

INTERNATIONAL

World Heritage

Mongolia has become the 112th country to join the World Heritage Convention.

109 for CITES

Cuba acceded to CITES (effective 19 July 1990) taking reservations on two Appendix 1 species—the hawksbill turtle *Eretmochelys imbricata* and the green turtle *Chelonia mydas*. Brunei Darussalam became the 108th party (effective 2 August 1990) and Guinea-Bissau the 109th (effective 14 August 1990).

TRAFFIC USA, June 1990, 12.

Reversing the greenhouse effect with iron

The seeding of the sea with thousands of tonnes of iron could reverse the greenhouse effect and hence global warming according to a proposal put to the National Research Council in America. It is based on findings by John Martin at Moss Landing Marine Laboratories in California that the main check on marine phytoplankton growth is lack of iron. It is estimated that if 300,000 t of high grade iron could be sprayed on to seas that were otherwise nutrient rich as slow-release floating pellets the resultant increase in algal growth could theoretically remove 2 billion t of carbon each year, which would counter the 3 billion t thought to remain in the atmosphere as a result of the burning of fossil fuels and rain-forest destruction. The cost would be \$50–150 million a year. Concern about long-term effects include the possibility of an uncontrolled phytoplankton

bloom that could disrupt marine food webs; also carbon absorbed in the summer might be returned over the winter and there would be no net benefit. *Marine Pollution Bulletin*, July 1990, 313.

Ivory market declines

A WWF report, *The Effects of Trade Moratoria on International Commerce in African Elephant Ivory*, has found that prices and demand for ivory are steady or falling in the EC, US, Middle East, Africa and most of Asia, with the exception of Japan. But Japan has adhered to the ban and on 22 June confiscated 30,000 unfinished ivory name seals found in an American ship believed to have been loaded in Hong Kong. In the US the \$100 million a year market has collapsed and in China (which has exempted itself from the ban) the largest ivory factory now employs only six out of 600 employees that worked there last year. Although some illegal killing of elephants continues in Africa, Kenya has announced that poaching is down by 90 per cent from the first quarter of 1989.

WWF News, July / August 1990, 8.

Watching mussels

The International Mussel Watch Committee has been formed to develop an international system of using mussels and oysters as sentinel organisms to monitor patterns of chlorinated hydrocarbon pollution in coastal waters. Seed funding has been obtained from UNEP and UNESCO to send four teams of scientists to over 100 countries to collect thousands of samples. Further information from International Mussel Watch Committee, Scripps

Institution of Oceanography, La Jolla, CA 92093, USA. *Conservation Biology*, March 1990, 13.

Aversion therapy for mongooses

On oceanic islands the eggs of endangered species of birds are sometimes subject to predation by mongooses *Herpestes* spp. but control attempts by poisoning and trapping campaigns put native wildlife at risk. It is suggested that mongooses could be controlled non-lethally by inducing egg aversion by feeding on eggs dosed with small amounts of oral oestrogen. Egg aversion has been induced by using carbachol but the taste and scent of treated eggs is detectable and mongooses learn to discriminate. By contrast the effective dose of oestrogen in an egg is undetectably small and the illness induced comes to be associated with the egg *per se*.

Nicolaus, L.K. Dept of Biological Sciences, Northern Illinois University, De Kalb, IL 60115-2861, USA. In *Mustelid and Viverrid Conservation*, April 1990.

Orchid dealer arrested

Hans Hermans, plant dealer who for years has been under suspicion as one of the mainstays of the international orchid-smuggling network, was arrested in Belgium on 20 March in possession of 25 orchids from Madagascar, allegedly a sample of a much larger shipment of 4000 illegally imported from Madagascar to Germany. Hermans is believed to have sold tens of thousands of wild plants, shipping them in plain postal packages declared as hybrids or propagated plants. The Malaysian Government declared him *per-*

sona non grata because he was suspected of stripping Kinabalu National Park of virtually all its slipper orchids *Paphiopedilum rothschildianum*. The arrest marked the climax of a far-reaching investigation by Belgian authorities into the illegal trade in wild orchids but Hermans was released on bail and disappeared.
WWF News, May–June 1990, 3.

EUROPE AND NORTH AFRICA

Death in Divina

In the Gulf of Divina in the White Sea off northern USSR there have been reports that millions of starfish, a number of whales and porpoises and possibly as many as 100,000 seals died over a 6-week period in May–June. A number of fish species, including flatfish, smelt and cod, have also apparently moved out of the gulf, where the water is said to be highly acidic. Speculation about the cause includes radiation from a Soviet nuclear submarine (which had an accident in the area last December), drums of mustard gas dumped in the Second World War, and rocket fuel leaking from a Soviet missile base nearby, but the true extent of the calamity and its cause have yet to be determined.
BBC Wildlife, August 1990, 552.

EC regional aid threatens wildlife habitats

Increased European Community funding is threatening important wildlife habitats in several countries. For example, virtually untouched tropical rain forest in French Guiana could be at risk if a major road-building programme goes ahead, while pro-

tected wetlands in Greece are under threat by construction projects including a hydroelectric plant. In a joint report the World Wide Fund for Nature and the Institute for European Environmental Policy urge the EC to suspend or cancel aid to ecologically destructive projects. The EC is doubling spending from its Structural Funds between 1989 and 1993 to help narrow the economic gap between poorer and richer regions. Although the EC has brought in new procedures to stem ecological damage, not all EC governments can be relied upon to comply with environmental protection rules and the six-person unit at the Commission is too small to scrutinize projects thoroughly.
The Guardian, 7 July 1990.

Park safe from skiing

Finland's Pallas-Ounastunturi National Park has been removed from the IUCN list of threatened protected areas following the Finnish Ministry for the Environment's refusal to approve a new skiing area within the park.
Naturupa newsletter, 90–2, 3.

Wolf killed in Norway

In mid-June the headless body of a 1-year-old female wolf *Canis lupus* was found beside a road in Grue Finnskog, Hedmark county, Norway. This reduces the entire known wolf population of Norway and Sweden to seven.
BBC Wildlife, August 1990, 557.

UK's second marine reserve

On 6 July 1990 UK's second marine reserve was declared. Skomer Marine Nature Reserve consists of the sea-bed and shore around Skomer Island

and the Marloes Peninsula in Wales and includes 27 km of coast and 1500 ha of sea-bed. Skomer Island is already a national nature reserve and is one of the most important seal breeding sites in south-west Britain.
NCC, 6 July 1990.

British wetland secured

The Somerset Levels National Nature Reserve was declared on 8 June 1990. It—Britain's 236th—covers 300 ha of meadowlands and ditches, and in the winter the flooded fields attract large numbers of wild-fowl and wading birds.
NCC, 8 June 1990.

Research on seals and PCBs

A 3-year research programme has been launched to investigate the concentration of organochlorine compounds, including PCBs, in the tissues of seals around UK. The research will be conducted by the Sea Mammal Research Unit and financed by Rechem Environmental Services. The aims of the programme are: to develop a method for determining the total body burden of organochlorine pollutants in seals; to determine what quantity of organochlorines is passed from mother to pup; and to determine the effect of organochlorine exposure on the development of the pup's immune system.
Rechem Environmental Services, 26 June 1990.

Polish parks

Two new national parks have been created in Poland: Poleski, 44,580 ha, in eastern Poland near the border with Ukraine, is the richest wetland in the country; and Drawienski,

22,511 ha, is in the Pomerania lowland with lakes and rivers, and is a breeding area for white-tailed sea eagle *Haliaeetus albicilla*.

CNPPA Newsletter, No. 51.

Germany's fifth park

The Watten Sea area is to be Germany's fifth national park.

It covers an area of 11,000 ha along the North Sea coast. *Nature and National Parks*, 1990, Vol. 28, 106.

Repercussions of failed Italian referendum

In Italy a recent referendum to ban hunting and restrain the use of pesticides failed to

attract the 50 per cent of the electorate necessary for the result to be binding; only 43 per cent turned out. It is thought that a large number abstained because of aggressive campaigning by the hunting lobby and the arms industry. The hunting lobby had planned for the referendum succeeding by having a draft law before parliament to circumvent some of its effects. This will probably be passed in some form even though the referendum itself failed. The proposed legislation allows for private land owners to say no to hunting on their land, but it would allow hunting on public land. It is also proposed that certain protected species lose their protected status. The Italian League for the Protection of Birds is very concerned about the future of birds that will be threatened with extinction, such as the honey buzzard, marsh harrier and golden eagle.

The Guardian, 5 May 1990.

Chamois reintroduction

Efforts to protect the chamois *Rupicapra pyrenaica ornata* population of Abruzzo National Park in Italy have been rewarded by an increase in numbers: there are now 400–450 animals compared with 200 a decade ago. A herd of chamois have now been reintroduced into mountains not far from Abruzzo by WWF Italy and it is hoped that the animals will colonize the planned Maiella National Park. WWF Italy, 25 March 1990.

Egypt takes action against Maltese hunters

In April Egyptian government officials raided a hotel being used as a base for bird-killing tours by Maltese hunters and confiscated more than 150 dead



A seal pup being weighed by a scientist from the Sea Mammal Research Unit, which is undertaking new research on seals and pollution (SMRU).



This commemorative seal was issued by the Greek Post Office on 30 May 1990, the day of the inauguration of MEDASSET's (Mediterranean Association to Save the Sea Turtles, 1c Licavitou St, 10672 Athens, Greece) office in Greece. The stamp, depicting a loggerhead turtle, is one of a series depicting endangered fauna of Greece.

birds. The Egyptian tour organizer was arrested and jailed, while the Maltese organizer has been reported to other Egyptian authorities with a request that he no longer be allowed into Egypt. This is Egypt's first direct action to curb illegal hunting and it is hoped that the ban on foreign hunters bringing guns into Egypt, announced early this year by the Ministry of Tourism, will soon be implemented.

BBC Wildlife, July 1990, 486.

AFRICA

In situ conservation of teak

In south-west Zambia two forest reserves covering 36 ha between them were set up in the 1980s to conserve representatives of Zambian teak forest (Zambezi redwood) *Baikiaea plurijuga*. This valuable timber has been overexploited and is now rare. The forest where it occurs also contains other useful tree species and medicinal

plants. Providing funding can be found the reserves offer possibilities for a project to manage and use them for conservation, research, seed collection and propagation trials. Surveys are also needed throughout the range of *Baikiaea* in neighbouring countries to locate other potential areas for *in situ* conservation.

Plant Genetic Resources, FAO, 1989.

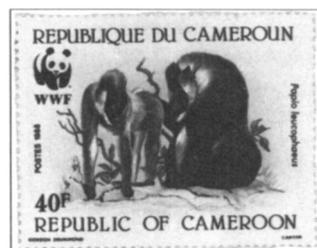
Wild dog in dire straits in Namibia

A questionnaire survey indicates that the wild dog *Lycaon pictus* is Namibia's most endangered large mammal. Although wild dogs kill only 1 per cent of total stock lost to predators, they are ruthlessly hunted even where they have caused no damage. The long-term prospects for survival are poor: in their last strongholds in Hereroland, Bushmanland and Kavango, large areas used by wild dogs are due for agricultural development. The Kaudom Game Reserve in

Kavango is the only area where they are afforded any protection; the population in the West Caprivi Game Reserve is threatened because of possible deproclamation of the reserve. Hineo, C.J.H. 1990. Past and present distribution and status of the wild dog *Lycaon pictus* in Namibia. *Madoqua*, 17, 31–36.

New reserve in Zululand

The Lake of St Lucia and Mkuzi Conservation Area in Zululand, two of the oldest reserves in Africa, are to be incorporated into a 275,000-ha game reserve, which will be the third largest in South Africa. Several state forests are to be absorbed and 50 private farms are to be expropriated. *CNPPA Newsletter*, No. 50.



The drill, subject of an Oryx 100% Fund project, is featured on this Cameroon stamp.

Rural communities manage wildlife

Zimbabwe's Communal Areas Management Programme for Indigenous Resources (known as CAMPFIRE) was initiated several years ago by the Department of National Parks and Wildlife Management but shortage of funds delayed implementation. In the last year, however, some 26 rural communities have started to manage wildlife alongside their agricultural operations. The University of Zimbabwe, WWF and the Zimbabwe Trust are

assisting in the implementation of the programme.
WWF News, May–June 1990, 3.

Palm attracts too much attention

Ravim-be or big leaf palm *Marojejya darianii* is a 15-m palm with a crown of 6-m long entire leaves. It is known from only one small mountain peat-swamp forest in north-eastern Madagascar where there is a population of about 30 mature individuals and 20 juveniles. About half the forest in the valley bottom where it grows was cleared to plant rice but the infertile area was abandoned after a single harvest. The palm is threatened by potential land clearance, by felling palms to obtain 'palm heart' and by collectors. The palm has attracted so much attention that local people are harvesting all the fruit to sell to palm enthusiasts. There is no means of controlling such seed collecting and



Ravim-be or big leaf palm, highlights many of the conservation problems faced by palms on Madagascar (drawing by Eleanor Catherine by courtesy of *The Kew Magazine*).

the species is appearing in specialist nursery catalogues: one German firm has recently offered seedlings at DM180.
Kew Magazine, May 1990, 90–95.

ASIA (EXCLUDING INDO-MALAYA)

New Tibetan reserve

A 26-million-ha wildlife reserve has been proposed for the Qian Tang region of north-western Tibet. When established the reserve will be the third largest in the world and will increase the total size of the world's protected area system by 5 per cent.
CNPPA Newsletter, No. 51.

Flats face destruction

Japan's Fujimae tidal flats are recognized as an extremely important area for migratory waterfowl but they face destruction from Nagoya City's rubbish disposal plan. Over 30 per cent of Nagoya's rubbish is recyclable but only 1 per cent receives such treatment.
World Birdwatch, May 1990, 4.

Burning ivory in Taiwan

The government of Taiwan, although not a party to CITES, has made strong efforts to stop illegal ivory trade, prohibiting all trade in raw and worked ivory on 29 August 1989. However, Hong Kong continued to issue export permits for ivory destined for Taiwan and at least two recent attempts to smuggle ivory into Japan have involved Taiwanese nationals. Taiwanese authorities then decided on a strong public gesture to demonstrate its resolve and on 22 May at Nan-jung public cemetery in Keelung 732 kg of confiscated ivory and 11 confiscated lion skins were

burned.
TRAFFIC USA, June 1990, 9.

Airport plan for Ani-Jima Island

An airport is planned for Ani-Jima Island in the Chiji-Jima Island group in the Ogasawara (Bonin) Islands of Japan. This island, unlike others of the group, is almost untouched by development and is rich in endangered species of endemic land molluscs. A group of concerned citizens, the Ogasawara Natural Environment Study Group, is concerned about the impact of the airport especially on the coral reefs and is interested in proposing better alternative sites or alternative means of transport such as high speed boats.
Sea Wind, 4 (2), 31.

INDO-MALAYA

Siberian crane numbers down

Since reaching a peak of 41 birds in the winter of 1984–85, the central flock of Siberian or great white cranes *Grus leucogeranus*, which winters in India, has been declining. Only 17 birds arrived at Keoladeo National Park, Bharatpur in the winter of 1989/1990. Crane hunting in Afghanistan and Pakistan is generally believed to be the major cause of the mortality for this flock and hunting in Pakistan is reported to have increased considerably recently. At the Asian Crane Congress held in India in December 1989 two initiatives were adopted under the 1984 Indo-Soviet Treaty on Migratory Birds. First, India and the Soviet Union would track by satellite a non-endangered crane, perhaps common

cranes wintering in Gujerat, with a view to applying this technique in the future to Siberian cranes on migration. Second, Soviet scientists would rear chicks from eggs taken from the relatively numerous east Asian flock of Siberian cranes and send them to Bharatpur for winter release in an attempt to increase India's flock. The Indian scientists resolved to restore the degraded habitat at Bharatpur and to locate additional sites where Siberian cranes winter so that they can be protected. *WWF News*, May–June 1990, 6; *ICF Bugle*, May 1990, 1.

Poachers raid zoo

Poachers killed an adult female and a male baby rhinoceros *Rhinoceros unicornis* using zinc phosphide as poison in Central Zoo, Katmandu, Nepal, on 27 January. The poachers removed the horn from the baby rhino. *Newsletter—Wildlife Nepal* No. 9.

New golden langur records

The golden langur *Presbytis geei* is rare and was believed to occur only in the hill forests on the Indo-Bhutan border. Surveys carried out in 1987–1989 by four scientists from Gauhati University have found troops of golden langurs in hill forests 100 km south of the known distribution area. Inhabitants of two villages in the area report that langurs are sometimes seen very close to the villages. Their appearance is considered auspicious and they are believed to increase crop production. Although they are not persecuted they are threatened by habitat destruction; the natural forests are being cleared and replaced with forest department plantations in which the langurs cannot survive. The scientists are

urging that the new langur sites are given immediate protection. Prasanta Saikia, M. Raj, J. Deka and P.C. Bhattacharjee, Animal Ecology and Wildlife Biology Laboratory, Department of Zoology, Gauhati University, Gawahati 781 014, Assam, India.

Sri Lanka's birds being captured for trade

Sri Lanka's native birds, some of them rare endemics, are being sold in an increasing number of pet shops in almost all the island's major towns, but especially Colombo and Kandy. Their high price restricts sales to the wealthy but even this small volume of birds in trade is of concern: many birds die in mist nets or shortly after capture. Most of the birds are legally protected but the law is not being enforced. Unless something is done to curb the trade it could develop into an even greater problem by leading to exports. Currently, permits are granted only for export of common species of parakeets but as there are no trained personnel in this field in the customs department rare species may already be going out. *Loris*, December 1989, 172–173.

Lime industry destroying reefs

The lime industry in the Kalkudah-Valaichchenai area of the Eastern Province of Sri Lanka is causing widespread destruction. Fringing reefs and coastal reef flats are being demolished and vast quantities of coral are being carted daily to the 50 lime kilns in the area. Similar loads of firewood are being brought from as far as 20 km away because hardly a tree or shrub remains in the vicinity of the kilns. All the damaging

activity is illegal but nothing is being done to stop it. *Loris*, December 1989, 154–155.

Illegal elephant skin trade uncovered

In Thailand's northern capital, Chiang Mai, there is a booming illegal trade in Asian elephant products. British, German and Japanese visitors are the traders' prime targets, although the goods are also being exported to Europe and Japan in contravention of CITES. The discovery of this market, believed to be Asia's first large-scale black market in elephant skin gifts, was uncovered by the UK-based group Care for the Wild. The elephants' skins are said to come from Burma where the Karen people, struggling for autonomy, are said to be selling skin to buy arms. Care for the Wild estimates that about 50 elephants a week are being shot, and their tanned hides taken by road to nearby Chiang Mai. The Thai Government and the CITES Secretariat are investigating the trade. *The Observer*, 29 July 1990.

Pheasant rediscoveries

The imperial pheasant *Lophura imperialis* and Vo Quy's pheasant *L. hatinhensis* were rediscovered in Vietnam in February. The imperial pheasant was previously known only from a captive pair and its offspring in the early 1920s and Vo Quy's pheasant was known only from the type specimen and a few records in the early 1960s. *World Birdwatch*, May 1990, 5.

White-winged wood duck found in Vietnam

On 5 January 1990 Dr Nguyen Cu saw a white-winged wood duck *Cairina scutulata* in Nam

Cat Tien Forest Reserve, southern Vietnam. There are almost certainly more, as these ducks spend most of their time deep in the forest where they nest in holes in large trees. The species had not been seen in Vietnam since before the war, when bombing and the spraying of the herbicide Agent Orange destroyed much of their habitat. It was formerly widespread in the lowland forests of South East Asia but forest destruction has decimated the population and there are an unknown number left in forest patches in India, Thailand and Sumatra. Apart from Vietnam there may also be populations remaining in Burma, Bangladesh and Cambodia. Dr A. Green of the Wildfowl and Wetlands Trust, Slimbridge, Gloucester, UK, is developing a conservation strategy for the species.

ASEAN Wildlife Society

The ASEAN Wildlife Society was established at a meeting held in Bogor, Indonesia on 20–21 July 1989 between delegations from ASEAN (Association of South East Asian Nations) members (Brunei, Indonesia, Malaysia, Philippines, Singapore and Thailand). The main objective is to promote conservation of wildlife in its habitat. The membership consists of professionals, students and other people interested in research on and management of wildlife. AWS, c/o The Indonesian Wildlife Society (Masyarakat Pelestari Hidupan Liar), Jalan Ir. H Juanda 18, Bogor, Indonesia.

Switching from cyanide to nets

Cyanide-using collectors of marine aquarium fish in the Philippines are being trained to

switch to small nets. In the last 20 years an estimated 1 million kg of sodium cyanide has been used on Philippine reefs, destroying reef organisms and contributing to unemployment and malnutrition. The International Marinelife Alliance Canada's Netsman Project started in January and by May nearly 10 per cent of the nation's 1500 collectors of marine aquarium fish were trained. The Filipino Haribon Foundation is managing the project. IMA Canada news release, May 1990.

NORTH AMERICA

Northern sea lions officially threatened

As a result of a dramatic decline in the number of Steller or northern sea lions *Eumetopias jubatus* in Alaska, the species was listed as Threatened on 10 April by the US Fish and Wildlife Service. Several causal factors for the decline are suspected: among them, commercial fishing may be reducing prey populations and incidental killing of sea lions in commercial fisheries in the Gulf of Alaska and Bering Sea.

Endangered Species Technical Bulletin, May 1990, 1 and 9.

Alaska's walrus hunting

There are fears that at least 12,000 walrus *Odobenus rosmarus* are being killed annually in Alaska, and many more may be being shot on the ice, and dumped in the sea after the tusks have been removed. Alaskan natives are permitted to take as many walrus as they deem necessary for their subsistence; there is no quota. Alaskans are exploring the

prospects of selling walrus hankos (signature seals) to the Japanese to replace those made of elephant ivory. A fleet of Japanese fishing boats is now in the Bering Sea and Alaskan walrus hunters on the pack ice could sell ivory to these without having to return to shore to report their subsistence hunting. In mid-June US Coast Guard boarding parties making routine safety inspections found walrus remains being processed aboard at least two American fishing vessels and the Soviet Union has lodged complaints with the US that too many headless walrus are washing up on the Siberian coast.

BBC Wildlife, August 1990, 555.

Poaching threatens cougars

Poaching cougars *Felis concolor* in British Columbia, Canada, is so serious that the species is endangered in three parts of the province—Vancouver Island, the Thompson-Nicola area near Kamloops and the Cariboo. An environment ministry report estimates that more than half the 326 cougars killed in 1988 were killed illegally. *The Province*, Vancouver, 8 June 1990.

Elimination of forests prohibited to protect owl

The US Fish and Wildlife Service has listed the northern spotted owl *Strix occidentalis caurina* as Threatened throughout its range in Washington, Oregon, California and British Columbia. The listing became official on 23 July and it prohibits the timber industry from eliminating old-growth forests from national forests and Bureau of Land Management property in the Pacific Northwest. These 200-year-old

forests were being cut down at the rate of 800 ha a week and only about 4 per cent of old growth forest remains.

Outdoor News Bulletin, 6 July 1990, 2.

Bald eagle review

The increase in the number of the US's national symbol, the bald eagle *Haliaeetus leucocephalus*—from 400 nesting pairs in the 48 coterminous states in the early 1960s to over 2660 nesting pairs in 1989—is a welcome result of the 1972 ban on DDT and the conservation efforts of federal, state and private agencies. Currently the eagle is still listed as Endangered in 43 states and Threatened in five. The US Fish and Wildlife Service is now reviewing the species's status to determine whether it should be proposed for reclassification from Endangered to Threatened throughout its range.

Endangered Species Technical Bulletin, February 1990, 3.

Measures to protect desert tortoise

The US Fish and Wildlife Service decided to list the Mojave Desert population of the desert tortoise *Gopherus agassizii* as threatened on 2 April, making permanent an earlier emergency ruling. The action will generate further restrictions in new housing construction, off-road vehicle racing, sheep and cattle grazing, and military manoeuvres.

Endangered Species Technical Bulletin, May 1990, 7.

US reclassifies chimpanzees

On 12 March the US Fish and Wildlife Service reclassified wild populations of the chim-

panzee *Pan troglodytes* as well as wild and captive populations of the pygmy chimpanzee *P. paniscus* from Threatened to Endangered. Their status continues to decline due to massive habitat destruction, commercial exploitation and hunting for food. Although both species are on Appendix I of CITES the regulations and laws pertaining to this convention are often weakly enforced and poaching to satisfy substantial international demand is still a problem.

Endangered Species Technical Bulletin, April 1990, 1.

Mussels listed

The dwarf wedge mussel *Alasmidonta heterodon* was listed by the US Fish and Wildlife Service as Endangered in March. This 3.8-cm-long mussel lives in slow-moderate flowing creeks and rivers with muddy sand and gravel bottoms. Environmental degradation has caused widespread extinctions and there are only 10 small populations remaining in five drainages in New Hampshire, Vermont, Maryland and North Carolina. On 5 April the Arkansas fatmucket *Lampsilis powelli*, a freshwater mussel that lives in deep pools and backwaters in central Arkansas was listed as Threatened. Its range has been reduced by over 40 per cent due to habitat degradation.

Endangered Species Technical Bulletin, April 1990, 12 and May 1990, 8.

California condors

The California condor *Gymnogyps californianus* recovery plan entails increasing the reproductive rate via replacement-clutch manipulation and artificial incubation of eggs. During the period 1983–1990 37

eggs have been artificially incubated at San Diego Zoo, San Diego Wild Animal Park and Los Angeles Zoo. There were 32 fertile eggs, five infertile eggs and two that were broken by the parents immediately after laying. Artificial incubation has resulted in 28 chicks hatching and the total population of California condors now numbers 40 birds, all in captivity. Cynthia M. Kuehler, Zoological Society of San Diego, P.O. Box 551, San Diego, CA 92112, USA.

Arrests made in cacti trade

In January a 4-year undercover investigation resulted in 21 people in Arizona, USA, being charged with illegal collection and trade in Saguaro cactus *Cereus giganteus*. Harvesting of these cacti is allowed when they are threatened by construction projects but officials must first determine which plants can be taken, all of which must be tagged. Demand is high—prices outside Arizona are four times those offered in the state—and the illegal harvest is substantial as a result. *TRAFFIC USA*, March 1990, 18.

Potato-bean listed

Early this year the US Fish and Wildlife Service listed Price's potato-bean *Apios priceana* as Threatened. This perennial climbing member of the Leguminosae survives at only 13 sites in Alabama, Kentucky, Mississippi and Tennessee. Most of the populations occur on private land and many are declining due to habitat modification and loss.

Endangered Species Technical Bulletin, February 1990, 3.

Mercury threat to panthers

The population of Florida panthers *Felis concolor coryi*,

down to only 35–50 because of habitat loss, reduced numbers of prey and hunting, faces another threat—mercury poisoning. The liver of a panther that died in the Everglades last summer contained over 100 ppm of mercury (the current US Food and Drug Administration action level for fish is 1 ppm). Subsequent analysis of liver samples of archived dead panthers revealed that six contained levels of 7.8 ppm or higher. The source of mercury is now being sought. One hypothesis is that mercury could be coming from the peat soils that are common throughout Florida; these are often flooded and the anaerobic bacteria found in these conditions produce methylmercury. The slow oxidation of peat and muck soils by burning, draining and other disturbances would allow methylmercury to enter the food web. Studies in Finland have traced mercury contamination to various types of disturbance of peat soil. *Endangered Species Technical Bulletin*, February 1990, 1 and 6.

Manatee sanctuary

On 1 March the US Fish and Wildlife Service established a new sanctuary for the West Indian manatee *Trichechus manatus* within Merritt Island National Wildlife Refuge in Florida. The sanctuary covers 39 sq km and is located between Cape Canaveral Air Force Station and the Kennedy Space Centre. Boats with a gas or electric motor on board are banned from the sanctuary. The decline of manatees in Florida continues, with 166 deaths in 1989, a 25 per cent increase over the total 1988 mortality. Fifty of the 1989 deaths were due to collisions with motor boats. *Endangered Species Technical Bulletin*, May 1990, 10.

CENTRAL AMERICA

Mexico halts sea turtle fishing

The Mexican Government closed down all sea turtle fisheries in its waters for an indefinite period beginning 31 May. Take, capture, persecution and disturbance of sea turtles are prohibited and 19 co-operatives agreed to neither catch sea turtles nor utilize eggs for commercial purposes. Fishermen are also prohibited from keeping sea turtles caught incidentally. *TRAFFIC USA*, June 1990, 11.

New park in Belize

On 17 May the Government of Belize established a 34,000-ha protected area in the Bladen Watershed in the Maya Mountains. The World Parks Endowment, a non-profit organization founded a year ago whose goal is to ensure the survival of the 250 environmentally richest areas in the world, will raise an endowment fund of \$200,000 to provide a continuing source of management funds. *CNPPA Newsletter*, No 51.

Ban on wildlife exploitation in Honduras

Honduras established an indefinite ban on the killing, hunting, capture, and domestic and international trade of mammals, birds and reptiles from 29 January 1990. While the ban is in place the government will conduct technical studies to determine population sizes and captive breeding status of these groups of animals. *TRAFFIC USA*, March 1990, 22.

New aid for forests

Recent elections in Nicaragua and Panama have stimulated

increased US foreign aid for those countries to help stabilize the new governments. In providing the money the US Senate agreed on prohibiting the use of funds for projects that contribute to tropical rain forest destruction. *Outdoor News Bulletin*, 44 (9), 2.

Costa Rica's sharks under attack

A Costa Rican marine reserve around Cocos Island, which is famous for its abundant hammerhead sharks *Sphyrna lewini*, has been discovered by suppliers to the shark-fin soup industry and it is feared that the resulting damage could be as bad as in the seas of the Galápagos where some shark populations were virtually exterminated before action was taken to stop the fishery. *BBC Wildlife*, July 1990, 487.

SOUTH AMERICA

New parks in Trinidad and Tobago

Two new national parks, Matura and Madamas, have been created in the Eastern Northern Range of Trinidad, which contains the remaining tracts of the island's tropical rain forest. *CNPPA Newsletter*, No. 50.

Guyana's initiative for forests

Guyana has offered 3640 sq km of pristine tropical forest to be managed in an ecologically sustainable way for the benefit of the international community. It implemented the joint Commonwealth/Government of Guyana programme has the potential to become the largest ecological research and development project carried out in

one of the richest centres of biological diversity in the world. The offer was first made in October 1989 at the meeting of the Commonwealth Heads of Government after the adoption of the Langkawi Declaration on Environment, a programme of action to counter several global environmental threats. A group of experts, led by IUCN President Dr M. S.

Swaminathan, visited Guyana in May and produced recommendations for a Programme for Sustainable Forestry, which would ensure that the biological 'capital' of the forests would provide sufficient 'interest' in the form of ecological and economic benefits. Preliminary estimates of costs are \$US200,000 to launch the programme and \$US45 million to support its first 5 years' work. Funds will be sought from donor governments, inter-governmental organizations and non-governmental organizations.

Commonwealth Secretariat, Marlborough House, Pall Mall, London SW1Y 5HX, UK.

Protection for oilbirds

On 11 December 1989 166,000 ha of pristine tropical forest were added to the existing 38,750-ha Parque Nacional El Guácharo in northern Venezuela. The new area, which is disjunct from the old, consists of a huge limestone formation with at least 20 major caverns used by the oil-bird *Steatornis caripensis*. *World Birdwatch*, May 1990, 4.

Condors released in Colombian Andes

The wild population of Andean condors *Vultur gryphus* in Colombia, estimated at 30–40 individuals, has been given a boost. In 1989 and 1990 an

additional five and nine birds, respectively, were released at three sites, which were selected on the basis of accessibility, security against human contact, historical or current presence of condors or other avian scavenger species, potential roosting and nesting sites, weather conditions, and community interest. Sites chosen were Chingaza National Park in the department of Cundinamarca, Purace National Park in Cauca, and Chiles Indian Reservation in Nariño. The sites are maintained by biologists from INDERENA (Instituto Nacional de Desarrollo de Recursos Naturales y Renovables) and by FES (Fundación para la Educación Superior) who have been trained in condor husbandry, biology and hacking techniques by personnel of the Zoological Society of San Diego, the Los Angeles Zoo, and the California Recovery Program of the US Fish and Wildlife Service. All 14 birds were the product of captive propagation in North American zoos. The eggs were hatched at San Diego Wild Animal Park and Los Angeles Zoo and the chicks were puppet-reared.

Alan Lieberman, Zoological Society of San Diego, PO Box 551, San Diego, CA 92112, USA.

Caiman sanctuary

Kaw Swamp in French Guiana was put under official legal protection on 4 September 1989. It includes a large part of the country's black caiman *Melanosuchus niger* habitat. *Crocodile Specialist Group Newsletter*, January–March 1990, 14.

Whale sanctuary for Ecuador

On 9 May 1990 Ecuador declared, through Ministerial

decree, the 200 miles of its Exclusive Economic Zone as a whale sanctuary. The sanctuary includes the waters around the Galápagos Islands where at least 18 species gather to feed and calve.

Fundación Natura, 28 May 1990; *CNPPA Newsletter*, No 51.

Operation Amazonia

In June, on World Environment Day, President Fernando Collor of Brazil launched Operation Amazonia, a 4-month campaign to catch and punish wrongdoers: ranchers burning down forest for cattle pastures; gold prospectors contaminating air, soil and rivers with mercury; loggers cutting down protected trees; and factory fishing boats using banned trawl nets. In the first 4 days in the Marabá region alone IBAMA (the government environment agency) stopped eight major forest clearances, confiscated 12 lorry-loads of contraband timber and 800 kg of illegally trawled fish. *The Guardian*, 8 June 1990.

African crocodile threat in Brazil

In 1989 the mineral-based conglomerate CANTAREGI imported 109 Nile crocodiles from Zimbabwe to a farm in Rio Grande do Sul, southern Brazil. Since the farm is next to the river Paraguay, which would give access to the Pantanal, the world's largest wetland, the possibility of escape and establishment in the wild would be disastrous for native wildlife. On 23 January the state authorities gave the company until 23 May to remove the animals unless it could produce a favourable environmental impact assessment. CANTAREGI has invested more than \$200,000, most of which is a loan from the

Brazilian branch of the Banque de France, in the farm, whose main customer would be France.

BBC Wildlife, May 1990, 333.



The new lion tamarin *Leontopithecus caissara* (illustration by Stephen Nash/*Conservation International*).

New lion tamarin

The announcement of the discovery of a new species of lion tamarin was a highlight of the 3-day international lion tamarin conservation workshop held in Brazil in June. The new species was found by biologists Lucia Lorini and Vanessa Persson on the island of Superagui south of São Paulo and it is estimated that there are only a few dozen. It has been named *Leontopithecus caissara* after the fishermen who live on the island. The meeting developed a Population Viability Assessment and Conservation Plan for all four species of *Leontopithecus* in the wild and in captivity. J. C. Mallinson, Jersey Wildlife Preservation Trust, 2 July 1990.

AUSTRALIA AND ANTARCTICA

Hydroelectric scheme planned for World Heritage Area

The Queensland Electricity Commission (QEC) is planning to build a hydroelectric scheme by damming the Tully River and flooding 1400 ha of the Wet Tropics World Heritage Area. Conservationists believe that Queensland's increased energy demand is an invention of the QEC and that energy conservation is cheaper than building new production schemes. The scheme would reduce many creeks and rivers to one-fifth of normal flow and would put many species at risk. *Conservation News*, April 1990, 3.

Giant weta success

Successful captive breeding was achieved in New Zealand of the Mahoenui giant weta in January. The project started in 1988 but it took some time to find the right conditions to encourage mating and egg laying. Eggs were laid in February 1989 and took 10 months to hatch. The offspring are to be released on predator-free offshore islands. *Forest and Bird*, February 1990, 4.

Wasp problem

Two new species of wasp have recently become established in New Zealand. The European common wasp *Vespula vulgaris*, although it arrived only recently, is now the most abundant wasp in South Island honeydew beech forests where it outcompetes native birds and insects for food. The Asian paper wasp *Polistes chinensis*, first reported near Auckland in 1979, has now reached South

Island. The Department of Scientific and Industrial Research is organizing a survey by the public to update knowledge of wasp distributions, to find out what habitats the new species prefer, where they might outcompete the German wasp *V. germanica* (which has been present since 1940) and where each species causes the most problems. *Forest and Bird*, February 1990, 5.

Albatrosses caught in long-lines

Tens of thousands of albatrosses, including the wandering albatross *Diomedea exulans*, may be dying each year after becoming entangled or hooked in long-lines set for tuna in the southern hemisphere. British Antarctic Survey researchers, who have been studying wandering albatrosses breeding on Bird Island, South Georgia, since 1961, have detected a decline of 1 per cent on average each year—a small proportion but significant in such long-lived birds. Some 44,000 albatrosses, including 9600 wanderers, may now be dying in tuna lines in the southern hemisphere each year. Evidence from recoveries of ringed albatrosses reported dead and from studies of birds caught in long-lines off Tasmania indicates that the long-line fishery is now the commonest cause of death of adult and juvenile Bird Island wanderers. *BBC Wildlife*, August 1990, 508.

OCEANIA

PNG bans logging permits

Papua New Guinea announced a 2-year ban on new logging permits to start in July. The ban will mean the nation foregoing an estimated \$70 million in

taxes and royalties and PNG officials want industrial nations to pay for this loss by giving money for aid projects.

Although it has been greeted with accolades there are problems. Within minutes of announcing the moratorium the Forestry Minister conceded that at least four, possibly six, major new permits would be granted before July and the Melanesian Environment Foundation in Port Moresby says there are already 60 logging companies operating in PNG with permits good for up to 30 years. The Government's record for enforcing the ban is not good: although 70 per cent of logging companies have not submitted environmental impact studies requested by law no company has had its permit revoked.

Christian Science Monitor, 19 April 1990.

New species of storm petrel

Ornithologist Peter Harrison has discovered a new species of storm petrel on Rapa in the Austral Islands of the south-eastern Pacific. He estimates 500 pairs nesting there and found a single corpse, which will be submitted to the Natural History Museum in London for verification and naming. It is expected to be named the Rapa storm petrel *Fregetta titan*.

BBC Wildlife, June 1990, 360.

PUBLICATIONS

Wild Plant Conservation Bibliography

This bibliography has been compiled by the World Conservation Monitoring Centre and Royal Botanic Gardens, Kew (1990, 645pp.). It includes over 10,000 citations to

literature published during the last 10 years about plant conservation at local, national and international levels. Its scope ranges from highly specific papers on individual threatened plant species to more general papers tackling conservation strategy, policy and law.

It is available from either Royal Botanic Gardens, Kew, Richmond, Surrey TW9 3AB, UK or World Conservation Monitoring Centre, 219c Huntingdon Road, Cambridge CB3 0DL, UK for £15.00 (plus postage: UK add 15 per cent, Overseas surface, add 17.5 per cent).

Snow leopard publications

Three publications on snow leopards are available from the International Snow Leopard Trust: *Proceedings of the Fifth International Snow Leopard Symposium* edited by H. Freeman, 1988, 269pp., SB \$19.00; *A Review of the Status and Ecology of the Snow Leopard* by J. L. Fox, 1989, 40pp., SB \$4.00; and *An Annotated Bibliography of Literature on the Snow Leopard* by J. L. Fox, 1989, 69pp., SB \$4.50. The latter gives 500 references, making it the most comprehensive catalogue to date on the species.

All are available from International Snow Leopard Trust, 4649 Sunnyside Avenue North, Seattle, WA 98103, USA. Add postage as follows: *Proceedings*: North America \$2.50, Overseas \$5.00; *Status and Bibliography* (one or both) North America \$2.50, Overseas \$5.00.

Plant Genetic Resources

This booklet, published in 1989 by the Food and Agriculture Organization of the United Nations describes the value of plant genetic resources and

points to the problems caused by their continuing loss. It focuses on the need for *in situ* conservation and describes several current projects in various parts of the world. Many are short of funds.

Snakes of the Arabian Gulf and Oman

This booklet (now in its 2nd edition) was mentioned on page 76 of the April 1990 issue of *Oryx* as selling for Ryals Omani 2. M. D. Gallagher (P.O. Box 668, Muscat, Oman) from whom the booklet is available, writes that the equivalent prices are £3.00 and \$US6.00. He can accept both currencies and UK cheques.

MEETINGS

Wildlife 2001: Populations

This international conference is intended for research workers and agency personnel whose interests are the science, conservation and management of vertebrate populations (excluding fish and primates). It will be held 29–31 July 1991 at Oakland, California, USA. Initial sponsors include The Wildlife Society and University of California, Berkeley.

Further information from Dale McCullough or Reg Barrett, Dept of Forestry and Resource Management, 145 Mulford Hall, University of California, Berkeley, CA 94720, USA.

CORRECTION

On page 173 of *Oryx*, July 1990, the name of the drill was given as *Mandrillus leucocephalus*; it should have been *M. leucophaeus*.