

# Backing the bugs (to control water weeds)



megamelus\_scutellaris\_D\_Taylor\_wacinek2

Our 'secret agent' bugs, the water hyacinth hoppers, or *Megamelus scutellaris*, on a water hyacinth leaf.

*Water weeds are invading many of our waterways, with hyacinth being the most infamous of all. Through community engagement and community involvement, researchers are nevertheless working hard towards the shared goal of clearing the water systems that are invaded with hyacinth and other water weeds. The most effective method of control has been to use bug 'secret agents' to control these populations.*

The Centre for Biological Control (CBC) is a research centre based at Rhodes University although it collaborates with many institutes in South Africa and abroad. The CBC focuses the majority of their research on understanding the ecological dynamics of invasive pests, and the biological control of aquatic and terrestrial weeds in particular.

A large proportion of this work is the development of biological control methods for these invasive plants, which can then be used by implementers and managers. Biological control is a process whereby natural enemies, that are host-specific, are used to control populations of the invasive species. It is a particularly appealing solution because it is not toxic, pathogenic or dangerous to humans. It also does not harm non-target organisms found in the environment and is safe. There are a number of different research programmes within the CBC which focus on various groups of target plant species, and different aspects of biological control.

## Weedy waterways and bug agents

South Africa has a particular problem with aquatic weed species which includes water hyacinth, parrot's feather, *Salvinia* spp. and water lettuce. Biological control continues to be the most successful method of control for the aquatic weeds.

We have seen continued success in the control of water hyacinth following a focused mass-rearing and release campaign of the insect known as the water hyacinth hopper, *Megamelus scutellaris*, at a number of invaded sites around the country, including Hartbeespoort, Roodeplaat and Bospoort dams.

This joint venture, whereby community members rear agents (the bugs) or financially support biocontrol on these systems, has been highly successful. There are currently 10 small-scale mass-rearing facilities around dams in the highveld region resulting in huge numbers of the bug





**A CBC researcher, together with a community member, releasing biocontrol agents (bugs) onto a controlled hyacinth population.**

agents being released against water hyacinth. In addition, the CBC ran a crowdfunding page earlier this year and managed to raise over R120 000 to support the CBC's efforts to keep sending biocontrol agents from Makhanda's mass rearing facility on a regular basis.

The CBC continues to drive the implementation of their research through engaging with community members who

are on the ground. By backing the bugs that we release on your water systems to do this very necessary job, you too can play your part!

*Article written by Kim Weaver  community engagement officer of the Centre for Biological Control in the Zoology and Entomology Department at Rhodes University.*

<https://pixabay.com/photos/water-hyacinth-plant-purple-blossom-989003/>



Ukhula lwasemanzini luhlasela amanzi amaningi esiwasebenzisayo, ikakhulukazi i-hyacinth, okuyiyona evelele. Ngokubambisana nemiphakathi, abacwaningi basebenza kanzima ukukhuculula amanzi asehlaelwe i-hyacinth nolunye ukhula olutholakala emanzini. Indlela esebenza ngempumelelo ukukhuculula lolukhula ukusebenzisa I bug “umcuphi oyimfihlo”.

*Translated by Zamantimande Kunene*

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2022-12

# Quest Volume 18 Number 4

**Academy of Science of South Africa (ASSAf)**

Academy of Science of South Africa (ASSAf)

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Please cite as: Academy of Science of South Africa (ASSAf) (2022) Quest: Science for South Africa, 18(4). Available at: <http://hdl.handle.net/20.500.11911/263>

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