

Rust fungus to tear backbone out of boneseed

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Fructing bodies of the rust fungus, *Endophyllum osteospermi*, a potential biological control agent for the weed, boneseed (*Chrysanthemoides monilifera* subspecies *monilifera*). Image credit – CSIRO

CSIRO's newly refurbished containment facility for exotic insects and plant pathogens in Canberra is hosting a species of rust fungus which shows promise as a biocontrol agent for the highly invasive plant pest, boneseed.

Named as one of Australia's 20 Weeds of National Significance, boneseed is a threat to native bushland in south eastern Australia where it forms dense, evergreen monocultures that prevent the growth and regeneration of native plants.

Boneseed has been the target of a collaboration between CSIRO and the

Plant Protection Research Institute in Stellenbosch, South Africa, to investigate the possible use of the rust species *Endophyllum osteospermi* as a biocontrol agent.

“In its home range in southern Africa, boneseed is attacked by a naturally occurring species of rust fungus,” says Dr Louise Morin from CSIRO Entomology and the Cooperative Research Centre (CRC) for Australian Weed Management.

“Boneseed rust is highly promising as a biocontrol agent for boneseed because it reduces growth and reproduction of the plants, deforming infected branches into ‘witches’ brooms’.”

Initial host specificity testing was done in South Africa and the rust is now in quarantine in Canberra for the final testing that is required before an application to release can be made.

Boneseed is currently confined to the south-east of Australia, in particular the Mornington Peninsula and the You Yangs in Victoria, and the Mount Lofty Ranges in South Australia. Other small, scattered infestations occur throughout Victoria, Tasmania and South Australia. The plant has the potential to invade much of southern Australia, endangering native flora and fauna wherever it establishes.

Boneseed (*Chrysanthemoides monilifera* subspecies *monilifera*) is often confused with its close relative, bitou bush (*Chrysanthemoides monilifera* subspecies *rotundata*), which was targeted in an earlier biological control program. It was introduced into Australian gardens around 150 years ago.

Source: CSIRO

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