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Species Fact Sheet:

Kangaroos and wallabies



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Kangaroos and wallabies

Marsupials are mammals that have a pouch or 'marsupium' in which they raise their young. Marsupials include koalas, wombats, possums and dasyurids (small carnivorous marsupials) and macropods. Before European settlement there were 53 species of macropods in Australia; six have since become extinct. A third of macropod species in Australia and PNG are threatened. Macropods (members of the super family *Macropodoidea*) include kangaroos, wallabies, pademelons, tree kangaroos and rat kangaroos. They typically have large hind limbs and feet. Macropods are unique to Australia and New Guinea.



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Macropods are unique Australian animals and the most well known, the red kangaroo features on Australia's coat of arms, coins and stamps. Geological and climatic events in Australia's history have resulted in the unique species seen today, with marsupials evolving around 56 to 34 million years ago. Kangaroos are thought to have evolved from possum-like animals. This relationship can be seen by the musky rat-kangaroo, which is the most primitive kangaroo alive. The musky rat-kangaroo lives on the ground but has a 'thumb-like' toe, which looks like a possum foot.

Did you know?

- In Greek, macropod means “long foot”, which is appropriate as most macropods have very long hind feet with long strong toes.
- Kangaroos and wallabies are herbivores; they only eat plant material like grasses, leaves and sedges. Some browse bushes and trees but most graze like sheep and cows. They have specialised teeth for chopping and grinding their food.
- The largest macropod is the red kangaroo and the smallest is the musky rat kangaroo.
- Within the superfamily *Macropodoidea* there are two subfamilies in the *Macropodidae* family: the *Sthenurinae*, which has one living member, the banded hare wallaby; and the subfamily *Macropodinae*, which includes all other macropods like the rufous hare wallaby and the quokka. The family *Potoroidae* includes potoroos, bettongs and the musky rat kangaroo.
- Kangaroos are the only large animals to use hopping as a means of movement. The comfortable hopping speed for red kangaroos is about 20–25 km/h, but they can hop as fast as 70 km/h over short distances.

Distribution and habitat

Macropods are distributed across much of Australia and can be found in every state and on offshore islands such as Rottneest Island off Western Australia. Habitat types vary greatly from open forests and woodlands to the wet tropic region of Queensland and deserts, rocky escarpments, outcrops and cliffs.

The red kangaroo lives throughout central Australia. They prefer open plains habitat with scattered trees, which they use for shade during the hot parts of the day. In comparison, the Bennett’s tree kangaroo lives in mountain and lowland tropical rainforest in north Queensland where it feeds on a wide variety of vines, ferns and wild fruits. Wallaby species can be found across Australia in a wide range of habitats, including heavily wooded and rugged areas, like granite outcrops and cliffs.

Ecology and life cycle

As marsupials, macropods rear their young in a pouch. Macropod embryos are born at four to five weeks old and travel up the mother’s fur into the pouch where they continue to develop over several weeks.

Threats

Between Australia and New Guinea, there are 83 species of macropods, of which nine have become extinct since European settlement and 28 are threatened. The threats to macropods are varied and some, like the rufous hare wallaby are more at risk than others. The main threats to macropods in Australia are habitat loss, altered fire regimes, introduced predators and now climate change. These are the main drivers of decline affecting many mammals in Australia and have resulted in this continent having the worst rate of mammal extinctions worldwide. In New Guinea, loss of forest habitat and over-hunting has resulted in the decline of several species of tree kangaroos and other macropods.

Habitat loss

Macropods live in a variety of habitat types and, with European settlement, much of this land was cleared of native bush to accommodate agricultural and grazing land.

Developing land for human needs reduces the amount of natural space available to wildlife. As natural space diminishes, so does habitat diversity - the great variety of forests, bushlands, grasslands, wetlands and deserts that exist in nature. The result is both a decline in the number of species and even fewer individuals of those populations survive.

Introduced predators

The introduction of foxes and cats has had a major impact on Australia’s unique species, including macropods. As macropods evolved without the threat of invasive predators and in the presence of very few natural predators (Tasmanian devil) they have limited ways to defend themselves.

Foxes were introduced into Australia soon after European settlement and are now well established over most of the non-tropical mainland. They are believed to have contributed to the mainland extinction of the rufous hare wallaby, as well as pushing a number of native mammals such as brush-tailed bettongs and black-footed rock wallabies further towards extinction.

Cats arrived with the first European settlers and quickly became wild, spreading throughout the continent. They have been associated with the demise of a number of native animals including the burrowing bettong and broad-faced potoroo.

Climate change

Climate change will lead to reduced rainfall in parts of Australia as well as increased temperatures. These changes will exacerbate existing threats such as changed fire regimes and could see macropods eliminated from parts of their current ranges.

Conservation action

WWF is working with community groups to carry out surveys of some rock-wallaby populations and to determine and implement effective measures to help these species recover, such as developing fire and feral animal strategies. Community groups are being supported to become involved in habitat protection and to work on controlling introduced predators along with continuing surveying and monitoring to further understand this species.

How you can help

- For landholders, find out whether your land is likely to be habitat for threatened macropods and protect and revegetate bushland for their use
- Take extra care driving through areas of known macropod habitat, especially at night
- De-sex your pets, particularly cats, so unwanted litters are not produced and keep them inside at night so they don’t escape and become feral predators
- Participate in revegetation and tree planting schemes in your local area to restore habitat for macropods and other native species