

Book Review

Kangaroos: Myths and Realities. 2005. 3rd edition (1st edition *Kangaroos - Our Wildlife Heritage – Not an exploitable resource*. 1992; 2nd edition *The Kangaroo Betrayed*. 1999.) Edited by Maryland Wilson and David B Croft. Published by Australian Wildlife Protection Council

“Kangaroos: Myths and Realities” was released by the Australian Wildlife Protection Council in October 2005 as an updated edition of its previous publication “The Kangaroo Betrayed” (1999). Many of the articles have been reproduced from this earlier edition, with several new additions. The book was presented in promotional material as exposing “the myths underlying the persecution and exploitation of Australia’s maligned National symbol” and arguing that the outcomes of kangaroo harvesting (ie meat and skin production and claimed land management benefits) do not justify the means by which the harvest is undertaken.

Whilst the book’s thirty contributing authors all hold a general opposition to kangaroo harvesting, their articles represent a grab-bag of different viewpoints, with concerns covering the conservation of kangaroos, the health of Australia’s environment as a whole, threats to the welfare of kangaroos, threats to human welfare, opposition to killing wildlife, opposition to killing all animals, and a general dismay that all people do not value kangaroos in the same way that the author does (values which vary from author to author incidentally). Similarly, some articles present an array of scientific findings to back up their point of view whilst others argue on ethical or emotional grounds. Some articles discuss a variety of viewpoints whilst others remain focused on a singular issue.

Given such a variety of views (often contradictory), it is inevitable that we found ourselves agreeing with some points and disagreeing with others. However, even when we agreed with an assertion made in the book, such as that kangaroos are often unfairly demonised as pests that degrade land, we were often perplexed as to why that would lead one to the conclusion that all kangaroo harvesting should end. To us the conclusion was exactly the opposite – if kangaroos have less impact on the land than is commonly claimed, then surely they are a great sustainable resource base for our fragile rangelands.

Exposing “myths” and seeking “realities” sounds like a very scientific sort of exercise to find out genuine “truths”, but this book really represents nothing of the sort. The arguments and conclusions are heavily entwined in morals and value-systems that are held by a small minority of Australians. As such, we thought it would be a worthwhile exercise to untie those value-systems from the “myths and realities” discussed in the book. The key arguments of the book’s authors and the FATE Program’s responses to these are detailed below. For more detail on the FATE Program and its research interests in kangaroo harvesting, see the article by Ampt and Baumber on pages 398-409 in this issue of *Australian Zoologist*.

Key Arguments

I. Valuing Kangaroos

‘Myths and Realities’ arguments:

- We should celebrate kangaroos and value them as a national symbol rather than ‘persecute’ them.
- We should value them as a tourism icon rather than harvest them for meat and skins.

FATE Response:

Our approach would also be not to persecute or denigrate kangaroos but to value them, hence, in many ways we agree with a number of the assertions made in the book. The FATE Program has been established to explore ways in which the commercial use of native species can lead to greater value being placed on those species and their habitats, with resulting benefits for conservation and sustainable rural livelihoods. However, when it comes to valuing kangaroos, it must be recognised that diverse values are held towards kangaroos by different people. A kangaroo can be a national symbol, an Aboriginal totem, a tourism income earner, have intrinsic values and also have commercial value through a sustainable meat and skin harvest.

As for the tourism versus harvest argument, FATE believes that these two aims are not mutually exclusive. Both commercial harvesters and tourism operators would want large and viable kangaroo populations. Some balances may need to be struck (eg a tourism enterprise may want lots of big adult males on the land whereas a commercial industry may harvest these preferentially), however, this is not an either/or situation – game reserves in South Africa cater successfully for both animal viewing and hunting. These balances can be achieved and debates about the relative value of harvesting and tourism can be had, but the bias shown in the book towards the as-yet unproven potential for kangaroo tourism needs to be tempered by a recognition that kangaroo meat and skins are already valued products and their production does provide livelihoods for thousands of Australians.

2. Culling of Kangaroos is not justified

‘Myths and Realities’ arguments:

- “Culling” of kangaroos is not “necessary” or “justified” on the grounds that they cause land degradation or compete with sheep, as such impacts have not been conclusively demonstrated.
- Kangaroos should not be seen as pests to be destroyed.

FATE Response:

The pest status of kangaroos is probably the major “myth” that the book tries to “expose” and it is a view that the FATE Program has a degree of empathy with. We agree that kangaroos should not be stereotyped as pests that degrade land and compete with sheep and that terms like “plague proportions” and “overabundant” need to be recognised as value-laden terms perpetuated by a society that has traditionally valued European plants and animals and seen Australian native species as economically useless.

We also agree that competition between kangaroos and sheep has often been overstated, as has the impact of kangaroo grazing on land condition. However, we also accept the view of many graziers and scientists that kangaroos are a component of total grazing pressure and that closer management of total grazing pressure, including kangaroos, may bring about improvement in land condition, and that targeted localised reductions in kangaroo numbers may be a good land management strategy in some situations. We maintain a healthy skepticism both towards claims that reducing kangaroo numbers alone can lead to land condition improvements, as well as towards claims that kangaroo grazing impact is never a contributing factor in land degradation.

Furthermore, we also believe that kangaroo harvesting does not require justification on “pest control” grounds before it should be allowed to take place. The fact that kangaroos are abundant animals that represent a valuable resource and have been shown to be able to be harvested sustainably and humanely is justification enough for their ongoing commercial harvest. In addition, the potential for kangaroo harvesting to provide an alternative income to sheep grazing and a tool for managing total grazing pressure in the rangelands is another reason why commercial harvesting should continue. Countering the “myth” of kangaroos as destructive pests does not lead us to the conclusion that harvesting should end – quite the contrary – it leads us to see the potential for kangaroo harvesting as contributing to a sustainable economic base for many parts of Australia.

3. Cruelty of Kangaroo harvesting**‘Myths and Realities’ arguments:**

Cruelty in the industry is unacceptably high due to:

- an unknown but unacceptable wounding rate when kangaroos are shot in the field;
- the suffering of unwanted pouch young which are killed by a blunt object to the head; and
- orphaned young-at-foot dying slow and painful deaths from starvation or predation after their mothers are killed.

FATE Response:

Whilst FATE believes that kangaroo harvesting is generally carried out in a humane manner by professional shooters, we acknowledge that some degree of animal suffering can occur in kangaroo harvesting and that this suffering should be minimised. FATE does not consist of

animal welfare experts nor does it hold a monopoly over morality, however, we believe there are a number of key questions that need to be considered in this debate:

How much suffering is there?

Many of the book’s authors tend to emphasise factors such as that most harvesting is unsupervised in remote areas at night so shooters can do whatever they want, whilst shooters argue that in fact they don’t actually want to wound kangaroos and have a major disincentive to do so anyway as carcasses with bullet wounds (other than a single shot to the head) either cannot be sold (in NSW and SA) or attract a lower price due to skin damage. A 2002 RSPCA report commissioned by the Federal Government found that over 96% of commercially-shot kangaroos inspected at processing plants had been killed by a single bullet to the head (RSPCA Australia 2002).

Is the level of suffering greater than in other meat industries?

Whilst different industries are often hard to compare, the assumption that comes across in the book that kangaroo harvesting is inherently crueler than other meat industries doesn’t stack up. Certainly, sheep and cattle production is less likely to have to deal with issues like wounding due to inaccurate shooting and deaths of young-at-foot once their mothers are shot. But on the other hand kangaroos, unlike sheep or cattle, are not penned in, herded, transported live on trucks or ships or forced into abattoirs. They live a free-range life without direct human interference and the vast majority of commercially harvested kangaroos are killed instantaneously by a single bullet to the head in their natural surrounds.

How much suffering is society prepared to accept in the production of meat and other animal products?

This is not a question we can answer unilaterally, but neither can anti-harvesting activists. Some degree of suffering will always exist in the lives and deaths of living creatures and where humans are actively managing animal populations we have a responsibility to minimise that suffering. We believe that the best way to minimise suffering and to maximise animal welfare outcomes is to work with the existing industry, such as through the Code of Practice for the Humane Shooting of Kangaroos. This Code prescribes ways to minimise suffering in different scenarios, such as killing pouch-young quickly with a blow to the head and, for adult kangaroos, aiming a second shot at the heart in rare cases where a kangaroo has been wounded with the initial shot. This Code of Practice is currently under review (see www.deh.gov.au/biodiversity/trade-use/wild-harvest/kangaroo/code-discussion/index.html).

How much suffering would occur if harvesting were to stop?

A key point to remember is that the closing down of the kangaroo industry would not necessarily result in the best animal welfare outcomes for kangaroos. Firstly, there may be rise in non-commercial shooting as a result, probably illegally and with lower welfare standards, and, as the book’s authors point out, this is very difficult to control in the remote areas where it occurs. Also, whether we like it

or not, the four commercially harvested kangaroo species are managed species and it is not possible to implement a “hands-off” policy, even if that were desirable. We already have an impact on these species by providing artificial watering points, by keeping dingoes out of the sheep rangelands, by converting woodland to pasture and cropping land, and of course by commercial harvesting.

Modeling suggests that harvesting is likely to be keeping the population of the four commercially harvested species around 30-40% lower than they would otherwise be (Pople and Grigg 1999). Thus, if harvesting were to stop, some potential impacts might be increased infant mortality due to increased competition from adult kangaroos, as well as greater booms and busts in kangaroo populations, which would result in more deaths by starvation and thirst when the inevitable drought cycles limit the availability of food and water.

It is often argued that deaths due to starvation or thirst are “natural” and should not be given the same weight in terms of moral responsibility as direct human actions like shooting a kangaroo or killing a joey with a blunt object. However, when you change ecosystems as much as humans have in Australia since European settlement and alter the population dynamics of native species in the process, then you must have regard for the impacts of these actions on the welfare of individual animals in the same way as you would for more direct human interventions in animal’s lives. Stopping the harvest would be a human decision, and if that decision caused an increase in deaths from starvation and thirst, then those deaths would be the responsibility of humans.

4. Links between cruelty towards animals and towards humans

‘Myths and Realities’ arguments:

- Cruelty towards animals, such as kangaroo shooting, may lead to greater prevalence of cruel and violent behaviour towards humans.

FATE Response:

This argument is most heavily pushed in Eleonora Gullone’s article (p42-49). We acknowledge that research has shown there may often be co-occurrence of cruelty towards animals and towards humans. Deliberate cruelty towards kangaroos may well be an indicator of a lack of empathy development and a tendency for cruel behaviour towards humans. However, we reject the assertion that commercial kangaroo harvesters exhibit deliberate cruelty towards kangaroos. We do not accept that commercial shooters are inherently cruel and violent people any more than are workers in an abattoir or farmers raising sheep or cattle.

Most of the examples of deliberate cruelty cited in Eleonora Gullone’s article or elsewhere in the book involve non-commercial kangaroo shooting, often being carried out illegally. It is true that such deliberate cruelty towards kangaroos is difficult to detect due to its occurrence in remote areas, however, stopping the commercial harvest would not prevent these cruel actions by those who wish to perpetrate them. People also demonstrate cruelty

towards other native animals as well as cats, dogs and domestic stock, regardless of whether or not those animals are subject to a commercial industry based on their meat, skin, wool, or other products.

5. Morality of killing animals/wildlife

‘Myths and Realities’ arguments:

We should not kill animals for meat or other products because:

- We should feel empathy for them, either because they are sentient beings generally, or because they are wild animals specifically
- Meat industries have a more damaging impact on the environment

FATE Response:

Several authors in the book promote the notion that killing wildlife is wrong. Most of these authors are from vegetarian/animal liberation groups that are actually opposed to the killing of all animals. However, in their articles, very few of these authors state clearly what they think about the killing of domestic animals. Presumably, this is because they want to keep kangaroos separate from other animals so that they can gain traction with people who might have preconceived notions of what animals that it is “alright” or “normal” to kill for meat and what animals that it is “wrong” or “abnormal” to kill for meat.

Firstly, we would reject any notion that wildlife are somehow more deserving of our empathy or hold greater rights than domesticated animals. If it is inherently wrong to kill a kangaroo to provide a meal for humans, then why would it not also be inherently wrong to kill a cow for the same purpose? However, we do not believe that killing animals for food and clothing is inherently wrong, and nor do the vast majority of Australians, or indeed humans worldwide. Any individual is free to choose not to eat meat, but we do not believe they have the right to deny others that choice based on a moral view held by a very small minority. It is also important to remember that issues of animal welfare, conservation and environmental impacts (which are dealt with elsewhere in this review) are quite separate from the issue of whether killing an animal is *inherently* wrong.

As for the argument presented by Geoff Russell (p124-126) that eating animals – wild or domestic - is environmentally destructive because the grazing of animals uses so much more land than cropping, the issue is far more complex than this. Firstly, grazing often takes place on land that is not suitable for cropping. Secondly, it may well take up more land than cropping, but the impacts on native ecosystems can be far less severe (eg the Western Division of NSW, a predominantly sheep grazing area, is 95% covered by native vegetation whilst many cropping areas have less than 5% native vegetation left). Thirdly, the use of water for irrigation, inputs of chemical fertilisers and pesticides and disturbance to soil are much greater for cropping. Fourthly, much of Australia’s grazing is not for meat production anyway, but for wool, which compares favourably in many ways to alternative sources of clothing

like cotton (very high water and pesticide use) or synthetic fibres (made from fossil fuels). Finally, kangaroo harvesting is completely different to other grazing industries - if sheep grazing were to stop, it would mean the removal of all sheep and their impacts, whilst if kangaroo harvesting stopped, kangaroos would still be in the landscape, quite possibly in greater numbers. Russell seems to be implying that kangaroos grazing on native pastures represent a negative environmental impact in the same way as sheep grazing – which contradicts many of his co-authors in the book and also raises the question of how an end to harvesting would solve this perceived problem.

6. Sustainability of Kangaroo harvesting

‘Myths and Realities’ arguments:

Commercial kangaroo harvesting is unsustainable because:

- It is driving commercially harvested kangaroo species towards extinction;
- The targeting of the largest animals is bringing about genetic shifts that threaten the species; and
- It is disturbing kangaroo population dynamics and “family” structures

FATE Response:

Extinction and Sustainability of the Harvest

The book’s authors present very little evidence for the repeated assertion that harvesting is threatening kangaroo populations with extinction. Where population trends are referred to (such as Halina Thompson p121), the recent decline during the drought years 2002-2005 is cited. There is no reference made, for example, to the period 1984-2001 when the population of red and grey kangaroos across Australia’s commercial harvest zones rose (with several ups and downs) from a low of less than 18 million following the end of the severe early-80s drought to over 50 million, despite the presence of harvest rates of between 4% and 15% per year (Source: Department of the Environment and Heritage, Canberra).

There is extensive scientific data supporting the sustainability of the current commercial kangaroo harvest, from both modeling and empirical research (Pople and Grigg 1999). Large declines in kangaroo populations characteristically occur under drought conditions, however, these declines are not caused by harvesting. Indeed, continued harvesting during drought has been shown to be sustainable through modeling (Pople 2003), as the harvesting does not create additional mortality but largely replaces deaths that would occur from starvation anyway.

One major response of authors in the book to this sort of scientific monitoring and modeling is to claim that such scientists are biased. This bias supposedly results from the fact that the wages of these scientists are paid by Governments eager to defend their decisions to allow commercial harvesting for the sake of politically powerful pastoralists (who supposedly see all kangaroos as pests) or the kangaroo industry (who make money from the harvest).

We don’t read in the book any systematic or logically argued criticism of the science behind research that has shown the harvest to be sustainable. Without that, the statements alleging bias are made without clear evidence. We are not suggesting that scientists are free from all bias, or that we know all there ever is to know about kangaroos, but we feel there are no grounds for smearing the scientists whose research has repeatedly shown the sustainability of kangaroo harvesting.

We see no evidence for the arguments that the kangaroo industry and pastoralists are able to exert undue influence on scientists in unethical ways. We would question whether the kangaroo industry is really big and powerful enough to orchestrate such a scientific conspiracy (especially considering that the book’s authors regularly denigrate it as economically insignificant). As for scientists being swayed by pastoralists who want to see kangaroos reduced because of their “pest” status, one of the major scientists who has argued for the harvest’s sustainability, Professor Gordon Grigg, has repeatedly promoted the removal of all sheep from Australia’s rangelands and their replacement with kangaroos – the exact opposite of what “kangaroo-hating” sheep graziers would want him to say.

Genetic Sustainability

As for the genetic argument, a simplistic view of natural selection might lead us to conclude that the selective harvest of the biggest male kangaroos is making their population genetically smaller and weaker over time. However, the reality is more complex and there are a number of factors that need to be considered, such as:

- the presence of unharvested populations in refuges such as national parks, which can “supply” genes to harvested populations;
- the fact that large males are not necessarily genetically ‘larger’, but may simply be older; and
- that large kangaroos are not necessarily the fittest in the long-term, as medium-sized kangaroos may survive drought better.

Researchers into kangaroo genetics, such as Hale (2001) and Tenhumberg et al (2004) have concluded that the size and distribution of kangaroo populations, combined with a moderate level of dispersal from refuges, can mitigate genetic shifts in the overall population. All commercially harvested kangaroo species in Australia have substantial non-harvest refuge areas including national parks, properties without harvesting, all of Victoria and the Northern Territory and large sections of the other states that are designated non-commercial zones.

Population Structures

We accept that harvesting does impact on kangaroo groupings through actions such as targeting of large alpha males, however, we do not believe that maintenance of “natural” kangaroo population structures is a pre-requisite for sustainability. The conservation of biodiversity requires that self-sustaining populations remain viable and genetic diversity is not lost. Any attempt to sustain a completely “natural” age distribution or social structure in kangaroos denies the fact that changes to Australia’s environment

such as dingo control, provision of additional watering points and conversion of woodland to grassland have caused unknown changes to kangaroo population structures (and genetics for that matter). On top of that, there are the impacts of thousands of years of hunting by Aboriginal people and predation by dingoes and the very fact that Australia's climate is so highly variable that it is questionable whether kangaroo population structures ever reach a stable state between cycles of boom and bust.

As David Croft argues in the book (p241), the search for a mythical "day 1", which our management measures should be trying to re-create is indeed "fatuous" and "ludicrous". Cessation of harvesting will not re-create a "natural" kangaroo population structure.

7. Conservation through sustainable use

'Myths and Realities' arguments:

Promoting commercial kangaroo harvesting as an economic alternative to sheep or cattle grazing is impractical and will produce conservation threats not benefits because:

- Kangaroos don't herd and can jump fences, thus cannot be farmed;
- Kangaroos will never be a viable replacement for sheep or cattle as they cannot provide as much meat or other economically valuable products; and
- The industry 'juggernaut' that would be created if kangaroos gained high commercial value would see them hunted to extinction.

FATE Response:

The FATE Program is actively exploring the potential for commercial kangaroo harvesting to create incentives for conservation according to the principles of Conservation through Sustainable Use (CSU). The fundamental aim of the CSU approach is to place an economic value upon a species that creates an incentive to conserve the habitat that supports that species (as well as a whole suite of other species). We believe that commercial kangaroo harvesting has the potential to deliver conservation benefits by:

- providing alternative income to sheep or cattle thus reducing pressures to overstock;
- providing more flexibility to landholders in managing total grazing pressure; and
- creating incentives to undertake conservation actions that enhance habitat for wildlife.

These outcomes are largely dependent upon increased involvement of landholders in kangaroo harvesting, including receiving economic returns from kangaroos harvested on their properties.

Greater involvement in kangaroo harvesting could give landholders more control over when and where kangaroos are harvested. It could also mean that actions that are seen to attract kangaroos, such as revegetation of woodlands or spelling of paddocks, may no longer be viewed as a negative (due to a perceived increase in

"pests") and may instead be viewed as a positive (due to an increase in a "resource"), hence creating an incentive to undertake these sorts of conservation actions.

These sorts of ideas are often viewed narrowly as being about kangaroo "farming" or "sheep replacement", however, the FATE approach involves free-ranging kangaroos, not farmed animals (which would indeed be very difficult to manage with questionable conservation benefits). Furthermore, kangaroo harvesting does not need to replace sheep grazing in order for conservation benefits to be achieved - the two may instead be complementary. Kangaroo harvesting may also come with much lower costs than sheep grazing - precisely because the animals are not being farmed and hence have no requirements for fencing, shearing or husbandry and, being adapted to the Australian environment, much lower requirements for water provision and disease and insect pest control. Commercial kangaroo harvesting should not be expected to replace all income currently generated by sheep grazing, nor lead to all sheep being removed from the rangelands, nor deliver conservation benefits in all situations - but this does not mean that it is economically unviable or that it is incapable of generating incentives for conservation.

As for the assertion that a commercial harvesting 'juggernaut' will prove impossible to stop and will inevitably lead to massive population declines, this is by no means a foregone conclusion. Whilst there are many examples of where commercial harvesting has led to population crashes or loss of habitat, such as whaling and some forestry, such examples are invariably linked to poor regulation, a lack of clearly defined property or access rights and/or poor scientific knowledge about the target species. In contrast, kangaroo harvesting is well-regulated, with clearly defined access rights and detailed scientific knowledge gained over more than 30 years of commercial harvesting. The system has also been tested numerous times over this period when commercial quotas have been reached and the harvest has been shut down for the remainder of that year. Finally, there are a number of examples around the world of where commercial harvesting has created an economic incentive for conservation that has actually led to increases in target populations rather than declines. Examples of this include Red Deer in Scotland, valued for hunting and game meat, Saltwater Crocodiles in the Northern Territory, valued for skins, meat and tourism and numerous species of wildlife in Southern Africa, valued for hunting and tourism.

8. Increase or decrease in Kangaroos since european settlement?

'Myths and Realities' arguments:

- It is a myth that a proliferation of artificial watering points has allowed kangaroo numbers to increase since European settlement.
- It is a myth that control of dingoes has allowed kangaroo numbers to increase.
- Kangaroo numbers have not increased since European settlement, but have in fact decreased.

FATE Response:

It is impossible to ever know exactly how many kangaroos existed prior to European settlement and from the point of view of the FATE Program, it is not particularly relevant to present-day management. Again, we would agree with David Croft (p241) that the aim of management should not be to return to some mythical “day 1”. The fact that kangaroos are abundant animals that can be harvested sustainably and humanely is reason enough to justify a commercial harvest. The environmental factors affecting kangaroo habitat have changed so substantially since European settlement that it is not justifiable to either cull kangaroo numbers down to some assumed “natural low” or stop all harvesting until numbers build up to some assumed “natural high”.

The argument about past populations is thus largely academic and the assumptions used by both sides are difficult to substantiate. The dominant scientific view is that the populations of the four large commercially harvested species have all increased since European settlement due to the conversion of woodlands to grasslands, the provision of artificial watering points, the control of dingoes and possibly even through domestic stock grazing creating “sub-climax” pastures that have benefited kangaroos (Pople and Grigg 1999). Several authors of “Myths and Realities” (particularly John Auty, p56-62, and David Croft, p223-244) counter this view and their arguments are summarised in the table below, along with FATE comments on these arguments.

Assertions made in “Myths and Realities”	FATE Comments
Almost all early European explorers comment on kangaroo abundance in their journals (Auty).	Such accounts can be very selective – consider modern-day reports of kangaroo ‘plagues’ that seem to increase in frequency at times when kangaroo numbers are actually dropping (ie during drought).
Dingoes were not good predators of kangaroos prior to 1788, as evidenced by the fact that Aboriginal people did not use them for their hunting prowess (Auty).	It is often argued that the major impact of dingo predation is on juvenile kangaroos rather than on adult kangaroos, so their lack of use by Aboriginal people for hunting is of questionable significance. Population monitoring has shown significantly lower kangaroo populations outside of the dog fence where they are exposed to dingo predation (Pople, Grigg et al. 2000).
Australia now supports 20 million cattle and 100 million sheep, which is equivalent to hundreds of millions of kangaroos which could have been supported prior to European settlement (Auty and Croft).	A huge amount of landscape alteration has occurred to make these stocking rates possible, including conversion of woodlands to grasslands, pasture “improvement” with introduced pasture species, fertiliser application and creation of artificial watering points to allow grazing of areas previously without permanent water.
Artificial watering points may have been necessary for domestic stock to colonise much of inland Australia, but kangaroos could have lived in these areas before as they need a lot less water and could have used many smaller soaks, depressions and stagnant pools that stock can’t (Auty and Croft).	Kangaroos may well be able to survive on less water and use water sources not suitable for domestic stock, but it is not clear that these sources would remain available during a severe drought in the way that dams and bores remain available today.

9. Other arguments against Kangaroo harvesting

There are a variety of other arguments raised against kangaroo harvesting in the book. There is insufficient space to deal with them all in detail, and most are fairly peripheral to the debate anyway:

'Myths and Realities' arguments:	FATE Response:
Kangaroo harvesting is an affront to Aboriginal spiritual beliefs.	<p>The book presents a diversity of views regarding indigenous attitudes to kangaroos and the FATE Program has also encountered this diversity of views in our work. FATE is working with Aboriginal people in Western NSW who are interested in harvesting kangaroos as a source of income and employment, but we are also aware of other Aboriginal people (eg in Northern SA) who do not want kangaroos to be harvested commercially on their traditional lands.</p> <p>Any attempt to equate Western animal rights philosophies with Aboriginal totemic relationships with wildlife (eg Fiona Corke, p99-102) fails to recognise this diversity of views and the major differences between these Western and indigenous philosophies. Just as modern-day kangaroo harvesting can not be equated with traditional Aboriginal hunting, animal rights or animal liberation approaches cannot be equated with Aboriginal totemic relationships with kangaroos.</p>
Kangaroo meat is unsafe to eat because it is harvested in an unhygienic manner.	<p>Kangaroo meat is approved for human consumption in Australia and food safety standards regulate its harvest and sale. The authors do not present any evidence that kangaroo meat presents a public health risk, only that it differs in its production methods from abattoir-slaughtered meat.</p>
Poisoning of native wildlife using 1080 poison is cruel and threatens these species.	<p>This is a controversial issue involving animal welfare and wildlife management aspects, but, as it has little relevance to commercial kangaroo harvesting, we won't go into it here. Wallabies and possums poisoned using 1080 are not used for commercial purposes.</p>
The only way to protect wildlife and biological diversity is to lock areas up and restrict human activity (eg "Padlocked for Perpetuity", Susie Rowe, p103-107)	<p>All Australian landscapes have been managed to a greater or lesser degree by humans for tens of thousands of years – removing human management of these landscapes is not going to preserve them in some sort of "natural" state. National Parks and Reserves provide valuable protection of biodiversity and ecosystem function, but they need ongoing management and they are not big enough or connected enough to achieve landscape-scale conservation, especially given the threat of species migration due to climate change. The biggest issues are faced on private land and it is there that we need to find ways to integrate conservation with social and economic factors instead of attempting to "lock" people out.</p>
People suffer simply by knowing that kangaroos are being killed.	<p>This issue really relates to trying to balance the different values people place on wildlife. Undoubtedly, some people do suffer from simply knowing that kangaroos (or indeed any animals) are being killed. However, other people (most people) value eating meat and believe there is nothing inherently wrong with killing animals for this purpose. People can demonstrate their values through consumption choices and participation in democratic processes. With this in mind, most Australians support harvesting kangaroos and enough people consume kangaroo to make it a viable industry.</p>

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