The genus Heliothis Ochsenheimer (Noctuidae) in Louisiana

by
Vernon Antoine Brou Jr., 74320 Jack Loyd Road, Abita Springs, Louisiana 70420  email: vabrou@bellsouth.net

ABSTRACT. Records for four species of the genus Heliothis in Louisiana are discussed, and dates of capture are displayed and compared. For one species, Heliothis phloxiphagus G. & R. specific location and capture dates are newly reported for Louisiana.

Additional key words: corn earworm, light traps, tobacco budworm, voltinism.

Poole, Mitter, and Huettel (1993) revised the Heliothis virescens (Fabricius) species group, recognizing 13 species, eight of them described as new. H. virescens, known as the tobacco budworm is considered a major agricultural pest, and Heliothis subflexa (Guenee), a minor pest. These authors state virescens occurs from portions of Canada, south through most of South America, and the similar looking and often easily confused subflexa, occurs over much of the United States, south to most of South America.

In 1965, Hardwick created the subgenus Helicoverpa for the agricultural pest species zea (Boddie). In Louisiana, three species: Helicoverpa zea, H. virescens, and H. subflexa occur commonly, as well as the much less often encountered Heliothis phloxiphagus G. & R. Numerous authors previously reported zea and virescens from Louisiana. These two species, along with subflexa were listed for Louisiana by Chapin and Callahan (1967). Chapin, et.al., (1997), again listed zea, virescens, as well as phloxiphagus from numerous pheromone traps operated in 12 mostly northern parishes of the state. During the past 30 years, this author has recorded these species from the following Louisiana parishes (Fig. 3):

H. zea: Ascension, Natchitoches, Orleans, Lafourche, St. Charles, St. John the Baptist, St. Tammany, and W. Feliciana. H. virescens: Ascension, Beauregard, Iberville, Lafourche, Natchitoches, Orleans, St. Charles, St. John the Baptist, St. Tammany, Tangipahoa, and

Fig. 1. Voltinism of Heliothis virescens (F.) at Abita Springs, St. Tammany Parish, Louisiana, 1986-94. n = 1966
Webster, **H. subflexa**: Cameron, Lafourche, Natchitoches, Orleans, St. John the Baptist, and St. Tammany, **H. phloxiphagus**: Cameron, St. John the Baptist, and St. Tammany.

No information was given by Poole, Mitter, and Huettel (1993) nor by Hardwick (1996), concerning the flight periods of *virescens* or *subflexa*. Covell (1984) stated *virescens* has two broods. Forbes (1954) stated *zea* is a continuous breeder, and *phloxiphagus* has two broods. But neither Covell nor Forbes offered any evidence for these statements. Oliver and Chapin (1981) indicated *zea* has four to five broods and *virescens* requires 50 days for one brood with three or four broods occurring in Louisiana.

This author has captured adult *virescens* using ultraviolet light traps in all 12 months in Louisiana. Based on a sampling of capture dates (Fig. 1), it appears there are five or six broods of *virescens* occurring at approximately 45-day intervals, with first brood peaking approximately April 25. Nevertheless, such statements without analysis are misleading, as brood four of *virescens* occurring in September accounts for about 95% of all captured specimens. Based on a smaller sampling of capture dates (Fig. 2), it appears there are at least 5 broods of *subflexa* in Louisiana occurring at approximately 40-day intervals with first brood peaking early May. In Louisiana, based on a sampling of over 2000 specimens, *zea* appears to have at least six broods at approximately 40-day intervals with the initial brood peaking about April 11. Adult specimens of *zea* have been captured in all months except December in Louisiana, though 98% were captured July through October using ultraviolet light traps.

![Graph showing the number of adults collected per month](image)

**Fig. 2.** Voltinism of *Heliothis subflexa* (Guenee) at Abita Springs, St. Tammany Parish, Louisiana, 1986-97.  
*n* = 89
Fig. 3. Distribution of species in Louisiana.

Literature cited


