

# THE WATER LETTUCE WEEVIL

(*Neohydronomus affinis*)

A natural enemy of

**WATER LETTUCE/WATERSLAAI**

(*Pistia stratiotes*) in South Africa

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DOSSIERS ON BIOLOGICAL CONTROL AGENTS AVAILABLE TO AID ALIEN PLANT CONTROL

## DESCRIPTION

*Neohydronomus affinis* is about 1.8mm long. Adult colour varies from brown to bluish gray and they are covered in dense scales. Bare patches form where the scales are rubbed off and give the adults a "chevron like" pattern. Adults are found on the underside of leaves, amongst the hair, above the water line.

## LIFE CYCLE

Cream-coloured eggs are deposited singly in shallow pits, mainly near the tip on the upper surface, under the epidermis of young leaves, and are covered by a black substance. Females lay one egg per day. Eggs hatch in 3-4 days. Larvae are yellow, tunnel in within the leaves and can sometimes be seen on the underside of leaves between the leaf ribs. Three larval stages are completed in about 11 and 14 days when they pupate in small chambers for 4-5 days. The complete life cycle takes between 25 and 30 days in summer. The life cycle is longer in the cooler spring, autumn and winter and shortest in summer.

## FEEDING DAMAGE AND EFFECT ON WATER LETTUCE

Adult weevils make small holes into and through the leaves. The larvae tunnel inside the leaves. This feeding and tunnelling allows water to enter the air filled cells, which leads to waterlogging and sinking of the plants. The weevils and larvae are temperature dependant, thus it takes longer to effect control in cooler than in warmer areas. Severe to complete decline in the water lettuce population can be observed 18 - 24 months after the establishment of the water lettuce weevil.



Adult Water Lettuce weevil



Pistia damage by weevil larvae



Lower Sabie River BEFORE Water Lettuce weevil damage



Lower Sabie River AFTER Water Lettuce weevil damage



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**WEBSITE: PPRI website is located via links from the Agricultural Research Council website: [www.arc.agric.za](http://www.arc.agric.za)**

