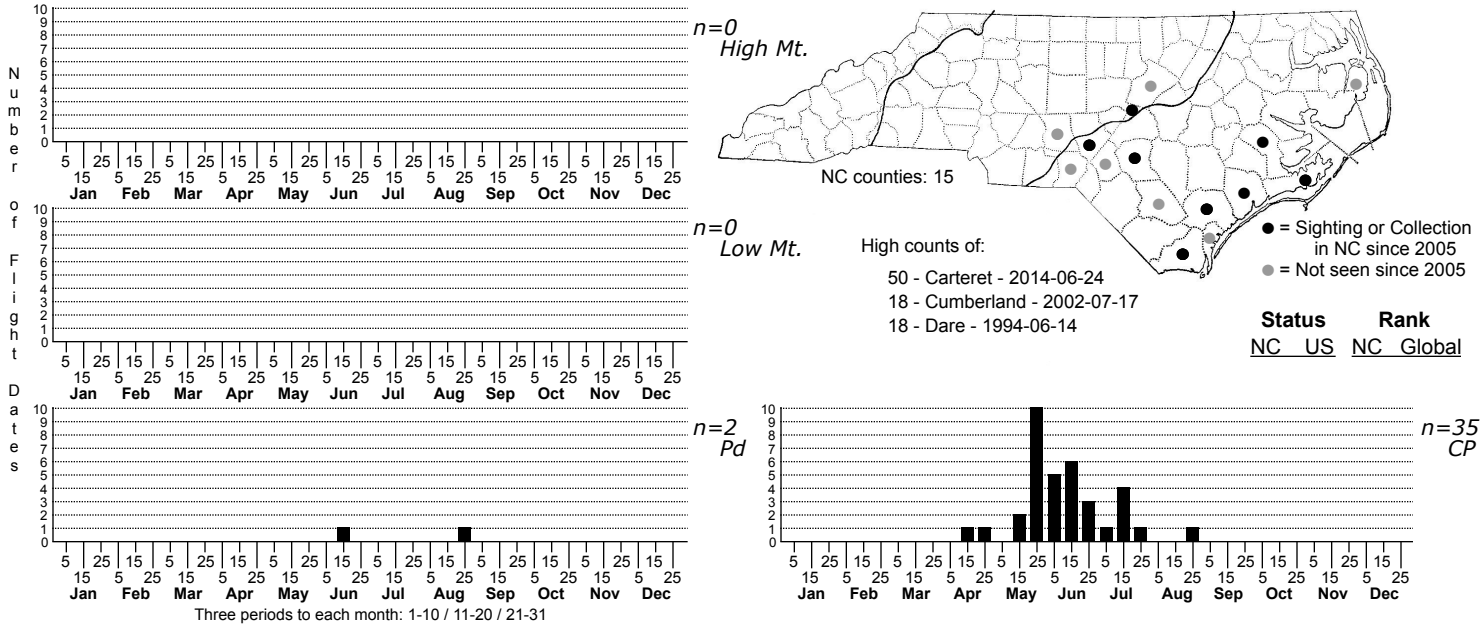
Exyra ridingsii Ridings' Pitcher-plant Moth



FAMILY: Noctuidae SUBFAMILY: Plusiinae TRIBE: Plusiini
TAXONOMIC_COMMENTS: One of three members of this genus, all of which are highly associated with the solely eastern North American genus of Pitcher Plants, Sarracenia. All three have been recorded in North Carolina.

FIELD GUIDE DESCRIPTIONS:
ONLINE PHOTOS:
TECHNICAL DESCRIPTION, ADULTS: Jones (1921); Forbes (1954); Lafontaine and Poole (1991)
TECHNICAL DESCRIPTION, IMMATURE STAGES: Jones (1921); Forbes (1954); Lafontaine and Poole (1991); Wagner et al. (2011)

ID COMMENTS: A medium-small, black-and-yellow striped Noctuid. The head and front half of the thorax are dark, blackish brown, differing from the crimson-and-yellow found in Exyra fax but very similar to the pattern shown by E. semicrocea. Unlike E. semicrocea, a strong, black antemedian line is usually present, strongly contrasting with the yellow ground color of the the basal and medial areas of the wing (sometimes extending beyond the postmedian). Similarly dark median and postmedian lines are often present, as well as a wider dark subterminal shade. Sometimes the bands are fused from the median outward to form a solid black outer portion of the wing. In these dark forms, the inner edge of the black portion is more curved or irregular than in E. semicrocea.

DISTRIBUTION: Occurs in both the northern and southern Coastal Plain, including the Fall-line Sandhills. Formerly, at least, it was also recorded in several bogs in Montgomery County and in Wake County in the eastern Piedmont. However, it now appears to be extirpated from that region.

FLIGHT COMMENT: Possibly just a single adult flight in North Carolina, from May to July, with stragglers in August.

HABITAT: All of our records come from peatlands, including Low Pocosin and Pocosin Openings; peaty areas in Wet Pine Savannas and Sandhill Seeps; and from boggy, sediment-filled portions of beaver ponds and other shallow impoundments. Always found in association with its host plant, Sarracenia flava.

FOOD: Larvae are monophagous, feeding solely on Yellow Pitcherplant (Sarracenia flava) (Jones, 1907, 1921), which has been confirmed as the host in North Carolina.

OBSERVATION_METHODS: Comes well to blacklights. Both adults and larvae can be found by inspecting the tubes of their host plants.

NATURAL HERITAGE PROGRAM RANKS: G2G4 S2

STATE PROTECTION: Listed as Significantly Rare by the Natural Heritage Program. That designation, however, does not confer any legal protection, although permits are required to collect it on state parks and other public lands.

COMMENTS: This species, along with other members of this genus, is highly specialized on a habitat type that naturally had a extremely patchy distribution and that underwent a severe reduction in both its range and overall extent since European settlement due to conversion to croplands and pine plantations and to suppression of the natural fire regime. These trends, moreover, are still continuing. Surveys conducted by the Natural Heritage Program in 2009-2011 in the Sandhills and the Uwharrie Mountain region of the eastern Piedmont documented a particularly strong recent decline in Pitcher Plant populations. Even where a few plants have managed to survive -- or even where Sarracenia populations have recovered due to recent prescribed burning -- Exyra species could not be found, even where they had been seen as recently as the 1990s (S. Hall, upubl. data). While vigorous populations of Exyra ridingsii still exist on several large areas of habitat located on military lands, state parks, game lands, and private nature preserves, all of those are dependent on appropriate use of prescribed burning to support their metapopulations. At least one large tract of Low Pocosin and other peatland habitats -- located within the National Wildlife Refuges on the Albemarle-Pamlico Peninsula -- is highly threatened by salt-water intrusion associated with sea-level rise. Given these trends, this species has a high conservation concern in North Carolina, particularly in the Piedmont -- where it now may be completely extirpated -- and the Fall-line Sandhills.