

Zoos Victoria's Priority Species

# MOUNTAIN PYGMY-POSSUM

*Burramys parvus*

*Critically Endangered*



Zoos Victoria is developing the skills and expertise to manage this Critically Endangered species in captivity, while working with partners to monitor and support the possums in the wild. Housing them in specially-designed alpine-mimicking cool rooms at Healesville Sanctuary, we are working to uncover the

mysteries of their behaviour and reproductive biology, and optimise ways to hibernate possums each year as occurs in the wild. Zoos Victoria is refining husbandry techniques, as well as assisting with knowledge of wild populations, helping connect groups of wild possums, and fostering community support.

**ZOOS**  
**VICTORIA**  
*Fighting Extinction*



# Zoos Victoria is committed to Fighting Extinction

We are focused on working with partners to secure the survival of our priority species before it is too late.

**The Mountain Pygmy-possum is Australia's only hibernating marsupial with fewer than 2,000 individuals left in the wild. Zoos Victoria coordinates the captive breeding of this species, and has conducted cutting edge research into diet, behaviour, reproduction and hibernation. We are committed to uncovering the secrets of this tiny alpine warrior that spends half of its life asleep.**

## KEY PROGRAM OBJECTIVES

- Refine husbandry protocols to breed and maintain the species in captivity as part of an emergency response strategy.
- Support wild populations through increased connectivity of groups of possums.
- Assist partners with population monitoring programs in the wild.
- Increase community awareness of the plight of the Mountain Pygmy-possum and secure support for its conservation.

## PROGRAM OUTCOMES

- Successful annual hibernation of wild and captive-born possums in specialised temperature controlled enclosures.
- Refined husbandry practices and research to maintain natural seasonal behaviours.
- Refined seasonal diets to promote successful reproduction and hibernation.
- Successful reproduction, with over 100 young produced to date.
- Production of fertile possums that are crosses between two genetically distinct populations, to assist in increasing the genetic diversity of the Mt Buller population.
- Release of 13 possums to Mt Buller in 2013 with high survival and breeding success.
- Discovered that litters can be fathered by two different males, resulting in half siblings. This finding could have positive implications for ensuring that the population is genetically diverse.
- Assisted partners to build and monitor a new Tunnel of Love to connect groups of possums at Mt Little Higginbotham.
- Monitored possum populations in the wild and assisted long term recovery planning.

## THE SPECIES

Mountain Pygmy-possums are only found above 1,200m and inhabit deep extensive boulder fields. Females have a gestation period of just 13 days and a litter of up to four joeys can be weaned at a mere 9-10 weeks of age. These small terrestrial marsupials can hibernate for up to seven months per year under the snow, a necessary lifestyle trait they maintain to survive

in their cold environment. Historically, wild females can live for up to 12 years and males to 5 years, however the majority now only live for 1-3 years, largely due to threatening processes in their alpine homes. All three geographically isolated populations are threatened by:

- Habitat destruction and fragmentation (due to ski resort development and road, dam and aqueduct construction), erosion and weed invasion and increasing catastrophic events such as fires.
- Predation by feral animals, including foxes and cats.
- The effects of small population size and consequent inbreeding.
- A changing climate which reduces available habitat, interferes with the insulating effects of snow during hibernation and the seasonal migration of the Bogong Moths; a critical food source during the breeding season.

The migration of additional temperate species into these areas would also have devastating effects on the remaining populations of Mountain Pygmy-possums.

## THE PLAN

The following critical next steps will enable Zoos Victoria, along with our partners, to move forward knowing that we are doing everything we can to prevent the extinction of this species:

Undertake detailed population monitoring.	\$130,000
Timms Spur Tunnel of Love: Connect MPPs via new corridors.	\$260,000
Assess the efficacy of the Tunnel of Love at Mt Little Higginbotham.	\$10,000 p.a
Conduct MPP behaviour research in captivity by building new enrichment enclosures and installing infrared cameras.	\$40,000
Survey potential MPP habitat to find undiscovered populations, determine carrying capacity and map for protection and recovery.	\$12,000 p.a

Activations at our zoos and online that aim to increase community care and knowledge.	\$20,000
Create new enrichment and display tunnels for MPPs in the Nocturnal House at Healesville Sanctuary.	\$80,000
Maintain Zoos Victoria's captive bred population of MPPS.	\$1,150,000
<b>Total cost over five years</b>	<b>\$1,790,000</b>

## PROGRAM PARTNERS

Deakin University  
[deakin.edu.au](http://deakin.edu.au)

Department of Environment,  
Land, Water and Planning  
[delwp.vic.gov.au](http://delwp.vic.gov.au)

Falls Creek Alpine Resort Management Board  
Mountain Pygmy-possum Recovery Team

Mt Hotham Alpine Resort Management Board

Mt Buller and Mt Stirling Alpine Resort  
Management Board

Parks Victoria  
[parkweb.vic.gov.au](http://parkweb.vic.gov.au)

## How can I help?

We are working on refining our husbandry, and supporting possums in the wild, but we need all the support we can get. You can support our Wildlife Conservation Master Plan 2019-2024 by donating at: [zoo.org.au/donate](http://zoo.org.au/donate)