

Some Aspects of the Biology and Behaviour of *Sesamia nonagrioides botanephaga* Tams and Bowden (Lepidoptera: Noctuidae), a Major Stem Borer Pest of Maize in Southern Ghana

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Abstract

Studies were conducted on the stem borer, *Sesamia nonagrioides botanephaga* Tams and Bowden (Lepidoptera: Noctuidae), which is a pest of increasing importance on maize in Ghana, to elucidate some aspects of its biology and behaviour in southern Ghana. The pest was more abundant in the minor season than in the major season. The life cycle revealed 10 developmental stages, namely the egg, six larval instars, prepupa and pupa. A female *S. n. botanephaga* laid eggs within a period of 5 days. The eggs were deposited on the inner side of the leaf sheath fitting tightly onto the maize stem. The mated females laid more eggs per female (330 ± 17.7 eggs) than the virgin females (268 ± 9.2 eggs). The incubation period of the eggs was 5.23 ± 0.03 (5-7) days. The mean larval duration was 29 days and the prepupal period lasted for 1-3 days. The first instar larvae dispersed within 1-3 days after hatching. The third, fourth, fifth, and sixth instar larvae fed actively on maize stalk producing large quantities of frass. The pupal period varied from 6 to 10 days. The life cycle was completed in an average of 35.2 (26-51) days. Adults of *S. n. botanephaga* lived for between 4-10 days. The adults reared in the laboratory showed a sex ratio of 2:3 (male : female), which was significantly different from the expected ratio (1:1). The implications of these findings are discussed in relation to the effective management of the pest in Ghana.