Pacific Pests, Pathogens, Weeds & Pesticides - Online edition

Hibiscus flower-eating beetle (400)

Common Name

Hibiscus flower-eating beetle

Scientific Name

Genus and species unknown. A chrysomelid beetle of the subfamily Cryptocephalinae.

Distribution

Probably native to Fiji, but possibly present elsewhere; it is awaiting identification. There are about 20 species in Fiji, and they are unusual in that they are derived entirely from a flower-feeding group.

Hosts

Hibiscus. Commonly found on flowers of Myrtaceae, the myrtle family; this family includes *Eucalyptus*, *Melaleuca* and *Eugenia*.

Symptoms & Life Cycle

The adult beetle eats holes in the flowers (Photos 1-3). The biology of most species of Cryptocephalinae is not well known. In general, the female drops its eggs, coated in faeces, onto the soil; presumably the faeces protect them from scavenging enemies. The eggs usually have a distinct spiral ridge. However, the larvae may take up to 2 years before they become adult.

The larvae feed on dead leaves and bark on the ground, but there is speculation that many also feed part time on living plants. The larvae are so-called 'case-bearers': they live in pear-shaped cases of their own faeces with only the head and legs visible. They are nocturnal.

The adult beetles (those feeding on hibiscus in this fact sheet) are 2.5 mm long, with brown head and pronotum (the region behind the head partly covering the thorax), and black forewings. Other species are much smaller.

Photo 1. Holes in leaf caused by the hibiscus flower-eating beetle; Note, 'male-gating'.

Photo 2. Holes in leaf caused by the hibiscus flower-eating beetle, and 'male-gating'.

Photo 3. More extensive damage by the hibiscus flower-eating beetle.

Impact

Cryptocephalinae are very rarely recorded as pests since they are so small and rarely occur in large numbers. They are probably ‘cryptic’ pests (i.e., not pests but look like those that are). However, there is a species that eats eucalypt seedlings as well as dead leaves and bark in managed forests, and this may affect the succession of trees. Another member of the Cryptocephalinae, *Diachus auratus*, the bronze leaf beetle, is found worldwide, and is now in Pacific island countries and attacks *Leucaena*.

Detection & inspection

Look for beetles, about 2.5 mm long, brown heads, black forewings, eating holes in hibiscus flowers. Look to notice that the beetles invariably seem to be copulating, with males on top of females, but this may be behaviour known as 'male-gating', done to keep rivals at bay (Photos 1&2).

Management

It is unlikely that control measures will be required against this beetle: it is small and does not occur in large numbers, on the flowers of hibiscus at least. If troublesome, use cultural control measures, such as hand picking, making sure to check at different times during day and night for the highest populations.

If this is not sufficient, try home-made extracts of neem leaves/stems or seeds (boiling the neem in water, cooling, and adding a small amount of soap). Alternatively, use a commercial pesticide made from neem oil, following the instructions. Sprays with commercial pyrethrum, or home-made from chilli fruits also have potential.

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