

INTERNATIONAL

Forest loss—latest estimates

Up-to-date and accurate information on the loss of tropical forests is hard to come by. The IUCN Tropical Forest Programme has reviewed the most recent sources and initial conclusions are that, in many countries, rates of forest loss are much higher than FAO's 1980 figures would suggest. However, the review also suggested that some widely quoted figures are probably exaggerations. For example, claims that 80,000–200,000 sq km of forest were lost annually in 1987 and 1988 in Brazil are probably over-estimates. The most reasonable figure, and one now accepted by the Brazilian authorities, is a loss of 35,000 sq km a year; the loss predicted in 1980 was 26,000 sq km a year. *IUCN Tropical Forest Programme Newsletter*, September 1989, 2.

World Forest Conservation Protocol

At a conference on tropical forests in São Paulo, hosted by the Brazilian and US governments and organized by the Intergovernmental Panel on Climate Change, delegates vigorously endorsed a European Community proposal for a World Forest Conservation Protocol. It is to be presented at the next International Conference on the Environment in 1992 and is likely to include measures to use, reforest and protect the tropical forest, as well as international trade deals and financial assistance to tropical countries. Conversion or burning of forests contributes about one-quarter to the 'greenhouse gases' responsible for global warming and

the protocol is to be negotiated as a crucial adjunct to the Global Climate Convention now under discussion. Delegates from tropical countries recognized that conservation of tropical forest was of crucial importance but that the developed world should commit itself to reducing the greenhouse gas emissions from fossil fuel use. Industrial emissions are believed to be 50 per cent responsible for the greenhouse effect. *Financial Times*, 17 January 1990.

Drift-net ban

A United Nations agreement has been reached on steps to end the use of large drift nets everywhere on the high seas after June 1992. It also provides for an immediate reduction in drift-net fishing in the South Pacific, leading to its cessation by July 1991. The agreement was approved by a General Assembly Committee in December but is not legally binding. It is hoped that nations will feel obliged to comply because of broad support for the agreement and Japan, which has the world's

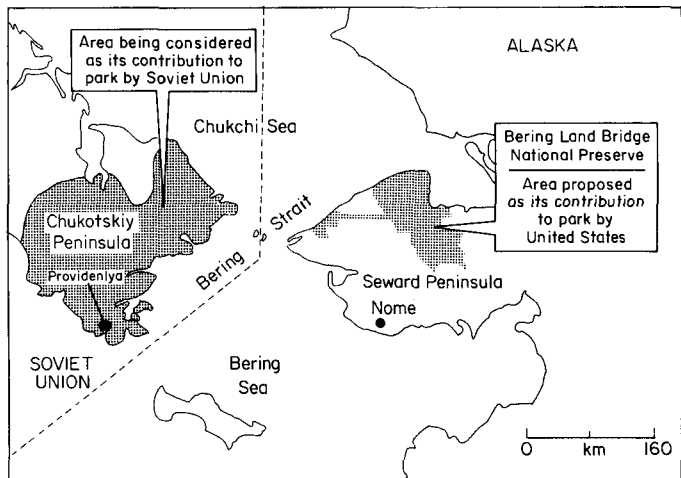
largest drift-net fishery, has announced that it will ban the use of these nets by 1992. Two other major drift-net nations, Taiwan and South Korea, are not members of the UN and will probably not comply. *The New York Times*, 14 December 1989; *Monitor*, 18 December 1989.

IUCN update

With the recent admission of Portugal and Nicaragua the number of IUCN member countries has increased to 62. In addition 50 state authorities, 400 private national nature conservation organizations and 38 international conservation organizations are members.

Bering Strait park

On 9 January a team of American and Soviet officials recommended the creation of an international park along the Bering Strait. The Beringian Heritage Park would cover millions of ha in Alaska and Siberia. The proposal calls for joint US–Soviet co-operation in studying the ecology, archaeology and cultural heritage of the land on either side of the strait,



Map showing proposed Bering Strait park.

which was once a land bridge between Asia and North America. The US has proposed that its contribution be the existing 1.1 million ha Bering Land Bridge National Preserve. The Soviet Union is considering land on the Chukotskiy Peninsula. The proposed park has been under study by the two countries since 1972. *The New York Times*, 10 January 1990.

New Ramsar sites

Several new sites have been added to the List of Wetlands of International Importance since September 1989: Cache-Lower White Rivers Joint Venture, Arkansas, USA; Whangamarino wetland and Kopuatai Peat Dome, New Zealand; and 17 sites in Spain—Laguna de Cádiz, Lagunas del sur de Córdoba, Marismas del Odiel, Salinas del Cabo de Gata, S'Albufera de Mallorca, Laguna de la Vega, Laguna de Villafáfila, Complejo intermareal O Grove-Umia, La Lauzada, Ria de Ortigueira y Ladrado, La Albufera, El Hondo, Lagunas de la Mata y Torrevieja, Salinas de Santa Pola, and Prat de Cabanasy Torrellanca. *IWRB News*, January 1990, 2.

Japan keeps on whaling

Continuing its defiance of the International Whaling Commission, on 10 November 1989 Japan sent its whaling fleet to the Southern Ocean in search of 300 minke whales *Balaenoptera acutorostrata*. *Monitor*, 13 November 1990.

UK takes reservation on elephant

On 17 January Margaret Thatcher, over-ruling the Secretary of the Environment,

announced that the UK would file a 6-month reservation against the CITES Appendix I listing of the African elephant *Loxodonta africana* in order to allow Hong Kong to dispose of its 670 tonnes of stockpiled ivory, much of it illegally acquired. China, South Africa, Zimbabwe, Zambia, Botswana and Malawi have also filed reservations against the ivory trade ban, which became effective on 18 January. *Financial Times*, 17 January 1990; *African Wildlife Foundation*, 18 January 1990.

Malaysia vetoes timber protection plan

At the meeting of the International Tropical Timber Organization (ITTO) in Yokohama, Japan, in November 1989, British delegates proposed labelling timber that is harvested sustainably. The scheme won wide support at the meeting, apart from Malaysia, one of the world's largest timber exporters, which refused to back any proposal that included the term 'labelling'. This refusal forced the meeting instead to adopt a plan to study 'incentives' for suitable production. Another disappointing decision was that taken to open up the Tapajos National Forest in Brazil to commercial logging, although ITTO says that the \$1.5 million scheme will provide a show-piece of sustainable development. *New Scientist*, 11 November 1989, 23.

Frog decline mystery

Yellow-legged frogs *Rana muscosa*, which once inhabited mountain lakes in the Kings Canyon and Sequoia National Parks in California, have disappeared from all but one of 38

lakes in the area. Similar declines of the boreal toad *Bufo boreas boreas* and the leopard frog *Rana pipiens* have been reported in the Rocky Mountains and there appears to be a trend towards a decline in amphibian populations throughout the Americas and in Europe. Tentative explanations range from acid rain to pesticides, hard winters and dry summers. *The Guardian*, 14 December 1989.

EUROPE AND NORTH AFRICA

Virgin taiga threatened

Some 1.6 million sq km of unspoilt taiga west of the Urals in the Soviet Union are threatened by Finnish-style forest industry. Gosplan, the Soviet Union's central planning authority, is considering ordering a forest management plan from the Finnish consultancy concern Jaakko Pöyry, which received world-wide notoriety when it offered forestry planning to Sri Lanka as a form of Finnish aid (see *Oryx*, 22, 234). Finnish forestry methods call for an extremely dense road network and can have drastic effects on wildlife. *Suomen Luonto*, No. 8, 1989.

Finnish wetland in jeopardy

Meadowland fronting Vanhankaupunginlhti Bay in the Helsinki Metropolitan Area, Finland, is being targeted for building new housing covering 10 ha. Some 5000 pairs of birds, including some rare species, nest in the area and the bay is a regular stop-over for passage migrants. Conservationists are opposed to the plan, which would destroy an important wildlife area in an otherwise

heavily populated region.
Suomen Luonto, No. 1, 1990.

Cottage threat to seal

One of the most important breeding areas for the endangered Saimaa seal *Phoca hispida saimensis* in Finland is threatened by a summer cottage development. The area, Kotosselkä, is in a more or less pristine condition, but is owned by Enso-Gutzeit, Finland's second largest wood-processing company. Prices of lakeside sites have risen considerably in recent years, and the 150 km of shoreline involved is worth 100 million Finnmarks (£15 million). Environmentalists have collected a 39,000-signature petition against the proposal.
Suomen Luonto, No. 7, 1989.

How safe are 'safer' pesticides?

New safer pesticides can kill birds in a 'cocktail' effect, according to the UK's Natural Environment Research Council. For example, malathion is relatively harmless to birds when used alone but can be lethal to birds exposed to prochloraz, a fungicide of low toxicity. Other fungicides have also been shown to enhance malathion toxicity, but there is no legal requirement to test interactive effects of pesticides in the environment.
The Guardian, 14 December 1989.

License to kill endangered geese

The Department of Agriculture and Fisheries for Scotland (DAFS) has granted licences to shoot Greenland white-fronted geese *Anser albifrons flavirostris* on the Hebridean island of Islay, despite the fact that the species is protected under the

Wildlife and Countryside Act, 1981, and the EC Directive on the Conservation of Wild Birds. Islay supports approximately one-third of the world population of these geese and it is also the site of the successful DAFS/Nature Conservancy Council scheme to scare geese away from crops. Conservationists are concerned about DAF's decision, particularly as the Greenland Government now takes its responsibilities towards the conservation of the goose very seriously and has designated five Ramsar sites to protect its breeding grounds.
The Wildfowl and Wetlands Trust, 23 January 1990.

Pilot scheme for farm wildlife

Farmers in seven eastern counties of England are to be paid to convert land for wildlife or recreational use under a pilot scheme administered by the Countryside Commission. The scheme stems from European Community efforts to cut surpluses, which involves the Ministry of Agriculture paying farmers £200 per ha to leave land fallow. The Commission is topping up this payment with grants to plant hedgerows, to create meadowland and to provide habitat for ground-nesting birds. However, the scheme has only a 5-year life, after which any improvements could be swept away and habitat restoration could become uneconomic just as it was becoming successful.
The Guardian, 28 December 1989.

Bird deaths cause government action

Of 185,000 birds imported into the UK in 1988, 5000 were dead on arrival and a further 21,000

died in post-import quarantine, according to a survey by the UK Ministry of Agriculture, Fisheries and Food. As a result of the report the British Government has announced a package of new measures designed to protect the welfare of imported exotic birds. MAFF officials will visit major exporting countries to assess how effectively they enforce international standards for the transport of live birds and whether it is necessary to impose additional conditions or to stop imports from certain countries altogether.
MAFF, 21 December 1989.

Earthwatch Europe—new office

Earthwatch Europe, which was described in *Oryx*, 23, 27, has a new Executive Director, Brian Walker, and has moved into new offices: 1st Floor, Belsyre Court, 57 Woodstock Road, Oxford OX2 6HU.

Switzerland's 500th reserve

On 15 August 1989, the Swiss League for the Protection of Nature launched its 500th nature reserve, Haumüli, which covers 7.3 ha in a valley near Zurich. Most of the 500 reserves are quite small and require constant supervision; together they account for only 1 per cent of Switzerland's area.
IUCN Bulletin, July–September 1989, 9.

Tortoise site in danger

The coastal heaths near lake Alyki in northern Greece support the largest concentration of Hermann's tortoise *Testudo hermanni* in Europe and a rich community of 21 species of herpetofauna. In 1980 a deliberate fire and subsequent ploughing halved the number of adult

tortoises, from about 3000 to 1600, but in 1984 the heath was the subject of a Presidential Decree, which in theory safeguarded it for ever. However, in 1989 the heath was once again burnt and ploughed. The severity of the resultant destruction will be evaluated this year, but it is hoped that even after this second fire Alyki will still have considerable importance. It is vital that it receives effective protection.

Dr A. Hailey, Department of Physiology, The Medical College of St Bartholomew's Hospital, Charterhouse Square, London EC1M 6BQ, UK.

Monk seal society

The Hellenic Society for the Study and Protection of the Monk Seal has just been set up with a view to co-ordinating the various programmes and schemes in Greece on behalf of the monk seal *Monachus monachus*.

Hellenic Society for the Study and Protection of the Monk Seal, Mikonou 30, GR-157 72 Zografou, Athens.

Monk seal project

A WWF-International project for the protection of the Mediterranean monk seal *Monachus monachus* in Kefalonia, Greece, has evolved from earlier research by the Sea Mammal Research Unit in Cambridge, UK and the Institut Royal des Science Naturelles de Belgique. Researcher Alikí Panou realized that many people were completely unaware of the seals in the Ionian Sea, even though they sometimes swam into Argostoli harbour. This was remedied by a public awareness campaign, which has been greatly facilitated by Ms P. Vasala, a teacher



Black vulture—still threatened in Spain (*J. and C. de Prada Redondo*).

who has been highly praised for her work in promoting environmental education locally. The project is also collecting records of seal sightings and investigating the interaction of seals with fisheries.

Alikí Panou, Kefalonia, Greece.

Black vultures still under threat

Intensive surveys in the Toledo Mountains in central Spain in 1986-87, found 85-90 breeding pairs of black vultures *Aegypius monachus*, the second most important breeding colony of this species in the world.

Although the species has a wide distribution, from Spain to China, there are probably fewer than 2000 breeding pairs in the world, about 400 of these being found in 21 colonies in Spain. The Toledo Mountains have ideal habitat for the species, and much of the land is a large hunting estate whose owner is largely sympathetic to the birds. The population is under threat from a proposed shooting range for the airforce. This had been planned for the Cabañeros, the heart of the area, but public pressure resulted in this being declared a natural park and a new site being

found 20 km away. This is still too close: the noise and disturbance could cause the vultures to desert their nests, machine gun shells could cause forest fires, and vultures could collide with planes.

J. and C. de Prada Redondo, Mirueña II, 28024 Madrid, Spain.

Wolf recovery

After some years of depression the Iberian wolf *Canis lupus* population is recovering. In Portugal legal protection is estimated to be saving some 15-20 animals a year. However, 15-20 animals still fall victim each year to illegal hunting, traps and poison. It is estimated that there are now 150-200 wolves in Portugal but they remain vulnerable while habitat protection remains inadequate. Also compensation for wolf damage to livestock between April and December 1989 has not yet been paid because the National Parks and Forestry Service has been unable to agree responsibility. This encourages those who wish to bring back wolf hunts. In Spain the recovery has been greater because there are more wild areas and more natural prey; perhaps 700 wolves survive

there. Shooting, trapping and poisoning continue but conservation in Spain is now assisted by a 1000-strong Civil Guard trained to protect wildlife and combat poachers. In addition compensation is being paid to farmers who suffer wolf damage. *Grupo Lobo Newsletter*, 1–2, 1990, 1–2.

Fight for Turkish turtle site

The 40 families of Patara on the Mediterranean coast of Turkey have been fighting to prevent the building of luxury hotel, a complex of 400 bungalows and shops, and an airport. A road has already been built to carry the construction vehicles and in January the foundations of a 7-storey hotel were laid on the beach, which is one of the 17 most important nesting sites for loggerhead turtles *Caretta caretta* in the country. No environmental impact assessment has been done. Last summer the villagers collected 2000 signatures from tourists for a petition begging the government to protect the loggerheads of Patara. The site is also of archaeological importance.

Lily Venizelos, Founder, MEDASSET, 3 Merlin Street, 106 71 Athens, Greece.

Plea for flooding

A plea has been made for Amik Gölü, near Turkey's Syrian border, to be reflooded and designated a national park. Before its final drainage for agriculture in 1975 it was famous as Turkey's sole breeding site for the darter *Anhinga melanogaster*, but the wetland was also important for a great variety of other breeding and migrating birds—190 species in all. Drainage of the lake, which once covered 350 sq km, has also been an economic disaster because it has adversely affected the fertility of the

surrounding plains. Reflooding the dried lake bed to create a new Turkish national park could be of immense value to birds and could be a model for the whole Middle East.

Ornithological Society of the Middle East Bulletin, 23, 5–6.

Factory threatens delta

A huge deposit of chrome ore has been found in the Taurus Mountains near Adana in southern Turkey. The amount is three times greater than the total of all other known deposits in Turkey and it is said that a ferro-chrome factory will be built at Yumurtalik on the edge of the Ceyhan Delta, which is of international importance for birds. The lagoons at Yumurtalik are important for migrating waders and the beaches are important for nesting turtles.

Ornithological Society for the Middle East Bulletin, 23, 40.

Fly invasion

The accidental introduction of the American screwworm fly *Cochliomyia hominivorax* into Libya, apparently on imported sheep, could be devastating for African wildlife. Breeding populations are now established and other countries could be affected. The female fly lays eggs in even small wounds and opens the way to secondary infections, which can lead to death. Livestock can be treated and cured, although frequent inspection is necessary, but wild animals are very vulnerable; particularly severe is the infestation of the umbilicus of newborn animals. The only known way to eradicate the fly is to breed and release millions of sterilized males; this method was used in the southern US, but it is very costly.

Gnusletter, September 1989, 8–9.

AFRICA

Zambian wildlife scheme working

Zambia's Wildlands and Human Needs Programme was set up by the National Parks and Wildlife Service to gain the support of local people for conservation. Surrounding Zambia's 18 national parks are 32 game management areas, which support both significant wildlife resources and human needs. Under new government policy wildlife revenues earned in game management areas are shared between wildlife management costs and community improvement projects. Since 1987 250 residents have been trained as village wildlife scouts in 12 game management areas. Poaching is declining in these areas and conservation is gaining public support. *Zambian Wildlands and Human Needs Newsletter*, September 1989.

Pilot project for people and wildlife

A pilot conservation extension project at Purros in south-west Kaokoland, Namibia, in which about 60 semi-nomadic people receive fees from tourists who come to see wildlife has proved very successful in its first year. Although the long-term benefits of the approach are still to be seen, the local people's attitude to wildlife has already become more positive and there has been a revival of interest in traditional skills. *Quagga*, No. 27, 1989, 21–28.

Dehorning not damaging

Conservationists involved in dehorning black rhinos *Diceros bicornis* in Damaraland, north-west Namibia, have judged the

operation, which was carried out between March and June 1989, a success. They chose the method as being less risky to the rhinos than translocation. The dehorned rhinos were monitored for several months to see if the lack of horns affected their social interaction, their ability to defend themselves or their feeding habits, but no ill-effects were observed. Two calves have been born to dehorned mothers and there is no more poaching in Damaraland; the poachers have moved north to Etosha. *New Scientist*, 18 November 1989, 32.

Land gift to Kruger

The Kruger National Park in South Africa is to be enlarged by 300 sq km thanks to a gift of land from a South African businessman, Hans Hoheisen. The land is valued at R17 million and is one of the few areas in private hands in South Africa where elephants are still wild. *Our Living World, South African Nature Foundation*, No. 18, 1.

Mining in the Kalahari

The Botswana Government has allegedly granted prospecting licences to three mining companies in the Central Kalahari Game Reserve, permitting them to search for diamonds and oil without being required to make environmental and social impact statements. Vegetation has been damaged by 2500 km of cut lines, and survey tracks are opening up remote parts of the reserve to cattle. In addition, the government is trying to move the 1000 Basarwa Bushmen and 300 Bakgalagadi out of the reserve without providing suitable alternative land, and the increase in tourism is said to be damaging the fragile habitats. The cattle fences of the

1960s, which caused the deaths of so much wildlife prevented from traditional migrations to water, are still in place but now conservationists welcome them to protect the reserve from cattle, which have devastated their own range. The reserve's grazing is in good shape and the European Community is establishing water boreholes inside the reserve. *Gnusletter*, September 1989, 13.

Public's chance to grow endangered species

The Laboratory for Endangered Plants at Kirstenbosch National Botanic Garden is helping to fund its research on the micro-propagation of rare and endangered plants by offering certain endangered plants for sale to the public. The plants are sold growing on nutrient agar and come with information on their history, growing conditions and how to transplant them into the soil. The first two plants to be offered are wild ginger *Siphonochilus aethiopicus*, which is nearly extinct in Natal, and pineapple flower *Eucomis bicolor*, which faces local extinction because of commercial gathering by herbalists. *Veld & Flora*, September 1989, 75.

Lemur rediscovery

The hairy-eared dwarf lemur *Allocebus trichotis* has been found by Bernhard Meier, a West German zoologist, during an expedition to a rain forest in northern Madagascar in 1989. At 30 cm long and 80 g in weight, it is one of the smallest primates and until this rediscovery was known only from five specimens, four collected last century and one that had died in captivity. *New Scientist*, 27 January 1990, 33.

ASIA (EXCLUDING INDO-MALAYA)

Raptor restoration on Mt Carmel

Tel Aviv University plans to expand raptor-breeding facilities in order to reintroduce nine species of raptors to Mt Carmel, which once had the largest concentration of breeding raptors in Israel. Apart from the short-toed eagle *Circaetus gallicus* and the hobby *Falco subbuteo*, the raptor population of Mt Carmel was wiped out in the 1950s by secondary thallium sulphate poisoning. Only the kestrel *Falco tinnunculus* has made a comeback without human assistance. *Sinai Newsletter*, October 1989, 1.

Amur leopard project

The Amur leopard *Panthera pardus orientalis* is almost extinct: there are no more than about 20 in the Soviet Far East and adjoining areas of north-east China. The State Nature Conservation Committee in the Primorye Territory of the Soviet Union plans to start a leopard project in 1990–1991 and hopes to reintroduce surplus leopards from the captive breeding programme, which is co-ordinated by Riverbanks Zoo in South Carolina, USA. There are problems, however: the 82 animals in captivity descend from nine founders captured from the wild and 74 per cent of the genes in the current captive population are from just two founders, one of which is of suspect origin. A wise rehabilitation programme for this subspecies would need to consider removing some animals from the current wild population for captive propagation. *Cat News*, January 1990, 3–4.

INDO-MALAYA

Bustard ban

A complete ban on the trapping and hunting of houbara bustards *Chlamydotis undulata* and falcons in Baluchistan Province, Pakistan, has been in effect since 22 October 1989.

Natura, WWF Pakistan

Newsletter, December 1989, 9.

A project for tigers and people

The Ranthambhore Tiger Reserve in India covers only 500 sq km but because of good management has a population of 36 tigers. Every year in the dry season when grazing outside the reserve fails, thousands of cattle are moved into the park, and there have been clashes between park staff and villagers, with the armed police being called in. To solve this problem, a foundation has been established to improve the conditions of people living around the reserve. A mobile clinic, which also provides family planning facilities has been provided, grazing areas outside the park are to be rehabilitated and high-milk-yielding buffalo, which can be pen fed, are to be made available to replace foraging cattle. One village has been provided with solar power and a forestry farm has been started. Children are being taught about the reserve and taken to visit it. The Ranthambhore Project is intended as a pilot project, which could be extended to other reserves with similar problems.

Cat News, January 1990, 14, 19.

Rhinoceroses killed

Poachers killed at least 25 greater Indian rhinoceroses

Rhinoceros unicornis in the Kaziranga National Park in Assam, India in 1989, according to Assam's Forestry Minister, who says that about the same number are slaughtered by poachers every year. *Agence France Press/Monitor*, 6 December 1989.

Conflict at Pabitara

The greater Indian rhinoceros *Rhinoceros unicornis* population of Pabitara Wildlife Sanctuary in Assam, India, is facing a new threat because of efforts for another endangered species. The sanctuary covers only 16 sq km, but there are plans to fence 1 sq km in order to provide a release site for captive-bred Manipur brow-antlered deer *Cervus eldi eldi*. The plan will be detrimental to the 70 rhinos in the sanctuary, which are already under pressure from poaching, competition with domestic stock for grazing and human disturbance. Although the deer need a second home (the only wild population is at Keibul Lamjao National Park in Manipur), there are other suitable grassland areas in Assam where reintroduction of the deer would not jeopardize rhino conservation.

Anwaruddin Choudhury, Assam, India.

Mugger move

The Government of India has agreed to export 200 young mugger crocodiles *Crocodylus palustris* from the country's crocodile rearing programme to Pakistan, where they will be used to stock sanctuaries. The species occurs in two provinces in Pakistan, Sind and Baluchistan, where they have suffered from severe hunting pressure in the last few decades. Some populations in Sind are now secure, but most

of those in Baluchistan are threatened with local extinction. Many are killed by local villagers for fun or out of fear, by fishermen to protect fish stocks, or by farmers to protect livestock. The Government of Sind Province has declared an area of 200 sq km, which has about 30 lakes and swamps, as a crocodile sanctuary and plans to breed and release crocodiles and gharials into areas where they occurred in the past. *Crocodile Specialist Group Newsletter*, July–September 1989, 5–6.

Nicobar national biosphere reserve

The Government of India has gazetted a national biosphere reserve to protect forests in the Nicobar Islands in the Bay of Bengal. It is 885 sq km in area including a core zone of 520 sq km. Agroforestry and agriculture will be permitted outside the core area.

IUCN Bulletin, July–September 1989, 8.

Trade in severed heads

The trade in heads of gibbons expressing the agony of a painful death continues in Thailand despite a recent Forestry Department crackdown on illegal wildlife trade. To achieve the agonized expressions, live gibbons are injected with formalin before their heads are severed. Many heads are exported and the more tortured the expression the more attractive they are to buyers.

The Nation (Bangkok), 10 December 1989.

Storm's stork

The second nest ever discovered of the endangered Storm's stork *Ciconia stormi* was found

in April 1989 by a team surveying the Sembilang area in southern Sumatra. Large scale modification of swamp forests in South East Asia has brought this species to the brink of extinction. It is known to be resident in Thailand, Malaysia, Brunei and Indonesia and the first nest ever found was in 1986 in Thailand. The Sembilang area has the last extensive swamp forest ecosystem in the Indo-Malayan region. A study by the Indonesian Directorate General of Forest Protection and Nature Conservation, the Asian Wetland Bureau and the Environmental Study Centre of Sriwijaya University has revealed that Sembilang is home for 35 globally threatened species. A proposal has been made to declare 3875 sq km of the area as the Sungai Sembilang Wildlife Reserve. *Asian Wetland News*, 2, 1, 14.

Chocolate production threatens tigers

The Sumatran subspecies of tiger *Panthera tigris sumatrae* is under a great deal of pressure from hunting and habitat destruction. One trapper, for example, confessed to killing 30

tigers in one year. Most of the skins are sent to Singapore and from there on to Taiwan and elsewhere. Sumatra also receives about 600,000 additional people a year under the transmigration programme. Only 3 per cent of Sumatra's lowland forests, which have a high density of carnivores, remain and these are under severe pressure. For example, the World Bank has recently funded a programme to convert a tiger-rich area of lowland forest to cocoa plantations for chocolate production. *Cat News*, January 1990, 8-9.

Illegal hunting in Sumatra

The military authorities in Lampung, southern Sumatra, arrested at least 62 people from Jakarta who were hunting protected species in the Lampung conservation forests. The hunters included prominent government officials, business men and members of the Indonesian Hunting and Shooting Association, and they had originally obtained a 'recommendation letter' from Jakarta Police Headquarters to hunt for wild pigs in other parts of the province. It is believed that the hunters, who

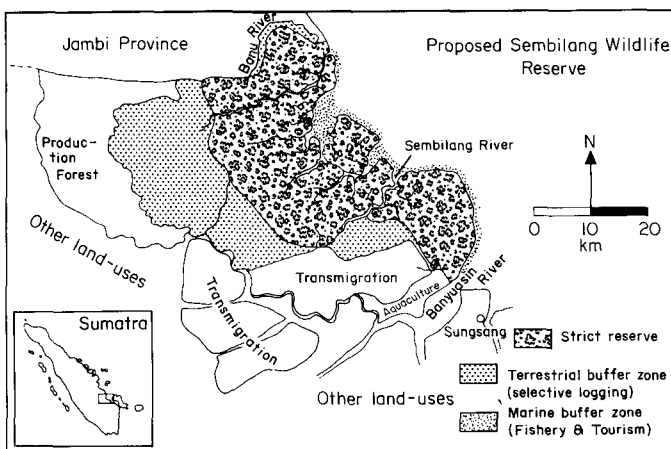
were all released after stern warnings, had killed elephants, deer and rhinos. *Jakarta Post*, 31 October 1989.

Repercussions of logging ban

The effect of Thailand's logging ban, which caused conservationists to rejoice in early 1989, has caused timber merchants to cross the borders into Burma, Laos, Vietnam and Cambodia in search of more virgin forest. There are signs of a backlash in that in August Burma decreed that there would be no further expansion in the trade and Laos is talking of reimposing its own logging ban. *BBC Wildlife*, October 1989.

Move against timber boycott call

Officials of the Association of South East Asian Nations (Brunei, Indonesia, Malaysia, the Philippines, Singapore and Thailand) have stated that they would recommend the regional group's economic ministers to send a ministerial-level mission to Europe to counter calls by environmental groups for a boycott of imports of tropical hardwoods. *Agence France Press/Monitor*, 29 November 1989.



Map showing location of proposed reserve at Sembilang.

NORTH AMERICA

Wolf hunt in Alaska

Wolf *Canis lupus* 'control' is to be continued in Alaska by allowing aeroplanes to be used for 'land and shoot' hunting, even though this method was opposed by 70 per cent of those testifying at the November 1989 meeting of the Alaska Board of Game. The killing is also to be allowed in national park preserves. The Board is unwilling

to accept that this method of wolf control makes illegal killing easier despite many charges brought by the US Fish and Wildlife Service. *Grupo Lobo Newsletter*, No. 1–2, 1990, 5.

Cormorant cull

Quebec's Ministry of Recreation, Fish and Game has approved a 5-year plan to shoot 10,000 double-crested cormorants *Phalacrocorax auritus* and destroy 60–70 per cent of the eggs from 20 island rookeries in the St Lawrence River, some of them within a national wildlife area. An unexplained explosion in the cormorant population has taken place in recent years; the birds' droppings are killing off vegetation—especially conifers—and the Ministry claims that the birds are destroying nesting habitat for other species as well as creating conditions favourable to the spread of avian cholera. Both factors reduce eider *Somateria* spp. populations—a cause for concern to the lucrative eider-down industry. *Canadian Nature Federation Almanac*, Summer 1989, 2.

More pulp mills in Alberta

A new forestry boom in Alberta, Canada, is angering conservationists. The Alberta Government has granted approval for construction of eight new pulp mills, and the expansion of others, in the relatively undeveloped northern part of the province. The decision was made without public input, without any stated commitment to conservation of key natural resources and without a scientifically valid environmental impact assessment. Pollutants from the pulp mills will affect river life and at least

300 chlorinated compounds have been identified in the effluent.

Canadian Nature Federation Almanac, Summer 1989.

Garter snake collecting ban

The Manitoba Government has announced a 1-year ban on the commercial harvesting of red-sided and western plains garter snakes, *Thamnophis radix haydeni* and *T. sirtalis parietalis*. The snake population has fallen in recent years because of excessive harvesting and drought. The Ministry of Natural Resources will use the year to devise new harvesting policy and plans to protect winter den sites. About 68,000 snakes have been caught each year for medical research.

The Globe and Mail (Toronto), 23 August 1989.

Bounties for wolves

In Canada the Alberta Fish and Game Association, a private hunters' group, is offering bounties in order to increase the number of wolves *Canis lupus* killed in the province. Its aim is to kill half the total wolf population, estimated to reach 5000 at its highest summer point, annually.

Grupo Lobo Newsletter, No. 1–2, 1990, 6.

New reserves in BC

British Columbia has announced the creation of five new ecological reserves in the Tsitika watershed on Vancouver Island, and six new provincial maritime parks. The Federation of BC Naturalists, which supplies wardens to about 80 per cent of the ecological reserves, welcomed the announcement, but said that the five new reserves are insufficient. They protect valuable

samples of forest, wetland and alpine habitat but do nothing to protect the integrity of the watershed. Naturalists have long advocated protection for the entire Tsitika watershed because it rises behind Robson Bight, internationally known for its killer whale *Orcinus orca* rubbing beaches.

Canadian Nature Federation Almanac, Fall 1989.

Zebra clam population explosion

The zebra clam, a native of the Caspian Sea, is reproducing so rapidly in Lake St Clair in the Great Lakes region between Canada and the USA, that water pipes are becoming clogged. The clam, believed to have entered the Great Lakes in the ballast of a European freighter, was not present in 1983 but now forms a patchy carpet on the bottom of the lake with densities of 160,000 per sq m in places. The clams have been blamed for killing native clams and there is concern that they may threaten the ecosystems of other lakes.

Marine Pollution Bulletin, November 1989, 542.

Burying beetle listed

The American burying beetle *Nicrophorus americanus* is the largest member of its genus, measuring up to 36 mm in length. It was once widely distributed throughout eastern North America but has disappeared from most of its historic range. Only two populations are known today, one on an island off the coast of New England and the other in eastern Oklahoma. The New England population numbered 520 beetles in 1986, but the size of the recently discovered Oklahoma population is unknown. The cause of its

decline is unknown and it was listed as an endangered species in 1989 by the US Fish and Wildlife Service.

Endangered Species Technical Bulletin, August 1989, 8.

Whooping cranes

The total number of whooping cranes *Grus americana* in the world at the end of 1989 was 214, 15 more than in 1988. Of these, 146 are in the flock that migrates between Aransas, USA, and Wood Buffalo, Canada, 13 are in the Rocky Mountain experimental flock and 55 are in captivity.

Grus Americana, January 1990, 1.

Dolphin-safe tuna sought

A coalition of environmental groups in the US is urging tuna canners to disclose on product labels whether the fish was netted using practices that may also harm or kill dolphins.

Schools of dolphins and tuna are found feeding together on the same kinds of food and some fishermen use the visible dolphins to find tuna. The problem is particularly acute in the eastern tropical Pacific, where 14,000 dolphins die in US nets alone each year.

Los Angeles Times, 30 November 1989.

Rare goats vs. rare plants

Mountain goats *Oreamnos americanus* in Olympic National Park, Washington, USA, are destroying native plants, including some that are rare, and a controversy is raging about what to do. The Park Service tried using helicopters and tranquilizer guns to move the goats to other mountain ranges, but this cost \$800 per animal and many goats died during handling. New plans to

shoot the goats, starting in 1991, which would cost only \$40 per goat, are being opposed by the Fund for Animals, which agrees with saving the plants but not at the expense of the goats. Some conservationists believe that controlled sport hunting to remove the excess goats should be allowed, as used to be done before the Olympic Mountains had park status.

Outdoor News Bulletin, 3 November 1989, 1–2.

Grizzly recovery

A 20-year effort by the US National Park Service to minimize contact between people and grizzly bears *Ursus arctos* is succeeding. When the Service closed Yellowstone National Park's rubbish dumps in 1967 and began to educate park visitors about how to keep the bears from associating food with people, critics feared that the bears would be unable to adapt to a natural existence. However, the bears not only adapted but now occupy a larger part of their habitat than before. There are now nearly 50 females of breeding age, up from about 30 in 1983, and 115 cubs have been born in the past 3 years. At least 200 bears inhabit the 3885 ha of the grizzly recovery area.

International Wildlife, January–February 1990, 28.

Setbacks to lynx programme

Reintroduced lynx *Felis lynx* in New York's Adirondack Mountains are not staying in the high mountains, but wandering into areas where they are likely to encounter people. Of 18 animals brought in from Yukon, four have been killed on roads, one was shot by a farmer who found it raiding his chicken

coop and a sixth died of unknown causes. Despite the setbacks 24–30 more lynx will be released this winter at several sites in the Adirondacks. The lynx disappeared from New York State a century ago when logging destroyed its habitat.

International Wildlife, January–February 1990, 28.

Shark protection

The US National Marine Fisheries Service has proposed protective measures for sharks, which are expected to come into effect in July. Sharks have become a popular food and are rapidly becoming scarce along the eastern coast of North America. Shark fishing along the East Coast, the Gulf of Mexico and the Caribbean has increased from 1000 tons in 1979 to 6380 tons in 1988. The new rules would permit recreational shark fishermen to keep only one shark a day and commercial fishermen would have to limit their annual catch to 1988 levels. Sharks are slow to reproduce and are being caught faster than their population is replenished.

The Washington Post, 9 November 1989.

Ranch purchase biggest ever for wildlife

The Nature Conservancy has bought the 1300-sq-km Gray Ranch in Hidalgo County, New Mexico. Believed to be the largest private land acquisition in conservation history, the ranch encompasses 90 per cent of the Animas Mountain range and harbours a greater diversity of mammal species than any existing park or wildlife refuge in the US. It also provides habitat for 100 species considered endangered, threatened, rare or sensitive. The southern border

is also the US border with Mexico.

The Nature Conservancy, 1815 North Lynn Street, Arlington, Virginia 22209, USA.

Hurricane hits endangered species

Hurricane Hugo, which took a terrible toll in human life in September 1989, also had a devastating impact on several endangered species. In the Francis Marion National Forest, South Carolina, the storm dealt a catastrophic blow to one of the US's three stable populations of red-cockaded woodpeckers *Picoides borealis*. About half the nest trees were destroyed and 25–75 per cent of the woodpeckers themselves may have been lost. The storm also downed about half of bald eagle *Haliaeetus leucocephalus* nesting trees on South

Carolina's coast and affected habitat of the rare Bachman's warbler *Vermivora bachmanii*. *National Wildlife*, December 1989–January 1990, 29.

Muskrat predation on mussels

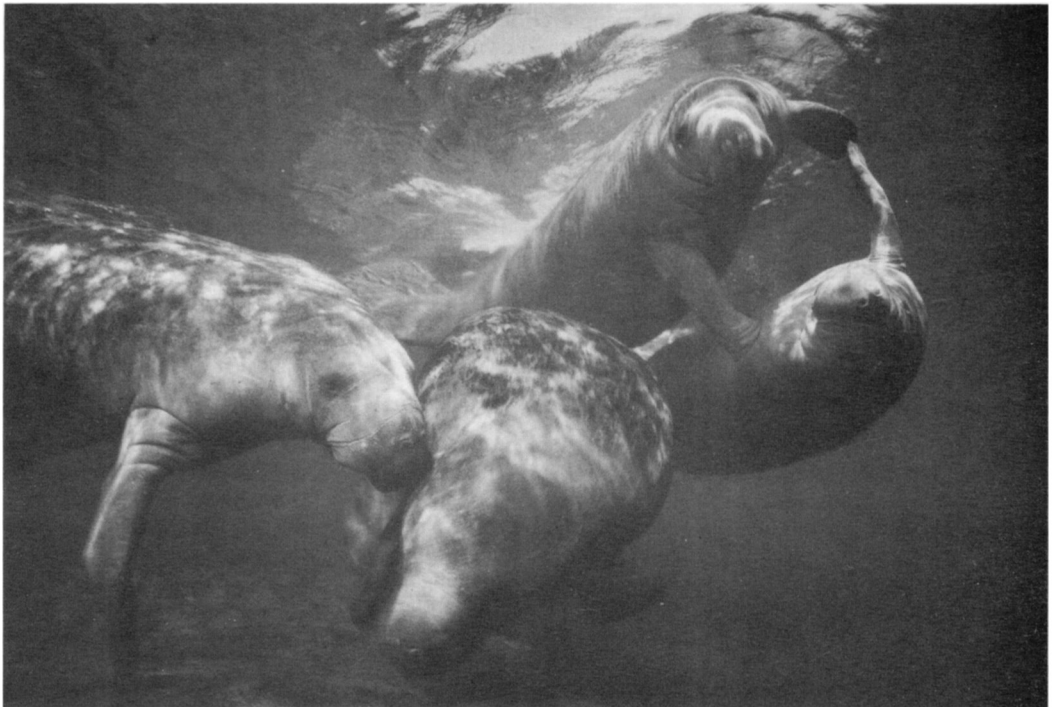
The general decline in populations of endemic mussels in the upper Tennessee River drainage in the eastern US has been attributed to water quality degradation and habitat loss. However, predation by muskrat *Ondatra zibethicus* is now a cause for concern for isolated populations of endangered mussels. A recent study showed that muskrat predation on shiny pigtoes *Fusconaia cor* in North Holston Ford and North Fork Holston River threatens to extirpate the species and it has been suggested that muskrat populations

should be controlled.

The Journal of Wildlife Management, October 1989, 934–941.

Florida cougar experiment halted

An experiment to find out if the critically endangered Florida cougar *Felis concolor coryi* could survive outside its current limited range in the Everglades has been halted. Seven Texas cougars, a closely related subspecies, were released in 1988 and 1989 in northern Florida where the last sighting of a wild Florida cougar occurred in the early 1960s. One died of unknown causes, two were shot by poachers and a fourth had to be killed when injured during capture. However, the experiment did show that the Osceola National Forest, west of Jacksonville, appeared to



West Indian manatees in Crystal River, Florida (from the *Sierra Club Endangered Species Postcard Collection*, Sierra Club Books 1988, Random House UK, £6.50).

provide suitable habitat. It is still to be decided whether to release Florida cougars in northern Florida. Fewer than 50 are believed to survive and most recent deaths have been caused by vehicles. The National Park Service has proposed limiting hunting of deer and other prey species in the Big Cypress National Preserve to ensure the cougars' food supply.

Cat News, January 1990, 17.

Balloon ban

Florida passed a law in 1989 imposing a \$250 fine for releasing more than 10 helium-filled balloons at one time. Lawmakers in Delaware, Wisconsin and Connecticut are following suit. The moves follow protests from environmental groups about the damage to wildlife from balloons—whales and sea turtles eat them and birds become entangled in the strings. Florida's law exempts biodegradable balloons and the state's Marine Fisheries Commission is determining whether the most common latex balloons fall within that category.

The Wall Street Journal, 18 December 1989.

Florida manatees face extinction

At least 160 manatees *Trichechus manatus* died off Florida in 1989, at least 51 in boat collisions. Fewer than 1200 now inhabit the waterways of the state compared with an estimated 10,000 or more in the 1940s. Loss of habitat from development and pollution combined with a massive increase in the number of boats spell doom for the animals unless strict conservation and boating regulations are instituted.

Monitor, 2 January 1990.

CENTRAL AMERICA

Migratory bird declines

Birds that migrate between North America and Central America appear to be declining in numbers. The North American Breeding Bird Survey gives population trends of 400 species and since 1980 numbers of many species have been falling, especially those that winter in tropical forests. Other reasons for the declines may be the breaking up of northern forests into a complex mosaic open to nest predators, such as cowbirds.

New Scientist, 3 February 1990, 29.

Mexican wildlife threatened by pollution

More than 380 animal species and 580 plant species are on the verge of extinction in Mexico because of pollution, according to the Agriculture Department, which says that 5 million tons of air pollutants and 52,000 tons of solid wastes are pumped into the environment annually.

Los Angeles Times, 1 December 1989.

Storm damage to parrot's home

In Puerto Rico's Caribbean National Forest about half of the range of the Puerto Rican parrot *Amazona vittata* was damaged by Hurricane Hugo in September 1989. Surveys after the storm found only 23 of 47 known wild parrots.

National Wildlife, December 1989–January 1990, 29.

A bee problem

The aggressive African honeybees that have interbred with

and displaced numerous species of native bees in South and Central America could have an enormous impact on native plant and animal life. The hybrid bees, which are expected to reach the southern US soon, are not pollinating certain plants and are pollinating others ineffectively. For instance, they ignore wild tomato and potato plants.

International Wildlife, January–February 1990, 28.

SOUTH AMERICA

Colombia recognizes tribal rights

The Colombian Government has granted Indian tribes rights to one-half of the country's rain forests (one-third of the country's territory). In October a final 50,000 sq km were added to the 119,000 already in Indian hands. The Colombian Government has kept the rights to minerals and to commercial extraction, but the tribal people will administer the territory and decide, with Colombia's indigenous affairs department, who will enter it. Colombia's policy contrasts with that of Brazil, which has given Indians forest reserves but has kept title to the land and often abused it, and with those of Peru and Venezuela, which have confirmed the rights of tribal people in the forests, but have given them tracts too small to support their migratory lives.

The Economist, 25 November 1989.

Crab fishery a threat to dolphins

The fishery for king crabs *Lithodes antarctica* and false king crabs *Paralomis granulosa* off the Chilean coast is harming populations of dolphins, whales,



One of the captive breeding group of Leadbeater's possums at London Zoo (Michael Lyster/Zoo Operations Ltd).

seals and penguins. The fishery was small until the 1970s but, with the collapse of the Alaskan crab fishery, the annual catch in Chile rose from 355 tons in 1973 to over 3000 tons in 1986, the equivalent of 2.5 million crabs, most of which are exported to the USA, western Europe and Japan. Many boats carry more crab traps than is legal, ignore a regulation that only male crabs of a minimum size should be caught and disobey an order that only fish meat should be used as bait. Instead many fishermen illegally capture dolphins, whales, seals and penguins to use as bait. Commerson's dolphins *Cephalorhynchus commersonii* were the first victims and have largely disappeared from the Chilean coast.

Frankfurt Zoological Society Newsletter, October 1989, 2-3.

AUSTRALIA AND ANTARCTICA

New Zealand restores birds

New Zealand's reintroduction programme has had two recent successes. Bellbirds *Anthornis melanura* have been released on Waiheke Island, where they disappeared in about 1862, probably due to disease imported by mynahs and sparrows. The bellbirds were caught in mist nets near Rotorua from a remnant of native forest due for clear-felling. There are plans to reintroduce bellbirds into the Auckland area. Also last year 40 whiteheads *Mohoua albigilla* were released on to Tiritiri Matangi where successful restoration of tuis

Prothemadera novaeseelandiae, bellbirds, saddlebacks *Creadion carunculatus* and red-crowned parakeets *Cyanoramphus novaeseelandiae* has already been achieved.

Forest & Bird, November 1989, 2.

Public opposition to wood-chipping

The New Zealand Government has received 4448 submissions on the issue of woodchipping of native forest. Fewer than 2 per cent were in favour and most of these were from loggers. This submission tally exceeds that received by the Government on any other environmental issue and is a measure of the strong public feeling in favour of a woodchip export ban.

Forest and Bird, Conservation News, January 1990, 1.

Problems of the hoki fishery

The hoki quota in New Zealand was increased to 250,000 tonnes in 1989, which fishermen and conservationists believe is not sustainable. The fishery is also damaging populations of fur seals *Arctocephalus forsteri* on the west coast. The seals congregate at Westport's Foulwind and South Westland's Green Beach and Gillespies Beach at the same time as the hoki assemble for a mass spawning at a depth of 400 m in the Tasman Sea's Hokitika Canyon. As the fish are hauled up from the depths, seals, attracted by the noise and the spillage of offal, become entangled in the nets and drown. The Forest and Bird Society has called for a major reduction in the hoki catch and changes in fishing practices to protect the seals. Another mammal, the rare Hooker's sea lion *Phocartos*

hookeri, is threatened by the squid fishery around the Auckland Islands. The squid season coincides with the sea lion's breeding season and every year between November and February more than 100 sea lions die in the nets of Japanese, Korean and Soviet trawlers. The Forest and Bird Society is pressing for a marine mammal sanctuary that excludes trawl nets and set nets from the feeding grounds of the breeding sea lions and says that squid could be fished by jigging as in almost every other squid fishery, which would prevent sea lions being killed. *Forest & Bird*, November 1989, 8-11.

Target of 500 kakapos

New Zealand's Department of Conservation released its Kakapo Recovery Plan in July 1989. The steps to be taken over the next 5 years to rescue the world's largest parrot, *Strigops habroptilus*, will cost about \$2.3 million and it is hoped that sponsors will provide \$1.5 million. When the document was written there were only 40 known kakapos, 11 of them female (a further 3 females have been found since) in five locations (Little Barrier Island, Maud Island, Fiordland, Codfish Island and Stewart Island). The target is to have at least 500 kakapos on two predator-free islands, which would ensure the viability of the species. *Forest & Bird*, November 1989, 18-19.

Navy bans TBT

The New Zealand Navy has stopped using toxic tributyltin paints on its vessels and has banned their use in the only dry dock in the country. Since the New Zealand Government

has already banned TBT paints on boats under 25 m, the Navy's action will mean the end of the poison around New Zealand's coasts except for that leaching off vessels from overseas.

Conservation News, November 1989, 2.

Future brightens for possum

In an outstanding victory for the environment, the Government of Victoria, Australia, announced that a 2000-km road-widening scheme through the state's central highlands would be abandoned and a proper long-term planning process for the area would be instigated with full public participation. The hills are the only known habitat of Leadbeater's possum *Gymnobelideus leadbeateri* (see *Oryx* 24, 46-47). Meanwhile captive-breeding is under way for this rare species. London Zoo, the first zoo outside Australia to participate, received two pairs in 1987, which to date have produced seven live offspring. *Conservation News*, October 1989, 8; *Zoological Society of London*.

Victory for Tasmanian conservationists

By the end of 1989, one-fifth of Tasmania was listed as a World Heritage site, a great leap forward in the long battle to save the state's wilderness. Over 600,000 ha of wild country have been added to the existing World Heritage area of 750,000 ha. Formerly threatened valleys such as Lemonthyme, Upper Mersey and Little Fisher have permanent protection and part of the breeding ground of the rare orange-bellied parrot *Neophema chrysogaster*, of which

fewer than 200 individuals remain, has been added to the World Heritage nomination. The gains are a tribute to the perseverance, electoral success and dedication of Tasmania's Green Independent Members of Parliament. *Conservation News*, October 1989, 1-3.

Long-footed potoroo

Continued logging in the National Estate forests of south-east New South Wales, Australia, is threatening several species with extinction including the very rare long-footed potoroo *Potorous longipes*, which is found elsewhere only in Victoria's East Gippsland region. The forests have been the scene of protest against logging since 1969 and 750 protesters were arrested there in 1989. *Conservation News*, October 1989, 9.

OCEANIA

Guam birds live on

The Guam rail *Rallus owstoni*, which, along with other birds endemic to Guam in the eastern Pacific, became extinct in the wild because of the introduced brown tree snake *Boiga irregularis*, has bred prolifically in captivity and there are now more than 112 rails at 13 locations. There is no chance of a successful reintroduction on Guam while the snake is still present so a proposal has been made to establish an experimental population on Rota, 50 km away. Zoos in the US have also had encouraging results in breeding the Guam Micronesian kingfisher *Halcyon cinnamomina cinnamomina*: 29 were captured in 1984 and 1985 and by July 1989 30-35 king-

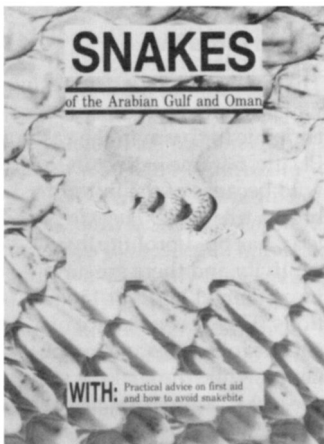
fishers had been added to the captive flock.

Endangered Species Technical Bulletin, July 1989, 4-5.

Leatherback turtles get reserve

A conservation group has succeeded in getting local people at the village of Labu Tale in Morobe Province, Papua New Guinea, to set up a reserve for leatherback turtles *Dermochelys coriacea*. Turtles dig about 300 nests a year on the beach and tourists pay the villagers for accommodation and for guides to view the nesting turtles. Turtle conservation efforts appear to be needed urgently in PNG because, although it is illegal to sell turtle eggs this is not enforced and most known nesting beaches are unprotected. *Marine Turtle Newsletter*, October 1989, 13.

PUBLICATIONS



Snakes of the Arabian Gulf and Oman

This attractive 20-page booklet has 39 colour photographs and is a guide to the 21 species of land snake and 9 species of sea

snake known to occur in the region of the Arabian Gulf and Sultanate of Oman. It aims to help people avoid the dangerous snakes and gives advice on prevention and first aid, but it also hopes to prevent the needless killing of harmless snakes. It is available from M.D. Gallagher, PO Box 668 Muscat, Sultanate of Oman for Ryals Omani 2 (including postage).

Conference proceedings available

The Proceedings of the 5th World Conference on Breeding Endangered Species in Captivity held in Cincinnati, Ohio, USA in 1988 are now available. Papers are included from speakers around the world in sessions on Rescue and Status, Management and Reintroduction, Restoration, and Recovery. Abstracts from the poster session are also included. Please send \$US25.00 per copy to: Dr Betsy L. Dresser, Center for Reproduction of Endangered Wildlife (CREW), Cincinnati Zoo and Botanical Garden, 3400 Vine Street, Cincinnati, Ohio 45220, USA. Please make cheques payable to: Cincinnati Zoo (CREW).

Environmental education in universities

Integration of Environmental Education into General University Teaching in Europe is the Proceedings of the Regional Seminar on the Integration of Environmental Concepts into General University Teaching for Europe. It was organized by the Department for Human Ecology of the Vrije Universiteit Brussel, Belgium and UNESCO-UNEP and held on 7-10 June 1989. The proceedings comprise 29 papers, 396 pp, and are available in paper-

back at 650Bfr (Dfl.41 or \$US19) from bookshops or from VUB/Press, Pleinlaan 2, B-1050 Brussels, Belgium.

Papers on CITES

The Pacific Center for International Studies has recently published three occasional papers on the Convention on International Trade in Endangered Species of Wild Fauna and Flora: *Asian Compliance with CITES: Problems and Prospects*; *CITES: The Future of International Wildlife Trade*; and *CITES and Regulation of Trade in Endangered Species of Flora: Problems and Prospects*. Each costs \$6.00 including postage from William C. Burns, Director, Pacific Center for International Studies, 33 University Sq., Ste. 184, Madison, WI 53715, USA.

PEOPLE

Lester Brown, founder of the Washington-based Worldwatch Institute, has been awarded the World Wide Fund for Nature's Gold Medal.

Dr Eric Edroma, Director of the Uganda Institute of Ecology, has been appointed Director of Uganda Parks.

MEETINGS

Ramsar Convention

The fourth meeting of the Conference of the Contracting Parties to the Ramsar Convention will be held at Montreux in Switzerland from 27 June to 4 July 1990. Details available from the Ramsar Convention Bureau, Avenue du Mont Blanc, CH-1196, Gland, Switzerland.