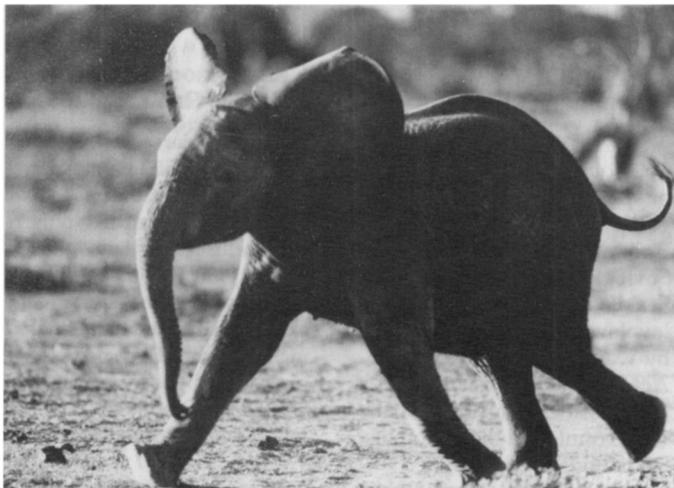


INTERNATIONAL

Tropical forest loss—new estimates

The rate of loss of tropical forests is 50 per cent higher than previous estimates, according to a study released in June 1990 by the Washington-based World Resources Institute. About 2–5 per cent of the remaining tropical forests is being destroyed each year, an area of 16.4–20.4 million ha. It is estimated that about half the tropical forests have been lost since man began denuding the tropics. Also in June FAO's Forest Resources Division announced a revised estimate of tropical deforestation: it now believes that 17 million ha of forest are being lost each year. This means that over the last decade deforestation rates have been underestimated by 6 million ha per year. FAO concludes that deforestation has accelerated in the last decade in the Amazon basin and that it has slowed down in a number of densely populated Asian countries, not necessarily because



This photograph of a young elephant was one of the 9000 entries in the Wildlife Photographer of the Year 1990 Competition. Further details on page 60.

adequate forest policies have been implemented, but largely because little forest is left. *Monitor*, 11 June 1990; *IUCN Tropical Forest Programme Newsletter*, August 1990, 7.

CITES update

Cuba, Brunei Darussalam and Guinea-Bissau have acceded to CITES, bringing the total number of Parties to 109. These accessions became effective on 19 July, 2 August and 14 August 1990 respectively. *Traffic Bulletin*, 17 September 1990, 49.

Ivory market collapse

The 6-month reservation against the CITES ivory trade ban filed by the UK on behalf of Hong Kong last January, expired with virtually all of the ivory stockpile still sitting in warehouses in Hong Kong. It had been hoped to sell the ivory to China, which took a reservation, and Taiwan and South Korea, which are not members of CITES. But the ivory market has collapsed, putting thousands of ivory

carvers out of work and lowering the price of raw ivory. The ivory merchants are seeking to keep trade alive by exporting carvings as 'personal effects' under 5 kg and already there have been many shipments of blank name seals from Hong Kong, Taiwan and South Korea into Japan. China has now withdrawn its reservation on the listing of the African elephant and this will be effective from 11 January. *Monitor*, 23 July 1990; *Traffic Bulletin*, 17 September 1990, 62.

Botanic Gardens Conservation Secretariat

The IUCN Botanic Gardens Conservation Secretariat has moved to Descanso House, 199 Kew Road, Richmond, Surrey TW9 3BW, UK. Telephone 081 940 0047 and 081 948 8827.

Antarctic convention uncertain

Australia has announced its intention to legislate to ban mining by any country in the Australian Antarctic Territory. In 1989 Australia, which has been lobbying to make Antarctica a world park, was the first country to reject the Convention on Regulation of Antarctic Minerals Resource Activities (CRAMRA), which would have restricted but not banned mining. Other countries, including France and New Zealand, have followed suit and the convention was expected to be thrown out at the meeting of the 22 Antarctic Treaty nations in November 1990. Instead a 30-year moratorium on mining may be negotiated. New Zealand has also vowed to press for a comprehensive protection protocol for Antarctica, which will include an absolute ban on mining in the region, will build on exist-

ing pollution controls and include measures to regulate tourism and protect Antarctic fauna and flora. *New Scientist*, 1 September 1990, 13; 15 September 1990, 23.

Burmese elephant ban

The EC has banned the import of Asian elephants *Elephas maximus* from Burma, which is exporting more live elephants than its declining herds can sustain. Traders have been claiming that the elephants have been captive-bred in Burmese timber camps but the truth of this is suspect and CITES is sending a team to investigate. *The Observer*, 9 September 1990.

Oryx flown from Bahrain to San Diego

Three male Arabian oryx *Oryx leucorox* have been sent from Al Areen Wildlife Park, Bahrain, to San Diego Zoo, USA, under a new international programme to maintain the genetic diversity of the captive population in US zoos. The herd at Al-Areen is one of the few in existence that have not received any descendants from the original nine animals that formed the World Herd 25 years ago. Since then several shipments of oryx have been sent to Oman, Jordan and Saudi Arabia, but this is the first time that Arabian oryx have been flown in the opposite direction. Jaime Samour, Al-Areen Wildlife Park, P.O. Box 28690, State of Bahrain.

In-vitro fertilization success in tiger

On 27 April 1990 a Siberian tigress *Panthera tigris altaica* gave birth to three cubs, the result of *in-vitro* fertilization of eggs transplanted from a

Bengal tiger *P. t. tigris*. Two of the cubs died but the surviving female is thriving. *In-vitro* fertilization of felids is difficult and this first success in tigers advances the use of this technology in felid management.

Captive Breeding Specialist Group News, Summer 1990, 3.

Rabbit control

Rabbit Viral Haemorrhagic Disease (RVHD) offers hope for eradicating introduced rabbits in some circumstances. Only rabbits of *Oryctolagus* spp. are known to be affected but hares may also be susceptible. It is present in all European countries except UK, as well as in Mexico and Egypt. Transmission is by contact and a fairly dense population is needed for active spread; mortality may be up to 90 per cent and survivors become carriers. Unlike myxomatosis, RVHD kills rapidly and has relatively few external symptoms. *SCC Veterinary Group Newsletter*, June 1990, 5–6.

EUROPE AND NORTH AFRICA

Greenshank numbers critical

The population of Nordmann's or spotted greenshank *Tringa guttifer*, endemic as a breeding bird to the sea coasts of the Soviet Far East, mainly of the Sea of Okhotsk, is at a critically low level according to a census by V. A. Nechaev of the USSR Academy of Sciences, Vladivostok. Only 30–40 pairs were counted in the region of Sakhalin Island, the only known breeding area, although other sites may exist elsewhere. The main reason for decreases on Sakhalin Island is economic

development, including road and rail building, while hunters have also increased in numbers. Shooting the greenshank is banned but most hunters cannot distinguish it from other permitted prey. Sanctuaries have been created recently in North Sakhalin but more are needed and hunting of all shorebirds should be prohibited in Nordmann's greenshank breeding areas. *Asian Wetland News*, 2 (2), 14.

Deaths in White Sea due to rocket fuel

The deaths of 100,000 seals and millions of other marine animals in the White Sea (see *Oryx* 24, 190) were caused by a military accident according to the Soviet navy. In late April or early May rocket fuel leaked from a storage tank at the Soviet nuclear submarine base at Severodvinsk, 48 km west of Arkhangel'sk. A commission set up to investigate the disaster was reported to have come to no final conclusion in October except that a chemical was responsible. *The Washington Times*, 29 June 1990; *The Guardian*, 2 October 1990.

Icelandic Ramsar site

Iceland's Thjorsarver Nature Reserve, a 37,500-ha tundra complex in the Central Highlands, was added to the Ramsar list of wetlands on 20 March 1990. Its pristine lakes, rivers and marshes host an exceptionally rich biota, including 10,000 breeding pairs of pink-footed goose, *Anser brachyrhynchus*. *IUCN Bulletin*, June 1990, 7.

EC plans fish conservation measures

The EC Fisheries Commission

has proposed tough conservation measures for fish stocks in northern waters in an effort to repair the damage caused by previous lax policies. The proposals include increasing minimum mesh size for the North Sea from 90 to 120 mm.

Fishermen say a mesh size of 120 mm would not allow them to catch enough fish to continue. A mesh size of 90 mm would be retained for whiting, a predator of cod and haddock. *Fishing News International*, September 1990, 4.

Shore protection opposed

The Finnish Government's shore protection programme, which seeks to protect 5 per cent of Finland's 200,000 km of lake shore, has angered many private landowners. The programme would prohibit building but allow some logging and compensation would be given for lost income. A surge in building summer houses and saunas has taken place as a result of the proposed legislation and it is now difficult to find an undeveloped shore in southern Finland.

Suomen Luonto, 49 (6), 4-5.

Ireland's peat board acts for conservation

Ireland's nationalized peat company is to hand over 2670 ha of bogs for conservation in response to growing pressure to conserve threatened wetlands. Sales of the company's Shamrock peat have been hit in Britain by boycott campaigns. At a ceremony beside the All Saints Bog, County Offaly, in August 1990, the Chairman of the Republic's Bord na Mona handed over two peat moors to Ireland's Wildlife Service. Another 2430 ha will follow and the European Community has agreed to pay grants



This photograph of a blue cod devouring a scarlet wrasse was taken by Darryl Torckler of New Zealand, who won the Animal Behaviour category of Wildlife Photographer of the Year 1990 Competition. Details page 60.

towards certain compensation costs. All Saints Bog is an important wintering site for the Greenland white-fronted goose *Anser albifrons flavirostris*. *The Guardian*, 31 August 1990.

Tern decline in Shetland

Arctic terns *Sterna paradisaea* in Shetland, once the British stronghold of the species, had their worst breeding season on

record in 1990. Only a few attempted to nest and no young survived to fledging; 10 years ago more than 34,000 pairs bred. There were also tern breeding failures at other Scottish colonies and it is feared that a shortage of sandeels may be to blame. Some ecologists believe that commercial fishing for sandeels has contributed to the crash and could still be depressing stocks. The Shetland

Bird Club has written to the EC environment commissioner urging him to ask Britain to meet its obligations under the 1979 EC Bird directive by banning the fishing. The sandeels are used to produce food for salmon in fish farms. *BBC Wildlife*, September 1990, 628.

Tuna imports controlled

The UK tuna industry has signed an agreement to exercise stringent control over imports of canned tuna fish. It will fund independent inspectors who will visit canneries in Thailand, The Philippines and Fiji to establish where the fish was caught and by what method. The industry will design its own logo to signify that the contents were caught without causing harm to dolphins. *The Guardian*, 12 October 1990.

Bern Convention

France and Burkina Faso have acceded to the Bern Convention. *Naturopa newsletter*, No. 90-6, 2.

French bears get refuge

France's remaining 13 brown bears *Ursus arctos* have been given a large mountain refuge in the Pyrenees. The Environment Minister has ordered the closure of 6475 ha to hunters and restricted access to a further 48,560 ha. *The Guardian*, 7 September 1990.

Some hope for European mink in France

The range and numbers of European mink *Mustela lutreola* have declined in France in the last 60 years, with possible causes being trapping, shooting, pollution, drainage of wetlands, road traffic mortality and competition with American

mink *M. vison*. *M. lutreola* is now confined to parts of the west coastal area and *M. vison* is spreading into its range. *M. vison* males can copulate with *M. lutreola* females earlier than can males of the same species. The embryos are always resorbed before birth but it means that every year some European mink females are unable to breed. Hopes rest with a National Conservation Action Plan due at the end of 1990. The EC is ready to help with a European Mink Programme and funds should be available in 1991. *Mustelid and Viverrid Conservation*, October 1990, 5-8.

Italy bans drift nets

Drift nets were banned in Italian waters from August after a long campaign. A coalition of environmentalists took the Italian Minister of Marine Resources to court after his refusal to ban drift nets in March and won the case on the basis that the Ministerial decree allowing drift netting to continue contravened the Bern Convention. The problems began in the mid-1980s when the EC and the Italian government subsidized fishermen to buy modern nets. By 1989 1000 boats were using 15,000 km of nets to catch swordfish and thousands of cetaceans were dying after being entangled. The fishermen have opposed any restrictions and Government compensation is insufficient to make up for lost catches and to convert boats to more selective fishing methods. *BBC Wildlife*, October 1990, 700.

Mediterranean dolphin deaths

Hundreds of striped dolphins *Stenella coeruleoalba* were washed up dead on

Mediterranean beaches in late August. A meeting in Madrid to discuss the problem failed to agree on the cause of death and the results of the analysis of 200 tissue samples are awaited. *New Scientist*, 15 September 1990, 23.

Romanian Ornithological Society

The Romanian Ornithological Society was founded in February 1990 with the aims of promoting ornithological research and fostering an interest in birdwatching. The President is Dan Munteanu, Biological Research Station, Str. Republicii 48, 3400 Cluj, Romania.

Turkey's pioneering turtle protection

On 3 March 1990 three sea turtle nesting areas on the Turkish coast (Patara, the Goksu delta, and Ekincik) were designated as Specially Protected Areas by the Turkish Government. These will now have the same protection as Dalyan and Fethiye, two nesting areas designated as SPAs in 1988. Although implementing the protection will be difficult for the newly formed Directorate of SPAs, which does not have field staff, Turkey's move to protect its turtles is an excellent step forward. *Marine Turtle Newsletter*, July 1990, 8.

Egyptian wetlands

A 1989-90 survey of wetlands in Egypt, the first for 10 years, has revealed that, with more than 500,000 wintering birds, they are still among the most important areas for waterbirds in the Mediterranean. However, their future is precarious: drainage, coastal erosion, creation of fish nurseries and

sewage all threaten them. Egypt has taken important steps by listing Lake Burullus and Lake Bardawil under the Ramsar Convention but much more needs to be done. *IWRB News*, July 1990, 1–2.

AFRICA

Tanzania's fight against poaching

In the past 2 years Tanzania arrested 2500 poachers, seized 11,000 weapons and 3000 elephant tusks. Most of the poachers were fined or jailed for 5–22 years. *The Guardian*, 26 September 1990.

Only 3000 black rhinos

Black rhinoceros numbers continue to decline in Africa according to preliminary results from an African Elephant and Rhino Specialist Group survey. Compared with 3800 in 1987 there are probably only 3000 today, although the rate of loss is slowing considerably, with some indications that protective measures are working in South Africa, Namibia, Zimbabwe and Kenya. The price of horn on the Asian market is still rising and demand is sufficient to spur further poaching. *Pachyderm*, 1990, No. 13, 4.

South African seal hunt abandoned

A Taiwanese businessman has abandoned plans to kill 30,000 Cape fur seals *Arctocephalus pusillus* for pet food, skins and aphrodisiacs. The South African authorities had granted Hsu Hsien-I a 5-year contract to kill the seals near Port Nolloth on South Africa's west coast. The kill was due to start on 15

July but was suspended by Environment Minister after national and international protests. *Deutsche Presse-Agentur*, 14 July 1990.

Blocked funds help Zimbabwe conservation

A plan has been developed to enable UK companies with funds blocked in Zimbabwe since 1980 to donate the money to the Zimbabwe Trust, a registered UK charity, and to receive tax relief in the UK on the donated sum. The Blocked Funds Covenant Plan has so far raised over £2 million for projects to assist the local human population to manage wildlife to provide income and a source of meat, as well as generating funds to build schools and clinics. The Trust funds the setting up of these self-supporting schemes and monitors their progress.

Hope dwindles for palm

Efforts to propagate the palm *Hyophorbe amaricaulis*, known from only a single specimen in Curepipe Botanic Gardens in Mauritius, have so far proved fruitless. Although most fruits contain apparently normal embryos they do not mature properly and tissue culture of the embryos has had no success in raising individuals to maturity. Recent reports of *H. amaricaulis* in cultivation in eight botanic gardens outside Mauritius raised some hope but when investigated all proved to be misidentifications, probably arising from confusion by the earlier use of the name for *H. lagenicaulis*. While propagation efforts continue within and outside Mauritius, the single tree is vulnerable to cyclone damage because it does not have the protection of a forest canopy.

Botanic Gardens Conservation News, July 1990, 24–26.

ASIA (EXCLUDING INDOMALAYA)

Disease outbreak in Arabian oryx

In early December 1989 the herd of Arabian oryx *Oryx leucoryx* owned and managed by the Jordanian Royal Society for the Conservation of Nature stood at about 85 animals in the 22-sq-km Shaumari Reserve. It was noticed that some of them were losing condition and an investigation revealed the presence of lungworm *Dictyocaulus filaria* and gastro-intestinal parasite infestation coupled with malnutrition and water deprivation due to the drought. The herd was lured into a 2-ha enclosure and given supplementary food and medication. In January 1990 13 oryx died of pasteurella pneumonia and the whole herd was then vaccinated against this disease. The herd was returned to the 22-sq-km enclosure and there have been no further deaths but it is thought that confining 85 animals of five separate social units in 2 ha probably precipitated the outbreak of pasteurellosis. Future management plans include translocating some animals to form a satellite herd, and providing piped water in late summer when the halophytic vegetation becomes unpalatable. *SSC Veterinary Group Newsletter*, June 1990, 11.

Peat depletion in China

Waterbirds, including the endangered oriental white stork *Ciconia boyciana* and black-necked crane *Grus nigricollis*, that breed on the north-west Sichuan Plateau Marshes

in central China are at risk from a joint Swedish–Chinese peat-extraction scheme. Peat is already being depleted at an annual rate of 46,500 cu m and although the Sichuan provincial government intends to establish a 87,000-ha reserve to safeguard what remains, even this is threatened by the new scheme.

Asian Wetland News, 2 (2), 6.

Industry in the Yellow River delta

A major project is under way to convert much of the 11,600-sq-km Yellow River (Huanghe) delta in northern Shandong Province, China, into farmland, grassland, and fish and shrimp ponds by the year 2000.

Saltworks, processing industries and chemical plants are also planned. The delta is suspected to be one of the most important wetlands for waterbirds on the Asia/Pacific flyway but no comprehensive survey has been made.

Asian Wetland News, 2 (2), 3.

Korean reclamation plans threaten oystercatcher

The Korean Government's plans to develop western coastal areas could have disastrous effects on Asian shorebird populations. A total of 126 projects, including industrial estates, airports, seaports, power plants and reclamation schemes, are planned for 1990–2001. Asan is under threat from a proposed industrial estate and intertidal areas around Yong Jong Island are likely to suffer pressure from port development; both are wetlands of international importance, the latter also being a major feeding ground for Chinese egrets *Egretta eulophotes*. Kunsan, which has been earmarked for an indus-

trial estate, an airport and a port development, is a major wintering area for an endangered subspecies of oystercatcher *Haematopus ostralegus osculans*, which is a Korean National Monument.

Asian Wetland News, 2 (2), 5.

Just like real ivory

The Sakai Research Laboratories in Japan have developed a new artificial ivory, almost indistinguishable from the real thing, using eggs, milk and titanium dioxide. It differs from existing substitutes by having the capacity to absorb water to the same extent as natural ivory, which is an important property for piano keys, mouthpieces for wind instruments and replacement roots for teeth.

New Scientist, 1 September 1990, 26.

INDOMALAYA

New Ramsar sites in India

On 23 March 1990 India added four wetlands to the Ramsar

list. Wular Lake, Jammu and Kashmir, is the largest freshwater wetland in India; Harike Lake is the biggest wetland in the Punjab and, although economically important as a source of freshwater and fish, it is threatened by chemical contamination, siltation and an infestation of water hyacinth. Loktak Lake in Manipur is vital to the region's economy and the threatened brow-antlered deer *Cervus eldi eldi* lives on its south-eastern side. Flamingoes, waders and migratory ducks gather in great numbers in Sambhar Lake, Rajasthan, which is threatened by siltation, soil salinization and sewage.

IUCN Bulletin, June 1990, 8.

Pelican plan

Organochlorine pesticides are suspected to be the cause of the decline of the spotbilled pelican *Pelecanus philippensis*, which has disappeared from Burma (where vast colonies existed in the 19th century), and is now confined to India and Sri Lanka. The Asian Waterfowl Census recorded maxima of



Richard Packwood's photograph of a ground squirrel confronting a young Cape cobra in the Kalahari Gemsbok National Park, South Africa, was specially commended in the Wildlife Photographer of the Year 1990 Competition. Details page 60.

2000 and 3600 in these countries, respectively. The International Waterfowl and Wetlands Research Bureau Pelican Research Group is starting a project to identify the most important areas for the pelican and to investigate causes for the decline. *IWRB News*, July 1990, 7.

Masks deter man-eaters

The annual toll of men killed by tigers in India's Sundarbans Tiger Reserve fell to 12 in 1989 compared with 30 in 1986 before the introduction of human face masks for workers to wear on the back of their heads. Only two men who had masks were killed in 1989, although it is not known if they were wearing them at the time of the attacks. *Cat News*, July 1990, 2.

Tigers in India

There are 4334 tigers *Panthera tigris* in India, according to the 1989 census, compared with 4005 in 1984. Of these 1327 are in 18 tiger reserves, which cover an area of 28,017 sq km. The 18th tiger reserve, Valmiki, was established in January 1990 on the northern border of Bihar state; it covers 840.26 sq km adjoining the Royal Chitwan National Park in Nepal. *Cat News*, July 1990, 3.

Asiatic lions

There are 284 Asiatic lions *Panthera leo persica* in their sole home, the 1412-sq-km Gir Lion Sanctuary in western India. This shows a continued increase since 1974, when 180 were counted. This good news is clouded by 90 reported attacks on local people in the past 2 years, in which at least 15 have died. Lions stray 40–60 km outside the sanctuary, sug-

gesting that its carrying capacity is exceeded. There are long-standing proposals to create a second lion sanctuary to relieve pressure on the Gir and to lessen the risks of a catastrophe wiping out the only lion population but it is difficult to find an acceptable site. *Cat News*, July 1990, 12.

Gaia Quest

The Gaia Quest Trust, founded in Britain in 1989, aims to promote marine biological and oceanographic research in the world's shallow waters. The Trust's first initiative is to build and equip a catamaran to provide groups of up to 12 scientists with a practical, cost-effective base for research in the Indian Ocean. Scientists are invited to complete a questionnaire to ensure that the equipment on board *Gaia Quest 2* will fulfil a wide range of research needs. Details from: Richard Speir, Gaia Quest Trust, Geology Department, Imperial College of Science and Technology, Prince Consort Road, London SW7 2BP, UK.

Nepal mugger decline

The marsh mugger crocodile *Crocodylus palustris* has disappeared from many former haunts in Nepal and is severely threatened in its remaining stronghold. A survey conducted from October 1986 to May 1988 estimated a total minimum of 100 animals, with 70 per cent being in Royal Chitwan National Park. Threats include hunting for sport and because of potential threats to children and livestock, overfishing leading to depletion of prey, disturbance at basking sites, destruction of habitat and reduction of water temperature caused by dams, egg collection, invasion of introduced water

hyacinth and water pollution. Recommendations to conserve mugger populations include education programmes, creation of disturbance-free mugger zones, establishment of a mugger egg hatchery and the improvement and creation of habitats. *Asian Wetland News*, 2 (2), 6.

Elephant-hide trade denied

Claims made by the UK-based Care for the Wild that there was a booming illegal trade in elephant hide products in Thailand (see *Oryx*, 24, 194) appears to be unfounded. The group estimated that the Karen National Union in Burma were killing 50 elephants a week and sending the hides to Chiang Mai in northern Thailand. The Karen have denied the accusation and the *Bangkok Post* investigated the reports and discovered that most of the elephant skin products sold in Phuket and Chiang Mai were fake and made of cow or buffalo hide. One shop-owner said that most tourists cannot tell the difference and that a common sales pitch is to tell customers that they are buying genuine elephant hide, but advising them to tell customs that it is cow hide. A small amount of elephant hide is sold in Chiang Mai, but undercover and at a much higher price. Its source is said to be in Bangkok. *Bangkok Post*, 2 September 1990.

Thai tuna ban

Thai tuna processors are to stop buying white tuna caught in drift nets according to the Thai Food Processors Association (TFPA). Tuna from drift nets in the Eastern Pacific accounts for 3 per cent of Thailand's annual exports of canned tuna and is supplied mainly from Japan and Taiwan. The TFPA move is

in response to global concern over drift-net fishing, which traps dolphins as well as tuna. Agence France Presse, 4 July 1990.

Milky storks breed again in Malaysia

Milky storks *Mycteria cinerea* are breeding again in Malaysia for the first time for 50 years; 21 nests were discovered in the Mating Forest Reserve, Perak, in November 1989 by a Department of Wildlife and National Parks team. Although 100–150 birds were estimated to be present from aerial surveys in 1984, it is believed that numbers have declined since and a consistent failure to breed was attributed to a lack of suitable tall trees and disturbance. Vigilance by rangers is likely to have been a significant factor behind the resumption of breeding.

Asian Wetland News, 2 (2), 1.

Logging halted at Bintuni Bay

Indonesia has ordered a timber company to suspend logging at Bintuni Bay while officials inspected the operation. The country's forestry minister said that in a recent crackdown on indiscriminate logging practices logging companies had been fined \$US500,000 for breaches of licences and 64 licences had been revoked. The logging at Bintuni Bay is carried out by an Indonesian company Bintuni Utama to supply wood chips to Japan and is partly financed by the Murubeni Corporation of Japan, dubbed the 'World's number one forest destroyer' by the Japan Tropical Forest Action Network (see *Oryx*, 24, 133). Indonesia banned log exports in 1985 in order to encourage the development of

national wood processing industries and is now the world's largest exporter of plywood. It is estimated that Indonesia's natural forests will have largely disappeared within 10 years except for Irian Jaya where they might last 20–30 years, and the country will be increasingly reliant on eucalyptus monocultures.

The Guardian, 19 October 1990.

Indonesian volunteers plant mangroves

YASIKA, a voluntary organization concerned with rural development, has started a mangrove reforestation project at Bagan Percut near Medan, Sumatra. Large-scale clearance in the area for aquaculture development had resulted in sharp declines in numbers of fish and prawns and in the income of local fishermen. In August 1989 200,000 mangrove seedlings were planted, an awareness campaign was mounted to highlight the value of mangroves and working groups of local people were appointed to oversee the project. The second phase starting in 1990 involves planting 300,000 seedlings along a 'green belt'.

Asian Wetland News, 2 (2), 16–17.

NORTH AMERICA

Bison herd to die

The panel appointed to decide on the fate of the 3200-strong Wood Buffalo bison herd has recommended that they should be killed (see *Oryx*, 24, 133–134). A leading bison expert, Valerius Geist, of the University of Calgary has accused the panel of conducting 'poor science'; he believes that the Canadian Government

wants to eliminate the herd to make way for bison ranching as an alternative to agriculture for thousands of farmers who have declared bankruptcy.

New Scientist, 15 September 1990, 24.

'Extinct' fish to be reintroduced

The aurora trout which is endemic to a small series of lakes in north-eastern Ontario, Canada, became extinct in the wild in the early 1960s because the lakes became heavily acidified due to the emissions from nickel smelters nearby. A biologist with Ontario's Ministry of Natural Resources had started collecting the trout's eggs in 1957 and a few thousand individuals of the resulting captive stock are to be released into one of the lakes. The water is still too acidic for them to survive without the addition of lime. Although stronger emission-control regulations should help, it may take decades for the lakes to recover fully. More than 150,000 Canadian lakes are affected by acid rain.

Canadian Nature Federation Almanac, July 1990.

Neosho madtom listed

The Neosho madtom *Noturus placidus*, a small catfish of the Neosho River and two of its tributaries in Kansas, Missouri and Oklahoma, has been listed as Threatened. There are only three isolated populations left and dams, additional water withdrawals and pollution are potential threats.

Endangered Species Technical Bulletin, June 1990, 6.

Emergency listing of warbler

The golden-cheeked warbler *Dendroica chrysoparia* has been

listed as Endangered under the emergency listing provision of the US Endangered Species Act. It breeds only in parts of central Texas where its woodland nesting habitat is being cleared. The warblers have very specific habitat requirements, needing fairly large areas of mature Ashe juniper and oak and in the past 10 years 15–45 per cent has been lost.

Endangered Species Technical Bulletin, June 1990, 1 & 6.

Growing demand for dolphin-safe tuna

Three major tuna canners selling fish in the US pledged their support for legislation requiring labelling of all cans as dolphin-safe or dolphin-unsafe in May 1990. Star-kist, Chicken-of-the-Sea and Bumble Bee, which supply 84 per cent of the US market, also said they would not import tuna caught with nets that also kill dolphins. *Monitor*, 7 May 1990.

Wolves in Washington

Two grey wolf *Canis lupus* packs with cubs have been

found in the North Cascades area of Washington, the first ones known within the state since the early 1900s. To protect the cubs the US National Park Service closed the Hozomeen section of the Ross Lake National Recreation Area to public use in June 1990 and closed the Hozomeen backcountry to all dogs to reduce the possibility of spreading canine parvo virus to the wolf cubs.

Endangered Species Technical Bulletin, June 1990, 6.

Defiant shrimpers fined

The US Commerce Department has levied heavy fines against 17 shrimp fishermen who refused to use the required Turtle Excluder Devices in the Gulf of Mexico. This was the first set of prosecutions under regulations that went into effect in September 1989 to protect sea turtles. The judge, who levied the fines of \$7500–12,000, criticized the leadership of an association of Louisiana shrimpers, which has been inciting shrimpers against the rules. The Coast Guard has

issued more than 300 more citations against violators and it is hoped that the stiff fines will encourage better compliance. *Monitor*, 25 June 1990.

Curb in cucumber catch

New rules have been introduced to control the take of sea urchins and sea cucumbers on the US Pacific coast. California imposed rules to cut back on diving operations for sea urchins, including a closure of the fishery during July. In Alaska, where the fishery for sea cucumbers started in 1987 with four divers and involved 180 by 1989, the Department of Fish and Game is considering a management plan for the resource.

Fishing News International, September 1990, 4.

No money for Hawaiian snails

All 41 species of endemic Hawaiian tree snails of the genus *Achatinella* were listed by the US as Endangered in 1981. Then 22 species were probably extinct; now only two remain in substantial numbers and they are declining rapidly. A recovery plan has been drawn up for the remaining populations but the US Fish and Wildlife Service has no money to implement it.

Tentacle, December 1989, 8.



This photograph of a great grey shrike feeding on a sparrow was taken by Roland Mayr from Austria, winner of the Animal Behaviour category in the Wildlife Photographer of the Year 1990 Competition. Details of results on page 60.

CENTRAL AMERICA

Kemp's ridley rarer

In 1989 835 nests of Kemp's ridley turtle *Lepidochelys kempii* were recorded at Rancho Nuevo, Tamaulipas, Mexico, the only known nesting site. Calculations based on new observations suggest an average of 2.31 nestings per turtle,

giving a nesting population of 361.7 turtles. This is substantially lower than the 472–545 estimated using previous methods and makes the loss of even a single adult correspondingly more serious.

Marine Turtle Newsletter, April 1990, 1–3.

Cuban cranes

Numbers of the endangered Cuban sandhill crane *Grus canadensis nesiotis* are declining. In the early 1950s there were about 200 individuals, now there are 54: 20 on the Isle of Pines, 20 in Zapata Swamp and 14 in Camaguey province. Zapata National Park is woefully understaffed and the birds are threatened by poachers. Also US government policy may be contributing directly to destruction of crane habitat; the trade embargo makes it difficult for Cuba to obtain sufficient oil and Cuba is forced to fell its forests (only 12 per cent of these remain) to make charcoal. Cuba is to develop a conservation plan for the cranes helped by the US Fish and Wildlife Service.

The ICF Bugle, August 1990, 2.

SOUTH AMERICA

Brazilian reforestation plan

Twelve scientists and industrialists in Brazil have drawn up the Floram project (Florestas para o ambiente) to reforest 201,000 sq km. The project does not have official support and has provoked controversy in the government; the Science and Technology Secretary is trying to obtain international funding but the Environment Secretary says the plan is technocratic. The goals are to fight global warming, to prevent soil erosion, provide raw material

for industry and to prevent further destruction of existing forests. Three types of reforestation are planned: reinstating original forests; plantations for industrial use; and mixed-use forests. Both mature and introduced trees would be used.

New Scientist, 8 September 1990, 32.

Brazil fines timber company

The Brazilian Government has fined a timber company Gethal Amazonia £1.4 million after a helicopter survey revealed that it had chopped down trees without authority in the Amazon rain forest.

The Guardian, 10 October 1990.

Ecuador protects turtles

On 31 July 1990 Ecuador afforded complete protection to all species of sea turtles occurring in its waters and prohibited the capture, processing, and internal and overseas trade in these animals.

Traffic Bulletin, 17 September 1990, 63.

AUSTRALIA/ANTARCTICA

Ban on woodchip exports

New Zealand's new Indigenous Forest Policy includes a ban on the export of native woodchips except from sustained yield management areas. For private landowners this amounts to a total ban as none has sufficiently large holdings of beech forest for a sustained yield regime to be practical or economically viable. Other features of the policy include an annual allocation of \$6.75 million for indigenous forest protection on private land, proposals to intro-

duce ecologically based land-use controls covering indigenous forest on private land, and a commitment to negotiate with Southland Maori landowners affected by the export ban. There are loopholes, however, and the West Coast beech forests are exempt from controls because of a previous agreement.

Conservation News, July 1990, 1–2.

Success for takahe

The Threatened Species Unit of New Zealand's Department of Conservation reports that captive breeding has been successful for the takahe *Porphyrio mantelli*; birds have been released in the Glaisnock area of the Stuart Mountains, where they are attempting to breed, and two populations have been established on Maud and Mana Islands. Takahe now number 260 compared with 120 in 1983.

Forest & Bird, August 1990, 4.

Ginger invaders

Two species of ginger, *Hedygium gardnerianum* and *H. flavescens*, widely grown as ornamentals, have become established in the wild in New Zealand where they form dense stands in native forest. Already widespread in the Waitakere Ranges, Northland and Coromandel forests, they have started to spread south.

Forest & Bird, August 1990, 4.

Black robin progress

The Chatham Island black robin *Petroica traversi*, which is endemic to the Chathams 850 km east of New Zealand's South Island and whose population plummeted to only five in 1980, now numbers 116 birds thanks to an intensive management programme. It involved

manipulating nesting cycles, fostering eggs and young to other species and moving the major robin population to South East Island where more habitat was available. All surviving robins are descended from one pair but there is no indication of genetic degeneration. Efforts are now concentrating on establishing a population on Pitt Island, which is rat free and where plans are under way to eradicate feral cats. *Forest & Bird*, August 1980, 14–19.

Fur seals victims of fishery

More than 1000 southern fur seals *Arctocephalus forsteri* died in the hoki *Macruronus magellanicus* fishery off New Zealand's west coast in 1990. Most of the hoki is processed on board, the discarded waste attracting seals, which become entangled in the hoki nets and drown. The Royal Forest and Bird Protection Society called for several remedial measures but the Government dismissed all the recommendations, instead issuing guidelines to skippers on ways to reduce seal kills. Some responded and managed to reduce seal kills, others did not. *Conservation News*, July 1990, 1, 8 August 1990.

Reduction in roughy catch

The New Zealand Fisheries Minister has announced major reductions in the orange roughy catch in its Exclusive Economic Zone. Some fishery scientists had been concerned that the catch of this valuable fish were not sustainable and have now confirmed that the fish is very slow growing, does not reproduce until 20 years old and lives for up to 100 years. The fishing industry and for-

eign nations have also agreed to significant catch reductions in adjoining international waters. Further reductions are still required and recovery of stocks is expected to take decades. *Conservation News*, July 1990, 3.

Penguin stampede verdict

The Tasmanian Government has recommended tight controls of flights over Macquarie Island following its inquiry into the deaths of about 7000 king penguins *Aptenodytes patagonicus* there. The birds died when they stampeded and were crushed against thick tussock grass and the inquiry found that the most likely cause of the stampede was a large aircraft flying at low altitude. A Hercules transport plane of the Royal Australian Air Force flew near the island around the time of the deaths but the RAAF has denied that the plane caused the stampede. *New Scientist*, 1 September 1990.

Storks used in power struggle

Black-necked storks *Ephippiorhynchus asiaticus*, threatened by power lines crossing their flight path, have come to symbolize landowners' protests against a project to transmit electricity to a large part of rural New South Wales, Australia. The northern section of a power line to run 80 km from Grafton south to Karangi is being driven through wetlands at Coutts Crossing, which is home for the storks as well as other rare and endangered birds. Protestors, who include 46 of the 102 landowners affected by the line, hoped to stop the project in the Land and Environment Court at a hearing on 5 September and the State

Government started an inquiry into the environmental aspects of power lines in general. However, work on the line continues and landowners were prepared to take action against the bulldozers. *The Australian*, 26 June 1990.

Bat caves protected

Mt Etna in Queensland, a former conservationists' battleground (*Oryx*, 24, 46), is to be given national park status. Last June the Minister for the Environment announced that 15 ha around Mt Etna would be included in the Fitzroy Caves National Park to protect Bat Cleft, which is home for two endangered bat species, lesser bent-winged bat *Mimiopterus australis* and ghost bat *Macroderma gigas*. The Minister for Resource Industries said that Queensland Cement and Lime, which had blown up other bat caves on Mt Etna in 1988 and 1989, had agreed to relinquish related limestone leases to allow the park declaration. *The Australian*, 26 June 1990.

Finch decline due to mite?

The population crash in the Gouldian finch *Chloebra gouldiae*, which survives only in parts of the Kimberleys in northern Australia, has been attributed to heavy trapping pressure from the aviary trade but it appears that an air-sac mite *Sternostroma tracheocolum* may have contributed to their decline. *SSC Veterinary Group Newsletter*, June 1990, 11–12.

OCEANIA

Japan suspends drift nets

Before the start of the Pacific

Forum meeting in Vanuatu, Fiji in 1990, Japan announced that it was suspending its South Pacific drift-netting operations for the year. At the 1989 meeting Japan and Taiwan had been condemned for refusing to cease drift-netting despite warnings from scientists that the albacore tuna fishery was in danger. The Japanese say they are now ready to halt drift-netting there until scientists decide on what the fishery can sustain. Taiwan has not made a similar move but has withdrawn some vessels.

Fishing News International, August 1990, 2.

PNG orchid ban

The Department of Environment and Conservation of Papua New Guinea has imposed a total ban on the export of wild orchids to conform with CITES regulations. The Department Secretary said that villagers in some areas were collecting orchids from the wild to supply collectors visiting from overseas and that some species were locally depleted.

Post Courier (Port Moresby), 5 September 1990.

Partula news

Although the seven species of *Partula* snails from Moorea in the South Pacific are extinct in the wild and endemic species on Tahiti, Huahine and Saipan are threatened, over 4000 individuals are in captivity in zoos and laboratories in Europe, Australia and the USA.

Of the Moorean species, *P. aurantia* survives as a single individual at the University of Virginia, while *P. mirabilis* and *P. tohiviana* are represented by 31 and 145 specimens, respectively. It is expected that Tahiti *Partula* spp. will become extinct

in the wild very soon; colonies of six Tahiti species are already in captivity but *P. clara* is represented by only two snails.

Tentacle, December 1989, 6;
Captive Breeding Specialist Group News, Summer 1990, 19.

Megapode move

With an oil depot being set up on Nivafo'ou, Tonga, (See *Oryx*, 24, 136–137), Dr Dieter Rinke, working on a Brehm Fund for International Bird Conservation project, is investigating the possibility of reintroducing the megapode *Megapodius pritchardii* to Late. *Flying Free*, Spring/Summer 1990, 7.

Rescue of a silktail

An urgent rescue package has been assembled by New Zealand's Royal Forest and Bird Protection Society for the Vanua Levu silktail *Lamprolia victoriae*. About 235 birds survive in rain forest on Vanua Levu, Fiji but Fiji Forests Industry (FFI) was logging the remaining forests for veneer processing and export. A Forest and Bird team, invited to make a survey by Fiji's Native Lands Trust Board, has recommended a 500-ha reserve amongst other things. The FFI has agreed to stop logging while the proposals are considered.

Forest & Bird, August 1990, 2.

MEETINGS

Rhino symposium

The International Symposium on the Biology and Conservation of the Rhinoceros, to be held 9–11 May 1991 in San Diego, California, will include sessions on status and conservation plans in countries with wild

rhino populations, analysis of trade in rhino products, recent findings in biology and veterinary medicine, and captive breeding. For further information contact: Oliver Ryder, 1991 Rhino Conference, Zoological Society of San Diego, PO Box 551 San Diego, CA 92112-0551, USA.

Ungulate conference

The Institut de Recherche sur les Grands Mammifères is convening a major international congress, Ungulates 91, on 2–6 September 1991 in Toulouse, France. The purpose of the meeting is to bring together those involved in the management and protection of free or captive populations of wild ungulates. Details from IRGM, Centre de Recherche Agronomique de Toulouse, BP 27, F-31326 Castanet-Tolosan Cédex.

The Ecology and Conservation of Palearctic–African Migrants

This international conference is structured around the annual cycle of passerine and near-passerine migrants, covering breeding and winter ecology, migration, population dynamics and conservation. It will be held 4–7 April 1991 at the University of East Anglia, Norwich, UK. Further information from: Mrs G. Bonham, Administrative Secretary, BOU, c/o British Museum (Natural History), Tring, Herts HP23 6AP, UK. Tel: 0442 890080.

Kew Conservation Conference

The Royal Botanic Gardens, Kew, will hold an international conference on 1–5 September 1991. It aims to review advances in botanic garden

practice relating to both *ex-situ* and *in-situ* conservation and will discuss plant reintroduction programmes, genetic diversity, analysis of required resources, logistics and ability to adopt long-term commitment. For further information contact: Ian Beyer, Kew Conservation Conference, Royal Botanic Gardens, Kew, Richmond, Surrey TW9 3AB, UK.

Tenth World Forestry Congress

The Tenth World Forestry Congress will be held in Paris, 17–26 September 1991. The theme of the meeting is 'Forests, a heritage for the future'; the Government of France and FAO are co-sponsors. Information from: Organizing Committee, Tenth World Forestry Congress, Centre technique forestier tropical, 45 bis, av. de la Belle Gabrielle, 94736 Nogent-sur-Marne, France.

PUBLICATIONS

Bird publications from the NCC

Approximately one-quarter of all the world's birds—some 2200 species—are included in the 274-page *World Checklist of Threatened Birds*. Scientific and English names are given for each species, as well as status under CITES and in the IUCN Red List, forms of exploitation and references. *Protecting Internationally Important Bird Sites* is a review of the EC Special Protection Area network in Great Britain. The books can be obtained for £20.00 and £17.00, respectively, post free from: Publication Dept BRV, Nature Conservancy Council, Northminster House,

Peterborough PE1 1UA, UK.

Rainforests: A Guide to Research and Tourist Facilities at Selected Tropical Forest Sites in Central and South America

This book by James L. Castner covers sites in seven of the most accessible countries in the New World tropics. Its 416 pages present a wealth of information for anyone who wishes to study or visit rain forests in Latin America. It is available from: Feline Press, PO Box 7219, Gainesville, FL 32605, USA for \$21.95 plus \$1.50 post (in US), \$2.50 (to Canada) or \$3.50 overseas.

Galápagos conservation

Issue No. 49 of *Noticias de Galápagos* is devoted to 'A Brief History of the Charles Darwin Foundation for the Galápagos Islands 1959–1988'. Written by G. T. Corley Smith, Secretary General from 1972 to 1981, its 36 pages record 30 years of impressive conservation achieved in partnership with the Ecuadorean Government. The story focuses on the activities of the Charles Darwin Research Station and deals chronologically with developments under successive directors. *Noticias de Galápagos* (Editor Thomas H. Fritts), National Museum of Natural History, Washington, DC 20560, USA.

PEOPLE

Mr Byron Antipas is retiring from the Hellenic Society for the Protection of Nature after more than 40 years of service as General Secretary.

Eugene Lapointe, who was Secretary General of CITES for

8 years, has been dismissed by the United Nations Environment Programme.

OBITUARIES

Howard Douglas Kirk died, aged 63, in a car accident in the Transvaal on 1 August 1990. He was a respected naturalist and defender of wildlife and an accomplished film maker, making several films on conservation. He was a founder Trustee of Mlilwane and a Founder Member of the lowveld branch of the South African Wildlife Society.

Seub Nakhasathien, Head of the Huay Kha Khaeng Wildlife Sanctuary at Uthai Thani in Thailand, died in September. It is believed that he took his own life because of his frustration at his inability to protect the sanctuary from poachers and encroachers. The poachers include high-ranking officials and some forestry department staff are reported to be co-operating with illegal hunters and loggers. Spurred into action by Seub Nakhasathien's death, the Forestry Department Director-General, Phairoj Suwanna Korn, has agreed to send a company of paramilitary rangers to the sanctuary and Army Commander-in-Chief Gen. Suchinda Kraprayoon has pledged the army's help. A report of Seub Nakhasathien's work rescuing wild animals from the rising waters behind the Chiew Larn Dam was published in *Oryx* (23, 146–154). He had been honoured as an outstanding forestry official by the Wildlife Fund Thailand and named Thailand's outstanding conservationist by the Siam Environment Club. The Seub Nakhasathien Memorial Foundation has pledged to continue his work.