

International

New Ramsar Parties

Four new Parties have acceded to the Ramsar Convention on Wetlands. Syria's ratification came into force on 5 July 1998 and its first designated site is the Lac de Sebkhah al-Djabbul. Luxembourg became the 108th Contracting Party on 15 August 1998—the last of the 15 EU countries to join—and named its first site as Haff Réimech, a 313-ha former quarry on the left bank of the River Moselle. Belize's accession came into force on 22 August 1998, with its first wetland sites under the Convention being Crooked Tree Lagoon Area and Mexico and Jones Lagoon Area. Thailand became the 110th Contracting Party on 13 September 1998 and designated the Kuan Ki Sian of the Thale Noi Non-Hunting Area Wetlands as its first wetland of international importance.

Source: *The Ramsar Newsletter*, August 1998, No. 28, 1 & 6.

Carbon sequestration—potential problems

As a result of the Kyoto Protocol at the 1997 Climate Change Convention Conference, large sums of money may become available from industry and governments for tree planting, with the intention of sequestering carbon and reducing climate change. In theory this could help conservation but it could do more harm than good if, for example, natural forests are replaced by plantations, and it may be an excuse for business as usual—planting trees in remote countries is easier, but less effective, than reducing pollution at source. The IUCN and WWF are drawing up a strategy towards such projects to maximize their conservation potential. Source: *Arborvitae*, The IUCN/WWF Forest Conservation Newsletter, August 1998, No. 9, 1.

Agreement for dolphins

An Agreement on the International Dolphin Protection Programme was signed (by Ecuador, Mexico, Nicaragua, Panama, USA, Vanuatu and Venezuela) in May 1998 to protect dolphins and other marine species in the eastern Pacific Ocean. The Agreement, reached at an intergovernmental meeting associated with the Inter-American Tropical Tuna Commission, is the culmination of nearly 6 years of effort and establishes one of the strongest marine resources conservation programmes in the world. While voluntary measures aimed at reducing the drownings of dolphins in tuna fishing nets have resulted in a reduction in dolphin deaths, from 100,000 in 1989 to 2600 in 1996, signatory nations are being urged to adhere closely to the Agreement to ensure that the number of deaths continues to fall.

Source: *Marine Pollution Bulletin*, 36(7), 506.

Technology for tuna

A pop-off satellite tag has been developed to investigate the movements of Atlantic bluefin tuna *Thunnus thynnus thynnus* and potential overlap of western and eastern stocks. The tag also archives data on water temperature and is designed to drop off the fish at a programmed date. The technology provides data independent of commercial fisheries and should permit a critical test for the stock structure hypothesis of these intensively exploited fish, which are currently managed as separate eastern and western stocks.

Source: *Proceedings of the National Academy of Sciences, USA, Ecology*, 95, 9384–9389.

9000 threatened tree species

Almost 9000 of the world's tree species are threatened according to research conducted for the World Conservation Monitoring Centre in Cambridge, UK, with funding from the Netherlands Government. The

result, which draws on contributions from over 300 experts around the world, is the most comprehensive status report on trees ever produced. At least 77 species have already become extinct, 8753 are Critically Endangered, and a further 1319 are Endangered. Trees in these categories include many species that are known to be useful as a source of timber, fuel, medicines, food and oils. Source: Oldfield, S., Lusty, C. & MacKinnon, A. (1998) *The World List of Threatened Trees*. World Conservation Press, Cambridge, UK.

New Party to CITES

Azerbaijan has become the 145th Party to accede to the Convention on International Trade in Endangered Species of Wild Fauna and Flora. The accession, on 23 November 1998, will enter into force on 21 February 1999. Source: CITES Secretariat, 9 December 1998.

New Parties to Bonn Convention

Membership of the Convention on the Conservation of Migratory Species (Bonn Convention) has risen to 55 with the accession of Mauritania, Romania and Uzbekistan. Source: Convention on the Conservation of Migratory Species, 24 August 1998. Web: <http://www.wcmc.org.uk/cms/>

Europe

Ban on drift nets

European Union fisheries ministers have voted for a general ban on drift-nets in European seas except the Baltic. It is the first time that the EU has placed a blanket ban on any type of fishing gear, and is a response to concerns about the 'by-catch' of sea mammals and turtles, and the impact of such nets on declining fish stocks. Source: *Marine Pollution Bulletin*, 36(9), 657.

Great bustard conservation initiative

The great bustard *Otis tarda*, one of the most endangered birds in Europe, has vanished from large regions of its traditional European range. Without active protection, the species is doomed to disappear. The Secretariat of the Convention on the Conservation of Migratory Species has drafted a Memorandum of Understanding aimed at conserving the mid-European population of this species, and has submitted it for discussion to the authorities of the Range States and the relevant international governmental and non-governmental organizations. *Source:* Convention on the Conservation of Migratory Species, 3 September 1998. *Web:* <http://www.wcmc.org.uk/cms/>

Great tits lose colour

Atmospheric pollution in the form of oxides of sulphur and heavy metals has been found to kill the caterpillars from which great tits *Parus major* obtain the yellow pigments that are important in sexual attraction. A study of tits within 6 km of a copper smelter in the south-west Finnish town of Harjavalta found that the intensity of the yellow coloration in the breast plumage of nestlings, the weight of nestlings and the density of caterpillars all increased with distance from the smelter. *Source:* *Functional Ecology*, 12, 607.

New approach to site protection in UK

The British Government has proposed new measures to protect Sites of Special Scientific Interest. Instead of landowners being paid compensation for not using the sites, they will be paid only if they agree to manage the sites for the benefit of conservation. Of the UK's 5000 SSSIs, two-thirds are privately owned. *Source:* *Nature*, 395, 212.

Round Island boas breed again at Jersey Zoo

Jersey Zoo is the only zoo in the world to breed Round Island boas *Casarea dussumieri*. These Endangered snakes from Round Island near Mauritius, have always been difficult to breed in captivity. Collected in 1977 and 1978, the snakes bred successfully during the 1980s but since 1990 the

eggs have either been infertile or failed to hatch. Modifications made to the boa's diet, accommodation and seasonal environment, ultra-sound scans to check reproductive cycles and finally the supplementation of the diet with calcium and vitamin D3 have achieved the desired result. In August 1998, 12 of a clutch of 13 eggs hatched successfully, with 22 more eggs expected to hatch soon.

Source: Jersey Wildlife Preservation Trust, 7 August 1998.

Hungarian bat caves protected

Important bat caves in Hungary have been protected from humans by grilles across the entrances in a Fauna & Flora International's 100% Fund project. The caves include the Manfa cave, which provides refuge for 10,000–15,000 individuals of 19 of the 26 bat species found in the country. The bats were threatened particularly by people lighting fires in the caves. *Source:* FFI files.

Pollution threat to Doñana continues

Almost 5 months after the spill of toxic sludge from a mine reservoir into the River Guadiamar in April (see *Oryx*, 32(3), 179) there is still no sign of any unified response to the emergency in Doñana National Park, Spain. In July, 300 whiskered terns *Chlidonius hybridus* and 150 coots *Fulica atra* were found dead. The clean up operation has been poorly co-ordinated and slow and has increased the risk of autumn rains washing metals downstream into Doñana and the underlying aquifer. Meanwhile heavy metals continue to seep into the soil and it will be nearly 2 years before the surface clean up is completed. The Spanish Ornithological Society is taking legal action through the European Commission against the Spanish administration for its failure to prevent the contamination of the wetland buffer zone of Doñana National Park—a World Heritage Site and home to more than 250 bird species.

Source: *World Birdwatch*, September 1998, 20(3), 3.

Forest fires in Greece

Fires threatened forests of international importance in Greece in 1998, with over 100,000 ha reported as having

burnt. In the Peloponnese peninsula the Taygetos forest, Greece's richest forest in terms of biodiversity, burnt for several days. It has more than 160 endemic plant species (of which 21 are exclusive to the forest itself) and 36 rare or endangered animal species. Aristotelis Papageorgiou, WWF Greece forest officer, blamed arsonists wanting to clear land for settlement and development.

Source: *Arborvitae*, The IUCN/WWF Forest Conservation Newsletter, August 1998, No. 9, 2.

Wildlife trade ban called for against Greece

The Secretariat of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) has recommended that Parties to the Bonn Convention ban trade with Greece in all species covered under the treaty from 1 September 1998. A TRAFFIC Europe spot-check of 16 retail outlets in Athens, Greece, in July found wildlife and wildlife products that were banned or strictly regulated in international trade. These included spotted cat furs, elephant ivory and hawksbill turtle shell items as well as live animals. Greece is one of the most important markets in the world for wild-cat and other furs. It has been responsible for implementing CITES under EU legislation since 1984 and has been a member of CITES since 1993. Despite earlier TRAFFIC findings of illicit trade and a number of steps by the CITES Secretariat and the European Commission, Greece has made very little effort to improve the situation since concerns were first raised in the 1980s.

Source: TRAFFIC, 20 August 1998.

Web: <http://www.traffic.org>

Illegal drift-netting continues

Illegal drift-netting continues in the Italian Mediterranean, according to Greenpeace, which claims to have found 14 illegal drift-netters in just over a week. Despite a UN moratorium on large-scale drift-nets, the EU has allowed the use of drift nets up to 2.5 km long. Greenpeace claims that the length restriction appears to be unenforceable and that little action was taken by the Italian

authorities when nets of up to 8 km long were reported.

Source: *Marine Pollution Bulletin*, 36(7), 507.

Whales vulnerable to low frequency sounds

Further evidence for the impact of Low Frequency Active Sonar (LFAS) on cetaceans has been presented, based on the synchronicity between the mass stranding of Cuvier's beaked whale *Ziphius cavirostris* in the Mediterranean and the acoustic testing of a system for detecting submarines by the North Atlantic Treaty Organization (NATO). No abnormalities or wounds were found in the stranded whales. It is believed that deep-diving whales such as Cuvier's beaked whale may be particularly vulnerable to low-frequency sounds. Similar tests of LFAS systems have been implicated as the cause of three previous atypical mass strandings of this species around the Canary Islands.

Source: *Marine Pollution Bulletin*, 36(7), 506–507.

North Eurasia

Greenshank first for Russia

The Endangered Nordmann's greenshank *Tringa guttifer* has been recorded breeding for the first time on the north-western coast of the Sea of Okhotsk, Russia. This range extension may mean that the population is higher than the current estimate of 1000 birds.

Source: *World Birdwatch*, September 1998, 20(3), 3.

North Africa and Middle East

Shark fishing increasing off southern Yemen

A study funded by Fauna & Flora International's 100% Fund found that the level of exploitation of sharks and rays increased as scientific fisheries monitoring decreased from north to south in the Red Sea. Shark fishing has been banned off the Mediterranean and Red Sea coasts of Israel since 1971 but the quantity of sharks and rays landed on southern

Yemen coasts has been increasing.

Source: FFI files.

Bustard discoveries in Turkey

Important new breeding sites have been discovered in the Konya Basin, Turkey, for the Near-Threatened little bustard *Tetrax tetrax*, and the Vulnerable great bustard *Otis tarda*. The little bustard had been considered extinct as a breeding bird in Turkey.

Source: *World Birdwatch*, September 1998, 20(3), 2.

Sub-Saharan Africa

Mauritanian park gets help

To allow sustainable management of the fish population in Mauritania's Parc National du Banc d'Arguin, the World Wide Fund for Nature has raised SF400,000 for park surveillance, including three new patrol boats. Together with capacity-building workshops for the park's 1500 human inhabitants, the boats will help curtail the threat posed by pirate fishing boats and help park dwellers to improve their living conditions without being driven to overfishing by competition from poachers. The park was founded in 1976, mainly for its birdlife. It covers 12,000 sq km, equally distributed between land and sea and is Africa's largest coastal national park, a wetland of international importance registered under the Ramsar Convention and a UNESCO World Heritage Site.

Source: WWF, 5 October 1998.

Web: <http://www.panda.org>

Warbler rediscovery

A population of the Vulnerable Cape Verde warbler *Acrocephalus brevipennis* has been rediscovered on São Nicolau in the Cape Verde Islands. It was last reported from São Nicolau in 1924 but a specimen taken on the island in 1970 was recently discovered in a collection in Lisbon, Portugal. The warbler's historical range was the three islands of the Cape Verde group—Santiago, São Nicolau and Brava. The population has declined drastically on Santiago and there have been no records from Brava since 1969.

Source: *World Birdwatch*, September 1998, 20(3), 6.

New firefinch from Nigeria

A new species of firefinch, the rock firefinch *Lagonosticta sanguinodorsalis* has been described from the Jos Plateau in northern Nigeria. It appears to be most closely related to the Mali firefinch *L. virata* and the Chad firefinch *L. umbrinodorsalis*. Its distinctive songs are mimicked by the brood-parasitic Jos Plateau indigobird *Vidua maryae*, whose songs led to the discovery of the firefinch.

Source: *Ibis*, 140, 368–381.

Walia ibex, increasing but still threatened

The Critically Endangered Walia ibex *Capra walia*, which is confined to the Simien Mountains National Park and the south-eastern part of Mount Buahit in Ethiopia, appears to be recovering from the effects of instability, which started in the region in 1983. Since the establishment of peace, surveys showed that the population of this species increased from 230 in 1994 to 350 in 1996. Although control of poaching has improved, threats to the habitat remain in the form of encroachment by settlers and the building of an all-weather road on the edge of the ibex's main habitat. Some ibex occur outside the park and it has been recommended that the park boundaries be extended to include all potential ibex habitat.

Source: *Walia*, 18, 28–34.

Unsustainable hunting in Central African Republic

Research in Dzanga-Sangha Special Reserve of the Central African Republic suggests that BaAka net hunters may overexploit primary game species, including the blue duiker *Cephalophus monticola* and the bay duiker *C. dorsalis*, as BaAka populations grow and hunting ranges decline. Given the dynamic socio-economic conditions, subsistence hunting over the long term is not ecologically sustainable. Wildlife management programmes therefore must develop viable subsistence and economic alternatives for local residents.

Source: *Biological Conservation*, 86(2), 161–167.

Value of bird and butterfly surveys

Comprehensive surveys to identify sites of conservation value are

expensive and time consuming. For example, a recent survey of 2452 species of birds, butterflies, large moths, woody plants and small mammals in 50 forests in Uganda took 5 years and cost £600,000. Scientists seeking a cheaper method developed a computer program to calculate the combination of forests that would contain the greatest number of different species while adding up to a fixed total area of land. The program counted species that appeared in more than one forest only once. When asked to consider only birds or only butterflies, the program accurately selected the group of forests with the greatest overall diversity.

Source: *Nature*, 394, 472.

Value of *Brachylaena* woodlands in Tanzania

A 3-month survey funded jointly by Fauna & Flora International's 100% Fund, the UK Royal Society for the Protection of Birds and the World Nature Association in previously unstudied *Brachylaena* woodlands in the Usambara Mountains, Tanzania, found at least four threatened and near-threatened birds, four threatened mammals and one possibly endemic snake. Educational work with villagers in conjunction with foresters from the East Usambara Catchment Forest Project resulted in an agreement to protect the sites from further degradation.

Source: FFI files.

Baby boom for mountain gorillas

Ten mountain gorilla *Gorilla gorilla beringei* births have occurred in the Democratic Republic of Congo (formerly Zaire) since the onset of civil unrest in early 1997. Mountain gorillas, with a worldwide population of about 600, are found only in Uganda, Rwanda and the Democratic Republic of Congo (DRC). Many of the births in DRC have occurred in families that have been disturbed in the past 3 years as a result of the conflict in the region. The park authorities in partnership with the International Gorilla Conservation Programme (IGCP) are rehabilitating park buildings and re-equipping park guards; training park staff to monitor the status of the gorilla groups and to protect them against poaching; and

working with communities surrounding the parks to help protect the mountain gorilla's remaining habitat.

Source: African Wildlife Foundation, 16 June 1998.

Web: <http://africanwildlife.org>

Mountain gorillas shot

Two Critically Endangered mountain gorillas *Gorilla gorilla beringei* were killed by poachers on 3 September 1998 in the Virunga National Park, Democratic Republic of Congo. It appears that armed poachers hunting monkeys for food killed them and fled when they discovered they had shot gorillas. The bodies were discovered during a regular patrol of the International Gorilla Conservation Programme.

Source: African Wildlife Foundation, 17 September 1998.

Web: <http://africanwildlife.org>

Coelacanth decline in Grand Comore

The coelacanth *Latimeria chalumnae* population at Grande Comore Island, western Indian Ocean, fell from 230–650 in 1991 to fewer than 300 in 1995. The estimates were based on counts of individually recognized fish in an 8-km stretch of coastline representing 9 per cent of the total suitable habitat at the island. The local artisanal fishery is probably responsible for the decline and conservation measures should focus on providing fishermen with fishing alternatives.

Source: *Conservation Biology*, 12(4), 759–765.

South and South-East Asia

Flood affects Kaziranga National Park

The Kaziranga National Park, Assam, India, a World Heritage Site and main stronghold of the great Indian rhinoceros *Rhinoceros unicornis*, was badly affected by floods in 1998. There were three periods of flooding starting in June 1998, but the third, from 3 to 8 September, caused the deaths of large numbers of animals, either by drowning, or being killed by people or vehicles. Thirty-two rhinos drowned and four were poached. Five elephants, 20 wild buffalo, 400 hog deer, 8 swamp deer, 10 Sambar, 14

wild boar, 5 hog badgers, 1 bear and 9 porcupines also drowned. On National Highway No. 37 on the southern edge of the park, vehicles killed 1 elephant, 28 hog deer, 3 wild boar, 2 hog badgers, 1 fishing cat, 2 cobra, 1 python and 2 civets. During the flood 47 animals were rescued including 1 rhino calf, 42 hog deer, 2 swamp deer, 2 wild boar and 1 elephant. The last flood in KNP was in 1988, in which the deer population was badly affected and the hog deer population crashed to almost 50 per cent. Efforts have been initiated by the government to restore the damage caused and additional grants have been provided.

Source: Bibhab Kumar Talukdar, Samanwoy Path (Survey), PO Beltola Guwahati-781 028, Assam, India.

Mangrove rehabilitation in the Indus Delta

A massive campaign of rehabilitation of mangroves in the Indus Delta in Pakistan was started in 1995 to repair the damage caused by: massive reductions in freshwater flow, silt and nutrients in the Indus as a result of dams and irrigation systems; over-browsing by camels; over-harvesting of fuelwood, construction material and fodder; and pollution. Now about 12,000 ha of mangroves have been restored, mostly using *Avicennia marina* raised from seed and transplanted as saplings, but also *Rhizophora mucronata* planted as propagules directly at the site.

Source: *World Conservation*, 2/98, 19.

Arming farmers not the answer to elephant problem

A Minister in the Sri Lanka Government has proposed that an armaments factory be set up in order to supply firearms to farmers so that they could defend themselves and their crops from wild animals in general, and elephants in particular. In a letter to the Sri Lankan *Daily News*, Charles Santiapillai and Jayantha Jayewardene said the plan was ill conceived, ill timed and insane. Already 120–140 elephants are being killed each year in Sri Lanka as a result of conflict with humans. About 30 people are killed by elephants each year, but a far greater number, 2200, are killed on the roads. Santiapillai

The first-ever photographs of the saola *Pseudoryx nghetinhensis* in its wild habitat were taken in October 1998 in Pu Mat Nature Reserve, Vietnam. Two photographs of a single individual were made by an automatic camera during a major wildlife survey of the reserve co-ordinated by Mike Baltzer of Fauna & Flora International. This species of bovid was first discovered in May 1992 in Vietnam and later also found in Laos [see *Oryx*, 31(1), 37–44]. The Pu Mat Reserve contains one of the largest blocks of forest remaining in the Truong Son mountain range on the border between Laos and Vietnam and since mid-1997 it has been the focus of a project, supported by the European Commission, designed to halt its destruction and degradation. Source: Fauna & Flora International.



and Jayewardene argue that, rather than arming farmers, the key to mitigating human–elephant conflicts is to adopt national land-use strategies that minimize conflict and to ensure that, in areas where people and elephants overlap, people derive tangible benefits from the presence of elephants. Farmers should be compensated promptly and adequately for loss of crops. The Department of Wildlife Conservation has received funds from international donor agencies to tackle the problem but a substantial part of them have been spent on the services of expatriate consultants. If a fraction of these funds were to be spent on improving the livelihoods of people who bear the brunt of elephant depredations then it may be possible to enlist their support in minimizing the slaughter of elephants in Sri Lanka.

Source: Charles Santiapillai, Sri Lanka, 1 November 1998 & *Daily News* (Sri Lanka), 19 October 1998.

Langur conservation in Vietnam

The Endangered Primate Rescue Centre in Vietnam is concerned with protecting the habitat of threatened species of leaf monkeys, as well as housing confiscated primates for captive breeding. Several almost unknown primates are housed at the Centre, including the Critically Endangered white-rumped black, or Delacour's, langur *Trachypithecus delacouri*. The centre plans to release a group of langurs into a 2-ha fenced

area where they will live in almost wild conditions and be protected from poachers.

Source: *Folia Primatologia*, 69, 193–194.

New frogs from Vietnam

Two new species of frog *Leptolalax sungi* and *L. nahangensis* have been described from two mountain ranges in northern Vietnam (Song Gam and Tam Dao) less than 150 km apart. Before the discovery only two other species of *Leptolalax* were known from the country. The genus has 10 species—all fairly small frogs (20–44 mm snout–vent length) found near rocky streams in the moist mountain forests of south-east Asia.

Source: *Amphibia–Reptilia*, August 1998, 19(3), 253–267.

New bat in Malaysia

A new bat, *Myotis gomantongensis*, has been described from the Gomantong Caves in eastern Sabah, Malaysia. The only other known site for *M. gomantongensis* is the Baturong Caves, about 90 km to the south, where two individuals were captured.

Source: *Mammalia*, 62(2), 241–252.

Logging to stop on Yamdena Island, Indonesia

A campaign by indigenous islanders to stop logging on Yamdena, Maluku, eastern Indonesia, may be about to bear fruit. In early July the provincial governor said he was in favour of scrapping the logging concession on the island in favour of forest

management by local people and he had suggested to the forestry minister that the logging licence should be withdrawn immediately.

Source: *Down to Earth*, August 1998, No. 38, 16.

Logged forests can be valuable

A study comparing pristine lowland forest and selectively logged forest in Kalimantan, Indonesia, found that 8 years after logging, logged plots contained around one-third fewer trees but more species than unlogged plots. The study supports the argument that logged forests can be an important opportunity for conservation—not least because they are relatively cheap to buy. But the researchers say that their findings do not mean that timber companies should be allowed to log with impunity. No one knows whether forests will survive selective logging equally well in other parts of the world and the indirect effect of logging—the influx of hunters and settlers along the logging roads—may cause the most damage of all in the long term.

Source: *Science*, 281, 1366–1368.

Distillery pollution in Indonesia

In June 1998 pollution from a burst waste tank at a sugar-cane processing factory killed 900 tonnes of fish in three rivers—Way Seputih, Way Gadung and Way Terusan—in central Lampung, Southern Sumatra. Several hundred families living along the rivers have been deprived of their

livelihoods, and a co-operative fish farm has been wiped out.

Source: *Down to Earth*, August 1998, No. 38, 16.

New site for coelacanth

On 30 July 1998 a coelacanth *Latimeria chalumnae* was caught in a deep-set gill-net off the island of Manado Tua, north Sulawesi, Indonesia, almost 10,000 km from the only other known population in the Comores Islands in the Indian Ocean. The find was a result of a survey following the discovery of a coelacanth in a fish market on the island in 1995. Since then interviews with fishermen found many who claimed to catch coelacanths. The first living coelacanth was caught in 1938 in the Comores; previously it had been believed that it had become extinct 80 million years ago. It is listed by IUCN as Endangered because of its small population size and limited distribution. The Indonesian Government is already considering measures to prevent a repeat of the conservation problems caused by fishing and scientific collection in the Comoros.

Sources: *Nature*, 395, 335 & 319–320.

East Asia

Chinese cricket conservation

The trade in singing and fighting crickets in China was the subject of a Fauna & Flora International 100% Fund study carried out by Alan L. Yen in association with the Museum of Victoria in Australia. Villagers collect crickets and sell them at markets in cities to augment their income. The project recommended working with cricket societies to set up conservation and awareness schemes for species that were in decline. A priority is to establish the scientific names of the species involved; most are known only by their traditional names.

Source: FFI files.

Hérons, egrets and fish ponds in Hong Kong

Commercial fish ponds in the 1500-ha Mai Po and Inner Deep Bay Ramsar Site in Hong Kong's New Territories were created in the late 1960s by

converting original mangrove habitat, which was opposed by conservationists. However, these ponds now provide important feeding and breeding sites for a variety of wildlife, particularly ardeids (herons and egrets). Cattle egrets *Bulbucus ibis* and little egrets *Egretta garzetta* use the habitat extensively in winter, while in summer the ponds are favoured by Chinese pond herons *Ardeola bacchus*, particularly juveniles. Development now threatens up to 42 per cent of the Deep Bay fish ponds, which would result in declines in the numbers of overwintering and breeding ardeids. Source: *Biological Conservation*, 84(3), 293–300.

New site for Saunder's gull

A breeding colony of Endangered Saunder's gulls *Larus saundersi* was discovered on the west coast of South Korea in May 1998. This is the first recorded nesting outside China. Source: *World Birdwatch*, September 1998, 20(3), 5.

Takin poachers imprisoned

On 1 April 1998 seven men in China's north-western province of Xinjiang were sentenced to 5–11 years in prison for killing 668 takin *Budorcas taxicolor* (classified as Vulnerable by IUCN), between February and July 1997 in Altun Mountains Nature Reserve.

Source: TRAFFIC North America, June 1998, 1(2), 13.

North America

Canada lists cod

Canada's list of species at risk reached 307 in 1998 when the Committee on the Status of Endangered Wildlife in Canada voted for the addition of 18 species and the removal of two from the national 'at risk' list produced each April. The Atlantic cod *Gadus morhua* was among the new listings—the first commercially harvested species to be officially listed as being at risk in Canada. The swift fox *Vulpes velox* was downlisted from Extirpated to Endangered. Thanks to captive-breeding and reintroduction programmes, several hundred swift

foxes now live in the Canadian prairies after a 50-year absence.

Source: *Nature Alert* (Canadian Nature Federation), 8(3), 4.

Action to prevent seabird deaths

Canada is stepping up its surveillance and enforcement of illegal discharges of oil to prevent the deaths of 20,000–100,000 seabirds each year. Analyses of oiled birds off Newfoundland in the last decade have shown that the oils are heavy fuel oil, many with additions of lubricating and hydraulic oils, suggesting that the greater part of the oil pollution problem arises from illegal discharges at sea of oily wastes, not leaks of oil carried by crude-oil tankers. Ships seen discharging oil are being photographed and oil samples are being taken of any oil slick trailing a vessel. When appropriate, Canada charges the vessels or forwards evidence to the flag state of the vessel. Source: *Marine Pollution Bulletin*, 36(9), 656–657.

Island purchase for oaks and sea-lions

On 25 June 1998 conservation groups purchased South Winchelsea Island north of Nanaimo in British Columbia, Canada. The island contains a pristine example of the Garry oak ecosystem, one of the four most endangered ecosystems in Canada. It is also one of the most important sites in southern British Columbia for Steller's, or northern sea-lions *Eumetopias jubatus* and California sea-lions *Zalophus californianus* that come to feed on herring each winter.

Source: *Nature Alert* (Canadian Nature Federation), 8(3), 2–3.

Bullfrog decline in Canada

Bullfrogs *Rana catesbeiana* are declining in parts of Ontario, Canada; in one study area in Peterborough County the decline was 90 per cent. Ontario's Ministry of Natural Resources banned their collection for commercial purposes in 1995 and for personal use in 1996, but the extent of illegal captures is not known. The only bullfrog poacher who has been caught and charged had 2000 adult frogs in his possession. Pesticides are believed to be a major factor in the decline; they can cause mutations when

exposure occurs early in the developmental stages. In ponds in agricultural areas of Minnesota and Wisconsin, USA, and Quebec and Ontario, Canada, 65–95 per cent of frogs are deformed.

Source: *Nature Canada*, Autumn 1998, 19–22.

Orcas eat otters

Killer whales, or orcas, *Orcinus orca* are preying on Alaska's sea otters *Enhydra lutris* and have nearly wiped out other colonies in parts of the Aleutian Islands. Orcas usually feed on much larger prey—seals and sea lions—whose populations have collapsed in the region in the past two decades. As a result of the orca's switch to new prey, populations of sea urchins have exploded and kelp beds on which urchins feed are disappearing. Kelp is the base of the coastal food web and provides habitat for fish; its loss may affect adversely seabirds, bald eagles and other near-shore species.

Source: *Science*, 282, 473.

Sea-turtle smugglers caught

A 2-week operation by the US Fish and Wildlife Service at John F. Kennedy International Airport caught 12 people smuggling sea-turtle meat and eggs into the USA from Costa Rica, Guatemala and El Salvador.

Source: *Marine Turtle Newsletter*, October 1998, No. 82, 23.

Novel tag for turtle research

Scientists at the New England Aquarium, USA, have surgically attached a satellite tag to a leatherback turtle *Dermochelys coriacea*, to provide information on migration. Because, unlike other species of marine turtle, leatherbacks have rubbery carapaces, fitting conventional tags has been problematic. Knowledge of migratory routes of leatherbacks will help the implementation of measures aimed at reducing the numbers of turtles killed by fisheries.

Source: *Marine Pollution Bulletin*, 36(9), 654.

Arctic warms: guillemots go

Rising temperatures in the Arctic, which allowed black guillemots *Cephus gryllo* gain a foothold in the region 25 years ago, are now pushing

them out. The birds need at least 80 consecutive days without snow to breed and since the late 1960s warmer temperatures in the Arctic provided those conditions. In 1966 one breeding pair was recorded on Alaska's north coast, by 1972 there was a small colony of 10 pairs on Cooper Island near Barrow, and the colony grew to 225 nesting pairs by 1990. Since 1990 numbers have fallen to 110 pairs. The reason, according to G. Divorky of the Institute of Arctic Biology at the University of Alaska in Fairbanks, is the reduction of sea ice in the area caused by higher temperatures, which in turn reduces the numbers of Arctic cod, the guillemots' prey, that live beneath the floes. The average annual temperature of the Arctic has increased by 1 °C over the past 40 years, but temperatures have changed three times as fast in Alaska and north-western Canada as they have elsewhere in the Arctic.

Source: *New Scientist*, 26 September 1998, 12.

USA is world's largest trader in reptiles

According to a new report from TRAFFIC North America, the USA is the world's largest trader of live reptiles. Between 1983 and 1992, US trade in live reptiles increased nearly twenty-fold, and jumped from 28 per cent to 82 per cent of the global market. More than 2.5 million live reptiles were imported in 1995, and in 1996 the USA exported or re-exported 9.5 million reptiles, primarily to Europe and East Asia. The reptile trade principally supplies the pet industry, as well as a growing food market (see reports).

Source: TRAFFIC, 10 September 1998.

Web: <http://www.traffic.org>

Vernal pools in danger

Up to one-third of the crustacean species that inhabited vernal pools—rain-water ponds that dry up in late spring or early summer—in California, USA, in the mid-1800s may be extinct. The crustaceans are vanishing because the pools themselves are disappearing. A century ago vernal pools occurred on 1.64 million ha in California's Central Valley; now they occur on less than 400,000 ha as a result of development

and agriculture. The loss of crustaceans may have implications for other species: fairy shrimps, for example, are eaten by migratory waterfowl. Hoping to thwart further losses, the US Fish and Wildlife Service has bought two tracts of land with vernal pools in San Diego and plans to buy more. The city itself is guarding more pools and Miramar, the Marine Corps Air Station just outside San Diego, is restoring 116 vernal pools on its 9300-ha base.

Source: *Science*, 31 July 1998, 626.

Kemp's ridley turtle returns to Texas

In 1998, 13 Kemp's ridley turtle *Lepidochelys kempii* nests were found on the coast of southern Texas, USA, the highest number there, and in the USA, in any single year and an increase in Texas for the fourth consecutive year. Four of the nests had been dug by three turtles that had been hatched from eggs collected at the primary nesting beach at Rancho Nuevo, Tamaulipas, Mexico, as part of an experimental restoration project between 1978 and 1988. The eggs were incubated at Padre Island National Seashore in Texas, imprinted on the beach there, headstarted at the National Marine Fisheries Service Laboratory in Galveston, tagged and released in their first year of life into the Gulf of Mexico or adjacent bays. The first documented nesting of turtles from the project occurred in 1987. These results show that experimentally imprinted and headstarted Kemp's ridley turtles are able to join the natural wild population, find their way to nesting beaches and breed successfully.

Source: *Marine Turtle Newsletter*, October 1998, No. 82, 1–5.

Concrete to combat global warming

Hemispheres of concrete placed in coastal waters could promote algal growth, which would absorb excess carbon dioxide emissions. Eventually the algae would die and become part of the sediment, thus removing carbon dioxide from the atmosphere. It has been estimated that a hemisphere 1 m in diameter would remove 200 kg of carbon from the atmosphere each year. The team proposing the idea (from Louisiana State University, USA), admit that almost 1.5 billion reef hemispheres would be required to

mop up the carbon dioxide that the USA produces in a year, but believes than any reduction is better than none in terms of reducing global warming. The structures may also boost the productivity of coastal seas and provide new niches for fish and shellfish, thus benefiting fishermen and divers.

Source: *Marine Pollution Bulletin*, 36(8), 565.

Protecting marine mammals from noise

The US National Marine Fisheries Service is to develop guidelines to protect marine mammals from acoustic pollution from human sources.

Source: *Nature*, 395, 212.

Peregrine restored

The US Interior Department has proposed removing the peregrine falcon *Falco peregrinus* from its list of endangered species because populations have recovered. It is the first of c. 24 species scheduled to be removed from the list in the next 2 years. More than 1100 taxa are protected under the Endangered Species Act but only 27 have been deleted from the list since the Act came into force in 1973.

Source: *Nature*, 395, 3.

River reclaimed

The Federal Energy Regulatory Commission (FERC) in the USA has ordered the removal of the 161-year-old Edwards Dam on the Kennebec River in Augusta, Maine. Removing the dam will open 27 km of spawning grounds and habitat for juveniles of nine species, including the Atlantic salmon, striped bass, brown trout and short-nosed sturgeon. The fact that the FERC put a greater value on having a free-flowing river than the power produced by the dam is an important first, and could have repercussions when hundreds of other FERC-regulated dams come up for relicensing between now and 2010.

Source: *Wildlife Conservation*, September/October 1998, 20–21.

Kangaroo rat listed as Endangered

The San Bernardino kangaroo rat *Dipodomys merriami parvus* has been listed as Endangered by the US Fish and Wildlife Service. The subspecies

occurs in scattered, isolated patches of alluvial sage scrub habitat throughout San Bernardino and Riverside counties pin Southern California. Its historical range covered approximately 129,600 ha and it was once considered common in California's San Bernardino and San Jacinto valleys. Today, about 95 per cent of the habitat has been lost, degraded or fragmented by mining for sand and gravel, flood control projects and urban development.

Source: Environmental News Network, 5 October 1998.

Legal shrimpers gain advantage

Shrimpers from Georgia, USA, are able to sell their catch on the west coast of the USA for higher prices than usual through a marketing campaign that labels the shrimps as 'turtle safe'. The Georgia shrimpers are simply doing something that federal law requires—using turtle excluder devices in their nets.

Source: *Marine Turtle Newsletter*, October 1982, No. 82, 23.

Impending extinction of Mississippi mussels

Since the Eurasian zebra mussel *Dreissena polymorpha* first appeared in the American Great Lakes in the late 1980s it has invaded several large river systems, including the Mississippi, which contains the richest endemic unionid mussel fauna in the world. The zebra mussel settles on and overgrows native mussels and has been responsible for their extirpation within 4–8 years in a variety of habitats. North America contains the world's highest diversity of freshwater mussels but 35 of the 297 species are presumed extinct and an additional 60 per cent are threatened by environmental degradation.

Recommended immediate conservation action includes the collection of 60 endemic unionid species for captive breeding and transplantation.

Source: *Journal of Animal Ecology*, 67, 613–619.

Dead zone due to fertilisers

A huge area of oxygen-depleted, nearly lifeless ocean spreads off the USA's Louisiana coast into the Gulf of Mexico every summer, driving away fish and shrimp, and killing other

marine life. Some scientists claim that the dead zone, which has doubled in size since 1993, is a result of nitrogenous fertiliser washing into the Gulf from farms in the Mississippi Basin. There are moves to reduce the use of fertilisers but farmers say these are premature because it has not been proved that fertilisers have harmed fisheries.

Source: *Science*, 10 July 1998, 190–192.

New salamanders

Five new species of minute salamanders of the genus *Thorius* have been discovered in east-central Mexico. At only 16 mm from the tip of the head to the base of the tail, some *Thorius* spp. are among the smallest four-legged animals in the world. The new finds differ from each other and from known *Thorius* in their coloration, size, nostril shape and size, and dentition. One species, *T. magnipes*, is named after its very large feet and leap.

Source: *Copeia*, 2, 312–345.

Restoring coral

Black coral is threatened by commercial collectors, who cut 2-m lengths to make necklaces and bracelets. In an effort to restore the coral, divers at the University of Hawaii's Waikiki Aquarium are transplanting cuttings from the aquarium's coral farm, attaching them to the reef at a depth of 50 m using epoxy resin. Waikiki Aquarium is a pioneer in coral propagation, growing more than 70 species and shipping nearly 1000 clippings a year to researchers and other public aquaria, reducing the need to collect coral from reefs. Several new black coral colonies have been established around the island of Oahu.

Source: *Wildlife Conservation*, September/October 1998, 22.

Central America and Caribbean

Crocodile conservation in Belize

In view of the threatened status of the American crocodile *Crocodylus acutus* in Belize, the government is ensuring that all known crocodile nesting sites are included in existing or proposed protected areas. Hatchlings are to be collected from the wild and reared in captivity until they are 90 cm long,

when they will be used to restock crocodile-depleted areas.

Source: *Crocodile Specialist Group Newsletter*, July–September 1998, 17(3), 6–7.

Manatees killed in Belize

Efforts to protect manatees *Trichechus manatus* in the coastal waters of Belize are failing. On 28 August 1998 reports were received of manatee meat being sold in Livingston, Guatemala, and the dismembered corpse of a manatee was found in the waters around Belize which has the largest population of manatees in Central America, estimated at about 500.

Source: Wil Maheia, Toledo Institute for Development and Environment, 30 August 1998.

Harpy eagle release

Four captive-bred harpy eagles *Harpia harpyja* were released in 1998 into the Soberania National Park in Panama—the first release of this species into the wild. The birds were hatched and raised in the USA, two at San Diego Zoo and two at the Peregrine Fund's World Center for Birds of Prey in Boise, Idaho. Hunting and deforestation have eliminated this species from much of its former range and in January 1997 only nine pairs of the eagles were known to remain in Panama.

Source: *International Zoo News*, 45(6), 373–374.

Satellite launching site threatens birds and lizards

The 5-sq-km Caribbean island of Sombrero in the British Overseas Territory of Anguilla is threatened with development as a civilian satellite rocket launching site. The island is one of the Caribbean's largest breeding grounds for seabirds, including the roseate tern *Sterna dougallii* and the Endangered black-capped petrel *Pterodroma hasitata*. It is also home to the endemic black Sombrero lizard *Ameiva corvina*.

Source: *World Birdwatch*, September 1998, 20(3), 3.

Fisherman jailed for selling turtle meat

A Trinidad fisherman was given the maximum penalty of \$US476 or 9 months imprisonment for selling

150 kg of leatherback turtle *Dermochelys imbricata* meat in 1998.

Source: *Marine Turtle Newsletter*, October 1998, No. 82, 22.

South America

New snake from Venezuela

A new fossorial snake, *Typhlophis ayarzaguenai*, described from Venezuela is the first record of the genus in the country and only the second species in the genus. The snake was collected from Serranía de Los Pijiguaos, Bolívar State where individuals were found in earth being excavated for bauxite deposits.

Source: *Amphibia–Reptilia*, August 1998, 19(3), 303–310.

New antwren

A new species of bird has been described from northern Amazonian Peru and south-eastern Ecuador. The ancient antwren *Herpsilochmus genyri* is restricted to two structurally distinct kinds of *terra firme* forest on nutrient-poor, podzolic and quartzitic soils. The bird is common within its habitat but the habitat is naturally rare and patchily distributed. Construction of a road through these ancient and fragile habitats near the city of Iquitos has led to a dramatic increase in habitat destruction over just 10 years.

Source: *The Auk*, 115(3), 559–576.

Caiman hunting in Brazil

There had been no evidence of illegal caiman skin trade in Brazil for 10 years but on 5 May 1998 the Brazilian Institute for Environment and Renewable Natural Resources (IBAMA) confiscated the skins of 55 spectacled caimans *Caiman crocodilus crocodilus* in the village of Campina, Amazonas state, 135 km south-west of Manaus near the Rio Solimoes. The hunters fled when they saw the IBAMA officials, abandoning their motorized canoe, the skins and 15 caiman tails, the latter apparently destined for Brazilian meat markets.

Source: *Crocodile Specialist Group Newsletter*, July–September 1998, 17(3), 7–8.

Lowland forest park in danger

The Parque Estadual Intervalles in São

Paulo state, Brazil, is facing destruction from palm-heart collectors, cattle grazing, and proposed mining and dam construction projects. It is one of the country's most important sites for pristine lowland Atlantic forest and contains 31 Threatened or Near-Threatened species. The Vulnerable black-fronted piping-guan *Pipile jacutinga* is among the species to have suffered from increased illegal hunting following reduction in the number of park rangers.

Source: *World Birdwatch*, September 1998, 20(3), 4.

Dam stopped for bird

A dam construction project that threatened a newly discovered bird, the wet tall-grass tapaculo *Scytalopus iraiensis*, along the Iraí River near Curitiba, Brazil, has been suspended. The bird was found in late 1997 and described in *Ararajuta*, the Journal of the Brazilian Society of Ornithology, in July 1998. The dam project had received a loan from the World Bank but through a worldwide e-mail campaign by Brazilian conservationist Dimas Poli, news of the bird's discovery reached the Bank, which suspended work on the site while other potentially suitable habitat was surveyed for the species. So far the tapaculo has been found in three small areas of wet tall-grass meadow, two of which are already under development. The third would be flooded completely if the dam went ahead.

Source: *World Birdwatch*, September 1998, 20(3), 5.

Brazil to treble protected area

The Brazilian Government has committed itself to establishing 25 million ha of new forest protected areas by the year 2000, trebling the area under protection and bringing about 10 per cent of the Amazon into the protected-area network. The decision was a response to a joint WWF/World Bank initiative, which aims to establish at least 50 million ha of new forest protected areas by the year 2005. To mark the Agreement, President Cardoso signed decrees on 29 April 1998 for two more protected areas in the Amazon and two more in the Atlantic Forest, together totalling c. 600,000 ha: Virua National Park (Roraima, 227,011 ha), Serra da

Mocidade National Park (350,960 ha), Jurubatiba National Park (Rio de Janeiro, 14,680 ha) and Fazenda Uniao Biological Reserve (Rio de Janeiro, 3120 ha).

Source: *Arborvitae*, The IUCN/WWF Forest Conservation Newsletter, August 1998, No. 9, 4.

Park extended for tamarin

Superagüi National Park in Brazil has been increased in size from 21,400 to 34,254 ha by including the north of the island and the entire eastern coast as well as part of the mainland immediately adjacent. This was deemed vital for the survival of the black-faced lion tamarin *Leontopithecus caissara* because the park was threatened by land speculation along the coast.

Source: *Neotropical Primates*, June 1998, 6(2), 51.

Tortoise rescue

Eruptions of the Galápagos volcano Cerro Azul, which started on 15 September 1998, forced conservationists to speed the capture of 20 endangered giant tortoises *Geochelone elephantopus guntheri* for a captive-breeding programme. In October a helicopter was used to carry 11 tortoises from the volcanic region in the west of Isabela; the rest will be carried across rugged terrain, loaded on to small boats and transported round the coast. The tortoises, decimated by hunters in the past, are now threatened by introduced pigs and dogs, which prey on the eggs and young. The captive breeding is being carried out at Villamil some 40 km east of the volcano.

Source: *New Scientist*, 10 October 1998, 13.

Huemel needs help

Efforts continue to restore the single surviving population of the Endangered huemel deer *Hippocamelus bisulcus* in the 3000-sq-km Nevados de Chillán Mountains–Polcura Valley area in central Chile. In 1997 it was estimated that there were 60 individuals at 12 sites separated by an average cross-valley distance of 8 km, a 58 per cent population decline over 20 years. The deer has disappeared

from at least five sites. Proposed conservation measures include protection of two habitat core areas, each consisting of 8–11 primary sites, conservation of connecting habitat between sites and core areas, land management practices limiting livestock, logging and development impacts, and, if necessary population augmentation.

Source: *Biological Conservation*, 86(1), 97–104.

Pacific

Tree invader in Oceania

Miconia calvescens, a tree that grows to 15 m and is native to the tropical rain forests of Central and South America, is a major threat to the native forests and terrestrial biodiversity of the volcanic islands of French Polynesia. It was introduced to Tahiti in 1937 as an ornamental plant and has spread over 70 per cent of the island, overwhelming native forests and forming dense, monotypic stands. It has spread to the neighbouring islands of Moorea (c. 1200 ha infested), Raiatea (c. 240 ha infested) and Tahaa (c. 2 ha infested), and seedlings have been found in remote islands of the Marquesas archipelago and the Australs. It is also a problem in Hawaii and northern Queensland, Australia.

Source: *World Conservation*, 2/98, 7.

New fishes in New Caledonia

Until recently it was thought that there were probably c. 30 species of fish in the freshwater wetlands of New Caledonia in the Pacific. A systematic inventory of New Caledonian rivers, however, yielded 91 species of 57 genera (including five introduced species). Around 30 of these occur also in marine waters but c. 70 species are thought to be confined to freshwater wetlands, many of them gobies (Gobiidae) and eleotrids (Eleotridae). Several taxa are awaiting identification but it is likely that 16 freshwater fishes are endemic to New Caledonia.

Source: *Wetlands*, July 1998, No. 5, 16.

Australia/New Zealand/Antarctica

High diversity off Tasmania

A 3-year study by the Commonwealth Scientific Information Research Organization (CSIRO) in Australia has revealed that the sea mounts of Tasmania support a high diversity of marine life, which may be under threat from deep-sea trawling. The c. 70 mounts are remnants of extinct volcanoes. A single cruise found 259 invertebrate species and 37 fish species on one sea mount. Approximately one-third of the invertebrate species were new to science and 40 per cent of the total species are thought to be unique to the sea mounts of Tasmania. The CSIRO reported significant impacts from trawling operations and recommended that an area including 15 of the sea mounts be protected from all fishing.

Source: *Marine Pollution Bulletin*, 36(8), 564.

New marine parks in Australia

Australia's Federal Government has announced an increase in funding for Shark Bay World Heritage Site in Western Australia and is proposing to add five new marine parks to the existing 11 marine protected areas. The new parks are expected to be declared by May 1999. They are: around Macquarie Island, around Australia's subantarctic territories of Heard and McDonald Islands, in the area known as the Tasmanian sea mounts, around Lord Howe island, and in the Cartier Island and Hibernian Reef area of the Indian Ocean.

Source: *Marine Pollution Bulletin*, 36(7), 508.

Rabbit decline affects Australian birds of prey

The destruction of Australia's rabbits by a calicivirus may be affecting indigenous wildlife. Wedge-tailed eagles *Aquila audax* have not bred for the past 3 years in the Strzelecki Creek region of South Australia, where the rabbits had become the preferred prey. The overall abundance of birds of prey has declined in areas affected by the calicivirus. In the long term, however, the reduction in rabbits numbers may be beneficial to native wildlife—eventually leading to a

reduction in the numbers of introduced predators, such as foxes and feral cats.

Source: *Journal of Applied Ecology*, 35, 434.

Shrub discovery

The shrub Kermadec koromiko *Hebe breviracemosa*, which occurs only on Raoul Island in the Kermadec Islands Nature Reserve some 1200 km north-east of New Zealand, was believed to have been eradicated by goats. In 1983 a single specimen was found; cuttings were taken and seeds collected for cultivation and reintroduction in the wild. In 1984 goats were removed from the island but to date only one other plant was known to have grown naturally in the wild, perhaps because rats eat the seeds or seedlings, or because of the suppressive weed growth after the goats were removed. The 1983 shrub died recently but 50 plants were found soon after in an area accessible only with climbing ropes: they will provide more genetic diversity for the cultivated stock.

Source: *Forest & Bird*, August 1998, 10.

Elderly kakapos breed

Three kakapo *Strigops habroptilus* chicks hatched on Maud Island in the Marlborough Sounds, New Zealand, in March 1998, bringing the total number of this terrestrial parrot to 57. The chicks were the offspring of two elderly birds put on the island as a last resort in the hope that they might pair. The male was not known to have mated in 23 years while the female had made no attempt to breed for 16 years. The probable stimulus for egg laying was the female's shift from Little Barrier Island to Maud Island where it had access to supplementary food.

Source: *Forest & Bird*, August 1998, 12.

Grass invasion on Marion Island

Since its accidental introduction in the 1950s, the grass *Agrostis stolonifera* has spread over the northern half of Marion Island. It invades undisturbed native vegetation and reaches dominance in a range of habitats. On wet slopes and river banks it replaces rosaceous dwarf shrub *Acaena magellanica* communities with dense grassland, reducing the number of native plant species to 50 per cent of

those in the original vegetation. While *A. stolonifera* does not seem to pose an immediate threat to the survival of native species, the changes in the drainage-line communities significantly reduce the conservation value of the island and it is important to guard against further introductions.

Source: *Biological Conservation*, 85, 223–231.

Disease danger in Antarctica

Antarctica's wild species are being threatened with diseases introduced by human activities. As well as antibodies to Infectious Bursal Disease Virus being found in emperor penguins *Aptenodytes forsteri* and Adélie penguins *Pygoscelis adeliae* (see *Oryx*, 32(4), 262), *Salmonella* and *Campylobacter* bacteria have been found in faecal samples collected since 1996 from Antarctic fur seals *Arctocephalus gazella*, gentoo penguins *Pygoscelis papua* and macaroni penguins *Eudyptes chrysolophus*, skuas and black-browed albatrosses *Diomedea melanophris* on Bird Island off South Georgia. In 1997, 19 skuas died from infection with a hyphomycete fungus at Hope Bay in the northern Antarctic peninsula and in January–February 1998, 1345 New Zealand (Hooker's) sea lion *Phocarcos hookeri* pups and 85 adults died from septicaemia in the Auckland Islands; biopsies revealed *Salmonella* and a second, unidentified, bacterium. Scientists will present proposals designed to keep the continent free of dangerous pathogens to the next meeting of the Antarctic treaty nations in Lima, Peru in May 1999.

Source: *New Scientist*, 5 September 1998, 4; *The Antarctica Project*, March 1998, 7(1), 3.

Antarctic environmental protocol in force

On 14 January 1998 the Protocol on Environmental Protection to the Antarctic Treaty came into force, 30 days after its ratification by Japan, the 26th and last Consultative Party, 7 years after its negotiation. By designating Antarctica and its dependent and associated ecosystems 'a natural reserve devoted to peace and science', the Parties have reached a landmark in the long effort to safeguard the continent's status as a global wilderness area.

Source: *ECO*, 25 May–6 June 1998, 95(3), 1.

Illegal fishing of toothfish grows

The 22nd Meeting of the Antarctic Treaty Parties in Tromsø, Norway, 25 May–6 June 1998, failed to address illegal fishing in the Southern Ocean for Patagonian toothfish *Dissostichus eleginoides*, estimated to be worth \$US500 million a year. The Executive Secretary of the Convention on Antarctic Marine Living Resources told the meeting that more than 5000–145,000 seabirds, including threatened albatrosses and petrels, were being killed annually as a result of the long-line fishery, and that the toothfish could be commercially extinct within a few years. It is believed that the illegal fisheries are taking over 100,000 tonnes of fish compared with the legal fisheries take of 18,000 tonnes. The meeting could not agree to discuss the issue.

Source: Antarctic and Southern Ocean Coalition, 5 June 1998.

People

David J. Chivers (FFI Vice-Chairman) and Russell A. Mittermeier (Chair of IUCN/SSC's Primate Specialist Group) were elected, as corresponding members, to the Brazilian Academy of Sciences, Rio de Janeiro, on 16 November 1998.

Dr Carl Jones, Director of the Mauritian Wildlife Foundation's restoration projects, received 'The Carolina Medal for outstanding achievement in parrot conservation' in September 1998.

Angelo Barbosa Monteiro Machado, Brazilian conservationist and world expert on Neotropical dragonflies, President of the Fundação Biodiversitas, Professor at the Federal University of Minas Gerais and award-winning writer of children's books with conservation themes, was given the 3rd Henry Ford Environmental Conservation Award for Lifetime Achievement on 8 December 1998. The conservation ngo Fundação Ecotrópica, Mato Grosso, was given the award 'Annual Conservation Initiative' for its work in

creating private reserves in the Pantanal region of Brazil. Claudio Valladares-Padua, founder of the Instituto Pesquisas Ecológicas, was given the award for 'Science and Training' for his work for the black lion tamarin. The award for 'Conservation and Business' was given to a private bank, Unibanco, for financing 231 environmental restoration projects in northern and southern Brazil.

Jeremy Mallinson, Director of Jersey Wildlife Preservation Trust, was awarded the Heini Hediger Award in October 1998 for his outstanding and dedicated service to the International

Union of Directors of Zoological Gardens and the Aquarium Profession.

Sir Robert May, Britain's chief scientific adviser, was one of the 1998 winners of the annual SF500,000 (\$US360,000) Balzan Prizes, awarded in November by the International Balzan Foundation to leading personalities from scientific, cultural and humanitarian fields. May was cited for his contributions to the understanding of the relationship between biological diversity and the structure and functioning of the resulting ecosystems.

Alexander Peal, was inducted as an Officer in the Order of the Golden Ark

on 28 November 1998 for his pioneering work in nature conservation in Liberia as well as for his work to rebuild conservation programmes from his exile in the USA (see page 78 of this issue). The Order was instituted in 1971 by HRH Prince Bernhard of the Netherlands to honour people who display exceptional dedication to conservation..

Frank Switzer of Regina, Saskatchewan, Canada, was awarded the 1998 Douglas H. Pimlott Award by the Canadian Nature Federation for his outstanding contribution to Canadian conservation.