



Kangaroo management in the ACT

March 2017

1. Summary

Kangaroos are a national icon, a special part of the ACT environment and of Canberra's image as the "Bush Capital". However, parts of the ACT have densities of eastern grey kangaroos which are sufficiently high to cause adverse environmental, social or economic impacts. The Conservation Council ACT Region acknowledges that kangaroo management is a complex issue needing to take into account scientific, ethical and social and considerations. The Conservation Council's ultimate concern is the environmental and biodiversity outcomes of kangaroo management: rigorous scientific knowledge must underpin kangaroo management in reserves or multi-purpose areas, especially to protect threatened species.



The Conservation Council supports kangaroo management as outlined in the [Eastern Grey Kangaroo: Draft Controlled Species Management Plan \(2017\)](#) to ensure the best possible biodiversity outcomes for the ACT and the ongoing viability of kangaroo numbers.

In the absence of more effective existing alternatives, the Conservation Council recognises the need for culling in circumstances of demonstrated over-grazing and the need to protect endangered ecological communities and nature reserves that support a range of species. This view is based on current scientific knowledge. Reductions in kangaroo numbers should be adequate (but not more than necessary) to prevent immediate repopulation and destruction of habitat. These culls have to be undertaken in a humane way in accordance with ACT animal welfare codes.

Reduction in kangaroo numbers must also be part of a strategic approach within a landscape context, and part of broader management strategies to protect and enhance ecological values from other threats such as rabbits, weeds and inappropriate fire management.

The Conservation Council supports ongoing research into alternative methods to culling which may provide viable options for controlling kangaroo numbers, e.g. reproductive control methods. However, measures are required now to reduce the impacts of over-grazing.

The Conservation Council acknowledges that kangaroo management can also have implications for people. This includes road trauma which includes effects on wildlife handlers. Also some people will not accept kangaroo management that includes culling.

The Conservation Council will review its position from time to time, as new research results and other information becomes available.

2. Context

The urban and peri-urban areas of the Australian Capital Territory are modified landscapes, which include a significant number of parks, reserves, utility and road easements, rural enterprises and other open spaces within and surrounding urban areas.

The management of Canberra Nature Park (CNP) which comprises most of the park and reserve areas has a hierarchy of overall management objectives as set out in the Canberra Nature Park Management Plan October 1999:

- a) conserve and improve native plant and animal communities and maintain biodiversity and ecological processes, including the improvement of wildlife movement corridors through the urban area to link with other areas of habitat beyond the urban area;
- b) conserve features of cultural, geological, geomorphological and landscape significance, including the setting of Canberra as the 'bush capital';
- c) protect CNP and adjacent areas from the damaging effects of fire, erosion, pollution, pest plants and animals or other disturbances;
- d) ensure appropriate practices by other agencies carrying out works in or adjacent to CNP;
- e) provide and promote a range of opportunities for raising awareness, appreciation and understanding of natural and cultural heritage values through research, education, community participation and interpretation;
- f) provide and promote appropriate recreation and tourism opportunities that are consistent with the management objectives; and
- g) preserve sites and biodiversity elements of scientific significance in CNP including geological, geomorphological, soil, plant and animal populations and sites used for scientific research.

The parks and reserves are managed for a range of purposes such as:

- visual amenity for residents and visitors
- recreational spaces for residents and visitors
- places where people can learn about the Territory's natural and human history
- places for biological and other scientific research
- preservation of local habitats and ecosystems as they existed prior to European settlement
- preservation of local habitats and ecosystems as they existed under Aboriginal management
- preservation of pre European settlement human artefacts (rock art etc.)
- preservation of post European habitats (e.g. farms) and artefacts (buildings etc.)
- preservation of non-local ecosystems and habitats that are now rare or non-existent elsewhere
- maximising biodiversity, including the reintroduction of species locally extinct (eg Mulligans Flat)

- preservation of ecosystems and/or genetic stocks that have the capacity to survive future ecological and other challenges.

The management of parks and reserves also takes account of impacts from animal species which can move outside the reserve areas, particularly onto roads; this can result in deaths and injuries to animals such as kangaroos and property damage to vehicles due to collisions with kangaroos.

3. Legislative background

The *ACT Kangaroo Management Plan (2010)* had been the key document underpinning management of kangaroos in the ACT. This instrument did not have a direct statutory basis, but the purpose of the plan was in relation to existing ACT legislation and how the plan would be put into action, for example:

- *Nature Conservation Act 1980*: Kangaroos are a native species so the Conservator needs a licence to interfere with the species (such as to conduct culling). [This Act has been superseded by the *Nature Conservation Act 2014*]
- *Planning and Development Act 2007*: Provides for the identification, reservation and management of public land that may include management plans for kangaroos.
- *Animal Welfare Act 1992*: This legislation covers acts of cruelty on animals, scientific research, and codes of practice for management and control of animals.
- *Code of Practice for the Humane Destruction of Kangaroos 1999* Based on the former national code, sets out practices for commercial and non-commercial shooting of kangaroos.
- *Pest Plants and Animals Act 2005*: Protects resources from threats from pest plants and animals through a strategic and sustainable approach to management.

The Executive Summary of the [2010 ACT Kangaroo Management Plan](#) states:

"The purpose of the kangaroo management plan is to set out the approach to be adopted in maintaining wild populations of eastern grey kangaroos in the ACT while managing their environmental, economic and social impacts and ensuring their welfare. Particular consideration is given to managing kangaroo grazing pressure on native grassy ecosystems in the context of grazing pressure from all herbivores.

"The goals of kangaroo management in the ACT are to:

- maintain populations of kangaroos as a significant part of the fauna of the 'bush capital' and a component of the grassy ecosystems of the Territory
- manage and minimise the environmental, economic and social impacts of those kangaroo populations on other biota, grassy ecosystems, ACT residents and visitors."

In February 2017, the Conservator for Flora and Fauna released its new [Eastern Grey Kangaroo: draft Controlled Species Management Plan](#) under the *Nature Conservation Act 2014*. This Management Plan will have a statutory nature under provisions in Section 7 of that Act, and will be a disallowable instrument. For instance the Act provides:

- Minister may declare a controlled native species - this is a disallowable instrument [s157] - key criterion is the species "is having, or is likely to have, an unacceptable environmental, social or economic impact."
- Conservator can prepare a controlled native species management plan [s158-160]
- the plan must be subject to public consultation - six weeks [s162] The plan is a disallowable instrument
- the Conservator must take reasonable steps to implement [s167]
- the conservator must monitor the effectiveness of a controlled native species management plan and must review each controlled native species management plan at least once every 5 years [s168].

On 7 February 2017 the Minister [declared](#) the Eastern Grey Kangaroo as a controlled native species under the *Nature Conservation Act 2014* and consequently the Conservator of Flora and Fauna prepared an *Eastern Grey Kangaroo: Draft Controlled Species Management Plan*. Community input to this plan was scheduled to close on 24 March 2017. Essentially the plan updates the 2010 Kangaroo Management Plan. The new plan looks at kangaroo welfare, managing interactions between humans and kangaroos, managing kangaroo densities and managing captive populations.

4. Causes of high densities of kangaroos

Unnaturally high densities of kangaroos occur in parts of the ACT due to a number of factors including:

- fragmentation and loss of habitat across the landscape
- natural propensity for kangaroo populations to increase when conditions are suitable
- human modification of the landscape and management practices (e.g. replacement of native vegetation with pastures, creation of urban open space, availability of reliable water sources) that favour kangaroos
- barriers that prevent kangaroos from migrating to more seasonally appropriate areas - some populations are enclosed or movement out of remnants is inhibited (e.g. by fencing)
- removal of competitors, or of predators such as thylacines (possibly by Aboriginal hunting or competition by dingoes) and dingoes (removed by white settlers)
- in ACT research, it has been shown that high fecundity of eastern grey kangaroos occurs even at high population densities and low food availability.

Kangaroos evolved in a land of high year-to-year climatic variability, and under predation from predators such as the marsupial lion and Thylacine. They developed an ability to reproduce at greater than replacement levels in the face of predation; a population can rebuild quickly after a catastrophic event such as a drought.

Kangaroo numbers were probably boosted by the arrival of humans, with their use of fire to convert forest and scrub into grasslands. Humans directly or indirectly caused the extinction of the mainland's large predators, and directly caused the extinction of the Thylacine in Tasmania. Humans also brought a new predator, the dingo.

The arrival of white settlers accelerated the conversion of woodland and forest areas to grassland, but also resulted in more effective culling of kangaroo numbers. This culling pressure was reduced in the latter part of the 20th century by the conversion of significant areas to protected areas.

5. Environmental impacts of kangaroos

Environmental impacts of kangaroos, based on research/studies, are set out in detail in the *ACT Kangaroo Management Plan*. This includes lists of threatened and uncommon species of plants and animals and impacts from grazing on individual species. Additional research is at [Conservation Planning and Research website](http://www.environment.act.gov.au/cpr/conservation-research/research) (www.environment.act.gov.au/cpr/conservation-research/research)

High densities of kangaroos in parts of the ACT can have a negative impact on the biodiversity of grassy ecosystems due to the grazing pressure they create, and other impacts such as camps under trees and erosion along their trails. This is of particular concern to the Conservation Council when there is a significant impact on threatened species and threatened grasslands and other ecological communities.

Many of the threatened plants and animals in native grassy ecosystems are rare, often inconspicuous, possess unusual life cycles and are rarely observed. These species have value and are important in their own right, but do not elicit the same level of public attention as do kangaroos themselves.

The ACT has action plans and recovery plans for a number of threatened and uncommon species, related to the conservation of natural temperate grassland, lowland woodland and riparian ecosystems and the component species of these ecological communities. These plans recognise that habitat loss is a key issue that impacts particularly on species such as Grassland Earless Dragon, Striped Legless Lizard, Perunga Grasshopper, Golden Sun Moth, Button Wrinklewort and Ginninderra Peppergrass. However, remaining patches/areas of habitat for these species can have low population densities or there are only a small number of sites, which can be adversely affected by overgrazing and, therefore, these species are placed at risk.

Without managing kangaroo numbers, these impacts may well drive already threatened species closer to extinction and create further loss of diversity in the overall ecosystem.

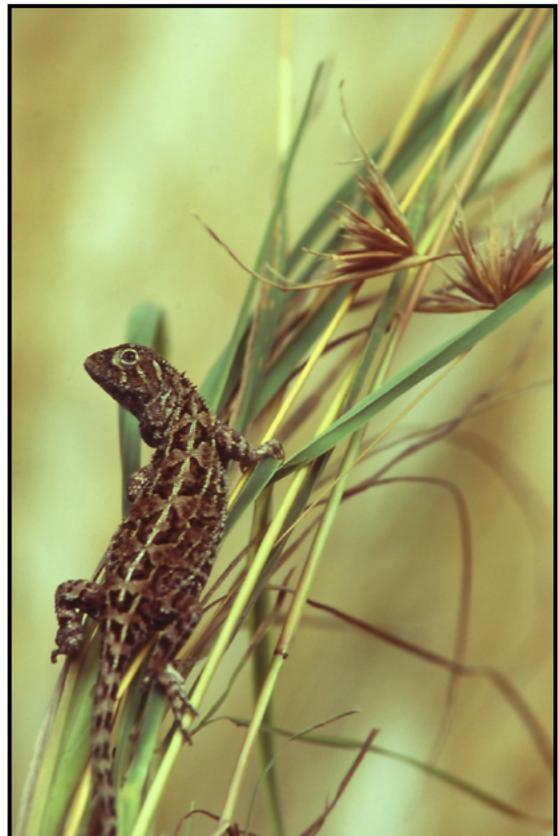


Figure 1 Grassland Earless Dragon (M. Evans, Environment ACT, 2011)

Birds which feed or nest on the ground can also be affected by overgrazing, and may not be able to persist at sites which have high densities of grazing animals. Several birds on the ACT threatened list which rely substantially on the ground layer for feeding are known to be declining in the ACT due to various factors, including factors such as simplification of the ground layer, e.g. Hooded Robin, Scarlet Robin, Brown Treecreeper.

6. Animal welfare issues and codes of practice

Ethical issues are a key part of considerations of kangaroo management. Human interventions with animals might have an impact on the individual animals involved. Population management measures must balance ethical considerations and animal welfare with the most effective outcomes for biodiversity conservation.

Kangaroo culling in the ACT is undertaken in accordance with the [Animal Welfare \(Humane Shooting of Kangaroos and Wallabies\) Code of Practice 2013](#) (the Code).

This Code sets a standard of humane conduct and is the minimum required of persons shooting kangaroos and wallabies for reasons other than commercial utilisation of kangaroo products (skins and meat). The Code, like most codes of practice, is implemented through education and relevant legislation.

7. Alternative management measures

The Conservation Council supports ongoing research into all control and management measures for kangaroos and pests in the ACT, so as to ensure that ACT policies relating to conservation and management are effective and are based on sound research.

Translocation

Translocation has been defined by the IUCN as the 'deliberate and mediated movement of wild animals or populations from one part of their range to another'. Translocation is a management approach described in the ACT Kangaroo Management Plan and is commonly adopted with the aim of solving human-animal conflicts, but it can also be used for conservation purposes.

Translocation of high-density kangaroo populations continues to be controversial and has been subject to only limited scientific evaluation. Translocation of problem urban wildlife is not supported by the Australasian Wildlife Management Society (AWMS) due to animal welfare considerations. Translocation to a destination that is already populated by the same species (or by a competing species) can result in overpopulation of the destination area, with consequent problems such as overgrazing and/or starvation. There are difficulties in finding appropriate release sites, and the exercise can be expensive.

The ACT does not currently endorse translocation as a viable management action for kangaroos (page 88, *ACT Kangaroo Management Plan* (2010)).

Fertility Control

The general aim of fertility control is to reduce the population growth rate of the species, resulting in a reduced demand for lethal control measures. Macropod fertility control

measures are still being researched in Australia, and the ACT is prominent in this area. Methods include contraceptive implants and vaccines. The methods are available, but there are issues around how long the treatment lasts and how effective it is. There is also a substantial cost barrier to using this method on a large scale.

The ACT is continuing to cooperate with research institutions and provide support in the development of fertility control methods for controlling eastern grey kangaroo populations (page 98, *ACT Kangaroo Management Plan (2010)*).

The Conservation Council supports the ongoing research into fertility control measures, supported by a cooperative agreement between ACT Parks and Conservation Services, and research institutions.

Reintroduction of dingoes/wild dogs

Recent research indicates that dingoes are not a breed of dog but a distinct species that is worthy of preservation, and that the reintroduction of dingoes could help to preserve the dingo and also to bring kangaroo populations closer to an ecologically sustainable level.

Dingoes are predators of kangaroos and can also reduce populations of exotic predators such as foxes, cats and domestic dogs.

The reintroduction of dingoes to areas in close proximity to human settlements would be controversial, would raise issues of coexistence with humans, and possible opposition by humans. Such issues have become evident in places like Uluru and Fraser Island. There is a possibility that dingoes would attack humans – in particular, children – and also a possibility that dingoes would be hunted by humans.

The ACT does not consider it practical to introduce predators such as dingoes to reserves within Canberra's urban area (page 100, *ACT Kangaroo Management Plan (2010)*).

Habitat management

Eastern Grey Kangaroo numbers could also be managed by replacing vegetation that is favourable to them with vegetation and/or habitats that are less favourable to them and more favourable to other species. This is not a simple issue and would involve long term planning/projects; there would be considerations including how this could be effectively achieved in particular areas/sites to reduce numbers of kangaroos, fire management implications, and cost implications.

8. Conservation Council position

Management of kangaroos in reserves or areas managed for multi-purpose use (especially those containing threatened species) should be based on the available scientific knowledge. Such management can help ensure the long-term survival of species and ecosystems and to meet ACT and national targets in biodiversity conservation. This management can include reducing the numbers of wild populations of eastern grey kangaroos according to animal welfare codes to manage their environmental, economic and social impacts.

Decisions to undertake humane management through conservation culling and other measures should be science-based and evidence-based, such as set out in statutory and operational plans endorsed by the ACT Government.

The Conservation Council is concerned about the impacts of an over-abundance of a common kangaroo species on regionally threatened fauna and flora species. The Conservation Council holds the view that it is inappropriate to maintain populations of an extremely common marsupial that is damaging some of the scarce viable habitat that remains available for these threatened species. The Conservation Council supports the humane management of kangaroo numbers in such circumstances, and believes conservation is a legitimate and necessary reason to reduce kangaroo numbers.

At the same time, the Conservation Council believes reducing kangaroo numbers (culling) should only take place after other measures to maintain habitat or other conservation areas have been undertaken, and then only if habitat continues to decline. Such measures include rabbit control, reduction of stock grazing and planned (ecological) burns.

9. References

ACT Kangaroo Management Plan (2010):

http://www.tams.act.gov.au/_data/assets/pdf_file/0012/394698/Kangaroo_Management_Plan_complete_for_web.pdf This Plan has a large and comprehensive list of references, which includes relevant scientific papers and other reports from survey and monitoring programs on particular species/issues.

ACT conservation research: the effects of kangaroo grazing on biodiversity Summary of recent papers (2015):

http://www.environment.act.gov.au/_data/assets/pdf_file/0008/715274/ACT-conservation-research-the-effects-of-kangaroo-grazing-and-biodiversity-15June.pdf

Action Plans and Recovery Plans for ACT threatened ecological communities and species

http://www.environment.act.gov.au/cpr/conservation_and_ecological_communities/threatened_species_action_plans

Animal Welfare (Humane Shooting of Kangaroos and Wallabies) Code of Practice 2013 – "The Code" <http://www.legislation.act.gov.au/di/2013-95/current/pdf/2013-95.pdf>

Choquenot, D. and Forsyth, D. M. (2013), 'Exploitation ecosystems and trophic cascades in non-equilibrium systems: pasture – red kangaroo – dingo interactions in arid Australia.' *Oikos*, 122: 1292–1306

IUCN Guidelines for Translocations and other Conservation Translocations (2013):

<https://portals.iucn.org/library/efiles/edocs/2013-009.pdf>

Canberra Ornithologists Group woodland bird survey data and analyses

<http://canberrabirds.org.au/conservation-2/woodland-birds/cog-woodland-bird-monitoring-project/>

Canberra Nature Park Management Plan 1999 <http://www.legislation.act.gov.au/di/1999-163/19990729-8381/pdf/1999-163.pdf>

[Redacted]
To: Environment

Subject: Conservation Council comments on Eastern Grey Kangaroo: Draft Controlled Species Management Plan

Date: Thursday, 23 March 2017 11:46:50 AM

Attachments: [20170319 Kangaroo management in the ACT - final.pdf](#)

Please find attached the Conservation Council ACT Region policy on [Kangaroo management in the ACT](#) as response to the call for comments on the Eastern Grey Kangaroo: Draft Controlled Species Management Plan.

Regards

[Redacted]
Executive Director, Conservation Council ACT Region

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