



Brush-tailed rock-wallabies

Brush-tailed rock-wallabies are the unique and beautiful acrobats of the marsupial world as they leap and bound their way around rocky outcrops and cliff ledges in rugged and steep country along the east coast of Australia. Of the 15 species of rock wallaby in Australia, most have disappeared from their original range and are now considered threatened.

Their conservation is listed as Vulnerable under the Australian Government's Environment Protection and Biodiversity Conservation Act 1999 and as Endangered in New South Wales under the Threatened Species Conservation Act 1995. In Victoria the brush-tailed rock-wallaby is listed as Threatened under the Flora and Fauna Guarantee Act 1998.

The brush-tailed rock-wallabies' most notable feature, as their name implies,

is the distinctively bushy tail. They are medium-sized wallabies with the adults ranging from six to eight kilograms. They are very agile, moving confidently and swiftly around their rocky habitat using their long, thickly furred tail for balance and padded feet for grip.

Brush-tailed rock-wallabies have very distinctive facial markings with a white cheek stripe and a black stripe from the eye to the back of the head. The back legs and tail are all brown; the underbelly fades into a lighter brown or white. The legs, paws, and feet are almost black. Thick fur covers the brush-tailed rock-wallaby including the tail, which is distinctly bushy as implied by their name. This colouration allows them to camouflage themselves well in their habitat and they are often hard to spot.

The average head and body length of this animal is 550 mm with an average tail measurement of 600 mm. Compared to the body sizes of other wallabies, the brush-tailed wallaby is in the middle.

Feeding generally occurs during the night and early morning hours. Brush-tailed rock-wallabies enjoy eating various native grasses in addition to roots and bark as well as the foliage and fruits of shrubs and trees.

Females reach maturity at 18 months and males reach maturity at 20 months. Breeding occurs year-round. Gestation lasts 31 days and the young will be in the pouch about 29 weeks. When the joey leaves the pouch it will continue to suckle for another

Above: Brush-tailed rock-wallaby (*Petrogale penicillata*)

three months. Although breeding is possible immediately after the female gives birth, the embryo will only start development when the previous joey has left the pouch.

The range of the brush-tailed rock-wallaby extends from south-east Queensland to the Grampians in western Victoria, roughly following the line of the Great Dividing Range. However, the distribution of the species across its original range has declined significantly in the west and south and has become more fragmented. In New South Wales it occurs from the Queensland border in the north to the Shoalhaven in the south, with the population in the Warrumbungle Ranges being the western limit.

The population in Victoria is dangerously close to becoming extinct. The decline of this species is due to many things including massive lack of predator control, loss of habitat and inbreeding. It is difficult to reintroduce these animals to the wild due to the changes made to their preferred habitat. Brush-tailed rock-wallabies are nocturnal animals but they appear to enjoy the sunshine when the weather is cool.

Brush-tailed rock-wallabies enjoy dwelling in areas where there are plenty of rocks and caves.

Brush-tailed rock-wallabies are very sensitive about their environment and do not like to be disturbed by humans; in the wild they are cryptic and secretive.

Brush-tailed rock-wallabies are highly territorial over their home range, which is about 15 hectares. They are social wallabies and live in family groups consisting of two to five adults with juveniles and joeys.

Life is tough for brush-tailed rock-wallabies. They have been deprived of available habitat due to a combination of factors including clearing of native vegetation, exotic plant invasion and changed patterns of fire across the landscape. Impacts such as these on their habitat have caused the brush-tailed rock-wallaby to disappear from much of the southern and western part of its range.

Brush-tailed rock-wallabies must also cope with introduced predators and competition with feral goats, sheep and rabbits. This competition forces them to search for food outside their natural ranges. A century ago, brush-tailed rock-wallabies were considered pests and were extensively hunted for their skins, which caused a massive decline in their numbers from which they have not been able to recover.

The introduction of foxes has had a major impact on brush-tailed rock-wallabies. Foxes were introduced into Australia soon after European settlement and are now well established over most of the non-tropical mainland, including in rock-wallaby habitat. They are believed to have contributed to the extinction of several small mammal species.

Loss of habitat continues to be an issue for brush-tailed rock-wallabies. Residential and tourist developments adjacent to some colonies are causing habitat modification, making it harder for wallabies to find homes. The overwhelming threat to current wallaby populations is feral animals, mostly the fox: more so than habitat loss, at least in Southern New South Wales and Victoria. The wallabies live in places we don't (escarpments, cliff lines and rock piles), but the small populations and fragmentation of their habitat does make it difficult to impossible for them to disperse and find mates in other colonies.

Our Society has contributed funds to support the survival of this small and vulnerable rock wallaby, but more needs to be done. Management of feral fox populations is crucial and preservation of safe and secure habitat will help in the survival of the brush-tailed rock-wallaby. If you would like to make a donation, please contact the office.



Brush-tailed rock-wallabies enjoy dwelling in areas where there are plenty of rocks and caves.



Brush-tailed rock-wallabies can climb tall trees with their sharp claws and strong legs.



Friends of the Brush-tailed Rock-wallaby

Chris Pryor, President of the Friends of the Brush-tailed Rock-Wallaby

The Friends of the Brush-tailed Rock-wallaby was set up 20 years ago, when Susan Robertson, who lives in Kangaroo Valley in the Shoalhaven, noticed that brush-tailed rock-wallaby (BTRW) numbers were declining while the number of foxes was on the rise. When Susan spoke to Ian Jackett of National Parks and Wildlife Service (NPWS) a fox-control program was set up and, over the intervening years, the decline in BTRW numbers was arrested, and their populations are now slowly recovering.

There are three colonies in and around Kangaroo Valley, with total numbers estimated to be in the range of 30-60 animals. The three colonies are now isolated from each other, due to contraction of their range and reduced numbers. The goal is to increase the numbers to sustainable levels, that is approximately 30 in each colony. It is hoped that occasional fox predation can be withstood with the populations

at this level. The work in the Shoalhaven is part of the overarching New South Wales Recovery Plan for the Brush-tailed Rock-wallaby. There is also a national Recovery Plan.

The plan for the Shoalhaven colonies involves a double-headed approach of intensive fox-control combined with release of captive-bred rock-wallabies. The animals are bred at Waterfall Springs Wildlife Sanctuary, a state-of-the-art facility, which achieves outstanding success at breeding these secretive creatures. A small group of 3-5 animals is selected for release approximately twice a year.

NPWS undertakes the releases, which involve radio-tracking over many months and monitoring with remote cameras, as well fox-baiting around the colonies. The Friends facilitates this field work by educating and engaging the community (local landholders' permissions are

necessary for fox-control on private land), engaging contract fox-shooters to complement the baiting and, most importantly, fund-raising. Education of children is fundamental to conservation ongoing: the Friends are one year into a 3-year program which is bringing biodiversity education to primary and secondary children, using the brush-tailed rock-wallaby as a case-study. This work has been funded by the NSW Environmental Trust. The emphasis is on hands-on learning with direct experience related by an enthusiastic teacher who is part of the NPWS team as well as a member of the Friends.

The Shoalhaven recovery project is only possible because of a powerful collaboration between the Friends, NPWS, the local Shoalhaven community, Waterfall Springs and

Above: September 2012 Release - Friends of BTRW assisting Recovery Project.



September 2012 Release - Friends of BTRW assisting Recovery Project.



NPWS Shoalhaven BTRW Recovery Project – Research and Monitoring.

the Foundation for National Parks and Wildlife, which also raises funds for brush-tailed rock-wallabies.

The Friends' work has just been recognized by the UNAA (United Nations Association of Australia (Victoria)), receiving a Special Commendation in the Community category

<http://www.unaavictoria.org.au/awards-programs/world-environment-day-awards/winners-finalists/>

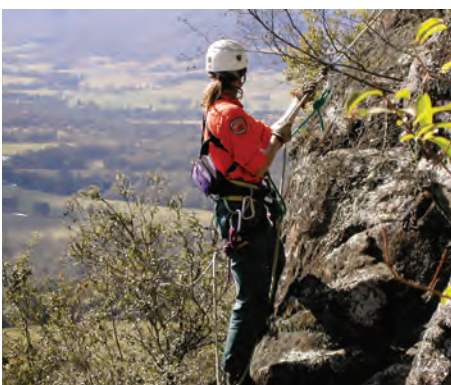
You might like to view the Friends' new documentary (20 minutes) which gives a wonderful run-down of the rock-wallaby project <http://www.rockwallaby.org.au/documentary> or a 2-minute trailer <https://www.youtube.com/watch?v=nuS4KefxQLk>

If you would like to be 'part of the solution' and help the Friends to return these iconic rock-wallabies to sustainability, please go to the website <http://www.rockwallaby.org.au> where you can become a **Friend**, **adopt** a rock-wallaby (the adoptive wallabies all have interesting life-stories to help you choose: you might like to check out Nibbler's story...), make a **donation** or buy some **merchandise**.

Your support is greatly appreciated.



Brush-tailed Rock-wallaby pausing on a rock face in Kangaroo Valley.



NPWS Shoalhaven BTRW Recovery Project – Research and Monitoring.



Eco awaiting the 'word' to go for fox den detection at Bugong Gap Brush-tailed Rock wallaby site.



Brush-tailed Rock-wallaby mother and joey. The vulnerable stage for joeys is when they are stashed in a rock-shelter while mother goes foraging along the cliff-face. The 1-2kg joeys are predated by the foxes who are 5-6kg.

Acceptance speech by Chris Pryor

President of Friends of the Brush-tailed Rock-wallaby

On 2 March I was delighted to receive notification that Friends of the Brush-tailed Rock-wallaby had won the Australian Wildlife Society's Community Wildlife Conservation Award for 2016. The Friends is a relatively young group, being only 21 years old. It is a great honour to be awarded this prize by such a well-respected centenarian organisation!

The Friends' vision is for a future where brush-tailed rock-wallabies (BTRW) thrive in the wild in a biodiverse Australia. This would seem to be a good fit for the aims of the AWS.

Our primary objectives are to raise awareness; develop community support; provide education; and obtain funding for the conservation of the brush-tailed rock-wallaby, which is listed as Endangered under the *Threatened Species Conservation Act 1995*.

The Friends work in a three-way partnership with National Parks and Wildlife Service (NPWS), who are responsible for the NSW BTRW Recovery Plan, and the hugely supportive local community.

The on-ground recovery plan work, which is all done by NPWS, has two focuses: an intensive fox-control program (which of course benefits local biodiversity in general), and the release of captive-bred rock-wallabies to boost the local colonies. The rock-wallabies are bred at Waterfall Springs Wildlife Sanctuary, at Kulnura on the New South Wales Central Coast, and a handful of animals are released into one of the Kangaroo Valley colonies once or twice a year. The goal is to return the local colonies, which have **distinct** genetics, to self-sustaining populations so they can withstand occasional predation.

The BTRW habitat in the Kangaroo Valley area comes under many different tenures, so landholder support is essential to enable effective predator control. Foxes are the key predator, taking joeys that have been stashed in little rocky refuges so that their mums can safely scale cliff faces, without a destabilising weight in the pouch. Sadly, rock-wallabies haven't evolved alongside the European fox, so they haven't developed the required survival strategies. With only 30 rock-wallabies across three colonies, the European fox **presents a real extinction risk**.

As you can probably guess, there is still plenty for the Friends to do. If you would like to support this critical work, please visit <http://www.rockwallaby.org.au>.

You may be particularly interested in our symbolic adoptions program <http://www.rockwallaby.org.au/adopt>, whereby you can select a rock-wallaby from a family album of life-stories and receive newsletters throughout the year giving updates of your rock-wallaby and its family and friends.

We can also be found on Facebook if you would like to share us with your friends.

<https://www.facebook.com/Friends-of-the-Brush-tailed-Rock-wallaby-190159674366571/>