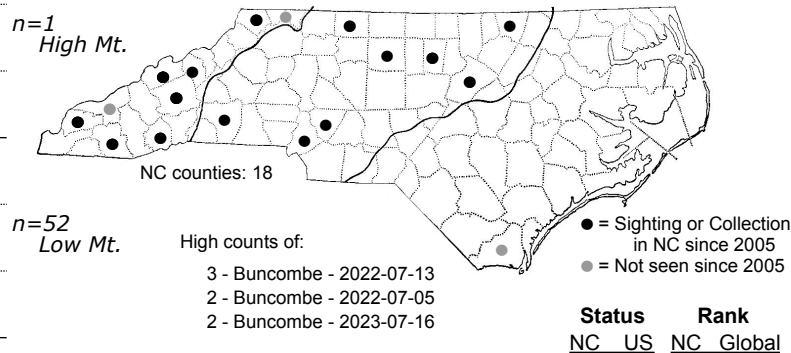
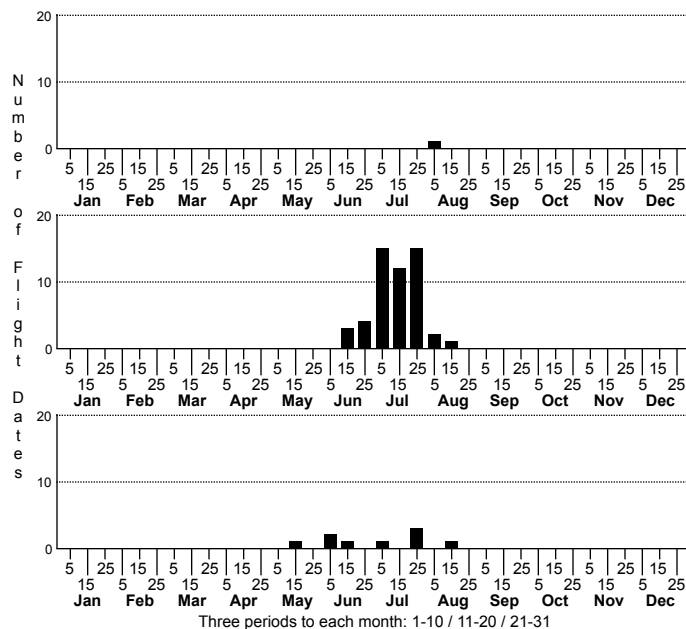


## *Manduca jaminearum* Ash Sphinx



FAMILY: Sphingidae SUBFAMILY: Sphinginae TRIBE: Sphingini  
 TAXONOMIC\_COMMENTS: A large Neotropical genus (63 species) of which 4 occur in North Carolina.

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

ONLINE PHOTOS:

TECHNICAL DESCRIPTION, ADULTS: Forbes (1948); Tuttle (2007)

TECHNICAL DESCRIPTION, IMMATURE STAGES: Forbes (1948); Hodges (1971); Tuttle (2007)

ID COMMENTS: A large, brownish sphinx moth with a strong dark line running diagonally across the forewing. Can be confused with the common *Ceratomia undulosa*. The latter has three lateral black lines in the forewing whereas *M. jaminearum* has the one principal line, which is much broader than in *C. undulosa*, and a small medial dash below it. There is only a faint white reniform spot, if any, unlike the conspicuous spot found in *C. undulosa*. Sexes are similar.

DISTRIBUTION: Probably occurs across most of the state, with the possible exceptions of the Barrier Islands and High Mountains.

FLIGHT COMMENT: A single brood with adults usually in June and July, more common in the mid-elevation forests of the mountains.

HABITAT: We have too few records to say much specifically about the range of habitats used by this species. Most come from rich riparian areas, including brownwater river floodplains in the Coastal Plain. In the Mountains, mesic upland habitats are used, probably where there are mafic soils that are preferred by ashes.

FOOD: Larvae are believed to be stenophagous on ash (*Fraxinus* spp.) but larvae are rarely found in the wild (Forbes, 1948; Covell, 1984). Green Ash (*F. pennsylvanica*) and White Ash (*F. americana*) are probably the main species used. None of our records come from swamp forests, where Pumpkin Ash (*F. profunda*) and Carolina Ash (*F. caroliniana*) occur. There is a BugGuide record (Maria de Bruyn, 2016) for a larva on an unidentified ash in North Carolina, but more research is needed into the specific hosts used in our state.

OBSERVATION\_METHODS: Adults are found where there is ash in hardwood forests. There are no nectaring records but the species seems to come readily to lights but not baits -- in the right habitat, this species can be quite regular at lights placed in forested areas.

NATURAL HERITAGE PROGRAM RANKS: G4G5 SNR [S2S3]

STATE PROTECTION: None currently, but we recommend that it be added to the Natural Heritage Program Watch List.

COMMENTS: This species is likely to be a specialist on habitats with rich soils, which are preferred by most of our ash species (swamp species being the only exceptions). Such habitats are still plentiful in the state and the absence of records from areas such as the Lower Roanoke Floodplain, where ashes are abundant, suggests that this species may be undersampled unless mercury-vapor or high intensity UV floodlamps are used. Whatever its pre-Emerald Ash Borer status in North Carolina, the arrival of that exotic beetle in the state in 2013 poses a severe threat to this species and to other ash specialists. If ash species go the way of the American Chestnut -- which seems possible -- there is a good chance that this species could go extinct within the next 50 years (see Wagner, 2007, for a discussion of this threat).