

International trade, and conserving our wildlife

On July 1 this year, the International Convention on Trade in Certain Species of Wildlife came into force—3 months after the tenth country had signed it. Australia, although not among those first 10, almost certainly will be a signatory by the time we come into print.

The Convention seeks to control the very large international trade that goes on in wild animals, birds, fish, and some plants, since, unchecked, it could drive some to extinction. For example, in 1969 the United States imported the raw hides of 7934 leopards, 1885 cheetahs, and 113 069 ocelots—all animals regarded as endangered. That year Congress passed the *Endangered Species Protection Act*, which strictly controls what animals—either living or dead—may enter the country, so these imports have now ceased.

Even more impressive is the list of live specimens of wildlife species not considered endangered that were imported into the United States in 1971. It included 89 000 mammals, 770 000 birds, 573 000 amphibians, 2 million reptiles, and no less than 98 million fish. These live animals would have been destined for the pet trade, zoos, and biological research.

The Convention emerged in its final form from a conference of interested countries held at Washington, D.C., in 1973. At Washington, the Australian government gave the idea of the convention all the support it could. However, our federal government could not sign the Convention until it had passed the relevant legislation to enforce the Convention's provisions, and this took time.

Australia and many other countries already rigidly control exports of their native wildlife, as the recently lifted ban on exporting red kangaroo skins attests. But where there is a demand for an animal, people will find ways of getting it out of its country of origin. The Convention is aimed at eliminating the source of demand, since signatories to it must strictly control wildlife imports as well as controlling what they export. Very shortly ocelot- and leopard-skin coats should be a thing of the past in Australian shops.

The lists of Australian wildlife to be included in the three appendixes of the

Convention have been drawn up by the federal Department of Environment in close cooperation with the relevant State Departments and also CSIRO, universities, and museums throughout the country.

Originally, the sponsors of the Convention wanted it to cover only wildlife species whose existence was actually being endangered by exploitation for trading purposes. Nevertheless, by the end of the Washington conference it was clear that the delegates preferred to list any endangered species that might be affected by trade.

Comprehensive lists

Australian species likely to be endangered by trading can be counted on the fingers of one hand—three parrots and the western swamp tortoise. A few finches may also be included. However, under the broader terms of reference, the final lists will contain about 100 species, including the mountain pigmy possum, the thylacine, and the Queensland hairy-nosed wombat—all most unlikely candidates for commercial exploitation.

If most of the Australian species listed in the Convention are unlikely to be the target of international trade, why are they endangered? In his book *'Wildlife Conservation'*, the Chief of the CSIRO Division of Wildlife Research, Dr Harry Frith, lists 13 mammals and birds believed to have become extinct since the arrival of European Man. He also lists another eight wildlife species formerly believed to be extinct, but recently rediscovered, and a further 20 whose ranges and numbers are known to be much reduced.

Among the rediscovered species, the Leadbeater's possum and the New Holland mouse have turned out to be relatively common. Another, the dibbler, is a tiny little animal that was caught in banksia flowers near Cheyne Beach 48 km east of Albany, W.A. Others, like the

noisy scrub bird and the western swamp tortoise, each live in a single small area of only a few square kilometres, which makes them very vulnerable to outside influences such as a large bushfire, or land-clearing for development.

European Man's introduced animals have brought the 20 much-reduced species to their present state. Sheep, cattle, and rabbits directly competed with them for food, or indirectly affected them by disrupting their habitats. The exception is the thylacine, which was common in Tasmania during early settlement. This marsupial carnivore was almost certainly shot out because of its reputation as a sheep-killer.

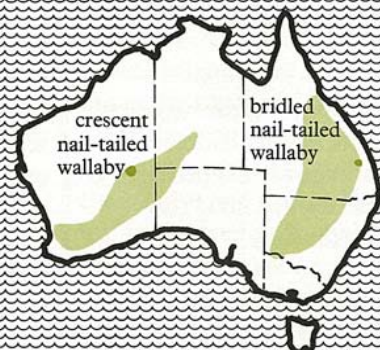
Eaten out . . .

Using his own extensive experience of conditions in Central Australia, Dr Alan Newsome of the Division of Wildlife Research has suggested the courses of events that led to the drastic decline of seven small marsupials there. Very probably the fate of these native animals in the Centre closely parallels what happened

Former and current ranges of the western hare-wallaby



Former and current ranges of the two nail-tailed wallabies



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earlier elsewhere on our continent. In Central Australia, many of the pioneers who originally took over the country are still alive, and they remember that in the past the marsupials were indeed much more common.

The burrowing rat kangaroo was once one of the commonest animals in inland Australia. It now survives for certain only on three islands off the Western Australian coast. Like the rabbit it lived communally in extensive warrens. It apparently fed mainly on grass, tubers, and roots. The rabbit and grazing livestock seem to have been the cause of its downfall since they would have eaten out its food supply, especially during droughts. The fox—along with other predators like

the dingo and the wedge-tailed eagle—probably gave it the *coup de grace*.

A more subtle change must have affected the bilbie. Sometimes known as the rabbit-eared bandicoot, this attractive medium-sized burrowing marsupial with silky fur was once quite common and widespread. Today it survives in any numbers only in a few areas in the arid Centre.

The bilbie eats termites, and research in the mulga country of Queensland by Dr Tony Watson and Mr Frank Gay, both of the CSIRO Division of Entomology, has suggested that termite numbers (at least in this type of country) may be much lower than they were before European settlement.

Like domestic stock, two of the commonest termite species feed on grass in periods of good rainfall and on mulga during droughts. Stock grazing continuously in the mulga country would have created more open ground on which grass would grow during favourable years. More grass favoured the termites, whose colonies expanded enormously in both



Mountain pigmy possum from the Southern Alps—listed as threatened, but not endangered.

size and number. When drought returned, the termite colonies collapsed.

But worse was to come: the termites capped their colonies with a hard, flat, cement-like top formed just under the soil surface and, when dry conditions returned, the topsoil blew off them, leaving large bare areas on which grass could not grow for a long time. Dr Watson and Mr Gay found that, in their study area, about 20% of the ground surface had become hardened as a result of termite infestation during the good years of 1947–56.

The International Convention

The idea of the Convention was first mooted at the Eighth General Assembly of the International Union for the Conservation of Nature and Natural Resources (IUCN), held at Nairobi in 1963. Drafts and amendments were produced during the next 10 years, but the idea was really given a push by the United Nations Conference on the Human Environment held at Stockholm in June 1972. Consequently, during February and March 1973 a conference of interested countries was held in Washington, D.C., to thrash the whole thing out, and this group drew up the Convention.

The Convention states that each member country shall appoint a Scientific Authority and a Management Authority. The Scientific Authority—here the Australian Department of Environment—decides which wildlife species the Convention should cover and keeps an eye on the state of the populations of both these species and any others that may need to be included at a later stage. The Australian Department of Police and Customs is our Management Authority, since it actually controls what passes through our ports and airports.

Three appendixes at the back of the Convention contain lists of all wildlife

species, throughout the world, to be covered.

Those species in Appendix I are the most strictly controlled. The exporting country may issue export licences for wildlife in this category only under exceptional circumstances. The importing country must also issue import licences. In addition, the importing country must demand to see the export licence from the country of origin.

Trading in wildlife listed in Appendixes II and III is somewhat easier. Nevertheless, the exporting country must still issue an export permit, and the importing country must demand to see it. But no import permit is required.

Appendix I includes 'all species threatened with extinction which are or may be affected by trade'.

Appendix II includes:

- ▶ 'all species which although not necessarily now threatened with extinction may become so unless trade in specimens of such species is subject to strict regulation in order to avoid utilization incompatible with their survival
- ▶ 'other specimens which must be subject to regulation in order that trade in specimens of the species just referred to

may be brought under effective control'

Appendix III includes 'all species which any party identified as being subject to regulation within its jurisdiction for the purpose of preventing or restricting exploitation, and as needing the cooperation of other parties in the control of trade'.

Drawing up the lists of wildlife to be included in each appendix had its problems, since these rather involved definitions can be interpreted in more than one way. For example, the Department of Environment interpreted Appendix I to mean that the species included should be known to occur as only one population, or at best a few small isolated ones located within a very restricted range in a very fragile environment. Consequently, of the 50-odd Australian species included in this appendix, 10 are currently believed to be extinct (but may yet be found) and three are recently rediscovered species. Most of the rest are mammals, reptiles, or birds whose range and numbers have become much reduced since European settlement, or ones about which we don't know very much.

Deciding on which species to include in Appendixes II and III produced similar problems.



Crescent nail-tailed wallaby as seen by John Gould in 1863. Its range is now greatly restricted.



Western hare-wallaby—again from Gould.

Thus the course of events that led to the eclipse of the bilbie very probably went like this: stock reduced the density of the mulga, allowing more grass to grow in favourable years and termite colonies to mushroom. These colonies collapsed when drought conditions returned, leaving large areas of hardened ground on which no grasses could grow. In the long run this had the effect of reducing the numbers of termites and stock—and bilbies.

... of house and home

Two species of nail-tailed wallaby, two hare-wallabies, and two bandicoots seem to have come to grief because livestock and rabbits grazed out their shelter, leaving them homeless.

We don't know much about the bridled and the crescent nail-tailed wallabies, but the bridled one used to be a common small wallaby along the lower Murray and Darling Rivers. It seems to have lived in thickets. European settlers would have cleared the thickets in the Riverina to let more grass grow. In the saltbush country their stock would have done the job by eating the saltbush. In either case the clearing destroyed the wallabies' homes. Even so, a few bridled nail-tailed wallabies turned up last year at Dingo, between Emerald and Rockhampton, Qld.

Their relative, the crescent nail-tailed wallaby, also lived in thickets, but further inland. Once again domestic stock would have grazed out its thickets.

A similar story no doubt applies for the spectacled hare-wallaby. It shelters during the daytime in squats made in long grass.

Dr Newsome mentions that these wallabies were once so common on a Mitchell grass plain at Alcoota station near Alice Springs that stockmen used to course them for fun with their dogs. Today the plain is grazed almost bare, and no hare-wallabies remain.

The desert and the pig-footed bandicoots lived in squats dug under grass tussocks, and have suffered the same fate.

But some are thriving

But not all our wildlife has been driven to the wall by European Man and his animals. Two of our largest marsupials—the red kangaroo and the euro—have thrived. Sheep and cattle grazed down the long dry grass of the arid inland, thus providing the red kangaroo with much greater supplies of the short, green grass-shoots that are its diet. Hence, far more red kangaroos probably inhabit Australia now than ever did so before the arrival of the First Fleet in 1788.

More subtle is the course of events that happened in the Pilbara in Western Australia. Better known nowadays for its iron ore, this semi-arid area was for many years a major sheep-grazing district.

Sheep were introduced there in 1880, and graziers put in watering points every 5 km across the grassy plains. For 50 years the wool industry prospered, but by about 1930 it had gone into decline. At the same time, the once-rare euro had come to be regarded as a pest. By the 1950s sheep numbers had gone down disastrously, and the euros, which then far outnumbered the sheep, took the blame.

A study by Dr E. H. M. Ealey of CSIRO and Mr H. Suijndorp from the State

Department of Agriculture revealed what had happened. The euros hadn't caused the problem, as the graziers had imagined. Instead, sheep had eaten out the nutritious natural grasses, leaving spinifex to take over. During times of drought little remained but this hard spiky grass. Sheep don't thrive on this unpromising diet, but euros can manage much better. In addition, by supplying watering points the graziers had removed the factor that had limited the range of the euros. Historically, the euros could only survive the hottest summer weather by sheltering in caves in the rocky outcrops scattered across the region, so they remained few in number. But with plentiful water these animals can survive any heat, and they were able to leave their caves and move out onto the plains.

Thus the graziers had helped the euros in two ways—by supplying both plenty of water and ample drought feed. Euro numbers exploded.

More about the topic

'Summary Report of the Australian Delegation to the Plenipotentiary Conference to Conclude an International Convention on Trade in Certain Species of Wildlife.' (Australian Department of the Environment and Conservation: Canberra 1973.)

'Wildlife Conservation.' H. J. Frith. (Angus and Robertson: Sydney 1973.) Competition between wildlife and domestic stock. A. E. Newsome. *Australian Veterinary Journal*, 1971, 47, 577-86.

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