

Australian Society for Kangaroos

'Dedicated to the victims of the largest wildlife slaughter in the world'



SUBMISSION

ACT Draft Controlled Native Species Management Plan Eastern Grey Kangaroo 24 March 2017

The justifications put forward by the ACT government in declaring kangaroos a 'controlled species' are unfounded and misleading. On the ACT government website where the above mentioned draft management plan is presented to the public, it states that:

Our lowland grasslands and woodlands no longer contain the large predators that were present historically. In the absence of these predators, kangaroo populations can get out of balance with their environment.

This is not accurate. Foxes and wild dogs are major predators for kangaroos with research showing foxes kill around 50% of all joeys born (Banks, 2000). Foxes are a significant threat to kangaroo joeys and the species as a whole particularly when you include other environmental and human factors affecting the survival of kangaroos such as road deaths, climate change, drought, floods, fire, parasites, disease, shooting, loss and dissection of habitat, development etc etc etc. Foxes and wild dogs have well and truly replaced any historical impact from dingoes or thylacines. Also thylacines have been extinct from the mainland for thousands of years so one cannot possibly use this as an argument to support the theory that kangaroo numbers have increased since white settlement as a result of the disappearance of the Thylacine.

According to a reliable study by Arnold (1991) kangaroos only breed according to what their environment can sustain and do not “*get out of balance with their environment*”.

The ACT government in defence of this draft management plan claims that:

Heavy grazing by kangaroos endangers other animal and plant species in these areas, including some endangered species and can lead to starvation among the kangaroo populations in times of drought.

The ACT government has killed tens of thousands of kangaroos in the ACT on public land since 2008 claiming it is to protect native and threatened species, however more than a decade later they have been unable to provide any rigorous or credible data or monitoring to support this ongoing annual massacre. There is no data whatsoever proving that the large scale slaughter of kangaroos on public reserves and defence land has increased the survival of threatened or non threatened species in the ACT or anywhere else, and if it did, wouldn't we would expect to see these threatened species taken off the threatened species register. If the ACT grassland threatened species remain on the threatened species list and fail to recover as a result of the slaughter of thousands of native kangaroos on public land,

shouldn't the validity of the program be in question if it is not achieving the objectives of recovering threatened species?

It is highly immoral and negligent that the ACT government has been unable to justify the cruel and unnecessary annual slaughter of tens of thousands of native kangaroos and their young in the name of “conservation” if there are no obvious benefits to the grassland species, and if they are de-classified to a controlled species, the government will never be accountable to the public for these ongoing kangaroo extermination programs.

Daniel Inglesias, an ACT government officer who spoke on behalf of the government when questioned in the ACAT Tribunal (ACT government vs Australian Society for Kangaroos, 2013), failed to answer key questions regarding the alleged impact of kangaroos on threatened species. All Mr Inglesias could say to the court was the government was merely using the argument about kangaroos impacting on threatened species as a PR exercise. So The ACT government has admitted on record in a court of law that there is no evidence to support the theory that killing kangaroos increases the survival of threatened species, yet they continue to mislead the public about this and are changing the protected status of a protected native species based on a lie?

It is also well documented in the scientific literature that rainfall is a major driver of kangaroo populations and not predation, and if food resources are not available, Eastern Grey kangaroos do not breed (diapause), reducing the risk of starvation considerably. Widespread starvation of kangaroos in the wild is rare, nor is there is any evidence of mass starvation of kangaroos in the ACT on private or public land. Killing perfectly healthy kangaroos to protect them from starvation in the future is a non argument on behalf of the ACT government and is no reason to change their protected status so they can be killed uncontrollably by those with vested interests. Also if you are killing perfectly healthy kangaroos as part of these annual killing programs in the ACT, it is destroying the genetically strong kangaroos which have already survived severe drought. These kangaroos will therefore be prevented from passing on their drought tolerant genes to the next generation. Killing perfectly healthy kangaroos will not protect kangaroos from drought, it will make them more prone to drought. That is what the natural selection process “survival of the fittest” does!

The ACT government claims that: ***Population control policies and actions are based on scientific knowledge supported by ongoing research, appropriate regulation and monitoring, and codes of practice.***

This claim is also misleading. The ACT government has provided ZERO “ongoing research” or monitoring data from past kangaroo killing programs on ACT reserves to prove the necessity of this cruel and unnecessary practice. Nor do the studies referred to by the ACT government in their draft controlled native species management plan prove conclusively that kangaroos have any impact on other native species. None of these studies are rigorous or balanced in regard to their findings on kangaroos and have multiple obvious confounding factors that have may have influenced the results and which were neither appropriately acknowledged by the authors or considered in the conclusions.

The most significant confounding factor in Brett Howland's 2014 study on kangaroos and reptiles was catastrophic drought, which would have significantly influenced the prevalence of water, rainfall, grass (biomass) and therefore food sources and reservoirs for the reptiles they were studying. Kangaroos cannot be blamed for reduced biomass, reduced water reservoirs or less food for reptiles when the study was undertaken in the middle of

catastrophic drought. Howland(2014) in his study also failed to acknowledge the presence of reptile predators or estimate the population of invasive grazers such as rabbits. Rabbits are a major factor in the measurement of biomass and grazing pressure within ecosystems and have been identified by every government and non government environmental organisation as a major threat to our flora and fauna. However rabbits were not counted or even estimated for the purposes of his study. This is a serious flaw that must be noted.

In Howland's subsequent study on the Legless Lizard (2016), not only did he fail to count or even estimate non native herbivores grazing in the reserves, despite briefly acknowledging their presence, he also failed to acknowledge the potential influences of other major threats to the Legless Lizard. There was no mention of cats, foxes, weeds, rocks (required for survival by lizards) or the presence of chemicals or phosphates in the soil which have also been identified as a major threat to the survival of the Legless Lizard and all of which have the potential to be confounding factors in this study. The only measurements made were of the lizards, the biomass and the kangaroos. There was no consideration or acknowledgment of the other major influences or threats that the lizards and reptiles could have been affected by and therefore his two studies cannot be taken as rigorous or credible in a scientific sense. His studies were also obviously heavily biased towards the large scale slaughter of kangaroos .

It must also be noted that one of the studies by Howland (2014), which is now being used to support the ACT government's annual killing program, was conducted by Bush Heritage, who was contracted by the ACT government to conduct the study. So in effect the ACT government funded this study which is now used to influence the public and support policies on kangaroo management. Howland's 2016 study was also conducted by Bush Heritage and hence we must view the results of both studies with caution. The ACT government has a clear interest in the outcome of these studies and if they funded them their influence on the outcomes should not be underestimated.

Here is a direct quote from Howland's 2014 study: *Competing interests: BH has been contracted by the ACT Government, the Australian Government and Bush Heritage on various occasions to conduct biodiversity monitoring activities relating to grazing.*

The ACT government has provided a list of various other studies in an attempt to justify the ongoing slaughter of kangaroos in the ACT and now in removing some of their legislative protections in the ACT.

McIntyre (et al) has two reports on this list. Her first study, *Biomass and floristic patterns in the ground layer vegetation of box-gum grassy eucalypt woodland in Gorooyaroo and Mulligans Flat Nature Reserves, Australian Capital Territory (2010)*, was by the author's own admission, very limited due to its short time period (6weeks) and associated low rainfall period which coincided with the drought Canberra was experiencing in the last decade (2007). Despite the authors of the study making various claims about the impacts of 'high grazing pressure' from kangaroos, there was no direct evidence provided to support this claim or reference to any control/comparison plots. The authors did however repeatedly refer to the domination of exotic weeds in the reserves at Mulligans Flat and Gorooyaroo which is particularly significant in this debate considering weeds have been identified as key threats for all threatened native grassland species. This study also regularly referred to the impacts of past pastoralism and fertilisation in the park which is also recognised as a threat to grassland species. Again like all of the other studies claimed by the ACT government to support kangaroo culling in nature reserves, this paper fails to show conclusively that kangaroos are causing the decline of any native fauna or flora.

Below are some direct quotes from this study:

“The effects of previous pastoralism on the ecosystems are significant and it cannot be assumed that protection status alone will allow the ecosystems to spontaneously recover their complete diversity and function”, and despite the allegedly high number of kangaroos in the parks, “the woodland species are densely regenerating in places and are developing a forest structure”.

The study was also incomplete with no actual exclusion or control plots to compare the impacts of kangaroos/rabbits vs no kangaroos/rabbits. This limited the the author's ability to make any rigorous conclusions about the impacts of kangaroos on vegetation or threatened fauna and flora. They clearly state that: *“Further details of the experiment and it's implementation are being reported elsewhere and are not germane to this paper as the treatments had either not yet been implemented (kangaroo control, fire, feral pest exclusion)...”.*

They also talked about aluminum toxicity within the reserves: *“Nearly half the sites had a ph of <4.5 which can be associated with aluminum toxicity(Jenkins,2000). These low values are possibly linked with prior pasture improvement”.*

*“The latter reserve (Goorooyaroo) was notable for its higher levels of *Phalaris (exotic weed) within the sites, and “The presence of annuals such as Trifolium subterraneum is considered to be a barrier to native perennial restoration”.*

They also refer to their inability to interpret the effects of kangaroo grazing versus past livestock grazing: *“The effects of past livestock grazing are confounded with the current impacts of macropod grazing”, and finally the authors admit the limitations of their study: “Our floristic description of the vegetation was necessarily restricted, owing to the seasonal conditions which were initially dry, and to the short duration of our observations (six weeks)..., Similarly we have probably underestimated the biomass of some late season C grasses”.*

It is not apparent if this study was peer reviewed or published.

McIntyre's second study, *Restoration of eucalypt grassy woodland—effects of experimental interventions on ground layer vegetation (2015)*, examined various factors affecting vegetation biomass, species diversity, ground cover attributes and life form, and included rainfall and seasons, kangaroo density, coarse woody debris and fire as the variables. Some of the results were as follows:

“Seasonal conditions and overall changes between 2007 and 2011- Total biomass increased overall by 67% over the four years, with the greatest biomass increases between the two surveys were of native perennial graminoids and forbs (increases of 277 and 54 kg.ha-1respectively) and native annual graminoids (41 kg.ha-1)”

Therefore it was the season and/or rainfall that had the most influence on the total biomass, and when the rains came in 2011, after a decade of drought, this significantly increased the total biomass and therefore the results of the study.

When they observed the changes influenced by variations in kangaroo grazing they found: *“The greatest accumulation of biomass was at Mulligans Flat, where experimentally reduced kangaroo densities enabled a total biomass increase of over 1300 kg.ha-1, a doubling of the 2007 average in the reserve four years previously. However while the*

lowered kangaroo densities over four years at Mulligans Flat reduced grazing pressure, (as evidenced by biomass increase) but had no detectable effect on plant diversity, as reflected in the species count"

So while the biomass was reduced at Mulligans Flat over this period, they found there was no difference in plant diversity as a result of reduced kangaroo grazing.

In contrast, the changes in biomass at Goorooyaroo were slightly different, with the authors finding: *"The effects of reducing kangaroo densities were less evident in Goorooyaroo, where the only detected effect was to reduce biomass of annual plants. At Goorooyaroo the high kangaroo density treatment did not reduce total, perennial, annual or native biomass. It did result in a significant difference in annual biomass with lower annual biomass under low kangaroo densities (Table 7), but the change in exotic biomass between 2007 and 2011 was not significantly different between high and low density. There were no effects of kangaroo density on species counts, live plant basal area, litter depth or bare ground in either reserve*"

So in contrast to claims made about kangaroos in the ACT Draft Controlled Native Species Management pPlan, and their impact on biodiversity, these results show that reducing kangaroo grazing does not effect plant diversity and in the case of Goorooyaroo, does not affect total biomass.

It is important to also note that the study was conducted between the middle and end of catastrophic drought in Australia, which in our opinion was not appropriately acknowledged by the authors but which can have a significant influence on the total biomass in the presence of native grazers. What is even more important to acknowledge but which the authors failed to, is that the kangaroos within the Mulligans Flat Woodlands sanctuary, are trapped inside an experimental boundary fence. They cannot sufficiently move around their environment when the food becomes scarce like they can at Goorooyaroo, and in the middle of a drought, kangaroos would instinctively move outside their home range in an effort to supplement their food when resources are scarce. They would not remain within an environment that had few resources if they had the choice to move around, and therefore the results taken from the Mulligans Flat site don't reliably represent a natural or healthy environment in which to conduct this experiment. Goorooyaroo reserve on the other hand represented a more natural environment where the kangaroos were able to move freely around thousands of hectares. This factor alone may have significantly effected the results at Goorooyaroo which clearly showed no change in total, perennial, annual or native biomass as a result of reduced kangaroo grazing. The authors concluded:

"Increases in native plant dominance and diversity can be seen to be mainly driven by the removal of livestock grazing and good growing conditions across both reserves, although there is some evidence of diversity increases in the presence of coarse woody debris".

The authors appear to conclude that the most significant factors affecting plant dominance and diversity is the removal of livestock and good growing conditions, and not reduced kangaroo grazing.

Another report listed by the ACT government as apparently supporting the ongoing slaughter of kangaroos in the ACT is by Barton et al (2011) titled *"Experimental reduction of native vertebrate grazing and addition of logs benefit beetle diversity at multiple scales"*. However this study does not relate to any threatened native grassland species or

reptiles and all it found was that exclusion fencing and the addition of habitat logs increased the number and richness of beetle species in a specific area. The study excluded all “vertebrate herbivores” from the experimental plot, however it did not indicate which herbivores they excluded and whether rabbits, deer, cows or other non native herbivores were included. This study was also carried out at the end of our last long drought, and therefore cannot be conclusive that the kangaroos were implicated in their decline or whether the climate or other herbivores were in fact involved in their decline. In fact the study did not even qualify whether this particular reserve previously had a “rich” beetle population naturally. Therefore there were too many unidentified confounding factors in this study to be used as conclusive evidence to support the killing of kangaroos in ACT nature parks. Nevertheless, the findings of the study were as follows:

“For ecological restoration, exclosure fences and logs can be used to manage the impacts of vertebrate herbivores at different spatial scales”.

The study by Manning (2013) also listed on the reference table by the ACT government in support of kangaroo culling, is not available for viewing online so I am unable to make an independent assessment of this for the benefit of our submission.

Another study referred to by the ACT government as supporting the annual kangaroo killing program is a thesis by Wendy Dimond et al, *Back to the brink population decline of the endangered grassland earless dragon (Tympanocryptis pinguicolla) following its rediscovery (2012)*. However this study only involved counting Earless Dragons in specified locations and did not actually study their threats. The author clearly admits that *“The next step is to diagnose the cause(s) of decline, or alternatively, factors limiting growth (Martin et al. 2007).”*

However the author does make several inferences about what they believe is the cause of their decline, in which they refer mainly to climate.

“The correlated nature of the declines in T. pinguicolla populations and the extreme drought conditions experienced in southern Australia (Ummenhofer et al. 2009) suggest that rainfall and temperature have been key drivers of the observed decline”.

“As an ectothermic animal T. pinguicolla survival and reproduction is likely to be highly affected by both temperature and rainfall”.

“Dry conditions have been shown to be an ultimate factor in forcing a lizard population to abandon reproduction altogether (Nagy 1973). Temperature may affect reproduction by modifying time of activity, as when temperatures are high activity can be reduced to prevent overheating (Adolph et al. 1993). A reduction in activity during spring may reduce encounters with members of the opposite sex and hence opportunities for mating. In addition activity has been shown to be positively related to total annual fecundity (Adolph et al. 1993). Changes in temperature may also influence the population sex ratio in species with Temperature-dependent Sex Determination (Mitchell et al. 2010) by skewing sex ratios, although it is unknown if T. pinguicolla exhibits such a mode of sex determination. Finally, variation in precipitation coupled with temperature may lead to dramatic changes in plant and insect numbers (Hunter et al. 2001; Staley et al. 2007) which in turn may limit the resources available to T.pinguicolla and cause fluctuations in population size and density (Ballinger 1977; Germano et al,2005)”.

Finally they admit that:

“Nevertheless, rigorous evaluation of the causes of decline and factors limiting survival need to be performed with current experiments under way to test hypotheses related to,

food availability, and grass cover”.

It is also important to note that the kangaroo is not listed as significant threat to the Grassland Earless Dragon in the *National Recovery Plan for the Grassland Earless Dragon* (Roberston & Evans, 2009), and the main factors involved in the decline of the Grassland Earless Dragon are thought to be “*loss and fragmentation of habitat due to urban, industrial or agricultural development, and these processes still threaten extant populations. In remaining areas of habitat, degradation processes are thought to have included: ploughing, changed fire regimes, changed grazing regimes, weed invasion, use of agricultural chemicals and rock removal. Introduced animals (fox, cat, rabbit, mouse, sheep, cow) have caused impacts to a range of biota in Australia and may negatively affect the Grassland Earless Dragon either by predation or by grazing.*”

According to the ACT government document, *Conservation Culling Calculator*, which is presented on the dedicated ACT government website in regard to this draft controlled native species management plan: ***On current knowledge it is estimated that a density of approximately one kangaroo per hectare in grassland is likely to provide the desired conservation environment in average pasture growth conditions for small animals such as the Striped Legless Lizard.***

It must be acknowledged that there are absolutely no references provided in this document to support their “culling calculator” or to elaborate on the “current knowledge”, nor is any rigorous research available to prove that these extremely low kangaroo densities are beneficial for conservation or for the survival of threatened species. Therefore there is no scientific basis or justification for changing the classification of the Eastern Grey Kangaroo to a “controlled native species”.

We also note the content within the same document regarding:

Nature Conservation (Eastern Grey Kangaroo) Rural Culling Calculator Notification and, The decision of how many EGK to cull on any particular property is best considered as a business decision by individual landholders, whilst Government control ensures that animal welfare and safety standards are strictly adhered to, in accordance with policy set out in the Eastern Grey Kangaroo:Controlled Native Species Management Plan.

This document appears to encourage the slaughter of massive numbers of kangaroos on private land at the discretion of the landholder, or the “business” owner, when there is absolutely no evidence that kangaroos have any significant impact on crops or pasture (Herbert & Alzer, 2011). As per killing for “conservation” purposes on public land, there is absolutely no evidence that killing kangaroos on farm land will increase agricultural outputs.

The fate of our national icon is now also in the hands of farmers on agricultural land if this draft plan goes ahead. Farmers have long held negative opinions about kangaroos who see them as no more than a “pest” or “rodents” destroying their livelihoods. The RSPCA has also made it very clear in their 2002 report that the slaughter of kangaroos by farmers is barbaric and cruel.

Kangaroos are a protected native animal that belong to everyone in the ACT, not just the ACT government. There is no credible evidence that they impact on native or threatened species nor compete for pasture or damage crops in a significant way. Therefore there is no

science to support what is effectively open season on our majestic kangaroo in the ACT on public and private land.

As a result of the ACT government's policy on kangaroo management and their unfounded and unscientific annual kangaroo killing program, kangaroos have nowhere to hide or to find sanctuary in the ACT. Year after year they are hunted, terrorised and slaughtered as their families, joeys and remaining survivors watch in terror and wait for their turn to be shot. They live in constant fear and grief from what they witnessed year after year. Their pouch young are bludgeoned to death in the most barbaric and brutal way, and their dependent at foot joeys are abandoned after their mother's are shot, left to die alone from starvation, exposure, predation and stress. According to government research, this is the harsh reality behind the slaughter of kangaroos even by professional shooters (Sharp and McLeod, 2014).

As for the social context of this annual killing program, and the claim within the ACT Draft Controlled Native Species Management Plan for Eastern Grey Kangaroos that: ***Surveys conducted in 2008, 2011 and 2015 indicated there is growing support for the ACT Government's approach to managing kangaroo populations:***

What these surveys reflect is that the Canberra public has been influenced by the false propaganda campaign delivered by the ACT government as part of their "PR exercise" to convince the public that kangaroo 'culls' are necessary. For the community who have faith in the government, with no prior knowledge of ecology or the dynamics of kangaroos, it is not surprising that they have fallen for the propaganda dished out by the government about the alleged impacts of kangaroos. This is the reason why the public believes they are necessary, because this is the only information they have been fed by the government. However the public has a democratic right to challenge the decisions that effect the welfare and survival of what is an ancient, iconic and protected native species, a spiritual and valuable creature within the Canberra landscape, the Eastern Grey Kangaroo, and if they are classified as a "controlled species" the government will no longer be accountable for this unnecessary genocide of our national emblem in the ACT.

Thank you for the opportunity to make a submission to the Draft Controlled Native Species Management Plan- Eastern Grey Kangaroo. If you require any further information please do not hesitate to contact us.

Regards

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