

**PROCEEDINGS OF THE AUSTRALIAN RANGELAND SOCIETY BIENNIAL CONFERENCE**  
**Official publication of The Australian Rangeland Society**

**Copyright and Photocopying**

© The Australian Rangeland Society. All rights reserved.

For non-personal use, no part of this item may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without prior permission of the Australian Rangeland Society and of the author (or the organisation they work or have worked for). Permission of the Australian Rangeland Society for photocopying of articles for non-personal use may be obtained from the Secretary who can be contacted at the email address, [rangelands.exec@gmail.com](mailto:rangelands.exec@gmail.com)

For personal use, temporary copies necessary to browse this site on screen may be made and a single copy of an article may be downloaded or printed for research or personal use, but no changes are to be made to any of the material. This copyright notice is not to be removed from the front of the article.

All efforts have been made by the Australian Rangeland Society to contact the authors. If you believe your copyright has been breached please notify us immediately and we will remove the offending material from our website.

**Form of Reference**

The reference for this article should be in this general form;

Author family name, initials (year). Title. *In*: Proceedings of the *n*th Australian Rangeland Society Biennial Conference. Pages. (Australian Rangeland Society: Australia).

For example:

Anderson, L., van Klinken, R. D., and Shepherd, D. (2008). Aerially surveying Mesquite (*Prosopis* spp.) in the Pilbara. *In*: 'A Climate of Change in the Rangelands. Proceedings of the 15<sup>th</sup> Australian Rangeland Society Biennial Conference'. (Ed. D. Orr) 4 pages. (Australian Rangeland Society: Australia).

**Disclaimer**

The Australian Rangeland Society and Editors cannot be held responsible for errors or any consequences arising from the use of information obtained in this article or in the Proceedings of the Australian Rangeland Society Biennial Conferences. The views and opinions expressed do not necessarily reflect those of the Australian Rangeland Society and Editors, neither does the publication of advertisements constitute any endorsement by the Australian Rangeland Society and Editors of the products advertised.



*The Australian Rangeland Society*

# **LANDHOLDERS AND KANGAROOS IN THE RANGELANDS: CAN COLLABORATION COMPLETE THE PUZZLE?**

*A Baumber, K Gepp\*, R Cooney, P Ampt*

Future of Australia's Threatened Ecosystems (FATE) Program, Institute of Environmental Studies,  
Valentine Annexe UNSW Sydney NSW 2052, \*Western CMA, Broken Hill

## **INTRODUCTION**

Exploring the potential role of the commercial use of native species in providing rural livelihoods and building ecological resilience is the primary focus of the FATE program at UNSW ([www.fate.unsw.edu.au](http://www.fate.unsw.edu.au)). These efforts are consistent with growing international recognition of the potential for conservation through sustainable use (CBD 2004; IUCN 2000), and provide a way for Australia to broaden approaches to conservation on private land.

A key focus for the FATE Program is the commercial kangaroo industry in the rangelands. Despite decades of rhetoric about the desirability of involving landholders in the industry to bring about 'sheep replacement therapy' in the rangelands (Grigg 1987), the commercial industry remains essentially separate from land management. Landholders continue to provide access to their land to kangaroo harvesters in the understanding that having kangaroo numbers reduced is the best they can do in achieving benefits from the kangaroos on their properties. However, there remain strong arguments for involving landholders in kangaroo management (Ampt and Baumber 2006) and various explanations have been put forward for why it hasn't happened to date (Chapman 2003; Thomsen and Davies 2007).

This paper outlines FATE's experience with efforts to encourage landholder involvement in kangaroo harvest in the rangelands. It summarises various models by which landholders could become involved and reports on an initiative in the Barrier Ranges encouraging collaboration among landholders on kangaroo management.

## **SUSTAINABLE WILDLIFE ENTERPRISES IN THE BARRIER RANGES**

With support from the RIRDC Sustainable Wildlife Enterprises (SWE) Program, FATE has been working in a participatory action research project with the Barrier Area Rangecare Group (BARG), north of Broken Hill (see Fig 1). The aims of this initiative are to encourage collaborative landholder involvement in management of kangaroos, including generating an economic return from kangaroos through adding value to the existing industry, and achieving better total grazing pressure management through gaining greater strategic control and flexibility over where and when kangaroos are harvested.

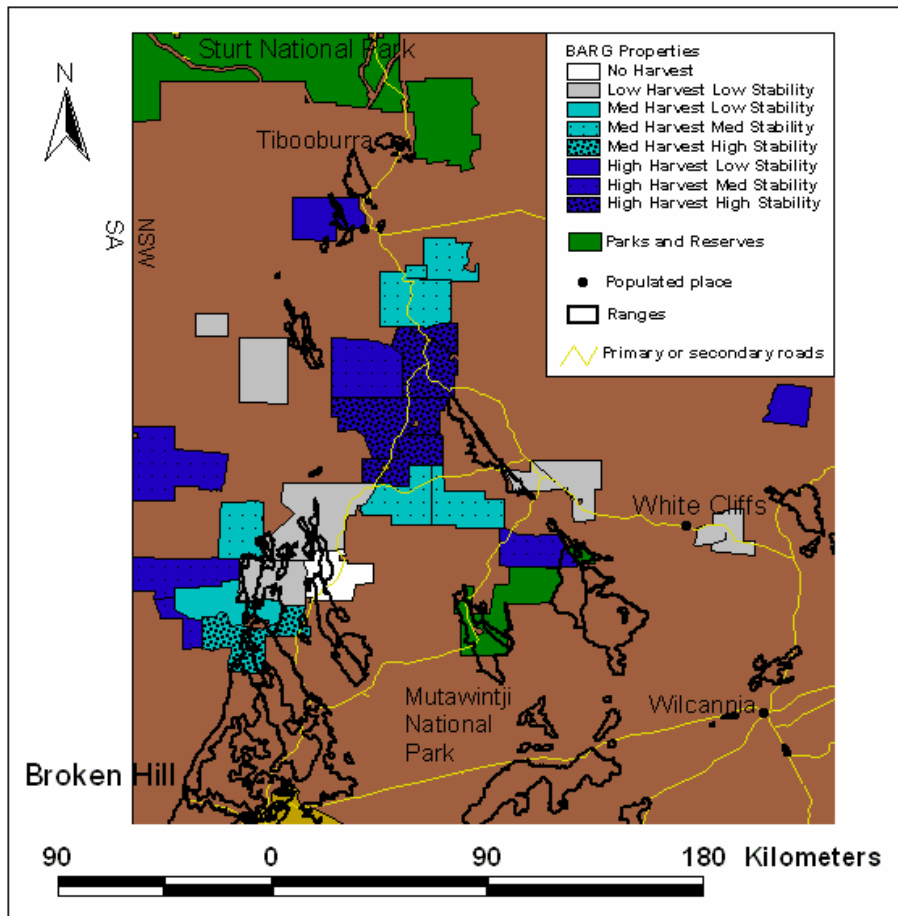
## **MODELS FOR LANDHOLDER INVOLVEMENT IN KANGAROO MANAGEMENT**

One gap that has hindered efforts to date to integrate landholders into kangaroo management is the lack of any detailed examination of different models available for doing so. Various writers have outlined or assumed various models, from landholders becoming harvesters themselves, to landholders mustering and fencing kangaroos like cattle (see e.g. Ampt and Baumber 2006; Grigg 1987; Grigg 1995; Martin 1995; Martin and Lockie 1993). We evaluated four major potential models from the perspectives of major stakeholders, including benefits to landholders, and their likely impacts on land and wildlife management. These four were landholders becoming harvesters themselves; landholders requiring payment from harvesters; landholders employing kangaroo managers as on-farm employees; and landholders collaborating to take on a range of kangaroo harvest, management and processing activities (Cooney In Review).

This work suggests that collaboration among landholders holds the strongest potential to achieve the interlinked benefits of improved management of total grazing pressure at the cross-property level, more aligned interests and better relationships between landholders and harvesters, diversified income to landholders, and the potential to develop higher-value, differentiated kangaroo products in the

future. It outlines some specific organisational models that, further down the track, could enable landholders and harvesters to collaboratively benefit from kangaroos.

**Figure 1.** Properties participating in the FATE/BARG trial. It illustrates the variation in harvest size and variability across properties over 2001-2005. Harvest data provided by DECC.



### KANGAROO HARVEST DATA FOR PARTICIPATING PROPERTIES

We undertook initial examination of past harvest data across participating properties to inform project planning. Harvest returns submitted by shooters to the relevant regulatory agency, the NSW Department of Environment and Climate Change, were requested for 24 properties, covering the past 5 years. Harvest levels do not allow reliable estimates of population across these areas, as harvest effort and success is highly variable. They are further somewhat unreliable regarding location of harvest, as “tag-swapping” by harvesters is widely acknowledged to take place. However, at aggregate level they provide a reliable picture of harvest across this area. Analysis showed that harvest variability over this period was very high at an individual property level, but was much lower at the level of the group (see Fig 1). This provides further support for taking a collaborative approach – when working as a group, landholders can provide a larger and more consistent supply of product, increasing the appeal for processors of entering into cooperative agreements with the group.

### GROUP ALLOCATION OF KANGAROO HARVEST TAGS

A key component of this initiative is to enable landholders to more effectively manage total grazing pressure by having more control over when and how kangaroos are harvested on their properties. Under the current system, kangaroo tags can only be used on specified properties. If a kangaroo aggregation moves from one property to another, the harvester (with the landholder’s authorisation) must seek tags for that specific property. In practice it is often difficult to ensure targeted, flexible and timely management of large aggregations in particular. To address this problem, a central component

of this SWE trial was to seek from DECC a group licence, which would provide the group with tags that could be used anywhere across participating properties.

After extensive negotiation this licence was approved in May 2008. 16 landholders managing around 900,000 ha are participating, along with 16 harvesters. DECC has allocated the group a quota based on the total area covered by the participating properties as a percentage of the quota allocated to the two kangaroo management zones in which the properties sit (Broken Hill and Tibooburra zones). The landholder group, supported by FATE, now controls how this quota is allocated among harvesters. In particular, a significant portion of tags is being held in reserve to enable rapid targeting of any large influxes of kangaroos.

## **STAKEHOLDER ENGAGEMENT AND RESPONSES**

A strong emphasis of the BARG trial is seeking the participation of not only landholders, but local kangaroo harvesters, kangaroo processors, and the relevant regulatory agency, the NSW Department of Environment and Climate Change. These groups are all highly influential in various ways and have the ability to dramatically affect the success or otherwise of the trial. Representatives from these groups sat on the project Steering Committee, were invited to participate in planning and information workshops, received regular updates, and influenced the direction of the trial. Here we summarise some key insights from this stakeholder engagement.

From harvesters, initial reactions to the project were typically of distrust and suspicion. Most were hostile to any suggestion of potential change to operating norms in the industry. Shooters expressed the (correct) view that kangaroos do not belong to the landholder, and argued therefore that landholders should not be able to dictate when shooting can occur. They were unreceptive to the idea that landholders could have a positive position in the supply chain without causing a negative impact on them. Further, they felt they were already doing the landholder a service by controlling the kangaroo numbers and their grazing impact. However, beyond these specific points, their hostility may reflect the vulnerability of the position of harvesters under current practice, which has evolved over many decades. Harvesters have constraints from both sides: a processor directs them on volume and timing of product to harvest; and landholders control their access to the resource they rely on. If they choose not to accept the conditions of either, they will simply be replaced. Shooters therefore have a lot to lose when new ideas that challenge current practice in the industry are introduced. The main objectives they were seeking were better recognition of their role as a professional job, and less competition with “part timers”.

Landholders had generally positive responses, albeit with some scepticism about whether the trial would work. They were positive about the potential to earn income from kangaroos, in part to offset the costs imposed by kangaroos. However, another major benefit for many is the ability to better manage total grazing pressure over large areas.

Processors were, like harvesters, generally not enthusiastic about seeking to change practices in the industry. In many ways they currently enjoy a favourable position under current practice.

DECC has been an important partner in the trial, reflecting their role of facilitating adaptive management experiments under the NSW Kangaroo Management Plan. However, they have at various times displayed scepticism about the need for change, including expressing the views that CSU has limited relevance for abundant animals or for developed countries and that landholder involvement is possible under the present regulatory system (and that it is other factors that hinder it). Notably, the procedure of gaining approval for a change in licensing practice (described above) involved many long delays without any clear explanation, which slowed down the progress of the trial.

## **DISCUSSION**

FATE is seeking expanded sustainable commercial use of native flora, fauna, and ecosystems to achieve both environmental and economic priorities. Our initiative with the BARG has succeeded in carving out a role for landholders in kangaroo management through collaboration – in the future we

seek to build on this to encourage more active management, adding value to the kangaroo resource, and gaining income. In a parallel initiative near Mitchell, Qld, a landholder/harvester group recently earned its first income from sale of kangaroos from their chiller boxes, indicating the potential for landholders to expand their role in this direction.

A major avenue for the future is the development of differentiated kangaroo products. Recent research suggests a potential market niche for environmentally branded, gourmet products of high quality (Chudleigh *et al.* in review). Here landholder involvement could add real value for marketing. Recent research found that if kangaroo meat is to be more widely available, retailers and manufacturers will need to be confident that the supply chain is secure, transparent and clear of potential controversy (Ampt and Owen 2008). Involvement of landholders could improve chain of custody, lend the support of the farm lobby to the product, and build on consumer confidence in the providers of their beef and lamb. It could also open the way to innovative marketing approaches based on conservation-friendly land and wildlife management.

## REFERENCES

Ampt P, Baumber A (2006). Building connections between kangaroos, commerce and conservation in the rangelands. *Australian Zoologist* **33**, 398-409.

Ampt P, Owen K (2008). Consumer attitudes to kangaroo meat products. Rural Industries Research and Development Corporation RIRDC Publication No 08/026

RIRDC Project No UNS-19A, Barton ACT Australia.

CBD (2004). Addis Ababa Principles and Guidelines for Sustainable Use of Wild Living Resources (Convention on Biological Diversity).

Chapman M (2003). Kangaroos and Feral Goats as Economic Resources for Graziers: Some Views from South-west Queensland. *Rangel.J.* **25**, 20-36.

Chudleigh P, Archbold D, Simpson S, Telford J (In review). Marketing Kangaroo Meat from the Sustainable Wildlife Enterprises: The Conservation Dimension. (Submitted to Rural Industries Research and Development Corporation: Canberra).

Cooney R (In Review). Landholder collaboration in wildlife management: models for landholders to share benefits from kangaroo harvesting. Submitted to Rural Industries Research and Development Corporation, Canberra.

Grigg G (1987). Kangaroos - a better economic base for our marginal grazing lands? *Australian Zoologist* **24**, 73-80.

Grigg G (1995). Kangaroo harvesting for conservation of rangelands, kangaroos...and graziers. In 'Conservation Through Sustainable Use of Wildlife'. (Eds G Grigg, P Hale, D Lunney) pp. 161-165. (Centre for Conservation Biology, University of Queensland: Brisbane, Australia).

IUCN (2000). IUCN Policy Statement on Sustainable Use of Wild Living Resources. In 'WCC2 Res2.29'.

Martin AL (1995). The pastoralist's role - where to now? In 'Conservation Through Sustainable Use of Wildlife'. (Eds G Grigg, P Hale, D Lunney) pp. 6-8. (Centre for Conservation Biology, University of Queensland: Brisbane).

Martin P, Lockie S (1993). Environmental information for total catchment management: incorporating local knowledge. *Australian Geographer* **24(1)**, 75-85.

Thomsen D, Davies J (2007). People and kangaroo harvest in the South Australian rangelands. Rural Industries Research and Development Corporation, Kingston ACT.