

Submission
No 258

**INQUIRY INTO HEALTH AND WELLBEING OF
KANGAROOS AND OTHER MACROPODS IN NEW SOUTH
WALES**

Organisation: Animal Liberation ACT

Date Received: 26 April 2021



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SUBMISSION FROM ANIMAL LIBERATION ACT FOR INQUIRY INTO THE HEALTH AND WELLBEING OF KANGAROOS AND OTHER MACROPODS IN NEW SOUTH WALES

Animal Liberation is an Australian animal rights organisation dedicated to ending all human activity that harms nonhuman animals and all anthropocentric and speciesist attitudes. As such, we act as a voice for the most exploited and vulnerable creatures on earth. Animal Liberation ACT is an incorporated association, managed by a committee elected each year by voting members of the association.

Animal Liberation ACT addresses the following terms of reference set for the Inquiry into the Health and Wellbeing of Kangaroos and other Macropods in New South Wales:

- 1. (c) threats to kangaroo, and other macropod, habitat, including the impact of:
(i) climate change, drought and diversion and depletion of surface water sources,**

Much, though not all, of Australia has just seen the end of an extremely harsh drought coupled with record high temperatures (Doyle & Jasper 2020). Though there are some who will argue that this is 'normal' for Australia and, indeed, it may well be. Nonetheless climate change, human-induced or 'natural', is a real and current player in Australia's weather and Australia's 'normal' is, and will, continue to be profoundly affected by climate change. And this has, and will, keep having negative consequences for mammals like the kangaroos.

Kangaroos have lived on this continent in one form or other for millions of years. They should have the capacity to survive the climate now and into the future as they have obviously done so in the past. The last 500 years have seen some fierce droughts. But in the past, pre the arrival of the 'European', kangaroos did not also have to grapple with other problems such as diversion of water supplies, cluster and exclusion fencing and land clearing for agriculture or development. These problems did not exist and so their ability to adapt at the rate expected of them (because of the rate of land clearing and development) now creates challenges they have never been faced with before.

Drought, Surface water and river systems:

There is a claim that there are more kangaroos now than ever before due in large part to greater access to water. But since the beginning of land development brought about by early agriculture more and more water has been drained, diverted, from various river systems across the country, NSW notwithstanding. Further, research is now pointing to a



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decline in rainfall. The message is clear. The State of the Climate report shows warming, it shows conditions drying through parts of Australia, and the projections are for hotter and dryer conditions “For example, 2019 experienced 43 extremely warm days, more than triple the number in any of the years prior to 2000. This increasing trend is observed at locations across all of Australia” (The Bureau of Meteorology and the CSIRO 2020). And in southeast Australia there has been a decline of around 12% in April to October rainfall in the 1990s (The Bureau of Meteorology and the CSIRO 2020). This comes at significant cost, as it continues into the future, for the kangaroo with not only river systems drying up but less rainfall to content with as well.

Climate change is creating conditions where even though there is some rainfall overall it is in decline, while at the same time the country is heating up. During the last drought much was written of the collapse of the Murray-Darling Basin. Further exacerbated by the “Overextraction of water” which “is creating an absolute disaster. ... We’re at the precipice now. Literally within the next five years you could have the whole Murray-Darling Basin system collapse.” (McBride in Bloomberg Green 2020). This the river systems and all its tributaries that kangaroos relied upon for water are now drying up. The State of the Climate report states, “In the Murray–Darling Basin, more than three quarters of the long-term streamflow gauges show a declining trend since records began in 1970.” (The Bureau of Meteorology and the CSIRO 2020). Many wetlands once present in NSW are now long gone “In Australia, destruction and alteration of wetlands has occurred predominantly in the urban and agricultural areas (south east and south west)” (Kingsford, Basset & Jackson 2016). All these significant reductions in natural watering points are arguably having a significant and deleterious effect on kangaroo heath and wellbeing.

Artificial watering points that are often referred to in discussions around watering points are not the regular sources of water that is often argued. Instead, exclusion fencing and cluster fencing limit access to watering points. Recently it was suggested that artificial watering points should be closed in NSW. The NSW government Integrated Kangaroo Management Plan claims “The increased abundance of artificial stock watering points across the Western region is regularly cited as one of the factors causing kangaroo overpopulation as animals are less constrained by distance from water in seeking forage. On this assumption it therefore makes sense that controlling of artificial watering points (troughs, flowing bores and ground tanks) so that they can be closed when paddocks are destocked will reduce kangaroo activity.” (NSW Kangaroo Management Taskforce n.d.). Hence, rather than creating more water sources for kangaroos we are actually destroying or denying water sources. This impacts the kangaroo populations which will not breed unless the environment is right for the successful rearing of the young. Further, this reduction in water supply has a direct impact on the kangaroo health and wellbeing when combined with drought, land clearing, and exclusion or cluster fencing.



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Solution: That the NSW Government take these factors into account when deciding on the numbers of kangaroos to be killed in any given year. And that watering points should not be fenced off to disallow water for kangaroos.

(ii) Bushfires:

NSW has just experienced some of the worst bushfires in its history “The 2019–20 bushfires were unprecedented in their extent and intensity, with the fire ground in New South Wales covering 5.5 million hectares (7% of the State), including over 2.7 million hectares in national parks (38% of the NSW national park system).” (NSW Department of Planning, Industry and Environment 2021). And ““The extensive and long-lived fires appear to be the largest in scale in the modern record in New South Wales, while the total area burnt appears to be the largest in a single recorded fire season for eastern Australia”” (Parliament of Australia 2020).

Conservative estimates of the numbers of wildlife killed in the fires are “more than 800 million animals” (Dickman in Parliament of Australia 2020). Kangaroos figure in these deaths. There is a popular misconception that unlike koalas, kangaroos can flee a fire successfully, and indeed they try. But this does not mean that they manage to escape death as they face being overcome by smoke or flames, or to die much later of injuries sustained in the fire. They are also likely to perish from lack of food in their burned habitat. Among these 800 million dead animals would be thousands upon thousands of dead kangaroos, possibly millions.

As much as it is easy to argue that fewer kangaroos would have died due to their mobility it is just as easy to argue that many were unable to escape due to the intensity and speed of the fires. The young at foots particularly, still dependent on their mothers, would have suffered terribly in these fires. They simply would not have had the speed, capacity, and experience to outrun them. In their panic the family groups would have lost contact with one another, mothers separated from their babies as they tried to outrun the fires. One land holder in Tasmania for example stated that “Of the 150 wild roos living on her 850 acres she’s only found 18 alive” (Dalstrom 2020).

To add to this nightmarish scenario wildlife carers in NSW were not allowed into the fire-impacted zones for some time after the fires had been brought under control. Even in the recovery phase as set out by the NSW government document Wildlife and Conservation Bushfire Recovery (2020) there are further barriers to the kangaroo’s successful recovery of their numbers. There is mention of “planning for the installation of feral proof fences to protect recovering vegetation and wildlife communities.” But these fences are a death knell for kangaroos and other macropods trying to recover while foraging for much needed food and water. And although there was mention of “Over 2 tonnes of supplementary food delivered to brush-tailed rock-wallabies” there was absolutely no mention of food drops for other kangaroos, particularly the ones labelled ‘common’ who are the target of the commercial and land holder kill in NSW. So not only were wildlife rescuers not allowed to enter burnt zones, but the kangaroos were not given food drops. This was certainly not conducive to good health and well-being outcomes for kangaroos.



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In addition, the NSW government states, "In 2020 the New South Wales Government estimated that the population of Kangaroo species they were targeting for the commercial trade in wildlife, that is, Red Kangaroo, Eastern and Western Grey Kangaroos and the Wallaroo, was 10,452,526 and in 2021 they plan to kill 1,598,761 for commercial purposes" (Creative Cowboy n.d.). Yet the drought which was still lingering in many parts of NSW just before the fires beginning at the end of 2019 and continuing into early 2020 and is still ongoing in some parts of NSW, was thought to have contributed to the deaths of 4 million while "In Western NSW I think the numbers dropped by about 45 per cent initially," (Cairns in Gorman 2021). One has to ask are these 4 million part of the government's estimated 10 million or so? This leads one to conclude that the population estimates are disingenuous. Or has the government revised their figures? Either way the welfare outcomes do not look good for the kangaroos of NSW.

Solution: That the NSW Government does not allow shooting in any given year when there has been major or significant bush fire activity which has impacted kangaroo habitat.

(iii) land clearing for agriculture, mining and urban development,

Since the European colonisation of this continent land clearing has increased dramatically over the 220 years since our arrival. Land clearing whether legal or illegal, contrary to popular myth, does not open up more 'pasture' for kangaroos. As you will see in the discussion on cluster fencing and exclusion fencing, the land that is cleared is cleared for stock and not for kangaroos. Kangaroo habitat is not necessarily naturally open pasture which is all that land clearing offers. Even those species declared as 'common' such as the Eastern Grey which are not normally linked to wooded habitats still prefer a wooded habitat interspersed with open grassy areas. Wooded habitat is important to their safety.

As Mjadwesch (2011) states "Simply put CLEARING OF NATIVE VEGETATION was listed as a KEY THREATENING PROCESS in NSW under the TSCA 1995 (NSW Scientific Committee 2001). Just because kangaroos are not listed under Appendix 1 of the FINAL DETERMINATION does not mean they are not affected; it just means that no-one has yet established a link between clearing and declining kangaroo populations, or identified kangaroos as being threatened by this process."

In other words, no one has bothered to research the full effect of land clearing on kangaroo health because of the assumption that they never needed the forested areas to survive with in the first place. But the forested areas have always at the very least provided a safe haven for kangaroos from predators. Forested areas in times of intense heat and drought also help sustain populations of kangaroos and promote their wellbeing through relief from the heat and through the water and food which is present in forested areas.

Further, forested areas are of vital importance to kangaroos because the more forested areas a country has the less like it is to suffer significant drought. The NSW government itself states "the 2002-03 El Nino drought in eastern Australia was on average two



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degrees hotter because of the land clearing, and the region's average summer rainfall has decreased between four and 12 per cent for the same reason". (New South Wales Government n.d.). if the land is hotter and drier then inevitably there is more significant drought which in turn directly effects the health and wellbeing of the kangaroo.

Solution: That the NSW Government tightly regulate the land clearing and logging industries within NSW and ensure that the land that is often set aside as an offset is a serious offer and not tokenism.

(iv) the growing prevalence of exclusion fencing which restricts and disrupts the movement of kangaroos,

The problem that cluster fencing or exclusion fencing is an additional problem on top of traditional fencing issues. Even traditional fencing styles (generally mesh-type TGP fencing) we see commonly used on land holder borders in eastern parts of NSW does not promote the health and wellbeing of kangaroos. Wildlife rescuers can evidence the terrible injuries this type of fencing with the barbed wire at the top and the use of a selvedge wires (often where a kangaroo's feet or toe will get jammed between it and the fence wire below as they jump) causes kangaroo populations with many (though unknown) numbers often left hanging (when caught after trying to jump the fence) for days on end, no food, water, not being able to get loose, only to die slowly, in terrible pain. This type of death is not uncommon and yet is not discussed by governments or those in charge of animal welfare policies.

Exclusion fencing is a type of fencing that predominantly exists in the western parts of NSW. The Integrated Kangaroo Management plan adopted by the NSW Government Kangaroo Management Task Force states this type of fencing "Provides total control of kangaroo movement, as well as that of other pest species" (note the use of the phrase 'other pest' in this sentence) (NSW Kangaroo Management Taskforce) and argues that even though the animals on both sides of the fences may have their welfare impacted negatively that this is offset by what they argue is the 'abundance' of this population in the desert areas. However, there is no evidence given to support the is claim and so it is only an assumption.

Exclusion fencing impacts a kangaroo's wellbeing by dividing off family members, one from the other, puts them at risk in times of food shortage (they cannot move beyond the fence to forage), makes them more likely to be predated by humans from shooting, stops the home range migration which is needed to allow the regrowth of grasses kangaroos have eaten, and the foraging for water in times of scarcity.

Cluster fencing is a type of fencing that predominantly exists in western NSW as well. The Kangaroo Management Task force (2020) describes it thus "The term "cluster group" refers to co-operative arrangements where an incorporated group of landholders develop a multispecies management zone surrounded by a perimeter exclusion fence to encompass multiple landholdings under different ownership." What the document does



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not do is describe how this looks and the problems that kangaroos face because of this style of fencing. The fencing is used by a group of property owners with neighbouring land holdings. It can result in thousands upon thousands of acres of land being enclosed by fencing (similar to exclusion style fencing). This will mean that the wildlife trapped inside each paddock as it intersects with the next fenced paddock cannot escape.

This can and does lead to slow death due to starvation, lack of water, and being randomly shot as they are trapped in the corners of a particular paddock. Even commercial shooters who are dominant predators of kangaroos are concerned for the welfare of kangaroos caught inside this style of communal fencing. King, a commercial shooter states kangaroos caught in this fencing trap “die of thirst or die of hunger because some of the places they get there's no feed so the Kangaroos can't migrate any further.” Further he also states that due to some property owners inviting sporting shooters to come and kill kangaroos that “I've seen kangaroos shot from the tip of the ears to the tip of the tail just blown away and left the joey there in the pouch still alive” (Bradfield 2017). Obviously, this style of fencing does much more harm than good in terms of a kangaroo's health and wellbeing.

Solution: Ban the use of exclusion and cluster fencing. Instead researching creative and non-lethal solutions to the conflict between land holders and kangaroos.

(e) current government policies and programs in regard to 'in pouch' and 'at foot joeys' given the high infant mortality rate of joeys and the unrecorded deaths of orphaned young where females are killed,

Government policies and kangaroo management programs are often based on the popular assumption that kangaroos overpopulate and have population ‘explosions’. But kangaroo reproductive biology as influenced by environmental factors disallows this. Yes, some kangaroos do have an undeveloped embryonic cell plus an in-pouch joey and an at foot joey. But as Mjadwesch states “Embryonic diapause, where the growth of a 70-100 celled blastocyst is suspended in the ovary, does not confer any super-fecundity on a kangaroo. It simply delays normal growth of an embryo.” And as pointed out by Renfree and Fenelon (2017) “seasonal factors such as light, rain and food availability are also controlling factors” as to whether that embryo cell continues to develop”. And that putting an embryo to sleep, keeping it safe, and waking it up again is a highly complex (Renfree and Fenelon 2017) process which few know little about and is not this seemingly straight forward event that the government, commercial shooters, farmers, and some scientists present to the public when discussing killing kangaroos and using diapause as a significant reason as to why they should be shot to be managed. Further some species like the Eastern Grey for example rarely use diapause.

The other element not taken into consideration within government policies and programs in regard to mass slaughter of kangaroos is the fact that the embryonic cell once it starts developing then has to crawl (at this stage it is the size of a jellybean with only stumps from which, much later on and once positioned within the pouch, legs, hands and feet will grow) from out of the birth canal up the outside wall of the pouch (so exposed to all



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the elements) then if it makes it has to enter the pouch and crawl down inside the wall of the pouch and then attach itself to the teat. Their mouth is very tiny at this stage as well and so there is no guarantee this will occur. Thus, the birth of the joey is fraught with problems in trying to establish itself for full development. At any stage if the mother jumps the tiny jellybean sized baby can fall on to the ground and die. At any stage the tiny baby can simply not be able to hang on enough and will fall to the ground to die.

Once safely in the pouch the joey still faces a 70-80% mortality rate. Mjadwesch asserts “Wild kangaroo juvenile mortality in the first year of life is similar to other mammals in that it is high [13] – around 73% [14] in optimal natural conditions. 50% of emergent young Eastern Grey joeys still dependent on their mothers have been recorded as being taken by foxes. [15]” and goes on to explain during drought conditions the mortality rate can be as high as 100%. The threats faced are predation by foxes or eagles, lack of nourishment if the mother is struggling during lean times, loss of the mother due to predation by humans or illness. Loss of the mother because of shooting is a number one threat to the young. We have no idea of the numbers of at foot joeys left to fend for themselves which most often results in death. The at foot joeys are heavily dependent on their mothers for survival. And without her they will most likely die. This presents a very real threat to a kangaroo’s welfare, health, and wellbeing.

Solutions: the killing of kangaroos be banned altogether or that at the very least the killing of female kangaroos should be banned.

Further issue that needs to be raised re health and wellbeing of kangaroos:

Lack of independent oversight:

Both the commercial and non-commercial killing of kangaroos lack independent oversight. The various codes of practice for example the National Code of Practice for the Humane Shooting of Kangaroos and Wallabies for Commercial Purposes and the Code of Practice for the Humane Shooting of kangaroos and wallabies for non-commercial purposes have been created by those who support and advocate for the killing of kangaroos. This means there will be an inherent bias in both codes - a bias that does not apply a filter to expose the problems within the code. For example, both codes allow the killing of female kangaroos and their joeys. The joeys by a blow or blows to the head (The Animal Defenders Office 2021). With the independent at-foot joey being left to die slowly due to exposure, malnourishment, or predation. Without independent oversight we don’t know if the joeys were killed humanely or not.

In addition, there is no oversight on a regular basis (while shooters are at work for example) that the Codes of Practice are indeed being adhered to by the shooters. This is left to trust, but trust is simply not good enough. For example, there is evidence taken from store chillers in 2008 that indicates 40% of kangaroos were not head-shot (Animal Legal & Historical Center 2013). The killing takes place at night, generally in remote



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regions. There is no independent overseer or supervisor while shooters work ensuring they comply with the codes of practice.

Recommendations

In terms of kangaroo welfare, health, and wellbeing:

That all killing of kangaroos, be that commercial or non-commercial, is banned.

Failing this:

- That the NSW government to introduce a moratorium on the commercial and non-commercial killing of kangaroos for 2021/22 whilst the environment and kangaroo habitat has a chance to start recovering after the effects of the drought and the bushfires.
- That the NSW government policies and programs regarding kangaroos and other macropods take into consideration the impact that climate change generally and resulting specific impacts such as drought and bushfires have on the kangaroo population, and its health and wellbeing thus significantly reducing the numbers allowed to be killed annually.
- That the NSW government ban exclusion and cluster fencing and that traditional fencing make allowance for the movement of kangaroos across the landscape and invest in research for creative non-lethal solutions to conflicts between farmers and kangaroos as they intersect within the landscape.
- That the NSW government invest in independent research outside the bodies or agencies that have a vested interest in kangaroo killing and restraint for commercial gain or as a method of management to gain an independent picture of, and verification of, what the state of the kangaroo is in Australia.
- That the Codes of Practice be overhauled by an independent body (not including the RSPCA) concerned with the welfare, health, and wellbeing of kangaroos.
- That an independent Kangaroo Welfare Office be set up to oversee the kangaroo shooting industry and non-commercial shooting regarding compliance with codes of practice.
- That all NSW commercial shooters, much like law enforcement officers, be required to wear body cameras while working to ensure compliance with the codes of practice.



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