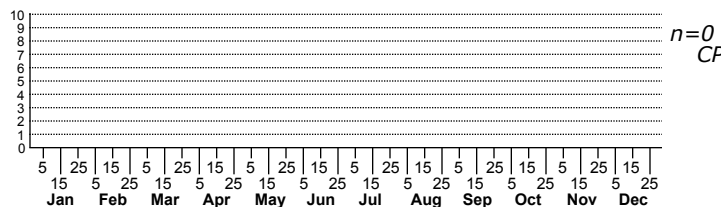
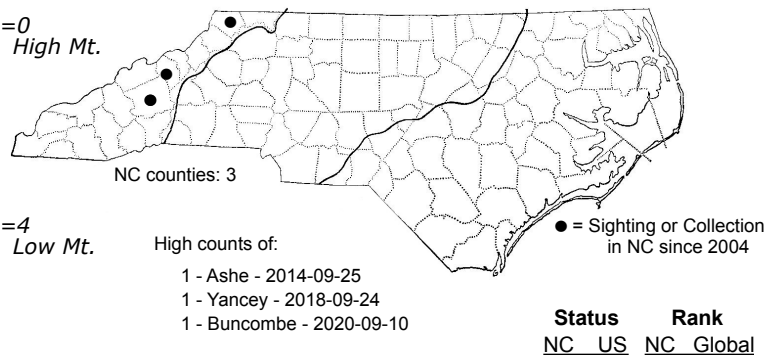
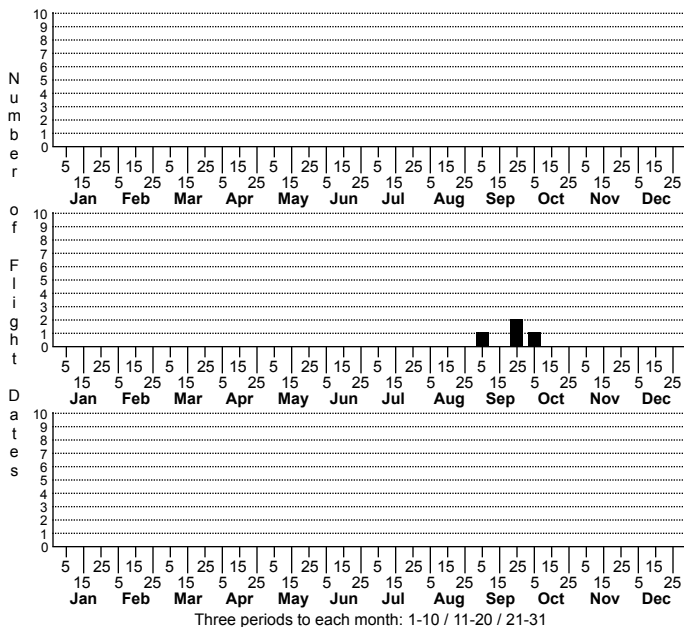


Papaipema cerina Golden Borer



FAMILY: Noctuidae SUBFAMILY: AMPHIPYRINAE TRIBE:

TAXONOMIC COMMENTS: One of 44 species in this genus that occur in North America north of Mexico (Lafontaine and Schmidt, 2010, 2015), 30 of which have been recorded in North Carolina

FIELD GUIDE DESCRIPTIONS: Beadle and Leckie (2012)

ONLINE PHOTOS:

TECHNICAL DESCRIPTION, ADULTS: Forbes (1954); Schweitzer et al. (2011)

TECHNICAL DESCRIPTION, IMMATURE STAGES:

ID COMMENTS: A medium-large *Papaipema*. The ground color of the forewings is a bright sunflower yellow, with dark brown shading in the antemedian and subterminal areas, as well as forming the outlines of the spots. The lines are reddish brown, as is the terminal area except for the apex, which is the same yellow as in the median area. The spots are fairly diffuse and the lines are waved to strongly dentate in the case of the postmedian. The hindwings are a paler buff color with diffuse grayish-brown lines and shading towards the outer margin; the fringe is mainly grayish- or reddish-brown mixed with buff.

DISTRIBUTION: Known in North Carolina so far only from the northern half of the Mountains

FLIGHT COMMENT: Univoltine, with adults flying in late September

HABITAT: Recorded in Rich Cove Forests between 2,950 and 3,800 ft. in elevation. Botanical surveys conducted in the vicinity of one of the trapping sites have documented the presence of Bottlebrush Grass, Mayapple, Starry Campion, Canada Lily, and Gray's Lily.

FOOD: Young larvae feed on Bottlebrush Grass (*Elymus hystrix*), switching later to Lilies, Mayapple, or Starry Campion (Schweitzer et al., 2011).

OBSERVATION_METHODS: Reported to come well to blacklights (Schweitzer et al., 2011)

NATURAL HERITAGE PROGRAM RANKS: G2G4 S1S2

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

COMMENTS: The range of this species is concentrated in the Great Lakes States. Prior to its discovery in Ashe County, it had apparently not been found south of Pennsylvania or northern New Jersey. Like several other disjunct species found at high elevations in the Southern Appalachians, *Papaipema cerina* is likely to be a Pleistocene relict in our area. Over much of its range, it is uncommon to rare, and is known only from historic records in many states (Schweitzer et al., 2011). The reasons for its decline are not yet documented, but over-browsing by deer of forest forbs is one possibility (Schweitzer et al., 2011). As a possible Pleistocene relict in our area, the threat due to global climate change is probably significant.