



Australian Wildlife Society Supports a New Mountain Pygmy-Possum Breeding Facility at Lithgow **Megan Fabian**

The mountain pygmy-possum (*Burramys parvus*) is a small nocturnal marsupial endemic to the alpine regions of Australia. The survival of the mountain pygmy-possum depends not only on its immediate environment but also on the regional migratory patterns of its primary food source, the bogong moth (*Agrotis infusa*). In New South Wales, the mountain pygmy-possum is listed as an Endangered Species on Schedule 1 of the *Threatened Species Conservation Act 1995* and is classified as Critically Endangered on the *International Union for Conservation of Nature's Red List of Threatened Species*. This species is under threat due to habitat loss, predation from foxes and feral cats, fire damage to mountain plum-pine and other shrub covers, impacts on bogong moths from drought, agricultural practices, and chemicals in the winter breeding grounds, and climate change.

In 2020, the Society partly funded a new mountain pygmy-possum breeding facility at Secret Creek Sanctuary to help save the species from a changing climate and possible extinction – with an estimated less than 3,000 pygmy-possums left in the wild. The breeding program, led by the University of New South Wales Sydney and

partnered with wildlife foundations and government conservation programs, is the first of its kind in New South Wales.

On Sunday, 11 September 2022, the official opening of the mountain pygmy-possum breeding facility took place. The opening was a remarkable success, with some fifty people attending the event to celebrate a milestone in history for mountain pygmy-possum conservation.

Guests were welcomed by Secret Creek Sanctuary Owner, Trevor Evans, with a welcome to Wiradjuri country and a cleansing smoking ceremony – an ancient and contemporary custom involving smouldering eucalyptus leaves and branches to bring a strong spiritual and physical cleansing to the people and the new mountain pygmy-possum facility.

Dr Linda Broome (Ecologist and threatened species expert) and Dr Hayley Bates (one of Australia's leading experts on the species) introduced the mountain pygmy-possum. They spoke about its evolutionary history, emphasised the importance of its environment and the survival of its key food source – the bogong moth, and concluded with the threats to this species, highlighting the importance of its conservation.

Dr Bates stated that the breeding facility has three primary purposes:

1. To increase mountain pygmy-possum numbers via captive breeding as an insurance policy against natural disasters,
2. To provide an opportunity for researchers to study their behaviour, and
3. To conduct monitored trial releases into areas of lowland wet forests of the kind where their ancestors had thrived.

The first stage of the breeding program is to get the possums acclimatised to their new environment, including sourcing new foods. “We want to investigate how the possums will respond to modern changes in their environment so that when impacts of climate change occur, we can make better informed, science-based management decisions to protect this species in the wild. Understanding how the possums have dealt with changing climates in the past is key to this story,” said Dr Bates.

Top left: The mountain pygmy-possums (*Burramys parvus*) thermally stable outdoor enclosure. Image: Megan Fabian.

Top right: The mountain pygmy-possum (*Burramys parvus*) nest boxes are enclosed in an insulated rock wall. Image: Megan Fabian.



L to R: Dr Hayley Bates, Dr Linda Broome, Trevor Evans, and Dr Julie Old. Image: Megan Fabian.



President, Dr Julie Old, participated in the smoking ceremony. Image: Megan Fabian.



President, Dr Julie Old, at the entrance of Secret Creek Sanctuary. Image: Megan Fabian.



President, Dr Julie Old, unveiled the plaque during the official opening ceremony. Image: Megan Fabian.

Before entering the mountain pygmy-possum breeding facility, the President of the Society, Dr Julie Old, was invited to say a few words and unveil a plaque to celebrate the momentous occasion. Dr Old conveyed the importance of the mountain-pygmy possum in terms of our ecology in Australia, and congratulated Trevor Evans and the broader team for their efforts in conserving this species into the future.

Guests were then taken on a tour of the breeding facility. The breeding facility is equipped with thermally stable outdoor enclosures and insulated rock walls with nest boxes deep inside, a research and observation room, an office area, quarantine rooms, a storage room, and a food preparation area.

So far, fourteen pygmy-possums are thriving in their new habitat, and the birth of six babies has been witnessed since moving in.

When the official proceedings concluded, guests were invited to continue to celebrate the conservation of Australia's mountain pygmy-possums at Secret Creek Cafe and Restaurant.

Through the support of the Australian Wildlife Society, Secret Creek Sanctuary has established a mountain pygmy-possum breeding facility to provide the opportunity to study the species and its breeding behaviours at a warmer temperature. The breeding facility will help the mountain pygmy-possum transition back into a more comfortable environment and survive the lethal changes coming to the alpine regions of Australia.

Secret Creek Sanctuary has been operating since 2001 and is situated near Lithgow, New South Wales. The sanctuary was established to provide a feral-proof enclosure where endangered native species are protected from predation. The sanctuary aims to show visitors what Australia used to look like before European settlement, with most species previously endemic to the area.

The sanctuary is best known for reintroducing the eastern quoll (*Dasyurus viverrinus*) to New South Wales in 2001. Now also home to brush-tailed rock-wallabies (*Petrogale penicillate*), long-nosed potoroos (*Potorous tridactylus*), bettongs (*Bettongia lesueur*), Tasmanian devils (*Sarcophilus harrisii*), tiger quolls (*Dasyurus maculatus*), dingoes (*Canis lupus dingo*), koalas (*Phascolarctos cinereus*) and, of course, our precious mountain pygmy-possums.