

Australian Threatened Species

Mountain Pygmy-possum *Burramys parvus*

CONSERVATION STATUS

COMMONWEALTH: Endangered

(*Environment Protection and Biodiversity Conservation Act 1999*)

VICTORIA: Endangered (and listed under the *Flora and Fauna Guarantee Act 1988*)

WHAT DOES IT LOOK LIKE?

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. Its mouse-like body is covered in thick greyish fur, it has a long tail, agile front feet designed for gathering food, and strong back feet for gripping. It also has enlarged front teeth for cracking seeds.

WHERE DOES IT LIVE?

The Mountain Pygmy-possum is found only in Australia's snow-covered alpine and sub-alpine region above 1400 metres in Victoria and New South Wales (NSW). It lives among rock crevices and boulder-fields associated with the Mountain Plum Pine (*Podocarpus lawrencei*). In Victoria populations occur on the Bogong High Plains, at Mt Bogong and between Mt Loch and Mt Higginbotham and distribution includes parts of the Falls Creek, Mt Buller and Mt Hotham ski resorts. In NSW the possum occurs only within the Kosciuszko National Park. The possum's entire range, which largely coincides with Australia's ski resorts, is thought to cover just 10 square kilometres.

WHAT DO THEY EAT?

The Mountain Pygmy-possum scurries about at night during the short alpine spring and summer months, building up fat reserves by feeding mostly on rich 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. During hibernation in the snow season, between April and October, the possum feeds from a hidden cache of stored seeds and nuts.

DID YOU KNOW...

- It was thought to be extinct until discovered in 1966 in a ski chalet at Mt Higginbotham in Victoria
- It is the longest-living small terrestrial mammal known (females can reach an age of more than 12 years!)
- The possum is one of the world's only hibernating marsupials
- During hibernation the possum's metabolic rate is reduced by about 98 per cent. At the beginning of winter hibernation might last for several days before the hungry possum wakes to dine from its food cache – a storage facility rare among marsupials. This period is extended as the winter progresses, lasting as long as three weeks during the coldest months.



Photo: WWF/Frédy Mercay

BLACKBERRY: A MAJOR THREAT!



WHY IS BLACKBERRY A PROBLEM IN AUSTRALIA?

The impact of the fast spreading and adaptable perennial blackberry (*Rubus fruticosus L. aggregate*) is felt across 8.8 million hectares of temperate Australia, where it has invaded the banks of watercourses, roadsides, agricultural properties, forests and bushland. Not only does it reduce pasture production, it restricts access to water and land, engulfs native plants, increases the fire threat, and provides food and shelter for introduced pests like foxes. It has been declared a noxious weed in all states and territories except the Northern Territory.

WHY IS IT A THREAT TO MOUNTAIN PYGMY-POSSUMS?

Although occasionally known to out-compete the native Mountain Plum Pine (on which the possum relies for shelter and food) at the snowline, blackberry alone is not a major threat to the Mountain Pygmy-possum. But coupled with climate factors its impact can be far greater. As our world warms, blackberry is expected to have an advantage at higher altitudes, where it is feared the weed will invade further on native plants and possibly cause the possum to lose its competitive advantage over other small mammals like the Bush Rat. Other weeds, including English broom, and hunting by foxes and cats may also pose a threat.

Of more immediate concern is the destruction and fragmentation of the Pygmy-possum's habitat from human activities associated with skiing and alpine resort development, fox and cat predation and the broader impacts of climate

change. Because the Pygmy-possum needs a snow depth of at least 1 metre to provide adequate insulation during its winter hibernation, it is threatened by any climate change that fragments or thins the snow cover and exposes it to cold temperatures.

WHAT'S BEING DONE?

A variety of blackberry control measures – including burning, slashing, grazing, grubbing, chemical spraying, revegetation and biological controls – continue to be used, often together. The best hope of controlling large, often inaccessible infestations is thought to be biological control, using the leaf rust (*Phragmidium violaceum*). This disease has been shown in southern Australia to slow the blackberry's spread.

A National Coordinator for Blackberry is helping coordinate strategic management for the weed across Australia. The Australian Government also recently launched its new four-year, \$40 million *Defeating the Weeds Menace* program, which takes a national approach to tackling our most significant weeds.

The Victorian and NSW Governments are working with alpine resort managers, Parks Victoria and the NSW National Parks and Wildlife Service to monitor Mountain Pygmy-possum populations and their habitats. The impacts of the 2003 bushfires on possum populations between Mt Hotham and Mt Bogong are also being assessed. Management plans for the resorts have or are currently being developed to identify known possum areas and NSW and Victoria have their own state-based recovery plans.

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.

HOW YOU CAN HELP

- Visitors can reduce the spread of blackberry by making sure clothing and camping equipment do not carry seeds, and by avoiding moving soil from blackberry and other weed-infested areas
- Drive with care in alpine areas
- Carefully dispose of rubbish so as not to encourage foxes and cats
- Be a responsible pet owner: abide by regulations that prohibit cats and dogs on the ski fields
- When staying on the snow learn to distinguish the possum from rats and house mice, and report any sightings to the resort environmental officer.



Treated blackberry thickets. Photo: Gill Earl

CONTACT AND REFERENCES

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You can also find out more information about Australia's threatened species by visiting www.deh.gov.au/biodiversity/threatened or contacting the Department of the Environment and Heritage Community Information Unit on free-call 1800 803 772.

- Recovery plan for the mountain pygmy-possum: http://www.nationalparks.nsw.gov.au/PDFs/recoveryplan_mountain_pygmy-possum.pdf#search='The%20Mountain%20PygmyPossum'
- Department of the Environment and Heritage threatened species web site: www.deh.gov.au/biodiversity/threatened
- Mansergh, I. and Broome, L. (1994) *The Mountain Pygmy-possum*, New South Wales University Press, Sydney
- Victorian Flora and Fauna Guarantee Action Statement No 2. - the Mountain Pygmy-possum (*Burramys parvus*) www.dse.vic.gov.au



The Threatened Species Network is a community-based program of the Australian Government & WWF-Australia.