

Mountain Pygmy Possum (*Burramys parvus*) breeding centre and climate adaptation project

Mountain Pygmy Possums are the only true hibernating alpine marsupial of Australia. Currently living down in the Snowy Mountains, they have become critically endangered due to habitat loss, fragmented subpopulations, bushfires, decline of their primary food source Bogong moths, impacts of climate change and predation from feral cats and foxes. They were first found as a 10,000 year old fossil and were thought to be extinct, until a live one was discovered at Mt Hotham ski lodge in 1966. **This is our last chance to save the species.**

Project detail

The construction of a Mountain Pygmy Possum breeding centre at Secret Creek Sanctuary will allow us to have an insurance population onsite where we will be able to increase genetic diversity within the population and widen their environmental range, assessing the ability of the possums to breed and maintain populations in a warmer climate than their current natural habitat. The species lineage have survived in cool temperate lowland rainforest the last 24 million years. Australian Ecosystems Foundation have been working closely with key researchers in Australia's biodiversity, including Professor Mike Archer AM of the University of New South Wales (UNSW) and Senior Threatened Species Officer Dr Linda Broome of the NSW Department of Environment, Climate Change and Water (DECCW). For the past 8 years we have been developing this plan and are now at the stage of construction. Photo of MPP by Dr Linda Broome.



How is it all going to work?

The breeding centre will comprise outdoor enclosures with a thermally stable, insulated soil bank with nest boxes deep inside. There will be options for the possums to go inside an air-conditioned nest box or to an outdoor environment, allowing them to acclimatise. The nest boxes will be within a well insulated mud brick building built against the side of the outdoor enclosures. The thermal refuge room will enable us to move possums indoors if temperatures exceed the insulating capacity of the nest bank, or in case of fire. To maintain a cool and moist environment, a sprinkler system will mist the enclosures during hot, dry weather. The building will have quarantine rooms, animal preparation room and surgery, cleaning room, food preparation area, research and surveillance room and an office area.

The breeding program will use a low disturbance approach, keeping animal handling to a minimum. Monitoring cameras and microchip readers will keep records of all the possums. The program will remain in close contact with Healesville Sanctuary breeding program in Victoria and their advisory group to further the best chance of success for both locations.

There will be opportunities for innovative research projects for university students in relation to the breeding centre and climate adaptation project. Students will be able to examine why the Mountain Pygmy Possum is currently restricted to habitats above the winter snow line and discover if translocations will enable the species to thrive into a warmer future.

Help us preserve an important species of Australia's biodiversity so that ecosystems remain in balance.

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