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Identification and biology of the palm weevil, *Rhabdoscelus maculates* in foliage palm nurseries

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The palm weevil, *Rhabdoscelus maculates* was recently found to be an important pest of ornamental palms in foliage nurseries in Sri Lanka. Although the incidence of this weevil is restricted to ornamental palm nurseries, there is a very realistic risk of it becoming a pest of important cultivations such as coconut and sugarcane. Identification and the biology of this weevil was therefore, studied with the view of finding a suitable, environmental friendly control method.

The adult is a small, reddish-brown weevil with two black markings on the elytra and the thorax. It is about 12-16mm long and 4-6mm wide. Adults are usually found hiding under leaf sheaths of the palm during the day. They are nocturnal in habit and feed on the plant sap. Eggs are laid inside cavities made in the leaf sheath by mature females. These hatch in about 5-6 days. The larva is a creamy white, legless grub with rounded, highly sclerotized, reddish brown head capsule. After emerging it burrows down the leaf sheath and then tunnels into the stem. The diameter of the tunnel varies with the larval stage (5-7mm). Tightly packed, fine pieces of fiber are always observed in the tunnel behind the larvae. After about 20-25 days the larvae burrow into the bud of the palm feeding on the young tissue and the buds of attacked plants can be easily removed. Infestation of the palm is revealed by a jelly like substance oozing from the holes in the leaf sheaths. Larva takes about 8-10 weeks to complete its development. Pupation takes place inside a cocoon made with tightly bound, fibrous material. The pupal period is 19-21 days. The emerging adult chews and makes a small exit hole in the cocoon as an escape route. The total life cycle takes 9-10 weeks to complete with four generations per year.

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