International

Vote goes against Japanese whaling

The results of a postal ballot of International Whaling Commission members (see Oryx, $\mathbf{22}$, 110) announced on 15 February showed support from 19 countries for a British resolution calling on Tokyo to halt the killing of 300 minke whales. Six countries voted against the resolution, while eight abstained. On 6 April, because Japan had continued to whale, President Reagan directed the US Secretary of State to withhold 100 per cent of the fishing privileges available to Japan in US waters. He decided, for the time being, not to ban imports of Japanese fish into the US.

The Guardian (London), 17 February 1988; Monitor, 21 February 1988; The White House, 6 April 1988.

Mexico, US and Canada co-operate to save birds

On 15 March, Canadian, Mexican and United States national wildlife agencies signed a joint memorandum of understanding to improve conservation of migratory birds and the wetland habitats essential for their survival. It called for Mexico to present, in one month, a list of wetlands and wintering sites for migratory birds that Mexico considers as priority areas for trilateral co-operation. The US and Canada have to respond in 45 days with information about assistance they may be able to offer. By mid-April a threenation committee was to be established to develop conservation strategies for migratory birds and their habitats. Department of the Interior News Release, 5 April 1988.

An international bird society for

the Neotropics During the Third Neotropical Ornithol-

ogy Congress, held in Cali, Colombia, from 30 November to 4 December 1987, the participants took a formal step towards establishing an International Neotropical Bird Society. The Society shall produce its own scientific journal *Omitologia Neotropical*, the first issue of which is expected to 140 appear at the end of 1989. For details of membership of the society please contact Karl-L. Schuchmann, Department of Ornithology, Zoological Research Institute and Museum A. Koenig, Adenauerallee 150–164, D-5300 Bonn 1, FRG. Non-European residents may contact Mario Ramos, INIREB, Apartado Postal 219, San Cristobal de las Casas, Chiapas, 29299 Mexico.

Europe and North Africa

Aral Sea drying up

The Aral Sea, located in the deserts of the southern Soviet Union, and once the world's fourth largest lake, is drying up. In 1986 this saline lake covered 68,000 sq km; by 1987 it covered 41,000 sq km, its volume had halved and salinity had more than doubled. The excessive salinity has killed off the lake's 20 species of fish, and storms are dumping 43 million tonnes of salt annually on over 200,000 sq km of land around the lake. The shrinkage has been caused by water being siphoned off for irrigation from two rivers that feed the lake—virtually no water reached the lake in 1987. The Soviet Government is said to have ignored angry and eloquent protests by scientists from the region.

New Scientist, 18 February 1988.

Baltic salmon declining

The wild salmon in the rivers that empty into the Baltic are dwindling. A large proportion of the river salmon are caught by the open-sea fisheries and are thus prevented from returning to spawn in the rivers they hatched in. Open-sea fishing has developed within the last 50 years and is only worthwhile because 7 million captive-bred voung salmon (smolts) are introduced into the Baltic every year. Smolt production by the rivers (480,000 individuals) is insufficient to maintain open-sea stocks. There are only five salmon rivers left of any significance because many were radically altered by hydroelectric schemes in the 1930s. Suomen Luonto, 47, 2.

Tourism threatens Finnish parks

Two of Finland's national parks, the first ones to be established (in 1938), are threatened by a rapidly growing tourist industry. There are plans for hotels and ski centres in Pyhatunturi and Pallas-Ounastunturi National Parks, which are both in Lapland. Suomen Luonto, **47**, 2.

Sweden's new park the biggest in Europe

Sweden's National Environment Protection Board plans to create a national park within the Arctic Circle. It will be Europe's largest park, encompassing 4500 sq km of wilderness. It supports moose, reindeer, hare and lemming, as well as several threatened species including arctic fox, snowy owl and golden eagle.

New Scientist, 10 March 1988.

Rare geese shot—a protest by FFPS President

Sir Peter Scott, Honorary Director of the Wildfowl Trust and President of FFPS, called for a halt in February to the shooting of one of the world's rarest geese, the Greenland white-fronted goose Anser albifrons flavirostris. Although the species receives special protection under the EEC Directive on the Conservation of Wild Birds. 10 licences to shoot the geese were issued on the Scottish island of Islay by the Department of Agriculture and Fisheries for Scotland. The killing of 20 geese, 18 by one farmer, was condemned by the NCC, which had advised against the licences on the grounds that serious damage by the geese had not been shown and the coordinated scaring team had not been given a chance to show its effectiveness. Islav supports 7500, 33 per cent of the world population of the species, which is declining rapidly. Nature Conservation Press Release, 8

Nature Conservation Press Release, 8 March 1988.

UK recognizes wetland's importance

After many years of campaigning by the Royal Society for the Protection of Birds, the UK Government has formally

recognized the international importance for birds of Langstone and Chichester harbours in Sussex. The harbour complex has been designated as a Special Protection Area for birds under the European Community Directive on the Conservation of Wild Birds and as a Wetland of International Importance under the Ramsar Convention. Each winter the area supports over 100,000 wildfowl and waders, making it one of the 10 most important estuaries in the UK. To date, 23 Special Protection Areas and 32 Ramsar sites have been designated in the UK, but some 200 qualify for such recognition. Birds, 12, 1, Spring 1988.

Good Wood Guide

The UK-based Friends of the Earth launched The Good Wood Guide and Seal of Approval Scheme on 10 March. The initiative is supported by the National Association of Retail Furnishers, which represents major highstreet retailers of tropical hardwood products. The scheme encourages all timber users to stop using tropical timbers from ecologically destructive, non-sustainable sources. The Good Wood Guide lists companies and institutions that have already ceased using such timbers; some 50 companies and six local authorities have so far qualified for the Seal of Approval. The guide also lists those that are supporting the scheme by attempting to obtain tropical timber from wellmanaged areas. The third section of the guide lists companies that are not supporting the scheme and continue to sell tropical timber products from forestdestructive sources.

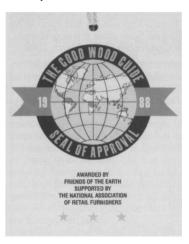
Friends of the Earth Ltd, 26–28 Underwood St, London N1 7JQ, UK.

Barn owl conservation in the UK

The UK-based Hawk Trust has set up a Barn Owl Conservation Network and appointed a full-time Barn Owl Conservation Officer, Dr Mark Brazil, on 4 January. The move followed publication of Colin Shawyer's book, The Barn Owl in the British Isles. Its Past, Present and Future (available from The Hawk Trust, Freepost, Beckenham, Kent at £6.95) and receipt of a substantial grant from the Gold Fields Environmental Trust. The aim of the Network is to help Briefly secure the future of existing barn owl communities by promoting habitat improvement and management. It will coordinate the large number of barn owl conservation projects that are under way in the UK. The Hawk Trust, c/o Bird of Prey Section, Zoological Society of London, Regent's Park, London NW1 4RY, UK.

New NNR in UK

A new National Nature Reserve (NNR), Coed-y-cerrig in North Gwent, Wales, was announced on 1 March by the Nature Conservancy Council. It brings the number of NNRs in Britain to 234. The new reserve covers 10.8 ha and is ancient semi-natural woodland with a number of rare and interesting plants. *Nature Conservation Press Release*, 25 February 1988.



New reserves in France

The high plateaux of Vercors have been declared a nature reserve—at 160 sq km, the largest in France. It is home to more than 80 species of birds, including the Alpine ptarmigan Lagopus mutus, the orphean warbler Sylvia hortensis and Bonelli's eagle Hieraaetus fasciatus. In addition, the Cherine area in the Brenne, the fourth largest French wetland of international importance, has been designated as a nature reserve, as has 350 ha of Ramieres, in the Drome, which has a wide variety of bird life as well as otters and beavers. Naturopa newsletter-nature, 87–11.

Brown bear increasing in Poland

The brown bear Ursus arctos once occurred throughout Poland, but centuries of hunting resulted in its extinction over most of the country. By the end of the 19th century brown bears survived only in the Carpathian Mountains and they continued to be hunted there until World War I. About 10-14 bears survived there and after 1946 the population began to recover, increasing its numbers and expanding its range. By 1982 there were an estimated 70-75 individuals in four refuges in the mountains; Zywiecki and Wysoki Beskid, Tatra Mountains; Sadecki Beskid; and Bieszczady Mountains. This success has brought problems; as the bears increase their range and numbers the damage they cause to humans and livestock also increases and some bears are being shot, although compensation for damage has been available since 1970. If the bear is to be successfully conserved with public support a series of measures must be taken, including annual censuses of bears, securing bear refuges, changing tourist routes, educating forest administrators, local people and tourists, and reintroducing bears into new areas. The Carpathian Mountains cannot support any more bears because of the density of human settlement

Jakubiec, Z. and Buchalczyk, T. 1987. Acta Theriologica, **32**, 289–306.

Greek law to destroy forests

Hundreds of hectares of forest have gone up in smoke following the passage of a new Greek law freeing 61 per cent of the country's remaining woodland for grazing. Conservationists claim the law will cause Greece's forest cover to shrink from 19 per cent to less than 13 per cent and they intend to challenge it in the Supreme Court. The same law frees drained marsh and arid lands for agriculture.

WWF News, **51**, January–February 1988.

Maltese island protected

The island of Filfla, Malta, has been declared a nature reserve; all hunting and collecting is now banned and only special permit holders are allowed to

visit the island for educational or scientific purposes. *Naturopa newsletter-nature*, 87–12.

Africa

New protected area in Niger

On 22 January Niger's Council of Ministers decreed the establishment of a major new protected area in the Air Tenere. The reserve covers 77,360 sq km, making it the second largest protected area in Africa (after Ouadi Rime in Chad) and the fourth largest in the world. It contains a sanctuary for addax Addax nasomaculatus.

CNPPA Newsletter, **42**, January/February/March 1988.

Raiders in Sudan

Every year between November and March, for a number of years, members of the royal family of Saudi Arabia are reported to visit Sudan's mountainous region between the Nubian Desert and the Red Sea. They are accompanied by an 'army' of people, advanced technological equipment, hawks to spot game, and helicopters to transport them to places otherwise inaccessible. They are reported to kill hundreds of animals on these trips, shooting almost anything that is found and salting the meat and flying it to Saudi Arabia. It is thought that if this indiscriminate hunting continues there will be no larger animals left in the region in 10 years time.

Antelope Specialist Group Gnusletter, 7, 1, January 1988.

Simien jackals stable

The Bale Mountains National Park in Ethiopia continues to support the only known genetically viable population of Simien jackals *Canis simensis* in the world. A survey in December 1987 found that the population appears to have been stable for the last 10 years. There are still 450–600 animals, but the survival of the species rests on this population and measures should be taken to ensure that it remains healthy. Major improvements have occurred in the park in the last 10 years, with improved patrolling, but grazing pressure from domestic animals is de-

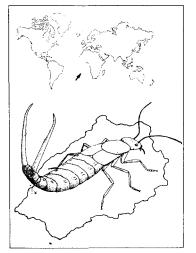
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grading some areas in the jackal's prime habitat. This needs regulating with the establishment of guard posts and relocation of pastoralists who are now living in the park.

James R. Malcolm, Associate Professor of Biology, University of Redlands, California.

Poaching despite the fences

The rhino sanctuary built by Rhino Rescue in Nakuru National Park, Kenya, now contains a total of 19 black rhinoceros *Diceros bicomis* (11 males and 8 females). Two pairs have been seen mating and four females are currently believed to be in calf, with the first calf expected in August. On the privately owned and fenced Solio Ranch near Nyeri, from which most of the Nakuru stock came, a rhino was poached and its horn taken on about 1 March. This was the first rhino to be killed on Solio since it was enclosed. Sir Christopher Lever, March 1988.



The giant earwig is the focus of the Zoological Society's expedition to St Helena.

Lovebird problem

Hybrid lovebirds Agapomis fischeri×A. personata, released by private aviary owners, have become established in many parts of Kenya and they are increasing their range. They are considered pests around Lake Naivasha where the population has built up to about 6000, mainly due to an abundant supply of irrigated maize. They are extremely efficient at opening the sheaths and although they are not pests of commercial growers, who harvest the maize before it is ripe, they can consume 30-40 per cent of a smallholder's crop. The lovebirds are also considered to be a problem because they compete with other hole-nesters; woodpeckers and barbets appear particularly susceptible and their numbers are declining. To solve the problem it has been suggested that the lovebirds should be captured and exported as pets, but such a campaign could never be 100 per cent successful and could have other negative effects, such as encouraging trade in other species.

Swara, 10, 5, September/October 1987.

To save an earwig

A Zoological Society of London expedition to St Helena in the South Atlantic hopes to discover that the giant earwig *Labidura herculeana* (78 mm long) is still alive. It was last seen in the mid-1960s and if it is found a small number will be collected to form a breeding nucleus at London Zoo. Zoological Society of London, Regent's Park, London NW1 4RY, UK.

Giant sable even more endangered?

The status of the giant sable antelope Hippotragus niger variani, which is restricted to an isolated part of central Angola, has changed drastically in the last year or so in Kangandala National Park. In 1982 it was estimated that the 100 or so individuals were holding their own in this 630-sq-km sanctuary, thanks to vigorous efforts by the warden and very severe penalties for shooting the species—the official state animal. In the last year or so the warden has died and UNITA (National Union for the Total Independence of Angola) forces have occupied the park, burnt the warden's house, and are allegedly shooting sable. It is clear that the giant sable must be more endangered than ever and if UNITA forces have advanced as far north as Kangandala, presumably the Luando Reserve, the main giant sable sanctuary further south, is also under their control. Ever since the Angolan civil war started in the 1970s, concern over the fate of the giant sable

has often prompted conservationists to propose a captive breeding programme—perhaps the time has come to act.

Antelope Specialist Group Gnusletter, 7, 1, January 1988.

Poaching escalates in Zimbabwe

Zambian poachers killed 13 black rhinoceros *Diceros bicomis* in the vicinity of the Mana Pools Game Reserve in Zimbabwe, despite an extensive antipoaching security network manned by heavily armed game scouts and wardens. More than 25 poachers have been shot dead and more than 20 arrested in Zimbabwe's battle against highly organized and internationally sponsored poaching gangs.

African Wildlife, **42,** 1, January/ February 1988.

Zebra back at Cape

The Cape mountain zebra Equus zebra zebra has been reintroduced in Cape Point Nature Reserve, South Africa. It was last seen in the Cape Peninsula about 300 years ago. In a project involving Trek Petroleum, the South African Nature Foundation and the National Parks Board, a herd of five Cape mountain zebra were introduced just over a year ago. One male died of peritonitis in the first few months, but the remaining male and three females are doing well, with one female suspected to be pregnant.

African Wildlife, **42,** 1, January/ February 1988.

Mauritius parakeets breed

Two Mauritius parakeets *Psittacula* eques successfully hatched in the wild in December 1987, the first to have done so in recent years. The adult population of this species is estimated at eight individuals. The nest was found by a Mauritian field researcher, Stephen Rault, in Machabee Nature Reserve. When it became apparent that the chicks were probably receiving insufficient food, they were taken into captivity where they have been successfully fostered by ring-necked parakeets *P. krameri*.

World Birdwatch, 10, 1, January– March 1988.

Briefly

Asia (excluding Indo-Malaya)

The sweet olives of Saudi Arabia

The country of origin of the strain of olive Olea europaea from which cultivated varieties were developed has never been positively identified, but is believed to be in the Mediterranean area or in south-west Asia. All the olives in cultivation have bitter fruits and they need steeping in brine or saltpetre to remove the bitterness before they can be eaten. Sheila Collenette, however, found that some wild olives growing in Wadi Habagah, 33 km south-east of Baljurshi in Saudi Arabia, were sweet when she sampled them by chance in 1983. Previous observations of sweet wild olives have been reported in the literature in both Saudi Arabia and Egypt, but no one seems to have investigated further. Collenette has since found sweet olives in other locations in Saudi Arabia and proposes that the possibility of propagating them is explored and that investigations should be made to determine whether the soil and climate play any part in producing sweet olives. The habitat of the wild olive in Saudi Arabia is very restricted-the species grow high in mountains of the Hijaz and the Asir on red granite between 1500 m and 1800 m. Many trees are very old, but mutilated by being lopped for fodder and fuel, and there is very little natural regeneration because of grazing pressure. The trees fruit sparingly but there are some good years.

The Kew Magazine, **5**, 1, February 1988.

Panda protected under criminal law

In China the giant panda Ailuropoda melanoleuca is now protected under criminal law. Anyone convicted of killing a panda or trading in panda products will face a minimum sentence of 10 years imprisonment with the maximum sentence being death. CNPPA Newsletter, **42**, January/February/March, 1988.

Chinese efforts for ibis

The Chinese team responsible for the conservation of the endangered Orien-

tal crested ibis Nipponia nippon, which is now known to exist in the wild only in China, reports that about 40 individuals still survive. Only three nests are known, in the Qinling Mountains in Shaanxi Province. A research station has been built about 100 m from one nest in order to monitor the birds, and loaches, a kind of freshwater eel-their main prey, are being released into the rice paddies where the birds feed. The scientists have also begun a loach captive-breeding programme. The use of chemical pesticides, herbicides and fertilizers is not allowed in the vallev where the birds nest and farmers are obliged to maintain traditional rice paddies, being compensated for any loss in vields.

Flying Free, 5, 2, Autumn 1987.

Whale farms in Japan?

Japan's oldest whaling town, Taiji, is investigating the possibility of breeding whales in two bays near the town. The people of Taiji are concerned about the loss of jobs if Japan stops whaling and they intend to hold an international seminar on the subject.

The Times (London), 7 January 1988.

Bird exports cause concern in Taiwan

The export from Taiwan of Steere's babbler *Liocichla steerii*, the Formosan yuhina *Yuhina brunneiceps* and the Formosan yellow tit *Parus holsti*, all endemic species, is causing concern as reduction in numbers is becoming noticeable in some areas. *Avicultural Magazine*, **93**, 3, 1987.

News of Bonin Islands' flora

The Bonin (Ogasawara) Islands of Japan have around 260 native plants of which 112 are endemic and 85 are threatened or endangered. A drought in 1980, a typhoon in 1983, abundant African snails, feral goats and sheep, played havoc with the last few plants of the Islands' 21 rarest species, some of which are reduced to a single fertile plant. Several species are being grown in botanic gardens in Tokyo and Waimea, Hawaii. A small shrub Melastoma tetramerum has been successfully propagated in Tokyo and reintroduced to the island of Chichijima. Another endemic plant, an orchid, Malaxis

boninensis, which was presumed extinct, has been discovered as a single plant in a glasshouse at Makino Herbarium in Tokyo. It is now being propagated by tissue culture.

Notes from Waimea Arboretum and Botanical Garden, **14**, 2, December 1987.

Indo-Malaya

New park in the Punjab

Chinii National Park in the Puniab. Pakistan, was declared in July 1987. Located in the heart of the Salt Range. its 60.95 sq km are surrounded by agricultural land, but its vegetation is typical of dry subtropical broad-leaved forest. Its mammalian occupants include the Punjab urial Ovis orientalis punjabiensis, chinkara gazelle Gazella gazella, wolf Canis lupus, and jungle cat Felis chaus. The entire park will be fenced against poachers and domestic stock, and improved by planting native species, carrying out soil conservation work and providing watering points. The park is particularly important palaeontologically, being a site for fossils of early man, giraffe, and rhinoceros, among other groups. WWF-Pakistan Newsletter, **6**, September 1987. 3.

Pakistan trade centre for falcons

Pakistan has become the world centre for trade in birds of prey, according to Mohammad Nawaz of the University of Baluchistan, who says that wealthy Arabs are the chief customers. Professional trappers are reported to have caught falcons for the past 10 years and more than 100 individuals and groups are now involved. Each year the Pakistan Government authorizes the export of 200 falcons, which should be caught only in the Punjab and North West Frontier Province, Nawaz reports that trappers catch 400 falcons illegally each year in Baluchistan alone. New Scientist, 25 February 1988.

Talipot palm—still a need to conserve it

Efforts to conserve the talipot palm Corypha umbraculifera were under way some 80 years ago in Karnataka, 144



India. In Ankola, North Kanara District, foresters saw that mature talipot palms were being removed from the forests before they fruited (the species has a 2–3-year flowering and fruiting period when it is 40-80 years old, and then it dies) so that natural regeneration was prevented. The tree was extremely useful-the pith could be made into edible flour, the leaves were used for umbrellas, baskets, mats and thatching, and the seeds were used for buttons, beads and the source of powder to stupefy fish-so the authorities scheduled the area a Reserved Forest and restricted the number of trees taken. This effort, plus probably similar efforts in other areas, ensured that the species still grows in some valleys in the Western Ghats of India, but deforestation and replanting with teak Tectona grandis are threats as well as indiscriminate felling of mature trees. A team of ecologists from the Indian Institute of Sciences, Bangalore, is carrying out detailed investigations with the aim of recommending protection of indigenous forests, including those containing the talipot.

Threatened Plants Newsletter, 19, January 1988.

Megapode in trouble

The Nicobar megapode *Megapodius freycinet* has become extinct on Kundul, one of the few islands in the Nicobar group where megapodes are endemic. In 1976 a report on land use in the Andaman and Nicobar Islands by Dr D.N. McVeen said the bird seemed to be endangered largely as a result of egg collecting. The Wildlife Department did nothing about it. The east coast of Great Nicobar Island, where megapodes were abundant even five years ago, is also almost devoid of them now. In 51 km from Campbell Bay to Pygmalion Point watchers saw onlv one three megapode mound, recently abandoned, and not one bird was seen or heard. The cause is suspected to be egg collecting and the killing of the birds for meat by road construction workers. Megapodes in Great Nicobar are estimated at below 400-mostly on the northern coast. Urgent measures are needed to save them; if necessary further building work should be stopped and the immigrant labour population should be removed until better management and conservation techniques can be employed.

INTACH, Andaman and Nicobar Chapter, Tarangs, Middlepoint, Port Blair, Andaman 744 101.

Nam Choan-a reprieve

After an enquiry committee chaired by Thailand's Deputy Prime Minister recommended that the Nam Choan Dam should not be built, the Government announced that plans for the dam would not go ahead (see *Oryx*, **22**, 54). The dam would have flooded wildlife sanctuaries including the planned release site for the reintroduction of white-winged wood duck *Cairina scutulata*.

CNPPA Newsletter, **42**, January/ Oryx Vol 22 No 3, July 1988





Some of Christmas Island's wildlife stamps, which were released on 1 March.

February/March 1988; The Wildfowl Trust News Release, 23 March 1988.

Thailand changes forest policy

In November 1987 Thailand's Forest Department decided upon a change of policy with regard to logging. It claims that for the past 25 years the Wildlife Sanctuaries Law (under which sanctuaries are totally protected from logging) has been misinterpreted. A new interpretation of this law will make it possible for timber companies to reopen old logging concessions in areas that have since been declared as wildlife sanctuaries. The Thai Judicial Council has ruled in favour of the reinterpretation of the law. Applications to start logging in Phu Miang-Phu Thong (near the Laotian border) and Khlong Phraya (in southern Thailand) have already been granted. The situation at Khlong Phraya is especially serious as it is very near one of the sites where the endangered Gurney's pitta Pitta gurneyi was recently rediscovered. As many as 22 of Thailand's 30 wildlife sanctuaries are established in old logging concessions and could therefore be affected. Vigorous local opposition to the logging is expected as a number of Thai voluntary conservation bodies are really beginning to blossom. Centre for Wildlife Research, Mahidol University, Thailand, 11 April 1988.

Plea for kouprey

Representatives of Vietnam, Laos, Kampuchea and Thailand signed a Briefly document in January asking for funds and expertise from the West to help preserve the endangered kouprey Bos sauveli. Only 50–100 survive in the wild and there is none in captivity. The request came at a meeting in Hanoi between representatives from North American zoos, representatives of the countries concerned and the IUCN. The Miami Herald, 31 January 1988.

Sarus crane population found

Vietnamese ornithologists discovered a remnant population of 100 eastern sarus cranes Grus antigone sharpii wintering in remote wetlands in southern Vietnam in 1987. This was the first verified report of the species on the Asian continent for 15 years; until the discovery the only known extant population was in Queensland, Australia. The area where the cranes were found, in Dong Thap Province, north of the Mekong River on the border of Kampuchea, is called Trang Chim (meaning 'bird forest'), but virtually all of this once huge swamp forest has been destroyed, both by US military activities and by more recent agricultural developments. Plans for a sanctuary there were already under way when the cranes were found: a dike had been built to reflood drained areas and trees had been planted. Now the sanctuary has been enlarged to cover 90 sq km and the West Germany-based Brehm Fund is helping to establish a regional environmental education centre. It is suspected that the cranes breed at Great Lake (Tonle Sap) in Kampuchea, which is closed for security reasons. *Flying Free*, **5**, 2, Autumn 1987.

Mangoes new and old

A field survey of wild mangoes Mangifera spp. has been going on since 1984 and first concentrated on Kalimantan, Sabah and Sarawak in Borneo, extending the work later to Peninsular Malaysia and Sumatra. The study has vielded valuable new information on the distribution of the genus, identified species extinct in the wild and discovered others that are new to science. The survey needs to be completed urgently because of large scale logging, particularly in Kalimantan. The resulting collection of mangoes may find a home in the Solok Forest Reserve thanks to the co-operation of Indonesian authorities.

Threatened Plants Newsletter, **19**, January 1988.

Another Malaysian dam controversy

The proposed Besul Dam in Terengganu state, Peninsular Malaysia, is causing controversy. There is a strong anti-dam feeling in the state and the Chief Minister is at the forefront of the protest. The dam would destroy 1160 sq km of the Tembat Forest, and flood 37 sq km permanently. The footprint of a Sumatran rhinoceros Dicerorhinus sumatrensis, believed to be the seventh in the state, was found during an expedition organized by the Terengganu Press Club to assess the environmental damage that would be caused by building the dam. The dipterocarp forest is rich in species and some plants that grow there are found nowhere else in Malaysia. The National Electricity Board has already built a \$4-million bridge to the site of the proposed dam without permission from the state. The Terengganu Press Club has sent a memorandum to the Chief Minister requesting the state to gazette Tembat Forest as a State Park as a first step in asking the Federal Government to stop destroying forests in Terengganu. Sahabat Alam Malaysia.

North America

Search for fern rewarded

Efforts in recent years to find the 145

Aleutian shield fern *Polystichum aleuticum*, one of the rarest ferns in North America, were fruitless until August 1987 when seven plants were located on Mt Reed, Adak Island, Alaska, where it was last seen in 1975. Now it is known that the species is not extinct, progress can be made towards its addition to the list of endangered species.

Endangered Species Technical Bulletin, XII, 9, September 1987.

No eskimo curlew nest

The April 1988 issue of Oryx (p. 118) carried a report that Canadian Wildlife Service biologists had found a pair of eskimo curlews Numenius borealis in the Canadian Arctic, which they thought may be nesting. Unfortunately, the nest later proved to be that of a bristle-thighed curlew Numenius tahitiensis. However, there were four apparently reliable sightings of Eskimo curlews in 1987. It has been suggested that only 20 individuals remain.

World Birdwatch, 10, 1, January– March 1988.

Polar bear kill

For the first time in years, the Newfoundland Provincial Government will allow hunters in Labrador to kill polar bears *Ursus maritimus*. The Wildlife Minister told a meeting of the Labrador Inuit Association that four bears may be taken this year as part of a pilot project and another four may be taken next year.

The Globe and Mail (Canada), 11 February 1988.

Peary caribou suffer devastating losses

Peary caribou (reindeer) Rangifer tarandus pearyi, found only in the Canadian Arctic Archipelago, continue to decline drastically in numbers. About one-half, 12,799, of the total estimated population lived on Melville Island when first surveyed by the Canadian Wildlife Service in 1961. Since then the population has suffered devastating losses, bringing them close to oblivion. By 1973 the number of caribou on Melville had declined to 3423 and after the particularly hard winter of 1973-1974 only 1679 were left. A survey in summer 1987 showed that they had 146

declined further to an estimated 943. Environment Canada is now undertaking a five-year study of Peary caribou, investigating how the animals use their range and what they eat during late winter and spring when their food supply is most restricted. It is hoped that the results will be useful in helping to stem the decline.

Environment Canada, 14 December 1987.

DDT used to kill bats

Hundreds of kilogrammes of DDT have been sprayed in Ontario homes and churches since the chemical was banned in Canada in 1969. According to records obtained under Ontario's new freedom of information legislation, the Ministry of the Environment issued 45 permits allowing exterminators to use DDT to kill bats in 1987. The supervisor of the biological agents unit at the Ministry of the Environment's hazardous contaminants branch says that other products could be used to kill bats but that DDT is the most effective. The Globe and Mail (Canada), 2 February 1988.

Sanctuary on Brier Island

The Maine Chapter of the US Nature Conservancy and the Nature Conservancy of Canada, two independent organizations, have joined forces to buy and protect a 490-ha sanctuary on Brier Island, Nova Scotia. Set far out in the Bay of Fundy, the island is a magnet for thousands of seabirds, waterfowl, hawks and migrating songbirds. The sanctuary encompasses most of the south-western third of the island and includes a large expanse of maritime forest, fields, marshes, bogs and ponds bordered by more than 10 km of coastline. Brier Island is an important link in a chain of island sanctuaries ringing the Gulf of Maine and the lower Bay of Fundy.

The Nature Conservancy.

Canada's first national marine park

Canada's first national marine park has been established on the Bruce Peninsula 300 km north-west of Toronto. The park resulted from federal-provincial co-operation and incorporates two existing provincial parks, Cyprus Lake and Fathom Five, an underwater park. Ontario donated the lands to the Canadian National Park System. National Parks, **62**, 1–2, January/ February 1988.

Dams cause stir in Canada

The Saskatchewan Government in Canada is under attack for the planned building of two dams in the south-eastern part of the province: Rafferty Dam near Estevan and Alameda Dam near Oxbow, both on the Souris River. Water is generally scarce in southern Saskatchewan and the reservoir behind Rafferty Dam may never fill completely; it is likely that 162 sq km of wetlands will be drained in an effort to fill both reservoirs. Land designated under Saskatchewan's Critical Wildlife Habitat Protection Act, as well as areas supporting some 34 species of plant rare in the province, will be flooded, or severely damaged through downstream channelization. Canadian Nature Federation Almanac.

Canadian Nature Federation Almanac, Nature Canada, Winter 1988.

Permit to poison wolves

In Canada the British Columbian Government has received another renewal of its wolf poisoning permit to allow Compound 1080 to be used for the next five years. The permit is supposed to be for the 'reactive control' of wolves and coyotes in situations where they attack livestock, but it appears that this poison is also being used for reducing wolf populations in specific areas. *Grupo Lobo Newsletter*, **III**, 2, March/ April 1988.

Reserve in Bay of Fundy

The Canadian Government declared Mary's Point in the Bay of Fundy region a Western Hemisphere Shorebird Reserve on 8 August 1987. The Bay of Fundy is a major concentration point for semi-palmated sandpipers *Calidris pusilla*. Hundreds of thousands stop over there each August to feed on their way south to winter in Suriname. *Focus WWF*, **9**, **6**, November/ December 1987.

Salmon getting smaller?

Fishing pressure could be causing evolution in Pacific salmon populations Oryx Vol 22 No 3, July 1988

according to David Policansky of the US National Research Council. The proportion of small precocious breeding males, called 'Jack salmon', which are genetically slightly different from normal salmon, is increasing. Salmon usually breed at six or seven years of age, returning from the ocean to the rivers where they hatched, and some Jack salmon, only one or two years old, return with the older males. Normally the smaller fish have little opportunity to mate, but now, as more large salmon are caught by the fishing industry, the small Jacks have a greater chance of mating and passing on their genes.

New Scientist, 18 February 1988.

Fewer porpoises killed

In 1987 the porpoise mortality quota for the US tuna fleet was 20.500 animals; by the end of the year just under 14,000 mortalities had been recorded. Captain Roman Rebelo of the purse seiner Carolyn M won the 1987 Lou Briot Golden Porpoise Award of the American Tunaboat Association for causing the fewest porpoise mortalities. He encircled more than 137,000 porpoises in capturing 4752 tonnes of tuna; his record low of 184 mortalities represented a successful porpoise release rate of 99.87 per cent. Four other captains in the US tuna fleet also scored successful porpoise release records.

Fishing News International, **27**, 2, February 1988.

Endangered Species Act to be reauthorized

The US Senate was expected to reauthorize the Endangered Species Act (first passed in 1972) in February 1988 for a further five years and to increase its funding level and introduce tougher penalties for violators. Critics say that although the legislation is good, the implementation is hamstrung by congressional meddling, budgetary problems and bureaucratic delays, and that as a result there is a backlog of 3900 plants and animals awaiting listing. It is believed that 80 species have already become extinct waiting for protection. The Reagan administration has brought fewer species under the protection of the law annually than any other previous administration and it has Briefly

repeatedly tried to curtail programmes and cut funds. Almost half of 480 native species on the list are without recovery plans. For the last three years Congress has been unable to pass a long-term authorization, which would provide a stable source of funds to enforce the law, because of opposition from Texas and Colorado Water Companies, Wyoming ranchers and Alabama coal companies. In late December the House of Representatives finally passed a five-year reauthorization bill that would increase funding about 45 per cent to \$61 million a year and strengthen the law.

The Philadelphia Inquirer, 15 February 1988.

Wildlife law-breakers arrested

A four-year investigation by the US Fish and Wildlife Service into violations of federal and state laws protecting big game animals ended on 24 February with the expected arrest of at least 23 people. Almost 100 federal and state wildlife agents participated in the operations in Alaska, California, Florida, Maryland, Michigan, Minnesota, Montana, Nevada, North Carolina, Texas, Virginia and West Virginia. The investigation initially focused on reports of airborne hunting and out-of-season taking of species such as caribou Rangifer tarandus and brown bears Ursus arctos in Alaska, but expanded to include the illegal killing of black bears U. americanus and sale of bear parts.

Department of the Interior News Release, 24 February 1988.

Wetland programme inadequate

The US needs a national wetlands protection policy to stop destruction of wetlands, restore those that have been degraded and create new ones, according to the US National Wildlife Federation's Status Report on Our Nation's Wetlands. Wetlands are being destroyed at a rate of more than 1215 sq km a year, and many more are degraded by toxic chemicals and excess nutrients. Federal programmes to protect them are 'ineffective, inadequate or non-existent' says the report. International Wildlife. January-February 1988.

Wyoming toad rediscovered

The Wyoming toad Bufo hemiophrys baxteri, which occurs only in the Laramie Basin of Wyoming and had not been seen since 1983, was rediscovered in 1987. A population of several hundred was found at a private lake about 18 km west of Laramie. Provided that reproduction is adequate this year an attempt will be made to establish a new population by transplanting eggs, probably into Hutton Lake National Wildlife Refuge, which had Wyoming toads in the past.

Endangered Species Technical Bulletin, XII, 11–12, November-December 1987.

Kirtland warblers down

The 1987 Kirtland warbler Dendroica kirtlandii census in Michigan was disappointing; 167 singing males were accounted for, a 20 per cent decline from the 210 counted in 1986. Endangered Species Technical Bulletin, XII, 8, August 1987.

Wetlands safe from shoppers

A US federal court has upheld the authority of the Environmental Protection Agency (EPA) to prohibit the filling of 13 ha of wetlands in Attleboro, Massachusetts, for the construction of a shopping mall. The Army Corps of Engineers had granted a permit in 1985 for the draining of the red-maple wetland, and when the EPA vetoed the permit the developer appealed to the court. Environmental groups welcomed the decision and hope that the case will set a precedent for strict enforcement of federal law on wetland protection.

International Wildlife, January– February 1988.

Critical wetland acquisition

Long Pond in north-eastern Pennsylvania has been selected as the centrepiece of the US Nature Conservancy's Pocono Critical Wetlands Campaign. Long Pond, located in the Poconos, one of several mid-Appalachian plateaux, embraces one of the richest, most diverse natural assemblages of wetlands and scruboak/pitch pine communities in the US and is important for migrating wildfowl. An estimated

one-fifth of Pennsylvania's wetlands have been lost and of those remaining nearly 40 per cent are in the Poconos. The Campaign aims to save them and has started by buying 149 ha of the 6075-ha Long Pond site.

The Nature Conservancy Magazine, 38, 2, March/April 1988.

Mussel lives on

An endangered mollusc, the pink mucket pearly mussel *Lampsilis orbiculata*, has been rediscovered at its type locality in the upper Ohio River, West Virginia. This is the first time in 75 years that it has been seen in this river reach; there is only one other occurrence in the Ohio basin within 1600 river km. The presence of this mussel indicates that water quality is high; in fact water quality in the area has improved greatly in recent years. *Endangered Species Technical Bulletin*, **XII**, 9, September 1987.

Funds for wild flowers

The US Federal Highway Administration now requires that 25 cents of every \$100 spent on landscaping along roads receiving federal funds be used to plant native wild flowers. States can obtain a waiver from the new rule if wild flowers cannot be grown satisfactorily—if there is little room for planting along urban roads or if the highway rights-of-way are already used for agriculture.

International Wildlife, January– February 1988.

Spotted owl controversy

The northern spotted owl Strix occidentalis caurina inhabits tracts of forest more than 200 years old in the northwest US and its populations are declining where old-growth forest is being cleared and managed for younger timber. The US Fish and Wildlife Service has refused to list the owl on the federal endangered species lists because of lack of information on the long-term impacts of habitat loss on owl populations. Instead the Service will try to help protect it in co-operation with the US Forest Service, which manages much of the owl's habitat. Conservationists are not content with this decision and their concern has been increased by a draft forest management 148

plan for the 6885-sq-km Mt Baker-Snoqualmie National Forest in Washington, half of which is old-growth forest. The plan proposes to cut 60 per cent of the old-growth forest during the next 50 years, and to protect 84 areas of 405 ha to mitigate adverse impacts on the owl. Conservationists want to see 142 areas of at least 890 ha each protected, which would make it more likely that a viable spotted owl population would persist.

Outdoor News Bulletin, **41**, 4, 26 February 1988.

Wire-lettuce progress

In summer 1987 the US Bureau of Land Managemen, aided by volunteers, planted seedlings of the Malheur wire-lettuce Stephanomeria malheurensis in fenced plots on BLM lands in the plant's previous known location 40 km south of Burns, Oregon, The species was last seen in the wild in 1984; a fire in 1982 at its only known locality had allowed invasion by a Eurasian cheatgrass Bromus tectorum, which is believed to have suppressed the wire-lettuce below self-sustaining capabilities. The 500 seedlings came from seed supplied by Dr Leslie Gottlieb of the University of California at Davis, who discovered and described the species in 1966 and maintained a small cultivated population. In September 50 per cent of the seed from the reintroduced plants was taken to The Berry Botanic Garden for storage and the rest left on the plants in an effort to restore the natural population. The Center for Plant Conservation, 2, 4, Fall 1987.

Ferrets up to 25

All six members of the black-footed ferret *Mustela nigripes* litter born in 1987 at Wyoming's Sybille Wildlife Research and Conservation Education Unit survived (see Oryx, **22**, 56). Of a second litter, of two, only one survived, but the addition of seven healthy young boosted the known world population to 25.

On the Edge, 33, Fall 1987.

New populations of rare clover

When the running buffalo clover Trifolium stoloniferum was listed as endangered in June 1987 it was known only from a few individuals at one site in West Virginia, USA. Later in 1987, however, a single plant appeared at a previously known site in the state and three new populations were discovered—one in north-central Kentucky and two in south-eastern Indiana. *Endangered Species Technical Bulletin*, XII, 9, September 1987.

A mine for bats

A 36-ha tract of land donated to the US Fish and Wildlife Service by the Pilot Knob Ore Company of St Louis contains an abandoned iron-ore mine in which 140,000 Indiana bats Myotis sodalis-one-quarter of the species's entire population—spend each winter. The Service will construct barriers and signs to prevent people entering the caves; disturbance during hibernation is a major cause of the species's endangered status. Pilot Knob Mine, along with two other cave sites in Missouri, two in Indiana and two in Kentucky, house three-quarters of the world population of hibernating Indiana bats, and by the end of 1987 it was expected that all these sites would be protected by barriers. Endangered Species Technical Bulletin, XII, 8 August 1987.

Land swap benefits wildlife

Legislation signed by US President Reagan on 31 March authorizing the exchange of federal lands in Nevada for privately owned wetlands in Florida, will benefit manatees and desert tortoises amongst other species. Under the agreement, Aerojet-General Corporation will exchange 18.63 sq km of wetlands in south Florida for the title to 113.40 sq km of public land plus a 99-year lease on an additional 56.7 sq km in Nevada. The Nevada land will be used to develop and test rocket engines, but most of it will serve as a buffer zone for noise, and there are provisions for environmental protection of the Nevada Desert, including a specially designated area of 72.9 sq km for the desert tortoise. The Florida land will be sold to the South Florida Water Management District, and the US Fish and Wildlife Service will use the proceeds to buy additional land for the Key Deer and Lower Suwannee

National Wildlife Refuges in Florida. The Key Deer NWR protects the endangered key deer as well as bald eagles and ospreys. The Lower Suwannee is an important summering area for manatees and is used by a number of aquatic birds.

Department of the Interior News Release, 31 March 1988.

A captive condor egg at last

The first egg produced by a pair of captive Californian condors *Gymnogyps californianus* has been laid at San Diego Wild Animal Park. Scientists will incubate the egg for the next two months but it is possible that it is not fertile as the female is old and the male may be sexually immature. *New Scientist*, 10 March 1988.

Sea otters go missing

Nearly half of the 60 southern sea otters Enhudra lutris nereis moved to San Nicolas Island from coastal California have either died or gone missing (Orux. 22, 56). By February 1988 only 31 of the translocated otters were living on or near their new home, but they were eating well and behaving normally. Of the rest. 11 had either died of stress, been shot, moved back to the mainland or to other islands, died from unknown causes, or been trapped in lobster pots or gill nets; 18 are unaccounted for, but they could reappear. It is planned to move 80 more animals this year. New Scientist, 25 February 1988.

Two fish and two plants

The US Fish and Wildlife Service protected the following taxa under the Endangered Species Act in September 1987. The San Rafael cactus Pediocactus despainii is a small ball-shaped plant, which shrinks below ground during dry or cold seasons and is noticeable only in spring when its flowers open. Two populations are known, both on the San Rafael Swell in Emery County, Utah, where they are threatened by heavy off-road vehicle use, oil, gas and mining claims and collectors. The blowout penstemon Penstemon haydenii, a showy blueflowered perennial, grows in windscoured depressions in sandy soils in Nebraska. Its habitat is scarce as a result Briefly

of work to stabilize active dunes, and only 10 populations are known. The Little Colorado spinedace *Lepidomeda vittata* survives in parts of five tributaries of the Little Colorado River in Arizona and it is threatened by further man-made alterations to the streams and introduction of non-native fish. The Cape Fear shiner Notropis *mekistocholas* is another small rare fish, restricted to three locations in the Cape Fear River drainage of eastern North Carolina, where deterioration in water quality is a problem.

Endangered Species Technical Bulletin, XII, 10, October 1987.

Fish to benefit from new management

Bitter Lake National Wildlife Refuge, in east-central New Mexico along the Pecos River, is to be managed for native fish. A survey of the refuge's ponds and sinkholes is being done and all non-native fishes will be removed. The refuge is home to the endangered Pecos gambusia *Gambusia nobilis* and several other threatened fish species. *Endangered Species Technical Bulletin*, XII, 9, September 1987.

Prairie hopes fulfilled

For decades conservationists have tried to preserve a piece of prairie in Oklahoma's Osage County. The landnear the border with Kansas—has never been ploughed, although cattle have grazed there. Now local cattle ranchers, landowners, Osage Indians, and the entire Oklahoma congressional delegation are united behind a plan to establish a 203-sq-km Tallgrass Prairie National Preserve. Three huge ranches, now for sale, would form its core and other lands would be protected by agreements. The Indians would retain their oil and gas rights, some oil production and cattle grazing would be allowed, and bison and elk would be reintroduced in some areas. Audubon, March 1988.

Cave for big-eared bats

A new Ozark big-eared bat *Plecotus townsendii ingens* maternity colony was discovered in Adair County, Oklahoma, in 1987. About 260 bats are estimated to use the cave, making it one of the largest known roosts for the endangered subspecies. Endangered Species Technical Bulletin, XII, 8, August 1987.

More range for Florida panther?

Five wild cougars *Felis concolor* from Texas are to be released in a forest in north-eastern Florida to see if the closely related but endangered Florida panther *F. concolor coryi* could survive there. Surviving Florida panthers are now largely confined to the southern part of the state.

New York Times, 1 March 1988.

Gambusia extinct

The Amistad gambusia Gambusia amistadensis, a small fish known only from a single spring in Texas, has been removed from the endangered species list by the US Fish and Widlife Service because it is believed extinct. It was not recognized as a distinct species until well after its required habitat was permanently flooded by the rising Amistad Reservoir in 1968. By the time it was described, in 1973, the species survived only in captivity and since then all known captive populations have died or been eliminated by hybridization with, or predation by, the common mosquito fish G. affinus. (For an account of how this fish was lost see Orux, 19, 133-134.)

Endangered Species Technical Bulletin, XIII, 1, January 1988.

Cactus theft

In 1987 poachers collected 31 of 35 individuals of the endangered Tobusch fishhook cactus *Ancistrocactus tobuschii* from one of the species's few remaining localities in Real County, Texas.

The Center for Plant Conservation, 2, 4, Fall 1987.

Whooping crane numbers

The whooping crane *Grus americana* population that breeds in Wood Buffalo National Park, Canada, and winters in Texas, numbered a record 134 at the end of 1987. The experimental Rocky Mountain population was estimated at 19 individuals. With

43 birds in captivity (41 of them at Patuxent Wildlife Research Center) the world population of whooping cranes has reached almost 200. The cause of the deaths of three whooping cranes at Patuxent (see *Oryx*, **22**, 56) has been identified as a toxin commonly produced by a mould often found on grain crops.

Grus Americana, 27, 1, March 1988.

Red wolf back in the wild

After nearly 10 years of effort the red wolf Canis rufus is back in the wild. Four pairs were released in Alligator River National Wildlife Refuge in North Carolina in September 1987. This was the first time that a North American species considered to be extinct in the wild has been reintroduced. Public response to the release has been rewarding. Unfortunately, two of the females died in December, one apparently through kidney failure and the other from injuries believed to have been inflicted in a fight with another wolf. On 22 January eight more wolves were taken from captive breeding facilities to acclimatization pens at Alligator River; all will be released this year.

Endangered Species Technical Bulletin, XII, 11–12, November– December 1987.

Wolf plan setback

The US Fish and Wildlife Service's hopes for reintroducing Mexican wolves Canis lupus baileyi into the wild in the south-west US have been dashed by lack of co-operation from state authorities under pressure from wolf opponents. Texas refused, Arizona has said nothing and New Mexico offered one possible release site—White Sands Missile Range—but the Army refused. This rare subspecies is extinct in the US and nearly so in Mexico; there are 30 animals in captivity. Audubon, March 1988.

Gopher tortoise listed

The western population of the gopher tortoise *Gopherus polyphemus*, which occurs from the Tombigbee and Mobile Rivers in Alabama to south-eastern Louisiana, has been listed as threatened by the US Fish and Wildlife 150 Service. The species occurs along the coastal plain from South Carolina through Florida to south-east Louisiana, but urban and agricultural uses of its woodland habitat have eliminated the tortoise from more than 80 per cent of its western range. Much of the remaining habitat is threatened by timber management practices and the tortoises are also collected for food and the pet trade. Among the other animals affected by the gopher's decline are up to 29 vertebrates that use their extensive burrow systems.

Endangered Species Technical Bulletin, XII, 8, August 1987.

New plans to protect manatees

The explosive growth in the human population of Florida, USA (800-1000 people a day), coupled with related development, is threatening the fragile population balance of the manatee Trichechus manatus. Most people live on the coast and at least 30 per cent of manatee deaths are caused by people and their boats. In addition, about 80 per cent of all manatees are scarred by boat propellers, which can interfere with feeding, reproductive activity and the rearing of young. To cope with the growing problem, new, more comprehensive plans for this mammal's survival are now being developed by the US Fish and Wildlife Service and the Florida Department of Natural Resources.

Endangered Species Technical Bulletin, XII, 9, September 1987.

Wetlands saved from the plough

The US Environmental Protection Agency has taken a major step towards protecting Florida's East Everglades by proposing to prohibit the destructive practice of 'rock-ploughing' on more than 162 ha of wetlands. In this process bulldozers drag ploughs across wetlands, crushing the rocky ground. Small potholes are then filled with crushed rock to create a level surface for hydroponic farming or for housebuilding. Some 32.40 sq km in the East Everglades have already been treated in this way and another 20.26 sq km are in danger.

International Wildlife, March–April 1988.

Central America

Crested toad in Puerto Rico listed

The Puerto Rican crested toad *Peltophryne lemur* was listed as threatened by the US Fish and Wildlife Service in August 1987. This species was known historically from two islands, but has apparently been extirpated from one— Virgin Gorda in the British Virgin Islands—and remains only on the main island of Puerto Rico. Its populations declined as breeding areas were drained or filled in for construction, cultivation and mosquito control. Development pressure is accelerating where the sole known healthy population survives.

Endangered Species Technical Bulletin, XII, 9, September 1987.

Endangered Puerto Rican shrub

Higuero de Sierra Crescentia portoricensis, an evergreen, vine-like shrub endemic to the mountains of southwestern Puerto Rico, has been listed as endangered by the US Fish and Wildlife Service. Only 42 individuals are known, in six populations. Although the forest lands where they grow are owned by the Commonwealth of Puerto Rico, deforestation of surrounding lands has led to erosion and flash flooding of the species's habitat, and a proposed US Army Corps of Engineers flood control project would flood some of the habitat permanently.

Endangered Species Technical Bulletin, XIII, 1, January 1988.

Peace park

Nicaragua and Costa Rica have agreed to a 'peace park' covering more than one million acres in a heavily militarized border area. It includes the largest virgin tropical rain forest in the Caribbean basin and the entire watershed of the San Juan River, which forms much of the border between the two countries. In making the announcement, Costa Rica's President pointed out that because the country abolished the military 40 years ago, government finances can go towards social services and environmental pro-

tection. Nicaragua, which has more tropical rain forest than any other Central American country, is currently taking steps to preserve its wildlands and wildlife. Agrarian reform and the work of the National Environmental Protection Agency established by the Sandinista Government have reduced the loss of forest and an extensive reforestation programme is under way. The Guardian (London), 8 February 1988.

Grenada moves to create parks

Grenada still has a great variety of habitats in a relatively small area, but they are being destroyed rapidly. The Government recently requested the assistance of the Organization of American States to produce a plan and policy for a system of national parks and protected areas; the draft is now complete. A National Parks and Wildlife Unit has been formed within the Forestry Department in the Ministry of Agriculture, Lands and Tourism, and is responsible for establishing parks and protected areas throughout Grenada and Carriacou. Part of Grand Etang Forest Reserve is now being developed as a national park and the Levera Pond and Bird Sanctuary project on the north-eastern coast has been declared a protected seascape. A massive public education programme is also being prepared.

Caribbean Conservation News, IV, 12, December 1987.

South America

New lizard

A new species of whiptail lizard Cnemidophorus gramivagus has been described from the Llanos of Colombia and Venezuela. The species is bright green in colour and climbs trees readily, unlike its closest relative *C. lemniscatus* or other members of the genus.

Journal of Herpetology, 1987, **21**, (4) pp. 245–254.

More of Suriname's coast protected

In December 1987 Suriname's Minister Briefly



A giant tortoise from the Galapagos Islands (Hilary Bradt).

of Natural Resources and Energy signed a decree placing the Bigi Pan areas at the disposal of his Ministry. The area, which covers 680 sq km on land and extends out to a 6-m depth at low tide, will eventually become a Multiple-Use Management Area. Almost 50 per cent of the Suriname coast is now under some form of conservation management. The Bigi Pan area is important for breeding, passage and wintering waterfowl, and includes a range of coastal habitats-mudflats, mangroves, lagoons and marshes. Threats to the area include illegal rice cultivation and sand extraction. CNPPA Newsletter, 42, January/February/March 1988.

New parks in Colombia

On 28 November 1987 the Colombian Government announced the creation of three new national parks: Utria, Cahuinari and Tatama. Together they encompass more than 6075 sq km. Utria derives its name from Utria Sound on the Pacific coast, 150 km south of the border with Panama, a narrow inlet 10 km long and 2 km wide where humpback whales nurse their calves. This park includes a range of ecosystems, from the coastal waters to the top of Alto del Buey, the highest peak in the Baudo coastal range. Cahuinari is in the Amazon, home to jaguar, black cayman and nutria, and includes islands in the Cahuinari River, which offer nesting beaches for endangered river turtles. Tatama is in the high Andes and most of it consists of paramo, a high cold, windy region. In spite of its harsh conditions the paramo has been subject to cattle ranching, potato growing and other agricultural uses, resulting in the disappearance of the spectacled bear, mountain tapir and puma.

The Nature Conservancy Magazine, **38,** 2, March/April 1988.

1000th tortoise released

The 1000th captive-bred giant tortoise Geochelone elephantopus was released into the wild on the Galapagos Islands in late February. The captivebreeding project began in 1965. G.T. Corley Smith.

Ancient cereal rediscovered

Bromus mango was once grown as a cereal crop by the Araucano Indians of southern Argentina and adjacent areas of Chile. Its cultivation was abandoned when wheat was introduced from Europe and B. mango was believed to have become extinct as a result. When, in 1987, plant collectors from the National Institute of Agriculture and Animal Husbandry, Rio Negro, Argentina, were gathering grasses in regions under threat, they found some stands of the old cereal at 1200 m in the foothills of the Andes near Bariloche in an area known as Pampa del Toro. The seed has been deposited in the Argentine Genebank in Buenos Aires. Threatened Plants Newsletter, 19,

Threatened Plants Newsletter, **19**, January 1988.

Too few huemuls

The huemuls Hippocamelus bisulcus in the Nevados de Chillan, the only ones to survive in Chile north of Patagonia, need protecting very urgently if they are to survive. They have been known to be threatened since surveys revealed their low numbers in 1976; in 1980 a

census reported in Orvx (17, 34-40) showed that although numbers were declining in unprotected areas the status of populations in some protected areas was improving. Now surveys in 1986 and 1988 have shown further serious declines. It is estimated that the huemul population at the Nevados de Chillan has shrunk to no more than 60 individuals in 13-14 groups. Severe weather, disease and food shortages could wipe out such small numbers. The population should be increased to 100-150 individuals if extinction is to be avoided, and to accomplish this about 350 sq km of habitat would require protection by excluding livestock, dogs, logging and fire. Conservationists in Chile are so concerned about the plight of the animals that they are hoping to hold a national conference on the matter on site in late November.

Dr Anthony Povilitis, PO Box 416, Boulder, CO 80306, USA.

Australia/Antarctica

Crocodiles to be eradicated?

Crocodile Management А new Programme divides Queensland, Australia's waterways and wetlands into three zones. In the first, adjacent to heavily populated areas, all crocodiles may be removed. In the second, along the coast, north of Rockhampton, all crocodiles over 1.2 m may be removed. In the third, in or adjacent to national parks, crocodiles may be removed only in special circumstances. Conservationists fear that this is a thinly veiled 'eradication programme'. Wildlife Australia, 24, 4, December 1987.

Mining likely in national park

There is conflict over the future of Rudall River National Park, Western Australia, where a multinational company, CRA, has been conducting exploratory drilling in the Kintyre area. Conservationists and Aboriginal residents are seeking to prevent mining activities, but the Western Australian Government is supporting the company and it seems likely that mining will begin in 1988.

Australian Conservation Foundation Newsletter, **19**, 10, November 1987.

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New park protects karri forest

On 22 October 1987 a motion allowing the declaration of the Shannon Karri National Park passed through the Upper House of Western Australia's State Parliament. The park contains magnificent and extensive areas of unlogged karri *Eucalyptus diversicolor* and jarrah *E. marginata* forest as well as heathlands and wetlands. It covers the entire river catchment and, together with the adjacent D'Entrecasteaux National Park, forms part of an outstanding conservation complex on the west coast of the state.

Australian Conservation Foundation Newsletter, **19**, 11, December 1987.

Protected seals shot in Tasmania

The Tasmanian National Parks and Wildlife Service has given unlimited licences to commercial Atlantic salmon fish-farm operators to shoot seals, in spite of the fact that seals are protected throughout Australia. The farmers patrol with high-powered rifles to shoot seals that come near the fish cages. The problem could be solved by farms installing seal-proof netting, but the farmers say it is too costly. *Wildlife Australia*, **24**, 4, December 1987.

Meetings

International otter meeting

The Fifth International Otter Colloquium will be in Hankensbuttel in West Germany in September 1989. Interested otter people should contact Aktion Fischotterschutz e. v., Otter-Zentrum, Postbox 1216, D-3122 Hankensbuttel, FRG.

Wetland conference

The Third International Conference on Wetlands will focus on conservation and development, the integrated management of wetlands. It will take place from 19 to 23 September 1988 in Rennes, France. Further information is available from Musee national d'Histoire naturelle, 36 rue Geoffroy St-Hilaire, 75231 Paris Cedex, France.

Asian otter meeting

The First International Asian Otter Symposium, sponsored jointly by the IUCN Otter Specialist Group and the Government of India, is to be held in Bangalore, India, from 14 to 18 October 1988. Wildlife and zoo biologists, conservationists and government representatives from throughout Asia are strongly encouraged to participate. More information is available from the Conference Chairman, Pat Foster-Turley, IUCN Otter Specialist Group, Marine World Parkway, Vallejo, CA 94589, USA, or the Indian Conference Co-ordinator, Mr M.K. Appayya, Chief Wildlife Warden, Aranya Bhavan, 18th Cross, Malleswaran, Bangalore 560 003, India.

Spectacled bear symposium

The First International Symposium on the Spectacled Bear will be held at Lincoln Park Zoo, Chicago, Illinois, USA from 14 to 15 October 1988. Topics focusing on current field studies and captive management/reproduction of the spectacled bear will be highlighted. For further information contact Mark Rosenthal, Curator of Mammals, Lincoln Park Zoo, 2200 N. Cannon Drive, Chicago, Il 60614, USA.

Requests

Researcher needed for hooded grebe

Argentinian non-profit conservation organization seeks scientist with MSc (PhD preferably) in biology (or similar) with own funds to co-operate in hooded grebe *Podiceps gallardoi* project, in Patagonia, Argentina. Vehicle (4WD), gas, etc. available. Contact: Javier Beltran, Fundacion Vida Silvestre Argentina, Defensa 245-6° K, 1065 Buenos Aires, Argentina.

Publications

Pacific Center for International Studies publications

The Pacific Center for International Studies, a California- and Wisconsinbased policy research group has initiated a series of monographs related

to international law and the protection of fauna and flora. The following three are all available at US\$2.00 each. (1) Asian Compliance with the Convention on International Trade in Endangered Species of Wild Fauna and Flora: Problems and Prospects. PCIS (W):1. (2) The Convention on International Trade in Endangered Species of Wild Fauna and Flora: Improving the Prospects for Protection of Our Biological Heritage. PCIS(W):2. (3) The Convention on International Trade in Endangered Species of Wild Fauna and Flora and International Trade of Plants; Problems and Prospects.

Pacific Center for International Studies, 33 University Square, Suite 184, Madison, Wisconsin 53715, USA.

People

Timothy Richard Hornsby joined the UK Nature Conservancy Council on 1 May as its new Director General. He replaces Richard Steels, who retired at the end of June and is an FFPS Council Member.

Dr Hemanta Mishra, chief operating executive of the King Mahendra Trust for Nature Conservation, received the 1987 J. Paul Getty Wildlife Conservation Prize on 14 September. He was honoured in recognition of his many conservation achievements, which include his work to establish Sagarmatha (Mt Everest) National Park in Nepal and his efforts to bring back the greater one-horned rhinoceros from the brink of extinction.

In January the World Bank appointed Kenneth Piddington as its new Director of the Environment. He was formerly Director-General of the Department of Conservation in New Zealand. The new Environmental Unit he heads will have a staff of 25 (rather than 100 promised in May 1987). The Bank has also announced the appointment of a senior adviser for environmental issues—Erik Arrhenius, a professor at the Institute of Natural Resources at the University of Stockholm in Sweden.

Obituaries

Dr H. Albert Hochbaum died on 2 March, aged 77. He spent most of his professional life as Director of the Delta Waterfowl Research Station in Manitoba, Canada, and became one of North America's most respected wildlife artists. Dr E.L. Cheatum died on 10 February, aged 78. He was a stalwart of the US conservation movement; he was Director of the Division of Fish and Game in New York until 1968 and then moved to the University of Georgia where he established the Institute of Natural Resources.

Corrections

US Aid for Peruvian park

In the January 1988 issue of *Oryx* (page 58) an item in the Briefly section under the above heading wrongly stated that the Yanachaga-Chemillen National Park in Peru was 40 km (25 miles) east of Lima. It is in fact 250 miles (420 km) east of Lima, and 40 km (25 miles) east of Cerro de Pasco, the capital of the department of Pasco in which the park is situated.

ICBP wrongly named

In the review of Save the Birds (*Oryx*, **22**, 61) the ICBP (International Council for Bird Preservation) was referred to as the International Council for the Protection of Birds. We apologize for this error.



Hooded grebes in Argentina-research is needed (Francisco Erize).

Briefly