



KANGAROO SITUATION IN WESTERN AUSTRALIA

There are three major species of Kangaroo found on the mainland of Western Australia, these being:

- (a) the Euro, or Biggada (*Macropus robustus*),
- (b) the Red, or Plains Kangaroo (*Megaleia rufa*), and
- (c) the Western Grey Kangaroo (*Macropus fuliginosus*).

In addition to these species, there is the Antelope Kangaroo (*Macropus antilopinus*) of the Northern Kimberleys, and the insular form of the Euro (*M. robustus isabellinus*), found on Barrow Island. Some of the larger islands of the adjacent Dampier Archipelago also harbour small populations of Euros.

Protection of the Fauna in W.A. is effected by means of Section 14, subsection 1 of the Fauna Conservation Act, 1950-1969, which states that:—

“Except to the extent which the Minister declares by notice published in the *Government Gazette* pursuant to the provisions of this Section all fauna is wholly protected throughout the whole of the State at all times”, although the Minister also has the power under subsection 2 to declare fauna unprotected, or to vary the provisions of the protection in specified cases. He may also declare closed or open seasons with respect to any of the fauna in either general or specific manner, and restrict the taking and/or disposal of such fauna.

With respect to these Kangaroos, the present situation is being reviewed. The position has been that the Red Kangaroo and Euro, except on sanctuaries, have been unprotected throughout the whole State, while the Grey Kangaroo has only been protected over a relatively small part of its range since 1952, when the former blanket protection of this species was removed. Since this

time, however, a large scale invasion of formerly undisturbed Grey Kangaroo habitat, both within and outside the protected area, has occurred, with a consequent reduction in area of available habitat. This change has contributed to the reduction of populations of this species, and it has also accentuated the problem of management arising from the conflict between the interests of these animals and those of intensive agriculture. The trend towards fragmentation of local populations and the isolation of relic populations in local areas also presents further biological problems.

It is unlikely that commercial exploitation of natural populations of this species, in this State at least, has any but limited prospects at present, and it is likely that these will become more limited with future reduction in populations. Direct commercial utilization of this species has always been limited, and is not being encouraged at present.

The Red Kangaroo and Euro have been declared “vermin” in the pastoral areas of W.A. for many years, under provisions of the Vermin Act, 1918-1965, which is administered by the Agriculture Protection Board, and the unprotected status of these two species in the past has been acknowledgment of the former precedence of the provisions of the Vermin Act relative to the Acts relating to fauna. This situation has since been amended, but it is still acknowledged as Departmental policy that any fauna conservation management programme should take into account all relevant factors.

Despite the fact that both Reds and Euros are at present unprotected, and that existing vermin eradication techniques, if correctly employed, are capable of eliminating the majority of these animals from large tracts of pastoral country, this policy of non-intervention by the Fauna Authorities was not contributory to any serious depletion of populations prior to the advent of an expanded pet meat and skins trade.

Only part of this industry has been registered with the Department of Fisheries and Fauna, and this only since 1957, and statistics collected are unreliable as far as exploitation is concerned with the possible exception of the last three years (1967-1969), but some generalizations are possible.

Firstly, the kangaroo pet meat trade in W.A. was originally based on the exploitation of the Grey Kangaroo, and expanded to include the Red Kangaroo, and some Euros at a later date, although limited trading in dry skins of the former two species has always occurred. The dried skin trade has not accounted for large numbers of animals in the past, and is not likely to do so now. On the other hand, the exploitation of the kangaroos as a source of pet meat has provided the economic incentive for the killing of many more of these animals than would otherwise have occurred. Prior to 1965, the total take of the pet meat and dry skins trade in W.A. may have reached a peak of 100-150 thousand animals per year for a short time, with between 25 and 40 thousand of these animals being Grey Kangaroos. Many of these animals would have originated from areas being cleared for agricultural purposes. Since 1965, and more particularly in the last 2-3 years (1967-1969), this industry has expanded and shifted almost entirely to the exploitation of the Red Kangaroo. The only large scale operation on Grey Kangaroos was terminated midway through 1969. This previously accounted for some 20-25,000 animals per annum.

Trade in Red Kangaroo carcasses and skins by local dealers for the period 1967-1969 was:

1967—173,000
1968—174,000
1969—316,000

The rise in the numbers taken during 1969 can be attributed to an increase in the value of skins, large scale export of meat, both overseas and interstate, and increased vulnerability of the animals due to drought conditions. It is considered that this rate of exploitation is excessive with respect to W.A. populations of the Red Kangaroo, and cannot be sustained without reducing the total populations of the species. Proposals to restrict the harvest are being made as part of a general management plan for this species. It should be remembered when making comparisons between local situations, that conditions differ from place to place, and also from time to time, and that the management strategy to be employed in a particular instance must be appropriate to that situation. In this respect the habitat of the Western Australian populations of the Red Kangaroo comprises much poorer rangelands than those of the N.S.W. pastoral areas for example, and it can be expected that W.A. populations of this species would naturally be less dense than those formerly found in N.S.W. prior to the drought in 1964-65. It should also be noted that areas of favourable habitat for the

Red Kangaroo are generally found in only about one-third of the State (approximately 330,000 square miles), and this area is not uniformly favourable.

The commercial kangaroo trade possesses a capability in excess of any harvest which could be supported by the population of the Red Kangaroos, and it is already evident that over exploitation has occurred in many areas. As far as economics of operation are concerned, it will suffice to say that the net profit per carcass for a shooter taking animals of both sexes with an average weight of 30-35 lb. is about 75c for a fully professional operator; the profit margin is greater for a part-time or casual shooter. In effect the economic situation is such that it is profitable for a shooter to take all but the pre-productive animals in a population, and in these circumstances it is pointless to assume that economic factors could control shooting pressure on a population so that its future survival was assured. The combination of mobile freezers and good roads also ensures that talk of refuges where populations could escape the pressures of commercial exploitation has little validity in practice.

Direct intervention and management is needed in this situation and is to be instituted.

Management recommendations at present under consideration include specific references to the necessity to achieve a biologically acceptable solution in each case and also emphasize the fact that a sustained harvest does not necessarily equate with a stable yield from an exploited population. Provision for adequate data collection to collate information as a basis for management decisions is considered a necessity, and will be incorporated in the final management programme.

AN APPETITE LIKE A 'ROO DOG

Mr. Henry G. Hall of Dargin (Member of the Wild Life Authority) recently had an interesting encounter with a giant petrel.

Mr. Hall's letter relating his experience is reprinted here in full.

"Had a remarkable experience with what we think was a giant dusky petrel.

"I was fishing for small fish in a boat seven miles off Mullaloo about 10 at night when this big bird swam up to us. The weather had been very stormy and I'd heard about these birds coming ashore in an exhausted condition, but this one seemed pretty lively. It had a go at our burley bag and generally horsed round so we fed it all our rubbish fish, which it gulped down very smartly. Eventually it got tangled