

Fact Sheet

Kowari

IDENTIFICATION

The Kowari (*Dasyuroides byrnei*) is small, carnivorous marsupial known for its large appetites, feisty personalities and hairy tail.

Adult kowaris weigh up to 175g (males) or 140g (females) and a length up to 18cm, or 34cm with the tail included.

The species has upright ears, a pointed muzzle and conspicuous pale eye-rings. The body is greyish with a white underside. Its long tail accounts for almost half of its total length and is whitish at the base with a bottle-brush like tuft of black hair on the end.

It is listed as Endangered under the Australian Environment Protection and Biodiversity Conservation Act, upgraded from vulnerable in November 2023. Recent research indicated a 20 per cent risk of extinction within the next 20 years if conservation efforts are not intensified.

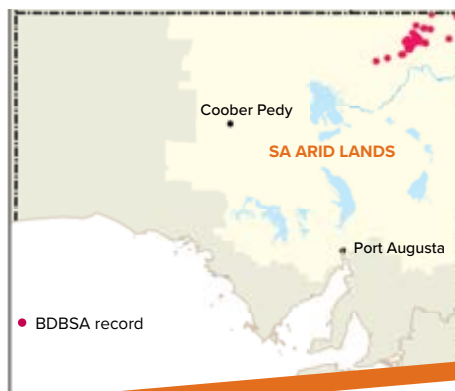
Other common names include brush-tailed marsupial and Byrne's crest-tailed marsupial rat.

DISTRIBUTION

Kowari populations have declined across the central Australian deserts, and the species now has a very limited distribution in arid South Australia and western Queensland in the Lake Eyre Basin.

It formerly occurred on the western fringe of the Simpson Desert, on both sides of the South Australian border with the Northern Territory and was widespread in the eastern part of the Lake Eyre Basin. The Kowari has disappeared from the western part of its range and is now restricted to scattered localities.

The size of Kowari populations can fluctuate in response to rainfall and the resulting environmental changes.



HABITAT

The Kowari can be found almost entirely on wide gibber (stony) plains with low sand dunes. They construct their own burrows beneath shrubs in small sand mounds on the gibber plains, or they modify those of other mammals such as the Long-haired Rat.

Territorial animals, they mark their home ranges and burrows with urine and faeces. They may have several burrows in their home range, which can be as big as 25km². Kowaris also have scent glands that they rub on objects to mark as their own territory.

DON'T CONFUSE ME WITH...

Some closely-related species can be confused with the Kowari. It can be distinguished from the Brush-tailed Mulgara (*Dasymercus blythi*) and the Ampurta, also known as the Crest-tailed Mulgara (*Dasymercus cristicauda*) by its uniformly bushy tail, longer, lankier body and four, instead of five, toes on the hindfoot.

The Quoll and Tasmanian devil are also closely related.



Kowari

BEHAVIOUR

Nocturnal, they rarely venture out of their burrow during the day, except on cold winter days when individuals can sometimes be seen basking in the sun at their burrow entrance.

Opportunistic predators, Kowari hunt at night, feeding primarily on insects and spiders, but they also eat small lizards, birds and rodents.

Kowaris are solitary animals that will come together briefly to mate once between April and December, and usually following rain so there will be enough food around. Young are born 30-35 days after mating and newborn young are only 3mm long. Females have six teats to feed their litters, which rarely consist of more than six young. They are dependent on their mother for less than three months.

Kowari twitch their tails like cats as a threatening display and make a variety of sounds including hissing and a loud, high chattering in response to predators or another Kowari. Dependent young will make a grating call when they are distressed.



Kowari burrow

THREATS

Kowari are highly susceptible to predation from feral cats (*Felis catus*), with one population in Queensland presumed locally extinct due to a cat plague event.

Other introduced herbivores such as European rabbits (*Oryctolagus cuniculus*) can contribute to a decline in Kowari numbers by supporting cat populations, and through overgrazing the already scarce plant life, reducing the abundance of food resources.

Trampling of burrows and sand mounds by grazing livestock is a significant threat to Kowari.

Given Kowari abundance is linked to good rainfall, climate change may have long-term negative impacts on the Kowari and may lead to further contractions in its range.

HOW CAN YOU GET INVOLVED?

Sticking to established tracks when driving in kowari habitat will ensure you don't damage sand mounds and burrows.

You can also support Team Kowari, a conservation initiative featuring individuals committed to making sure the kowari is protected for generations to come. Team Kowari aims to educate the public about the kowari, the threats it faces, and the initiatives being undertaken to ensure its ongoing survival.

CONSERVATION EFFORTS

Securing the kowari's populations could then be critically important not just for its own sake, but also to maintain diversity in these regions.

Their small size and weight highlights the vulnerability of the species. It lies within the critical weight range (35-5500g) of mammals most prone to extinction in Australia.

Conservation efforts include reducing the negative impact of grazing livestock on Kowari habitat, controlling feral predators, rehabilitating degraded habitats and reintroduction programs such as the one happening at Arid Recovery's fenced reserve at Olympic Dam.



Female kowari with six joeys in pouch