



Target: to secure the species in the wild through the management of habitat and significant threats

The <u>mountain pygmy-possum</u> (*Burramys parvus*) has been closely studied and monitored since 1986, making this the longest running conservation project in the *Saving our Species* (SoS) program. Intensified cat control since 2010 has resulted in increased possum numbers at management sites. After the 2019–20 bushfires, 'bogong biscuits' and custom-made watering stations helped maintain the population, with nearly all females successfully reproducing by the end of the year.

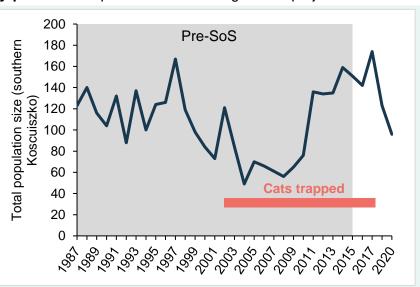
The project addresses key threats to this species, including climate change–related impacts which affect water and food supply, in particular the migratory bogong moths (*Agrotis infusa*), one of the possums' main food sources. The project focuses on feral cat and fox control and annual population monitoring at two sites. Notable outcomes to date include:

- trapping of 159 cats and 80 foxes between 2015 and 2020
- microchipping of around **920 pygmy-possums** as part of the monitoring for this project.

Trajectory: stable

Annual monitoring in spring in southern Kosciuszko shows that while there are population declines during periods of drought and fire, there is a general increase in possum numbers following the intensified feral cat control which started in 2010.

Additional populations were first discovered in northern Kosciuszko in 2010 and show a similar pattern to southern populations.



Partners

This project is led by the SoS program, in partnership with NSW National Parks and Wildlife Service, with extensive use of volunteers to carry out the annual population monitoring. Snowy Hydro Ltd have provided accommodation at Cabramurra to support the monitoring project.

Close contact is maintained with the Victorian mountain pygmy-possum recovery program, through the Commonwealth Government's National Recovery Plan for the Mountain Pygmy-possum. Cross-border collaborations have included rapid adaptive management responses and monitoring of whole-population genetics by Cesar Australia. Funding for post-fire recovery was provided in 2020 by NSW Department of Planning, Industry and Environment and the Commonwealth Department of Agriculture, Water and the Environment.

What did we find?

The value of and response to cat control is becoming clear. Predation from feral cats is a significant threat. Since the breaking of the Millennium Drought in 2010, which coincided with increased cat control, numbers of mountain pygmy-possums at Mt Blue Cow and two other cat-controlled sites have been higher than they were in all the years before the drought commenced; up until a decline during the 2018–20 drought.

Large-scale bushfires in the summer of 2019–20 decimated the mountain pygmy-possums' alpine boulder-field habitat in northern Kosciuszko, leaving the possums with very little natural food. Water was supplied until rain replenished the boulder streams in March, and food was provided weekly from 15 January 2020 through to the hibernation season in May, and again following hibernation in September. Almost all females had reproduced successfully by December 2020. This contrasts with observations following fires in previous years in Victoria, where widespread pouch litter death was observed due to scarce food resources.

Ongoing feral predator control (cats and foxes) is required to maintain mountain pygmy-possum populations in the wild and offset the less easily controlled effects of increasing temperatures and diminishing rainfall and snow cover due to climate change.



Typical alpine boulder field habitat of the mountain pygmy-possum. Photo: Mel Schroder/DPIE

How 'Bogong biccies' helped a species recover from fire

- After the 2019–20 bushfires, custom-made feeders and waterers were placed at the possums' management sites to supplement their diet during the months before winter hibernation.
- The feeders were stocked with specially formulated biscuits based on the nutritional value of a bogong moth.
- The recipe was conceptualised by Melbourne Zoo, and these 'bogong biscuits' were baked by volunteers, including local school children.



Specially formulated 'bogong biccies'. Photo: Alex Pike/DPIE

Saving our Species is a NSW Government flagship program delivered by the Environment, Energy and Science group of Department of Planning Industry and Environment. To find out more about threatened species in New South Wales and the *Saving our Species* program, visit the <u>Saving our Species Program</u> webpage.