



AWMS POSITION STATEMENT

The Commercial Harvesting of Macropods

Background

The management of kangaroos is a contentious issue. Depending on an individual's beliefs they are a valuable resource that can be sustainably harvested, pests that need to be controlled, or a national icon that should be conserved.

There is broad agreement (Frith 1964; Newsome 1975; Shepherd and Caughley 1987) amongst ecologists that kangaroos—particularly those inhabiting the rangelands—have increased in abundance since European settlement due to the proliferation of water points, modification of vegetation communities to favour foods preferred by kangaroos and reduction in predation. This increase in abundance has brought them into conflict with many pastoralists and crop growers who contend that kangaroos compete with stock for food and water, consume crops and damage fences. To reduce the potential for conflict, kangaroos are culled or commercially harvested.

Although the origins of the present kangaroo industry trace back to rural support for it as a form of self-funding pest control, current management is focussed more on promoting sustainable use. Present harvest quotas, per annum, are typically 10-20% of conservatively estimated populations, and harvesters seldom ever reach these quotas. It is thought that harvests of 20% reduce populations by about 30-40% compared with an unharvested population, yet sections of the rural community and some other stakeholders seek to increase quotas to reduce total grazing pressure on rangelands. Current harvest quotas are thought to be not far below maximum sustainable yields, although annual offtakes may be well above the maximum sustainable yield regionally and where immigration is a very significant factor in kangaroo demography (Pople 1996).

Despite the perceived contention around the commercial use of native wildlife, commercial kangaroo harvesting has a high level of acceptance by governments and the general public (McLeod and Sharp 2014). In contrast, non-commercial culling has much lower acceptance. Despite the general public's high level of acceptance for commercial kangaroo harvesting, demand and supply of kangaroo products has rarely been limited by the quota. There have been claims that increasing the value and demand for kangaroo products could also address land management issues (Wilson and Edwards 2019), particularly in rangelands that are under stress from total grazing pressure. The argument is that, if the value of kangaroo products were to increase, graziers could reduce the stocking rate of domestic stock and maintain profitability by diversifying their income through requiring access fees to be paid by the commercial kangaroo industry (Choquenot *et al.* 1998). This change could help address overgrazing issues if the overall densities of both domestic stock and other grazers can be maintained at levels sustainable under contemporary climatic (and hence pasture) conditions.

In the past decade a number of significant developments have influenced the commercial harvest of kangaroos. Most notably these changes include the exclusion of kangaroos (and other wildlife) by the erection of barrier fences or 'cluster fences' (Bradby *et al.* 2014; Clark *et al.* 2018), and changes in harvesting strategy to only include male kangaroos. The short- and long-term impacts of barrier fencing on the ecology and welfare of kangaroos, both within and outside of fences, are poorly understood, with research and legislation lagging the creation of new exclusion zones. The long-term effects on kangaroo populations of highly sex-

selective harvest strategies are also poorly understood. It is currently unclear if these changes will negatively influence the sustainability of the harvest.

Definitions:

Kangaroos refers to the currently harvested species of the Family Macropodidae.

Sustainable use is taken to mean a harvest that can be continued indefinitely. Three aspects of use must be satisfied for sustainable use to be likely, which are: i) biological—the population of the harvested animal is not adversely impacted; ii) economic — use is profitable; and iii) social—use is culturally acceptable (Milner-Gulland and Mace 2009). In addition, since the interaction between wildlife and their use is dynamic and financial markets and the aspirations of society may change, the balance between the aims of sustainable use may shift over time.

Viable populations are taken to mean populations that would not qualify for the International Union for the Conservation of Nature (IUCN) Red List categories of 'Vulnerable' or 'Near Threatened' according to the criteria approved by the 40th meeting of the IUCN Council, 30 November 1994.

Based on the above, THE AUSTRALASIAN WILDLIFE MANAGEMENT SOCIETY:

SUPPORTS the commercial use of those species of macropod which are now harvested, subject to adherence to an approved management program and the satisfaction of the other criteria identified in the AWMS position paper on the Commercial Use of Wildlife. The addition of any other species should be undertaken only after careful consideration with respect to the same criteria;

RECOGNISES the importance of maintaining viable populations of all commercially harvested kangaroo species throughout their current ranges;

RECOGNISES that, in the interests of sustainable land use and the conservation of biological diversity, there is a need to reduce overall grazing pressure in Australia's rangelands;

ACKNOWLEDGES that a substantial reduction in grazing pressure by removing kangaroos is limited by concerns about kangaroo conservation, while reduction of grazing pressure by removing domestic livestock is limited at present by economic factors;

ACKNOWLEDGES that kangaroo harvesting at present rates is perceived as having insufficient effect in reducing grazing pressure in the sheep rangelands;

RECOGNISES that commercial harvests in addition to non-commercial culling at non-sustainable rates would jeopardise the conservation of viable populations of kangaroos and the future of the kangaroo industry;

RECOGNISES that a reduction in grazing pressure could be achieved more easily if the value of kangaroo products increased to the point where they could be seen by landholders as a valuable resource;

ACKNOWLEDGES the potential role of an increased-value kangaroo industry to help achieve reductions in grazing pressure, through providing landholders with a mechanism to maintain economic viability at reduced sheep numbers; and therefore

SUPPORTS IN PRINCIPLE the idea of achieving a conservation benefit from a government regulated, high value, sustainable kangaroo industry.

Accordingly, AWMS recommends that:

1. Measures to bring about reductions in long-term mean kangaroo numbers in the sheep rangelands should not be implemented unless it can be shown by carefully executed, long-term research that significant ecological and economic benefits will follow, and that further reductions do not jeopardise the viability of kangaroo populations. (However, AWMS also recognises that there may be a need for control of kangaroos in crop-growing areas).
2. State and federal governments make commitments to the support of the long-term future of the kangaroo industry, thus encouraging the development of markets which could lead to higher values of kangaroo products.
3. Long-term research be undertaken to assess the extent of competition between kangaroos and domestic stock, so that landholders have more information on which to base decisions about how they can operate in the most ecologically benign way possible.
4. The impacts, both ecological and on the welfare of kangaroos, of barrier fencing (cluster, exclusion and total grazing pressure fencing) are researched so that any negative consequences of fences on wildlife can be minimised.
5. Significant changes to harvesting strategies, which may influence the viability of kangaroo populations, are not supported by management agencies until research into the potential effects of such changes is conducted.

There is an economic analysis of a range of possible grazing regimes, incorporating the results of research and development as outlined above.

References

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