



WILDLIFE TRADE MONITORING UNIT

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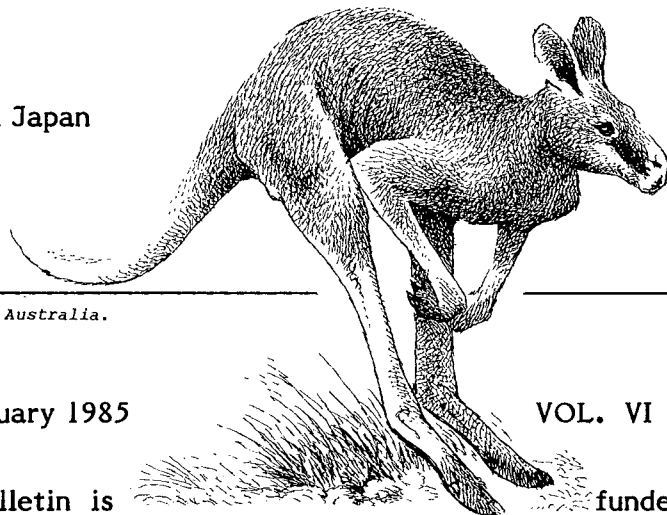


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CITES Secretariat Moves

The CITES Secretariat has moved to new premises in Lausanne. Their address is: 6, rue du Maupas, Case postale 78, 1000 LAUSANNE 9, Switzerland. Telephone: (021) 20 00 81; Telex: 24584 ctes ch; Cable address: CITES Lausanne.

Fifth CITES Meeting

The fifth meeting of the Conference of the Parties to CITES will take place at the Centro Cultural San Martín, Sarmiento 1551, Buenos Aires, Argentina, from 22 April to 3 May 1985.

TRAFFIC in Belgium

A new office in the TRAFFIC Network has now been established in Belgium as an independent non-profit organization. TRAFFIC (Belgium) joined the Network in December 1984, under the Directorship of Dr Jean-Pierre d'Huart. Financial support will be provided by World Wildlife Fund - Belgium (of which Dr d'Huart is a Director) and other non-governmental conservation organisations in Belgium. The current plans for staff are to employ a zoologist, a botanist and a secretary, under a Government scheme to provide work for the unemployed.

The statutes establishing TRAFFIC (Belgium) were deposited on 31 October and are expected to be published in *Le Moniteur* (Belgium's official Journal) in the next few months.

France Withdraws Reservations

France has withdrawn all its specific reservations on CITES Appendix species, with effect from 10 December 1984. The species on which France had reservations are the Green Turtle (*Chelonia mydas*), Hawksbill Turtle (*Eretmochelys imbricata*), Black Caiman (*Melanosuchus niger*), African Slender-snouted Crocodile (*Crocodylus cataphractus*), Nile Crocodile (*C. niloticus*), Estuarine Crocodile (*C. porosus*) and West African Dwarf Crocodile (*Osteolaemus tetraspis*).

Birds of Prey Protected

The UK Department of the Environment (DoE) has announced two measures to strengthen protection for birds of prey. Under the first of the two measures announced on 27 November 1984, the Department is to continue an existing moratorium on imports and exports of two of the most vulnerable species, the Gyrfalcon (*Falco rusticolus*) and the Peregrine Falcon (*Falco peregrinus*). Under the second measure, the Department has introduced a ban on movement between the UK and Germany in all species of diurnal birds of prey.

The United Kingdom operates a strict, internal system of protection for birds of prey under the Wildlife and Countryside Act 1981. Controls on imports and exports are exercised under the new EEC CITES Regulation (3626/82) and the UK invoked Article 15 of the Regulation at the end of last year to maintain separate controls on diurnal birds of prey within the Community.

Source: DoE Press Notice, 27.11.84

Japanese Tamarins Traced

All fourteen Golden Lion Tamarins (*Leontopithecus rosalia*) imported into Japan in 1983 (see *Bulletin VI(1):1*) can now be accounted for. The six Golden-headed Lion Tamarins (*L. r. chrysomelas*) whose whereabouts were previously unknown are at the Aritake Chojuten Stock Farm in Okinawa. As reported previously, three of unknown subspecies went to Nihon Daira Doobutsuen (Shizuoka City Zoo) and one later died; two Golden-headed went to the Japan Monkey Center. Three were exported to the Zoological and Botanical Gardens in Hong Kong - which has borne good results ...

Rare Tamarin Birth

A Golden-headed Lion Tamarin was born in the Hong Kong Zoological and Botanical Gardens on 11 November 1984. This appears to be the first recorded captive birth of this subspecies outside Brazil. The baby is probably male and on 9 January 1985 was reported to be doing well.

Sources: TRAFFIC (Japan)
CITES Secretariat

* Egg Thieves Fined

In October 1984, a Zimbabwean ornithologist, Adrian Lendrum, and his son, Jeffrey, were convicted of stealing eggs of protected birds of prey and of fabricating entries in a nest record survey, which is now in its 21st year.

Investigations over a year before had led officials of the Zimbabwe Department of National Parks and Wildlife Management to the discovery in Lendrum's home of 900 blown eggs said to be worth hundreds of thousands of pounds. In subsequent court hearings, it emerged that Adrian Lendrum, who, since 1974 had been working on a raptor nest survey, had removed the eggs from nests in the Matopos National Park, south of Bulawayo. He then invented data on the progressive stages of breeding of the birds which were recorded on cards in the nest record system. The effect has been to nullify all findings on one species and to devalue much of the data on many others.

Both Lendrums were fined Z\$4500 (£2650) and given four-month suspended sentences. Adrian Lendrum was then arrested on 15 October on charges of smuggling eggs out of the country. The hearing is scheduled to take place in February 1985.

Source: *The Observer*, 21.10.84

Macaw Liberation

Further to our reports concerning the Macaw Rehabilitation Project being undertaken at Buenavista, near Amboro, Bolivia (see *Bulletin VI(3/4):67*), on 25 December 1984 only fifteen Blue and Yellow Macaws (*Ara ararauna*) remained captive, ten of which are in poor condition. All birds being housed in Robin Clarke's garage were sent on to recover at Amboro.

Source: Reg Hardy, Bolivian Wildlife Society
(PRODNA Bolivia)

Mortality in US Bird Imports

The table below lists selected consignments of birds imported into the USA from 1980 to 1983 suffering a transport mortality of at least 40% for individual species according to data obtained from the US Department of Agriculture Forms 17-13. These record the mortality, on arrival and during quarantine, of all imported birds. The forms were obtained under the US Freedom of Information Act.

Details on the cause of mortality were available only for one shipment, the conures, which arrived from Argentina on 2 May 1982. The importer noted on the mortality sheet that the 1448 dead conures, out of a total of 3467 birds, died because the shipment was diverted first to Mexico City and then to London, the birds going days without food or water.

Global Bird Imports, the importer, commented, "All the birds in the top two layers were dead and most in level three were also dead." The crates are stacked like cordwood in airline holds and are often the last to be unloaded after the rest of the cargo. The figures are somewhat biased because of the method of recording birds on the import forms, with parrots listed by species by most importers, and finches listed as a group. If finches were listed by species, there would probably be a larger number of high mortalities.

Source: Greta Nilsson and the Society for Animal Protective Legislation, PO Box 3719, Georgetown Station, Washington DC 20007, USA.

| Date | Species | Number Arrived | Number Dead on Arrival | % Mortality | Export Country |
|----------|---|----------------|------------------------|-------------|----------------|
| 2.9.80 | Red Bishop (<i>Euplectes orix</i>) | 380 | 269 | 71% | Zimbabwe |
| 20.3.80 | Conures (<i>Aratinga/Cyanoliseus</i> spp.) | 904 | 435 | 48% | Argentina |
| 14.7.80 | Severe Macaw (<i>Ara severa</i>) | 106 | 69 | 65% | " |
| 23.9.80 | Mitred Conure (<i>Aratinga mitrata</i>) | 500 | 254 | 51% | Bolivia |
| 23.9.80 | Yellow-naped Parrot (<i>Amazona ochrocephala</i>) | 50 | 32 | 64% | " |
| 4.11.80 | Wattled Jacana (<i>Jacana jacana</i>) | 32 | 26 | 81% | " |
| 20.12.80 | Mulga Parrot (<i>Psephotus varius</i>) | 44 | 44 | 100% | S. Africa |
| 31.1.81 | Dusky-headed Conure (<i>Aratinga weddellii</i>) | 1036 | 584 | 56% | Bolivia |
| " | Blue-headed Parrot (<i>Pionus menstruus</i>) | 111 | 54 | 49% | " |
| " | Red-shouldered Macaw (<i>Ara nobilis</i>) | 130 | 115 | 89% | " |
| " | Yellow-collared Macaw (<i>Ara auricollis</i>) | 241 | 129 | 54% | " |
| " | Green-winged Macaw (<i>A. chloroptera</i>) | 8 | 8 | 100% | " |
| " | Blue-fronted Parrot (<i>Amazona aestiva</i>) | 13 | 13 | 100% | " |
| " | Blue-winged Parrotlet (<i>Forpus xanthopterygius</i>) | 45 | 45 | 100% | " |
| " | White-bellied Caique (<i>Pionites leucogaster</i>) | 25 | 25 | 100% | " |
| 11.4.81 | Flycatchers (<i>Muscicapidae</i> spp.) | 5 | 5 | 100% | F.R.Germany |
| 16.4.81 | Lovebirds (<i>Agapornis</i> spp.) | 32 | 18 | 56% | Belgium |
| 25.6.81 | Firefinches (<i>Lagonosticta</i> spp.) | 1000 | 911 | 91% | Senegal |
| 20.8.81 | Lovebirds | 170 | 78 | 46% | Tanzania |
| 7.10.81 | Firefinches | 300 | 181 | 60% | " |
| 22.12.81 | Toco Toucan (<i>Ramphastos toco</i>) | 238 | 157 | 66% | Bolivia |
| 11.1.82 | Yellow-collared Macaw | 200 | 97 | 49% | " |
| 21.1.82 | Grey Singing Finch (<i>Serinus leucopygius</i>) | 125 | 57 | 46% | Senegal |
| 18.3.82 | Waxbills (<i>Estrildidae</i> spp.) | 24000 | 12304 | 51% | " |
| 19.4.82 | Green-cheeked Conure (<i>Pyrrhura molinae</i>) | 112 | 51 | 46% | Bolivia |
| " | Mitred Conure | 46 | 25 | 54% | " |
| 21.4.82 | White-eyed Conure (<i>Aratinga leucophthalmus</i>) | 49 | 23 | 47% | " |
| 2.5.82 | Conures | 3467 | 1448 | 42% | Argentina |
| 22.6.82 | Patagonian Conure (<i>Cyanoliseus patagonus</i>) | 1551 | 696 | 45% | " |
| 23.6.82 | Canary-winged Parakeet (<i>Brotogeris versicolorus</i>) | 56 | 44 | 79% | Bolivia |
| " | Scaly-headed Parrot (<i>Pionus maximiliani</i>) | 42 | 37 | 88% | " |
| " | Green-cheeked Conure | 6 | 4 | 67% | " |
| 13.7.82 | Mitred Conure | 86 | 40 | 47% | " |
| 19.7.82 | Red-rumped Parakeet (<i>Psephotus haematonotus</i>) | 49 | 44 | 90% | S. Africa |
| 20.7.82 | Canary-winged Parakeet | 278 | 171 | 62% | Bolivia |
| 4.8.82 | Blue-winged Parrotlet | 76 | 56 | 74% | Argentina |
| 5.8.82 | Patagonian Conure | 916 | 465 | 51% | " |
| 11.8.82 | Mitred Conure | 1200 | 635 | 53% | Bolivia |
| " | Canary-winged Parakeet | 200 | 185 | 93% | " |
| 25.8.82 | Parakeets (<i>Psittacidae</i> spp.) | 120 | 108 | 90% | ? |
| 8.9.82 | Mitred Conure | 1050 | 475 | 45% | Bolivia |
| 17.9.82 | Grey Parrot (<i>Psittacus erithacus</i>) | 750 | 468 | 62% | Senegal |
| 29.9.82 | Mitred Conure | 1413 | 807 | 57% | Bolivia |
| 30.9.82 | Red-masked Conure | 1881 | 792 | 42% | Peru |
| 11.11.82 | White-bellied Caique | 140 | 74 | 53% | Bolivia |
| 5.5.83 | Pekin Robin (<i>Leiothrix lutea</i>) | 800 | 407 | 51% | Belgium |
| 27.6.83 | Red-breasted Goose (<i>Branta ruficollis</i>) | 30 | 16 | 53% | Netherlands |
| 24.7.83 | Mitred Conure | 199 | 147 | 74% | Bolivia |
| 27.8.83 | Mitred Conure | 1862 | 1168 | 63% | " |
| " | Blue-crowned Conure (<i>Aratinga acuticaudata</i>) | 854 | 627 | 73% | " |
| 27.9.83 | Nanday Conure (<i>Nandayus nenday</i>) | 3624 | 1648 | 46% | Argentina |
| " | Blue-crowned Conure | 1191 | 654 | 55% | " |

The European Trade in Kangaroo Products

by Alexandra M. Dixon

INTRODUCTION

The European market for kangaroo products is substantial but until now, does not seem to have been examined in detail. Recent controversy over the potential development of a market for these products in the USA has distracted attention from the European market which has flourished in the absence of American competition.

The principal species involved in commercial international trade are the Red Kangaroo (*Macropus rufus*), Eastern Grey Kangaroo (*Macropus giganteus*) and Western Grey Kangaroo (*Macropus fuliginosus*) and, to a lesser extent, the Euro or Wallaroo (*Macropus robustus*). Unfortunately, there are no good data to indicate the exact number of each species involved, and the commercial products from each are generally indistinguishable from the others'.

The aim of this report is to address the following aspects:

- a) the source of the products and the species involved;
- b) the quantity, form and value of the products entering Europe;
- c) the main European countries involved and the nature and extent of their involvement;
- d) the form and location of the main markets of the products in Europe.

The information provided on Australia and the United States market is background material, to place the European trade in context.

Owing to a combination of factors, particularly the lack of specific listing of kangaroo products in any of the European Customs data, the lack of commercial appeal of kangaroos *per se* as a source of leather or meat and the amount of antagonism which has developed between the commercial industries utilising kangaroos and those opposing the killing of kangaroos for commercial purposes, it has been extremely difficult to obtain accurate and consistent information.

The scientific nomenclature used follows Honacki *et al.* (1982).

METHODS

Data were collected from the Australian Bureau of Statistics (ABS), and the published Customs statistics of all western European countries were examined. Unpublished documents from US Customs indicating US imports of kangaroo skin products were also examined for the names of European exporters. These were the only sources of systematic statistical data found to be available. Additional information was obtained through interviews and correspondence.

Customs Statistics

ABS has provided monthly export figures for 'pickled kangaroo hides and skins' (Australian Export Commodity Code (AECC) 211 99 05), 'kangaroo and wallaby skins, raw' (AECC 212 09 01) and 'kangaroo meat, fresh chilled or frozen' (AECC 011 89 01). Two additional categories, 'kangaroo, wallaby meat unfit for human consumption' (AECC 291 95 07) and 'leather, marsupial, kangaroo' (AECC 611 69 01) could also be expected to be useful in the analysis of commercial trade. However, in the case

of meat unfit for human consumption, only two European countries (Switzerland and the UK) appear in the export data since 1981 and these occur only one year each. Most Australian exports of such meat are destined for the Far East, therefore this product receives only minimal attention here. The ABS data for 'leather, marsupial, kangaroo' indicate only the value of the trade; no country details are given. Thus, these data are of very limited use.

The definition of the classification for 'pickled' skins indicates that all the skins in this category are dehaired and are destined for use as leather while the skins in the 'raw' category appear to be destined for use as fur. As wallaby skins are generally used for fur rather than leather (see skin section), there is a strong indication that those skins classified as 'raw' are likely to be from wallaby. However, some true kangaroo skins are used with the hair on and these skins would also be included in this category as well. The ABS figures were used as an indication of the volume of trade in kangaroo products and the recorded countries of consignment and "final destination" were useful in the identification of European consumer nations.

The Customs statistics of western European countries were generally not helpful because neither kangaroo skins nor meat are categorised separately in any country's Customs statistics. In the case of Italy, on the recommendation of the Ministry of Trade and using the European Community Customs (NIMEXE) definitions of imports, it was possible to infer that raw leather hides originating from Australia were most likely to be from kangaroo; but this could not be taken to be true for other countries.

Unpublished US import statistics were obtained for 1981, 1982 and the first three months of 1983. Unfortunately, monitoring problems in the US have resulted in much less reliable figures for the period since then. These '81-'83 data were useful in providing the names of exporting companies in Europe and the quantities involved.

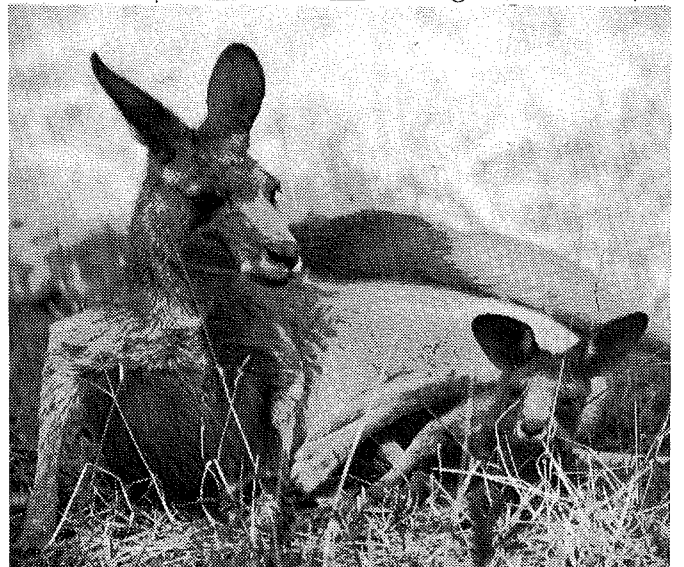
Correspondence and Interviews

Requests for information were sent to government agencies, furriers, leather dealers, meat marketers and conservation organisations in F.R. Germany, Italy, Norway, and the UK, as well as Australia, France, the Netherlands and Spain. The response rate was poor from Spain and the Netherlands but useful information was obtained from sources in France and Australia.

Interviews were carried out with appropriate commercial, governmental and conservation authorities in Denmark, F.R. Germany, Italy, Norway and the UK.

Eastern Grey Kangaroo (*Macropus giganteus*)

© Eugen Schuhmacher/WFP



BACKGROUND

Source Country

Red, Eastern Grey and Western Grey Kangaroos occur in the wild only in Australia although other Macropods occur elsewhere. The export of kangaroo products from Australia is subject to Federal regulation but the exploitation of kangaroo populations is controlled by the individual States and Territories of the Commonwealth of Australia. Although the States must obey Federal laws, each State has developed its own wildlife legislation and management policies which are administered independently of the Federal Government. The National Kangaroo Management Program, adopted in 1981 by the Council of Nature Conservation Ministers (CONCOM) (a Commonwealth - State consultative body), provides a means of co-ordination and co-operation between the States.

Federal Government

The Federal Government permits the commercial export of seven species of Macropodidae: Rufous Wallaby (*Thylogale billiardieri*), Eastern Grey Kangaroo, Western Grey Kangaroo, Whiptail Wallaby (*Macropus parryi*), Euro, Bennett's Wallaby (*Macropus rufogriseus*), and Red Kangaroo. Of these species, the vast majority of exports originate from the Eastern Grey Kangaroo, Western Grey Kangaroo and Red Kangaroo (Rawlinson, 1983).

In May 1984, the Wildlife Protection (Regulation of Exports and Imports) Act 1982 came into effect throughout Australia. Under this Act, permits to export commercially products of kangaroos may be granted only if the animals were taken under an approved management programme. Under Section 52 of the Act, details of the permit applications indicating number and species involved, the permits granted or denied and the specimens/products imported or exported are to be published in the Commonwealth of Australia Gazette. This latter requirement should result in much better data for the future analysis of trade in kangaroo products.

The administration of the Act is the responsibility of the Australian National Parks and Wildlife Service. Those States and Territories which commercially cull kangaroos have submitted kangaroo management programmes which have been approved by the Minister of Home Affairs and Environment. Enforcement of the Act is carried out by the Australian Customs Service and the Australian Federal Police.

Every year, each State evaluates its populations and proposes an annual quota for those species which may be legally exploited for commercial purposes (see Table 1). CONCOM has been approving national commercial kangaroo kill quotas since 1975, however the National Kangaroo Management Program was not adopted until six years later. Under the Program, the quota represents the number of kangaroos which may "enter the commercial trade per calendar year after having been taken by a licensed shooter in accordance with an approved State Management Program" (Rawlinson, 1983). It is not merely the total number which may be killed. The quotas are now subject to approval by the Federal Minister of Home Affairs and Environment but the administration and enforcement of the quotas remain the responsibility of the individual States. Table 2 gives the national quotas for 1976-1984.

State and Territory Governments

Each State or Territory has its own legislation for managing its wildlife populations. Legal variations between States are quite considerable but the general pattern is the same.

TABLE 1
State Total Quotas and Kill Figures for 1982 and 1983

Queensland: Red Kangaroo, Grey (both species), Euro and Whiptail Wallaby

| | QUOTA | KILL ("legal kill") |
|------|---------|---------------------|
| 1982 | 1500000 | 1136798 |
| 1983 | 1500000 | 877131 |
| 1984 | 845000 | |

New South Wales: Red, Grey (both species) Wallaroo

| | QUOTA | KILL ("cull") |
|------|--------|---------------|
| 1982 | 843000 | 664342 |
| 1983 | 843000 | 400477 |
| 1984 | 500000 | |

South Australia: Red, Western Grey, Euro

| | QUOTA | KILL ("and commercially utilised") |
|------|--------|------------------------------------|
| 1982 | 400000 | 229453 |
| 1983 | 300000 | 155785 |
| 1984 | 143000 | |

Tasmania: Bennett's Wallaby, Rufous Wallaby

| | QUOTA | KILL ("by commercial shooters") |
|------|--------|---------------------------------|
| 1982 | 300000 | 77000 |
| 1983 | 300000 | 110000 |
| 1984 | 300000 | |

Western Australia: Red, Western Grey, and Euro

| | QUOTA | KILL ("actual shooters") |
|------|--------|--------------------------|
| 1982 | 240000 | 177536 |
| 1983 | 200000 | 202402 |
| 1984 | 200000 | |

Source: F. Antram, *in litt.*

Kangaroos, as indigenous wildlife, are protected in Australia by individual State legislation. However, some kangaroo species are regarded by landowners as agricultural pests and may be shot under licence. Shooting licences may be obtained either by a grazier (landowner) or by a professional shooter. If the animals are to be commercially utilised for their products, then an appropriate licence must be granted, otherwise the products cannot legally be sold either in Australia or for export.

Population Estimates

A wide range of estimates of the number of kangaroos has been presented in the past five years. In 1980 a national population of between 20 and 40 million Red Kangaroo, Eastern Grey Kangaroo and Western Grey Kangaroo was reported by Anderson (1980). The US Federal Register of 24 April, 1984 quotes the Australian Government's petition, of 10 November, 1982, to delist these three species from any classification based on the

US Endangered Species Act of 1973, as reporting a national population of over 32 million kangaroos. Caughley *et al.* (1983), based on aerial survey data collected between 1980 and 1982, estimated a total population of 19 million for the three species combined and this figure was presented for the Australian Government at a US Fish and Wildlife Service hearing on 6 June 1983 (Ovington, *in litt.*). The figure was challenged by conservationists who maintained that in the aftermath of a serious drought in the eastern states of Australia, kangaroo numbers were reduced by as much as 75% and that 12 million was a more accurate estimate of the total population. More recently, a figure of between 10 and 20 million is suggested by Platt (1984) who stressed the continued lack of adequate and reliable population data for large parts of Australia. Grigg (1984) stated that a 1983 estimate of 11-12 million seemed reasonable for the whole country.

Kangaroo populations may fluctuate widely in response to environmental and seasonal changes (Grigg, 1984). Red Kangaroos in particular are opportunistic and flexible breeders and may exhibit sudden demographic changes. The size of Australia, the extent of kangaroo habitat, and the difficulties of finding the animals and identifying the species make national population surveys very difficult. Aerial surveys are regarded by some as the most accurate method but at least one state, Queensland, does not accept the results of this counting technique. The kangaroo management programme for Queensland (Anon, 1984a) states that "aerial counting provides only an index of abundance, and one which is really relevant only to the conditions at the time of the survey" and which underestimates the population. The Queensland National Parks and Wildlife Service is "not prepared to acknowledge numbers based on surveys of this kind" perhaps because of possible misuse.

The variations between States in the acceptability of survey techniques and the logistical and technical difficulties inherent in surveying an area as vast as Australia, combine to preclude the establishment of an accurate estimate of the national population for these three species.

TABLE 2
National Quotas For Kangaroos (1976-1984)

| Year | Quota |
|------|---------|
| 1976 | 1467190 |
| 1977 | 1533000 |
| 1978 | 1647000 |
| 1979 | 2769000 |
| 1980 | 2885000 |
| 1981 | 3032500 |
| 1982 | 3313000 |
| 1983 | 3143000 |
| 1984 | 1988000 |

Source: Rawlinson, 1983.

Exploitation

The primary reason for killing kangaroos is sometimes said to be the containment of their deleterious effects on pastoral and agricultural production (e.g. Ovington, *in litt.*) and this certainly appears to be the case in New South Wales (Anon, 1984d). The Queensland Government believes (Anon, 1984a) that, "It is important to recognize that while the kangaroo industry was originally a response to the pest problem caused by these animals, it has come to exist in its own right as the user of a valuable renewable natural resource, and thus it serves not only the needs of the farmer but also its own interests."

TABLE 3
State Quotas for Red, Western Grey and Eastern Grey Kangaroos 1983-1984

| | 1983 | 1984 |
|-------------------|---------|--------|
| New South Wales | 843000 | 500000 |
| Queensland | 1450000 | 810000 |
| South Australia | 300000 | 143000 |
| Western Australia | 200000 | 200000 |

Commercial killing of Red and Grey Kangaroos occurs in four states of the Commonwealth of Australia: New South Wales, Queensland, South Australia and Western Australia. Wallabies are exploited in Tasmania. Queensland and New South Wales (NSW) declare the largest quotas (see Table 3).

Each of the above four States permits the taking of kangaroos under licence for commercial purposes.

In Queensland this is possible under Section 25 of the Fauna Conservation Act 1974-1979 which permits the taking of a protected species which may cause damage (Rawlinson, 1983). Each year, a twelve-month open season on killing of kangaroos for commercial use is declared in Queensland on one or more of the following species: Red Kangaroo, Eastern Grey Kangaroo, Euro and Whiptail Wallaby. Open season on four other species: Sand Wallaby (*Macropus agilis*), Swamp Wallaby (*Wallabia bicolor*), Black-striped Wallaby (*Macropus dorsalis*) and Bennett's Wallaby may be declared to control crop damage.

In NSW, kangaroos are protected under the National Parks and Wildlife Act 1974. A licence must be obtained to kill a kangaroo, and licences are also issued to permit trade in legally taken animals.

South Australia protects kangaroos under the National Parks and Wildlife Act 1972-81, Section 5. However, Section 53(d) of the same Act permits the taking of protected animals if it is felt necessary to prevent crop damage. The sale of products from the animals taken must also be licensed.

In Western Australia, the take of kangaroos for commercial purposes must be licensed under Sections 15 and 17 of the Wildlife Conservation Act 1950-1980 which defines kangaroos as protected.

Tasmania permits the taking of wallabies for commercial use but local populations of Eastern Grey Kangaroos are strictly protected under the Wildlife Regulations of the National Parks and Wildlife Act 1970.

Considerable controversy has arisen over the state quotas. Criticism has focused on the lack of data to substantiate the need to kill kangaroos and the expansion of a commercial industry that exerts strong pressures upon the Government to support its existence (Rawlinson, 1983).

The US market

Public concern in Australia at the levels of commercial exploitation of kangaroo populations led to the imposition of a ban on the export of kangaroo products from Australia in 1973. In 1974, the US Government imposed a ban on the import of kangaroo products and placed the Eastern Grey, Western Grey and Red Kangaroos on the US Threatened Species List under the Endangered Species Act of 1973. The justification for this action was that the Australian Government had no reliable data on populations or on the number taken, that there were no management programmes for the species involved and that the Australian Government itself had banned exports of kangaroo products (Anon., 1983a). In

1975, Australia lifted the ban on exports of kangaroo products and in 1981, in response to heavy lobbying from the Australian Government and members of the leather industry in the USA, the US Fish and Wildlife Service announced the lifting of the ban for a trial period of two years while keeping the three species on the Threatened Species List. In 1982, the Australian Government formally petitioned the USA to allow the continued import of kangaroo products into the USA past the two-year trial period and to remove the three species from the Threatened Species List. In 1983, the US Fish and Wildlife Service lifted the ban indefinitely but kept the Red, Eastern Grey and Western Grey Kangaroos listed as 'Threatened' as a precautionary measure. A more detailed account of events in the USA is provided by Poole (1984).

EUROPEAN TRADE

The products of kangaroos which are of commercial importance in European trade are skins and meat. Other products such as kangaroo scrota and trophy pieces appeal to a specialised demand which appears to be more typical of Asian and to a lesser extent US markets, and are not considered here.

SKINS

Skins from Eastern Grey Kangaroo, Western Grey Kangaroo, Red Kangaroo and Euro can be used either for fur or leather. Wallaby skin is generally used for fur (König, pers. comm.). If the hair is left on, the fur can be used in the production of cuddly toys or of garments for which a soft material is desired and durability is not important.

Fur

Cuddly Toys

Cuddly toys made of kangaroo skin are manufactured in Australia. Although there is commercial export of these toys, primarily to Japan and New Caledonia, there appears to be little trade with Europe (Antram, *in litt.*). Few data are currently available to indicate the volume of commercial export of these products from Australia but the Wildlife Protection Act will require that in future such trade be documented. Without doubt, cuddly toys made of kangaroo skin enter Europe as the private possessions of people returning from Australia but this trade is impossible to monitor adequately.

Clothing

Although Red Kangaroo fur was popular when short-sheared garments were fashionable in the 1970s, kangaroo fur is generally low-grade with poor durability and is no longer used to any appreciable extent by furriers (König, pers. comm.; Frayling, pers. comm.). The fur of both species of Grey Kangaroo and of Euro is considered too poor to be useful for anything but the manufacture of extremely cheap clothing. Currently, skins obtain a much better price if sold for leather.

Leather

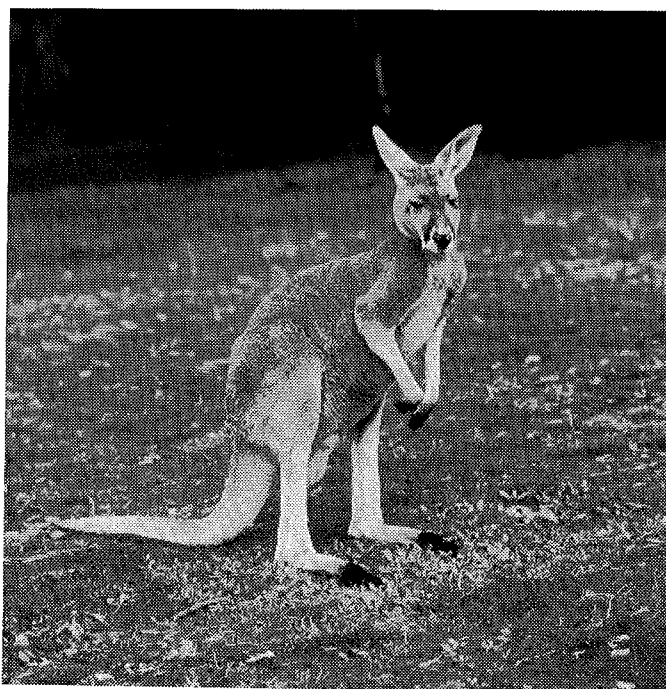
Over 90% of the kangaroo skins exported from Australia in the year 1983-1984 (July-June) were classified in ABS statistics as 'pickled'. Skins are pickled

only if they are destined to be used for leather rather than for fur. Kangaroo skins described as 'raw' are also exported to Europe; this classification would probably include furskins as well as some skins for leather.

Kangaroos shot in Australia are usually skinned under rough conditions which do not allow for careful handling of the skins. The skins may then receive some initial tanning but usually are simply placed in a pickling solution which will preserve them for several months until they reach a tanning plant. According to tanners in Europe, there are considerable differences in the quality of the skins reaching Europe from the various States, those from New South Wales usually being regarded as the best.

79% of the total exports of pickled kangaroo hides in 1982/83 and 85% in 1983/84 were destined for European countries (see Table 4). Once in Europe the skins are usually processed to produce a soft durable leather that 'breathes' well. This leather is particularly popular in the manufacture of athletics shoes but is also used to make ordinary shoes, belts, wallets and other sports items such as golf bags and bicycle seats.

The size and quality of a skin determine its use. Big skins are generally more scarred than smaller ones and are therefore used for sports shoes for which it is not crucial that the skin be unflawed. Approximately 10ft² (0.9m²) are required to make an average-sized pair of athletics shoes while ordinary shoes use 3-7ft² (0.3-0.6m²) (Trolli, pers. comm.).



Red Kangaroo (*Macropus rufus*)

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At the point of sale, most products made from kangaroo skins are not so labelled (Trolli, pers. comm.), an exception being athletics shoes. Once the skin is tanned and dyed it is very difficult to distinguish from kidskin, unless the manufacturer or dealer identifies it as kangaroo. There is apparently no special cachet to kangaroo skin (except perhaps in sport shoes), therefore the manufacturer and the dealers have little to gain by identifying the skins; indeed it may be a disadvantage to do so. It is thus extremely difficult to trace the skins after they leave the tanner.

Within Europe, the principal destinations for kangaroo skins are the centres of leather manufacturing. Based on the ABS figures, Italy, F.R. Germany, France and the UK in descending order are the major destinations for pickled kangaroo skins (see Table 4).

Italy

According to the ABS data, Italy was the destination of 72% of the pickled kangaroo skins exported from Australia to Europe from July 1982 to June 1983, and of 80% in the year 1983/84. The numbers of pickled skins exported to Italy for these years are respectively 892 359 and 676 469 which accounted for 57% and 68% of the pickled skins exported worldwide (Table 4). ABS data also indicate that 70% (144 969) of the raw kangaroo skins exported from Australia in 1982/83 and 46% (31 673) in 1983/84 were destined for Italy (Table 5).

Italian Customs statistics do not have a category of kangaroo skin. A certain amount can be inferred from the statistics of non-domestic animal skins imported from Australia, but these are not definitely all kangaroo and comparison with ABS data is impracticable.

However, several Italian leather dealers believed that the ABS data seriously underestimated the level of trade in kangaroo skins. According to the Associazione Nazionale Calzaturifici Italiani (National Association of Italian Shoemakers) (Soana, *in litt.*), Italy imported 1 260 549 half-tanned skins and 160 000 undressed kangaroo skins in 1983, a total of 1 420 549 skins. G. Bonza, the Director of Conceria di Torcera, reportedly one of the biggest kangaroo skin tanneries (Riva, pers. comm.), stated (pers. comm.) that Italian tanneries used at least triple the number of skins reported by ABS as exports consigned to Italy. In 1982, his tannery alone processed 400 000 kangaroo skins of which 340 000 had come directly from Australia. In 1983, his tannery imported 122 644 kangaroo skins from Australia and bought an additional 30 000 skins from another tanner in Italy.

Bonza named four other tanners as dealing in similar volumes: Tarricone, Bonaudo, R.I.P. Baltimora and Incas, the last being the biggest of all. Baltimora no longer tans kangaroo skins but the other three continue to import skins. Incas may be importing as many as 450 000 skins, if it can get them, according to confidential sources. In addition, there are a lot of tanners who deal in kangaroo in much smaller quantities. Pellis SPA, for example, imports around 6000 skins a year.

If the figures of skins apparently handled by these tanners are a true reflection of the level of Italian trade, the number of kangaroo skins being imported annually by Italy for the use of the leather industry would be nearer to 1 500 000, compared with the figure of around 800 000-1 000 000 which one would infer from the ABS data of exports consigned to Italy. It is not known to what extent, if any, such discrepancy might be applicable to the data for other European countries.

Whereas calf skin sells for around 3000 lire/ft², kangaroo is sold for 5000 lire/ft² for pickled skins. Skins of 3-5ft² (0.3-0.5m²) are the most desirable because they are likely to be the least scarred and therefore the most versatile. Skins of this size are used to make top quality shoes. Skins which are bigger than 5 ft² (0.5m²) are used to make sports shoes in which durability is the important quality. This size skin usually costs less per square foot and is also more readily available.

According to the dealers contacted, most of the kangaroo skins tanned in Italy are used in the domestic shoe market. When asked for their views on the market in the USA, some dealers did not know that the US ban on imports of kangaroo products had been lifted and others expressed a lack of interest owing to lack of US demand for their products. Bonza said that the US demand for kangaroo skins centred on sports shoes and that most of the skins supplying this market were going to the USA via the Far East, especially Korea.

It was found to be extremely difficult to trace the path of kangaroo skins once they had been tanned. One tanner said that skins are frequently labelled as kid "to avoid problems". Export of kangaroo products from Italy requires a statement from the tanner that the skins are from legally obtained animals and that the original export

from Australia was accompanied by Government authorisation. Proof of this authorisation is supposed to accompany the tanner's application for export but those which were shown to me by a Government official in Milan did not include any such documentation.

According to Trolli (pers. comm.), the market for kangaroo skins in Italy is limited only by the availability of the skins. Since September 1983, he says, it has become increasingly difficult to obtain skins, and contracts with Australian suppliers of kangaroo skins have not been fulfilled. The reason offered for this failure is that because of the recent rains in Australia, it is extremely difficult to locate the animals to shoot them. Ovington (*in litt.*) confirms that in wet years long grass can obscure kangaroos and he and Wilson (*in litt.*) add that the rains can render the land so wet that many areas become inaccessible to shooters. It is also possible that, if illicit supplies of kangaroo skins have been helping to meet the demands of foreign buyers, such operations have recently been reduced or stopped.

F.R. Germany

The ABS data indicate that F.R. Germany is the second most important destination of kangaroo skins exported from Australia (Tables 4 and 5). The ABS data for the period since July 1983 indicate the countries of "final destination"; however, skins bought by a German company and destined for F.R. Germany may travel via Italy, where they are tanned. In 1982/83, ABS recorded 224 106 pickled skins and 14 463 raw skins as exported to Germany, followed by 109 040 pickled and 8450 raw in 1983/84. A large proportion of the raw skins are likely to have been wallaby however. According to Langenberger, (pers. comm.), König is the only importer of wallaby in F.R. Germany. This company imported around 10 000 Bennett's Wallaby skins in 1983 (König, pers. comm.). König says that the fur is not worth the promotional effort however and that his firm is reducing its turnover. ABS data indicate that exports to F.R. Germany of raw kangaroo and wallaby skins are indeed declining (see Table 5).

German Customs categories do not permit a comparison with Australian figures, and the response to requests for information from German leather dealers was universally poor.

The Verband der Deutschen Häutehändler (skin dealers) said that as far as they knew, relatively few kangaroo skins were handled by their members (von Mühlen *per Merket*, pers. comm.). The Verband der Deutschen Lederindustrie (leather handlers) reported that their members did not handle kangaroo (Berger *per Merket*, pers. comm.).

It could be that the bulk of skins going to Germany are being imported by manufacturers.

Two major sports shoes manufacturers, Puma and Adidas, are based in Germany. The UK subsidiary of Puma advertises shoes made of kangaroo and although no answer has been received to any request for information, it is probable that the manufacture of these shoes is carried out in Germany.

France

France is the destination of an appreciable number of skins exported from Australia on a sporadic basis, according to the ABS, although the volume is considerably less than that going to Italy or F.R. Germany (Tables 4 and 5). In 1981/82, 99 931 pickled skins were reportedly exported to France from Australia, and the quantity has diminished annually since then. Raw skins were recorded as exported to France in 1980/81 and 1981/82 but none has been recorded since then.

Kangaroo skins are used by the French shoe industry in the production of sports shoes, particularly those associated with football and bicycling where a light and durable leather is necessary. These shoes may be exported from France but it has not been possible to trace the route of these products.

No French tanner or shoe manufacturer responded to requests for information and there is no means of identifying such items in national Customs statistics.

Unpublished US import records list several French companies as exporters of kangaroo skins, notably Ancien et Alexandre, Tannery d'Annonay and Peausserie. Other leather dealers such as Siadous SA and Sarl Sogimex are advertised in trade journals as handling kangaroo but these firms have not responded to requests for information.

United Kingdom

The UK also imports kangaroo skins from Australia. In the year 1982/83, ABS data record 52 238 pickled skins exported to the UK. Latest figures from ABS for the year 1983/84 indicate 22 669 pickled skins were exported to the UK, a reduction of 57%.

Under an amendment in 1979 (SI 1939) to the Endangered Species (Import and Export) Act 1976, permits must be obtained from the Department of the Environment for imports of raw hide or skin and leather (and items made from these products) of Macropodidae. However, information about these permits is confidential and UK Customs statistics do not have a separate category for kangaroo skins.

TABLE 4
Australian Exports of
Pickled Kangaroo Hides and Skins

| | 80/81 Number (AU\$) | 81/82 Number (AU\$) | 82/83 Number (AU\$) | 83/84 Number (AU\$) |
|-----------------------|---------------------------|---------------------------|---------------------------|---------------------------|
| Finland | 6 (50) | | 550 (3445) | 1000 (5649) |
| France | 57135 (245776) | 99931 (523446) | 65175 (387832) | 33436 (189958) |
| F.R. Germany | 91104 (388836) | 116782 (612425) | 224106 (1506530) | 109040 (787438) |
| Greece | 500 (2339) | | | |
| Italy | 548478 (1999424) | 702062 (2914770) | 892359 (4881502) | 676469 (3510485) |
| Portugal | | 2130 (37929) | | |
| Spain | 2976 (17013) | 2305 (16351) | 2830 (47360) | 1750 (10713) |
| Sweden | 2440 (60253) | | 200 (2799) | |
| Switzerland | 18500 (51202) | 2565 (14541) | | |
| UK | 28921 (119014) | 69514 (315277) | 52238 (324343) | 22669 (181424) |
| <u>European Total</u> | 750060 | 995289 | 1237458 | 844364 |
| USA | 1700 (5547) | 64146 (294842) | 44640 (247206) | 61127 (372292) |
| Other Countries | 92136 | 293490 | 283299 | 88107 |
| <u>World Total</u> | 843896 | 1352925 | 1565397 | 993598 |

Source: Australian Bureau of Statistics
(Australian Export Commodity Code 211 99 05)

TABLE 5
Australian Exports of
Raw Kangaroo and Wallaby Skins

| | 80/81 Number (AU\$) | 81/82 Number (AU\$) | 82/83 Number (AU\$) | 83/84 Number (AU\$) |
|------------------------|---------------------------|---------------------------|---------------------------|---------------------------|
| Austria | 12 (75) | | | |
| Belgium/ Luxembourg | | 100 (1400) | 793 (1156) | |
| France | 22000 (78183) | 7090 (31107) | | |
| F.R. Germany | 62034 (339670) | 11877 (49184) | 14463 (92032) | 8450 (67069) |
| Italy | 86057 (349839) | 77368 (316783) | 144969 (834462) | 31673 (182083) |
| Spain | 19839 (110581) | | | |
| Sweden | 100 (624) | | | |
| Switzerland | 206 (1042) | | 1230 (4076) | 881 (5415) |
| UK | 55724 (304351) | 35216 (111300) | 3004 (16366) | 3020 (21261) |
| <u>European Total</u> | 245972 | 131651 | 164459 | 44024 |
| USA | 33 (436) | 7256 (28649) | 2769 (18407) | 8682 (85739) |
| Other Countries | 36289 | 75775 | 38637 | 16211 |
| <u>World Total</u> | 282294 | 214682 | 205865 | 68917 |

Source: Australian Bureau of Statistics
(Australian Export Commodity Code 212 09 01)

Sources in the leather industry indicate that the main importer of kangaroo skins in the UK is the Pavlova Leather Co. US import documents also indicate Pavlova to be the primary UK source of kangaroo products, providing 24 316 items worth US\$211 643 in 1982. The Director of Pavlova refused to provide information.

Other leather dealers who are advertised as being able to provide kangaroo (Anon 1984c) are Bevingtons Group of Companies, Blenkinsop Ltd., R. & A. Kohnstamm Ltd. and Whitmore Bacon. It is possible that some of these firms no longer handle kangaroo, as was found to be true with other firms listed in the same publication, but they did not respond to requests for information.

Leather products made of kangaroo are advertised particularly by sportswear manufacturers. Puma, a division of Slazengers Ltd. in the UK, offers football shoes made of kangaroo with a trade price range in 1983 of £20-25. Patrick UK Ltd. also offers football shoes made of kangaroo in its catalogues. These models are trade-priced between £16.00 and £19.45.

Spain

ABS data record the export of 2830 pickled skins consigned to Spain in 1982/83 and 1750 in 1983/84. However, sources in the Italian leather industry said that Spain was receiving considerably more skins than was indicated by these statistics.

Fresdec was the only company listed in the 1984 Leather Guide (Anon, 1984c) as supplying kangaroo but did not respond to requests for information.

Other European countries

Exports of raw and pickled kangaroo skins to Austria, Belgium/Luxembourg, Finland, Portugal, Sweden and Switzerland also appear in the ABS data in small quantities and on a sporadic basis. There is no indication to suggest that this trade is increasing or that it is of significance.

MEAT

Kangaroo meat is used for human consumption and in the pet food industry. Within Australia it appears to have little appeal as human food and so is largely utilised by the manufacturers of pet food (Dagg, 1984; Antram, pers. comm.). Contamination by dirt, bacteria and parasitic worms *Dirofilaria roemeri* (Daley, 1983) often renders kangaroo meat unfit for human consumption. The meat may also be rejected for human consumption simply because the animal was killed under conditions which do not satisfy public health laws. Ovington notes (in litt.) that kangaroo meat is only inspected post mortem (rather than both ante and post mortem) and is therefore not permitted entry to some European countries for human consumption.

Australia exports kangaroo meat both fit and unfit for human consumption. ABS data for the years 1981-1984 show that the bulk of all exports of meat unfit for human consumption went to the Far East, Hong Kong and Japan being the principal destinations listed.

European countries have been recorded as the destination for significant quantities of kangaroo meat fit for human consumption (Table 6). Unfortunately, it has proved very difficult to trace the kangaroo meat once it enters Europe. The common practice seems to be to

mince the meat up for sausages or to resell it as venison. In either case, it is not identified as kangaroo.

Once anatomical characteristics have been changed by butchering or meat processing, it can be hard, if not impossible, to identify visually the animal from which the meat comes. Raw meat can be identified by chemical analysis or by a recently developed technique known technically as Enzyme Linked Immunosorbent Assay (ELISA) which distinguishes species-specific protein structure (Anon, 1982). The technique was initially developed for use on raw meat but it is now being developed for cooked meat as well.

The countries discussed below are the European nations which appear in the ABS export statistics as destinations of kangaroo meat fit for human consumption (Table 6).

Austria

The Austrian State Ministry of Agriculture and Forestry reports (in litt.) that it has no available documentation on the import of kangaroo meat. The Ministry states further that it "is possible that such meat is indeed imported and handled with false documents" but that it doubts there is a need to import it at all. The ABS figures record 32 144 kg exported to Austria in the year 1982/83. Since then no exports of kangaroo meat to Austria have been recorded.

France

An announcement by the Ministère de l'Agriculture in the Journal Officiel de la République Française, N.C. 3821, states that if a meat is not listed on the 'game list' of 12 June 1979, (Journal Officiel 22 August 1979) it is not authorised for human consumption (Cherrid, in litt.). According to the Fédération Nationale de l'Industrie et des Commerces des Viandes, the importation of kangaroo meat into France is forbidden and the Veterinary Service refuses all health authorisations (Mussaud, in litt.). If kangaroo meat has entered France it has done so under a special dispensation (Mussaud, in litt.).

Réunion is a Département of France and is thus, for administrative purposes, including international trade, a part of Metropolitan France; there is free trade between Réunion and France. Effectively, this means that once a product enters Réunion it has entered France.

Thus, it is noteworthy that ABS records Australian exports of 53 357 kg of kangaroo meat to Réunion in 1983/84, as well as over 49 tonnes of kangaroo meat unfit for human consumption in 1981/82 and over 96 tonnes in 1982/83. However, there is no information available on what happens to the meat once it arrives in Réunion; it may be transferred to mainland France, consumed on the island, or exported elsewhere.

F.R. Germany

Kangaroo meat is not affected by any existing wildlife legislation in F.R. Germany (Emonds, pers. comm.) but is subject to public health regulations under the Fleischbeschaugesetz of 3 June 1980 with modifications dated 28 September 1981. This Act does not specifically refer to kangaroo meat, but controls the conditions under which meat may be considered fit for human consumption.

Recent events in Germany have made it clear that kangaroo meat is being covertly imported into Germany. According to press reports in October 1983 (e.g. Anon, 1983b), 250 tonnes of kangaroo meat had been sold as beef, pork and venison in Germany that year. Due to the conditions of slaughter, this meat probably would not have passed health regulations and was therefore technically unfit for human consumption.

TABLE 6
Australian Exports of
Kangaroo Meat - Fresh, Chilled or Frozen

| | 80/81 Number (AU\$) | 81/82 Number (AU\$) | 82/83 Number (AU\$) | 83/84 Number (AU\$) |
|--|---------------------------|---------------------------|---------------------------|---------------------------|
| Austria | | 15012 (21301) | 32144 (42427) | |
| France | 25277 (34488) | | | 22841 (60623) |
| [Réunion | | 33360 (32926) | | 53357 (61338) |
| F.R. Germany | 1044917 (2236482) | 1045938 (1702774) | 344271 (524469) | 80 (185) |
| Netherlands | 67208 (74606) | 134898 (116533) | | |
| Norway | 259000 (525626) | | 93704 (226976) | 16565 (37269) |
| Sweden | 163259 (281793) | 34970 (57265) | | |
| Switzerland | 12 (4) | | | |
| <u>European Total</u> (excluding Réunion) | 1559673 | 1230818 | 470119 | 39486 |
| Other Countries | 111772 | 290019 | 126924 | 185717 |
| <u>World Total</u> | 1671445 | 1520837 | 597043 | 225203 |

Source: Australian Bureau of Statistics
(Australian Export Commodity Code 011 89 01)



Eastern Grey Kangaroos (*Macropus giganteus*)

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As Table 6 shows, F.R. Germany was reportedly the principal destination of kangaroo meat exported from Australia during the years 1980/81 and 1982/83 but in 1983/84 exports suddenly dropped to only 80 kg, down from 344 271 kg in 1982/83. The cause of this sudden drop was probably the discovery (extensively reported by the press) of mislabelled kangaroo meat being sold as more appealing sorts of meat, and the distaste felt by the German consumer for the meat once it was identified as kangaroo. The result of the scandal seems to have been the more careful scrutiny of meat imports into Germany, particularly from Australia (Niekisch, pers. comm.). However ABS preliminary export statistics for the period July to October 1984 list F.R. Germany as the destination of over 31 tonnes of kangaroo meat.

Netherlands

In the Netherlands, the Meat Inspection and Destruction Law, 1979, Article 1 considers the following as 'slaughter animals': "ungulates, cows... oxen etc., sheep, goats, pigs, reindeer, buffaloes and kangaroos". However, the conditions under which these animals may be slaughtered for meat to be used for human consumption specify that the animal must be kept under controlled conditions before and after slaughter, a criterion that eliminates kangaroos from consideration for human consumption (Vedder, *in litt.*).

Following the discovery of unlabelled kangaroo meat being sold in F.R. Germany, press reports implicated the Netherlands in the traffic of this meat through Europe. No evidence to support or disprove this allegation has been forthcoming. However, the Netherlands was recorded as a destination for kangaroo meat exports from Australia in 1980/81 and 1981/82 (see Table 6).

Norway

According to the Norwegian Royal Ministry of Agriculture, all free import of kangaroo meat was banned in July 1981. Any such meat now entering Norway must

be licensed and is included in the annual quota for imports of venison (Kvakkestad, *in litt.*). For 1984 this quota is 250 tonnes but it is impossible to identify how much is kangaroo as it is not specified on the licence.

As elsewhere in Europe, kangaroo meat is not considered a delicacy and therefore is not sold as such (Reksten, pers. comm.). Instead it is mixed in with other meats and so is untraceable. In the opinion of the Ministry of Agriculture the venison quota is more likely to be filled with "more noble" meats and therefore since 1 July 1981 imports of kangaroo meat have been "minimal".

The ABS data for 1982/83 and 1983/84 record 93 704 kg and 16 565 kg exported to Norway respectively - a decline in reported quantities of 82% even though the quantity is still not insubstantial.

Switzerland

ABS records an export of over 195 tonnes of kangaroo meat unfit for human consumption to Switzerland in 1982/83 but none since then, nor any meat fit for humans.

United Kingdom

There is no wildlife legislation banning the import of kangaroo meat into the UK. The Ministry of Agriculture, Fisheries and Food may permit the import of kangaroo meat subject to the conditions of the Importation of Animal Products and Poultry Products Order 1980. Under the terms of this order each product is considered, the disease risk assessed, and a licence issued or denied accordingly (Crawford, *in litt.*). If the meat is to be used for human consumption it must also satisfy public health standards.

The Ministry of Agriculture, Fisheries and Food has not received any request for a licence to import kangaroo meat since 1980 nor do the ABS data indicate the UK as a destination for exports of kangaroo meat for human consumption.

ABS statistics on export of kangaroo meat unfit for human consumption record 16 tonnes destined for the UK in 1981/82, but none since then. All British pet food manufacturers contacted stated that they do not use kangaroo meat in their products. According to the Pet Food Manufacturers' Association, which represents companies that account for around 95% of all pet food sold in the UK, the feeling is that pet owners would be extremely "sensitive to the use of animals such as kangaroos as raw materials" (Anstis, *in litt.*). In addition, there is sufficient offal available from European abattoirs to supply the demands of pet food manufacturers and it is thus unnecessary to go to the expense of importing kangaroo meat from Australia.

TABLE 7
Percentage of Total Australian Exports of Kangaroo Products Destined for Europe

| | <u>80/81</u> | <u>81/82</u> | <u>82/83</u> | <u>83/84</u> |
|--|--------------|--------------|--------------|--------------|
| Raw Skins | 87% | 61% | 80% | 64% |
| Pickled Hides | 89% | 74% | 79% | 85% |
| Meat (fit for human consumption) | 93% | 81% | 79% | 18% |

Source: derived from figures of the Australian Bureau of Statistics.

DISCUSSION AND CONCLUSIONS

Analysis of ABS data for the years 1980/81 to 1983/84 reveals that European countries were the recorded destination for about 80% of all pickled skins, 82% of all kangaroo meat fit for human consumption and 76% of all raw kangaroo skins. The annual percentages are given in Table 7.

With the exception of kangaroo meat exported in 1983/84, the ABS figures clearly indicate that Europe has been the major destination of kangaroo skin and meat exports, despite the lifting, in 1981, of the US ban on the imports of kangaroo products.

The ABS figures also indicate a decline in overall quantities of kangaroo meat and raw skins exported from Australia to Europe since 1980/81.

There are several points affecting the European trade in kangaroo products and future market trends, which it is important to consider.

- 1) Kangaroos are readily available over a huge area. It is probably impossible to monitor accurately the number that are killed.
- 2) Kangaroos are commercially exploited for largely utilitarian purposes (as well as for prevention of economic damage). Their products do not generally accrue additional commercial value if identified as kangaroo. An exception is athletics shoes whose association with the physical capabilities of a kangaroo may be regarded as a selling point.
- 3) Once tanned, it is difficult to distinguish kangaroo from other skins which are also used in

the manufacture of leather goods such as shoes. It is also impossible, without the use of chemical analysis, to identify kangaroo meat once it has been processed.

4) The products of the four main species in international commercial trade do not have any intrinsic quality which necessitates the use of these particular species. It would seem that these four species are currently the most popular only because they are the most available and the skins are of the required size.

5) The effects of the Wildlife Protection (Regulation of Exports and Imports) Act 1982 are largely still unknown. It is possible that enforcement of the Act's regulations will lead to a reduction in the volume of kangaroo skins and meat exported from Australia.

The European market for kangaroo skin products, particularly leather, is large and, in the absence of legislative restriction, is likely to continue. The catch limitations imposed by Australian authorities and the capacity of Australian suppliers to fulfil contracts appear to be the principal constraints upon the growth of the commercial utilisation of kangaroo leather.

The market for kangaroo meat for human consumption in Europe would seem to have less potential for growth due to lack of popular appeal and health regulations which limit the conditions under which meat is considered fit for human consumption. The demand for kangaroo meat for non-human consumption appears to be limited by the sensitivities of pet-owners and easy availability of more acceptable materials.

PERSONAL COMMUNICATIONS AND LETTERS CITED IN TEXT

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Vedder, L.:
Greenpeace, Netherlands.

Wilson, G.:
Chairman, IUCN/SSC Australian Marsupial Specialist Group, Australia.

REFERENCES

- Anderson, D.R. (1980):
"Information on Management Programs for Red, Eastern Grey and Western Grey Kangaroos in Relation to the U.S. Endangered Species Act". Unpublished report to U.S. Fish and Wildlife Service, 8 April 1980.
- Anon. (1982):
Beef, horse or kangaroo? MEAT Magazine, July 1982:17.
- Anon. (1983a):
Delisting Proposed for three kangaroo species. Endangered Species Technical Bulletin VIII (5) May 1983. Dept. of Interior U.S. Fish & Wildlife Service, Washington D.C.
- Anon. (1983b):
Kangaroo meat "sold as prime beef". Daily Telegraph. 13 October.
- Anon. (1983c):
Objection to the U.S. Dept. of the Interior Fish & Wildlife Service on removal of the kangaroo from the Endangered Species List. IFAW, Australia.
- Anon. (1984a):
Kangaroo Conservation and Management in Queensland. In, Kangaroo Management Programs of the Australian States. Commonwealth of Australia.
- Anon. (1984b):
Position paper on kangaroo management. IUCN/SSC Marsupial Specialist Group. Unpublished paper.
- Anon. (1984c):
Leather Guide, Benn Brothers, UK.
- Anon. (1984d):
Kangaroo Management in NSW. In, Kangaroo Management Programs of the Australian States. Commonwealth of Australia.
- Caughley, G., Grigg, G.C. and Short, J. (1983):
How many Kangaroos? Search 14 (5-6).
- Dagg, Anne Innis (1984):
Kangaroo controversy. Animal Kingdom. February/March, New York Zoological Society, Bronx, New York: pp 12-19.
- Daley, T. (1984):
Greenpeace Australia submission to the Senate Select Committee on Animal Welfare on Commercial Killing of Kangaroos.
- Grigg, G. (1984):
'Roo harvesting. Aust. Nat. Hist. 21(4).
- Honacki, J.H., Kinman, K.E., and Koepl, J.W. (eds.) (1982):
Mammal Species of the World, a Taxonomic and Geographic Reference. Allen Press and Association of Systematics Collections, USA.
- Platt, C. (1984):
Kangaroos, their status and exploitation levels. World Society for the Protection of Animals. Series No. L84/03/01.
- Poole, W.E. (1984):
Management of Kangaroo Harvesting in Australia. Occasional Paper No. 9, 1984 of ANPWS. Australian Council of Nature Conservation Ministers.
- Rawlinson, P.A. (1983):
Submission to oppose the proposal to remove the red, eastern grey and western grey kangaroos from the U.S. List of Threatened and Endangered Wildlife.

Cowrie Shells Endangered

Several species of cowrie shell occurring only in the waters off south-west Australia are believed to be under threat from over-collection.

Fierce competition is forcing divers in Albany to work alone, collecting at night, in waters up to 140 feet deep, in order to gather the shells undetected by Fisheries officers and to keep secret the richest locations from other divers. The Wildlife Protection Act, which came into force on 1 May 1984, placed strict controls on the export of native cowries but, according to one diver, these controls are easily evaded by posting the shells overseas. Although there is no restriction at this stage on the private collection of shells, a permit is required for their commercial sale. A spokesman for the Perth Fisheries and Wildlife Department states that there is little chance of policing this regulation. "There is growing concern about illegal shell collecting but we just don't have the resources to control these activities."

The main markets for the sale of cowrie shells are Italy, Germany, France and the USA.

Shirley Slack-Smith, a curator of molluscs at Western Australia Museum, states that the concern about the damage to the south-west cowrie species is quite valid.

"The situation regarding the cowries has been well known for sometime . . . The State Government has been holding fire until the Commonwealth legislation came into effect so it could then set about tightening up the situation, but it will be very difficult.

"One of the worrying aspects is that fairly recently the dealers have become very well organised - before, it was a more piecemeal approach to the exploitation. The cowries have become very valuable".

However, another curator of molluscs at WA Museum, Dr Fred Wells, in conversation with the Director of TRAFFIC (Australia), Frank Antram, thought it unlikely that any species would become extinct through collection - at worst a species might be wiped out in a very localised area.

A notice recently given by the Minister for Home Affairs and Environment, in the Commonwealth of Australia Gazette on 21 November 1984, states his intention to permit, under Section 44 of the Wildlife Protection Act, sixteen named shell dealers in Western Australia to export, over a period of six months, consignments of shells of native Australian molluscs. The reason for this is to give breathing space to shell dealers as the management programmes which are required under the Act have not yet been formulated.

*Sources: Albany Advertiser (Australia), 2.8.84
Frank Antram, TRAFFIC (Australia)*

Crocs in Paris

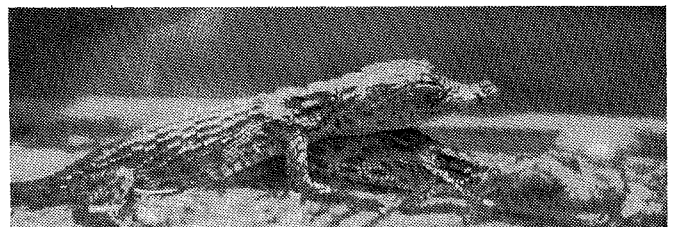


Photo taken by Alistair Gammell

These crocodiles, which are not more than a few weeks old, were offered for sale at Aqua Lumineux, quai de la Megisserie, Paris on 4 October, 1984. The proprietor, who was asking 2000F each for the animals, claimed that they were from Africa and knew nothing about any licence requirements. The animals appear to be Nile Crocodiles (*Crocodylus niloticus*) (CITES Appendix I) and were probably imported illegally. The sale of Appendix I specimens in the EEC is prohibited under the terms of Article 6 of Regulation No. 3626/82.

Endangered Cacti Popular in Japan

by Shinobu Matsumura (TRAFFIC Japan)

Cactus imports in the 1982 Japanese CITES Annual Report included 97 cacti from Peru, 6670 from Mexico, and 6194 from the USA. Although species are not given in the data, much of the trade is believed to represent wild-collected plants. By compiling data from 1983 sales lists of Japan's major horticulturists, TRAFFIC (Japan) has identified three genera, Ariocarpus, Astrophytum and Lophophora, as composing a major proportion of the trade originating from abroad.

Species on sale in the greatest number were Ariocarpus retusus, Astrophytum myriostigma, and A. (gymnocactus) asterias, which can be traded commercially with proper CITES export documents, but the lists also include at least twelve Appendix I species (see list below).

Imported cacti are identified as "wild-collected" in the sales catalogue and are comparatively quite expensive. For example, a wild-collected plant may be priced at about Y4000 (\$16.70), while a propagated plant of the same size and species would be offered for Y350 (\$1.50).

Collectors are willing to pay high prices for particularly strange or rare specimens. Wild-collected 8-11cm Strombocactus disciformis sell for between Y4500 and Y8800 (\$18.75-36.70), but rare fasciated specimens of the same species have been found at prices reaching Y78 000 (\$325) and Y140 000 (\$583.30). For some species there is a considerable range in price depending on the form, colour, and size of the individual plants.

For certain slow-growing species, particularly of the genus Ariocarpus, Japanese dealers rely heavily upon

wild-collected specimens to meet the consumer demand because artificial propagation methods do not produce commercially valuable plants quickly enough.

CITES enforcement for plant imports in Japan is practically non-existent.

Rare Plants Smuggled

The rare, exotic pitcher plant is in danger of becoming seriously depleted in Sabah and Sarawak as a result of heavy illegal collecting. These insect-eating plants are being smuggled out of Borneo to fetch high prices in Australia, Japan, the USA and F.R. Germany. Collectors will apparently pay up to US\$1000 for a specimen of Nepenthes rajah, the rarest pitcher plant which is found only on Mount Kinabalu and is a CITES Appendix I listed species. Pinasek, the area surrounding the mountain in Kinabalu Park, once known as the "rajah kingdom" because of the abundance of this species, has been stripped of this plant. Officials have been told to watch out, in particular, for an Australian who is known to be one of the key figures behind the theft of Borneo plants. He has made several trips into the country to take plants and has already been fined \$100 for trying to smuggle rare plant seeds from the Park.

Source: *The Sunday Times (Singapore)*, 28.10.84

Appendix I Cacti Listed in Autumn/Winter 1983 Japanese Horticultural Sales Lists

| Scientific Name | Common Name | Size | Price (US\$) |
|--------------------------------------|--------------------|-------------------------------|---------------------------------|
| <u>Ariocarpus agavoides</u> | Living Rock Cactus | 4-6cm | 6.25 - 14.60 |
| <u>Ariocarpus scapharostrus</u> | Living Rock Cactus | Varieties: 4-7cm 3.5-7.5cm | 12.50 - 26.25 5.40 - 20.80 |
| <u>Ariocarpus trigonus</u> | - | 14-18cm | 11.70 - 38.10 |
| <u>Aztekium ritteri</u> | - | 2-10cm | 15.80 - 63.80 |
| <u>Backebergia militaris</u> | - | H 40cm | 75.00 - 83.30 |
| <u>Obregonia denegrii</u> | Artichoke Cactus | 8-9.5cm Fasciated 18x16cm | 14.60 - 22.10 354.20 |
| <u>Pelecypora aselliformis</u> | Hatchet Cactus | 4-5 stems | 17.90 - 35.40 |
| <u>Pelecypora strobiliformis</u> | Pinecone Cactus | 3cm | 18.80 - 22.90 20.80 - 50.00 |
| <u>Strombocactus disciformis</u> | - | Fasciated 8-11cm | 62.50 - 583.30 18.80 - 36.70 |
| <u>Turbincarpus laui</u> | - | H 3-4cm | 8.30 |
| <u>Turbincarpus pseudopectinatus</u> | - | H 4.5-5.5cm H 5-6cm | 7.50 10.40 |
| <u>Turbincarpus valdezianus</u> | - | H 3-4cm | 4.28 - 6.30 |

H = Height - otherwise size given as diameter.

Frilled Lizards in Japan

by Tom Milliken, TRAFFIC (Japan)

A Japanese television commercial last spring, featuring a Frilled Lizard (*Chlamydosaurus kingii*) running alongside a Japanese car, sparked off a series of imports of this species into Japan from Indonesia, Papua New Guinea and, more recently, Australia. The lizard is protected in all these countries, making some of this trade illegal even though the species is not listed on CITES.

TRAFFIC (Japan) can substantiate the import of at least fifty-six Frilled Lizards. Of these, twenty-six specimens have been identified as originating from Irian Jaya, eleven from Papua New Guinea and possibly thirteen from Australia, all acquired by four importers. The source of the other six animals is unknown.

Once imported, most of these lizards soon embarked upon promotion tours for public display at department stores, supermarkets and safari parks all over Japan. The 'Erimaki Tokage' as the species is known in Japanese, created a media sensation and quickly led to a commercial phenomenon reminiscent of the 'panda mania' which gripped Japan some years ago when the first pair of Giant Pandas arrived from China. As Japanese flocked by the thousands to view the lizards, their promoters earned enormous sums of money - as much as ¥500 000 to ¥1 000 000 (US\$2000-4000) a day for the display of a single lizard. Commercial spin-offs have included sales of Frilled Lizard toys, T-shirts, badges, posters and other commodities.

One of the most successful promoters is Mr Hiromi Hyuga, Director of the Insect Museum in Utsunomiya, Tochigi Prefecture. Using his official position at the museum (which only entitles him to procure insect specimens), Hyuga illegally brought the first three lizards to reach Japan from Indonesia with only an inter-island transport document. Although Hyuga's stated intention on the document was 'scientific research', upon reaching Japan the lizards immediately went on display at a major Tokyo department store. Hyuga subsequently obtained nine more Frilled Lizards from Irian Jaya in two consignments.

Another importer, Mr Naotsugu Shoji, a student affiliated with Vivarium, a Reptile and Amphibian import/export company in Tokyo, is believed to have obtained thirty Frilled Lizards in four different transactions, although the origin and circumstances surrounding the importation of six of the specimens remains unknown. Some of these animals were used for display purposes. Eleven were imported from Irian Jaya via the the Netherlands where they were probably in transit. It appears that the consignment, which also contained CITES-listed species, was accompanied by an Indonesian CITES export permit to the Netherlands, and that the same document was presented to Japanese authorities.

Shoji also claimed to have received Frilled Lizards of Australian origin via the USA on 9 August. Four lizards arrived in Japan without any export documents and nine more specimens of Australian origin were allegedly imported through the same Los Angeles dealer, who remains unnamed. It is very likely that these lizards were smuggled out of Australia as Government authorities there have confirmed that no export permits have been issued for Frilled Lizards. Thus, the transaction appears also to be in violation of the US Lacey Act.

Only the eleven lizards imported from Papua New Guinea have been verified as legitimate imports. The Isetan department store group obtained a total of five lizards through the PNG embassy in Tokyo and six more lizards were legally imported from Papua New Guinea for Okayama Wonderland, an amusement park in south-western Japan, which subsequently sold a pair to the Jyoban Hawaiian Center in Fukushima Prefecture. One of eight eggs from a pair of Okayama's specimens,

which hatched on 13 December, has probably made history by being possibly the first recorded birth in captivity of the species.

TRAFFIC has received a great deal of unverified information alluding to other trade in the species, including reports of a consignment of Indonesian lizards laundered through the Philippines, the arrest in Irian Jaya of a Japanese in possession of sixteen illegally acquired specimens, and several stories of lizards smuggled into Japan hidden in carry-on luggage. Of the confirmed imports, some mortality has been documented in the Japanese press, but for the most part the importers are reluctant to discuss deaths or the condition of their animals. Although the display boom has now subsided there is concern that lizard mortality will increase with the onset of winter.

The Frilled Lizard mania in Japan once again demonstrates that protection laws in countries of origin will not deter commercial exploitation when large profits can be realized unless there are also strong controls at the importing end. The fact that the species is not listed on CITES means that present Japanese law is impotent to curtail even the most flagrant abuse of foreign protection laws.



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