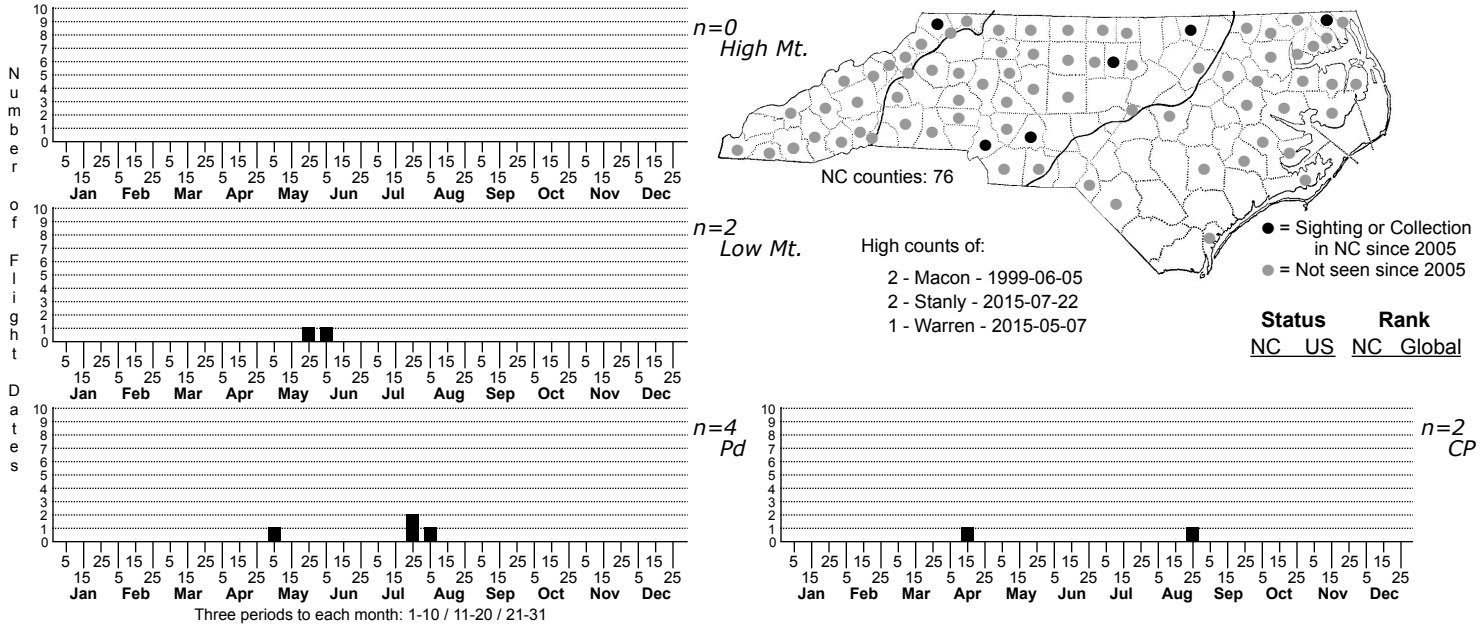
Ostrinia nubilalis European Corn Borer Moth



FAMILY: Crambidae SUBFAMILY: Pyraustinae TRIBE: Pyraustini
TAXONOMIC_COMMENTS: This genus was recently revised by Yang et al. (2021), with fifteen species now described worldwide. Four species occur in North America, and all occur in North Carolina. As described by Yang et al. (2021), O. nubilalis is included in their Clade II, the 'Penitalis Species Group'.

FIELD GUIDE DESCRIPTIONS: Covell (1984); Beadle and Leckie (2012)
ONLINE PHOTOS:
TECHNICAL DESCRIPTION, ADULTS: Munroe (1976)
TECHNICAL DESCRIPTION, IMMATURE STAGES:

ID COMMENTS: The ground color is generally a brighter yellow than in our three native species in this genus, but the pattern of lines is generally the same. Unlike our other species, O. nubilalis is sexually dimorphic. The males are heavily shaded with brown, with patches of the pale ground color evident in the antemedian area, in the area in between the two spots, and beyond the postmedial line (Forbes, 1923). Females are generally brighter than our other three species, but in some cases may need to be dissected to be sure of the identification.

DISTRIBUTION: Ostrinia nubilalis was introduced to North America from Europe and was first documented in Massachusetts in 1917. It has since spread across much of the eastern and central U.S., as well as adjoining areas of southern Canada (Capinera, 2017). It occurs statewide in North Carolina.

FLIGHT COMMENT: The adults have been found from April through October in North America, with local populations having from one to four generations per year. Populations at the northernmost latitudes typically have a single generation, while those in Virginia southward can have three or four generations annually (Capinera, 2017).

HABITAT: Most of our records probably come from croplands (Wray, 1976). Natural habitats where this species has been collected include some lowland areas but also several upland habitats such as dry ridges.

FOOD: This polyphagous species is a major pest of corn crops, but a wide variety of other plant species are also used (Caffrey and Worthley, 1927; Munroe, 1976; Heppner, 2007; Solis, 2008; Robinson et al., 2010; Capinera, 2017). It has been found feeding on numerous cultivated crops such as turnips, cotton, lettuce, strawberries, rhubarb, celery, peanuts, common oats, barley, millet, sorghum, common hops, beets, clover, cayenne pepper, tomatoes, tobacco, fennel, garden peas, soybeans, sunflowers, peaches, and apples. It also attacks ornamental flowers such as cannas, dahlias, cosmos, gladiolus, chrysanthemums, and hollyhocks. Examples of other reported hosts that are mostly weedy species include Redroot Amaranth (Amaranthus retroflexus), Lesser Burdock (Arctium minus), Mugwort (Artemisia vulgaris), beggarticks (Bidens spp.), jimsonweed (Datura spp.), Common Barnyard-grass (Echinochloa crusgalli), Marijuana (Cannabis sativa), Annual Sunflower (Helianthus annuus), smartweeds (Polygonum spp.), Curly Dock (Rumex crispus), Bitter Dock (R. obtusifolius), and Johnson Grass (Sorghum halepense). Caffrey and Worthley (1927) noted that many of these are used because they grow in close proximity to corn plants.

OBSERVATION_METHODS: The adults are attracted to lights and pheromone traps, and the larvae can be found on corn, potatoes, and other host plants.

NATURAL HERITAGE PROGRAM RANKS: G5 SE

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

COMMENTS: This introduced pest is of no conservation concern.