

International

A genetic solution to the paradox of invasives' success?

There is a paradox in invasive species' genetics: how do invasives originating from small founder populations avoid the problems of genetic impoverishment associated with bottlenecks? A recent study of the brown anole *Anolis sagrei*, a worldwide invasive lizard, found that most of the 59 sampled introduced populations in Florida actually have substantially more genetic variation than native populations in Cuba. It seems multiple introductions have resulted in the blending of genotypes from formerly distinct native populations, increasing overall genetic diversity. Not only has this enhanced adaptation to local conditions and rapid spread, but this population now acts as a potent source for other introductions. The brown anole has since spread from Florida to Hawaii and Taiwan and maintained this higher level of genetic diversity. Management of invasive species may therefore need to account for enhanced genetic diversity in populations where multiple introductions have occurred.

Source: *Nature* (2004), **431** (7005), 177–181.

Encrusting algae transmit disease to corals

The number of infectious diseases known to affect coral reefs has increased from two to 18 over the last 30 years and this is thought to have contributed to the widespread global decline of coral reefs. Macroalgae on coral reefs has also increased, perhaps due to eutrophication or an unexplained reduction in herbivory. By subjecting healthy corals to the algae *Halimeda opuntia*, researchers showed that physical contact between the algae and coral triggers the notorious White Plague II infection, which spreads through coral colonies at 2 cm a day and has caused widespread loss of key reef-building species in the Caribbean Basin. This study implicates macroalgae as a reservoir and vector for the pathogen.

Source: *Ecology Letters* (2004), **7**, 919–923.

Grassland biodiversity depleted by atmospheric nitrogen deposition

Atmospheric nitrogen has been directly linked to the decline in the plant biodiversity of acid grasslands. Sixty-eight grassland sites across the UK were surveyed and reduced species richness was directly related to high levels of atmospheric nitrogen deposition. Non-grass species such as heather *Caluna vulgaris*, eyebright *Euphrasia* sp., and harebell *Campanula rotundifolia* were most affected. Data from the experimental addition of nitrogen to grasslands and historical knowledge of atmospheric nitrogen levels reveal a 20% decline in acid grassland plant species over the last 40 years. Although nitrogen deposition rates are beginning to decline in some parts of Europe, cumulative levels and alterations in soil pH from atmospheric sulphur mean that grassland diversity may take many years to recover.

Source: *Science* (2004), **303**, 1876–1879.

Creation of wind farm sensitivity index

Researchers have created a wind farm sensitivity index to assess in detail the threat that offshore wind turbines pose to seabirds. Between 260–270 offshore wind turbines are already in operation within north-western Europe and many thousands are planned for the next few years. For each seabird species nine vulnerability factors, including flight behaviour (such as manoeuvrability, altitude and nocturnal activity) and conservation status, are combined with local bird abundance to provide a species-specific score. These are summed to create Index values. Using this method, large areas of the Exclusive Economic Zone and national waters of Germany have been classified as suitable for wind farms.

Source: *Journal of Applied Ecology* (2004), **41**, 724–734.

Action is urged to control trade in saker falcons

Saker falcons are highly prized in the falconry trade, particularly in Arabia and former Soviet bloc countries, and there are concerns that the numbers being taken from the wild could result in the species eventually becoming extinct. Saker falcons are on Appendix II of CITES, which means that trade can only take place under a quota system. A complete ban on trade is thought to be unworkable because of the huge commercial interest in falconry. Delegates at a recent CITES meeting agreed that

airport controls should be tightened, legitimate falconry organizations lobbied and registration schemes introduced.

Source: *BBC Wildlife Magazine* (2004), **22**(10), 22.

Genetic diversity may be unevenly distributed within species

The conservation of genetic diversity within a species is seen as an important factor in its survival in the face of environmental changes and disease. A recent study has suggested that genetic diversity within species is unevenly distributed, with a disproportionate fraction of the diversity concentrated in small subpopulations, even when the population is well mixed. These small groups are vital to the overall population diversity, and there are large fluctuations in diversity due to the extinction of these groups. Diversity can also be geographically non-uniform, possibly with sharp boundaries between distantly related organisms. The results of the study suggest that diversity loss due to severe extinction risks is high, and focusing conservation efforts on highly distinctive groups can save much of the diversity.

Source: *Nature* (2004), **431**(7007), 449–452.

Study shows predators have little impact on livestock

There has been a long-standing belief that top predators such as wolves should be culled because of the impact that they have on livestock. In Norway, there are plans to cull up to 25% of the 80 or so remaining wolves to appease farmers, who blame them for killing their sheep. However, a recent worldwide review of the effect of predators has suggested they have little impact on livestock. The study, which looked at species such as wolf, lion, jaguar and leopard, found that the percentage of livestock killed by these predators never exceeded 3%. The study showed that attention often focused on the most conspicuous predator and ignored the number of livestock that fall prey to other predators and disease. In Zimbabwe, for example, 2% of cattle succumbed to predators whereas 23% died from disease. However, conservation managers agree that, in order to reduce potential conflict, it is important to look at what predators are eating and to try and turn the animals' attention away from livestock.

Source: *New Scientist* (2004), **183**(2466), 10.

Increasing trade in illegal ivory

A new study by TRAFFIC has shown that markets in Africa and Asia continue

to drive an illegal trade in elephant ivory. There is progress in the world's largest ivory market, China, but there are unregulated markets elsewhere. The study is based upon more than 9,400 elephant product seizure records held in the Elephant Trade Information System. China, Thailand, Cameroon, Democratic Republic of Congo and Nigeria were identified as the most highly implicated countries in illegal ivory trading worldwide. China is the single most important influence on the upward trend in illegal trade and there have been decisive moves to improve law enforcement and curtail the illicit movement of ivory. Thailand has the largest documented retail ivory trade in the world and conservationists are concerned that loopholes in legislation are allowing the trade to flourish.

Source: http://www.traffic.org/news/press-releases/illicit_trade.html

Large grant for new bird database

In August 2004 the National Science Foundation in the US gave a consortium of North American museums a five-year \$1.5 million grant to establish ORNIS, the Ornithological Information System. This will be a database containing information on c. 4 million bird specimens in 30 collections. Species databases use a method called georeferencing to allow researchers to compare the geographical origins of specimens from across collections. In the case of ORNIS, georeferencing will be done automatically and there will also be software to check for errors in collections, such as species that may have been misidentified.

Source: *Nature* (2004), **431**(7004), 7.

Call for suspension of bottom trawl fishing

A broad coalition of environmental groups has called on the United Nations to suspend bottom trawl fishing in international waters as it may be wiping out thousands of undiscovered species. Bottom trawlers are increasingly targeting commercially valuable fish found near underwater mountains or seamounts, cold water corals or other vulnerable deep sea habitats. These areas may be rich in biodiversity and home to the largest remaining group of undiscovered marine species. In 2001, 11 countries took 95% of the bottom trawl catch on the high seas, with Spain alone accounting for 40%.

Source: *Marine Pollution Bulletin* (2004), **49**(4), 279–280.

Peat bogs are contributing to global warming

According to a recent scientific study the world's peat bogs are haemorrhaging CO₂ into the atmosphere, accelerating global warming. To make matters worse, rising levels of atmospheric CO₂ are triggering further releases from the bogs. Peat bogs are a vast natural reserve of organic carbon but there is growing concern that such bogs are releasing a greater proportion of their carbon into rivers in the form of Dissolved Organic Carbon (DOC). Bacteria in the rivers rapidly convert DOC into CO₂ that is then released into the atmosphere. The increases in DOC levels in rivers suggest that humans may have disturbed something critical that controls the carbon cycle of the planet. If current trends continue, by the middle of the century DOC emissions from peat bogs and rivers could be as big a source of CO₂ as burning fossil fuels.

Source: *Nature* (2004), **430**, 195–198.

Four-wheel drive vehicles threaten desert environments

As four-wheel drive vehicles replace camels in deserts around the world, they are leaving the surfaces of deserts scarred, eroded and blowing in the wind. Satellite imagery has revealed that in the past 50 years dust storms originating in areas such as the Sahara have increased 10-fold. Increasing use of vehicles such as Toyota Land Cruisers has scarred the fragile surfaces of deserts that are usually held together by a thin layer of lichen or algae. Once these thin surfaces have been breached, there is nothing to prevent the fine sand beneath from blowing away in the wind. Every year, 3 billion tonnes of dust is blown around the world and Saharan dust has destroyed coral reefs 6,000 km away in the Caribbean. Dark dust deposited in Greenland absorbs heat and contributes to the melting of the ice caps.

Source: *New Scientist* (2004), **183**(2462), 5.

Red List should also include dependent species

There are species that are dependent on other species for their survival and this has led to calls that the IUCN Red List should also take account of so-called co-endangered species. For example, there are three species of lice that depend upon the threatened red colobus monkey, and hummingbird flower mites face extinction if either the hummingbirds that they use for transport, or the flowers on which the mites depend for nectar

and pollen, go extinct. There are currently c. 12,000 species on the IUCN Red List and it is estimated that there may be another 6,300 co-endangered species, including more than 4,000 beetles, butterflies, lice and other parasites. There is often little known about the dependent species, and in the case of the Californian condor the delousing of the last remaining 25 birds brought into captivity inadvertently killed off the last surviving condor lice.

Source: *New Scientist* (2004), **183**(2465), 12.

CITES agrees on regulation of agarwood trade

On 13 October 2004 delegates at the CITES conference in Bangkok, Thailand voted by an overwhelming majority to regulate the global trade in agarwood by placing the species that produce it on Appendix II of the Convention. The trade in agarwood, resinous deposits of which are found in tree species of the genera *Aquilaria* and *Gyrinops*, dates back 2,000 years. Agarwood is used for medicinal and religious purposes from the Middle East across Asia to China and Japan; it is also used in the production of high quality perfumes and incense. The increasing scarcity of agarwood has driven prices up to over US \$10,000 per kg in the markets of the Middle East and Asia. A single agarwood-producing species, *Aquilaria malaccensis*, has been on CITES since 1995, but this new move will ensure that the other 20 or so species that produce agarwood will now be protected.

Source: <http://www.traffic.org/news/press-releases/wood.html>

Europe

Ridgway completes voyage to publicise plight of albatrosses

In mid-June 2004 John Ridgway, his wife and their crew completed their 30,000 mile year-long voyage around the world's oceans that has publicised the threat to albatrosses from longlining operations. A week after arriving back in the UK, the Ridgways delivered a petition to the UN's Food and Agriculture Organisation calling for urgent action to safeguard albatrosses and other seabirds. The petition was signed by 105,000 people from 131 countries and calls on the world's governments to outlaw flag of convenience vessels and deny them

access to markets and ports, ratify legally binding agreements to protect seabirds, and to fund efforts to catch and prosecute pirate vessels and produce a globally agreed blacklist of offenders.
Source: World Birdwatch (2004), 26(3), 9.

Key Scottish sites lose their protection

Twenty important conservation sites in Scotland have lost their protection as National Nature Reserves (NNRs) following a review by Scottish Natural Heritage, the UK Government's statutory nature conservation organization for Scotland. In some cases sites were 'de-declared' after suffering long-term damage from poor management. Reserves were assessed for 'value for money' with points given for importance, primacy of nature, security of tenure, potential for national awareness and research value. Sites that were considered too small, remote or dangerous were also de-declared. One of the largest sites to be de-declared was the 11,000 ha Inverpolly NNR in north-west Scotland. Two large reserves remain under review, the 26,000 ha Cairngorms NNR and the 1,400 ha Rannoch Moor NNR.
Source: BBC Wildlife Magazine (2004), 22(10), 22–23.

Corncrakes breeding again in England

The corncrake is the most globally-threatened bird to breed in the UK; it died out in much of the country over a century ago, mainly as a result of intensive farming. The Royal Society for the Protection of Birds (RSPB), the Zoological Society of London and English Nature have been involved in a project to re-establish the corncrake in England. One hundred corncrakes have been released into the RSPB's Nene Washes reserve in Cambridgeshire, eastern England, and the scheme received a boost when a family of corncrake chicks was seen at the reserve.
Source: BBC Wildlife Magazine (2004), 22(10), 24.

Red kites reintroduced to northern England

Up to 20 red kites were released near Gateshead in northern England as part of the Northern Kites initiative, the fourth and final phase of the English Red Kite Reintroduction Programme. The birds have not been recorded from northern England for 150 years. This is thought to be the first attempt to introduce the red kite into a semi-urban environment.
Source: BBC Wildlife (2004), 22(9), 20.

New bat enclosure at Durrell Wildlife Conservation Trust benefits threatened species

Livingstone's fruit bat *Pteropus livingstonii* is a threatened species endemic to the Comoro Islands near Madagascar. Durrell Wildlife Conservation Trust is one of only two places in the world where the species is being held as part of a captive breeding programme, and the Trust is working alongside a local NGO, Action Comores, to ensure the species' long-term survival. The Trust has now constructed a 40 m long by 10 m wide enclosure that has been planted with appropriate vegetation as a way of encouraging the bats to fly to reach their food. A number of bats are now consistently flying the length of the tunnel and the birth of two baby bats in the tunnel in 2004 is an encouraging sign for the success of the captive breeding programme.
Source: Durrell Wildlife Conservation Trust Press Release, 1 September 2004.

Protest over high level ski runs

Climate change is causing snow lines to creep further up mountainsides, leaving smaller ski resorts with access to snow for much shorter periods. New proposals to open ski resorts high in the Alps have brought condemnation from environmentalists who are concerned about pollution and damage to pristine habitats. Of particular concern are plans to open up the second largest glacier in the eastern Alps, the pristine Gepatsch glacier in Tyrol, Austria, to skiers. A recent change in Tyrol's environmental law allows for the construction of ski lifts in high areas, even those that are part of the European network of protected natural landscapes. Environmentalists are encouraging ski operators to look at alternative forms of tourism such as hiking or sledding in patchy areas of snow at lower altitudes.
Source: Nature (2004), 431(7006), 235.

Swiss wolves face threats from hunters

Hunters in southern Switzerland have vowed to kill any wolves that they encounter despite international laws protecting the species. Up to 10 wolves have re-entered the south-west Alps in recent years, probably originating from the central Italian region of Abruzzo. Hunters claim that wolves represent a new danger to domestic farm animals and wildlife. Conservation groups have argued that the erection of fences, the use

of protective dogs and increased shepherding could help reduce any potential conflict between wolves and domestic livestock.
Source: BBC Wildlife (2004), 22(9), 18–19.

Conservationists call for an end to hunting tourism in Serbia and Montenegro

Leading conservation NGOs in Serbia and Montenegro are calling for an end to organized hunting tourism that is resulting in the deaths of large numbers of common quail *Coturnix coturnix* and turtle dove *Streptopelia turtur*. Under Serbian law these species can be hunted from 1 August to 30 September. Both species are declining in most of Europe and are being offered as game birds to visiting foreign hunters, particularly from Italy. There is widespread use of illegal methods of killing, such as the use of pump action guns, which allow a single hunter to kill 300 quails in a morning. These illegal methods are widespread in the northern Vojvodina province and there is concern that protected species, such as corncrakes, are also falling victim to hunters. The Bird Protection and Study Society of Vojvodina and League for Ornithological Action of Serbia and Montenegro have proposed a permanent hunting ban for the two target species as well as their removal from the country's game bird list and inclusion on the List of Natural Rarities.
Source: http://www.birdlife.org/news/news/2004/09/serbia_hunting.html

Simple changes could help swordfish populations to recover

Swordfish populations in the Mediterranean have been severely affected by intensive fishing. In the past 20 years the average weight of swordfish caught in the Mediterranean has fallen from 48 to just 10 kg. In the past juvenile fish were not targeted but restaurants now prefer these small fish as they are a better size for the plate. Oceana, a Spanish environmental pressure group, highlights the fact that swordfish are not being allowed to breed; the extent of this problem is exacerbated by the fact that countries such as Israel, Egypt and Libya do not provide any data on catches. Oceana is encouraging the implementation of smaller quotas, closed seasons and protected zones; they also want to encourage the use of G-shaped hooks rather than J-shaped ones as there is evidence that the G-shaped versions are less likely to

snare sea turtles. Mediterranean swordfish grow and mature faster than their cooler water cousins so have a better chance of bouncing back given the right management conditions.

Source: *New Scientist* (2004), 184(2467), 16.

Seismic surveys blamed for giant squid deaths

Giant squid can be killed by very loud underwater noises and there have been concerns that geological surveys off the coast of Spain may be responsible for an unusually high number of dead giant squid being washed ashore. Normally only one giant squid a year is found along the Spanish coast but in a 10-day period in 2001, five carcasses were washed ashore or found floating in the Bay of Biscay; a further four were found in one week in 2003. In both cases geological surveys were being conducted nearby; these involved firing 200-decibel pulses of low frequency sound into the seabed. In all cases, the dead squid had badly damaged ears and it is thought that this damage may have forced the animals to surface. They probably suffocated as they find it difficult to survive in the warmer waters at the surface. Scientists have called for an investigation before further surveys are conducted.

Source: *New Scientist* (2004), 184(2467), 15.

New threat to Spanish Important Bird Area

One of Europe's most important bird areas, Spain's Ebro Delta, faces a major threat from the construction of nine wind farms off the coast of the Delta. A private company, Capital Energy, is planning to construct 144 turbines, each 115 m tall, stretching for 15 km. Another 128 turbines have also been earmarked for an area just 6 km along the coast. The whole of the Ebro Delta, beyond the National Park, has been excluded by the Catalan Government as a potential site for wind farms because of its ecological value. Two species would be particularly affected by the wind turbines. Audouin's gull *Larus audouinii*, a species endemic to the Mediterranean, is a species that feeds on small fish in the rich waters off the Delta. It feeds mainly at night, making collisions with turbines a significant threat. The Balearic shearwater *Puffinus mauretanicus* is a Critically Endangered species with a world population of < 6,000 birds; the species' favoured breeding area is just offshore from the Delta.

Source: *Africa Birds & Birding* (2004), 9(5), 13.

MEPs urge action to protect turtles on Greek island of Zakynthos

Two members of the European Parliament visited Greece in an attempt to persuade authorities to deal with reports of increasing anarchy on the beaches of Zakynthos, a key breeding site for threatened loggerhead turtles. In June 2004 beach wardens at the Zakynthos National Marine Park went on strike over non-payment of salaries. As a result, locals littered beaches with sunbeds and umbrellas and drove along breeding areas. An international signature collection campaign has been started by Medasset and Euronatur to request that the Greek authorities guarantee yearly funding for all 25 national parks and provide them with the currently absent legal authority to enforce conservation laws within their boundaries.

Source: *Marine Turtle Newsletter* (2004), 105, 27.

Athens Olympics win few plaudits from environmentalists

The 2004 Olympics in Athens haven't won Greece any medals for environmental performance, according to a WWF Report *Environmental Assessment of the Athens 2004 Olympic Games*. On a scale of 0 to 4 the games were awarded only 0.77. Environmental planning and evaluation, protection of fragile natural and cultural areas, waste management and water conservation, and the use of environmentally friendly construction technologies all scored badly. The highest scores went to public transport, improvements to existing infrastructure and promotion of environmental awareness.

Source: *Africa Geographic* (2004), 12(8), 13.

North Eurasia

Delegates accept UK resolution on Critically Endangered gray whales

At a meeting of the International Whaling Commission (IWC) in July 2004, the 57 member countries accepted a resolution put forward by the UK that highlighted the plight of the Critically Endangered western North Pacific gray whales whose feeding grounds are primarily around Sakhalin Island. There are thought to be only 23 breeding female western gray whales out of a total population of 100. The possible onset of oil and gas development programmes is

of particular concern. By accepting the resolution the IWC Secretariat will offer independent scientific expertise to those organizations concerned with oil and gas development in and around Sakhalin Island.

Source: *Marine Pollution Bulletin* (2004), 49(5-6), 371.

Forestry powers centralized in Russia

In July 2004 the Russian Duma adopted changes to the Forest Code that take away powers from leskhozoes, the local branches of the state forestry agency. The amendment also centralizes forest finance, abolishing the 60% of forest payments that went to regional budgets and focusing all payments and expenses for forest management on the federal budget. Regional forest authorities will still be allowed to do so-called sanitary logging and thinning with no payments required. This activity has been much abused in the past and has led to the sanctioning of commercial logging.

Source: *Taiga-news* (2004), 48, 2.

Scientists to track tiger cubs in Siberia

Scientists are using tiny 140 g radio collars to track three Siberian tiger cubs in the Sikhote-Alin Reserve in the far east of Russia. The cubs are less than 6 months old and will be the youngest wild tigers ever to be tracked. The collars are made from elastic and are designed to expand and eventually break and fall off. The tracking will enable scientists to gain information on how to improve the survival and reproduction of young tigers. The Siberian Tiger Project has been monitoring tigers in this area for the past 10 years and the cubs represent the third generation of tigers to be radio collared; their mother was radio-collared in 2002 and their grandmother in 1999.

Source: *Africa Geographic* (2004), 12(9), 13.

Danube canal construction begins amid protests

In May 2004 the construction of a 3 km deep-water channel through part of the Danube Delta on the Black Sea coast began even though a full Environmental Impact Assessment (EIA) has not been carried out. The 400,000 ha Danube Delta is a Ramsar site, a UNESCO Biosphere Reserve and an Important Bird Area, and more than 20,000 pairs of waterbirds breed there, including up to 7% of the world population of red-breasted goose *Branta ruficollis*. The government of

Ukraine is constructing the 170 km canal in the hope that it will bring more shipping to the country. Wetlands International, WWF and BirdLife International have sent letters demanding that the work be halted until proper EIAs have been carried out.

Source: *World Birdwatch* (2004), 26(3), 5.

North Africa and Middle East

Only known captive Asiatic cheetah dies

In December 2003 the only known captive Asiatic cheetah, known as Marita, died in Pardisan Park in Tehran, Iran. The Asiatic cheetah population is thought to number fewer than 60 individuals and Marita had become a symbol of the plight of the species. The cheetahs in Iran are the only known survivors of a subspecies that once ranged throughout South-west Asia to the Indian Subcontinent. In the past 2 years there has been phototrap evidence of the existence of wild cheetahs in the vast desert of eastern Iran, and the Iranian Cheetah Society is working to save the last few animals.

Source: *International Zoo News* (2004), 51(6), 353–354.

Sub-Saharan Africa

DNA in dung may help catch ivory smugglers

Studies of elephant dung at 28 locations in 16 African countries may help authorities track down ivory poachers and smugglers. Scientists have analyzed DNA from dung and skin samples and have identified the genetic characteristics of elephants from each region, enabling them to develop a DNA-based test that can reveal to within 500 to 1,000 km where any sample of ivory comes from. This information could be crucial if ivory sales are resumed as it would help identify if the ivory was from a legal source. The method could be especially important for the forest elephant, thought by some to be a separate species, which is being killed in large numbers by poachers.

Source: *New Scientist* (2004), 184(2467), 21.

Good news about water hyacinth in Lake Victoria

Water hyacinth has been a long-standing problem in African lakes such as Lake Victoria. The plant forms dense mats that restrict access and also cut off light to the water below the surface, leading to eutrophication. In Lake Victoria there has been a 90% reduction in water hyacinth following the introduction of *Neochetina* weevils to the area 7 years ago. To ensure a continuing supply of weevils, 14 community-based rearing units have been constructed and 28 teachers have been trained in rearing, harvesting and releasing weevils into the lake.

Source: *Marine Pollution Bulletin* (2004), 49(5–6), 373.

Anthrax found in wild chimpanzee populations

Eight sudden deaths were recorded in three monitored chimpanzee communities, within the Tai National Park, Côte d'Ivoire, between 2001 and 2002. Six that were sampled all tested positive for anthrax *Bacillus anthracis* which follows two epidemics of Ebola in the same population between 1992 and 1994. Water contamination is thought to be the most likely cause of the apes' exposure to anthrax. The presence of such diseases in wild ape populations has far reaching consequences, including possible impacts on human health, with hunting and bushmeat consumption escalating the risk.

Source: *Nature* (2004), 430 (6998), 451–452.

Bushmeat trade breeds new HIV virus

The HIV virus has jumped from primates to humans on at least seven separate occasions in recent history, and people in Cameroon are showing symptoms of HIV but are testing negative for the virus or its primate equivalent SIV. This suggests that a new strain of HIV may be circulating in wild animals and infecting humans who eat them. There are concerns that deforestation and the bushmeat trade are creating ideal conditions for new diseases to emerge as humans come into contact with exotic animals that harbour novel pathogens. The size of the bushmeat trade is unknown but it is thought that in the Congo Basin alone, 1–5 million tonnes of bushmeat was consumed in 2003. The bushmeat trade may not be the only way that diseases can jump from animals to humans; the trade in wildlife for agriculture and as pets is a multi-billion dollar business.

There are currently few safeguards to prevent the spread of diseases through wildlife trade and there have been calls for stricter import and quarantine restrictions.

Source: *New Scientist* (2004), 183(2459), 8.

Earthwatch volunteers help discover 50 new plant taxa in Cameroon

Since 1993 botanists from the Royal Botanic Gardens, Kew, assisted by more than 300 Earthwatch volunteers and local plant experts have been exploring the poorly known highland forests of western Cameroon. In that time 50 endemic plant and fungus species and varieties have been discovered, varying from tiny annual mountain pipeworts to rainforest canopy trees. The remaining forest habitats in this area are disappearing and the surveys are important as they provide data that are vital for conservation management. To date, survey teams have uncovered almost 50% of all of the specimens catalogued from western Cameroon.

Source: <http://www.earthwatch.org/pubaffairs/news/cheek.html>

Partnership to help restore the Shimba forests

A consortium including WWF, the Kenya Wildlife Service, the Kenya Forest Department and Bamburi Cement are working together to rehabilitate degraded forests in Kenya's Shimba Hills. The Shimba Hills still have significant tracts of coastal forests and are recognized as a globally important centre for biodiversity. The initiative will run until 2006 and involves establishing farm forestry activities and implementing sustainable alternative livelihood projects. Bamburi Cement is one of a number of commercial firms that have enlisted in the WWF Eastern Africa Corporate Club, a membership programme for companies wishing to support nature conservation. Bamburi Cement is also spearheading the formulation of environmental standards for the cement industry in East Africa.

Source: *Swara* (2004), 27(2), 9.

Wildebeest migrate outside the Serengeti Park

The conservation of migratory species can be problematic because of their requirements for large protected areas. The movement of wildebeest *Connochaetes taurinus* in the 25,000 km² Serengeti-Mara Ecosystem of Tanzania and Kenya has recently been studied using eight

individuals collared with Global Positioning Systems. This showed that they spent 90% of their time within the core protected area of the Serengeti Mara Park, but the remaining 10% of the time was being spent in the Ikoma Open Area and the Mara Group Ranches, areas that receive limited protection and that are threatened by poaching and agriculture. Animals are now spending more time in the western buffer zones, and the development of community-run Wildlife Management Areas in such buffer zones is an important step in the conservation of the park.

Source: *Animal Conservation* (2004), 7, 113–120.

Disease limits population growth in lions

Analysis of over 40 years of population data on the Ngorongoro Crater lions has shown there is sufficient food to sustain a population of an estimated 100–120 individuals. However, over the past decade population numbers have remained below 60 individuals. Disease, human encroachment and inbreeding were found to be the important factors limiting the growth of the population.

Source: *Proceedings of the Royal Society, B* (2004), 271, 1867–1874.

New National Park for South Africa

Early 2005 will see the first stage in the establishment of the new 50,000 ha Blyde River Canyon National Park in Mpumalanga, South Africa. The park will protect a biodiversity hotspot of grassland and montane species and the canyon itself, the world's third largest. There are also plans to construct the R 30 million Bourke's Luck Development Centre which will include a sensitively designed 100-bed hotel, new restaurants, craft outlets and a training centre.

Source: *Africa Geographic* (2004), 12(9), 12.

South Africa declares four new marine protected areas

South Africa has declared four new marine protected areas that increase the proportion of the country's protected coastline from 11 to 18%. The four areas are: the Aliwal Shoal, a sub-tidal coral reef off Umkomaas that protects threatened sharks; Pondoland, including 90 km of coastline near Port St Johns, which extends 15 km seawards, marking the start of the 'Sardine Run'; Bird Island in Algoa Bay that includes many rare and threatened seabird species; and Cape Peninsula, that includes all coastal

waters around Table Mountain National Park. A fifth marine protected area is planned off Namaqualand and, at 970,000 ha, will be South Africa's largest. Source: *Marine Pollution Bulletin* (2004), 49(5–6), 372.

South Africa signs first carbon emissions purchase agreement

As part of South Africa's commitment to the Kyoto Protocol, the Durban municipality and the World Bank have signed the country's first carbon emissions purchase agreement to convert landfill gas to energy. The initiative is part of the World Bank's Prototype Carbon Fund, which will purchase 3.8 million tons of greenhouse gas emission reductions from the project at a price of US \$3.75 per ton of CO₂ equivalent. Landfill gas will be used to produce electricity, replacing that which the municipality is buying from other suppliers.

Source: *Africa Geographic* (2004), 12(8), 12.

South and South-east Asia

ASEAN countries agree to control wildlife trade

The 10 members of the Association of South East Asian Nations (ASEAN) have agreed on a bold initiative to address the region's wildlife trade crisis, and called on the global CITES community to support action in South-east Asia. The ASEAN Statement on CITES focuses on six key areas for cooperation that include increased law enforcement cooperation, comprehensive legal frameworks and more scientific information to be made available to guide wildlife trade management by CITES authorities. The 10 countries have also agreed to develop an Action Plan for 2005–2010. Wildlife trade in South-east Asia has increased in response to economic growth. There has been particular demand for birds and reptiles as pets, luxury items made from ivory and hawksbill turtle shell, and traditional medicines such as musk and ginseng.

Source: http://www.traffic.org/news/press-releases/asian_wildlife.html

Indian tiger population estimates

Tropical dry deciduous forests form the bulk of potential tiger habitat in India, but accurate population estimates are scarce. To resolve this, a 45-day

survey, using photographic capture-recapture sampling was carried out in 2002 in the 542 km² Panna Tiger Reserve in central India. Sixty sites were sampled using camera traps. Thirty-six photos allowed individual identification of eight female and three male tigers. The estimated tiger density was 6.9 tigers per 100 km². Results of the study suggest that the 150,000 km² of the remaining Indian tropical dry forests can potentially support a population of c. 9,000 wild tigers, if managed and protected as effectively as Panna.

Source: *Animal Conservation* (2004), 7, 285–290.

First new bird species in Sri Lanka since 1868

Sri Lanka's bird fauna has been well studied and the last new species to be added was in 1868. It was therefore a great surprise when a new species, the Serendib scops owl *Otus thilohoffmanni*, was recently described from the island. The owl was first heard in 1995 but it was not until February 2001 that the first pictures were obtained. The species was captured and released in August 2001 and a voucher specimen was obtained in November 2002. A survey in January 2004 located a total of 45 individuals in the lowland rainforests of Kitulgala, Kanneliya and Eratna Gilimale in the south-west of the island. The range of the species is just 230 km² and it is categorized as Endangered on the IUCN Red List.

Source: *World Birdwatch* (2004), 26(3), 6.

Wild birds implicated in spread of avian influenza

In July 2004 avian influenza broke out again in poultry farms in Thailand. This is a recurrence of the epidemic that swept through much of Asia in early 2004 and led to the slaughter of millions of chickens and domestic ducks. Following this second outbreak, the Thai Prime Minister ordered a cull of Asian openbill storks *Anastomus oscitans*, which were suspected of spreading avian influenza. Conservationists expressed concern that wild birds were being made scapegoats for the disease whereas the real problem lay in the management of the poultry farms. Following additional pressure from organizations such as the United Nations Food and Agriculture Organisation, the threat to cull storks was removed. However, unless proper measures are taken to control outbreaks in the future, the disease will continue to occur

and the finger of suspicion will still fall on wild bird populations.

Source: *World Birdwatch* (2004), 26(3), 4.

Wetland site becomes education centre in Thailand

Queen Sirikit of Thailand celebrated her 72nd birthday by formally approving the Bang Pu Urban Nature Education Centre, a joint initiative of the Royal Thai Army and WWF-Thailand. Bang Pu is a coastal wetland situated just 37 km from Bangkok that includes mangrove and mudflat habitats and supports a large population of wintering gulls as well as other threatened migratory shorebirds. The Bang Pu wetland has been the property of the army for over 50 years and has remained relatively intact. The new education centre will provide a network of trails and wildlife observation hides.

Source: *Africa Geographic* (2004), 12(9), 13.

New species of flightless rail discovered in the Philippines

In May 2004, an expedition to the island of Calayan in the northernmost part of the Philippines discovered a new species of rail, which has been named the Calayan rail *Gallirallus calayanensis*. Its closest relative is the Okinawa rail *G. okinawae* from the island of Okinawa in the Ryukyu Archipelago off Japan, 1,000 km to the north. The new species appears to be almost flightless and restricted to forests on coralline limestone areas, which probably make up <50% of the island's surface. The extent of suitable habitat for the rail on Calayan is likely to be much less than 100 km². The rails are not hunted but may be threatened by plans to build a road around the island. On the basis of current knowledge, the rail would be considered Vulnerable under the IUCN Red List categories.

Source: *World Birdwatch* (2004), 26(3), 2.

East Asia

Beijing: a possible 'Green Olympic City' in 2008?

A group of Chinese scientists have proposed a detailed plan transforming Beijing, a sprawling megacity with an approximate population of 13.8 million, into a Green Olympic City 2008. Current greenbelts, devised in 1955 and 1992, have been severely reduced and fragmented. The new plan would constitute

an integrated ecological network, consisting of buffer belts, green wedges, parks and corridors. River restoration and restoring a natural forest structure in public parks is also proposed. Possible benefits of the plan include traffic jam mitigation, reduced urban 'heat island' effect, curtailed urban extension and maintaining biodiversity by providing habitat and allowing migration. Politicians and planners from the Beijing Municipal People's Government and Design and Beijing People's Government have agreed to implement this plan in recognition of its contribution to sustainable urban development.

Source: <http://dx.doi.org/10.1016/j.landurbplan.2004.04.002>

New twist in Saemangeum wetland reclamation project

The massive Saemangeum wetland reclamation project in South Korea has been highly controversial. The original plan was to create new agricultural land on the bird-rich mudflats. Many observers pointed out the serious environmental consequences and the unsuitability of the new land for rice growing. These concerns appear to have been taken on board but a new plan for the area provides a bleak outlook for the more than 400,000 migrating shorebirds that use the mudflats. The Provincial Government has submitted plans to turn Saemangeum into the world's largest golf complex with 30 full golf courses. Work is planned to begin in 2006. There is still time however to halt the project as the dykes around the mudflats have not yet been closed.

Source: http://www.birdlife.org/news/news/2004/09/saemangeum_golf.html

Protest against proposed new US base off Okinawa

Japan's defence agency has begun to drill into the seabed off the island of Okinawa in preparation for an offshore base for US forces. The site contains coral reefs that serve as feeding grounds for a dwindling population of dugongs *Dugong dugon*. It is thought that the population of dugongs near Okinawa may number fewer than 10 animals. A group of more than 400 conservation organizations is calling for the construction project to be abandoned. The offshore station is needed to reduce the burden on US forces on Okinawa itself where residents have long protested against the military presence.

Source: *Nature* (2004), 431(7007), 392.

North America

British Columbia withdraws plan to designate areas for logging

The government of British Columbia has decided not to go ahead with plans to designate 45 million ha, all of the province's unprotected public forests, as a 'working forest' and establish guaranteed logging zones. The plan would have obstructed plans for the establishment of new parks and protected areas in the future as well as infringing First Nations' land rights.

Source: *Taiga-News* (2004), 48, 3.

Environmentally friendly piano produced in the US

Baldwin Piano has announced its commitment to the environment by producing a vertical model made with Lyptus, a premium-grade hardwood grown in South America on highly productive plantations interspersed with reintroduced indigenous trees to preserve native ecosystems. The D.H. Baldwin 4560 Series model was displayed at the International Woodworking and Furniture Supply Fair in Atlanta, Georgia in August 2004, an event attended by more than 40,000 people from over 80 countries. Baldwin joined Gibson Guitar Corp. in 2001; Gibson are already involved in the Smartwood programme for producing environmentally friendly versions of their guitars.

Source: *Gibson Guitar Corporation Press Release*, 19 August 2004.

US fish stocks rebound

A recent US government report says that, during 2003, four fish stocks were fully rebuilt, 10 species were removed from the list of overfished stocks and overfishing practices were stopped for five species. In recent years, NOAA Fisheries have been working to turn around decades of overuse of its fishery resources. The four stocks that were rebuilt in 2003 were white flounder, blacktip sharks and the South Atlantic and Gulf of Mexico stocks of yellowtail snapper. Overfishing was halted for spiny dogfish, summer flounder, South Atlantic yellowtail snapper, North Atlantic swordfish and blacktip shark. Out of a total of 894 federally managed fish stocks, 76 are classified as overfished and 60 are experiencing overfishing.

Source: *Marine Pollution Bulletin* (2004), 49(4), 280.

Recreational anglers may pose serious threat to marine fish stocks

Scientists in North Carolina have made the somewhat surprising suggestion that recreational angling may be having a severe impact on marine fish stocks off the US coast. Although commercial fishing boats can catch many more fish than any amateur angler ever could, there are thought to be 10 million people who fish recreationally in US waters, and recreational fishing accounts for 64% of the reported catch of overfished species along the Gulf of Mexico. Recreational anglers have a greater impact on stocks of already depleted fish, and sport angling tends to focus on top predators that are larger and longer lived. Bans on landing the most endangered species does not prevent them from being caught by mistake, as has been shown by a goliath grouper weighing nearly 200 kg that was observed with 20 hooks embedded in its mouth, probably from being repeatedly caught and released.

Source: *New Scientist* (2004) 182(2463), 11.

Environmentalists fight plan for Scripps Florida

The Scripps Research Institute based in La Jolla, California is planning to build a huge research and biotechnology complex, Scripps Florida, near Palm Beach in Florida. The planned 780 ha site near a wildlife refuge has drawn criticism from a range of environmental groups including the Florida Wildlife Federation and the National Audubon Society, who have challenged the site's water permits. Palm Beach County has asked Scripps to consider two less environmentally important sites but these are much smaller and might constrain the institute's industrial growth. If the Scripps' board insists on the original site it is likely that there will be a legal battle that could last years.

Source: *Nature* (2004), 431(7004), 5.

Gas complex may threaten Xantus' murrelet in Mexico

Chevron-Texaco has received authorization from the Mexican Secretary of the Environment and Natural Resources to build a liquid natural gas importation plant off the coast of Tijuana in the lee of the Los Coronados Islands. This plant will threaten at least 10 seabird species that nest on the islands. Of particular concern is Xantus' murrelet, an endemic species that is found only on four islands, of which Los Coronados may be home to the largest colony. The species is listed as Endangered by the US, 'en peligro de

extinction' on the Mexican list of protected species and Vulnerable on the IUCN Red List. Species such as the murrelet are very sensitive to disturbance and vulnerable to predation, and the lights associated with a large industrial complex could lead to them abandoning their nests.

Source: http://borderpowerplants.org/Aguirre_Islas_Coronado.pdf

Central America and Caribbean

Leatherback turtle conservation methods stand up to scrutiny

Endangered leatherback turtle populations are currently managed by relocating eggs from unsuitable areas on the beach to safe hatcheries. Without manipulation some females lay eggs in sites below the tide line, which are unlikely to hatch. There have been concerns that the practice of moving eggs from unsuitable areas is leading to the artificial selection of those individuals who make poor nest site decisions. Researchers in Costa Rica tested this idea and have found that although leatherbacks tend to return to the same section of beach, they do not show consistency in selecting their position subject to flood risk by the tide. Therefore, there is no evidence of a sub-population of 'poor-nesting' females, and moving eggs to hatcheries is unlikely to result in increased use of poor nesting sites. The use of safe hatcheries should continue as an effective means of turtle conservation.

Source: *Animal Behaviour* (2004), 68(2), 227.

First recorded breeding of reintroduced toads in Puerto Rico

In 1993 captive-bred tadpoles of the Puerto Rican crested toad *Peltophryne lemur* were released into a specially constructed pond in Puerto Rico as part of a programme to conserve the species, which was only known to breed in a single pond at Tamarindo in Guanica Forest. In November 2003 there was the first evidence that these tadpoles had matured and returned to their natal pond to breed. Monitoring of releases is difficult as toads shelter deep in limestone karst rock to avoid desiccation in the subtropical dry forest. The programme to help save this species is supported by a number of zoos in the US and Canada.

Source: *International Zoo News* (2004), 51(6), 353.

South America

The effects of roads on Amazonian bird movement

With an investment of more than \$40 billion over the next decade, a rapid development in infrastructure is predicted in the Amazon Basin. A 2 year study on the effects of roads on bird movement in the central Brazilian Amazon has demonstrated that roads could subdivide populations, leading to habitat fragmentation and local extinction. The study compared movement of understorey birds within intact forest and across a 30–40 m wide road. Even though the road had little traffic and was protected from hunters and loggers, its effects were substantial: significantly less road crossings were attempted by understorey birds than expected by chance. Movement was higher across roads flanked by more regrowth. Forest-dependent insectivores were more affected than frugivorous species.

Source: *Conservation Biology*, (2004), 18(4), 1099–1109.

World Bank offers Brazil a \$1.2 billion loan for conservation

The World Bank has decided to extend loans totalling \$1.2 billion to Brazil over the next 4 years to support the country's goal of balancing economic growth with social development and the improvement of environmental quality. The loans complement existing programmatic approaches involving both investment and capacity building in key priority areas such as public sector environmental management at the national and sub-national level. The four main goals of the loans are: (1) increasing the transparency and social control of the environmental management system; (2) better coordination and clearer definition of responsibilities among the three levels of government; (3) promoting sustainable development in the Amazon and the protection of other key ecosystems; (4) improving water resource management through increased decentralization, improved local management and increased financial autonomy.

Source:

<http://web.worldbank.org/WBSITE/EXTERNAL/NEWS/0,,contentMDK:20246103~menuPK:34463~pagePK:64003015~piPK:64003012~theSitePK:4607,00.html>

Twinning helps to protect wetland in Peru

Tinajones Reservoir in Peru is to be twinned with Rutland Water in the UK,

the largest man-made lake in western Europe, with the result that the regional government of Lambayeque will declare the whole 2,500 ha reservoir a nature reserve. Tinajones will form part of the Gran Chaparri conservation corridor. A series of lagoons, modelled on those at Rutland Water, will be created at Tinajones, providing 24 ha of reedbeds, wader scrapes and open water pools for waders. Work on the lagoons is being funded by a grant from the US Fish and Wildlife Service. Construction of dykes was due to begin in October 2004 and the lagoons were to be flooded in February 2005.

Source: <http://www.birdlife.org/news/news/2004/09/tinajones.html>

Goldman Sachs makes major Tierra del Fuego gift

Goldman Sachs has announced the unprecedented gift of a sprawling wilderness in Chile to the Wildlife Conservation Society (WCS). The lands, on the island of Tierra del Fuego, are home to the world's southernmost stands of old growth forests as well as unique grasslands, rivers and wetlands containing extraordinary wildlife. The more than 272,000 ha of Chilean land were donated to WCS by the Goldman Sachs Charitable Fund in a novel and powerful alliance that will ensure conservation in the region in perpetuity. The Chilean lands transferred in the gift contain large stands of old-growth lenga forests, a native species of southern beech tree, as well as peat bogs, alpine meadows, river systems, and spectacular snow-capped mountains. The landscape supports a wide range of wildlife, including Magellanic, firecrown hummingbirds, and the culpeo fox. The guanaco, a member of the camel family, is the region's signature animal, symbolic of the valuable open ecosystems of southern South America.

Source: <http://www.wcs.org/353624/4556203>

Australia/Antarctica/New Zealand

Australia could be charged with failing to protect Great Barrier Reef

The Great Barrier Reef in Australia is a World Heritage Site and it is legally incumbent on the Australian government to protect the site. Australia has

refused to ratify the Kyoto protocol or take other steps to tackle climate change and as such could find itself in breach of its commitment to protect the Great Barrier Reef, which is threatened by the impacts of global warming. Environmental groups could press for the reef to be declared 'in danger' under the World Heritage Convention. If Australia failed to take action it could then be brought before the International Court of Justice. Other World Heritage sites threatened by global warming includes Los Glaciares National Park in Argentina and the barrier reef system of Belize.

Source: *New Scientist* (2004), 184(2467), 7.

Fox control improves status of woylie in Australia

The fauna of Australia has been badly affected by the impact of introduced pest species. About 22 of Australia's mammals are now confined to Tasmania or other isolated areas or have been lost altogether. However, not all is doom and gloom, with news that the woylie or brush-tailed bettong *Bettongia penicillata* has become the world's first mammal to be removed from the IUCN Red List as a result of widespread fox control by the Western Australia Department of Conservation and Land Management. As more is learnt about fox and cat control, it is hoped that other land managers will be able to implement programmes to improve the status of other threatened species.

Source: *International Zoo News* (2004), 51(6), 354.

New wildlife sanctuaries in Fiordland, New Zealand

The New Zealand Government has announced a \$7 million project to create two giant island sanctuaries for wildlife in Fiordland. Secretary Island (8,140 ha) off Doubtful Sound and Resolution Island (20,860 ha) off Dusky Sound will be transformed into safe havens for threatened wildlife. However, before all this can happen, pest control measures will be undertaken to control or eradicate the mice, deer, rats and stoats that have been recorded from one or other of the islands. It is hoped that the islands will become home to threatened species such as kakapo, mohua (yellowhead) and rock wren. Resolution Island may also be big enough to allow translocation of the threatened whio (blue duck) on to an island sanctuary for the first time.

Source: *Forest & Bird* (2004), 313, 4.

Proposal for new marine reserve on Great Barrier Island

The Department of Conservation in New Zealand has announced a formal proposal for the establishment of a 48,000 ha marine reserve on the north-eastern side of Great Barrier Island, New Zealand's fourth largest island. A total of 80 fish species have been recorded within the proposed marine reserve, including reasonable numbers of subtropical species. Experience with other marine reserves such as Leigh, Poor Knights and Kapiti has shown that a positive side effect of such protected areas is increased fish numbers not only in the reserve but also in adjoining areas where they are available to fishermen.

Source: *Forest & Bird Conservation News* (2004), 135, 1.

Protests against plan for coal mine in kiwi habitat

The New Zealand conservation organization Forest and Bird is campaigning against plans for a large opencast coal mine in the Waimangaroa Valley on the South Island that would threaten habitats of the great spotted kiwi *Apteryx haastii*. The west coast Cypress mine, operated by a state-owned company SOE Solid Energy, would destroy hundreds of hectares of red tussock grassland, wetlands, shrublands and beech forest. There is anger that while the government is spending millions of dollars each year through the Department of Conservation to halt the decline in New Zealand's biodiversity, one of its own companies plans to open a massive new opencast coal mine and destroy prime kiwi habitat.

Source: <http://www.birdlife.org/news/news/2004/09/kiwi.html>

The *Briefly* section in this issue was written and compiled by Simon Mickleburgh and Martin Fisher, with additional contributions from Kirsten Abernethy, David Allen, Rebecca Beale, Natacha Bengone, Kelly Edmunds, Andrew Gordon-Maclean, Alan Harper, Gita Kasthala, Katharine MacDonald, Katie Newton, Amruta Rane and John Robinson. 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