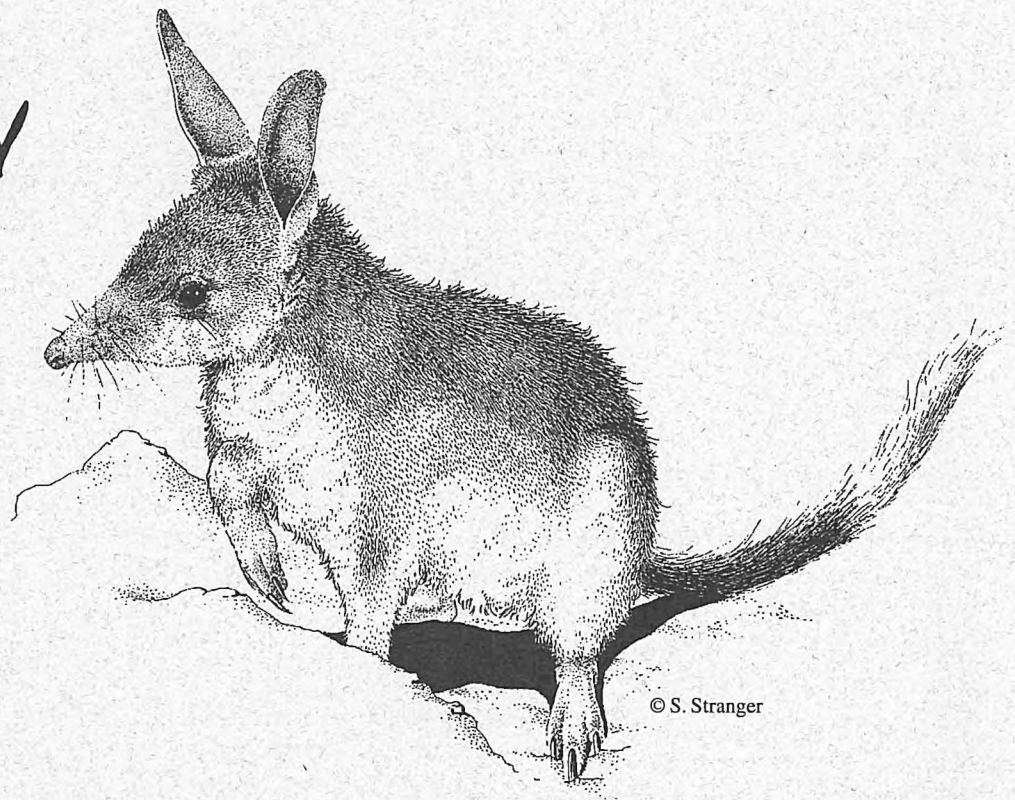


# Australia's threatened plants and animals

## BILBY



**Common names:** bilby, dalgyte, ninu, walpajirri

**Scientific name:** *Macrotis lagotis*

**National conservation status:** vulnerable

The greater bilby is a small native mammal with large 'rabbit-like' ears and a distinctive banded tail. Once common in many areas of Australia, the greater bilby is now classified as nationally vulnerable. The only other bilby species, the lesser bilby, *Macrotis leucura*, is thought to be extinct.

Bilbies are members of a group of ground-dwelling marsupials known as bandicoots which have long, pointed snouts and compact bodies. The greater bilby (referred to as 'bilby') is the largest of the bandicoots in Australia with a body length, excluding the tail, of between 29cm and 55cm. Males are usually twice as large as females and can weigh up to 2.5 kg. Bilbies differ from other

bandicoots by their larger ears, long silky fur and long tails (20 to 29cm). They also have different burrowing habits and a specialised diet.

The bilby's soft fur is mainly blue-grey, with white or cream on the belly and two fawn stripes on each hip. The tail is black with a crest of white hairs towards the end. Bilbies have slender hindlimbs with a large middle toe like a kangaroo, and very strong forelimbs and claws which they use for burrowing and digging for food. They are remarkable burrowers and each bilby may use as many as twelve burrows within its home range.

Bilbies are active at night and shelter in burrows during daytime. The burrows

spiral downwards for about two metres, with the entrance often hidden by a small bush, grass tussock or termite mound. If threatened, bilbies rapidly retreat into their burrow and may extend them to escape danger.

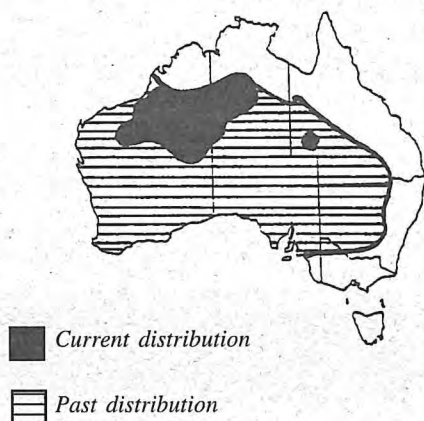
The large, almost hairless ears of bilbies are important for keeping them cool, as well as for hearing predators. Although they have poor vision, their smell and hearing senses are very good.

Bilbies have long slender tongues which they use for licking food such as seeds from the ground. They also dig for insects and insect larvae, bulbs, fruit and fungi. As surface water is often scarce in arid areas, bilbies obtain water from their food.

While bilbies are mostly solitary, they sometimes live in small groups of two to four. They breed throughout the year, possibly depending on rainfall and food availability. As with other bandicoots, bilbies have a short gestation period - only 14 days. Young are carried in the pouch for 75 days following birth and become independent quickly. In ideal conditions, females produce four litters of one to three young every year. Bilbies live for up to seven years in captivity although their life span in the wild is unknown.

## HABITAT AND DISTRIBUTION

Early this century, bilbies were common in many habitats throughout Australia, from the dry interior to temperate coastal



regions. Since then much of the bilby's habitat has changed, and bilby numbers have been greatly reduced. They now occur in fragmented populations in mulga shrublands and spinifex grasslands in the Tanami Desert of the Northern Territory; in the Gibson and Great Sandy Deserts and the Pilbara and Kimberley regions of Western Australia; and the mitchell grasslands of south-west Queensland.

## THREATS

While many factors are contributing to the dramatic decline of bilby populations, the most important are habitat change and competition with introduced animals. Late last century large numbers of bilbies were hunted for their skins. Others were killed by rabbit traps and poison baits. Bilbies are now protected by legislation.

Their habitat has changed rapidly as farming and grazing extend over the more fertile regions of Australia. Changing fire patterns also affect the type and abundance of food plants.

Competition with introduced animals is a major threat to the bilby. Domestic stock such as cattle and sheep eat the same plants. Rabbits reduce native vegetation cover, prevent natural revegetation and compete with bilbies for their food and burrows. Other introduced animals such as foxes and feral cats prey on bilbies.

Bilbies no longer occur in areas densely populated by rabbits and foxes, or on land intensively grazed by livestock. They now occur in small, isolated populations in the driest and least fertile regions of arid Australia. Each population is at risk from predation, disease, drought or inbreeding.

## RECOVERY ACTION

The bilby is protected throughout Australia where it occurs. A national Recovery Plan is being developed which aims to ensure the survival of bilbies. It

outlines recovery actions needed to bring bilby populations back to a secure status in the wild. Part of this process involves understanding the habitat requirements and distribution of bilbies, and identifying the processes causing the bilby's decline.

The Plan sets out key recovery actions. These include managing the bilby's habitat so that populations can expand, breeding bilbies in captivity, and eventually re-establishing bilbies in areas of suitable habitat where they previously occurred.

### *Northern Territory*

In the Tanami Desert of the Northern Territory, factors affecting the survival of bilbies are being assessed so that habitats can be managed appropriately. Research will involve monitoring aspects such as bilby numbers and distribution. Predator populations will be studied at selected sites in consultation with Aboriginal owners. At each study area, other factors such as rainfall, fire, vegetation and food availability, and the relationships between them will also be examined.

The mining community at Granites Gold Mine is also involved in protecting the bilby and its habitat.

### *Western Australia*

In Western Australia, a program to monitor bilby populations near Broome is in progress.

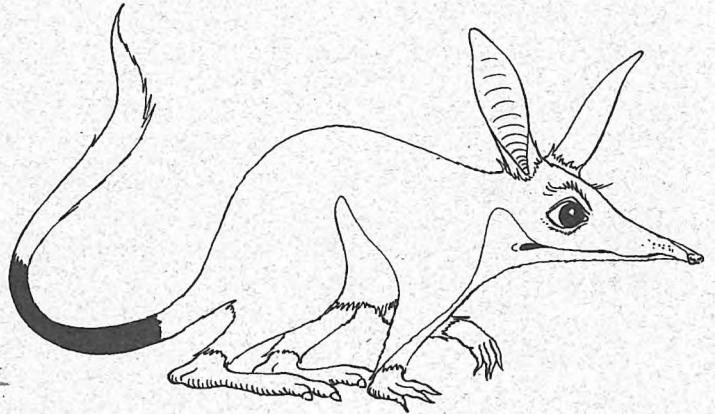
### *Queensland*

The bilby population in south-west Queensland is being closely monitored. A research and management program underway involves pastoralists in stock

and predator control to determine ideal conditions for the expansion of bilby populations.

### *Captive colonies*

A species management plan has been developed to manage the captive bilby colonies. This plan aims to retain the genetic diversity of the colonies as well as



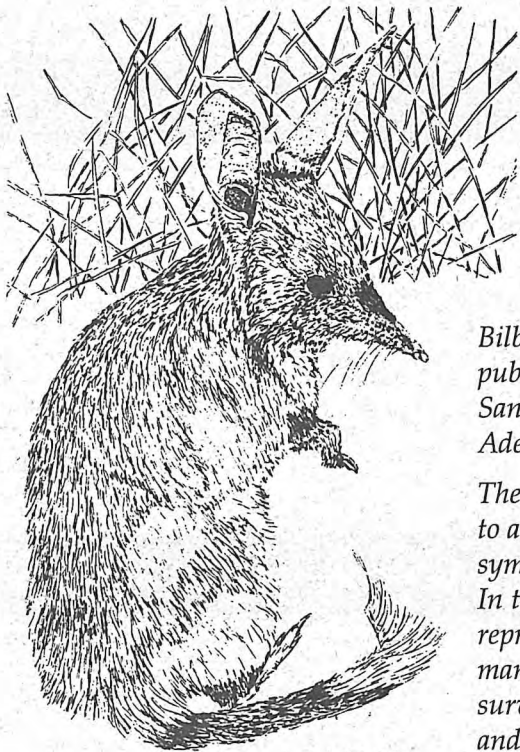
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maintaining a stable population structure. Captive bred colonies are held by the Conservation Commission of the Northern Territory, Western Plains Zoo in NSW and Monarto Zoological Park in SA. These sites will provide bilbies for release into the wild at suitable, protected sites in the near future.

It is hoped that wild bilby populations will be successfully re-established in South Australia and New South Wales (where bilbies are presently extinct).

## **DESERT ABORIGINES AND THE BILBY**

The bilby is an important part of traditional culture in the deserts of Central Australia. It is known as *ninu*, by Aboriginal groups such as the Pintupi, Pitjantjatjarra, Ngaanyatjarra, and *walpapirri* by the Warlpiri. Aboriginal people recount stories from the dreaming and perform ceremonies about the bilby. They also contribute their traditional knowledge to assist with the conservation of the bilby.



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*Bilbies are exhibited to the public at Currumbin Sanctuary, Taronga Zoo and Adelaide Zoological Gardens.*

*There is a popular movement to adopt the bilby as the symbol of Easter in Australia. In this context the bilby represents the concerns of many Australians for the survival of our native plants and animals.*

#### *Definition of status terms:*

**extinct:** has not been reliably sighted in the wild in 50 years, or after 10 years of thorough searching

**endangered:** likely to become extinct if threats continue

**vulnerable:** likely to become endangered if threats continue

## FURTHER READING

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Strahan R (1983) *Complete Book of Australian Mammals*. Australian Museum. Angus & Robertson.

Walton, D & Richardson, B (eds) (1989). *Fauna of Australia. Vol. 1B: Mammalia*. AGPS, Canberra.

## *A cooperative project of the Greater Bilby Recovery Team*

*NT Department of Parks & Wildlife; SA Department of Environment & Natural Resources; WA Department of Conservation and Land Management; QLD Department of Environment & Heritage; Australian Nature Conservation Agency; participating zoos of the Australasian Association of Zoological Parks and Aquaria; World Wide Fund for Nature and other community groups.*

## KEY CONTACTS

*NT Department of Parks and Wildlife  
PO Box 496, Palmerston NT 0831  
(089) 894 542*

*Ngaanyatjarra Council  
PO Box 644, Alice Springs NT 0871  
(089) 534 955*

*Central Land Council  
PO Box 3321, Alice Springs NT 0871  
(089) 516 258*

*WA Department of Conservation and  
Land Management  
Wildlife Research Centre  
PO Box 51, Wanneroo WA 6065  
(09) 405 5128*

*QLD Department of Environment and  
Heritage  
PO Box 155, Brisbane Albert Street  
QLD 4002; (07) 227 7718*

*SA Department of Environment and  
Natural Resources  
GPO Box 1047, Adelaide SA 5001  
(08) 204 8888*

*Monarto Zoological Park  
Princes Highway, Monarto South  
SA 5254; (085) 344 100*

*Western Plains Zoo  
PO Box 831, Dubbo NSW 2830  
(068) 825 888*

*World Wide Fund for Nature  
GPO Box 528, Sydney NSW 2001  
(02) 2476300*

*National Threatened Species Network:  
NSW: (02) 241 1438;  
VIC: (03) 9650 8296;  
WA: (09) 220 0652;  
QLD (074) 943 587;  
NT: Darwin (089) 413 770,  
Alice Springs (089) 521 541;  
SA: (08) 223 5155;  
TAS: (002) 343 552;  
National Coordinator (03) 9853 7244*

Endangered  
Species  
Unit

ANCA

GPO Box 636  
Canberra ACT 2601

Ph: 06 250 0200

Fax: 06 250 0214

September 1995

