

WESTERN AUSTRALIA— KANGAROO MANAGEMENT PROGRAMMES

RED KANGAROO (*Megaleia rufa*)

Introduction

This report is prepared in accordance with the recommendations of the Ministerial Working Party on Kangaroos set up by the respective State and Australian Government Ministers at their meeting in Melbourne on March 9, 1973.

The Red Kangaroo Management Programme has functioned in Western Australia from February 1971. The following notes set out details of that programme in the format recommended by the Working Party.

Classification of Land Use and Habitat

Red Kangaroos occur in varying density over a range which occupies approximately two-thirds of the State, that is, an area of approximately 1,500,000 square kilometers. The map on page 65 shows the range of Red Kangaroos in Western Australia and the land use within that range.

- (a) Area of range where the natural habitat is relatively unchanged. Nearly two-thirds of the range of the Red Kangaroo (900,000 square kilometres) is too arid to support pastoral and agricultural activities. Consequently, it has been relatively unchanged by European man. In this very arid area the population of Red Kangaroos is continuous but sparse.
- (b) Area of range where the natural habitat is relatively unchanged but where major development is likely to occur in the future. No major changes can be anticipated in the foreseeable future over most of the range of the Red Kangaroo. Minor changes in land use on the south western and southern limits of the range are possible.
- (c) Area of range where the habitat has been greatly modified and is now largely unsuitable for *M. rufa*. No significant area.
- (d) Area of range where land use has improved the habitat of *M. rufa*.

This area includes a very large proportion of the pastoral i.e. sheep and cattle grazing lands of the State. It would approximate about 600,000 square kilometres. This is the area in which the highest densities of Red Kangaroos have probably always occurred. Commercial harvesting is confined to this part of the range of *M. rufa*.

Evaluation of The Reserve/Sanctuary System

The need for reserves depends on the habitat requirements of the species and on the type and intensity of land use practised within its range.

In that part of the range of *M. rufa* which is not subjected to any use and is practically unoccupied some very large reserves exist. Further reserves could be created with little difficulty. A reserve of about 4,000,000 hectares to be known as the Queen Victoria Desert Wildlife Sanctuary has been recommended by the

Australian Academy of Science and is earmarked for reservation on Lands Department plans.

There is a lack of reserves in the preferred habitat of *M. rufa*, because practically all the valuable land has been leased for grazing purposes for very considerable periods. This is the part of the range of the species where land use has altered the habitat due to the "lawn mowing" effect referred to by Newsome (1971) which tends to make green fodder available to kangaroos when normally it would not have been. The provision of stock watering points for sheep and cattle has enabled the Red Kangaroo to exploit food resources which would not have been available to it in prepastoral times, so that populations are now much larger than before settlement.

The strategy of the Red Kangaroo Management Programme is to maintain kangaroos as viable and widespread populations in its preferred range within the pastoral area. It is accepted that the Management programme must take cognizance of the total grazing pressure on the habitat which supports the introduced domestic animals and kangaroos. This is considered to be preferable to reliance on reserves in this area not only because they would have to be limited in size but also because they would encourage the elimination of kangaroos on the pastoral leases outside reserves.

It is emphasised, nevertheless, that wildlife reserves in the pastoral country are highly desirable, not so much for the preservation of *M. rufa* but for less well known species of wildlife which frequently have more rigorous requirements for food and shelter and which cannot live in areas grazed by domestic stock.

There are no major reserves for *M. rufa* in its preferred habitat. For the reasons set out above the provision of reserves for this species in this portion of its range is not seen as an urgent requirement.

The major reserves within the range of *M. rufa* have been provided primarily for the conservation of other species of wildlife and other nature conservation interests. These reserves which are listed below contain small and probably viable populations of *M. rufa*.

Wildlife Sanctuaries:

- (i) Mungaroona Range Wildlife Sanctuary—approx. 110,000 hectares.

National Parks:

- (i) Hamersley Range National Park—approx. 600,000 hectares.
- (ii) Chichester Range National Park—approx. 150,000 hectares.




Assessment Programme

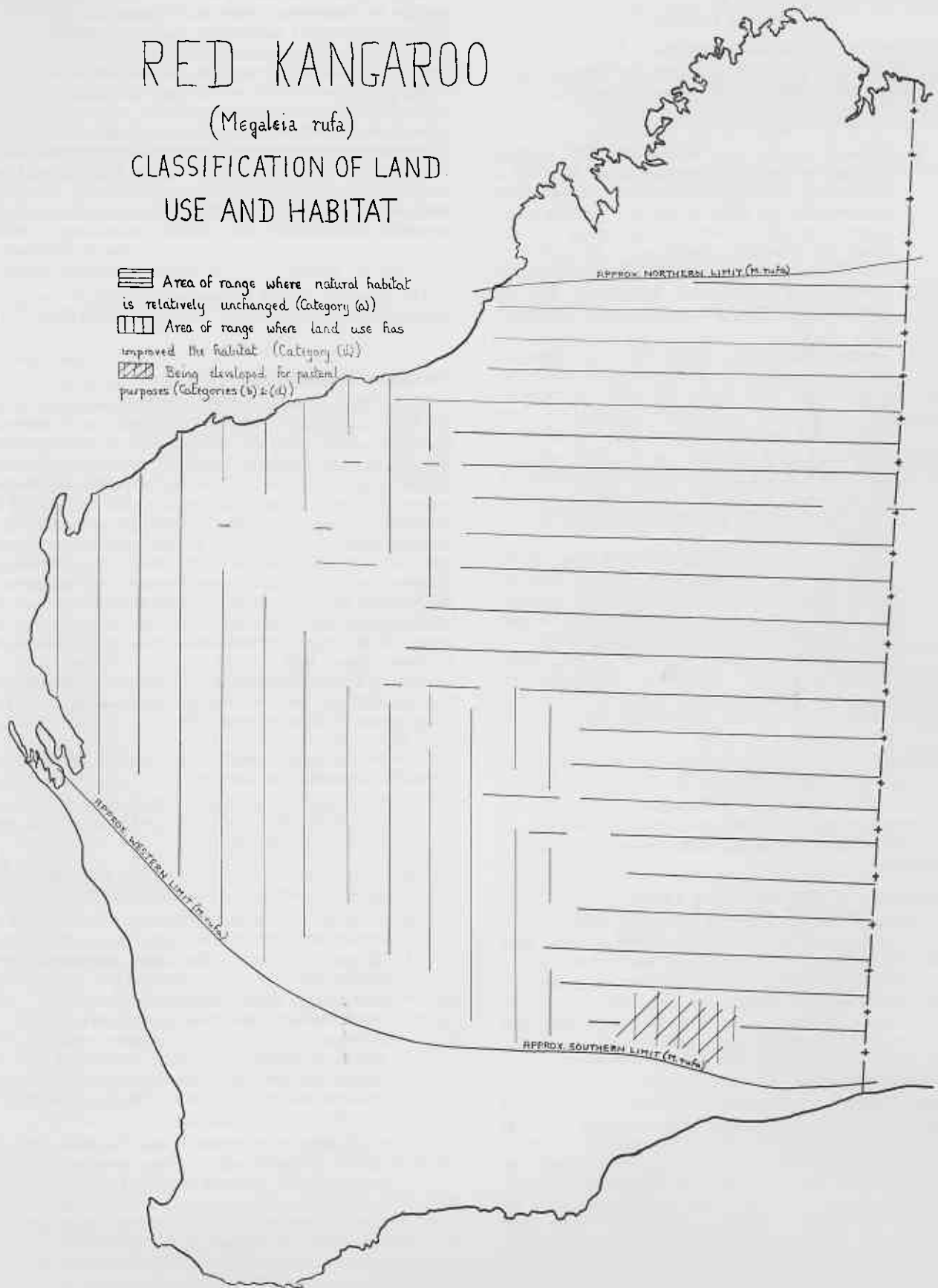
Continuous assessments of populations of *Megaleia rufa* are undertaken in that part of its range 1 (d) when land use has improved the habitat for this species and where kangaroos have the propensity to become sufficiently abundant to cause economic loss to landholders.

RED KANGAROO

(*Megaleia rufa*)

CLASSIFICATION OF LAND USE AND HABITAT

-  Area of range where natural habitat is relatively unchanged (Category (a))
-  Area of range where land use has improved the habitat (Category (b))
-  Being developed for pastoral purposes (Categories (c) & (d))



Assessments are carried out by:

- (i) ground surveys,
 - (ii) aerial surveys,
 - (iii) sampling of populations to provide information on age structures and reproductive condition,
 - (iv) analysis of harvest returns.
- (i) *Ground surveys* are undertaken by district wardens by day and by night in order to make a continuing check of the density of populations to determine the effect of harvesting in the areas where licensed shooters are operating and the effect of seasonal conditions. In addition, surveys are carried out at the request of pastoral lessees who claim that kangaroos are so abundant that they are causing them economic loss.
- (ii) *Aerial surveys* are undertaken from time to time using procedures documented by Newsome, Frith and others in order to provide information on population abundance and distribution and on the major seasonal effects.
- (iii) *Populations* are samples by research officers. The samples not only provide information on the reproductive condition of kangaroo populations but also aid in the interpretation of harvest returns.
- (iv) *Complete harvest data* are collected from shooters as part of the regulatory system. This includes the area of operation, hunting success, sex, weight, catch for unit effort and total harvest. Analysis of these data provides substantiating evidence of population densities and reproductive condition. At present, the computerisation of data is being planned. This will enable more precise evaluations of kangaroo populations to be made.

By means of the above assessment the Department is able to ensure that level of harvest does not jeopardise the survival of viable numbers of Red Kangaroos and that those numbers are not great enough to contribute an undue percentage of the total grazing pressure on the rangelands.

Determination of Safe Harvesting Levels

It is stressed that commercial harvesting of *M. rufa* is confined to that part of its range described in 1 (d). It is further stressed that the main aim of the Red Kangaroo Management Programme is to ensure the continuance of viable populations of Kangaroos throughout their preferred range. This aim, incidentally, perpetuates the co-existence of kangaroos and domestic grazing animals; a fact which is accepted in the pastoral industry.

There will always be some disagreement between sections of the pastoral industry and the Department and conservationists as to the desirable and safe levels at which kangaroo numbers may be maintained. In order to resolve this disagreement on a scientific basis the Department has developed its Red Kangaroo Management Programme. In 1969, using comparative data on kangaroo population densities similar to that since published by Newsome (1971) and Frith and Calaby (1969) the total population of *M. rufa* in pastoral areas was estimated to vary between 1 and 2 million according to seasonal conditions.

Applying safe harvesting levels of 1:6 as indicated from studies by Newsome, Main and Winter, the numbers of kangaroos which might be harvested annually was estimated to be 170,000–330,000. Comparing this figure with historical records of kangaroos taken and making an allowance to ensure that the permitted future take of kangaroos will be conservative, a quota of 200,000 plus or minus 50,000 *Megaleia rufa* was set initially. The management strategy combines analyses of harvest data, average density indices obtained by ground and aerial surveys and seasonal conditions. Continual analysis of this data, with allowances made for changing seasonal conditions, will enable increasingly precise adjustments to be made to annual quotas as evidence of any local or general over- or under-harvesting occurs.

The number of Red Kangaroos harvested commercially in 1971 was 170,000; in 1972 it was 204,000.

Management Programme

Under the provisions of the Fauna Conservation Act all wild vertebrate fauna is protected until otherwise declared by the Minister. Protection can be lifted either by declaring the species to be unprotected throughout the whole or any parts of the State or by declaring an open season throughout the whole or any part or parts of the State for any period of time. The open season declaration can restrict the taking or the disposal in any manner that the Minister considers desirable. Long term open seasons for *M. rufa* have been declared in those parts of the State in which the preferred habitat of the species and pastoral activities coincide. That is, in the part of the range of *M. rufa*. As indicated previously, this covers between about half or one third of the range of the species in Western Australia. The areas concerned and the restrictions are set out in the extract from the *Government Gazette* on page 72.

Outside the open season areas illegal harvesting is virtually impossible because—

- (a) all kangaroo carcasses in chillers or transported by any means or in processing works, must have a lawful tag attached,
- (b) patrolling by District Wardens presents a continuous hazard to would-be illegal operators;
- (c) unlicensed hunters operating illegally would receive no support from pastoral lessees or from licensed shooters. The same deterrents apply within the open season areas to make illegal harvesting there virtually impossible. The inaccessibility and lack of support systems or systems of any kind in the desert and very arid areas, together with the sparseness of the kangaroos and the uneconomic transport costs involved all help to ensure that the legal protection has practical effect.

Any skins or carcasses found without tags are liable to confiscation. Any person found in possession of skins or carcasses or who consigns or transports them is also liable to prosecution (see extract from Regulations on page 72). Royalties are charged at the rate of 20 cents for each kangaroo tag. If the carcass and skin are consigned separately a tag must be fixed to each. The proceeds are credited to revenue.

Conclusion

The kangaroo industry in Western Australia is used as a tool of management under the Department's Red Kangaroo Management Programme to ensure that viable populations can co-exist with domestic stock. Kangaroo numbers need to be kept within certain limits to prevent superabundance. Making use of this industry in a closely controlled manner is preferable to alternative means such as poisoning, which are indiscriminate and non selective and affect a wide range of species and age classes, or the employment of Government shooters who would require back-up facilities such as housing and vehicles that would involve considerable commitments from public funds.

GREY KANGAROO (*Macropus fuliginosus*)

Introduction

The following notes set out details of the Grey Kangaroo Management Programme operating in Western Australia. It is presented in the format recommended by the Ministerial Working Party on Kangaroos, set up by a special Meeting of State and Australian Government Ministers held in Melbourne on March 9, 1973.

It must be emphasised that the Grey Kangaroo Management Programme in Western Australia, unlike the Red Kangaroo Management Programme, is not based on commercialisation of the species. The only reason for allowing the taking of Grey Kangaroos for commercial purposes is to allow reduction of numbers in areas where they are causing substantial damage to property.

Classification of Land Use and Habitat

The map on page 68 shows the land use and range of the Grey Kangaroo in Western Australia.

The principal stronghold of this species in this State has been the series of State forests situated in the jarrah and karri belts of the dry and wet sclerophyll forests. As will be seen from the land use map, a considerable area of the habitat of the Grey Kangaroo has been lost to the species, due to clearing for agricultural and industrial pursuits as well as for suburban and urban areas.

Considerable inroads have also been made into the forest country, initially by agriculture and in latter years to a lesser degree by mining activities.

- (a) Area of range where the natural habitat is relatively unchanged.
About 1,800,000 hectares of State forest remain relatively unchanged. It is common knowledge that the species occurs in good numbers throughout the forest. No effort has been made to the present to determine the actual density of Grey Kangaroos throughout this area because of the recognised abundance of the species and the security of its habitat.
- (b) Area of land where the natural habitat is relatively unchanged but where major development is likely to occur in the future.
Bauxite mining leases are currently held over approximately 700,000 hectares of State forest. Additionally, approximately 400,000 hectares of forest is involved in the recently negotiated wood chipping agreement centred on Manjimup. However, the agreement provides that only 10,000

or 12,000 hectares will actually be cut each year for fifteen years (i.e. about 45% of the forest in the license);

- (c) area of range where the habitat has been greatly modified and is now largely unsuitable for *M. fuliginosus*. Approximately two-thirds of the original habitat of the Grey Kangaroo has been modified by agricultural, industrial or other human activities.
- (d) Area of range where land use has improved the habitat for *M. fuliginosus*.
Nil.

Evaluation of the Reserve/Sanctuary System

The persistence of Grey Kangaroos in Western Australia depends upon the maintenance of an adequate reserve/sanctuary system. The principal areas in which the habitat of the species is relatively secure are:—


- (a) Wildlife reserves termed sanctuaries under the Fauna Conservation Act which are set aside in perpetuity and vested in the Western Australian Wild Life Authority;
- (b) National Parks, also set aside in perpetuity and vested in the National Parks Board of W.A.;
- (c) State forests, the control of which is vested in the Conservator of Forests. The habitat in State forests is not considered to be as secure as the previous categories because forestry practices, such as the development of plantations of exotic pines, etc. and the susceptibility of State forests, at present, to the Mining Act, can induce changes detrimental to wildlife conservation;
- (d) Water catchment areas. These are important but they generally coincide with State forests. They have the effect of making that part of the forest more secure.


The main areas of habitat protected in these categories within the range of the Grey Kangaroo are:—


- (a) *Wildlife Reserves*
 - (i) Lake Barker Wildlife Sanctuary—approximately 210,000 hectares
 - (ii) Lake Magenta Wildlife Sanctuary—approximately 94,000 hectares
 - (iii) Nuytsland Wildlife Sanctuary—approximately 620,000 hectares
 - (iv) Queen Victoria Springs Wildlife Sanctuary—approximately 272,000 hectares
 - (v) Great Victoria Desert Wildlife Sanctuary—approximately 2,500,000 hectares
- (b) *National Parks*
 - (i) Kalbarri National Park—approximately 150,000 hectares
 - (ii) Stirling Range National Park—approximately 110,000 hectares
 - (iii) Fitzgerald River National Park—approximately 250,000 hectares
 - (iv) Cape Arid National Park—approximately 250,000 hectares
 - (v) various sand plain National Parks between Perth and Geraldton, approximately 40,000 hectares.


WESTERN GREY

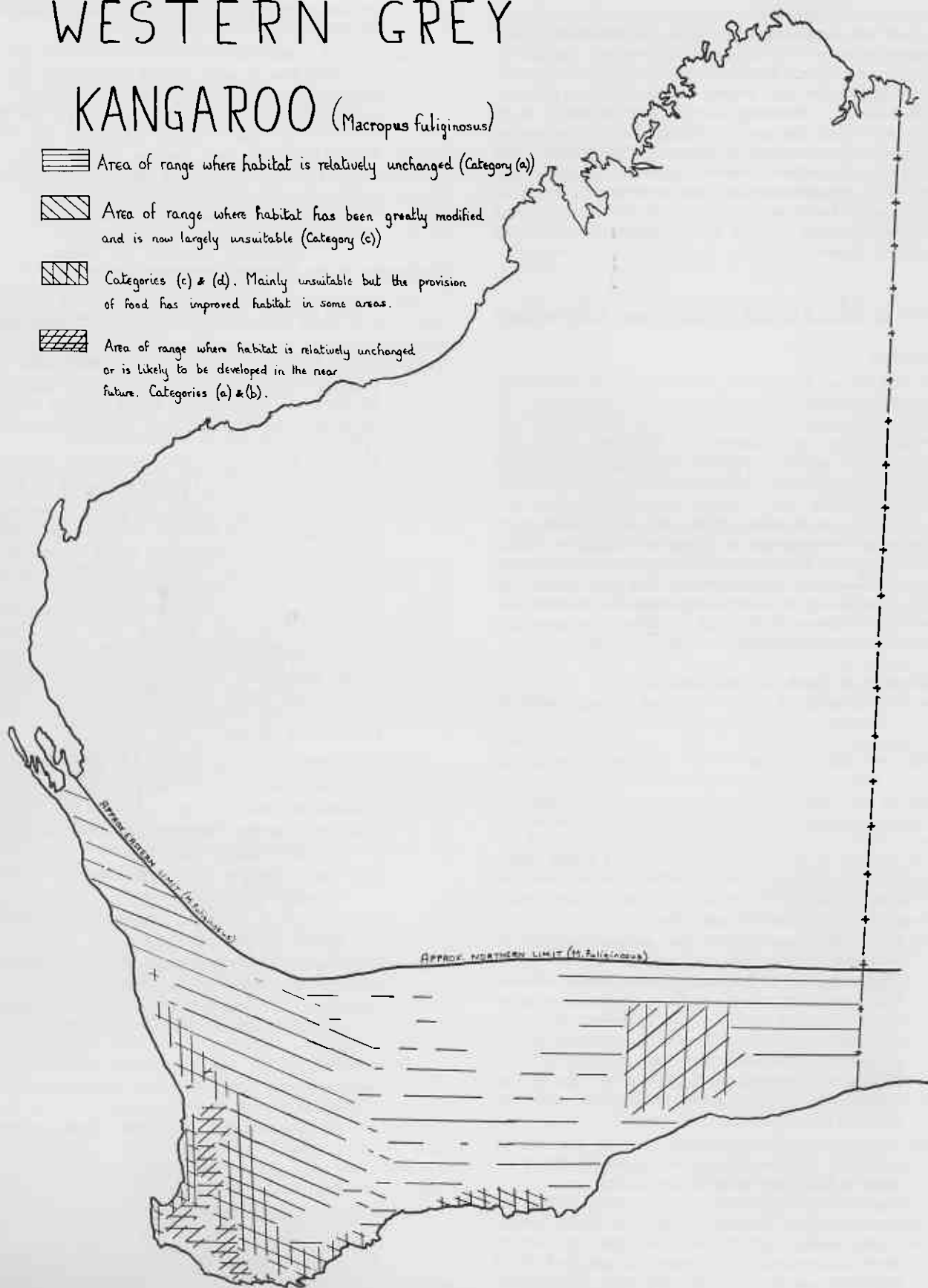
KANGAROO (*Macropus fuliginosus*)

 Area of range where habitat is relatively unchanged (Category (a))

 Area of range where habitat has been greatly modified and is now largely unsuitable (Category (c))

 Categories (c) & (d). Mainly unsuitable but the provision of food has improved habitat in some areas.

 Area of range where habitat is relatively unchanged or is likely to be developed in the near future. Categories (a) & (b).



(c) *State Forests*

Approximately 2 million hectares of more or less continuous jarrah, marri, wandoo and karri forests.

In addition to the foregoing, there are about 300 wild-life sanctuaries individually less than 20,000 hectares (and the great majority less than 4,000 hectares each) which are vested in the Western Australian Wildlife Authority and lie within the range of *M. fuliginosus*. Additional reserves are continually being sought. None of these are specifically for this species but many will include general habitat on which the Grey Kangaroo occurs. Anecdotal evidence suggests that there is limited movement of Grey Kangaroos between at least some of the small reserves and adjacent uncleared land or other reserves. The value of the large number of small reserves in the conservation of the species is difficult to determine, but it may not be as insignificant as some maintain.

Assessment Programme

Continual assessments of local populations are carried out by Wardens under the requirements of the damage license system which calls for inspections of properties to substantiate claims of damage being suffered. These include:

- (i) Ground surveys which are undertaken in the normal course of patrolling by Wardens.
- (ii) Aerial surveys of rangeland areas within the species range used by the Biologist in charge of the programme in order to obtain information on overall population distribution.
- (iii) Data required by the damage license system for all animals traded commercially, includes the area of operation, sex, weight, hunting effort and total harvest. Additional biological samples are taken as required to provide information on age distribution and reproductive condition of populations.

Determination of Safe Harvesting Levels

The number of Grey Kangaroos permitted to be destroyed is determined solely on the basis of mitigating the damage which they cause, no cognizance whatsoever is given to satisfying any commercial demand.

Wardens inspect, note and report on the frequency and extent of fence damage, the plentitude of scats, the use of kangaroo scats from adjacent forest to agricultural land and on acres of crop damage.

Damage is sporadic in time and location according to season conditions. The numbers taken under damage licenses have fluctuated between 10,000 and 30,000 animals a year. It can be expected that this take, which can be regarded as the spill out of populations from secure habitat reservations on to adjacent agricultural land will continue for many years. A factor likely to reduce it is the encroachment into forests of land incompatible with the existence of the Grey Kangaroo. The basic aim of the Grey Kangaroo Management Programme is to maintain as high a population of the species as is possible, not only in the areas where their habitat is secure or relatively secure, but also in uncleared privately owned land. This is identical with the desirable level expressed by the Australian Conservation

Foundation in its supplement to A.C.F. Viewpoint No. 1—i.e. “. . . below pest levels and not as a continually hunted and harried population. . . .”

Management Programme

Under the provisions of the Fauna Conservation Act all wild vertebrate fauna is protected until otherwise declared by the Minister. Protection can be lifted either by declaring the species to be unprotected throughout the whole or any parts of the State or by declaring an open season throughout the whole or any part or parts of the State or by declaring an open season throughout the whole or any part or parts of the State for any period of time. The open season declaration can restrict the taking or the disposal in any manner that the Minister considers desirable. Restricted open seasons for *M. fuliginosus* have been declared over the areas indicated in the pamphlet, “Management Program—Grey Kangaroo”. This pamphlet was reproduced in S.W.A.N.S. Vol. 3, No. 2).

In those districts where a limited open season has been declared a farmer whose property is being damaged may kill kangaroos without any other prior authorisation. He must, however, inform the Local District Warden immediately so that the Warden may check the need to destroy kangaroos, and may order the farmer to cease shooting if the Warden considers that the number of kangaroos in the vicinity has been sufficiently reduced. This authority to destroy kangaroos without any special permit or license is only allowed if the skins or carcasses are not to be sold. If there is to be any commercialisation of the culled animals, it is necessary for the farmer or his agent to obtain a license beforehand and to acquire the tags for the number of kangaroos the Warden authorises to be killed. Experience clearly shows that few farmers care to exercise the authority given them under the restricted open season to cull and not sell. Most maintain that they have not the time to spend on this operation and require the services of an authorised and licensed shooter. The latter is limited in the number of kangaroos that he may take by being allowed to operate only on private property subject to damage licenses, under which the number of kangaroos that may be taken is limited to the tags made available by the Warden.

Illegal hunting has been reduced to an absolute minimum by the Management programme and the tagging system, and by the patrolling of District Wardens of whom there are 10 within the range of the grey kangaroo. Assistance from ex-officio Wardens, Fisheries Inspectors, Forest Officers, Police and Honorary Wardens supplement the oversight maintained by District Wardens.

EUROS—(*Macropus robustus*)

Introduction

The Euro, Hill Kangaroo or Biggada (*Macropus robustus*) occurs over a wide area in the State but major populations are found in the Pilbara district where it is in conflict with domestic grazing stock. It has been closely studied there by Ealey (1967).

Classification

The map on page 71 shows the range of the species *M. robustus* and land use throughout its range.

(a) Area of range where the natural habitat is relatively unchanged.

Most of the land in the northern portion of the range of *M. robustus* is unchanged.

(b) Area of range where the natural habitat is relatively unchanged but where major development is likely to occur in the future. No significant areas are likely to be developed. The population of euros is discontinuous and generally restricted to "hard" country, i.e. rocky outcrops and the highlands. This type of land is unlikely to attract widespread changes of land use in the future.

(c) Area of range where the habitat has been greatly modified and is now largely unsuitable for *M. robustus*.

A considerable part of the southern portion of the range has been cleared for agriculture. However, this was probably never a very significant part of the range of the species. The section contains outliers or relict populations, many of which are now isolated by large tracts of alienated and cleared land.

(d) Area of range where land use has improved the habitat for *M. robustus*.

Ealey (1967) records that changes in the environment caused by sheep farming has favoured the euro population in the Pilbara district (cited by Ealey p. 10 as 50,000 sq. kilometres—) Ealey's hypothesis that the sheep induced spread of spinifex and the provision of watering points have benefited euros and allowed a marked increase in their numbers and effective habitat has been widely accepted. This phenomenon, however, appears to be limited to the Pilbara.

Evaluation of the Reserve/Sanctuary System

As with other species, the need for reserves to protect sections of habitat and its endemic fauna depends on the forms of land use to which the habitat of the species as a whole is subject.

Ealey (1967) showed that euros tend to aggregate in or near granite outcrops during the day and to feed in surrounding areas between sunset and sunrise. After heavy rain, the outcrops would be deserted but obviously this habitat form is indispensable to the survival of euros during the critical periods when hot, dry conditions are continuous. Obviously these critical rocky outcrops are durable and interspecific competition does not appear to be a serious factor. It does not appear therefore that the survival of euros depends on reserves. Their cover (outcrops) is secure in both spatial and temporal senses while the degradation of the vegetation by sheep which produced a marked increase of spinifex (*Triodia pungens*) has increased their food supply on a massive scale and, finally, their territories have been little affected by fences or other man made divisional barriers.

Nevertheless, there are some large reserves which will support significant populations of euros in perpetuity. These include:—

(a) *Wildlife Sanctuaries*

(i) Mungarooon Range Wildlife Sanctuary—approximately 110,000 hectares

(ii) Barlee Range Wildlife Sanctuary—approximately 20,000 hectares

(iii) Barrow Island Wildlife Sanctuary—approximately 20,000 hectares

(Note: The Barrow Island population is distinct and of special scientific relevance.)

(b) *National Parks*

(i) Hamersley Range National Park—approximately 600,000 hectares

(ii) Chichester Range National Park—approximately 150,000 hectares.

Assessment Programme

The euro population in Western Australia suffers only limited exploitation. Consequently there has been no demand to assess populations since Ealey's work terminated. Ealey (1967) however, showed that the density of euros on stations studied was frequently higher than that of sheep. On Mt. Edgar Station, for example, euro density ranged from 1 euro to 6 acres to one per 8 acres. His mean sheep densities on all stations in the Pilbara was 28.8 acres per sheep. Ealey also showed that populations of euros are subject to increases and crashes—a drop in density from one in 2 acres to one in 30 acres being recorded on one station.

Surveys of euro populations by Wardens are limited to those done in response to infrequent complaints of damage. The same techniques used for *Megaleia rufa* are used for *Macropus robustus*. If it is accepted that in the 20,000 square miles (as quoted by Ealey) of the Pilbara, euros occur in not less than the mean densities as sheep, the population of euros in that region would approximate 1 euro to about 30 acres or something in excess of 400,000 animals. Good habitat for euros occurs outside the Pilbara—the Barlee Range for example—so that the total population in Western Australia would be much higher.

Determination of Safe Harvesting Levels

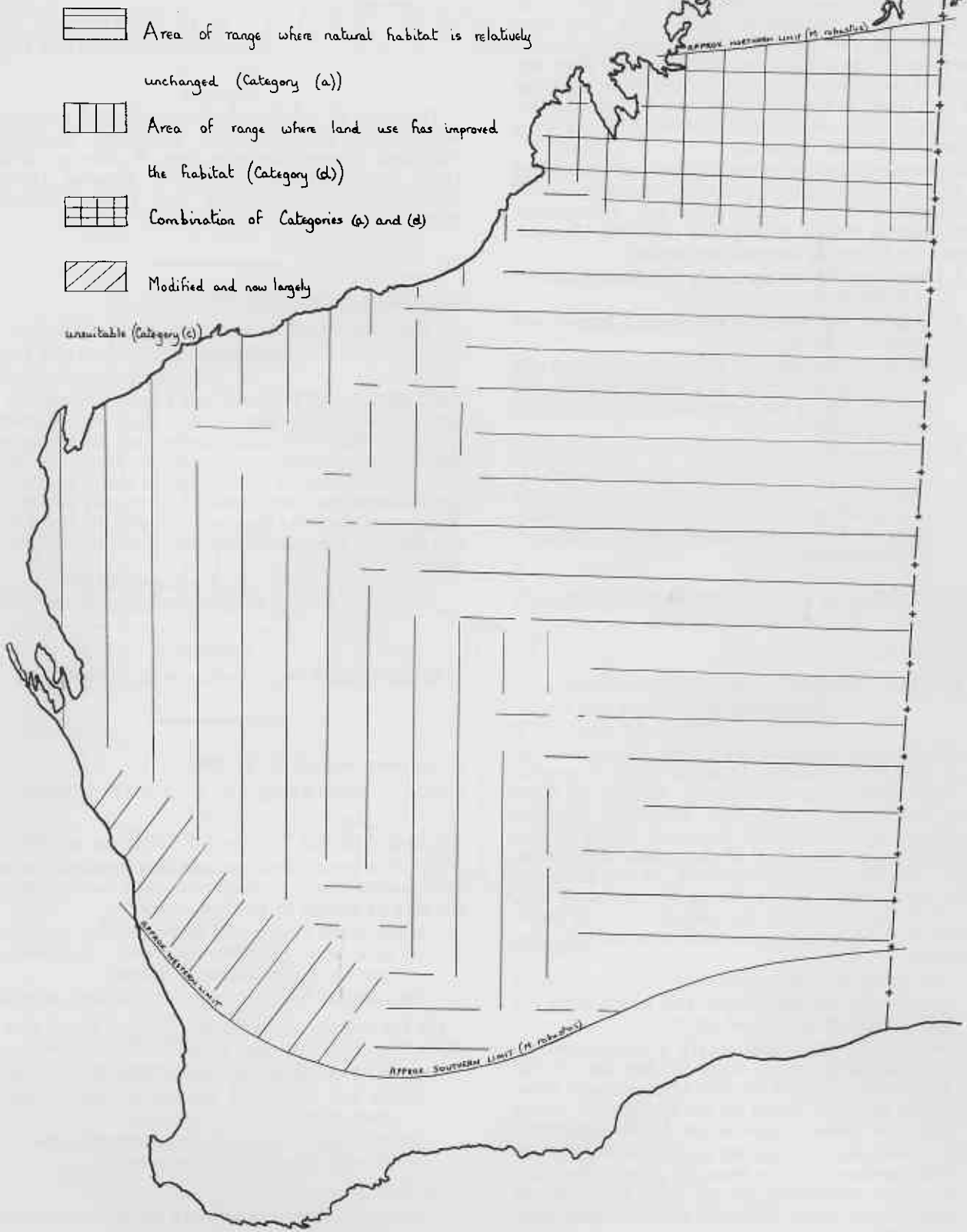
The aim of the current programme is to license harvesting of euros to occur as damage is sustained and seasons and the economics of the industry permit.

Sadler (1965) concluded that the euro is so well adapted to aridity that even severe and prolonged drought had little effect on the ages at which either males or females reached maturity. Ealey also showed that the populations would respond to good pastoral conditions when practically all females would be ready to breed. With a population not less than 400,000 in the Pilbara alone, safe harvesting levels could be higher than for *M. rufa* so that Winter's figure of one in 6.5 could be considered as conservative for this species. Even if the State population is estimated to be as low as 500,000 and a cropping figure of 1 in 10 adopted it would suggest a safe harvesting level of 20,000 euros. This figure is unlikely to be reached under existing conditions.

Management Programme

Under the provisions of the Fauna Conservation Act all wild vertebrate fauna is protected until otherwise declared by the Minister. Protection can be lifted either by declaring the species to be unprotected throughout the whole or any parts of the State or by declaring an open season throughout the whole or any part or parts

EURO (*Macropus robustus*)



of the State for any period of time. The open season declaration can restrict the taking or the disposal in any manner that the Minister considers desirable. Long term open seasons for *M. robustus* have been declared to coincide with the pastoral areas of the State. Outside those areas euros are fully protected. No damage licenses have been sought or issued to take euros in the protected area. Supplies of special tags have been authorised and have been available for issue to licensed hunters since May of this year. Previously the same tags were used for euros as for reds. None of the new tags have been issued in the period they have been available—16th May, 1973 to date 7th September, 1973—as there has been no demand for them.

The commercialisation of euros is as strictly controlled as is that of other kangaroo species in Western Australia. In common with the conservation and management programmes in respect of *Megaleia rufa* and *Macropus robustus* the following controls are applied:—

1. Euros may be harvested only by a limited number of licensed shooters.
2. Tags are purchased by the licensed shooter and issues are limited.
3. No skin or carcass may lawfully be taken for sale or transported or held in a chiller or processed unless its taking has been authorised and it has a lawful tag affixed to it.
4. Any skin or carcass (up to the time of lawful processing) which does not have a lawful tag affixed to it is liable to confiscation and the person in possession, or who takes, buys, sells, transports or holds an untagged skin or carcass is liable to prosecution.

EXTRACTS FROM FAUNA CONSERVATION ACT AND REGULATIONS

Government Gazette 17/4/1970

FAUNA CONSERVATION ACT, 1950-1969.

Department of Fisheries and Fauna,
Perth, 1st April, 1970.

THE Minister for Fisheries and Fauna, pursuant to the powers conferred by section 14 of the Fauna Conservation Act, 1950-1969, does hereby declare an open season in respect of the Red Kangaroo (Marloo) (*Megaleia rufa*) and the Hill Kangaroo (Euro or Biggada) (*Macropus robustus*), in all those parts of the State, but not including any National Park, or any sanctuary within the meaning of the Fauna Conservation Act, 1950-1969 which lie within the boundaries of the Shires specified in the schedule hereto subject to the following restrictions:

- (1) Red kangaroos and euros may be taken without license only by landholders and leaseholders (or their approved nominated agents).
- (2) Notwithstanding paragraph (1), a person shall not take red kangaroos or euros for sale nor sell red kangaroos, or euros or their carcasses and skins, unless he is the holder of the appropriate license under the Fauna Conservation Act Regulations.
- (3) A person shall not buy red kangaroos or euros nor their carcasses or skins from any person other than a person authorised to sell such fauna by an appropriate license under the Fauna Conservation Act Regulations.

- (4) The Chief Warden of Fauna may refuse to issue a license authorising the taking for sale of any kangaroos to any person who has not been a permanent resident in Western Australia during the whole of 1968 and 1969 and who was then engaged in the taking of kangaroos for gain or reward.

G. C. MacKINNON,
Minister for Fisheries and Fauna.

Schedule.

The shires of Ashburton, Sandstone, Cue, Carnarvon, Meekatharra, Mount Magnet, Murchison, Roebourne, Tableland, Upper Gascoyne, West Kimberley, Wiluna, Hall's Creek, Kalgoorlie, Laverton, Broome, Leonora, Wyndham, Menzies, Marble Bar, Yalgoo, Nullagine, Port Hedland and Mount Marshall.

Government Gazette 1/5/1970

FAUNA CONSERVATION ACT, 1950-1969.

Department of Fisheries and Fauna,
Perth, 21st April, 1970.

THE Minister for Fisheries and Fauna pursuant to the powers conferred by section 14 of the Fauna Conservation Act, 1950-1969, does hereby vary the notice published in the *Government Gazette* No. 39 on 17th April, 1970, by including in the schedule of shires in which an open season has been declared in respect of the Red Kangaroo (Marloo) (*Megaleia rufa*) and the Hill Kangaroo (Euro or Biggada) (*Macropus robustus*) the following shires.

G. C. MacKINNON,
Minister for Fisheries and Fauna.

Schedule.

Shires of Shark Bay, Northampton and Mullewa.

Government Gazette 18/11/1970

PART 7.—MARKING, SALE AND TRANSPORT OF FAUNA.

Marking, Sale and Transport of Carcasses and Skins.

50. (1) A person shall not sell, buy, transport or have in his possession or control, or consign for any purpose the skin or carcass of any fauna unless—

- (a) he is the holder of a current license authorising such sale, purchase, transport, possession or control or consignment; and
 - (b) a tag has been duly affixed to the skin or carcass.
- (2) The colours of tags to be affixed to fauna, and the prices for which they shall be sold, are as follows—
- (a) for grey kangaroos—white tags, 20 cents each;
 - (b) for red kangaroos and euros—yellow tags, 10 cents each; and
 - (c) for other fauna—such colours as the Chief Warden determines, 50 cents each.
- (3) A person shall not—
- (a) mark or attempt to mark the skin or carcass of any fauna with an illegal tag; or

PRINCIPAL AREAS WHERE KANGAROOS ARE TAKEN



(b) affix a tag or an illegal tag to any fauna which has not been lawfully taken.

(4) The provisions of this regulation do not apply so as to make it unlawful for any person to purchase, sell, use or to have or give as a gift any skin of any fauna which has been lawfully taken and processed and sold pursuant to licenses held under these regulations.

(5) A person who is—

- (a) the holder of a professional shooter's license;
- (b) the owner, employee or agent of a licensed processing establishment; or
- (c) a direct dealer,

and shall not transport the skins or carcasses of fauna—

- (d) except those which have been lawfully taken and tagged; or
- (e) except in a registered transport unit along a registered route from an open season area to the licensed premises or chiller unit concerned.

(6) A person who is the holder of a damage license shall not give, sell or supply a tag to a person other than—

- (a) a person who is his approved agent and who intends to attach the tag to fauna which he lawfully destroys on behalf of the holder on the holder's property; or
- (b) the Chief Warden of Fauna.

(7) A person who owns or operates a transport unit or a chiller unit shall supply to the Chief Warden of Fauna, whenever he so requests, particulars of the number plates issued under the Traffic Act, 1919, for, and a description of, the unit, together with any other details that the Chief Warden of Fauna requests.

(8) (a) A person who intends to operate a transport unit or a chiller unit to hold or transport the skins or carcasses of any kangaroos or other fauna shall forward to the Chief Warden of Fauna a detailed description of the place of operation and of the route to be followed by the unit and the Chief Warden of Fauna may, if he approves of the place of operation and route, register them as the site of operations of that unit and the route to be used by that unit.

(b) A person who operates a registered transport unit or chiller unit shall not cause or permit the unit to deviate from the registered route for that unit, except that he may deviate around any section of that route that has been closed by the person or authority controlling the closed section.

(c) A person who operates a chiller unit to hold the skins or carcasses of any fauna shall not remove the unit to any other place of operation than that approved by the Chief Warden of Fauna unless he notifies the Chief Warden of Fauna in writing and receives approval to remove that chiller unit to the proposed place of operation.

(9) A person who operates any processing establishment, transport unit or chiller unit shall keep and maintain such establishment or unit in a clean and hygienic

condition satisfactory to the Chief Warden of Fauna or to any warden or officer appointed pursuant to the Act or of any other person authorised by the Chief Warden of Fauna.

(10) A person shall not sever, cut, mark, scratch, abrade, file, heat, burn, melt or otherwise deface any tag in such a manner as to alter or interfere with or obliterate any letter or number or other identifying mark on the tag, whether it is affixed to a skin or carcass or not.

(11) A person who operates an establishment for the tanning of skins of fauna shall, before commencing the process of tanning any skin, remove from the skin the tag affixed in such manner and with such care as is necessary to preserve all the letters and numbers and other identifying marks on the tag and keep and store the tag in a place of safety and hand it on demand to any warden or authorised officer.

(12) A person other than a warden shall not remove any tag from any skin or carcass of any fauna except in the circumstances specifically authorised by these regulations and in the manner prescribed by subregulation (11) of this regulation.

51. (1) The Chief Warden of Fauna shall authorise in writing the design and manufacture of such tags as are required.

(2) Where the Chief Warden of Fauna approves and accepts a design for a tag, whether original or amended, he shall cause to be published in the *Government Gazette* and in at least one issue of a newspaper with a wide circulation, a drawing and description of the design of the tag.

(3) A person who issues, gives, buys, receives, sells, uses, manufactures or distributes any device which resembles an illegal tag, commits an offence.

(4) A person who issues, gives, buys, receives, sells, transfers, distributes or uses a tag in any manner other than is authorised pursuant to these regulations, commits an offence.

(5) A person who is required by these regulations or by the conditions of any license issued under these regulations to affix a tag to the skin or carcass of any fauna and who fails to so affix the tag or who attaches it other than in the manner described in the interpretation "affix", commits an offence.

(6) A person, not being a warden or other officer authorised to collect used tags or a holder of a processor's license or a person engaged in the tanning of skins, who has in his possession a used tag not secured to the skin or carcass or part thereof of lawfully taken fauna, or who has in his possession any illegal tag, commits an offence.

Marking, Sale and Transport of Live Fauna

52. A person shall not sell or take or offer to buy or sell or consign for the purposes of aviculture any young fauna not fully fledged or not able to stand or not able to feed unaided.

General.

53. The Chief Warden of Fauna may, at such intervals of time as may be convenient, supply to the Commissioner of Public Health a list of the licensed processing establishments and registered chiller units together with any other details of their standards, use and operation as may be required.

Government Gazette 23/7/1971

FAUNA CONSERVATION ACT, 1950-1970

Department of Fisheries and Fauna,
Perth, 15th July, 1971.

THE Minister for Fisheries and Fauna, pursuant to the powers conferred by section 14 of the Fauna Conservation Act, 1950-1970 does hereby declare an open season in respect of the Grey Kangaroo (*Macropus fuliginosus*), in all those parts of the State, not including any National Park, or any sanctuary within the meaning of the Fauna Conservation Act, 1950-1970, which lie within the areas specified in the schedule hereto, subject to the following restrictions:—

- (a) Grey Kangaroos may be taken only by the owner or occupier of the land on which they are taken or by an agent appointed in writing by the owner or occupier.
- (b) Where the land is virgin land or land held under pastoral lease, the owner or occupier or his agent shall not take any grey kangaroos unless he has first obtained a damage license in accordance with the Fauna Conservation Regulations.
- (c) The kangaroos shall be taken only on land which is being actively farmed and on which the kangaroos are causing damage.
- (d) The person taking the kangaroos shall notify the nearest warden of fauna as soon as practicable after he has commenced the taking of kangaroos.
- (e) The warden may, if after an inspection of the property he considers it necessary, prohibit the further taking of any grey kangaroos on that property until the owner or occupier obtains a damage license in accordance with the Fauna Conservation Regulations and thereupon no person shall take grey kangaroos on that property except under the authority of a license.
- (f) Nothing in this notice authorises the sale of the skins or carcasses of grey kangaroos that are taken by a person who does not hold a license issued under the regulations authorising such sale.
- (g) Notwithstanding the restrictions in paragraphs (a) and (b) of this notice, grey kangaroos can be taken during the open season by a person holding a license for that purpose in accordance with the Fauna Conservation Regulations.

RON DAVIES,
Minister for Fisheries and Fauna.

Schedule.

The Shires of—

Albany
Augusta-Margaret River
Boddington
Boyup Brook
Bridgetown-Greenbushes
Carnamah
Chapman Valley
Coorow
Cranbrook
Dandaragon
Dalwallinu
Donnybrook-Balingup
Denmark
Dundas
Esperance
Gnowangerup
Greenough
Irwin
Kojonup
Kondinin
Koorda
Kulin
Lake Grace
Manjimup
Mingenew
Morawa
Mount Marshall
Mukinbudin
Mullewa
Nannup
Narembeen
Northampton
Nyabing-Pingrup
Perenjori
Plantagenet
Ravensthorpe
Tambellup
Three Springs
Wandering
West Arthur
Westonia
Williams
Yilgarn

All that part of the Shire of Merredin East of the Vermin Fence.

Government Gazette 30/6/1972

FAUNA CONSERVATION ACT, 1950-1970.

Notice

Department of Fisheries and Fauna,
Perth, 23rd June, 1972.

THE Minister for Fisheries and Fauna, pursuant to the powers conferred by section 14 of the Fauna Conservation Act, 1950-1970, does hereby vary the notice published in the *Government Gazette* of 23rd July, 1971, in which an open season has been declared in respect of the grey kangaroo (*Macropus fuliginosus*) by including the Shire of Collie in the Schedule of Shires attached thereto.

RON DAVIES,
Minister for Fisheries and Fauna.

FAUNA DISTRICTS

