 **Landcare Broken Hill Inc**

***Greening the Hill Mk2***

ABC Radio interview No.32 – 3 December 2019

**THREATENED SPECIES OF FAR SOUTH WEST NSW**

Today I’d like to talk about threatened species of Far South West NSW. In particular, today I’ll focus on animals, including birds and reptiles. (Threatened plants can be a future focus).

By ‘**species**’ I mean native animals and native birds. And I’m talking about our region of which Broken Hill is part. And when I speak of ‘**threatened**’, I’ll be talking about some of our most special, indeed most rare species that environmental law, **the NSW** [**Biodiversity Conservation Act 2016**](https://www.legislation.nsw.gov.au/~/view/act/2016/63), tries to protects.

The purpose of this Act is to maintain a healthy, productive and resilient environment for the greatest well-being of the community, now and into the future, consistent with the principles of ecologically sustainable development, and in particular—

(a)  to conserve biodiversity at bioregional and State scales, and

(b)  to maintain the diversity and quality of ecosystems and enhance their capacity to adapt to change and provide for the needs of future generations, and

(c)  …

(d)  to support biodiversity conservation in the context of a changing climate, and

(e)  …

(f)  to assess the extinction risk of species and ecological communities, and identify key threatening processes, through an independent and rigorous scientific process, and

(g)   …

(h)  to support conservation and threat abatement action to slow the rate of biodiversity loss and conserve threatened species and ecological communities in nature,

(i) – (o) …

## What is a threatened species?

A species is considered threatened if:

* there is a reduction in its population size
* it has a restricted geographical distribution, or
* there are few mature individuals (thereby having a reduced capacity to breed).

**A species may be listed under the NSW** [**Biodiversity Conservation Act 2016**](https://www.legislation.nsw.gov.au/~/view/act/2016/63)as:

* vulnerable
* endangered
* critically endangered, or
* presumed extinct.

**How threatened a species is in NSW depends on:**

* the extent of its population reduction
* the size of its geographical distribution, or
* the number of mature individuals.

**Populations, processes and habitat**

[**Populations of a species**](https://www.environment.nsw.gov.au/topics/animals-and-plants/threatened-species/about-threatened-species/threatened-populations) and [**ecological communities**](https://www.environment.nsw.gov.au/topics/animals-and-plants/threatened-species/about-threatened-species/threatened-ecological-communities) can also be listed as threatened.

Processes that threaten species may be listed as [**key threatening processes**](https://www.environment.nsw.gov.au/topics/animals-and-plants/threatened-species/about-threatened-species/key-threatening-processes).

Habitat essential to the survival of endangered or critically endangered species, populations of a species or ecological communities, can be declared as [**critical habitat**](https://www.environment.nsw.gov.au/topics/animals-and-plants/threatened-species/about-threatened-species/critical-habitats).

**Some species to describe**

Barrier Range Dragon

Five-ringed Brown Snake – seen last week at Penrose Park, Silverton

Chestnut quail thrush

Red-tailed black cockatoo

Grey falcon

Mallee fowl

Australian bustard - seen on our Rupee Station last year

Western blue-tongued lizard – seen on our Rupee Station

**What are the threats?**

**Ignorance** is one of the greatest threats because people simply don’t know about many threatened species – or rather, how to identify them if they see one.

Although no one should ever kill a snake without exploring all other options, because not only do they deserve to live but it is also illegal to kill them, however we know there are occasions when people can be seriously threatened by a snake and self-protection might demand immediate action.

There are two **legless lizards** on the threatened species list – the Mallee worm-lizard and the Marble-faced Delma. Legless lizards are entirely harmless to humans but, sadly, people often mistake them for snakes, especially the very dangerous Western Brown Snake. One of the defensive mechanisms of a legless lizard is to pretend to be a snake about to strike. Although they are comparatively small, people can be frightened by what appears to be a snake about to strike them when in fact it’s a harmless legless lizard. I once sadly witnessed someone dispose of such a lizard in supposed self-defence, when to me I could see it was a lizard and not a snake.

One of the local threatened species is a stripe-faced dunnart, which is a very small furry carnivorous marsupial. Last year my family and I spotted a fat-tailed dunnart under some old tin. If I hadn’t been alert and possessing reasonable knowledge about some small marsupials, I thought it could have been easily mistaken for a rat. And we know that the first reaction people have to rats is trap and kill them. A little bit of awareness can make the life or death difference for a small creature like a dunnart. Sadly, the stripe-faced dunnart is also threatened by insecticides as it loves to eat locusts. If a locust pesticide is used, the dunnart absorbs it and dies by eating a sprayed locust. Unfortunately this is a classic vicious cycle: the natural control of locusts is an animal like a dunnart, but when locusts are sprayed it kills the dunnarts, so when the locust cycle comes around again, they find they have to use more insecticides as there are fewer natural controls left, as they’ve died out.

**Predators** are one of the greatest threats to threatened species. The domestic cat which has gone feral is a perfect killing machine in the bush. The feral fox is just as bad. They both love to hunt and kill small mammals, reptiles and birds. Cats are masterful climbers and so are able to reach birds. The estimated kill-rate of native animals and birds due to the feral cat and fox is horrendous, yet it is hugely challenging to control them.

**Clearing natural habitat** is one the greatest endangering processes. Clearing the land of native vegetation is one of the worst threats to numerous species, in fact to the biodiversity in Australia.

The scale vegetation clearance in NSW and Queensland in recent years has been huge, which many scientists have said is far beyond sustainable levels – especially when one considers it is happening within the context of the horrendous drought. Vegetation clearance plus extreme dryness = massive dust storms such as those we’re experiencing with increasing regularity. But with every dust storm, to me it is an awful reminder of just how much natural vegetation habitat has been cleared away, threatening the very existence of so many species.

**Mismanaging total grazing pressure** (TGP) is a serious threat to many native species. TGP takes into account the combination of livestock grazing + goats + pests such as rabbits + macropods (eg kangaroos). Without properly assessing the carrying capacity of land can result in compaction of the soil, excessive destruction/loss of natural vegetation and soil erosion. To be sustainable a land manager must strive for ‘balance’ – a point at which native species and introduced grazing animals can live in harmony. To reach this point requires on-going control or eradication of feral species such as rabbits and goats. Where goats are being harvested rather than eradicated, it again becomes an issue of balance – essentially determining what the land can sustainably carry over the long term. Where this is mismanaged species become threatened.

**Fire** is an increasing threat to threatened species. With the extended fire seasons we are now experiencing in Australia – earlier than at any stage in Australian memory, and with the intensity of those fires exceeding past records – with this frighteningly frequent used classification of catastrophic - threatened plants species and native animals are hugely threatened. The news of the impacts of the fires on the koala populations further East has been truly awful. How any creature can escape such blazes is a miracle.

**MORE INFORMATION**

environment.nsw.gov.au/sos

[www.environment.nsw.gov.au/threatenedSpeciesApp/](http://www.environment.nsw.gov.au/threatenedSpeciesApp/)

**The next public meeting of Landcare Broken Hill will be early in 2020**

**In the meantime everyone can keep in contact via:**

**FACEBOOK:** [**www.facebook.com/LandcareBrokenHill/**](http://www.facebook.com/LandcareBrokenHill/)

**WEBPAGE:** [**www.LandcareBrokenHill.com**](http://www.LandcareBrokenHill.com)

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