

21 November 2007

By: Stefan Anitei, Science Editor



Kangaroo males involved in a "kickboxing" round

8 Amazing Facts about Kangaroos

The largest living marsupials

1. Scientists believe that kangaroos' and wallabies' ancestors could have looked like a Wynyardia, a 21 million years old marsupial found in Tasmania. The largest living kangaroo, the red kangaroo (*Macropus rufus*) is also the largest living marsupial. Males are up to 1.8m (6 ft) tall and weigh up to 84 kg (187lbs). Kangaroos grow during all their life, which can be up to 20 years. Giant short faced kangaroos (*Procoptodon*), extinct 40,000 years ago, were 3 m (10 feet tall) and weighed 200 kg. The smallest living kangaroo (*Darcopsulus*) is a lesser forest wallaby from New Guinea, as big as a rat. Tree kangaroos live in northeastern Australia and New Guinea! They sleep during the day in the trees, but at night they get down to graze just like the other kangaroos.

2. Large kangaroos have no other predator (except humans) than dingos and crocodiles. When a kangaroo is attacked by a dingo pack, it tries to escape in the water, where it can drown its attackers, or it defends itself with powerful kicks and tearing with the claws of the fore limbs.

3. Kangaroos live in groups made of 8-25 individuals, called mobs. A mob is made up of a male (the leader), several females and the young. Kangaroos are solitary in the rainy season and gregarious during the dry season.

4. Kangaroos eat grass (*Poaceae*, including the tough *Spinifex* grass, *Triodia spinifex*), bean related plants (*Fabaceae*) and beet related plants (*Chenopodiaceae*), rich in mineral salts. Yet, they do not touch *Eucalyptus* and *Acacia* leaves (these two tree types are the most common in Australia). The stomach represents 15 % of the kangaroo's weight. The digestion of the cellulose takes place in the stomach by symbiont bacteria (cows and deer do the same, but they also ruminate). Kangaroos graze in the morning, evening and during the night. Kangaroos can resist without water 2-3 months.

5. Males fighting for females practice a kind of kickboxing, employing both punches and kicks. A female can have at the same time in her pouch (marsupium) a large offspring (called joey), a newborn and can carry in the womb a fecundated egg. When the large cube leaves the pouch, the egg starts developing. An offspring stays 8-10 months in the pouch. The newborn has no eyes or ears and weighs just 0.8-1 gram (!) in the largest kangaroos, being 2.5 cm (1 in) long. It looks like a transparent larva, but the fore limbs are already well developed and the offspring can climb on the fur of the mother up to the marsupium. The female makes a saliva trail between the cloaca and the pouch so that the newborn can head, through the smell, to the pouch. The female kangaroo has 4 mammary glands. The offspring attaches to one of them. It cannot suckle, but the mother has special muscles that pump milk into the mouth of the young. The larynx of the young prolongs to the posterior area of the nasal fossae, which communicate directly with the lungs, avoiding the possibility of suffocating the young while suckling continuously. The young is suckled 4-5 months, but the marsupium can remain for a longer period a refuge place. Curiously, the young can keep on suckling when she is already mother herself. That's why the female kangaroo produces two types of milk: one for the baby and one for the new mother. When chased, the female can hide a large offspring in the bushes, returning later to recover it.

6. The reproduction and survival rate of the kangaroo's depends on the rainfall amount. 60-100 mm/year means a stable population; a higher rate means a demographical explosion and a lower value plummets the survival chance of the young. Their mortality booms, but when the drought is gone, the female is fertile again.

7. On a warm weather, to cool themselves, the kangaroos moisten their limbs with saliva. At temperatures of 45°C, kangaroos can take refuge in caves.

8. Kangaroo's back feet are made of two joined toes (syndactily). The fourth toe is extremely long bearing a large nail that makes kangaroo's kick extremely dangerous for dogs and even humans. The tail (long up to 1.1 m or 3.6 ft in large

kangaroos) is used for leaning and for balancing during the jumps. The length of the "sole" of a large kangaroo can be 26 cm (10.5 in). Normal jumps are 1.2-1.9 m (4-6 ft) long, but at high speed they can be 13.5 m (45 ft) long and 3.3 m (11 ft) tall. The kangaroo can speed up to 50 km (30 mi) per hour, but it cannot resist much at this speed. 8.A delicious soup is made in Australia from kangaroo tail.