

Hybrid possum gives endangered species a chance

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Australian researchers have successfully bred two genetically distinct Mountain Pygmy-possums, playing a major role in preventing the endangered population in the Victorian Alpine region from further decline.

The team, which included scientists from the University of Melbourne (Andrew Weeks), the Department of Sustainability and Environment (Ian Mansergh), and Healesville Sanctuary (Rupert Baker), as well as wildlife consultant Dean Heinze took six male Mountain Pygmy-possums, caught in the wild at Mt Hotham and released them at Mt Buller.

A temporary re-location of Mt Hotham males into the territory of females at Mt Buller during the breeding season has succeeded in producing the first wild-born male Pygmy-possum with [genetic features](#) from both populations.

Melbourne University's Dr Andrew Weeks of the Department of Genetics and Bio21 Institute said that the isolated populations of Mountain Pygmy-possums, Australia's only hibernating marsupial and confined to Alpine environments, had lost all genetic diversity and relocation was vital.

“The smaller populations meant the species was open to inbreeding which would affect their ability to survive and adapt to change and the hybrid offspring would reinvigorate the species, so this in an excellent

outcome,” he said.

DSE scientist Ian Mansergh said they couldn’t be more thrilled with the results. “We knew through the Healesville captive breeding program that the two genetically distinct Mt Hotham and Mt Buller populations could breed and it would strengthen the genetics of the Mt Buller [population](#).”

Mountain Pygmy-possums have one breeding season per year and can have up to four young at one time. In the wild during winter they hibernate at 2oC for up to six months under the snow.

Captive breeding commenced at Healesville Sanctuary in 2006. The program makes possible a future re-introduction of possums to supplement the Mt Buller population.

“We’re hoping to improve genetic diversity on Mt Buller so that it can sustain itself until the captive [breeding](#) program can re-introduce more animals,” said Dr Rupert Baker, Senior Veterinarian Healesville Sanctuary.

Provided by University of Melbourne

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