



No. 31 Red Kangaroo Management Plan

Description

The red kangaroo (*Macropus rufus*) is a large marsupial 138-240cm from head to tail and 17-85kg in weight (females rarely exceed 30 kg). Male red kangaroos are usually pale buff to reddish-brown in colour (Figure 1), while females are paler and bluish grey in some parts of Western Australia. Both sexes have distinctive white underparts, a black and white mark on the muzzle and a broad white strip from the mouth to the ear. The fur is velvety in texture.



Figure 1 Red kangaroo (*Macropus rufus*)
Photo www.australianfauna.com

Male red kangaroos can be distinguished from females by their well-muscled shoulders and forearms. The muzzle is naked. Red Kangaroos can be distinguished from Euros by their stances. Red Kangaroos stand with their shoulders and wrists down (Figure 1), while Euros stand with their shoulders back elbows tucked into their sides and wrists raised.

Distribution and Habitat

Red kangaroos occur across the arid inland areas of mainland Australia. In Western Australia, they are found north of the south-west land division and south of most of the Kimberley (Figure 2). Isolated populations also occur in the wheatbelt and near Perth.

These kangaroos occupy a variety of habitats including open shrubland, mulga woodland, mallee scrub, grassland and desert.

Red kangaroo populations have increased in some areas since European settlement. This is due to the provision of water for stock and the control of dingoes, allowing the kangaroos to access the water in relative safety from predators.

Diet

Like ruminants, kangaroos have micro-organisms in their gut that break down fibrous plant material by fermentation. They survive better than sheep on vegetation that is high in fibre and low in nitrogen. Red kangaroos eat mostly grass but will also eat broad-leaved plants when grasses are scarce. The abundance of green food determines the proportion of females that breed and the survival of their young.

Red Kangaroos are mobile enough to respond to local variations in available feed, but do not migrate long distances (usually < 100 km). They appear to congregate on areas of green feed produced by localised rain, or along drainage lines where remnants of green feed persist.

Breeding

Red Kangaroos are capable of breeding throughout the year, if seasonal conditions are favourable. Young (joeys) are born whilst still at a very early stage of their development. At birth, they climb from the birth canal to their mother's pouch and attach themselves to a teat. They become independent of the pouch at about eight months of age, but continue to suckle from outside the pouch for up to six months.

During good seasons, a female may have a joey suckling at foot, another in the pouch and a dormant embryo in the uterus. The female comes into oestrous and mates again soon after the previous joey has been born and may retain an embryo in a dormant state in the uterus for up to seven months. This complex reproductive system may be an adaptation to periodic drought when dormant embryos recommence development to take the place of joeys that die. Prolonged drought may cause the reproductive cycle to cease altogether until the drought breaks.

Behaviour

Red kangaroos can survive temperatures over 40°C by using shade and avoiding activity during the day. They regulate their body temperature largely by panting and licking their forearms as a form of evaporative cooling. They also concentrate their urine to conserve water and can tolerate severe dehydration.

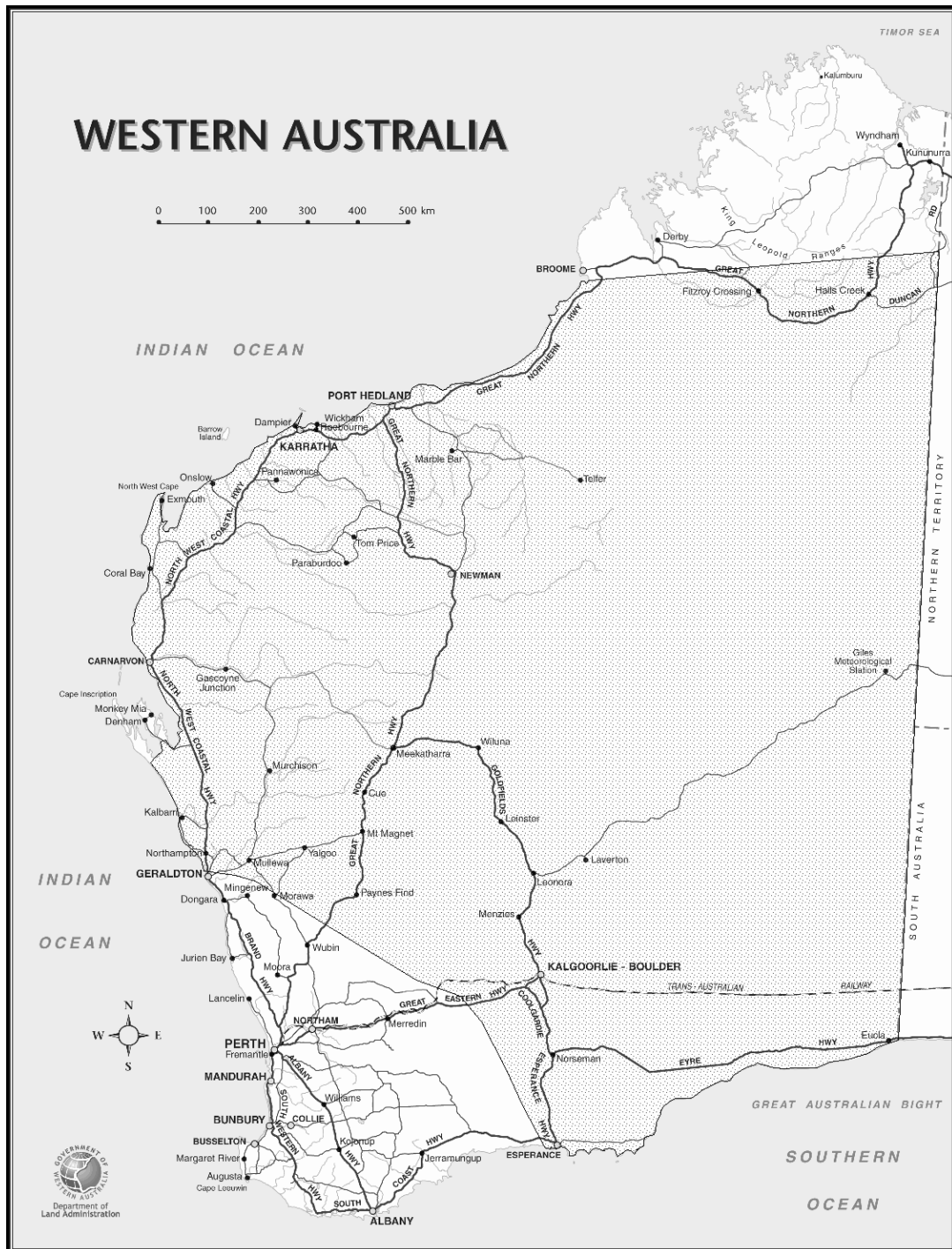


Figure 1 Distribution of the red kangaroo (*Macropus rufus*) in Western Australia (adapted from Long (1990)).

Damage

Red kangaroos have most impact on station management and pastoral production during drought. The degree to which the animals compete with stock for protein influences survival, reproduction and wool growth in sheep.

Status and damage reduction

Red kangaroos are declared pests of agriculture under the provisions of the *Agriculture and Related Resources Protection Act 1976*, administered by the Western Australian Department of Agriculture

and Food. This declaration allows for the approval and implementation of a management program in various areas of the state.

As native species, red kangaroos are protected under provisions of the *Wildlife Conservation Act 1950*, administered by the Department of Environment and Conservation (DEC). Under this Act, red kangaroos can be shot on private land in some parts of the State in accordance with an open season notice without the need to obtain a damage licence from DEC.

Open season shires

The current open season permits the shooting of red kangaroos on private property in specified municipal districts (see table below) without a damage licence. The populations in these shires are secure and damage to agriculture is likely to be an ongoing problem.

In shires outside the open season shires, a *Regulation 5 - Damage Licence* must be obtained from DEC prior to shooting.

Open Season Shires for the Red Kangaroo

Boulder	Mount Marshall
Broome	Mullewa
Carnarvon	Murchison
Cue	Northampton
Derby-West Kimberley	Port Hedland
East Pilbara	Roebourne
Halls Creek	Sandstone
Laverton	Shark Bay
Leonora	Upper Gascoyne
Meekatharra	West Pilbara
Menzies	Wiluna
Mount Magnet	Yalgoo

Open season restrictions for red kangaroos

1. The open season applies only on private land within the districts listed, including freehold land, conditional purchase leasehold land or any other leasehold land which is granted for the purpose of agricultural production under the Land Administration Act 1997.
2. Red kangaroos may be taken only when they are, or are be reasonably expected to, cause damage to primary production.
3. A DEC wildlife officer may, after inspecting a property within the open season shire, prohibit the shooting of red kangaroos on that property, until the landholder or leaseholder obtains a damage licence.
4. Red kangaroos may be destroyed only by the landholder or leaseholder on land which they own or occupy within the open season shire. If the landholder does not wish to, or is unable to carry out the shooting himself or herself, they may nominate an agent or a licensed kangaroo shooter to shoot on their behalf. The landholder or leaseholder must fill out a **Proforma Letter - for private property owners / lessees to authorise persons to enter their land and destroy kangaroos when they are causing damage to primary production**. The licenced professional shooter must carry this permit with them at all times when shooting. If the landholder or leaseholder does not know or have anyone to do the shooting for them, the local DEC office

can provide the names of licensed shooters in the district who may be able to assist.

5. Whether or not they are in an open season shire, a property owner may not shoot, then sell or move Red Kangaroos, their carcasses or skins for commercial purposes unless they hold the appropriate royalty tags and a Professional Shooter's Licence.
6. All shooting must be carried out in accordance with the provisions of the Code of Practice for the Humane Shooting of Kangaroos.

Red kangaroo management plan

The Red Kangaroo Management Plan for Western Australia is administered by DEC and was introduced in this State in 1971. The management plan meets the requirements of the Commonwealth Environment Protection and Biodiversity Conservation Act 1999 and Regulations, as well as State legislation.

Its aim is to prevent unacceptable damage to agriculture, whilst ensuring the long-term viability of kangaroo populations, including those at the local community level. Where possible, it also aims to manage kangaroos as a renewable resource without compromising the conservation of the species.

Commercial harvest quotas for red kangaroos are determined annually by reviewing current population trends, past seasonal conditions and trends in land use. Annual aerial surveys of kangaroos are undertaken to determine animal abundance and distribution.

Commercial use of kangaroos

The total number of red kangaroos that may be taken commercially is controlled by DEC through the issue of royalty tags. The tags are colour-coded for each kangaroo species. A tag must be attached to the each carcass or skin taken for commercial purposes in the prescribed manner.

If red kangaroo carcasses or skins are to be utilised for commercial purposes, damage licences and royalty tags must be obtained from DEC.

Yellow royalty tags for red kangaroos can only be allocated to Licensed Professional Shooters who hold a *Regulation 6 - Licence to Take Kangaroos for Sale*. All shooting must be carried out in accordance with the provisions of the Code of Practice for the Humane Shooting of Kangaroos.

For other management options see the table below or contact DEC.

Further Reading

- Fauna Note No. 30. Western Grey Kangaroo Management Plan. DEC, Western Australia.
- Fauna Note No. 36. Wildlife Trade Operation for the Euro. DEC, Western Australia.

References

DEC (2002) Red Kangaroo Management Plan for Western Australia 2003-2007. Department of Environment and Conservation.

Pople, T. and Grigg, G. (1999) Commercial harvesting of Kangaroos in Australia. Prepared for Environment Australia. Department of Zoology, the University of Queensland.

Anonymous (1998) Code of Practice for the Humane Shooting of Kangaroos. Environment Australia, Canberra.

Newsome, A. (1995) Red Kangaroo. In. The Mammals of Australia. (Ed. R. Strahan.). Reed Books, Chatswood.

Long, J.L. (ed.) (1990) Declared Animal Control Handbook. Agriculture Protection Board, Perth.

Oliver, A.J. (1986) Social organisation and dispersal in the red kangaroo. PhD Thesis, Murdoch University.

Further Information

Contact your local office of the Department of Environment and Conservation.

See the Department's website for the latest information:
www.dec.wa.gov.au.

Options for reducing damage caused by red kangaroos

Option	Application	Benefits	Costs
Shooting	Only legal method of destruction.	Humane if properly carried out. Effective in managing populations.	May not be suitable in built-up areas.
Fences and gates	Sloping, plain wire electrified fences are most effective. Fauna Note No. 32. Fencing and Gates to Reduce Damage by Kangaroos. DEC, Western Australia.	Safer in built-up areas and non-lethal. Suitable designs can alleviate damage. Can be less expensive than other fences.	If there are high numbers of resident kangaroos, limited shooting may initially be required to reduce numbers.
Poisoning, Snaring, Dog Baiting	Illegal under the <i>Wildlife Conservation Act 1950</i> .		Poisons can affect other animals including farm dogs. Snaring and dogging are cruel, ineffective and can result in more damage to fences and crops.

Last updated 25 June 2009

Further Information

Contact your local office of the Department of Environment and Conservation.

See the Department's website for the latest information: www.dec.wa.gov.au.



Department of
Environment and Conservation
Our environment, our future 

Disclaimer: This publication may be of assistance to you but the State of Western Australia and its officers do not guarantee that the publication is without flaw of any kind or is wholly appropriate for your particular purposes and therefore disclaims all liability for any error, loss or other consequence which may arise from you relying on any information in this publication.