

**International****Renewal of support for the Ecosystem Approach**

Support for an integrated system for management of natural resources that promotes equitable conservation and sustainable use was renewed recently by an influential international gathering. The Ecosystem Approach was endorsed by the 5th Conference of the Parties (COP) to the Convention on Biological Diversity (CBD) in 2000 as the primary framework for action under the CBD. Unfortunately it has been unclear what this means in practical terms, so there was strong support for a new decision to facilitate implementation of the Approach at the 7th COP this February. Besides renewing the appeal for the application of the Ecosystem Approach, this decision calls for analysis of existing tools and techniques and development of new ones to facilitate implementation, and provides practical recommendations on the kind of information parties require to achieve this. Such an integrated approach to natural resource management is considered essential for the significant reduction of the rate of biodiversity loss by 2010: the target set at the World Summit on Sustainable Development.

Source: <http://www.biodiv.org/doc/meetings/cop/cop-07/official/cop-07-21-part1-en.doc>

**Extinction may be controlled by an internal clock**

A new theory suggests that extinction may not be controlled by natural selection, as argued by Darwin, but by an internal clock within every species. A researcher in Austria is suggesting that the protective caps at the ends of chromosomes, called telomeres, act like a timer, slowly eroding with each generation. It is telomere erosion that ultimately limits how long any species can exist. Each time a cell divides, the telomeres are not completely copied and thus become shorter. After many thousands of generations, telomeres become critically short and this can lead to diseases relating to chromosomal instability or limited tissue regeneration,

such as cancer and immunodeficiency. This might explain the disappearance of seemingly successful species, such as Neanderthal man. Further work needs to be done such as comparing the average telomere length of successful species with those of endangered species.

Source: *New Scientist* (2004), 182(2442), 9.

**Scientists worry about impact of ecotourism on wildlife**

The ecotourism industry has expanded rapidly in recent years and biologists are worried that many animals do not react well to tourists in their backyard. Immediate effects can be subtle, such as changes to animals' heart rate, physiology, stress hormone levels and physiology but in the long-term the species' survival could be at stake. Many ecotourism projects are not properly regulated and there are concerns over less obvious impacts such as the transmission of diseases or disturbances to daily routines. Studies of bottlenose dolphins off New Zealand have shown that the animals become more frenetic when tourist boats are present. Scientists are calling for extensive studies of animals prior to ecotourism projects so that the impact of such schemes can be monitored.

Source: *New Scientist* (2004), 181(2437), 6–7.

**Fishermen not solely responsible for declining fish stocks**

At a meeting at the Royal Society in London in February 2004, marine biologists argued that marine ecosystems in the North Atlantic are much more vulnerable to natural fluctuations than was previously thought. The international project Global Ocean Ecosystem Dynamics (GLOBEC) has improved understanding of the natural mechanisms driving marine productivity and population dynamics. Scientists involved in GLOBEC observed biological responses to environmental changes in marine ecosystems from the Baltic Sea to Antarctica. The GLOBEC study found that fluctuations in the abundance, size and composition of plankton in the North Atlantic result in long-term changes in numbers of large, commercially important fish such as

North Sea cod. To develop a sustainable fisheries policy it will be crucial to determine how much of changing mortality patterns is due to fishing and how much to environmental trends.

Source: *Nature* (2004), 428(6978), 4.

**Biodiversity Convention sidelines marine environment**

Delegates at the 7th Conference of the Parties to the Convention on Biological Diversity, held in Kuala Lumpur, Malaysia in February 2004, failed to agree clear measures to preserve rich and productive coastal marine environments. WWF believes that without measurable targets and timetables, the execution of specific targets will become a lottery. Only 0.5% of the world's oceans are currently protected, compared to 11% of the terrestrial areas. Targets that would have given the green light to activities to halt the decline in marine biodiversity and restore the health and productivity of the world's oceans and coasts have now been postponed until the next Conference of the Parties in Brazil in 2006.

Source: *Marine Pollution Bulletin* (2004), 48(7–8), 611.

**Scientists caution over models of genetic drift used in captive breeding programmes**

Maintenance of genetic diversity is vital for small populations, and managers of captive populations, which are often small, focus their efforts on minimizing loss of genetic diversity. Managers often use a genetic drift model to predict changes in genetic diversity. A recent study looked at 40 captive populations and concluded that genetic drift models frequently overestimated the rate at which genetic diversity would be lost and could not predict increases, which were seen in 22 species. Because of this, managers were looking to solutions such as importation, increased population size or abandonment of a captive population that may be unnecessary or premature. The study cautioned managers about interpreting the results of genetic drift models and suggested assessments of how management actions might lead to more optimistic prognoses.

Source: *Animal Conservation* (2004), 7, 9–16.

### Birds in decline around the globe

In March 2004 BirdLife International published *State of the World's Birds 2004* that provides a sobering assessment of the current status of the world's birds. Out of the c. 10,000 bird species, 1,211 are globally threatened. The numbers of threatened species has been gradually increasing and in the past 4 years the status of threatened species has worsened as populations have dwindled and habitats have been destroyed. Seabirds that have been affected by commercial longline fisheries have fared especially badly. Two species, Spix's macaw and the Hawaiian crow, are now extinct in the wild. Since 2000, two-thirds of the world's threatened bird species have received some conservation attention but only 4% have benefited significantly from these conservation actions.

Source: *New Scientist* (2004), 181(2438), 14–15.

### CITES orders ban on domestic ivory sales

In March 2004 CITES took its toughest action yet to control the trade in elephant ivory when it ordered all African nations to ban the domestic trade in ivory. Up to this point, only international trade had been banned. A decision on a one-off sale of ivory from southern African states was deferred because it was felt inappropriate while there was current uncontrolled domestic trade in countries such as Nigeria, Cameroon, and the Democratic Republic of Congo, which was providing cover for cross-border smuggling.

Source: *New Scientist* (2004), 181(2440), 4.

### Soya oil could be the aircraft fuel of the future

A group of American biochemists believe that soya oil could give aviation fuel a greener future. Commercial jets currently use a fuel called *Jet A* which, like all fossil fuels, releases CO<sub>2</sub> into the atmosphere when burnt. Soya oil is by contrast 'carbon neutral'. The environmental impact of air travel is serious, with the UK's Commission on Environmental Pollution predicting that by 2050 air travel could account for c. 75% of the UK's greenhouse gas emissions. So far attempts to create a suitable fuel from a mixture of jet fuel and vegetable oils have failed, with one stumbling block being that vegetable oils freeze at around 0°C. Scientists have now developed a blend that freezes at -4°C that is currently being tested on a turboprop engine to assess its emissions.

Source: *New Scientist* (2004), 181(2440), 22.

### Haze pollution agreement comes into force

In November 2003 the ASEAN Agreement on Transboundary Haze Pollution came into force following the ratification by six regional governments. The Agreement was signed in June 2002 and is the first regional agreement that binds a group of contiguous states to tackle transboundary haze pollution resulting from land and forest fires. There are provisions for monitoring, assessment and prevention, technical cooperation and scientific research, mechanisms for coordination, lines of communication and simplified customs and immigration procedures for disaster relief response.

Source: *Arborviate* (2003), 24, 4.

### Treaty on Persistent Organic Pollutants comes into force

On 17 February 2004 France became the 50th country to ratify the Stockholm Convention on Persistent Organic Pollutants (POPs), triggering a 3-month countdown to when the treaty comes into force. Environmentalists have campaigned for years against POPs, a group of very stable compounds including dioxins and the pesticide chlordane. The first 12 chemicals to be banned will not cause too much concern but subsequent constraints on economically important chemicals are likely to be fiercely resisted. Chemicals that will spark disagreement include brominated flame retardants, tens of thousands of tonnes of which are made every year.

Source: *Nature* (2004), 427(6977), 768.

### New protection for albatrosses and petrels

South Africa recently became the fifth signatory to the Agreement on the Conservation of Albatrosses and Petrels. South Africa is home to many populations of these threatened seabirds and is a world leader in research and conservation activities. The Agreement was scheduled to come into force on 1 February 2004. Once in force, member countries will be able to implement an action plan to protect critical habitat, control non-native species that are detrimental to albatrosses and petrels, introduce measures to reduce by-catch through longlining activities, and support research into effective conservation measures. Australia, one of the first signatories, will act as Interim Secretariat to the Agreement until the first meeting of the parties in 2004, when the location

of the permanent secretariat will be determined.

Source: *Marine Pollution Bulletin* (2004), 48(1–2), 4.

### Fall in number of shark attacks may indicate overall population decline

In 2003 there were 55 unprovoked attacks by sharks worldwide, compared to 63 in 2002, 68 in 2001 and 79 in 2000. The overall fatality rate was 7% in contrast to an annual average of 13% in the 1990s. Normally scientists do not put much stock in year-to-year fluctuations in the number of attacks because variations could be caused by a host of changes in meteorological and oceanographic conditions. However, the 3-year decline may indicate a longer-term trend. There may simply be fewer attacks because shark populations have declined internationally because of overfishing.

Source: *Marine Pollution Bulletin* (2004), 48(5–6), 415.

### Comprehensive plan to conserve invertebrates is drawn up

Between 90 and 95% of the world's animal species are invertebrates, but they are often overlooked by conservationists. At a meeting held at the American Museum of Natural History in New York in March 2004 it was decided that a consortium should be formed to act as an advocacy group for invertebrates. Researchers are concerned that the majority of invertebrate species are unknown, unnamed or uncharacterized. The consortium plans to draw together published data on invertebrate declines and to draw up a set of recommendations to reverse these declines.

Source: *Nature* (2004), 428(6982), 456.

## Europe

### New EU members will bring significant increase in biodiversity

On 1 May 2004, 10 states will become new members of the EU: Cyprus, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Slovakia and Slovenia. Collectively they will increase the EU land area by a quarter and will also bring species and habitat types entirely new to the EU. Several new countries harbour important populations of wildlife and areas of rare habitats that have virtually disappeared from

other areas of Europe. To adapt to the new situation, a number of changes have been made to the Annexes of the EU Habitats and Birds Directives. A seventh biogeographical region has been introduced, the Pannonian region, which covers all of Hungary, a significant part of Slovakia and a small part of the Czech Republic. New habitat types and species characteristic of these countries have been added to Annex I of the Birds Directive and Annexes II, IV and V of the Habitats Directive. These include high profile species such as European bison *Bison bonasus* and steppe polecat *Mustela eversmannii*.

Source: *Natura 2000* (2004), 17, 13.

#### **Crisis for salmon in Norway**

A deadly parasite *Gyrodactylus salaris* spread by record numbers of trout-salmon hybrids, is threatening salmon in Norway, a country that is home to the world's largest Atlantic salmon stocks. In response, the Norwegian Directorate for Nature Management has increased efforts to sterilize 23 parasite-infested rivers by using rotenone, a poison that kills the parasite as well as most other living creatures. This drastic measure has been partially successful in the past, with only eight out of 27 rivers treated with rotenone since 1981 becoming re-infested. In 1978, wild salmon in the Vefsna River were infested with the parasite. In 1999, biologists noticed a sudden increase in largely parasite-free young salmon, a phenomenon virtually unheard of in a river with a long history of infestation. Closer studies revealed that the fish were salmon-trout hybrids, probably a result of fish escaping from fish farms.

Source: *New Scientist* (2004), 181(2436), 14.

#### **Military ranges are key conservation sites in Denmark**

A new report published jointly by the Ministry of Defence and Ministry of Environment in Denmark highlights how the organizations have collaborated to marry conservation needs with the needs of the military. The Danish Armed Forces' exercise areas contain some of the best preserved natural areas in Denmark. Long-term management plans are being developed for all of the Armed Forces' training areas. These will be binding for 15 years but can be rapidly adapted to the needs of the Army.

Source: *Natura 2000* (2004), 17, 16.

#### **Butterflies in Britain going extinct faster than birds**

The most comprehensive study ever of butterflies, birds and plants in mainland Britain has shown that butterflies are going extinct faster than birds. Scientists looked at six large data sets collected over 40 years in England, Wales and Scotland and examined 15 million records of species submitted by over 20,000 volunteers. The results showed that 71% of butterfly species had decreased over the past 20 years compared to 56% for birds and 28% for plants. Two out of 58 butterfly species, 3.4% of the total, became extinct, compared to six of 1,254 plants or 0.4% of the total. The decline in butterfly populations has happened in all the major ecosystems. Extrapolating the results to invertebrates across the world would suggest that we could be experiencing a mass extinction, the first since the dinosaurs were wiped out at the end of the Cretaceous period, 65 million years ago.

Source: *New Scientist* (2004), 181(2440), 10–11.

#### **Plans for bio-control of Japanese knotweed in the UK**

Japanese knotweed is a highly successful alien species in the UK. It is free from the diseases and animals that keep it in check in its native Japan and as a result is fast growing, excluding native species. It is a particular problem in the west of England and Wales. Fieldwork has now begun in Japan to try and find a species that could be used as a biological control mechanism for the plant. If approved by the UK Government, it will be the first time in Europe that biological control has been used against an alien plant species. Following preliminary research, a fungal rust species and a stem-boring weevil are the favourite biological control mechanisms. However, the plant conservation organization Plantlife believes that biological control is not the answer and it would be better to have tighter controls on importation, sale and control of alien species.

Source: *BBC Wildlife* (2004), 22(4), 18.

#### **First UK offshore windfarm opens**

In November 2003 the UK's first offshore windfarm was opened. The North Hoyle windfarm, 7–8 km off the Welsh coast, cost £70 million and will use 30 turbines to generate up to 60 mW of electricity, enough to provide energy for 50,000 homes. The project will save the equivalent of 160,000 tonnes of CO<sub>2</sub> which would otherwise have been released into

the atmosphere each year. A second 30 turbine offshore windfarm at Rhyl Flats in Liverpool Bay has also been given the go-ahead. The UK government has stated its commitment to renewable energy and considers that up to 80% of electricity generated in the future could come from wind power. It is estimated that 30,000 offshore turbines would generate all UK electricity consumption. Source: *Marine Pollution Bulletin* (2004), 48(1–2), 3.

#### **UK moves to stop dolphin slaughter**

A cross-party parliamentary committee in the UK, EFRACOM, has urged that strong measures be taken to protect dolphins and porpoises in British waters. The report, entitled *Caught in the Net*, recommends closing fisheries, putting observers on boats to monitor dolphin and porpoise deaths and attaching noisy deterrents to all sea-floor nets. The report has been warmly welcomed by the Royal Society for the Prevention of Cruelty to Animals (RSPCA) who have been calling for such measures for years. The reality of dolphin and porpoise deaths often only becomes apparent when carcasses are washed ashore. In the first 3 weeks of January 2004, 35 dead porpoises were discovered in south-west Britain, more than doubling the total for January 2003 of 15. The RSPCA is urging the government to implement the report's recommendations as a matter of urgency. Source: *Marine Pollution Bulletin* (2004), 48(5–6), 413.

#### **Thousands of migratory birds could be threatened by windfarm**

Environmentalists are concerned about plans to build a windfarm on Bulgaria's Black Sea coast, an area that is the second most important migration route in Europe. More than 200,000 birds, including 87,000 white storks and 7,000 raptors were recorded at the Via Pontica in 2003. Despite this, the Inspectorate of Environment and Waters has given the go-ahead for the erection of 12 wind turbines. The Bulgarian Society for the Protection of Birds have noted that large birds often fall victim to wind turbines and also point out that the Environmental Impact Assessment prepared on behalf of the company was inadequate.

Source: *BBC Wildlife* (2004), 22(5), 22.

#### **Hunting quotas threaten biggest European brown bear population**

Conservationists claim that the government and hunting groups in Romania are exaggerating population numbers in

order to obtain higher hunting quotas. The quota for this season is 658. The Romanian Government believes that there are 6,276 brown bears in Romania, more than in any other European country west of Russia. However, conservationists argue that the figure is c. 2,500, largely due to the use of illegal hunting methods. However, some local conservation groups reject the lower figure and argue that hunting keeps the bear population healthy because fees give forest managers an incentive to protect the bears.

Source: *BBC Wildlife* (2004), 22(4), 20.

#### **Protected areas in the Balearics are under threat**

The Government of the Balearic Islands in Spain is proposing drastic cutbacks to two of the island's protected areas, the Parc Natural de la Península de Llevant on Mallorca, which would lose c. 94% of its protected areas, and Parc Natural de Cala Hort on Ibiza which would lose 91% of its current total protected area. The removal of legal protection will negatively affect four Important Bird Areas and open up the land to urbanization and development.

Source: *World Birdwatch* (2004), 26(1), 10.

#### **Key meeting on wolves is held in Spain**

The region of Castilla León in Spain has one of the highest wolf populations in Europe. In November 2003 a conference on the conservation and management of the wolf, co-hosted by the European Commission, was held in the region. The aim of the meeting was to review the wolf's status across the EU and accession countries and discuss the principles of an EU strategy for the species. The conference formed part of the European Commission's new undertaking for large carnivore protection and management, and there are plans to develop similar guidelines for lynx, Iberian lynx and bear.

Source: *Natura 2000* (2004), 17, 15.

#### **Environmentalists celebrate Ebro victory**

Victory for Spain's socialists in the March General Election bought a bonus for environmental campaigners. A 4.2 billion Euro project to take water from the River Ebro 750 km south to alleviate a 'water deficit' in Spain's highly irrigated and tourist-saturated Mediterranean coast is likely to be scrapped. The Ebro Delta, second only to Doñana as a migratory bird habitat, would have suffered major

ecological damage if the scheme had gone ahead. Whilst in opposition, the socialists agreed to scrap the controversial scheme if they won power in favour of desalination and water-saving schemes.

Source: *BBC Wildlife* (2004), 22(5), 18.

#### **Extent of forest fire damage in southern Europe is revealed**

In the summer of 2003 forest fires swept through much of southern Europe with Portugal being particularly badly affected. By 20 August c. 350,000 ha had gone up in smoke including 77,000 ha located within 13 Natura 2000 sites. The true extent of the devastation is revealed when data from the European Commission's new European Forest Information System is superimposed on a GIS map of Portuguese Natura 2000 sites. Similar maps are being prepared for France, Spain and Greece. The European Commission is providing additional EU aid to help co-finance habitat recovery measures.

Source: *Natura 2000* (2004), 17, 16.

### **North Eurasia**

#### **Russia continues to agonize over the Kyoto Protocol**

In December 2003, a senior Kremlin aid announced that Russia could not ratify the Kyoto Protocol in its current form. However, subsequent announcements suggested that Russia was moving towards ratification. This is the latest turn in fortunes for the Protocol since the US refused to ratify it, opening up the prospect that it would never come into effect. To take effect the Protocol must be ratified by 55 countries representing 55% of industrial-country 1990 emissions. More than 120 countries have ratified the Protocol but it is still 11% short of the emissions target. The US accounts for 36% of qualifying emissions and its absence makes meeting the target much more difficult particularly since Russia's carbon emissions have fallen by 32% since 1990, giving the country 'hot air' to sell in the form of emissions credits. These credits are worth far less in a global market minus the US. Many analysts believe that Russia is awaiting the results of presidential elections in March or even the US presidential elections in November 2004 before making a final decision.

Source: *World-Watch* (2004), 17(2), 11.

#### **Siberian cranes could benefit from 'guided' migrations**

In 2005 a project will begin that will plan to teach human-reared Siberian cranes to migrate from the Arctic Circle to Iran by following a human in a hang glider. A similar scheme in North America successfully helped whooping cranes to migrate from Wisconsin to Florida. The Siberia-Iran flock has been reduced to just four birds and if these guided migrations are successful, attempts will be made to restore the once famous wintering populations in Bharatpur in India, where no birds have been seen for several years. Each 5,500 km migration will cost £275,000 with four aircraft and a ground support team leading flocks of 20 birds from the summer grounds in Siberia across Kazakhstan, Uzbekistan and Azerbaijan to the Sufed Rud River in Iran.

Source: *BBC Wildlife* (2004), 22(3), 24.

#### **Siberian tiger breeding success is declining**

The Siberian Tiger Monitoring Program has revealed a marked decline in the breeding success of Siberian tigers in Khabarovsk Krai, the northernmost part of the animal's range in the Russian Far East. The percentage of young tigers in this populations has fallen from 28.6% in 1997 to just 9% in 2003. In the same period the number of tigresses with cubs fell from 14.3 to 4.8%. Similar declines have not been reported in other areas of the tiger's range but results are highly variable. A full survey of the entire range is planned for 2004. There are currently 450 Siberian or Amur tigers in an area stretching from the Amur River to the Sea of Japan. This is the largest continuous population of tigers in the world.

Source: *BBC Wildlife* (2004), 22(3), 26.

#### **Russia's epic river plan is revived**

In the Soviet era a plan was put forward to divert some of Siberia's mightiest rivers to the parched former Soviet republics of Central Asia. The project was rejected in the mid 1980s but has now been revived as a way of solving the water crisis in the Aral Sea. The proposed scheme would drive a canal 200 m wide and 16 m deep 2,500 km from the confluence of the north-flowing Ob and Irtysh rivers, to replenish the Amudarya and Syrdarya rivers near the Aral Sea that have largely been emptied by irrigation. The Central Asian republics are heavily dependent on cotton, a notoriously thirsty crop, and the region's two biggest cotton-growing countries,

Uzbekistan and Turkmenistan, have the highest per capita water consumption in the world.

Source: *New Scientist* (2004), 181(2433), 8–9.

### North Africa and Middle East

#### Date forests declining in Iraq and Iran

In recent years 80% of the date palm forests on the banks at the confluence of the Tigris and Euphrates rivers have disappeared. The US Geological Survey has been studying satellite images of the 120-mile-long Shatt al-Arab waterway, looking for dates. The area is home to the largest date forest in the world. In the mid-1970s there were c. 17–18 million date palm trees, about 20% of the world's supply. The loss of the date palm forests has been caused by a number of factors, the most significant being war. Salinization and pest infestation have also caused problems. War, salt and pests have destroyed c. 14 million palms, c. 9 million in Iraq and c. 4 million in Iran. Many of the remaining palms are in poor condition.

Source: *Marine Pollution Bulletin* (2004), 48(5–6), 415.

#### Afghanistan plans to create national park

A national park is to be created in the eastern province of Nuristan in Afghanistan in a move to prevent further degradation of the country's natural resources following two decades of war. The Wakhan Corridor, a remote rugged area in the Pamirs plateau bordering China will also receive special attention (see also *Oryx*, 38(1), 102–105). Plans to protect these two areas are being supported by several international aid agencies including FAO and the United Nations Environment Programme.

Source: *Forest News* (2003), 27(4), 15.

### Sub-Saharan Africa

#### Delta in Mauritania is restored

The Diawling Delta in Mauritania has been restored, bringing back biodiversity and improving the livelihoods of local inhabitants. The construction of

the Diama dam in 1985 and years of low rainfall had resulted in an ecological crisis in the delta. In 1991 the government declared the area a national park and, with the support of IUCN, park authorities began a process of stakeholder consultation to restore biodiversity. The plan has been so successful that the Mauritanian authorities are now aiming to create a biosphere reserve in the Delta.

Source: *Africa Geographic* (2004), 12(3), 15.

#### Bongos return to Africa

On 29 January 2004, 18 mountain (eastern) bongos *Tragelaphus euryceros isaaci* arrived in Kenya having been donated by US zoos. The animals were released into two 20 ha semi-wilderness enclosures in Mount Kenya Game Ranch. This was the culmination of a conservation saga that began in the 1970s when bongos were found in three separate forests in central Kenya. Today, a tiny population may survive around Mount Kenya and fewer than 100 are found in the Aberdare Conservation Area, while they have disappeared from the Mau Forest. Thirty-six mountain bongos were transferred to zoos in the US in the 1970s, where they thrived in captivity, with the population reaching more than 400. The offspring of the animals returned in January 2004 will be the animals that are eventually reintroduced to the wild.

Source: *International Zoo News* (2004), 51/2(331), 103.

#### New Ramsar site for Uganda

The Nabugabo wetland in Uganda is an Important Bird Area that is used by a number of globally threatened species such as blue swallow *Hirundo atrocaerulea* and shoebill *Balaeniceps rex* as well as large groups of migrant species. In total c. 180 bird species have been recorded from Nabugabo. The wetland is now to be designated as a Ramsar site. Nabugabo is separated from Lake Victoria by an arm of the Luwamunda swamp and a sandbar and the lakes within the wetland have been isolated for c. 3,700 years, during which time the cichlid population has undergone speciation. The lakes also act as a refuge for fish species that have been eradicated from Lake Victoria by the introduction of Nile perch.

Source: *Africa Birds & Birding* (2004), 9(2), 17.

#### Congo to expand protected area network

At the 7th Conference of the Parties to the Convention on Biological Diversity

held in February 2004, the Republic of Congo announced plans to expand its protected area network to help conserve the region's immense biodiversity. The country will gazette Bambama-Lékana National Park, a unique and spectacular mosaic of rolling savannah and gallery forest inhabited by elephants, lions and chimpanzees. There are also plans to expand marine reserves along the coast and create new protected areas along the southern border.

Source: *Marine Pollution Bulletin* (2004), 48(7–8), 614.

#### Lions in trouble in Botswana

A study of lions in northern Botswana has contributed to a moratorium on trophy hunting after it was shown that shooting of adult males was no longer sustainable. Further research has shown that lionesses in the Okavango Delta are also in trouble. Reproductive output is low and cub mortality is high. Of 104 cubs born between 1998 and 2003, only 10 survived to adulthood. This level of mortality may be due to infection with a variety of feline immunodeficiency virus. There have also been cases of deliberate poisoning of lions, even though this is illegal.

Source: *BBC Wildlife* (2004), 22(2), 18.

### South and South-east Asia

#### Calls for regulation of palm oil trade

Figures compiled by Friends of the Earth have confirmed that palm oil is one of the major causes of deforestation in South-east Asia. There are now calls for government legislation to control the international trade in palm oil. The oil palm tree is native to Central Africa and was introduced into South-east Asia in the 19th Century. The oil, derived from the fruit of the palm as well as the palm kernel, has a huge number of uses and has created a multi-million pound industry. According to Indonesian and Malaysian governments' data, more than half of all palm oil plantations are created on either primary or secondary forest land and the resulting deforestation is threatening species such as orang-utans and Sumatran tigers.

Source: *BBC Wildlife* (2004), 22(4), 19.

### Inconspicuous dove's range assessed

The pink-headed fruit-dove *Ptilinopus porphyreus* is confined to the montane forests of southern Sumatra, Java and Bali, one of the most densely populated areas in the world. A recent study of its distribution and status shows that it is restricted to <12,000 km<sup>2</sup> of forest, scattered over 20 mountains on the three islands. For seven of these mountains the most recent records date back 40–120 years, and for some areas the only recent data available refer to birds being offered for sale at nearby bird markets. The study also revealed that despite its strikingly coloured head, the dove is difficult to observe due to its inconspicuous behaviour, and it is probably more common than the number of records suggests. However, caution is needed as the dove's fragmented distribution and limited range, and continuing deterioration of its habitat, may warrant categorization as Vulnerable on the IUCN Red List.

Source: *Bird Conservation International* (2004), 14, 141–154.

### Dams blamed for Mekong River fluctuations

Giant dams on the Mekong River in South-east Asia are being blamed for recent dramatic fluctuations in the river's level. Since January 2004 the Mekong has seen record lows and unprecedented fluctuations in its level. These variations are being blamed on China's construction of two dams on the river, the Manwan and the Dachaoshan. The dams aim to tap the huge potential of the river for hydroelectric power but may have an impact on the flood waters that are vital to fisheries further downstream in Cambodia. There is growing evidence that fish stocks in the Mekong, that include the increasingly rare 3 m long Mekong giant catfish, are already depleted. As well as the dams, the extraction of water for the irrigation of rice crops is having a negative effect on water levels.

Source: *New Scientist* (2004), 182(2441), 14.

### Cause for South Asian vulture mortalities is identified

In India and much of southern Asia populations of vultures have declined significantly. Until recently the cause of the sudden catastrophic declines in populations of *Gyps* vultures (*G. bengalensis*, *G. indicus* and *G. tenuirostris*) in India and surrounding countries was

unknown. A highly toxic mortality agent for vultures that is a likely cause of the population declines has now been identified. The study clearly shows that the non-steroid anti-inflammatory drug diclofenac is in widespread use in Pakistan and that diclofenac kills vultures that are exposed directly (orally) or indirectly by consuming carcasses of treated livestock. Residues of diclofenac were present in all dead birds collected in Pakistan that had visceral gout.

Source: *Nature* (2004), 427(6975), 630–633.

### Captive breeding to try and save vulture populations

Emergency efforts have begun to try and airlift 200 vultures from Pakistan to a breeding centre in Abu Dhabi in a bid to prevent three species from going extinct. Oriental white-backed and long-billed vultures have been taken to form captive populations. Vultures in South Asia have suffered major declines, thought to be the result of the effects of diclofenac, a drug used to treat inflammatory disorders and fevers in livestock in India and Pakistan (see above). Numbers of the affected species are already low and a proposed ban on diclofenac may not come early enough to prevent extinction in the wild. The captive breeding project will aim to produce birds for eventual release into an environment free of diclofenac.

Source: *BBC Wildlife* (2004), 22(4), 19.

### India is becoming major importer of tropical timber

A survey conducted for the International Tropical Timber Council has shown that India is emerging as a major importer of tropical timber. India's annual industrial roundwood imports, mostly tropical hardwoods, tripled between 1995 and 2000 and now exceeds 2 million m<sup>3</sup>. Demand for imported tropical timber could approach 10 million m<sup>3</sup> by the end of the decade.

Source: *Arborviate* (2003), 24, 3.

### Survival chances for babirusa are increased

The babirusa is a member of the pig family and is endemic to the island of Sulawesi in Indonesia. There are thought to be only 10,000 babirusa left and they are threatened by illegal poaching and habitat loss. The local authority on Sulawesi has given the babirusa a boost by announcing that the size of the Paguyaman Forest protected area, the

species' last stronghold, is to be nearly doubled to 52,000 ha.

Source: *BBC Wildlife* (2004), 22(4), 19.

### Priority areas identified for butterflies in the Philippines

A recent study has reviewed the status of 915 species and 910 subspecies of butterflies known in the Philippines and has identified 133 globally threatened and conservation-dependent endemic Philippine taxa. Looking at the current system of 18 priority protected areas, the study showed that at least one protected area was available for 65 of the threatened taxa but that no areas were present for 29 species and 39 subspecies. A total of 29 taxa are Endangered or Critically Endangered but 83% of these do not occur in a priority protected area. Least protected are the lowland taxa. The minimum network required to include each threatened and conservation-dependent taxon of butterfly within at least one area would comprise 29 sites. A large proportion of the priority areas for Philippine butterflies do not coincide with known priority areas for birds and mammals.

Source: *Animal Conservation* (2004), 7, 79–92.

### New Philippine protected area will benefit many species

The President of the Philippines, Gloria Macapagal Arroyo, has agreed to the creation of the country's largest contiguous protected area. The Peñablanca Reserve is to be extended to almost 30 times its original size. The extension links a patchwork of protected areas along the Sierra Madre mountain range on Luzon, creating a biodiversity corridor. The new protected area will cover 477,000 ha and will connect the current Peñablanca reserve to the larger Northern Sierra Madre National Park, an important refuge for birds such as the Philippine hawk eagle *Spizaetus philippinensis*. The forests of Sierra Madre are home to c. 45% of Philippines' plant species and 50% of its globally threatened animals.

Source: *World Birdwatch* (2004), 26(1), 3.

## East Asia

### China turns farmland into forest

Since 1999 China has converted some 13.4 million ha of hillside farmland into forest, according to the latest survey

from the State Forestry Administration. The project of turning farmland into forest operates over 25 provinces, autonomous regions and municipalities and aims to solve the problem of land erosion. In the past 5 years, the Chinese government has allocated 23.6 billion yuan (US \$3 billion) to the project, of which 16.8 billion yuan was used as compensation for farmers.

Source: *Forest News* (2003), 27(4), 15.

## North America

### Canada ratifies Antarctic treaty

Canada has ratified the Protocol on Environmental Protection to the Antarctic Treaty, commonly known as the Madrid Protocol. As of 1 December 2003, people on Canadian expeditions or tours, or those operating Canadian aircraft or vessels, will need a permit. The Madrid Protocol came into force in 1998, designating the Antarctic as a natural reserve devoted to science and peace. The Protocol set out environmental principles to govern activities that take place in the region. Parties to the Protocol commit themselves to comprehensive protection of the Antarctic environment and dependent and associated ecosystems. About 400 Canadians visit the Antarctic each year. Two Canadian tour companies operate there and 40 Canadian scientists are involved in Antarctic research.

Source: *Marine Pollution Bulletin* (2004), 48(3–4), 206–207.

### WWF works to improve forestry operations in Canada

WWF-Canada has been working with Domtar, Inc., a leading paper manufacturer that manages 9 million ha of forest in south-eastern Canada and the US, allowing the company to sign an agreement to certify all of its forests and mills to Forest Stewardship Council standards. The Canadian-based forestry company Abitibi-Consolidated has entered into an agreement with WWF-Canada to assess its management units in Canada, totalling 18 million ha, for high conservation value forests. These will then either be protected or managed for logging under a precautionary approach. A total of 50 million ha in Canada is now devoted to analysis for high conservation value forests.

Source: *Arborviate* (2003), 24, 12.

### Canadian Government acts quickly to realize Action Plan on protected areas

The federal government of Canada has wasted no time in implementing its Action Plan to create 10 new national parks, five new national marine conservation areas and to expand two existing national parks by 2008. Since August 2003, agreements have been signed to create the 25,000 km<sup>2</sup> Ukkusiksalik National Park in Nunavut and in British Columbia, a national park reserve in south Okanagan, national marine conservation area reserves in the southern Strait of Georgia and Gwaii and the possible doubling or tripling of the 4,765 km<sup>2</sup> Nahanni National Park Reserve.

Source: *Nature Canada* (2003/4), 32(3), 7.

### US initiative to combat illegal logging

The US has announced a new initiative to assist developing countries in combatting illegal logging. The strategy includes addressing the sale and export of illegally harvested timber and fighting corruption in the forest sector. The US will work with the private sector, NGOs and governments in order to identify and reduce threats to protected forest areas and other high conservation value forests. The initiative will focus on three critical areas, the Congo Basin, the Amazon Basin and Central America, and South and South-east Asia.

Source: *Forest News* (2003), 27(4), 14.

### Row over US imports of tuna from Mexico

The US Government's decision to import tuna from Mexico has led to accusations that it is ignoring its own scientific advisors. In December 2002 the Department of Commerce agreed that tuna from Mexico could be labelled 'dolphin safe' but biologists want Mexican imports banned because fishermen target and chase dolphins in order to catch the underlying tuna. It is argued that this activity is contributing to the decline in dolphin numbers in the Pacific Ocean. A five-member independent expert panel agreed with the findings of the Southwest Fisheries Science Center suggesting that the indirect effects of tuna fishing could explain declining dolphin populations. The commerce department got different advice from the Inter-American Tropical Tuna Association which aims to maintain maximum sustainable tuna catches in the Pacific. The argument is now to be settled in court.

Source: *Nature* (2004), 427(6975), 575.

### Whaling responsible for current decline in kelp forests

Scientists have concluded that commercial whaling campaigns in the north Pacific 50 years ago are responsible for a 90% reduction in kelp forests in Alaska's Aleutian Islands. Japanese and Russian whaling ships took 500,000 great whales, depriving orcas of their main prey. Orcas then started feeding on harbour and fur seals and once these had become depleted, focused on sealions. Finally, with declining numbers of sealions in the 1970s and 1980s, orcas fed on the relatively diminutive sea otter, causing a crash in sea otter populations in the 1990s. This was followed by a boom in kelp-grazing sea urchins that are currently responsible for the decline in kelp forests.

Source: *International Zoo News* (2004), 51/2(331), 105.

## Central America and Caribbean

### Belize dam gets the go-ahead

Belize was formerly British Honduras and thus the final decision about a controversial dam project has been taken by the Privy Council in London, which is the final court of appeal for Belize. The Privy Council has ruled that the Belizean Government acted within the law when it approved the building of a dam in the biggest rainforest in the region. Two of the five judges on the Privy Council dissented on the grounds that the scheme would damage habitat of rare species such as jaguars, tapirs and macaws. Canadian consultant Agra produced a report for the dam's promoters in 1999 saying that the dam would be built on solid granite but it has been shown that the substrate is actually sandstone and shale and a geological fault runs through the site.

Source: *New Scientist* (2004), 181(2433), 7.

### Flagship species may not be effective at a small scale

Flagship species are seen as charismatic species that serve as a symbol and rallying point to stimulate conservation awareness. A study in Latin America has looked at the extent to which the presence of flagship species would protect other 'background species' at the local scale at which practical decisions about small reserves are often made. The study

looked at four 1 km<sup>2</sup> sites that are frequented by jaguars and tapirs (flagship species) and white-lipped peccaries and spider monkeys (non-flagship species) in a rainforest in Belize. This showed that there were no consistent differences in species richness or abundances of frogs, phyllostomid bats, terrestrial mammals, scansorial mammals or birds across the four sites. Thus these classic Latin American flagships appear to be a poor conservation tool when used for the delimitation of small reserves in the neotropics.

Source: *Animal Conservation* (2004), 7, 63–70.

#### **Dramatic recovery in hawksbill turtle population**

The level of poaching of a critically important hawksbill turtle population in Nicaragua has declined by 79% thanks to a programme developed by the Wildlife Conservation Society that is supported by local communities, fishing groups and government agencies. Over a 4-year period, the practice of illegally removing turtle eggs from nests dropped from 100 to 21% on a series of islands known as Pearl Cays. The hawksbill turtle is Critically Endangered and has suffered through hunting for food, eggs and its valuable shell. The project began engaging local communities in 2000 and convinced people that losing all the turtles eggs would eventually lead to the species' demise.

Source: *Marine Pollution Bulletin* (2004), 48(5–6), 415–416.

### **South America**

#### **New wren species discovered in Colombia**

An international team of ornithologists has described a new wren species, the Munchique wood-wren *Henicorhina negreti*, from cloud forest on Cerro Munchique, a mountain in Colombia's western Andean range. The new species is confined to extremely wet, stunted cloud forest above 2,250 m and is potentially threatened by ecological change caused by global warming and by illegal logging which continues to occur in Munchique National Park. Fundación ProAves, a Colombian bird NGO, proposes that the species be classified as Critically Endangered and has entered into an agreement with Colombia's Environment Ministry to improve

management and protection of the bird's habitat.

Source: *World Birdwatch* (2004), 26(1), 7.

#### **Brazilian beef trade wrecks rain forest**

The world demand for Brazilian beef is causing higher rates of deforestation in the Amazon than logging according to the Indonesia-based Center for International Forestry Research. The Brazilian National Institute for Space Research has revealed that deforestation rates in the Amazon have been higher over the previous 2 years than in any preceding 24-month period. In 2003, 25,000 km<sup>2</sup> of Amazon rain forest was destroyed, almost double the rate of loss in the mid-1990s. Cattle ranching has increased dramatically with the Amazon states of Rondônia, Pará and Mato Grosso seeing the biggest increases in cattle herd size and the highest deforestation. There are calls for urgent international aid to be sent to Brazil so that the government can pay landowners to conserve forests. The key to surge in beef production is the globalization of the world beef market. Up to 1991, beef producers in Brazil only sold their product internally but they now have access to a world market and Brazil is the world's biggest beef exporter.

Source: *New Scientist* (2004), 182(2442), 14–15.

#### **Better protection for Brazil's mata atlantica**

On 3 December 2003 the lower house of the Brazilian Congress voted for stronger protection of the *mata atlantica* or Atlantic rainforest, that runs up the Atlantic coast of Brazil. Legislation to protect this area was first proposed 11 years ago but came up against powerful landowners. The new legislation is designed to control the plantation farming, logging and settlement that has already dramatically reduced the extent of the forest.

Source: *Plant Talk* (2004), 35, 16.

#### **Fishermen take control of Galapagos Marine Park**

Fishermen from the islands of Santa Cruz, San Cristóbal and Isabella in the Galapagos have taken control of the Charles Darwin Research Station (CDRS) and the Galapagos Marine Park (PNG). The fishermen are demanding, amongst other things, a completely unregulated artisanal longline fishery, which has been shown to have unacceptable levels of bycatch, 80% of which is sharks. There are also demands for opening of the sea cucumber fishery which is already on the

point of collapse. At present, police and local authorities are doing nothing to tackle the situation but members of the CDRS and PNG are talking with the fishermen to find a peaceful solution to the situation.

Source: *Marine Pollution Bulletin* (2004), 48(7–8), 611.

#### **Ecuador plans to reduce deforestation**

Ecuador is developing a 20-year plan to work with the private sector to plant trees and protect existing forest. The US \$800 million programme aims to reduce the pace of deforestation by at least 30% by planting trees to replace lost acreage and produce timber to keep loggers away from pristine woods. The plan is also aimed at reducing illegal logging, which the government estimates represents 70% of the timber industry.

Source: *Arborviate* (2003), 24, 3.

#### **Mapping reveals secrets of cloud forests in Ecuador**

The Sacha Llanganates Mountains in Eastern Ecuador are permanently shrouded in fog and have never been mapped from the ground. They are home to pristine forests thought to contain undiscovered species of orchids and other plants. Satellite mapping is now revealing more information about these cloud forests. They cover an area of 380,000 km<sup>2</sup>, which is 20% less than previous estimates. Even this may be an overestimate because the mapping identifies areas that are potentially cloud forests rather than actual forests. Cloud forests are uniquely vulnerable to climate change with higher temperatures raising the cloud base and drying out the forest. More than half the world's surviving cloud forests are in Indonesia and Papua New Guinea and are virtually unexplored by biologists.

Source: *New Scientist* (2004), 181(2434), 13.

### **Pacific**

#### **Melanesian countries consider using traditional knowledge to protect fish stocks**

The island nations of the south-western Pacific are considering allowing citizens to reclaim legal control of their local seas, in the hope that their traditional knowledge, customs and laws will help protect fish stocks and biodiversity. The move is in response to evidence of

declining numbers of fish and mollusc species in many countries in the region. It is felt that local laws and traditions can bring unique benefits. One important custom is that of taboo, which villagers can evoke to declare 'no-take zones'. This concept is being trialled in a community in Papua New Guinea. Following declaration of a 24 ha no-take area, researchers found a 300% increase in clam numbers in the no-take zone and a 100% increase in the surrounding areas. It is hoped to repeat this approach throughout Melanesia.

Source: *New Scientist* (2004), 182(2443), 9.

### Australia/Antarctica/New Zealand

#### Farm runoff sparks influx of damaging starfish on Great Barrier Reef

Researchers have found the first clear evidence that water pollution from farmland run-off is triggering invasions of crown-of-thorns starfish on the Great Barrier Reef. Since the early 1960s there have been booms in the populations of crown-of-thorns starfish approximately every 15 years, causing widespread coral damage. By looking at levels of chlorophyll in reef waters, it has been shown that a doubling of chlorophyll in water leads to a 10-fold increase in the survival rate of crown-of-thorns larvae. A doubling of chlorophyll level has been seen in surveys of central reefs areas near the towns of Cairns and Townsville, which are closest to cultivated land. The work ruled out the theory that increased exploitation of fish that eat young crown-of-thorns starfish could be to blame.

Source: *New Scientist* (2004), 181(2439), 17.

#### Mixed fortunes for Australia's birds

A new report, *The State of Australia's Birds 2003*, paints a mixed picture of how they are faring. Published in conjunction with *The New Atlas of Australian Birds*, it reveals that the status of several rare species such as noisy scrub-bird *Atrichornis clamosus*, hooded plover *Thinornis rubricollis* and Lord Howe woodhen *Gallirallus sylvestris* have improved due to targeted conservation measures. However, higher altitude species such as gang-gang cockatoo *Callocephalon fimbriatum* and flame robin *Petroica phoenicea* show a noticeable decline that

could be an early indication of the effects of global warming. Introduced species such as the common myna *Acridotheres tristis* continue their invasion while others such as the common starling *Sturna vulgaris* and house sparrow *Passer domesticus* are showing noticeable declines, mirroring the situation in their native Europe.

Source: *World Birdwatch* (2004), 26(1), 2.

#### Australia provides more support for wetland conservation

The Australian Environment and Heritage Minister celebrated World Wetlands Day 2004 by announcing that the government's Natural Heritage Trust would be providing US \$350,000 for wetland research and management including an initiative to manage and protect the important Murray-Darling wetland at Banrock Station in South Australia. The Banrock Station Wetland Complex includes a Wine and Wetland Centre that highlights the compatibility of wine production and wetland conservation. The Australian Government has entered into a Memorandum of Understanding with the site managers, Hardy Wine Company, the South Australian Government, Wetland Care Australia, Landcare Australia and the Bookmark Biosphere community to establish a comprehensive management plan for the site.

Source: *Marine Pollution Bulletin* (2004), 48(5-6), 415.

#### Scheme to track rare dolphins causes dispute among conservationists

Maui's dolphin *Cephalorhynchus hectori maui* is one of the smallest and rarest of the world's dolphins. Only c. 150 of these 1.7 m long animals remain in the ocean around New Zealand and a plan to fit radio transmitters to 10-50 individuals has caused a dispute among conservationists. Proponents of the scheme argue that the transmitters could be used to direct fishing boats away from the animals; this is important because in the past 3 years seven Maui's dolphins have been washed ashore in New Zealand, probably after being tangled in fishing nets. Opponents say that the transmitters, attached by two nylon pins to a fin, could upset, injure or even kill the dolphins and suggest the use of non-invasive monitoring techniques such as aerial sightings. However, New Zealand's Conservation Department has begun a 3-month trial to test the safety and usefulness of the transmitters, using the closely related Hector's dolphin.

Source: *Nature* (2004), 428(6979), 111.

#### Storm petrel thought to be extinct is rediscovered

The New Zealand storm petrel *Oceanites moarianus* was thought to be extinct, known only from fossil material and three 19th Century specimens. In January and November 2003, individual storm petrels were seen in waters off New Zealand's North Island. Birdwatchers were sceptical of the rediscovery after the first sightings in January 2003 but in November several birds were photographed and videotaped, this leading to a definite identification. In January 2004 up to 11 New Zealand storm petrels were seen off the coast. The priority is now to find exactly where the birds are breeding, assess and monitor their population and put in place appropriate conservation measures.

Source: [http://www.birdlife.org.uk/news/news/2004/02/nz\\_storm-petrel.html](http://www.birdlife.org.uk/news/news/2004/02/nz_storm-petrel.html)

#### Road to the South Pole nears completion

In March 2005 it is expected that a 1,600 km road to the South Pole will be complete. The road is being built at a cost of \$12 million and will link the US coastal base at McMurdo on Ross Island to the Scott-Amundsen base at the South Pole. Once completed, the road will mean that supplies will no longer have to be ferried by aircraft. There have been questions as to how the road fits in with the strict rules of the Antarctic Treaty, which aims to preserve the continent from pollution and exploitation. No environmental impact assessment was done before the work commenced and there are concerns that the road will open up the continent to a range of people, including tourists.

Source: *New Scientist* (2004), 181(2433), 28-29.

The *Briefly* section in this issue was written and compiled by Simon Mickleburgh and Martin Fisher, with additional contributions from Todd Katzner, Vincent Nijman and Lizzie Wilder. Contributions from authoritative published sources (including web sites) are always welcome. Please send contributions to Martin Fisher, Fauna & Flora International, Great Eastern House, Tenison Road, Cambridge, CB1 2TT, UK, or by e-mail to [oryx@fauna-flora.org](mailto:oryx@fauna-flora.org)