

SALVINIA WEEVIL

(*Cyrtobagous salviniae*)

A natural enemy of SALVINIA (*Salvinia molesta*), a free-floating fern, in South Africa.

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DOSSIERS ON BIOLOGICAL CONTROL AGENTS AVAILABLE TO AID ALIEN PLANT CONTROL

DESCRIPTION

The adult weevils are small, about 2mm in length and black. Newly emerged adults are light brown on emergence and then turn black.

LIFE CYCLE

Adults can live for several months. On salvinia they are found on or near the growth tips or amongst the roots. Eggs are deposited singly on salvinia in cavities chewed by the female in unopened buds or amongst roots. Eggs hatch in about 10 days. Females lay 2-5 eggs per day over 60 days. On average the white crescentic larvae complete three instars (stages) in 23 days before pupating in a cocoon. The cocoon is spun beneath the water surface in close contact with or amongst the roots. The prepupae and pupal stage is completed in 10-15 days. The total life cycle, dependant on temperature, is completed in 31-68 days. Dispersal of adults is rarely by flight, but mostly by the weevils walking or dispersed with their free-floating host plant.

FEEDING DAMAGE

Young larvae feed on the buds (growth tips) and roots while older larvae tunnel into the rhizomes causing leaves to darken and drop off. Adult feeding damages the growth tips and young leaves. Damaged plants become waterlogged and sink. The presence of damaged growth tips is the most characteristic indicator of the presence of the weevils.

EFFECT ON SALVINIA (*Salvinia molesta*).

Cyrtobagous salviniae is a very effective agent for the control of salvinia. Weevil damage causes the plants to turn brown and eventually sink and rot. Depending on climate and extent of a salvinia infestation, mats sink within 1-3 years.



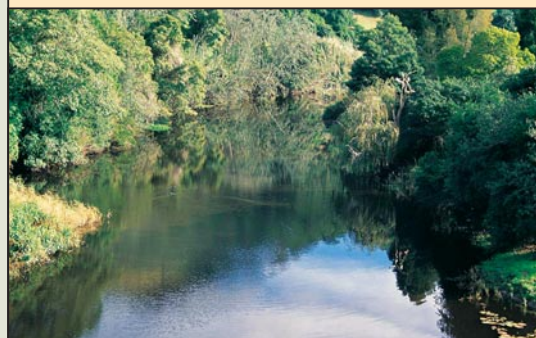
Cyrtobagous salviniae



Salvinia molesta. Inset shows weevil damage.



Salvinia BEFORE bio-control



Salvinia AFTER bio-control



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ADDITIONAL INFORMATION IS AVAILABLE. PHONE: Weedbuster Toll-free Helpline: 0800 005 376
WEBSITE: PPRI website is located via links from the Agricultural Research Council website: www.arc.agric.za

