

Mountain Pygmy Possum (*Burramys parvus*)



Conservation Status

NATIONAL: Endangered (*Environment Protection and Biodiversity Conservation Act 1999*)

Description

The Mountain Pygmy-possum is the largest of Australia's five species of pygmy-possum, yet it only weighs 45 grams and could easily fit in the palm of your hand. It was first sighted in 1966 in a ski chalet at Mt Higginbotham (Victoria), but it was only in 1970 that possum trappings in New South Wales (NSW) Snowy Mountains revealed how uniquely adapted this possum is to life in the alpine regions with: a body is covered in thick greyish fur; agile front feet are designed for gathering food; strong back feet for gripping and enlarged front teeth for cracking seeds.

Habitat

The Mountain Pygmy-possum is found only in Australia's snow-covered alpine and sub-alpine regions in Victoria and NSW where there is a continuous period of snow cover for six months. It lives among rock crevices and boulder-fields associated with the Mountain Plum Pine (*Podocarpus lawrencei*).

Distribution

There are only three known populations of the Mountain Pygmy Possum. In Victoria populations occur on the Bogong High Plains, at Mt Bogong and between Mt Loch and Mt Higginbotham and in the Mt Buller ski resort area. In NSW the possum occurs only within the Kosciuszko National Park. There are estimated to be around 2000 individuals left in the wild with their entire range, which largely coincides with Australia's ski resorts, covering less than five square kilometres.

Behaviour

The Mountain Pygmy Possum is only marsupial in the world to hibernate. It will hibernate during winter for periods of up to three weeks, waking up to feed on its food cache of seeds and nuts. While hibernating the possum's metabolic rate is reduced by about 98%, which helps it to conserve energy.

Diet

The Mountain Pygmy-possum feeds during the night. In the short alpine spring and summer months it builds up fat reserves by eating Bogong moths (*Agrotis infusa*). At other times of the year it is more opportunistic, supplementing this diet with seeds and fruit of plants like the Mountain Plum pine, Rambling Bramble and Snow Beard-heath.

Breeding

Adult possums live separately except during the mating season (November through December). A litter usually contains four young. They leave the pouch after three weeks, even though their eyes do not open until five weeks of age. Once they leave the pouch the mother builds a grass nest for the young where they live until about five months of age.

Threats

Since the populations are so small and isolated they are very susceptible to catastrophic events. For instance, the 2007 bushfires came close to burning the remaining Mountain Pygmy Possum habitat at Mt Buller. The major threats to its survival are the destruction of the Pygmy-possum's habitat from alpine resort development, fox and cat predation and the warming of the alpine regions due to climate change. The Pygmy-possum needs a snow depth of at least 1 metre to provide adequate insulation during its winter hibernation. Warmer temperatures over winter have caused fragmentation or thinning of snow cover, which exposes the possum to the cold temperatures and disturbs their hibernation. Also earlier spring snow melts are resulting in premature emergence of the Mountain Pygmy Possum often prior to the arrival of the Bogong moths, a vital spring food source for the possum.

Recovery Plan

The Victorian and NSW Governments are working with alpine resort managers to monitor Mountain Pygmy-possum populations and their habitats. In addition, some vital possum habitat is being protected through national park boundary extensions, artificial corridors and tunnels linking fragmented populations, and other weed control work. Regular fox and cat control programs and public awareness campaigns are also conducted in alpine resorts. Healesville Sanctuary is running a breeding to provide both a population for re-introduction into the wild as well as to explore the possibility of adaptation to warmer climates. In 2012 FAME funded a program to mix populations of Pygmy Possums to increase the genetic diversity and reproduction rates. Initial monitoring indicates that this program has been very successful with an increase in number of Mountain Pygmy Possums.

References & More Information

Kirkwood J n.d. *Australian Threatened Species: The Mountain Pygmy Possum (Burramys parvus)*. Threatened Species Network. <http://www.environment.gov.au/biodiversity/threatened/publications/tsd05mountain-pygmy-possum.html>
Strahan R (Ed) 1995. *Mammals of Australia*. The Australian Museum Trust. Reed New Holland, Australia.