

# Water Hyacinth Planthopper

The water hyacinth planthopper, *Megamelus scutellaris*, is the most recent agent to be released on water hyacinth, *Eichhornia crassipes*, in South Africa



Water hyacinth planthopper

## What does the water hyacinth planthopper look like?

Adult plant hoppers are small sap sucking insects, about 3 mm long. Colouration varies from pale cream to dark brown and adults may or may not possess wings.

## Wings or no wings?

Flight in planthoppers is often an adaptation for dispersal, allowing them to leave areas of poor nutritional quality and find somewhere offering better conditions. Water hyacinth planthopper nymphs may develop into winged adults if nutrient levels in the plant drop below a certain level, this may also be related to population density. The frequency of winged adults increases as plant quality deteriorates.



Adult water hyacinth planthoppers without wings (bottom left) and with wings



Oviposition scars made by the female water hyacinth planthopper

## Life Cycle

Adults can live for up to 80 days and females lay many eggs in their life time, positioning them in pairs at the base of the leaf. Eggs hatch after 7-13 days and nymphs develop through 5 instars, feeding on leaves and petioles. They become adults about 25 days after hatching.

### How much damage does the water hyacinth planthopper do?

Planthoppers feed on sap. They pierce the plant tissue, damaging cells. Damage in the petiole leads to water logging, which reduces plant buoyancy and causes the tissue to rot.

Damage is evident once leaves start to turn brown, and a sooty mould develops on the leaves.



Feeding damage by the water hyacinth planthopper



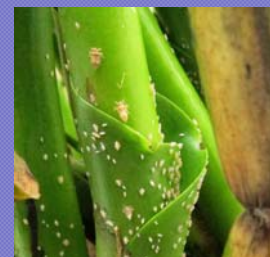
Boxes used to transport planthoppers

### How do I introduce the water hyacinth planthopper?

The water hyacinth planthopper is mass reared at Rhodes University. Adults are collected off the plants, packaged with a supply of water hyacinth leaves and petioles and can be sent countrywide. Initial release should include at least 2000 planthoppers. It is best to introduce insects during summer, when warmer temperatures support population growth.

### How do I know if the water hyacinth planthopper has established?

It takes time for planthopper numbers to increase to a substantial number, capable of causing visible plant damage. A few weeks after release, nymphs should be seen around the base of the plant and up the petioles (the bulbous stem).



Nymphs at the base of the stem, indicating establishment

#### For more information

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