



2015 Conservation Cull Program

Why does the ACT Government undertake conservation culls?

While kangaroos are native animals they are still able to damage the environment. Heavy kangaroo grazing in critical conservation areas is threatening the survival of some local grassland sites and species. The primary goal of the conservation cull is to maintain kangaroos at sustainable densities to minimise the impact of heavy grazing on other native fauna and flora – important components of endangered grassland and woodland. High numbers of kangaroos can eat down the ground layer vegetation so it is no longer able to provide food and shelter for small animals such as reptiles, insects and ground feeding birds. Excessive grazing can also cause significant soil loss from wind and erosion.

Natural temperate grasslands are one of the most threatened ecosystems in Australia, and a large portion of this occurs within the ACT. Remnant patches of native grasslands in the urban area are particularly vulnerable to degradation because these ecosystems have been fragmented by the development of our city. These factors contribute to the need to manage grazing pressures on these areas.

Research demonstrates that both overgrazing and undergrazing in grasslands (by any species) can impact the habitat requirements of grassland dependent animals and plants. This is also a factor taken into consideration. Kangaroo populations are only reduced by culling locations where high kangaroo numbers pose a threat to ecosystems through overgrazing. Eastern grey kangaroos are integral to the conservation and healthy functioning of grassy ecosystems and, as such, the number to cull is based on the number of kangaroos that need to be maintained in the reserve.

The Report on the ACT Lowland Native Grassland Investigation by the Commissioner for Sustainability and the Environment (March 2009) found that:

“There is an urgent need for land management actions to be undertaken to protect the 60% of the Territory’s lowland native grassland sites that are currently in a critical condition or approaching this state. The threatening processes that have caused the demise of the grassland sites include weeds, inappropriate mowing regimes, overgrazing by stock, Eastern Grey Kangaroos and rabbits”.

Where will the conservation cull take place?

Culling on public land is only conducted in a proportion of the 35 nature reserves that make up Canberra Nature Park.

Culling is not undertaken in Namadgi National Park, where kangaroos are maintained as free-ranging populations, noting the presence of natural predators there.

This year, a conservation cull of up to 2466 eastern grey kangaroos will take place on nine grassland and woodland sites within Canberra Nature Park and neighbouring unleased territory land.

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These sites are:

- Callum Brae Nature Reserve
- Crace Nature Reserve
- Gorooyaroo Nature Reserve and adjacent unleased territory land
- Gungaderra Nature Reserve
- Kama Nature Reserve
- Mount Painter Nature Reserve
- Mulanggari Nature Reserve
- The Pinnacle Nature Reserve and adjacent unleased territory land
- Wanniasa Hills Nature Reserve.

What are some of the species the conservation cull is designed to protect?

Grassy woodland is critical habitat for four woodland bird species (in the list below) declared threatened in the ACT. These birds depend on ground layer vegetation, feeding on or near the ground. Heavy kangaroo grazing impacts on birds by suppressing the seeding of grasses which birds rely on for food. There is evidence that several woodland bird species are in decline in the ACT region. This is supported by a monitoring project of the Canberra Ornithologists Group which has established 142 monitoring points at 15 grassy woodland sites in the ACT with more than 10 years of data.

Examples of endangered species in the ACT that may be impacted by heavy kangaroo grazing include:

Animals:

- Grassland earless dragon
- Striped legless lizard
- Perunga grasshopper
- Hooded robin
- Brown tree creeper
- Superb parrot
- White-winged triller.

Plants:

- Austral toadflax
- Ginninderra pepper cross.

What else is the ACT Government doing to counteract threats to endangered species?

The demise of any flora or fauna population has many contributing factors. Given the current vulnerable state of grassland habitat in the ACT, it only takes a couple of other contributing factors to threaten an endangered species.

When assessing threats and impacts to native grassland, grazing impacts from all herbivores are considered along with other threats such as weed invasion. Rabbits are being

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controlled in the same reserves in which kangaroo culling will be undertaken. Weeds are also being targeted in certain areas where they pose threats to endangered species.

Management of native grasslands in reserves aims to avoid both undergrazing and overgrazing. The ACT Government is morally and legally obliged to act for the conservation of all species, including kangaroos, and seeks to moderate kangaroo overpopulation in conservation areas.

What sort of research has been undertaken to support conservation culling?

The grazing impacts resulting from high densities of kangaroos have been recognised for many years. These impacts have been documented in scientific publications dating as far back as a local study published by the ANU in 1989 (*The effects of grazing by kangaroos and rabbits on the vegetation and habitat of other fauna in the Tidbinbilla Nature Reserve* by HM Neave and MT Tanton).

In 2010 the ACT Government released the [Kangaroo Management Plan](#) as a guide to the management of kangaroos. It was underpinned by a large body of scientific evidence, referencing over 400 documents. The Plan has also been independently peer reviewed by an eminent ecologist and expert in kangaroo ecology, Associate Professor [Dr Graeme Coulson](#), from The University of Melbourne. Dr Coulson praised the Plan's principles and clear policies and advised the Plan '*will serve as a model for the management of kangaroos and other wildlife elsewhere in Australia*'.

The Report on the ACT Lowland Native Grassland Investigation by the Commissioner for Sustainability and the Environment (March 2009) found that 'of the Territory's 49 lowland native grassland sites, 40 per cent are approaching a critical threshold and 20 per cent are in a critical condition' and recommended that the ACT Government:

"Improve the ecological conditions of sites that are in a critical condition or approaching this state, by reducing current threatening processes of weed invasion, inappropriate mowing and overgrazing by stock, rabbits and kangaroos as a matter of urgency."

Following the publication of the Kangaroo Management Plan, numerous scientific papers have been published which support the need to reduce kangaroo density for conservation, based on research carried out in the ACT by CSIRO and universities (as well as papers not based on ACT studies). The ACT-based papers are summarised in '[ACT conservation research: the effects of kangaroo grazing on biodiversity](#)'.

Following the 2013 ACAT hearing in relation to the ACT Government's 2013 kangaroo cull licences, ACAT recommended that the ACT kangaroo counts and methodology be verified by an independent expert. The ACT Government sought an independent peer review of how cull numbers are determined. The resulting review supported the ACT Government's continuation of kangaroo management activities.

The peer review and the ACT Government response can be found on the [Territory and Municipal Services website](#).

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Is a conservation cull needed this year?

Yes, a conservation cull is needed this year. Research indicates that conditions in the ACT region are very favourable for eastern grey kangaroos and, as such, their population has continued to increase to the extent that various nature reserve areas of the ACT have some of the highest densities of kangaroos per square kilometre in Australia. This increase is due to the relatively stable environment, reduction of natural predators like dingoes, reduced hunting and shooting and reduced or eliminated competition from grazing livestock in many grasslands now reserved for conservation.

The high population of kangaroos leads to overgrazing in areas, destroying precious ecosystems and threatening the survival of some local flora and fauna species, including some listed as threatened.

How has the need to reduce kangaroo numbers on these sites been identified?

ACT Government ecologists determine the maximum number of kangaroos that can inhabit an area before the ecosystem can no longer support the population to set what is called the “carrying capacity”.

Kangaroo populations are estimated using scientifically based methodology that is used across all Australian jurisdictions. These methods are documented in the ACT Government’s Kangaroo Management Plan. Population counts are conducted at each separate site annually by ACT Government ecologists.

Field measurement and ecological modelling suggest figures for the ideal numbers of kangaroos and amounts of ground layer vegetation. These are specific to each site, and will be adjusted in future on the basis of increased knowledge. A separate calculation of the number to cull is carried out for each relevant reserve. A formula is used to help calculate the number of kangaroos to be culled as follows:

(A) the **number to remain** after culling is subtracted from (B) the **current population**, making allowance for (C) **population growth** in the interim.

More information is available in [‘Calculation of the number of kangaroos to cull’](#).

Why can’t the kangaroos be relocated?

Options for large-scale translocation are not considered feasible, due to the lack of available relocation areas, and concerns about survival rates following relocation.

In any case, the translocation of kangaroos may only serve to shift the problem elsewhere. It could cause enormous stress to the animals and put them at risk of starvation by releasing them into an ecosystem that is unlikely to support additional grazing pressure.

How will the conservation cull be conducted?

The eastern grey kangaroos will be culled according to the relevant [National Code of Practice](#). The cull method, shooting, is recognised by the Commonwealth, state and territory governments and RSPCA Australia as the most humane method of culling. An experienced veterinarian will be conducting an audit of the culling process.

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Expert marksmen will carry-out the cull. [An animal welfare and compliance audit](#) undertaken by an independent veterinarian in 2013 found 'all kangaroo carcasses inspected had been killed with a single shot'.

Kangaroo shooters in the ACT have to pass a challenging marksmanship accuracy test, overseen by an accredited Australian Federal Police Firearms Instructor. Additionally shooters must pass tests on the National Code of Practice and a macropod identification test to be accredited. The ACT is the only jurisdiction to test and accredit non-commercial kangaroo shooters and the testing process was made even more stringent and rigorous through improvements made in 2014.

What about the pouch young?

Research has demonstrated that eastern grey kangaroos have a strong seasonal breeding pattern with the majority of young born at a similar time of the year. To minimise the chance of orphaning dependent joeys and young-at-foot, the culling of female kangaroos is restricted to the period between 1 March and 31 July each year. This is designed to avoid the time when most females have large pouch young or young-at-foot that are dependent on milk.

Thus the majority of pouch young which will be encountered during the culling period will be small and unfurred, lacking a fully developed nervous system. Pouch young will be euthanised in accordance with the Code of Practice.

Research published in 2007 (*Managing Eastern Grey Kangaroos Macropus giganteus in the Australian Capital Territory: reducing the overabundance - of opinion* by D Fletcher) found the risk of young being orphaned at a vulnerable age is minimal in the ACT due to this policy. The ACT is the only jurisdiction to restrict kangaroo culling to a defined period.

Do other jurisdictions undertake kangaroo culls for conservation purposes?

Kangaroo culling is undertaken for conservation purposes in several national parks in Victoria. Native vegetation responses to kangaroo grazing pressure have been studied in Hattah-Kulkyne National Park, Victoria since 1984 and annual culls were undertaken for 20 years from 1990. Biodiversity monitoring undertaken following a cull at Hattah-Kulkyne recorded increased abundance of 20 rare or threatened plant species in culled areas compared to unculted areas. The objective is to manage kangaroo populations in parks and reserves as part of a program to restore threatened vegetation communities. For more information see the [Victorian Department of Environment and Primary Industries website](#).

How will you ensure public safety?

Sites, excluding Mount Painter Nature Reserve, The Pinnacle Nature Reserve and Wanniasa Hills Nature Reserve, will be closed each day from 3 pm until 7 am the following morning. Mount Painter Nature Reserve and The Pinnacle Nature Reserve will be closed each day from 5 pm until 7 am the following morning. All sites will be closed between Thursday 30 April and Saturday 1 August 2015. Surrounding residents living adjacent to Mount Painter Nature Reserve, the Pinnacle Nature Reserve and Wanniasa Hills Nature Reserve will be informed of the cull via a letter. Signs will also be erected at all entry points to the reserves. The reserves will also be patrolled by rangers and security cameras.

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Very strict safety procedures, developed in consultation with the Australian Federal Police, are followed during the cull.

Why has Government issued a two year licence this year?

Groups opposed to the annual cull have challenged the validity of the cull licences through the ACT Civil and Administrative Tribunal (ACAT) a number of times, including the last two years. On each occasion ACAT has supported the decision of the Conservator of Flora and Fauna and allowed the cull. Groups will have the option to once again challenge the issuing of this year's licence through ACAT. Should ACAT find in favour of Government, the cull will be free to proceed this year and next.

By issuing a two year licence it minimises the public expense of yearly defences to ACAT which are based on the same arguments.

The two year licence lists a number of reserves where culling may take place next year, but as always these will be based on scientific assessments and kangaroo counts.

What will happen to the bodies?

A proportion of kangaroo meat resulting from the cull will be processed into baits for use within the ACT Government wild dog and fox control programs. Currently the ACT uses approximately 6500 meat baits across the Territory annually.

The remaining kangaroo bodies will be buried. As with Tasmania, Victoria and the Northern Territory, there are no commercial kangaroo harvesting arrangements in the ACT. Given the relatively low number of kangaroos being culled, and the high costs of establishing, administering and monitoring a commercial operation, it is not cost-effective for the ACT Government to enter the commercial industry.

Will this type of conservation cull be a routine practice in ACT nature reserves?

The ACT Government will continue to annually monitor the numbers of kangaroos and the health of the vegetation in our nature reserves. As a responsible manager of land and wildlife, the ACT Government is committed to the principle of culling as few animals as necessary to protect our nature reserves and the endangered species dependent upon them. Small annual conservation culls also prevent the need for large-scale culls meaning fewer animals are killed over the long-term. The ACT Government will continue to annually review the effectiveness of the program.

What else is the ACT Government doing in relation to kangaroo management?

The ACT Government has been actively exploring long-term solutions to kangaroo population control for many years, providing funding and in-kind support for research into kangaroo control methods since 1998. The ACT is the only state or territory funding research into kangaroo fertility control. Recent trials, undertaken in partnership with the CSIRO (with funding from the Invasive Animals Cooperative Research Centre), of the contraceptive vaccine, GonaCon™, have provided encouraging results. It appears likely from preliminary results that GonaCon™ would provide a viable method for controlling the abundance of small, captive kangaroo populations. However, because each animal must be captured and handled to inject the vaccine by hand, this method is not a feasible option for the treatment of larger, more mobile populations.

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Over the next two years, the ACT Government and CSIRO will be undertaking further research on the use of GonaCon™ for kangaroo fertility control. The first stage of this project is to research a suitable dart delivery system so that the vaccine can be remotely delivered to kangaroos. If successful, dart delivery will provide a cheaper and more efficient way of administering the vaccine. The second stage of the project is to conduct field trials of the vaccine at various small sites in the ACT. These trials will evaluate the effect of the vaccine on the fertility of individual adult and sub-adult female kangaroos, and on the rate of increase of the populations, when it is administered by either hand injection or dart delivery.

The ACT Government is undertaking a research project to monitor the possible impacts of eastern grey kangaroo numbers and grazing on territory-controlled land, particularly in areas of endangered grasslands and grassy woodlands. This will complement current monitoring and research relating to kangaroo population counts and monitoring kangaroo movements using GPS collars

The [Kangaroo Management Plan](#) (released in 2010) guides future actions to keep kangaroo numbers at sustainable levels in the ACT. It is important to remember that kangaroo management is only one aspect of protected area management.

Further information

A large amount of information about kangaroo management is available on the [Territory and Municipal Services website](#). Some relevant links include:

- conservation and kangaroos
- kangaroo population control
- kangaroos: myths and realities
- summary of recent local conservation research.

You may also wish to refer to the *Report on ACT Lowland Native Grassland Investigation* on the [website for the Office of the Commissioner for Sustainability and the Environment](#).

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