



Australian Animals: Marsupials

AUSTRALIAN ANIMALS

Australia is the world's largest island, but also its smallest continent. It is about the same size as the continental United States, but contains less than 10 percent as many people as the U.S. Roughly 15 percent of Australia's population lives in the "Outback", or center of the continent, while most of the remaining people live along the coasts. Australia is comprised of six states and two territories: the states of New South Wales, Queensland, Western Australia, South Australia, Victoria and Tasmania, plus the Northern Territory and the Australian Capital Territory.

Australia is considered a land of extremes due to dramatic temperature changes and periods of flood, drought and fire. The continent's Northern Territory experiences a six-month wet season where heavy rains cause river gorges to flood with fresh water. The wet season is followed by a cloudless dry season where lightning strikes can ignite wildfires across the wilderness. Despite these extreme conditions, many remarkable plants and animals have adapted to life in Australia. One group of animals that is well-suited for Australia's extreme conditions is marsupials. As a result of millions of years of isolation on this island continent, these animals have not only survived these conditions, but have thrived.

MARSUPIALS

Marsupials are mammals, which means they have hair, give birth to live young and provide their young with milk. The period of gestation, or pregnancy, in marsupials is very short, however, so when the young are born they are underdeveloped. To allow for continued growth, most marsupials have a pouch, or marsupium, which the baby crawls into after it is born. The baby can stay inside the pouch for weeks or months, nursing and growing until it has finished developing.

There are approximately 260 species of marsupials. Some commonly known Australian marsupials are the kangaroo, koala, wombat, wallaby and Tasmanian devil. North America has one marsupial: the opossum. Marsupials live in diverse terrestrial habitats and have varied dietary needs. Some, like the Tasmanian devil, are carnivorous and will scavenge for dead animals. A few are omnivorous, like the bandicoot, and will eat both animals and plant matter. Most marsupials, however, are herbivorous and eat only plant matter including leaves, fruits, roots and seeds. Some herbivores, like the kangaroo, can be seen grazing in grasslands throughout Australia. The red kangaroo is the largest marsupial and can measure up to 6 feet in height. The smallest marsupial is the long-tailed planigale, which is about half the size of a common mouse.

FAST FACTS

- The fastest marsupial is the eastern grey kangaroo. It has been recorded at speeds exceeding 30 miles per hour.
- Koalas sleep 18 to 22 hours a day to conserve energy. Most of their energy is used to digest eucalyptus leaves.
- A wombat's pouch faces backward to prevent dirt from entering while the animal is burrowing.

KEY TERMS

Marsupium

Pouch possessed by most female marsupials in which underdeveloped fetuses finish growing.

Torpor

State of temporary hibernation used by small marsupials to conserve energy.





The red kangaroo is the largest marsupial and can measure up to 6 feet in height.

SURVIVING THE EXTREMES

Marsupials live in different habitats throughout Australia and as such are adapted to a variety of extreme environmental conditions. These conditions include temperature fluctuations, floods, droughts and fires. To escape floods, koalas can swim to higher, drier ground. To cope with high temperatures, kangaroos seek shade during the day and graze at night. They also lick their forearms to deposit saliva, which then evaporates and cools their body. Some small marsupials, like the fan-tailed dunnart, deal with high temperatures by entering a hibernation-

like state called torpor. While in this temporary state, the marsupial's metabolism and body temperature decrease, allowing it to conserve energy. As a result, these marsupials require less food and water to survive, which makes torpor a useful strategy for surviving droughts. In order to exit torpor, the animal must raise its body temperature back to its normal level, which requires energy. However, some marsupials like the brush-tailed mulgara will bask, using the sun's energy to warm their bodies, thus conserving even more energy.

CONSERVATION FOR MARSUPIALS

There are some environmental conditions that are particularly problematic for marsupials. For example, habitat destruction has a negative impact on nearly all Australian marsupials. As humans cut down trees for wood or to clear space for roads and farms, koalas are forced to live in smaller and smaller patches of forest. Yellow-bellied gliders find themselves with fewer trees to harvest sap from. Wombats have to compete with domestic animals like cattle and sheep for food. Other animals, like foxes and dogs, prey upon displaced marsupials. Some marsupials are hit by cars as they cross newly created roads in search of habitat. As a result of these conditions, many species of marsupial are threatened or endangered. The Australian government has made an effort to educate people on the importance of marsupial conservation. Various organizations have made strides towards better forest management, control of foxes and dogs, and marsupial rehabilitation and release. Australia is also researching marsupial ecology to better manage their habitats.

Although there are no marsupials on exhibit at the National Aquarium, you can discover Australia's Northern Territory and its inhabitants in the *Animal Planet Australia: Wild Extremes* exhibit.



NATIONAL AQUARIUM.

501 East Pratt Street, Baltimore, MD 21202 • aqua.org

Through transforming experiences, the National Aquarium inspires people to enjoy, respect and protect the aquatic world.