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Seasonal incidence of *Plutella xylostella* (Lepidoptera: Plutellidae) and its associated natural enemies in major crucifer growing areas of Kenya.

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ABSTRACT

*Objective***:** Seasonal incidences of *Plutella xylostella,* diamondback moth (DBM) and its associated natural enemies were investigated in two agro-ecological zones of the major crucifer growing areas of Kenya in 2005 and 2006.

Methodology and results: DBM larvae and pupae were collected from the cabbage and kale crops grown in farmers' fields and maintained in the laboratory for the emergence of parasitoid or DBM. Four larval, one larval-pupal and one pupal parasitoid species were recorded from diamondback moth. The parasitoids recovered were *Diadegma semiclausum, D. mollipla, Itoplectis* spp., *Cotesia plutellae, Apanteles* spp., *Oomyzus sokolowskii* and *Brachymeria* species. *Diadegma semiclausum* was the most dominant species throughout with highest parasitism rates of over 70% recorded in the highlands. *Cotesia plutellae*, *Apanteles* and *Brachymeria* were recovered from mid-altitude semi arid areas. Generally, parasitism was significantly higher on *B. oleracea* var. *capitata. Diadegma semiclausum* displaced the indigenous parasitoids from *Brassica oleracea* var. *capitata.*

Keywords*: Brassica oleracea, parasitoids, diamondback moth, seasons, agro-ecological zones*