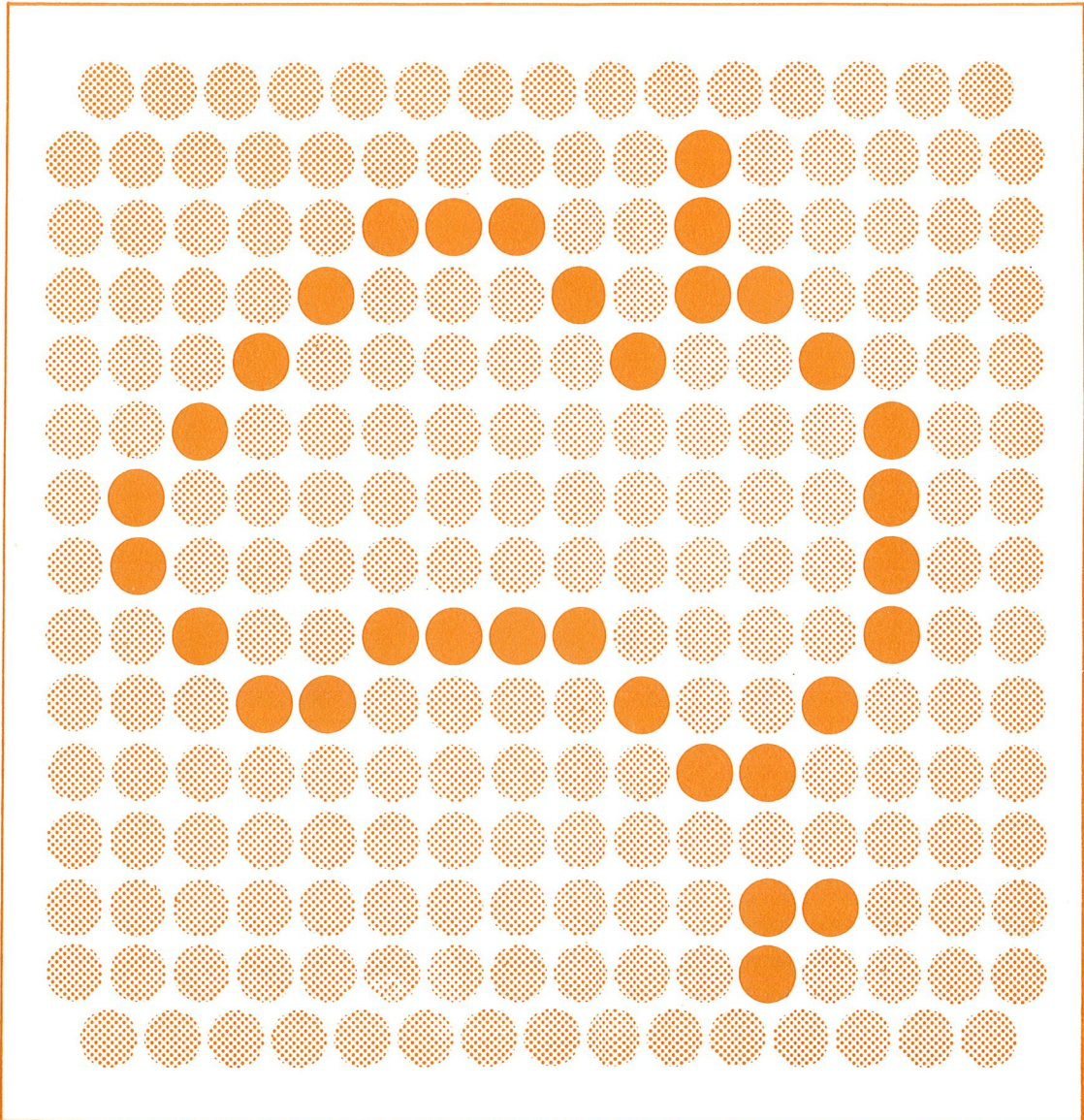


REFERENCE PAPER

KANGAROOS

1974



Australian Information Service Publication

KANGAROOS

The kangaroo is the dominant native animal of Australia and has a special place in the affections of most Australians. This is partly because it is peculiar to their own familiar landscape, but it is also because the kangaroo is soft-eyed, warm, furry, fast, free, graceful, and harmless except when fighting for its life.

National sentiment has made the kangaroo a symbol of Australian identity. It is featured on the nation's coat of arms, on its coins and banknotes, on publications sent overseas, and in film titles. It appears in the rondel of the Royal Australian Air Force and in the livery of Qantas, the Australian international airline, and of Trans Australia Airlines, the Government's domestic operator. Australia's international football teams have always called themselves after the Kangaroos or their smaller cousins, the Wallabies.

Members of the kangaroo family occur only in Australia, New Guinea and some other neighboring islands. The family includes 45 species, grouped into two subfamilies, the largest of which includes the true kangaroos, wallabies, wallaroos and tree-kangaroos. A second embraces the so-called rat-kangaroos. The difference between kangaroos, wallaroos and wallabies is one of size rather than any consistent anatomical distinction.

Species within the kangaroo family vary in size from the adult male Red Kangaroo, taller than a man and weighing more than 85 kilograms (190 lbs), through the various wallaroos, wallabies and rat-kangaroos to a minimum weight of about one kilogram (2 lbs).

The larger kangaroos have great strength, speed and agility. An animal in full flight is capable of reaching 48 kilometres an hour (30 mph) in leaps averaging at least 11 metres (37 feet) and of clearing obstacles three metres (10 feet) high with a leap of 13 metres (42 feet). A tree-kangaroo can jump as much as 18 metres (60 feet) from a tree to the ground.

All members of the kangaroo family are marsupials, an order of mammals in which the females have a pouch or similar mammary area, to which the prematurely-born young make their way and are suckled to maturity. Most of the world's marsupials are native only to Australia, New Guinea and nearby islands. Exceptions are the North American Opossum and about 70 species in the southern region of South America.

History

Fossil remains of kangaroos far larger than the living species have been found in many parts of Australia, and skulls and bones of the Diprotoden have been assembled - a marsupial (but not a kangaroo) as

large as a rhinoceros with a skull a metre (a yard) long.

The first recorded sighting of a member of the kangaroo family by a European was that of a Dutchman, Captain Pelsart, whose ship *Batavia* was wrecked in 1629 off the site of the present town of Geraldton in the State of Western Australia. Describing the Tamar Wallaby (*macropus eugenii*), Pelsart wrote:

"We found in these islands large numbers of a species of cats, which are very strange creatures; they are about the size of a hare, their head resembling the head of a civet-cat; the forepaws are very short, about the length of a finger, on which the animal has five small nails or fingers, resembling those of a monkey's forepaw. Its two hindlegs, on the contrary, are upwards of half an ell in length, and it walks on these only, on the flat of the heavy part of the leg, so that it does not run fast. Its tail is very long, like that of a long-tailed monkey; if it eats, it sits on its hind legs, and clutches its food with its forepaws, just like a squirrel or monkey."

The next account was given by another Dutchman, Samuel Volckersen, who in 1658 visited an island off the site of the present city of Perth, Western Australia, later named Rottnest (rat-nest) Island, presumably because of the presence of small rat-like wallabies which still abound there. Volckersen recorded a description of the Quokka or Short-tailed Pademelon (*Setonix b brachyurus*). He was followed in 1699 by William Dampier, the British captain of the ship *Roebuck*, who described the Banded Hare-Wallaby (*Lagostrophus fasciatus*) which he saw near the present site of Carnarvon:

"...a Sort of Raccoons, different from those of the West Indies, chiefly as to their Legs; for these have very short Fore-Legs; but go jumping upon them as the others do (and, like them, are very good Meat)."

The first published picture of a member of the kangaroo family resulted from a visit to Java by a Dutch traveller, Cornelis de Bruin, who saw an Aru Island Wallaby (*Thylogale brunii*) in captivity there. In 1714 he published a description of the animal, including the female's pouch, and an engraving which was the basis of the first scientific description of the species.

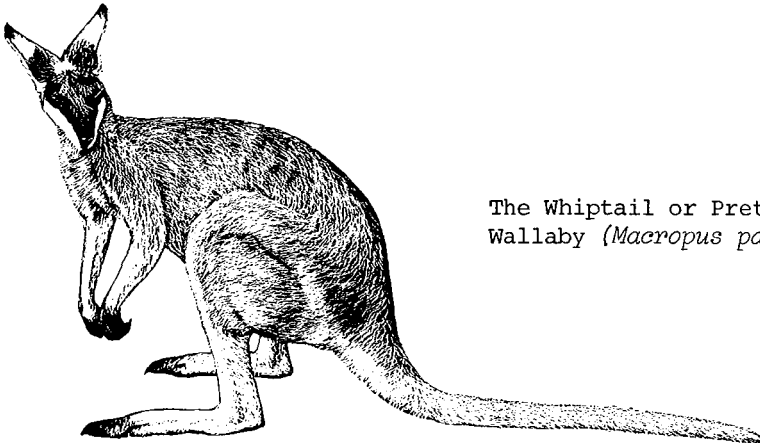
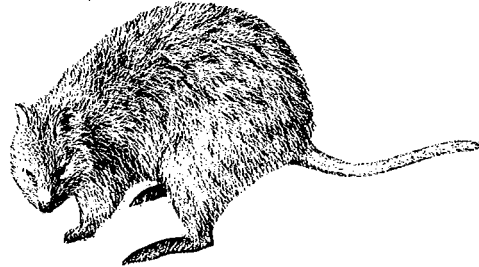
It was another 56 years before Captain Cook, the first European to visit the fertile eastern coast of Australia, reported a glimpse of an animal at Botany Bay, near Sydney, New South Wales, which might have been a kangaroo. After exploring the coast north to Cooktown, where his ship was beached for repairs, Cook recorded his own description:

"I saw myself this morning a little way off from the Ship, one of the Animals I before spoke of: it was of a light mouse Colour and the full size of a Grey Hound; in short,



The Banded Hare-
Wallaby (*Lagostrophus
fasciatus*) described
by William Dampier

The Quokka or Short-tailed
Pademelon (*Setonix brachyurus*)
seen by Volckersen at Rottne
Island.



The Whiptail or Pretty-face
Wallaby (*Macropus parryi*).



The first picture of a kangaroo ever published - An Aru Island Wallaby (*Thylogale brunii*) - seen in captivity in Java by Cornelis de Bruin c. 1714.

I should have taken it for a wild dog, but for its walking or running, in which it jumped like a Hare or Deer ... Its progression is by Hopping or Jumping 7 or 8 feet at each hop upon its hind Legs only, for in this it makes no use of the Fore, which seems to be only design'd for Scratching in the ground, etc...It bears no sort of resemblance to any European animal I ever sawthe Animals, called by the natives Kangaroo, or Kanguru... are in the greatest number, for we seldom went into the Country without seeing some."

Cook had given the world its first Aboriginal word; kangaroo, which soon came into common usage. In 1773 the English writer Hawkesworth published his account of Cook's voyage. This included an unsigned engraving of the kangaroo, apparently from a painting which the famous animal artist, George Stubbs, had made for Sir Joseph Banks.

The news of Cook's kangaroo created such interest that in 1791, only three years after the first British settlement in Sydney, a living specimen of the Great Grey Kangaroo (*Macropus giganteus*) was sent to England by the founder of the colony, Captain Arthur Phillip, as a gift for King George III. Three years later captive kangaroos were breeding in England.

The great scientific value of the unique Australian marsupials was recognised from the beginning, partly due to the presence of Sir Joseph Banks on Cook's expedition. Banks was President of the Royal Society in London for 42 years and exercised enormous influence on the Australian colony. Early collections of Australian wildlife were all sent to Britain or France for description and permanent storage.

THE CONSERVATION DILEMMA

Most members of the kangaroo family are grazing animals. From the beginning of European settlement, Australia has relied heavily on its sheep and cattle grazing industries for economic well-being, so that competition with kangaroos for the use of pastures has been an inevitable and constant problem. The effect on kangaroo populations has been greatly worsened because the animals are an excellent source of fur, hides and meat.

The problem was seen almost from the beginning. The way across the Blue Mountains from the first small settlement around Sydney opened the way to the great grazing lands in 1813. Only 23 years later, the young Charles Darwin was invited to join a kangaroo hunt 160 kilometres (100 miles) west of Sydney, only to report:

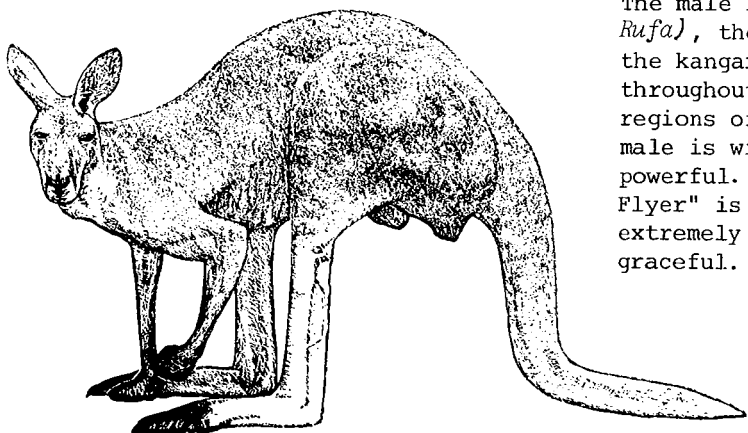
"We continued riding the greater part of the day, but had very bad sport, not seeing a kangaroo..."

The gifted Englishman, John Gould, who wrote the first definitive volumes on wildlife in Australia, travelled widely during 1838-40 and wrote later:



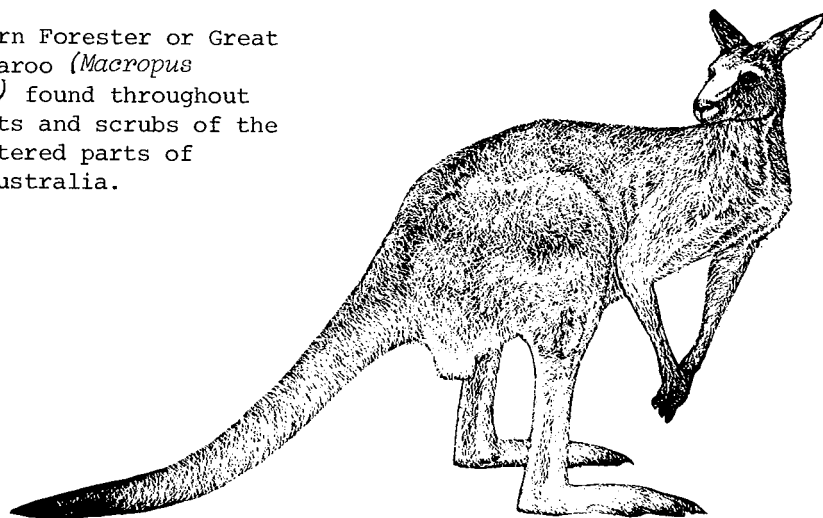
G. Stubbs del.

H. Warner sc.



The male Red Kangaroo (*Megaleia Rufa*), the most widespread of the kangaroo family, is found throughout the more arid regions of the inland. The male is wine-red, large and powerful. The female "Blue Flyer" is smoky blue, extremely fast and graceful.

The Eastern Forester or Great Grey Kangaroo (*Macropus giganteus*) found throughout the forests and scrubs of the better-watered parts of Eastern Australia.



Opposite:

A rare engraving of a kangaroo by George Stubbs c. 1773, similar to the illustration in Hawkesworth's account of Cook's voyage, probably based on a drawing by Stubbs.

"Short-sighted indeed are the Anglo-Australians, or they would long ere this have made laws for the preservation of their highly singular, and in many cases noble, indigenous animals; and doubly short-sighted are they for wishing to introduce into Australia the production of other climes... Let me then urge them to bestir themselves, ere it be too late, to establish laws for the preservation of the large kangaroos: without some such protection the remnant that is left will soon disappear, to be followed by unavailing regret for the apathy with which they had been previously regarded."

Gould in fact underestimated the resilience of the large kangaroos. Today, after a further 135 years of intensive clearing, grazing and hunting, and numerous drought cycles, only one species of rat-kangaroo and two species of wallaby have become extinct since the beginning of European settlement. Another four species of rat-kangaroo and five species of wallaby are regarded as being rare and possibly threatened. None of these small animals was ever hunted commercially; rather they were largely the victims of the intrusion of European man and the associated destruction of ground cover and introduction of grazing animals, particularly sheep and rabbits.

The great kangaroos that are exploited commercially belong to three groups: The Eastern Grey (*Macropus giganteus*) and Western Grey (*Macropus fuliginosus*) kangaroos found in forest and woodland in Victoria, New South Wales, Queensland, South Australia and Western Australia; the Euro or Wallaroo (*Macropus robustus*) which lives in rocky hills and ranges in a band across the continent; and the Red Kangaroo of the arid and semi-arid hinterland, some 3 218 000 square kilometres of plains, sand dunes, grasslands and lightly timbered country.

Of these species it is the Red Kangaroo (*Megaleia rufa*) which is said to be in the greatest danger. Its habitat is prone to the ravages of drought, it competes with farmers and graziers for the right to the land, and the relatively flat country with little cover makes it easy prey for shooters.

When the rabbit, which had been introduced into Australia from England, multiplied to become the greatest animal pest in history, it was systematically poisoned across the whole continent. But the harmless native animals ate the poison too. F. Wood Jones wrote in 1924:

"The poison cart has done its deadly work on the slowly-breeding Tungoo (Rat-Kangaroo) although the rapidly-breeding Rabbit has survived the ordeal."

Killing of kangaroos began mainly because of the need to remove competition for grasslands, but for more than 100 years the animal also has been pursued as a source of fur, hides and meat, mainly for export. Kangaroo skins make excellent leather for coats, shoes,

gloves, handbags and travel goods. They also provide good furs for coats, rugs and souvenirs. It is ironic that the fur is widely used in Australia for manufacturing imitations of the wholly protected Koala for the tourist trade.

The overseas demand for fur and hides has greatly expanded in recent years - paradoxically because the traditional sources have been reduced by conservation policies of other countries.

The exploitation of kangaroos for human food has never been a major industry, but in the peak year ended June 1961 some 2 588 953 kilograms (5,707,593 lbs), valued at \$A397,764, were exported, much of it for sausage manufacture. There is also some gourmet demand for kangaroo-tail soup, but with rare exceptions kangaroos have never been killed under hygienic conditions subject to veterinary inspection.

From about 1958, several factors combined to promote a great boom in the demand for kangaroo meat, mainly as pet food. The rabbits, which had supplied this trade for a century (and in a peak year provided 100,000,000 carcasses and furs) had been greatly reduced by myxomatosis, a virus introduced for the purpose and spread by mosquitos. Other meats were becoming too expensive to feed to pets, and conservation policies were preventing the slaughtering of many wild animals abroad. At around the same time there was a substantial increase in kangaroo populations, followed by demands for their destruction by sheep and cattle graziers.

By now there was a world-wide interest in conservation, which swept into Australia in the sixties, just when the killing of kangaroos was at its height. Public controversy mounted rapidly, and although many of the utterances on both sides were extreme and inaccurate, the Australian conscience was deeply stirred.

There were two separate issues. Much of the emotion and anger against the harvesting of kangaroos came from the methods employed by the professional shooters. They usually worked at night with a fast vehicle, bright spotlights to dazzle and immobilise the kangaroos, and high-powered rifles with telescopic sights. Reports by conservationists and in the media consistently asserted that the shooters were obsessed only with making money quickly and that wounded animals were left to die in agony, their carcasses being collected on the return trip.

The second issue arose from the conviction of many people that kangaroos were being slaughtered to the point of extinction. This appeared to be supported by the fact that it was now possible to travel hundreds of miles of inland roads without seeing a single specimen.

The sheep and cattle men, the shooters and the traders all rejected the criticism. They claimed that kangaroos were still plentiful and sometimes in plague proportions, that culling their numbers was

a means of protecting their food supply, that they provided a valuable export commodity, and that the sheep and cattle pastures were being eaten out by the animals.

The late Professor A.J. Marshall, a leading zoologist and conservationist, attracted wide attention in *The Great Extermination* (1966):

"To me there is nothing sacred about the kangaroo...if it becomes a desperate menace to the sheep farmer it must be kept under control. But equally there is nothing sacred about sheep farmers... The sheep farmer of low mentality who wishes for the total extermination of kangaroos attempts to justify his attitude by claims that each 'roo eats as much as eight or nine sheep, or as much as a bullock; that kangaroos foul the pastures, and cause erosion; that they breed several times a year; that they damage fences and collide with cars (and so add to insurance premiums); and that they deplete precious water supplies and possess, furthermore, a mystical sense that enables them to migrate in hordes over vast distances to pastures that are sprouting freshly after rain. Most of the above statements are nonsense. Kangaroos have been proved by cage experiments, to eat, lb. for lb., approximately the same amount of grass as a sheep. They do not foul pastures any more than does the similarly herbivorous sheep. They do not cause erosion. At the most they breed three times every four years. They do not converge in hordes from great distances; they rarely travel more than thirty miles and are generally not seen in congregations of more than half a dozen...They do, in fact, collide with cars at night, which is regrettable, and in summer they certainly compete with sheep for water..."

The situation was disturbing and confused. Prodded by conservation interests, the Australian House of Representatives decided, in May 1970, to appoint a Select Committee to inquire and report on a wide range of questions concerning wildlife in Australia. The Committee made an Interim Report in November 1971 and a Final Report a year later.

Because the constitutional power for guardianship of native fauna was vested in the individual States and it would therefore be difficult to achieve a uniform policy, Professor Marshall had recommended in his book that the immediate need was for the Australian Government to impose a five year's embargo on the export of kangaroo meat.

In January 1973, following a change of government, a total prohibition on the export of all kangaroo products was imposed for an indefinite period.

THE SELECT COMMITTEE ON WILDLIFE CONSERVATION

When the House of Representatives Select Committee was appointed in 1970 it decided that because of the intense public interest in the kangaroo controversy this issue should be investigated in isolation, and that to avoid undue delay, the Committee should issue an interim report on kangaroo conservation.

The Select Committee held an extensive series of public hearings and field inspections in all of the Australian States and the Northern Territory. More than 6000 pages of evidence were taken - much of it related to the kangaroo issue.

The Committee, in its Report, pointed out the difficulties it had faced because of strong public feelings about the kangaroo:

"The kangaroo, as one of the emblems on the Australian coat of arms and our best known form of wildlife, evokes an emotional response. Consequently, the fact that this animal is slaughtered in large numbers for pet food is a moral issue for many people. Even if it could be proved that with proper management kangaroos are a sustainable resource, many would still oppose the killing of kangaroos for profit. By contrast, many pastoralists and graziers regard kangaroos as vermin which directly compete with stock for feed and water and inflict damage to their properties. The tourist industry in general regards wildlife, and particularly the kangaroo, as an extremely important tourist attraction and wishes to see adequate numbers of kangaroos to meet this need. The Kangaroo Industries Association claims that its operations are self-regulatory, in that the economics of the industry cause shooting to be discontinued in harvest areas before kangaroo numbers are reduced to danger levels. Wildlife scientists and State Government fauna departments in their evidence generally agreed that there is no basis for any claim that the larger species of kangaroos are presently under any threat of extinction, although in some specific areas over-harvesting may have occurred. The spectrum of opinion covered by the evidence ranges from that of extreme preservationists who do not want kangaroos shot under any circumstances, to those who advocate exploitation of the kangaroo as a renewable economic resource."

Another difficulty faced the Committee: although more research had probably been devoted to kangaroos than to any other species of Australian fauna, surprisingly little was known of the ecology of kangaroos. The Report commented:

"It is apparent to the Committee that there is a paucity of scientific fact and a surfeit of scientific and other opinion."

The Select Committee came to the conclusion that the various Government authorities have a dual responsibility to conserve wildlife and to ensure that relief can be given to landowners should wildlife numbers reach pest proportions. The Committee found that at some times and in some places kangaroos reached pest proportions and reduction of their numbers was then justified.

The committee also considered that since it was wasteful to permit destruction of a resource without utilising it as far as possible, the controlled harvesting of kangaroos and the utilisation of their meat and skins should be seen as a tool of management. The committee emphasised that the interests of the kangaroo industry should be subservient to the needs of conservation and the needs of the primary producer.

Most experts now agree that widespread fears that the kangaroo is being shot out of existence are unfounded. Some wildlife scientists testified before the Select Committee that they believed kangaroo numbers - with the exception of the Forester Kangaroo in Tasmania - are now far in excess of the levels existing at the time of European settlement of Australia.

Evidence was given that a number of smaller species which were either threatened with extinction or thought to be extinct had never been utilised commercially. The Committee Report concluded that many conservationists had "misdirected their efforts to the larger species".

The harvesting of kangaroos has been viewed with alarm by many conservationists in Europe and America and led to the belief in some countries that kangaroos are threatened with extinction.

However, the Committee noted that the Survival Service Commission of the International Union for the Conservation of Nature and Natural Resources, Geneva, Switzerland, does not include the larger species of kangaroo in its famous publication, the *Red Data Book*. The Commission monitors threatened species in all continents, and lists these in four categories which currently include several hundred birds and mammals throughout the world. Both the *Red Data Book* and the U.S. Endangered Species Legislation lists include species of the smaller kangaroos and wallabies which are under threat of extinction for reasons other than commercial harvesting.

The Committee noted that there had been numerous complaints from the general public that by contrast with the position years ago, it was now rare to see kangaroos in the wild, close to settled areas. Many tourists had complained of having travelled widely throughout Australia without seeing a kangaroo.

The Report said evidence was given that Australian native fauna was largely nocturnal in nature. This was illustrated during the Committee's visit to Tutanning Reserve in Western Australia - a research reserve of about 1619 hectares. During an afternoon tour of the reserve the committee saw no mammals at all. At night aided by spotlights operated by the research staff at the reserve, more than 200 sightings covering 10 different species were made. Without spotlights very few animals, if any at all, would have been seen.

The facts, however, were often disregarded. As Mr Vincent Serventy, a noted Australian conservationist, pointed out to the Committee:

"For the average Australian, any population of kangaroos which is hunted has become visually extinct. He will not be satisfied with census figures which indicate there are still kangaroos in the bush. As far as he is concerned they are gone."

Other wildlife scientists made the following comments to the Committee:

- . Professor G.B. Sharman, of the School of Biological Sciences, Macquarie University, said: "Those species of kangaroos which have been most exploited for meat and fur trades are today the most abundant of all kangaroos."
- . Professor A.R. Main of the University of Western Australia, believed that kangaroos, as a result of commercial harvesting, were at the point where regulation was necessary, but that numbers were not dangerously low. It was his impression that kangaroos were very much more abundant than they were before stock watering points were established by graziers.
- . Prominent wildlife scientist, Dr A.E. Newsome said: "The fauna of Australia as a whole wilts under the pressure of agricultural and pastoral production but there are a handful of species which benefit. The Red Kangaroo is one, the Euro another. The Grey Kangaroo is another possibility." Dr Newsome also told the committee that total protection of the species could well result in its food supplies being destroyed. Large numbers of kangaroos had to be shot to manage the population in the interests of the grazer and he saw no reason why their carcasses should not be utilised.
- . Dr H.J. Frith of the Commonwealth Scientific and Industrial Research Organization (CSIRO) Division of Wildlife Research expressed concern that in some States controls against kangaroo exploitation might not be adequate, but concluded: "There is no need at the present time to halt the hunting of kangaroos."
- . Dr F.H. Talbot of the Australian Museum was concerned that proper controls be applied to exploitative industries and commented: "It is not inconsistent with sound conservation to have an animal exploited."

The weight of opinion from wildlife scientists was that a prohibition of commercial harvesting of kangaroos would need to be replaced by culling programs of almost similar intensity. They considered that not to utilise the carcasses in such circumstances would be unnecessary wastage of valuable and renewable economic resource.

The main finding of the Committee was that none of the larger species of kangaroo was under present threat of extinction and that there was no need for a total ban on the commercial exploitation of kangaroos.

The Committee went on to make a number of recommendations, including:

- . That the Australian Government should confer with the State Governments to seek greater uniformity in the laws relating to kangaroo killing. A number of recommended methods of controlling the killing were listed.
- . That the Australian Government offer financial assistance to the States for the acquisition of land for national parks and wildlife reserves, as well as funds for biological and ecological research and for increased management staff.

THE INTERNATIONAL CONVENTION OF 1972

Australian delegates attended the Conference to Conclude an International Convention on Trade in Certain Species of Wild Fauna and Flora. The Conference, attended by representatives of 88 nations, met in Washington DC in February and March 1973.

The Conference approved a treaty to regulate trade in species of wildlife, and to ensure international co-operation in controlling or preventing trade in species threatened with extinction. A virtual ban was approved for trade in species considered to be threatened with imminent extinction, while for those species whose survival could be affected by trade, a strong system of international controls was approved.

At the conference, Australia announced its intention of having kangaroos added to the Convention's Appendix II, which lists species that may enter trade but require 'strick regulation in order to avoid utilisation incompatible with their survival'. The species proposed for inclusion were -

Red Kangaroo	(<i>Megaleia rufa</i>)
Eastern Grey Kangaroo	(<i>Macropus giganteus</i>)
Western Grey Kangaroo	(<i>Macropus fuliginosus</i>)
Euro or Wallaroo	(<i>Macropus robustus</i>)
Whiptail Wallaby	(<i>Macropus parryi</i>)
Bennett's Wallaby	(<i>Macropus rufogriseus</i>)
Agile Wallaby	(<i>Macropus agilis</i>)
Swamp Wallaby	(<i>Wallabia bicolor</i>)

Australia has also listed a number of members of the kangaroo family in the Convention's Appendix I. Trade in such species 'must be subject to particularly strict regulation in order not to endanger further their survival and must only be authorised in exceptional circumstances'. The species listed are:

Parma Wallaby	<i>(Macropus parma)</i>
Bridled Nail-tail Wallaby	<i>(Onychogalea frenata)</i>
Crescent Nail-tail Wallaby	<i>(Onychogalea lunata)</i>
Brush-tailed Rat-kangaroo	<i>(Bettongia penicillata)</i>
Leseur's Rat-kangaroo	<i>(Bettongia lesueur)</i>
Queensland Rat-kangaroo	<i>(Bettongia tropica)</i>
Banded Hare-wallaby	<i>(Lagostrophus fasciatus)</i>
Western Hare-wallaby	<i>(Lagorchestes hirsutus)</i>
Plains Rat-kangaroo	<i>(Caloprymnus campestris)</i>

CHANGES IN GOVERNMENT POLICY

The Australian Minister for Customs and Excise, Senator Murphy, announced in January 1973 the Australian Government's prohibition on the export of all kangaroo products. The prohibition became effective on April 1 to reduce the impact on existing overseas contracts.

In announcing the ban Senator Murphy said that there appeared to be an insatiable demand throughout the world for kangaroo skins, and that Australian manufacturers believed that the export trade was a threat to their supplies. The prohibition on the export of skins could be varied only for scientific, zoological or educational requirements.

The export of kangaroo skin products and other kangaroo products could be permitted only when the Minister was satisfied that the conservation and preservation of the species would not be affected.

The Minister added:

"I am in close consultation with Dr Moss Cass, Minister for the Environment and Conservation, on this matter and future policy will depend on his information and advice. The question of the destruction of kangaroos in Australia has been a contentious issue for a considerable time. It appears that in some areas the kangaroo population should be limited. However, the Government is concerned that the indiscriminate killing of kangaroos could seriously endanger some types and species.

Criticism has been made in Australia and in a number of overseas countries about the disturbing rate of destruction and the growing use of kangaroo products for commercial gain."

On March 9, 1973 the Australian Minister for the Environment and Conservation, Dr Cass, called a meeting of Ministers of the Australian Government and the six State Governments, to discuss the implications

of the ban on kangaroo exports. The meeting resolved to form a Council of Nature Conservation Ministers and to set up a Standing Committee of officers of their Departments to study and report on the conservation of Australian fauna and flora and the provision of national parks.

The new Council also agreed as follows:

1. The meeting is opposed to uncontrolled harvesting of kangaroos and related species.
2. Recognises that, for conservation purposes, selective culling or harvesting of certain species of kangaroos may be a legitimate management practice.
3. Agrees that a scientifically acceptable range of data gathering and control measures be drawn up to regulate culling or harvesting throughout Australia, in the interests of conservation of the species and the general environment.

In 1972 an earlier body, the Australian Fauna Authorities' Conference, had already established three sub-committees from among the officers of Australian and State Government authorities to study and report respectively on the habitat, biology and management of kangaroos and related species. This Conference now became the Standing Committee of the Council of Nature Conservation Ministers, so that the continuity of its work and the roles of the three sub-committees were unimpeded.

The Minister for the Environment and Conservation has indicated that any recommendation for easing the ban on the export of kangaroo products will need to be preceded by a thorough and comprehensive national program for the protection and management of kangaroo populations.

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