

Zoos Victoria's Fighting Extinction Species

SMOKY MOUSE

Pseudomys fumeus

Vulnerable/Endangered



Photo: David Paul

The Smoky Mouse (*Pseudomys fumeus*) is a small soft-furred rodent endemic to mainland south-eastern Australia. Although once widespread, only two out of four known Victorian locations of this species still contain Smoky Mouse populations, and they are likely to be small and fragmented. Classified as Endangered, and with mounting evidence from field data of continuing and potentially

catastrophic population declines, Zoos Victoria believes that we are well positioned to work with partners to help recover the Smoky Mouse. The first step is determining the distribution and abundance of this gentle species. We can then work to support and recover the remaining populations and investigate ways to return the mice back to their former range, where they belong.

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.

Photo: Linda Broomea



The Smoky Mouse is known for its characteristic 14 centimetre long, two-toned pink and grey tail, and soft blue-grey fur. Little is known about the distribution and health of remaining populations of the Smoky Mouse, although recent camera surveys raised major concerns. Zoos Victoria is working with partners to learn more about the status of this shy and sweet native rodent and determine the best conservation actions for its recovery.

KEY PROGRAM OBJECTIVES

- Determine the status of the Smoky Mouse through surveys and genetic analyses.
- Locate 100 sites with Smoky Mice to set up a long-term monitoring program and triggers for conservation actions.
- Investigate locations and develop plans for future reintroductions to the Smoky Mouse's former range.
- Support captive breeding and reintroduction of Smoky Mice to Nullica, NSW.
- Develop appropriate husbandry protocols and a Victorian captive insurance program if required.
- Protect Smoky Mouse habitat.
- Increase community awareness of the plight of the Smoky Mouse and secure support for its conservation.

PROGRAM OUTCOMES

- Completed new habitat modelling of the Victorian Highlands and revealed locations potentially suitable for the Smoky Mouse to focus survey efforts.
- Developed a new widespread camera survey program with Museums Victoria.
- Found Smoky Mouse populations at 5/100 remote camera locations across the Highlands and Grampians-Gariwerd National Park.
- Investigated population and genetic health through capture and release surveys.
- Surveyed potential Smoky Mouse sites in the Otways, but the population is believed extinct.
- Supported a new research and captive breeding program to release mice to Nullica in NSW.

THE SPECIES

The Smoky Mouse weighs 30 to 86g and lives in a variety of habitats from wet ferny gullies to dry heathy forests. Its favourite diet consists of fungi, seeds, invertebrates and plants. It is a social species and nests in burrows with a family consisting of a single male, up to five females, and their offspring.

The Smoky Mouse is endemic to mainland south-eastern Australia, previously occurring in isolated regions in Victoria, New South Wales and the Australian Capital Territory (ACT). The species is believed to be extinct in the Otways, East Gippsland and the ACT. In Victoria, the Smoky Mouse persists in two broad areas; the Southeast Highlands/Victorian Alps, and the Grampians Gariwerd National Park, but populations are unstable and fragmented, and local extinctions are likely. Key threatening processes for the Smoky Mouse include:

- Habitat destruction and fragmentation.
- Changes to fire regimes and land management.
- Die-back of vegetation due to Cinnamon Fungus.
- The introduction of feral predators. It is believed that cats and foxes are responsible for some local extinctions.

THE PLAN

The following critical next steps will enable Zoos Victoria, along with our partners, to determine the status of the Smoky Mouse, develop conservation actions and help recover this species:

A Song of Mice and Fire: monitoring the Smoky Mouse in the Central Highlands and Grampians-Gariwerd National Park.	\$180,000
Developing a long-term management program and triggers for Smoky Mouse rescue through workshops and written plans.	\$20,000
Researching the first release of the Smoky Mouse from captivity to Nullica (south coast of NSW).	\$50,000
Bringing our mice back to where they belong - investigate locations for Smoky Mouse reintroduction.	\$60,000
Helping people get to know and love the Smoky Mouse on display at Zoos Victoria.	\$35,000

Commencing captive breeding (*if required) for future re-introduction.	\$80,000
Activations at our zoos and online that aim to increase community care and knowledge of Smoky and New Holland Mouse and generate support for the conservation projects.	\$10,000
Raising awareness and facilitating use of boot cleaning stations for mitigation of Cinnamon Fungus to help Mouse habitat.	\$20,000
Total cost over five years	\$455,000

PROGRAM PARTNERS

Arthur Rylah Institute
ari.vic.gov.au

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

Museums Victoria
museumsvictoria.com.au

NSW OEH
environment.nsw.gov.au

Parks Victoria
parkweb.vic.gov.au

University of Canberra
canberra.edu.au

How can I help?

We are helping to protect and recover the gentle Smoky Mouse in Victoria and NSW. You can support our Wildlife Conservation Master Plan 2019-2024 by donating at:
zoo.org.au/donate