

Some biological facts on the mangrove apple fruits borer (Lepidoptera, Noctuidae) and a clue for a possible controlling measure

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Sonneratia caseolaris ('Kirala' in Sinhala and 'Mangrove apple' in English) is a true mangrove species abundant in low saline mangrove areas of Sri Lanka. It has a distribution throughout Southeast Asia and many other tropical countries also. The ripe fruit of this species is edible and, in Sri Lanka it is used to prepare a fruit drink that is reported as nutritionally rich. Some folks believe that the drink has healing power on various ailments. Ripe fruits are sold for 5 ± 2 rupees each. A glass (100 ml) of a mangrove apple fruit drink is usually sold for 20-25 rupees.

However, the commercialization of this mangrove product has been obstructed by an infestation of fruits with a larval stage of an insect (Mangrove apple fruit borer) without obvious visual signs from outside and hence making difficult for pre selection of pest-free fruits. Fruit borer is a moth which lays eggs at night around the calyx area of the fruit. Larva entered fruits and feed inside. Fecal matter is accumulated inside the fruit making it less attractive to the consumers. The biology or taxonomic identity of this fruit pest is not known and hence control measures cannot be designed and applied.

According to the samples collected randomly from *S. caseolaris* stands in riverine mangrove areas of Walawe ganga & Nilwala ganga estuaries, in southern Sri Lanka, the fruit borer larvae damage was 40 % to 60 % of the

mangrove apple fruits. The number of weaver ant colonies in mangrove apple trees were negatively correlated with the abundance of the fruit borer eggs laid on fruits (Spearman correlation -0.738, $p = 0.015$) as well as with the percentage damage of fruits (Spearman correlation -0.652, $p = 0.041$). These data indicate that encouraging weaver ant colonies might be effective in controlling the fruit borer.

Key words: Economic value, Fruit Borer, Mangrove Apple Fruit, Pest attack, Weaver ants

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