

**PROCEEDINGS OF THE AUSTRALIAN RANGELAND SOCIETY
BIENNIAL CONFERENCE**

Official publication of The Australian Rangeland Society

Copyright and Photocopying

© The Australian Rangeland Society 2012. 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

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 nth 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 15th 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

INTEGRATION OF LIVESTOCK AND KANGAROO ENTERPRISES

B.M. Alchin

Department of Plant Production, Uni. of Queensland Gatton College, Lawes Qld 4343

ABSTRACT

There is significant potential for the development of a kangaroo harvesting enterprise which is integrated with livestock production. It offers opportunity for diversification of income as well as greater flexibility in rangeland management. Apart from economics, issues that will influence development of kangaroo harvesting will include indirect benefits to rangeland condition and traditional attitudes of pastoralists to game animals.

INTRODUCTION

The increase in both watering points and softer forage in the semi-arid rangelands of eastern Australia has resulted in large increases in the numbers of several kangaroo species. In many situations this has added significantly to the total grazing pressure on rangelands. The main control of this additional grazing pressure is through some level of culling or harvesting.

On-going economic pressures on the pastoral industries and the potential returns from kangaroo harvesting have resulted in the possibility of kangaroo harvesting becoming a significant enterprise. To date, the direct financial benefit of kangaroo harvesting has accrued to kangaroo shooters (either operators from off the property or the pastoralists themselves). Where the shooter is not the pastoralist, the benefit to the latter has largely related to increased available forage for livestock.

Where pastoralists have been carrying out their own opportunity harvesting they have usually increased their financial viability. However, there is the potential for this to be further developed into an on-going enterprise which is highly integrated with livestock.

DEVELOPMENT OF A KANGAROO HARVESTING ENTERPRISE

The management options for kangaroos involve:

1. No action.
2. Culling.
3. Opportunity harvesting.
4. Rangeland management to attract kangaroos.
5. Rangeland management to attract kangaroos and reduction of livestock numbers to allow for higher numbers of kangaroos to be 'carried'.
6. Rangeland management to attract kangaroos and a total substitution of kangaroos for livestock.

The mobility of kangaroos creates difficulties in the relationship between the resource site (pastures and water) and the location in which they are harvested. Alchin (1995) has suggested that harvesting should be on a co-operative basis between several neighbouring properties. Returns can be allocated on a proportional kangaroo carrying capacity basis.

The decision as to the option of management to employ is a complex one. The main focus of the decision relates to the potential for a kangaroo enterprise to provide income. Factors which affect this are:

1. pastoralist's perception of the stability and viability of the kangaroo industry;
2. pastoralist's perception of kangaroo harvesting as a complementary enterprise to grazing livestock;

3. suitability of rangelands for kangaroo harvesting - appropriate forage and accessibility for shooter;
4. viability of existing grazing enterprise(s);
5. viability of kangaroo harvesting for pet food, hide or human consumption;
6. opportunity to manage pastures for kangaroos and/or livestock.

A decision-making process which could be employed is summarised as:

need for increased income → suitability of country → capital requirements → whole property economic analysis → review kangaroo market potential → assess potential supply of kangaroos → pastoralist/contractor option for shooting → co-operative basis for harvesting

It has been assessed that the gross margin for kangaroo harvesting for human consumption is approximately equivalent to livestock (on an animal equivalent basis) (Alchin 1995). However, opportunity harvesting for even hides or pet food can be an important supplementary income. This is particularly so under drought conditions when stock numbers have been reduced but kangaroos are still able to utilise the pasture forage. This supplementary income is also important when livestock commodity prices are low.

The move toward integrating a sustainable kangaroo enterprise with an existing grazing enterprise will depend on both a stable industry developing and the margin for kangaroos being significantly higher than for livestock. The latter will be required because of the vagaries of supply and requirements for harvesting game animals. The tradition of the pastoral industry may be an impediment to acceptance of kangaroo harvesting.

REFERENCE

Alchin, B.M. (1995). The role of kangaroo harvesting in pastoral property management. *In* 'Conservation Through Sustainable Use of Wildlife.' (Eds G.C. Grigg, P.T. Hale and D. Lunney). Centre for Conservation Biology, The University of Queensland, pp. 189-294.