

Life cycle of the fruit borer in Mangrove Apple, *Sonneratia caseolaris* (L.) Engl., in Sri Lanka

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The main objective of the present study was to describe the life cycle of the fruit borer in mangrove apples, a prerequisite for controlling the major pest of mangrove apple fruits as it will pave the way to commercialize the newly patented mangrove apple fruit product.

The studied pest was found to be a moth (microlepidopteran) belonging to Order Lepidoptera, Sub Order Ditrysia, Super Family Noctuoidea, Family Noctuidae and Group Trifinae. The study was conducted in mangrove localities with *Sonneratia caseolaris* in southern Sri Lanka. Fruit borer infested mangrove apple fruits were collected and larval stages were isolated and reared until the adult emerged in laboratory conditions. Emerged adults were allowed to mate and subsequent stages of the life cycle were obtained. In this study, general biology of the fruit borer life cycle was described for the first time in the world. The female moth laid eggs at nights on the pericarp closer to the calyx of *S. caseolaris* fruits. Mean number of eggs observed from a single fruit was 10.25 ± 1.10 and the average incubation period was 4.250 ± 0.323 days. Larvae enter the fruit and feed only on internal tissues while going through five larval stages. Cannibalism was observed among larvae. At the end of the larval period of 11.250 ± 0.577 days, pupation takes place in soil. The mean pupation period is

11.500 ± 0.577 days. Average life span of the adult moth is 4.250 ± 0.323 days for the female and 3.750 ± 0.382 days for the male moth. Hence, the total duration of the life cycle was 31.25 ± 0.495 days for the female moth and 30.75 ± 0.472 days for the male moth. Female: male sex ratio of the adults was 2:1.

Key words: Fruit borers, Life cycle, Moth, *Sonneratia caseolaris*

Acknowledgement: 'Greendyke Project under VLIR Own Initiatives Programme' (Ruhuna University, Sri Lanka & Vrije Universiteit Brussel)