

Endangered Animals of Australia



A

woylie or brush-tailed bettong (*Bettongia penicillata ogilbyi*).
JOHN CANCALOSI / GETTY IMAGES

The woylie, or 'brush-tailed bettong' (*Bettongia penicillata ogilbyi*) is a small member of the kangaroo family found mainly in Western Australia. These marsupials can be thought of as tiny landscape engineers; their foraging forms small diggings in the soil which trap nutrients native plants need to grow. Woylies are also good at saving food for later inside little pouches in their cheeks.

Before European settlement, woylies ranged across the southern part of the continent. Now, they remain only in an area in southwest Western Australia and six fenced reserves across Western Australia, South Australia and New South Wales. Predation by foxes and feral cats is the greatest cause of their decline, though research has also pointed to disease as a potential factor.

Spotted handfish



**A pair of spotted handfish (*Brachionichthys hirsutus*).
On the left is a female, on the right a male.**

The spotted handfish (*Brachionichthys hirsutus*) is a speckly, bottom-dwelling fish with unusually ‘handy’ fins. Rather than swimming, it makes its way along the sandy seabed by walking. These fish are also **family-oriented**; both parents look after the eggs and young, and offspring stay close to home for life.

The species was common throughout the Derwent estuary in Tasmania’s south-east prior to the 1980s, according to the [state government](#).

Today, small remaining populations persist around the estuary mouth. Causes of decline are uncertain, although research suggests lower numbers are related to predation of eggs by the northern Pacific seastar (*Asterias amurensis*), loss of sandy habitat by land clearing and heavy-metal contamination. Monitoring of extant populations and education programs supports this species’ survival.

Regent honeyeater



A regent honeyeater (*Anthochaera phrygia*).
HENRY COOK / GETTY IMAGES

The regent honeyeater (*Xanthomyza phrygia*) is an elegant white, black and gold honeyeater that used to be common across a large part of southern Australia. This bird has a knack for finding good food. As nomadic gourmet travellers, regent honeyeaters migrate hundreds of kilometres seasonally to reach spots where they can get their favourite meal: eucalyptus nectar from mugga ironbark, yellow box, white box or swamp mahogany.

Land clearing has largely devastated the woodlands and forests of box ironbark trees that form regent honeyeater habitat. An estimated 17% of ironbark habitat in Australia remains, according to [research](#) by Max Kelly from Deakin University and David Mercer from RMIT University in Melbourne. The species persists inland of the Great Dividing Range in New South Wales and Victoria. To save this species from extinction, a [breeding program](#) led by Taronga Zoo has begun building up natural honeyeater populations. Conservationists report the program is achieving positive outcomes: released captive-bred individuals are behaving in the same way as honeyeaters in the wild and have started breeding in their new homes.

Short-nosed sea snake



A short-nosed sea snake (*Aipysurus apraefrontalis*).
HALL COGGER

Short-nosed sea snakes (*Aipysurus apraefrontalis*) live in a small area on the coast of northern Western Australia. Members of the species have an impressive breathing ability. They can spend up to two hours under water, exchanging oxygen by means of a single long lung when they surface. To help them in the deeps, they also respire cutaneously: small blood vessels in the skin take in oxygen from water and diffuse out carbon dioxide.

In the 1990s the short-nosed sea snake was listed as the [3rd most common sea snake](#) in Ashmore and Hibernia Reefs, according to marine diversity researchers Michael Guinea and Scott Whiting. Since 2000, however, the species has not been detected at all, indicating a dramatic decline in the last 15 years. The major cause of this decline is uncertain, but warming ocean temperatures are likely to be behind it: coral bleaching reduces available habitat, and higher water temperatures themselves make survival more

Dinosaur Ant



The head of a dinosaur ant (*Nothomyrmecia macrops*) worker.

Dinosaur ants (*Nothomyrmecia macrops*) are an example of a 'living fossil', likely to be one of the most primitive ant species alive. They are unusual in resembling wasps, from which all ants evolved more than 100 million years ago. The species has an intriguing (and inflexible) foraging habit. Worker dinosaur ants [prefer to leave the nest at night-time](#), and only when temperatures are below 5°C. This preference for cool conditions could be linked to their ability to capture prey more easily, and avoid competition with ants that forage during the day.

Dinosaur ants were originally discovered close to Mt Ragged, Western Australia, but the known distribution is now limited to Eyre Peninsula, South Australia, according to [research](#) by Robert Taylor from the Australian National University in Canberra.

Bushfires and climate change are considered the greatest threat to this species. Canopy fires reduce food resources and leave worker ants outside the nest vulnerable. As climate change warms night-time temperatures, the ability for dinosaur ants to forage will be reduced. Mitigating climate change is the best hope for this unique Australian insect.