## Canberra's kangaroos





À	Approximately <b>29,595 kangaroos</b> have been shot and killed in Canberra Nature Park, which is made up of 39 nature reserves located in Canberra suburbs, since the ACT Governments' annual kangaroo culls began 14 years ago.
À	An estimated <b>7,000-9,000</b> pouch joeys have also been killed.
À	Kangaroo joeys whose mothers have been shot are taken from the pouch and killed with a wooden mallet. The ACT government's legislated Code of Practice also allows for decapitation. <b>Decapitated fully furred joeys were found</b> at Red Hill nature reserve in 2022.
À	At-foot joeys are either shot or, being traumatised, hop away and die by <b>dehydration</b> , <b>starvation</b> , <b>hypothermia or predation</b> without their mothers to protect them. It is not known how many at-foot joeys have died over the past 14 years.
À	Canberra's nature reserves cover an area of <b>11,400 hectares</b> (or <b>28,000 acres</b> ). Some reserves adjoin other reserves or parks. Some are adjacent to rural land or crown land. The ACT Environment, Planning and Sustainable Development Directorate (The Directorate) claims that kangaroos are 'overabundant' and are overgrazing the grasslands habitat of several threatened species. It claims that, to prevent overgrazing, a preferred density of kangaroos in the nature parks is 'one kangaroo per hectare'.
<u></u>	There is <b>no scientific evidence</b> that overgrazing by kangaroos has ever occurred anywhere in the Canberra Nature Park. There is <b>no scientific basis</b> for the assertion that one kangaroo per hectare is in any way preferable to three or more per hectare. The 'science' supporting the kangaroo cull has been debunked by numerous independent scientists.
_ <b>Ž</b>	The ACT Government commissioned a report* by CSIRO, published in 2014, which concluded that there was <b>no basis to claim</b> that kangaroos damaged the grassy layer on which the threatened species depend.
À	The researchers could not find any nature reserve where kangaroo population densities were above 3 per hectare, as claimed for some reserves by the Directorate. It also found <b>no change in the condition</b> of the vegetation <b>between one and three</b> kangaroos per hectare, but that the vegetation was <b>healthier where there were at least some kangaroos</b> .
À	Despite this, kangaroo culling has continued every year since then. The baseless notion of one per hectare, along with a single misguided indicator of biodiversity (see below) and a flawed counting methodology (see below) is now a <b>legislated instrument</b> for calculating how many kangaroos <b>must</b> , <b>by law</b> , <b>be killed</b> each year.

<u>_</u>	There is <b>no independent verification</b> that the cull has achieved its stated "conservation" aims. Publications by the Directorate in 2017 of the <i>Threatened Species Action Plans</i> for pink tailed worm lizards, grassland earless dragons, golden sun moths, striped legless lizards and perunga grasshoppers list human development (urban, infrastructure and industrial), agricultural land use, loss of habitat, drought and climate change as being the primary threats to the survival of these threatened species – not kangaroos.
À	In fact, the only measure of biodiversity the ACT government uses to assess the alleged impact of kangaroos on the ecosystems of the reserves is <b>biomass</b> (ie mass of biological material), in other words, the quantity of vegetation. This measure <b>omits any consideration</b> of the <b>quality or diversity of the vegetation</b> , or the quality and diversity of the habitat it provides for other creatures <b>such as endangered reptiles and insects</b> .
À	The worst of this is that biomass, when it comprises mainly introduced weed species and high grass that precludes the availability of sunlight to lower-level vegetation, is a strong indicator for <b>compromised biodiversity</b> , <b>not high biodiversity</b> .
À	Brief periods of overgrazing by kangaroos are possible during prolonged drought, but kangaroos are <b>well adapted to drought conditions</b> . Their populations rapidly crash due to cessation of breeding, wider ranging, and dispersal of juveniles in search of alternative grazing.
<u>*</u>	Some do die of hunger during long droughts, but this is <b>true of all wild animals everywhere on Earth</b> . It is a process which selects for those that are best suited to changing environmental conditions. <b>"Culling" by humans disrupts this selection process,</b> furthering damaging the wellbeing of the entire species in the long run.
À	Kangaroos can also become overcrowded, and overgraze, if they are confined within reserves, and unable to engage in normal ranging behaviour. <b>This is not the case across most of the Canberra Nature Park,</b> where most of the reserves are separated only by roads. (There are a couple of "reserves" which are actually experimentation stations, where they are deliberately confined.)
_Æ	The main risk to kangaroos in Canberra reserves is not overcrowding but crossing the roads that separate the reserves. Road overpasses or underpasses would enable kangaroos (and other wildlife) to move easily and safely to new feeding grounds.
À	The Directorate's various methods of estimating kangaroo populations in the nature reserves have also been contested. No baseline data was obtained about kangaroo populations prior to culling. The Directorate has historically used a variety of counting methodologies resulting in widely varying population estimates.
<u>_</u>	In 2022 the ACT Conservator admitted that Directorate staff 'extrapolate' data to arrive at population estimates. These estimates are used to calculate the legislated number of kangaroos to be killed in nature reserves.
À	A citizen science project during 2021-2022 has undertaken <b>113 field studies in all 37 nature reserves</b> which are open to the public, to assess kangaroo population densities of the nature reserves. Reserves were all systematically searched, and kangaroos counted, on multiple occasions.

The citizen science project found that 80% of reserves have a density of kangaroos <i>less</i> than 'one kangaroo per hectare'. This would suggest, that <b>by the Directorate's own measure, no further culling should occur in these reserves.</b>
For the 20% of parks which have over 'one kangaroo per hectare', most were only just over this ratio. No reserve had a density of 2 kangaroos per hectare. The reserve which had the highest population density adjoins a mountain range where kangaroos can roam freely. There is no risk of over grazing when this is the case.
In total, the citizen science project found a total of <b>4,074</b> kangaroos. Consider the Directorate's claim that one kangaroo per hectare is the preferred population density – in an area of <b>11,400</b> hectares, Canberra's kangaroo population overall is way under this ratio, even if the citizenscience project under-counted. (The count was never meant to be a census of all kangaroos; its aim was to assess population density on each reserve.)
The ACT Conservator, in 2022, also claimed that the kangaroo population in Canberra Nature Park is 'unknown' and that 'there was no more point in knowing the kangaroo population in the ACT than it is to knowing bird population numbers.' (Except that birds are not being deliberately killed en masse every year). Despite the population being 'unknown' the Conservator stated another 1,650 kangaroos plus joeys should be killed in 2022.
Kangaroo culling in Canberra's nature reserves is not just <b>unnecessary and cruel</b> . It is counterproductive because, as CSIRO found (see above), kangaroos are beneficial for the diversity of the grassy layer plants on which many other small native animals depend, but their numbers are being maintained at densities too low for the species to perform its natural function.
It is also a waste of public funds which could be better spent building over and underpasses between the nature reserves and undertaking weed control. Uncontrolled weeds undoubtedly impact on the grassy layer required by the threatened species for survival and proliferate in the absence of native grazers (such as kangaroos) to manage them.
A moratorium on further killing should be in place.
The Controlled Native Species legislation 2017 must be repealed by Members of the ACT Legislative Assembly. This legislation allows for kangaroos to be treated as pests in their own land.
Please email:
Chief Minister Andrew Barr at barr@act.gov.au
Leader of ACT Greens Shane Rattenbury at <a href="mailto:rattenbury@act.gov.au">rattenbury@act.gov.au</a> Winister Rebecca Vassarotti at <a href="mailto:vassarotti@act.gov.au">vassarotti@act.gov.au</a>
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Chief Minister Andrew Barr at barr@act.gov.au

Leader of ACT Greens Shane Rattenbury at rattenbury@act.gov.au

Minister Rebecca Vassarotti at vassarotti@act.gov.au

And your local MLAs

Find us on Facebook: #savecanberraskangaroos or write to us at canberrakangaroos@optusnet.com.au

For more information and resource documents go to:

https://animalprotectors.com.au/issues/kangaroos/

\*Relationships between vegetation condition and kangaroo density in lowland grassy ecosystems of the northern ACT (Analysis of data 2009, 2012 and 2013). CSIRO Plant Industry, 2014. Lyndsey Vivian and Robert Godfree.

