

Zoos Victoria's Priority Species

LEADBEATER'S POSSUM

Gymnobelideus leadbeateri

Critically Endangered



Photo: Tim Bawden

The Leadbeater's Possum is a priority for Zoos Victoria. We are applying emergency recovery measures for the last lowland population that now contains fewer than 40 individuals and is at very high risk of extinction. Healesville Sanctuary have set up special enclosures with infrared cameras to monitor the possum's behaviour and are trying to crack the code on how to breed the lowland possums in captivity. We are

searching for new and secure habitat where we could translocate lowland possums and are implementing strategies to restore genetic diversity in the population. We are also working closely with partners to protect and restore habitat for the future where we hope to one day release captive-bred possums. Zoos Victoria are committed to sharing the story of this enchanting little forest fairy to the community as we work together to save it.

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.



Once thought to be extinct, Leadbeater's Possum was rediscovered in 1961, and in 1971 was declared one of Victoria's faunal emblems. This species, endemic to Victoria, is increasingly under threat. Zoos Victoria's Healesville Sanctuary is currently the only institution in the world housing Leadbeater's Possums in captivity. Zoos Victoria's efforts to save the lowland Leadbeater's Possum are symbolic of our commitment to protecting our local fauna.

KEY PROGRAM OBJECTIVES

- Monitor wild populations to inform decision-making.
- Protect critical habitat.
- Develop reintroduction techniques.
- Identify suitable intact habitat for translocation.
- Undertake strategic translocations to support population recovery.
- Implement gene-pool mixing to restore genetic diversity.
- Overcome barriers to breeding lowland Leadbeater's Possums in captivity.
- Develop strategic partnerships to enhance habitat conditions across multiple locations.
- Raise community awareness about Leadbeater's Possum and support for its conservation.

PROGRAM OUTCOMES

- There is strong support among partners for a bold strategy being led by Zoos Victoria to restore lowland Leadbeater's Possum populations through translocation and gene-pool mixing.
- The suitability of numerous potential translocation sites has been evaluated, underpinned by habitat suitability modelling.
- Zoos Victoria are working with Parks Victoria to establish a habitat protection fence around the most critical remaining habitat for lowland Leadbeater's Possum in order to improve vegetation condition and reduce the impacts of browsing mammals.
- Working with our partners, habitat restoration for the possum is well underway, with more than one million trees and shrubs planted thus far to create future habitat.

THE SPECIES

Crucial to the survival of this species is the availability of old trees with hollows that provide dens for possums during the day. Leadbeater's Possums usually live in small family groups comprising a single breeding pair and their young. Pairs breed twice a year with just 1-2 young per litter. There are three main threats to the survival of the Leadbeater's Possum:

- **Loss of hollow-bearing trees:** Leadbeater's Possum is highly sensitive to the quality of forest, as well as the quantity. Possum families usually den in eucalypts that are more than 190 years old. The number of old trees with suitable hollows has decreased dramatically due to bushfire and logging.
- **Wildfire:** Fires periodically burn large areas of the montane ash forests which are home to highland Leadbeater's Possums. The 2009 Black Saturday bushfire burnt 45% of possum habitat. Monitoring following the fires revealed that possums were lost from burnt sites.
- **Restricted Distribution:** Leadbeater's Possum's restricted distribution (a 70 x 80 km area) makes the species highly vulnerable to extinction from catastrophic events such as fire.

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:

Design and implement a translocation strategy.	\$175,000 p.a
Design and implement a genetic rescue strategy for the wild population.	\$5,000 p.a
Maintain population monitoring and nest box monitoring.	\$220,000
Maintain Zoos Victoria's captive breeding program.	\$850,000
Investigate extent of cat and fox predation on wild LPBs.	\$120,000
Employ a species (lowland) coordinator.	YEAR 1 \$122,000
Partner with the "Yarra4life" program.	\$10,000 p.a
Collect a compilation of video and images.	\$40,000
Erect roadside signage near LBP population sites to build community connection to local species.	\$60,000

Activations at our zoos and online.	\$40,000
Community and targeted stakeholder engagement.	\$5,000 p.a
Total cost over five years	\$2,427,000

PROGRAM PARTNERS

Department of Environment, Land, Water and Planning
delwp.vic.gov.au

Friends of the Leadbeater's Possum
leadbeaters.org.au

Greening Australia
greeningaustralia.org.au

Melbourne Water
melbournewater.com.au

Monash University
monash.edu

Parks Victoria
parkweb.vic.gov.au

Port Phillip and Westernport Catchment Management Authority
ppwcma.vic.gov.au

Trust for Nature
trustfornature.org.au

University of Melbourne
unimelb.edu.au

How can I help?

We are working hard to breed possums in captivity and restore habitat, but we still need all the support we can get. You can support our Wildlife Conservation Master Plan 2019-2024 by donating at:
zoo.org.au/donate