

FACT SHEET: EASTERN GREY KANGAROO

KANGAROO BIOLOGY

Evolution and adaptation: Over many millions of years, kangaroos' grazing, movement, breeding and behaviour have become perfectly adapted to their environment, including Australia's cycles of long and severe droughts¹. Kangaroos are able to survive these conditions because: they can travel very long distances to find food and water with relatively small energy expenditure²; and they stop breeding when the food supply is inadequate (males do not form sperm, and females do not conceive)³.

Breeding: Kangaroos are late and slow breeders: males mature at about five years of age, females around two. If food is plentiful, a mature female kangaroo will bear one joey a year, while still caring for an older one⁴.

Population growth: About 50-70% of joeys are taken by predators, mainly foxes⁴. Without 'culling', 'harvesting' or road deaths, the maximum growth rate of a kangaroo population is about 10% per year². Several studies show that when kangaroo populations are not 'culled' or 'harvested', they stabilise in equilibrium with their environment^{5,6}.

Grazing behaviour: Kangaroo grazing maintains diversity of landscape, maximising habitat options for other species. This makes kangaroos a 'keystone species' which means many other species of animal and plant depend on them for their very survival⁷.

Environmental comparisons: A kangaroo consumes only 13% of the water consumed by a sheep⁸, and produces only a small proportion of the methane produced by a cow or a sheep⁹. Unlike sheep and cattle, they bound on soft feet, rather than trampling with heavy bodies and hard, sharp hoofs, and bite off grass without gnawing it to bare ground or ripping it out by the roots².

Since European settlement: European agriculture in Australia has taken most of the habitat once occupied by Australian native animals, including kangaroos¹¹. Between habitat loss, 'culling', 'harvesting', and road deaths independent experts estimate that NSW kangaroo populations have dropped to about 11% of what they originally were¹².

EASTERN GREY KANGAROOS: CULLING AND HARVESTING

NSW and Queensland: These states have recently unleashed an eradication campaign against kangaroos, apparently in the hope of winning back the votes of farmers during the current drought. 'Culling' is now effectively unrestricted, while 'harvesting' is based on alleged population increases that are biologically impossible even under ideal conditions (which these states are definitely not experiencing)¹⁴.

The ACT: In this one small territory, which used to provide a refuge for kangaroos persecuted in surrounding NSW, kangaroo 'culling' has increased tenfold over the last twenty years¹⁵, despite an ongoing crash in the ACT kangaroo population due to habitat loss, huge fires, and drought. The pressure to kill kangaroos appears to come from property developers and farmers. The government's assertion that kangaroos have a damaging impact on the environment has no basis in science. In fact, CSIRO Plant Industries have concluded that up to 3 kangaroos per hectare (the usual maximum found on ACT reserves) benefit the environment rather than harming it¹⁶.

Cruelty: Whether killed for 'culling' or 'harvesting': kangaroos are frequently not killed by the first shot^{17,18}; by law, pouch joeys are killed by being bashed over the head^{19,20}; because they hop away and hide, most at-foot joeys whose mothers are killed are orphaned, die of hypothermia, dehydration, hunger or stress²¹; mob structure is destroyed by any mass killing, causing terrible stress and suffering to the survivors²².

Starvation: So-called kangaroo 'culling' in Australia has never been about euthanasing sick or starving individuals. In fact, kangaroo shooters would naturally prefer to shoot where kangaroos are still present in larger numbers (ie where food is still plentiful), rather than where there are hardly any (because food is scarce). In fact,



kangaroo killing (both 'culling' and 'harvesting') is probably the greatest cause of kangaroo starvation in Australia today because millions of unweaned joeys are orphaned by shooters every year²¹.

Car accidents: Most animals cannot see things that move as fast as most cars travel. Car accidents involving animals could be prevented by: providing wildlife corridors for animals that need to get across roads; kangaroo proof fencing to ensure they do not cross roads other than via the corridors; and vastly reduced (and enforced) speed limits.



Photo: Carol Lyn

Compiled by the Animal Protectors Alliance:

https://animalprotectors.com.au/



References

1	M. Cardillo, J. S. Huxtable, L. Bromham, 2003, <i>Geographic range size, life history and rates of diversification in Australian mammals</i> , in <i>Journal of Evolutionary Biology</i> , 16 (2), pp 282–288
2	Dawson, T, 2012, Kangaroos (2 nd Edition), in Australian Natural History Series (CSIRO)
3	Burnie, David, Don E. Wilson, 2001, in Animal, pp. 99–101
4	Peter B. Banks, Alan E. Newsome and Chris R. Dickman, 2000, <i>Predation by red foxes limits recruitment in populations of eastern grey kangaroos</i> , in <i>Austral Ecology</i> , 25(3) p283
5	Arnold, GW, Grassia A, Steven DE & Weeldenburg JR 1991 Population ecology of western grey kangaroos in a remnant of wandoo woodland at Bakers Hill in southern Western Australia, in Wildlife Research 18 (5): 561-575
6	Coulson G, Alviano P, Ramp D, Way S 1999 <i>The kangaroos of Yan Yean; history of a problem population</i> in <i>Proceedings of the Royal Society of Victoria</i> 111(1): 121-130
7	Wilby A, Shachak M, Boeken B 2001. Integration of ecosystem engineering and trophic effects of herbivores. <i>Oikos</i> 92: 436-444
8	A.J. Munn, T. J. Dawson, S. R. McLeod, D. B. Croft, M. B. Thompson and C. R. Dickman, 2009, Field metabolic rate and water turnover of red kangaroos and sheep in an arid rangeland: an empirically derived dry-sheep-equivalent for kangaroos in Australian, in Journal of Zoology
9	Vendl C, Clauss M, Stewart M, Leggett K, Hummel J, Kreuzer M, Munn A, 2015, Faster digestion in kangaroos reduces methane emissions, in Journal of Experimental Biology
10	Australian Government, Australian State of the Environment Report, Data Reporting System, 2006
11	Mjadwesch R, 2001, in Kangaroos at Risk: Counting Kangaroos
12	NSW Government Office of the Environment and Heritage, NSW Commercial Kangaroo Harvest Management Plan 2017–21, 2017 Quota Report, p4
13	ACT Kangaroo Management Plan 2017
14	CSIRO's 2014 Final report for ACT Environment and Sustainable Development Directorate: Relationships between vegetation condition and kangaroo density in lowland grassy ecosystem of the northern Australian capital territory: Analysis of data 2009, 2012 and 2013
15	Photographs from the ACT government's kangaroo burial pit 2012, in Regional Friends of Wildlife submission to Environment and Sustainability Commissioner Robert Neil, December 2014 (pp 20,162 Attachment K)
16	Autopsy report by Doctor Howard Ralph on body recovered from the ACT government's kangaroo burial pit 2012, in Regional Friends of Wildlife submission to Environment and Sustainability Commissioner Robert Neil, December 2014 (pp 20, 159, Attachment J)
17	Natural Resource Management Ministerial Council, National Code of Practice for the Humane Shooting of Kangaroos and Wallabies for Non-Commercial Purposes, p13
18	Natural Resource Management Ministerial Council, National Code of Practice for the Humane Shooting of Kangaroos for Commercial Purposes, p13
19	ACT Administrative and Civil and Administrative Tribunal, Transcript of Hearing on ACT Government Kangaroo Cull 2014 (evidence from Dr George Wilson, observer engaged by ACT government to witness shooting during the 2012 ACT government 'cull').
20	Garlick S and Austin, R, <i>Post-Traumatic Stress Disorder in Kangaroos</i> , at Australian Wildlife Rehabilitation Conference, 2014