

INTERNATIONAL

Long-lining in Pacific and Atlantic to become safer for sea birds

New protection measures for albatrosses and other sea birds come into effect in 2008, meaning that fishing fleets from >30 countries will be using new means to avoid catching these birds on long-lines. The European Commission and the 24 nations that make up the Western and Central Pacific Fisheries Commission met in December 2007 to agree on the technical specifications for the use of bird-scaring lines and other techniques to deter birds from taking the bait on long-lines. Such measures have proved successful for international waters around Antarctica, where their use since 1991 has reduced the bycatch of sea birds by 90%, with no albatrosses caught unintentionally in regulated long-lining fisheries in 2007, the second year in a row that this has occurred.

Source: NOAA press release (2008), http://www.noaa.gov/stories/2008/20080116_seabird.html

Fishing industry mired in corruption

Experts meeting to discuss the issue of corruption in the fishing industry have warned that this is a serious problem, with the flouting of fishing rules becoming more frequent as the world's catches are dwindling. Corrupt practices in the industry include mislabelling of fish as sustainable, bribery and harassment of inspectors, and the use of child labour in shrimp farms. An effect of the corruption is that it undermines the ability of researchers to know how many fish are being harvested, which is vital information when it comes to setting quotas. It is likely therefore that quotas have been set too high, further exacerbating the problem of dwindling stocks.

Source: *New Scientist* (2008), 197(2641), 4 and *IUCN press release* (2008), http://www.iucn.org/en/news/archive/2008/01/29_pr_fish_corruption.htm

Orchid study hampered by protocol

Botanists are calling for reform of CITES because they claim that laws designed to protect orchids are hampering vital research on these species. All trade in orchids is banned under CITES, and even the exchange of specimens between research labs requires a complex paper trail. The process of exchanging specimens is so laborious that some researchers have

stopped researching orchids all together. There are concerns that the red tape involved in orchid research means that some species are going extinct before they are even studied.

Source: *New Scientist* (2008), <http://www.newscientist.com/article.ns?id=mg19726423.700>

Long distance oil

A new 3D map of the contours under an Arctic ice sheet, drawn up using an underwater vehicle, has revealed that the sheets are much more complex than previous data, gleaned from boreholes, had suggested. The new information about the ice sheet's underside was used in a model to examine the effects of a 5,000 m³ oil spill, which is a typical quantity for a pipeline break. The model showed that, with the new ice sheet data, oil would spread more than 10 times further than previously thought, covering an average of 2 km². Environmental groups have long been calling for better response plans in the case of an oil spill in the Arctic, as these could have serious effects on marine species, particularly whales.

Source: *New Scientist* (2008), 196(2634), 10.

Massive debt owed to poor nations

A new study has calculated that humans caused USD 47 trillion worth of damage to the environment between 1961 and 2000. For the purposes of the report, the authors excluded damage that is hard to place a monetary value on, such as loss of biodiversity, focusing instead on issues such as deforestation and ozone depletion. The authors also calculated how much damage was caused by high-, middle-, and low-income countries, and how much each of these groups lost in terms of ecological benefits. The results show that while high- and middle-income countries were responsible for much of the damage, the effects of the damage are often borne by low-income countries. The costs passed to low-income countries for climate change alone, for example, are set at USD 3 trillion, a sum greater than the poor countries' collective foreign debt.

Source: *ScienceNOW Daily News* (2008), <http://sciencenow.sciencemag.org/cgi/content/full/2008/122/2>

Fear for otters in illegal fur trade

Conservationists are concerned that the international trade in otter skins is having a serious effect on otter populations, many

of which are also threatened by wetland degradation. Investigations by the International Otter Survival Fund since 2000 have revealed numerous otter pelts being traded in a number of Asian countries, with one market place in China openly displaying 1,833 otter skins. There is particular concern about the hairy-nosed otter, which is categorized as Data Deficient on the Red List, and was thought to be extinct until 1998. Demand for otter skins has increased in Asia in recent years, and they can sell for up to USD 200. Reports suggest that the trade may be particularly serious in Tibet, where otter skins are used to trim part of the national dress.

Source: *IOSF press release* (11 January 2008). See www.furgetmenot.org.uk

Mangroves still disappearing but at a slower rate

Circa 3.6 million ha of mangroves were lost between 1980 and 2005, a sum equivalent to 20% of the world's total mangrove area. This rate of loss is higher than that suffered by other forest types, yet the loss of mangrove forests can have dire effects on ecosystems, livelihoods, and tourism. The major drivers behind mangrove forest loss are population pressure, conversion of forests to shrimp and fish farming, agricultural expansion, infrastructure development, and natural disasters such as pollution. There are some signs that the situation may be improving, however, with the rate of deforestation falling from 187,000 ha annually in the 1980s to 102,000 ha annually between 2000-2005.

Source: *FAO Newsroom* (2008), <http://www.fao.org/newsroom/en/news/2008/1000776/index.html>

Four hundred medicinal plants at risk of extinction

Researchers at Botanic Gardens Conservation International have identified a worryingly high number of plants with medicinal properties that are at risk of extinction from over-collection and deforestation. Plants have yielded chemicals from which over 50% of prescription drugs are now derived. This includes trees such as yew, from which the cancer drug paclitaxel is derived, and flowers such as crocus, a drug from which is one of the most effective ways to treat gout. Yew is threatened because it takes six trees to create one dose of paclitaxel, meaning that demand outstrips supply, while crocuses are threatened by over-collection for the horticultural

trade. Although many drugs first derived from plants are now made in the laboratory, 5 billion people are said to depend on traditional plant-based medicine, particularly in developing countries.

Source: *BBC News* (2008), <http://news.bbc.co.uk/go/pr/fr/-/1/hi/health/7196702.stm>

Map shows human impacts on marine ecosystems

Research that took 4 years to complete has just been published in the form of a map showing the state of the world's oceans and seas, and the outlook is not good. Ecosystems in >40% of waters are severely affected by human impacts such as coastal run-off and pollution, drilling for oil and gas, and fishing. Only 4% of marine areas are relatively pristine but many of these areas are near the poles where they are at risk from the effects of climate change. Researchers made the map by dividing the oceans into 1 km squares and then, having weighed and compared 17 anthropogenic stressors and considered their potential impact on different ecosystems, allocated impact scores to each 1 km square, which correspond to different colours on the map.

Source: *ScienceNOW Daily News* (2008), <http://sciencenow.sciencemag.org/cgi/content/full/2008/214/2>, and *BBC News* (2008), <http://news.bbc.co.uk/1/hi/sci/tech/7241428.stm>

Salmon alter stream beds by dredging

The combined effect on a stream of thousands of salmon tails is as great as the current itself, including the erosion caused by spring floods. This is the finding of new research that casts salmon as natural river bottom dredgers, altering the shape of stream beds and affecting the health of aquatic ecosystems. When a female salmon reaches her spawning grounds she digs a hole for her eggs using her tail, excavating several m² of sand and gravel in the process. By using sediment traps, researchers have calculated that salmon are responsible for up to 50% of the annual amount of sediment migration in a given stream, which is significant information for those involved in the design of river restoration projects.

Source: *ScienceNOW Daily News* (2008), <http://sciencenow.sciencemag.org/cgi/content/full/2008/201/2>

Oceans' biological deserts growing in size

While terrestrial deserts are familiar to most, the oceanic equivalents are less so. Gyres, such as the one that constitutes the South Pacific's largest, and least productive

ecosystem, are areas of swirling seawater that are highly layered, meaning that wind action in these areas is insufficient to mix the layers and distribute the nutrients stored in deeper waters. Evidence from a spacecraft that maps ocean colour shows that these areas are expanding, having grown by 15% between 1997 and 2006. Global warming is known to exacerbate the stratification between the layers in a gyre but it is not clear why the gyres are expanding at a rate that is 10-25 times higher than the rate predicted by global warming models.

Source: *ScienceNOW Daily News* (2008), <http://sciencenow.sciencemag.org/cgi/content/full/2008/125/1>

Novel way to monitor animals' health

Dublin Zoo is using an unorthodox way to monitor the hormone levels of a pregnant elephant at the zoo by using so-called 'living needles' to collect blood samples. The North American kissing bug, a voracious blood-sucking insect, is placed on the skin of the elephant and removed after it has spent some time gorging on the elephant's blood. The blood is subsequently removed from the insect by means of a syringe, meaning that neither the elephant nor the bug are harmed by the procedure. The elephant's hormone levels need to be monitored so as to indicate when she is going into labour, and the great advantage of the living needle technique is that the elephant does not become stressed. The zoo intends to use the technique, pioneered by Wuppertal Zoo in Germany, more widely in the future.

Source: *Dublin Zoo blog* (December 2007), <http://zoodublin.blogspot.com/2007/12/sealed-with-kiss.html>

EUROPE

Via Baltica plans hit the rocks

Conservationists have expressed delight at the decision by the Regional Administrative Court in Warsaw to cancel the environmental consent for the Augustow Bypass section of the Via Baltica. Polish environmental NGOs and the Polish Ombudsman had pointed out that there was an alternative route for the bypass that would not pass through the Natura 2000 site of the Augustow Forest, and that this alternative route had not been considered by the authorities when the plans for the bypass were drawn up. The court's decision is the third ruling to find fault with the claim that the project was prepared in line with Polish

nature conservation, as made by the agencies involved in the project's conception.

Source: *BirdLife International News* (2007), <http://www.birdlife.org/news/news/2007/12/ViaBaltica.html>

Large blues holding their own

Despite the erratic weather experienced in the UK in 2007, one population of reintroduced butterflies appeared to thrive. Researchers counted 354 adult large blue butterflies at Collard Hill in Somerset, beating the previous record of 300 adults counted at this site in 2003. The large blue went extinct in the UK in the late 1970s, a few years after researchers discovered the complex relationship between red ants and the butterflies. This discovery enabled recommendations to be made about the type of land management required by the large blues, and the species was reintroduced in 1983. Although the butterflies at Collard Hill did well in 2007, other sites were less successful, apparently because these sites suffered more in the spring drought, and the species will continue to be carefully monitored.

Source: *BBC News* (2008), <http://news.bbc.co.uk/1/hi/sci/tech/7244922.stm>

EU's biofuels policy undergoes rethink

The EU Environment Commissioner has admitted that the EU policy of obtaining 10% of Europe's road fuels from biofuels did not perceive the social and environmental problems engendered by this policy, and that it would be better to miss the target than harm the poor or damage the environment. The EU will now produce new guidelines on biofuel use to ensure that any target set does not damage the environment or local livelihoods. When the idea first surfaced biofuels seemed a panacea for car manufacturers but more recently people have become aware of the negative social and environmental aspects of growing plants for fuel. The Commissioner said that the EU would introduce a certification scheme for biofuels, and attempt to eliminate the use of biodiesel originating from unsustainable oil palm plantations in Indonesia.

Source: *BBC News* (2008), <http://news.bbc.co.uk/go/pr/fr/-/1/hi/world/europe/7186380.stm>

Musical chairs for Europe's birds as climate change effects take hold

The recently published *Climatic Atlas of European Birds* provides predictions of the effects of climate change on every breeding bird species in Europe, using the technique of 'climate envelope modelling'. Without immediate action, the Atlas predicts that

the potential future distribution of the average European breeding bird species will shift north-east by nearly 550 km by the end of the 21st century and overlap its current range by only 40%. What is more, the book predicts that three quarters of all Europe's breeding birds will suffer a decline in range. The Atlas also makes recommendations for action to mitigate against these effects, with the Natura 2000 network of protected areas playing an important role in these recommendations.

Source: *BirdLife International News* (2008), http://www.birdlife.org/news/news/2008/01/climatic_atlas.html

Confiscated coral ends up at London Zoo

London Zoo has received an unexpected addition to its aquarium in the form of GBP 50,000-worth of coral confiscated from smugglers at Manchester Airport. The haul, the largest ever live coral shipment discovered in the UK, included more than 300 live corals and clams from Indonesia that had been pre-ordered by traders. Many of the species are rare, including *Catalaphyllia jardinei* and *Trachyphyllia geoffroyi*, both of which are on CITES Appendix II, meaning that their export is prohibited without the correct permits and certificates.

Source: *ZSL News* (2008), <http://www.zsl.org/zsl-london-zoo/news/coral-comes-to-zsl-london-zoo,826,AR.html>

Portuguese birds can now roam in eight new protected areas

The Portuguese government has approved eight new Special Protection Areas (SPAs), which should prove a boon to the threatened birds of the Alentejo grasslands. The total area of the new SPAs amounts to 40,349 ha, and at least 60 pairs of lesser kestrel, 180 great bustards and 3,000 little bustards occur in their combined area. The government had been reported to the European Commission in 2000 by the environmental NGO SPEA for not doing enough to protect steppe species under the EU Habitats Directive, and the recent approval of the new SPAs comes after a lengthy court case. Now that these areas have been approved, it is vital that the areas are managed in a suitable way for the bird species they protect.

Source: *BirdLife International News* (2008), http://www.birdlife.org/news/news/2008/01/New_SPAs_Portugal.html

Precedent set as court fines oil company for spill

A French court has fined the oil company Total and the Italian shipping classification company RINA EUR 375,000 for maritime

pollution, as well as almost EUR 200 million in compensation following the sinking of the tanker *Erika* off the French coast during a storm in 1999. The resultant oil spill affected c. 150,000 birds, and killed c. 72,000. A report revealed that *Erika* had patches of corrosion at the base of its tanks, which should have prevented the vessel from being certified as seaworthy, and there were also a number of repairs that had not been carried out despite documents claiming they had. This ruling represents the first time that a French court has recognized the existence of ecological damage resulting from an attack on the environment.

Source: *BirdLife International News* (2008), http://www.birdlife.org/news/news/2008/01/Erika_judgement.html

NORTH EURASIA

Russia creates three National Parks in 2007

Following 6 years of discussion and negotiation with WWF the Russian government has announced the creation of a new National Park in Russia's Far East. Anyuiskii National Park is c. 2,500 km², and it is thought that 5-7 Siberian tigers live within two-thirds of the land covered by the new Park. In addition to the important tiger habitat, the Park also contains some of the most pristine forest in the Sikhote-Alin mountain range, running alongside the Amur River. The new reserve, the largest of three reserves created in Russia in 2007, is part of a network of protected areas containing habitats for tigers for which WWF has been campaigning for over 10 years.

Source: *WWF press release* (2007), <http://www.worldwildlife.org/news/displayPR.cfm?prID=483&enews=news0108t>

Research prompts government action to protect peat bogs

For the last 3 years researchers from Earthwatch have been carrying out a botanical survey of Yelyna, the largest raised peat bog in Europe and a Ramsar Wetland of International Importance. During the survey of the 26,175 ha bog the researchers found 17 new locations of rare and endangered plants. As a result of this information, the Belarus Ministry of Natural Resources is setting up a national peat bog monitoring programme, and has also designated two peat bogs, Velikiji Moh and Fomino (a total of 5,016 ha), as protected areas. This is particularly significant because peat bogs absorb and store carbon, and thus their protection is required to combat climate change.

Source: *Earthwatch press release* (2008), <http://www.earthwatch.org/site/apps/nlnet/>

[content2.aspx?c=crLQK3PHLsF&b=453237&ct=5009043](http://www.birdlife.org/news/news/2008/01/content2.aspx?c=crLQK3PHLsF&b=453237&ct=5009043)

NORTH AFRICA AND MIDDLE EAST

Bird trapping in Cyprus reaches 4-year high

Autumn 2007 saw the highest number of birds killed in illegal traps for 4 years in Cyprus, with an estimated 500,000 birds caught. Trapped birds, known as *ambelopoulia*, are sold in local restaurants for up to GBP 3 each, and this is the main motivation for trappers to persevere in this illegal activity. Despite attempts to halt illegal trapping, the bodies responsible for this have limited resources available, and are further hampered by the fact that penalties handed down by courts are not sufficient deterrents. The methods used by the trappers, mist nets and limesticks, are forbidden under Cypriot law, the Berne Convention, and the EU Birds Directive.

Source: *BirdLife International News* (2007), http://www.birdlife.org/news/news/2007/12/cyprus_trapping2007.html

Bald ibises slowly giving up secrets

Conservationists are beginning to develop an idea of the movements of the Critically Endangered northern bald ibis, following two sightings of the species 2,400 km apart. Feared extinct in the Middle East in the 1990s, a small colony was subsequently discovered in Syria (see *Oryx*, 38, 106-108), and there is an ongoing tagging project to determine the movements of these individuals. The adult tagged birds overwinter in Ethiopia but the migration routes of the juvenile birds are not known, and conservationists fear they are shot during their migration, as few of the juvenile tagged birds return to the Syrian breeding grounds. December's sightings bring the known overwintering sites of this species to three locations, with two adult ibis seen on the Israel/Jordan border, and a juvenile observed on a beach in Djibouti.

Source: *BirdLife International News* (2008), http://www.birdlife.org/news/news/2008/01/bald_ibis.html

Prospective World Heritage Site at risk from development

The Socotra archipelago, a group of remote islands located in the Arabian Sea, have a spectacular array of species, with >300 plant species, >60 butterflies and moths and 21 reptile species endemic to the archipelago. In addition to the eight endemic bird species, 24 species of bird occur on these islands in internationally significant

numbers. The richness of these islands' biodiversity has led to their nomination as a World Heritage Site. However, the islands' ecosystems and species are threatened by uncontrolled development, in particular the expansion to build a new road system. Conservationists have calculated that 19 bird species of conservation concern would be affected by the current road-building plans, and have urged the Yemen government to build essential roads only.

Source: *BirdLife International News* (2008), <http://www.birdlife.org/news/news/2008/02/socotra.html>

SUB-SAHARAN AFRICA

Gola forest wins protection

Sierra Leone's President Ernest Bai Koroma has given his backing to a project that will see the 75,000 ha Gola Forest become the country's second national park. The project is being funded by The European Commission, the French government, the RSPB, and Conservation International. Part of the funding will be spent on training c. 100 staff to patrol boundaries, monitor wildlife and organize education projects. In addition, local communities will be paid annually in an effort to replace the money many currently receive from logging and diamond mining. The Gola Forest, which is close to Sierra Leone's border with Liberia, will be the flagship park in a network of protected areas, with President Koroma planning to establish an additional six parks in a bid to develop the country's tourism.

Source: *BirdLife International News* (2007), <http://www.birdlife.org/news/news/2007/12/sierraleone.html>

Red swamp crayfish spreads through Africa

The Louisiana red swamp crayfish, often introduced into various water bodies in Africa in the past, is spreading through the continent, giving rise to fears that it may threaten the world's largest group of endemic vertebrates, the cichlid fishes of the African Great Lakes. The crayfish, which has already invaded western Europe and Japan, reproduces swiftly upon reaching a new habitat, and is capable of crossing land to colonize new areas. Once in a water body, the crayfish compete with other aquatic carnivores, including large fish, as well as eating the vegetation and destabilizing the banks. Although there is no evidence as yet that the crayfish has reached the cichlid-rich waters of the Great Lakes, it appears to be approaching these areas rapidly.

Source: *Swara* (2007), 30(4), 9.

Giant sengi discovery underlines importance of Eastern Arc Mountains

A new species of giant elephant shrew or sengi, first observed in Tanzania's Udzungwa Mountains in 2005, has been named as *Rhynchocyon udzungwensis*. At 700 g the new sengi is 25-50% greater in size than any other giant sengi, and its discovery will aid researchers to unravel the systematics of the order to which sengis belong, the Macroscelidea. *R. udzungwensis* appears to be endemic to this region, with only two populations known from c. 300 km² of montane forest. At least 25 previously unknown vertebrates have been discovered in the Eastern Arc Mountains and Tanzanian Southern Highlands in the last 10 years, including five mammals. The new discovery serves to highlight the global importance of the area for the conservation of biodiversity, particularly endemic vertebrates.

Source: *Journal of Zoology* (2008), 274, 126-133.

Bewildered wildebeest drown on migration

Heavy rains in August are thought to have been a contributing factor to the deaths of c. 10,000 (c. 1% of the world population) wildebeest on their annual migration from the Maasai Mara to their breeding grounds in the Serengeti. According to some reports, the animals were using their traditional crossing points, while other witnesses suggested that a few wildebeest chose bad crossings, and were subsequently followed by other herd members. Whatever the cause, the animals were unable to get out of the river, and were swept to their deaths. So numerous were the carcasses that the storks and crocodiles that feed on them were overwhelmed, leading to fears that the river ecosystem could be negatively affected.

Source: *Swara* (2007), 30(4), 10-11.

Vultures face another threat

Concern is growing about the use of the insecticide Furadan, used by pastoralists in East Africa to poison predators such as lions, leopards and hyaenas. Not only do the predators succumb to the poison but the scavengers of their carcasses also die. Researchers fear that continued usage of the chemical at the current levels will lead to the extirpation of lappet-faced, Egyptian, white-backed and Ruppell's griffon vultures. Furadan is an extremely potent poison, with records of as many as 2,540 birds having been killed in a single poisoning incident. Researchers are calling for immediate action to eliminate pastoralists' access to the poison, while working with

local communities to find alternative ways of dealing with livestock predation.

Source: *Swara* (2007), 30(4), 16-18.

World's second largest wetland reserve designated in the Congo

Three new Ramsar wetlands have been designated in the Democratic Republic of Congo, including one that will be the second largest in the world after the Queen Maude Gulf Migratory Bird Sanctuary in Canada. The 5,908,074 ha that make up the Congo's Grand Affluents Ramsar Wetland are home to c. 300,000 people as well as many species, and are an important source of water. The four major tributaries of the Congo flow through the newly designated area, and these are relied on as a transport network for local communities. Other new wetland reserves designated at the same time as the Grand Affluents wetland include areas on major tributaries of the Congo and two coastal wetland reserves.

Source: *WWF Newsroom* (2008), http://www.panda.org/news_facts/newsroom/news/press_releases/index.cfm?uNewsID=123840

Approval given for monkey export

The Ugandan Wildlife Authority has given a licence to the company Navina Export to export 300 vervet monkeys to Russia. Vervet monkeys are widely considered as pests in Africa because they have large populations and raid crops but they can sell for up to USD 6,000 in Europe. However, conservationists are concerned that the export of the vervet monkeys will be used as a front for the clandestine export of chimpanzees, which have a much higher market value of up to USD 80,000 each. There have also been protests from the residents of the suburbs of Kampala where the live trapping of monkeys for export has already commenced.

Source: *New Vision* (2008), <http://www.newvision.co.ug/D/8/12/606507>

Soda ash plant fails to inspire local people

Local communities from around Lake Natron have become the latest group to voice their fears over plans to build a soda ash extraction plant on the shores of the lake. As well as concerns over the project itself, there are complaints about the lack of consultation with local people in the Environmental and Social Impact Assessment. There was also doubt over the claims that the plant would provide local jobs, as the communities pointed out that the workers would need to be educated and skilled, and that there might even be a loss of income for local people, many of whom are

currently employed as a result of tourism around the lake.

Source: *BirdLife International News* (2008), http://www.birdlife.org/news/news/2008/01/lake_natron.html

Bitter pill for Kenyan wetland

Plans to reclaim nearly 20,000 ha of the Tana River delta on Kenya's northern coast are causing concern among environmentalists who believe the development will be a national disaster. The Tana River delta covers 130,000 ha in total and is a vital ecosystem for the animals and plants that live there, including several Endangered and Near Threatened species, and for the local people who depend on the fertile land for their livelihoods. The proposal involves using most of the 20,000 ha to grow sugar cane, some of which would be destined for the biofuels market, while other areas would be used for rice farming. An environmental assessment has been carried out but it only considered a 3-month time period, and did not take into account the benefits that would accrue from increased tourism in the area.

Source: *BirdLife International News* (2008), http://www.birdlife.org/news/news/2008/02/tana_delta.html

Geckos benefit from elephants' destructive powers

A new study has found that the population of Kenyan dwarf geckos increases proportionally with the number of trees damaged by elephants as they pass through the African savannah. The effects of elephants on a habitat are often considered to be destructive but for the dwarf geckos the increase in the number of split tree trunks, snapped and fallen limbs, and stripped bark provides them with a wide choice of places to nest and lay their eggs. The relationship between the 7,000 kg elephants and the tiny geckos is a good example of elephants' vital role as ecosystem engineers, although the researchers note that an overabundance of grazers such as elephants can have a negative effect on trees, and can even affect the geckos themselves.

Source: *National Geographic Society News* (2008), <http://news.nationalgeographic.com/news/2008/02/080201-elephants-geckos.html>

SOUTH AND SOUTH-EAST ASIA

Financial boost for science education and research in India

The 95th Indian science congress, held in January, was the venue for an announce-

ment by India's prime minister of an unprecedented funding package for science. In addition to funding many new universities and institutes, including 30 new Central Universities, there will also be thousands of new polytechnics, vocational schools and skill-development centres. School children will also benefit, with 10,000 scholarships of INR 100,000 per year for 5 years being offered to those who enrol on science degree courses. To fund these schemes, there has been a five fold increase in the education budget for 2007-2012.

Source: *Nature* (2008), 451(7175), 112-113.

Mystery illness affecting India's gharials

Indian researchers are baffled following a large number of deaths among the Critically Endangered gharial population. Sixty-seven of the fish-eating crocodilians died in 1 month at the Chambal River sanctuary, in Madhya Pradesh, with one or two carcasses washing up on the river banks every day. Post-mortems have indicated that the gharials died from an as yet unidentified illness, although there are reports that the deaths were caused by cirrhosis of the liver, leading to speculation that there may be toxins in the water. Gharials are distinctive crocodiles, with long snouts for eating fish, and can grow up to 6 m in length. A team of international veterinarians is travelling to India to help in the identification of the disease that could decimate the gharial population, which numbers c. 1,500 individuals.

Source: *BBC News* (2008), http://news.bbc.co.uk/go/pr/fr/-/1/hi/world/south_asia/7171866.stm

Good news at last for vultures

Measures taken to reduce and replace the drug diclofenac to halt the dramatic decline in vultures are proving successful in Nawalparasi District, Nepal, with evidence that the number of white-rumped and slender-billed vulture nests in the area has doubled in the last 2 years. Bird Conservation Nepal (BCN) is working alongside a number of other NGOs, as well as government agencies, vets and local communities to try and halt the decline through a number of means, including a country-wide conservation-awareness campaign and the creation of a locally-managed vulture restaurant. In addition, BCN has replaced USD 8,000 worth of diclofenac with the safe alternative meloxicam in 10 western districts, including Nawalparasi. Although the overall situation for vultures in South Asia is far from secure, Nepal's experience shows that it is possible to effect positive change.

Source: *BirdLife International News* (2008), http://www.birdlife.org/news/news/2008/01/nepal_vultures.html

Future of elephant corridor secured

A strip of land connecting two reserves in Karnataka, southern India, has been handed over to forest officials by the International Fund for Animal Welfare and the Wildlife Trust of India. This is the first time that land bought by wildlife charities has been handed over to the government to protect elephants. An MOU has been signed between the parties involved, and in return for the title deeds to the land, the Forest Department is charged with maintaining the Edayargalli-Doddasampige corridor as a safe passage for elephants. The 10 ha corridor is 0.5 km wide and 2 km long, and links two forested areas that would otherwise be cut off from one another by agricultural land. There are 88 elephant corridors in India, serving an elephant population of an estimated 25,000.

Source: *Wildlife Trust of India press release* (2007), http://www.wildlifetrustofindia.org/html/news/2007/071220_elephant-corridor.htm

New subspecies of bird found in Nepal

First spotted in 2005, the Nepal rufous-vented prinia has recently been recognized as a new subspecies, providing a geographical link between a prinia subspecies found in Pakistan's Indus river basin and another subspecies occurring in the Brahmaputra of north-east India. The Nepal rufous-vented prinia has a long tail and slender beak, and its colouration is intermediate between the chestnut colour of the Pakistani subspecies and the grey colour of the Indian subspecies. This discovery brings the number of bird species seen in Nepal to 862 but researchers warn that the new subspecies is threatened by loss and degradation of its wetland habitat, with a maximum of only 500 individuals in existence.

Source: *BBC News* (2008), http://news.bbc.co.uk/1/hi/world/south_asia/7227696.stm

Assam government seeks investigation into rhino deaths

The death of a fourth Indian greater one-horned rhino in Kaziranga National Park in just over 1 month has prompted the Assam government to ask the Central Bureau of Investigation to examine the recent dramatic increase in poaching incidents. In 2007, 20 rhinos were killed in the Park, the first time that the number of deaths has reached double figures for 10 years. More than half the world's 2,700 greater one-horned rhino live in the Park,

making them a tempting target for poachers. Such is the demand for rhino horn, used in traditional medicine, and as an ornamental dagger handle in the Middle East, especially in Yemen (see *Oryx*, 41, 431), that it commands prices of USD 38,000 per kg. *Source: News Post India* (5 February 2008), <http://newspostindia.com/report-35312>

Spoon-billed sandpipers found wintering in Myanmar

Satellite maps, historical records, and previous surveys led researchers to investigate parts of the Bay of Bengal and the Martaban (Mottama) Bay in an attempt to locate wintering Endangered spoon-billed sandpipers. Their efforts were rewarded with the discovery of 48 sandpipers, including a juvenile ringed at the sandpipers' breeding grounds in Chukotka, Siberia. Numbers of spoon-billed sandpipers have fallen dramatically in the last few years, with the population now numbering only 200–300 breeding pairs. The discovery of the over-wintering birds underlines the importance of the mudflats along the Arakan coast, which, apart from some small scale prawn farming, are largely intact and are home to tens of thousands of arctic waders, as well as supporting many local livelihoods.

Source: BirdLife International News (2008), http://www.birdlife.org/news/news/2008/02/sbs_myanmar.html

Indian tiger count called into question

A state in eastern India is disputing the results of a tiger population census carried out by the National Tiger Conservation Authority (see also pp. 173–174). The Authority's census indicated that Orissa has between 37 and 53 of the 1,411 tigers remaining in India but authorities are claiming that a local count in 2005 showed that the state contained 192 tigers. There is particular disagreement about the number of tigers counted in Similipal Tiger Reserve, with the most recent count putting the number at 20, while the 2005 local count found 101 tigers in the Reserve. India's tiger population, estimated to number 40,000 a century ago, has been decimated by poaching and the effects of urbanization.

Source: BBC News (2008), http://news.bbc.co.uk/1/hi/world/south_asia/7246121.stm

Sumatran tiger parts still widely available in retail outlets

A follow-up study to a survey carried out in Sumatra in 1999–2002 found that little action has been taken against retail outlets

selling tiger parts, despite the authorities having been given the requisite information after the last survey. The new survey investigated tiger trade in 28 Sumatran cities and towns, and found that eight had tiger parts for sale, with 10% of all retail units surveyed selling tiger parts. An estimate of the number of tigers killed to provide the parts being sold, based on the number of canines found, is 23 individuals. This figure is lower than the 52 individuals calculated to have been killed in the last survey but there are fears that the lower number indicates that there are simply fewer tigers left in the wild.

Source: TRAFFIC (2008), <http://www.traffic.org/home/2008/2/13/tiger-tiger-future-not-so-bright.html>

EAST ASIA

Volunteers and soldiers join battle against oil slick

The worst oil spill in South Korea, declared a disaster by the South Korean government, is threatening to wreck havoc in Cheonsu Bay, used by thousands of birds for over-wintering and as a stopover during migration. Ten thousand tons of crude oil were spilt in the disaster, which occurred after an oil tanker was hit by an industrial barge that had broken free of its towing lines. The oil slick at sea was reported to extend c. 130 km south of the spill centre, and beaches were covered in a thick layer of oil, leading to fears for livelihoods of local people, and the long-term future of the area's ecology. *Source: BirdLife International News* (2007), http://www.birdlife.org/news/news/2007/12/korean_oil_spill.html and *BBC News* (2007), <http://news.bbc.co.uk/1/hi/world/asia-pacific/7134967.stm>

Humpbacks safe for now

Following negotiations with the chairman of the International Whaling Commission, Japan has agreed not to carry out its proposed hunt of 50 humpback whales in the Antarctic. Japanese officials have agreed to postpone their humpback harvest until after the next annual meeting of the IWC at the earliest, although they are continuing with their so-called scientific whaling programme, which will see the capture of up to 50 fin whales and 935 minke whales. This decision has been met with relief by many, and has been seen as an indication that Japan is serious about working to preserve the IWC.

Source: NOAA press release (2008), http://www.noanews.noaa.gov/stories2007/20071221_humpback.html

Crustaceans develop a taste for island

Tiny crustaceans that inhabit the small island of Hoboro in southern Japan are eroding themselves out of house and home. Rises in ocean temperatures around the island have led to high densities of the crustaceans' food, plankton, around Hoboro, with the result that there are now millions of the tiny animals on the island. Known locally as *nanatsuba-kotsumumushi*, the crustaceans make nesting holes in the rocks of the island, thus making it weaker and more vulnerable to weathering and erosion. The island is made of soft rock called tuff, which consists of compacted volcanic ash, making it an ideal nesting substrate for the crustaceans. Researchers have estimated that at the current rate of erosion, the island may disappear within a century.

Source: National Geographic News (2008), <http://news.nationalgeographic.com/news/2008/01/080103-bug-island.html>

NORTH AMERICA

US jaguars do not justify formal recovery plan

The US Fish and Wildlife Service have decided not to use the framework of the Endangered Species Act to try to save jaguars from extinction in the USA. Jaguars used to range throughout the southern states but no longer occur here, apart from the occasional sighting of males in New Mexico and Arizona. These roaming individuals are not enough to warrant the creation of a formal recovery programme, according to the US Fish and Wildlife Service, which instead intends to concentrate efforts on countries south of the border where the jaguar still occurs. Environmentalists have accused the US Fish and Wildlife Service of abandoning the jaguar.

Source: Nature (2008), 451(7177), 386.

Whooping cranes break migration record

Record numbers of America's tallest bird, which numbered only 56 individuals in 1970, made the return journey from their summer breeding grounds in Canada to their overwintering grounds in Texas. Habitat management and strict protection of the whooping cranes has seen their population rise to 73 pairs in 2007, and a record number of at least 257 individuals were counted at the Costal Bend of Texas in the winter of 2007. The cranes that migrate between Canada and Texas are the only self-sustaining population of whooping cranes in the world, and they appear to be

thriving; evidence from the 2007 breeding season shows that they are increasing their range in their northern breeding grounds. *Source: BirdLife International News* (2007), http://www.birdlife.org/news/news/2008/01/whooping_crane.html

Battle lines drawn for Alaska

For the first time in over 15 years the US government will offer lease sales for parts of Alaska. The federal Minerals Management Service has announced that it will take bids for concessions in the Chukchi Sea, which lies between Alaska and Siberia, and is thought to contain 15 billion barrels of recoverable oil and >2 trillion m³ of natural gas in its American sectors alone. In an attempt to protect the rich coastal resources of the area, it is stipulated that exploration will not be allowed to take place closer than 80 km from the shoreline but environmentalists are nevertheless concerned that there will be a serious impact on marine life, with polar bears particularly at risk.

Source: BBC News (2008), <http://news.bbc.co.uk/1/hi/world/americas/7169144.stm>

Cruise industry leaders sign agreement to protect Cozumel

A ground-breaking conservation agreement has been signed by cruise industry leaders representing government, private sector, civil society and cruise lines, thus setting in motion an initiative that aims to protect the biodiversity of the world's most visited cruise destination, Cozumel, Mexico. The agreement will see cruise industry leaders working together to enhance environmental awareness and education, improve management of tourism infrastructure, foster increased awareness of the Mesoamerican reef and promote consistent application and enforcement of laws and regulations. A unique factor of the agreement is that it occurred as a result of a participatory planning process, possibly the first time this has occurred within the cruise industry. Cozumel's rich biodiversity means that the area is of high conservation importance, yet it can receive up to 10,000 visitors a day.

Source: The Centre for Environmental Leadership in Business press release (2008), http://www.celb.org/xp/CELB/news-events/press_releases/011508.xml

Sea lice infestations are not so nice for wild salmon

For some, the rise in aquaculture is a panacea for halting overfishing and thus extirpation of wild fish stocks. However, new evidence from salmon pens along the British Columbia coast implicates these farms in the impending extinction of wild pink salmon populations in their vicinity.

Wild salmon populations nearby the salmon pens have suffered population crashes as a result of high juvenile mortality rates resulting from infestation from sea lice. The location of the pens, at the mouths of rivers down which juvenile salmon migrate to the sea, combined with the high numbers of lice near pens, mean that many of the area's wild salmon populations are at risk of extinction within four salmon generations.

Source: Nature (2008), 451(7174), 23-24.

Laysan duck thriving on Midway Atoll

The translocated population of Critically Endangered Laysan ducks in the Midway Atoll National Wildlife Refuge has now risen to 200, a quadruple increase of the original translocated population of 42 individuals. The success of this population means that for the first time in hundreds of years these ducks are flying between islands in the Midway Atoll, and, what is more, data show that they are capable of nesting in non-native vegetation. While Laysan ducks were once widespread across the Hawaiian archipelago, they had disappeared from all areas apart from Laysan island by 1860. In addition to the original translocated Midway Atoll population, another population has also been created on an additional island in the Atoll.

Source: BirdLife International News (2008), http://www.noaa.gov/stories/2008/20080116_seabird.html

US government agency under pressure to reverse Furadan ban

For the first time in 20 years a pesticide manufacturer is seeking to overturn a decision made banning use of a pesticide in the USA. The Environmental Protection Agency cancelled the registration of all uses of the chemical carbofuran, sold as Fudaran, in 2006, because the pesticide poses an unreasonable risk to the environment, and also to human health. In 2007 the deliberate misuse of Fudaran by a farmer in Colorado led to the death of >2,200 migrating birds, and the chemical is also used in poison baits to kill wildlife, with bald and golden eagles having been killed by this means. Once the cancellation is implemented all uses of Fudaran will be banned, although the ban does not extend to imported agricultural products.

Source: American Bird Conservancy (2008), <http://www.abcbirds.org/newsandreports/releases/080211.html>

'White nose' disease afflicting bats

People are being asked not to enter caves in the USA for fear of unwittingly spreading

a disease responsible for the largest ever number of bat deaths in the country. Between 8,000-11,000 hibernating bats died in 2007 from the disease, a symptom of which is a white fungus encircling the nose of some, but not all, of the bats. The fungus has been identified as belonging to the genus *Fusarium*, normally associated with plants, but researchers do not think that the fungus is the cause of death, with preliminary research indicating that the bats are using their fat reserves months before they are due to emerge, and die as a result of this. The disease has affected a number of species, and once present in a cave it can spread rapidly, as bats can hibernate in densities of >3,000 per m².

Source: Environmental News Service (2008), <http://www.ens-newswire.com/ens/jan2008/2008-01-31-094.asp>

California's salmon numbers plummet

The Pacific Fishery Management Council's director has warned that chinook salmon stocks in the California Central Valley fall have suffered a serious decline in numbers, prompting fears that commercial and recreational fisheries may be affected. The evidence for the decline comes from the Sacramento River fall, where numbers of salmon were below the optimum number of adult fish required to maximize the production of stock. Further evidence was forthcoming in the form of a record low number of jacks, immature 2-year old fish returning to rivers, counted in 2007. This latter piece of evidence is particularly worrying, as jacks are used to forecast future returns.

Source: Environmental News Service (2008), <http://www.ens-newswire.com/ens/jan2008/2008-01-29-092.asp>

Training exercises given permission to use sonar

President Bush has given the US Navy permission to use sonar during training exercises off the southern Californian coast, despite the fact that a district court judge had imposed restrictions on such training missions a few weeks earlier. The restrictions were imposed on the grounds that there appears to be a link to use of mid-frequency sonar and cetacean deaths but the Navy appealed to the President on the grounds that this type of sonar is vital for detecting quiet submarines. Following the appeal the judge temporarily dropped two key restrictions, namely to shut sonars down when marine mammals approach within 2 km of the transmitters, and when

conditions are such that sonar pulses will travel long distances.

Source: *New Scientist* (2008), <http://www.newscientist.com/article.ns?id=mg19726403>. 200

Pocosin Lakes saved from Navy airfield threat

Faced with a barrage of criticism from community members, environmentalists and North Carolina's local political leadership, the US Navy has announced that it is withdrawing its plans to build a landing field for trainee jet pilots within 5.5 km of the Pocosin Lakes National Wildlife Refuge. The intended usage of the landing strip would have meant an average of one landing or departure every 30 minutes, and there were concerns that bird strike would have been a serious possibility. The associated disturbance would also have been a threat to the tens of thousands of swans, ducks and geese that inhabit the Refuge, and could have disrupted the migration of some species.

Source: *Environmental News Service* (2008), <http://www.ens-newswire.com/ens/jan2008/2008-01-28-093.asp>

USA ranked below Ecuador in Environmental Performance Index

The 2008 Environmental Performance Index published by the Yale University Center for Environmental Law and Policy, and the Earth Institute at Columbia University has ranked the USA at number 39 out of 149 countries. The Index ranks countries based on six groups of indicators: environmental health, air pollution, water resources, biodiversity and habitat, productive natural resources, and climate change. The USA scores highly in some areas such as drinking water and forest management but fails in other categories, particularly climate change. Generally, richer countries rank more highly, particularly in the field of environmental health, but there are some variations to this rule; Costa Rica, for example, is in fifth place because of the priority given to the environment. The top four countries are Switzerland, Sweden, Norway and Finland.

Source: *Environmental News Service* (2008), <http://www.ens-newswire.com/ens/jan2008/2008-01-23-01.asp>

CENTRAL AMERICA AND CARIBBEAN

Three new salamanders found in Costa Rica

An expedition to La Amistad National Park, on the border of Costa Rica and

Panama, has found three new species of salamander, including a 3 cm long member of the dwarf *Nototriton* salamander genus and two nocturnal *Bolitoglossa* species. The expedition was part of a project to secure baseline data to aid conservation efforts in La Amistad National Park, which is the largest forest reserve in Central America and one of the region's least explored areas. The three new salamanders, which will be described and named by scientists at the University of Costa Rica, bring the number of salamanders in the country to 43, indicating its importance as a centre of diversity for these animals.

Source: *Natural History Museum News Archive* (2008), http://www.nhm.ac.uk/about-us/news/2008/january/news_13214.html

Cuba bans turtle harvesting

Endangered green and loggerhead turtles and Critically Endangered hawksbill turtles that feed in Cuban waters have a more secure future, thanks to a Resolution by Cuba's Ministry of Fisheries to ban all harvesting of turtles and their products from Cuban waters. The two fishing communities that previously harvested marine turtles will receive funds and technical assistance to find sustainable alternative livelihoods, and there are plans to involve local residents in the formation of Brigades for the Protection of Marine Turtles. A grant of over USD 400,000, from WWF and the Canadian International Development Agency, will support the Cuban Centre for Fisheries Research in its bid to become a hub for research into marine turtles and their conservation.

Source: *Environmental News Service* (2008), <http://www.ens-newswire.com/ens/jan2008/2008-01-28-05.asp>

Not waving but drowning

A poisonous frog has been caught performing semaphore-like waves on camera for the first time, just a few months before the last remaining individuals were taken into captivity to prevent them falling victim to a deadly virus. The golden frog, believed by locals to turn to solid gold when it dies, lives beside mountain streams in the Panamanian rainforest. To communicate above the sound of the water the species appears to have evolved hand signals. Shortly after the frogs were filmed the fungal infection *Batrachochytrium dendrobatidis* reached the site, and researchers took the last individuals into captivity to prevent them falling victim to the fatal disease.

Source: *BBC News* (2008), <http://news.bbc.co.uk/1/hi/sci/tech/7219803.stm>

SOUTH AMERICA

Now you see it, now you don't: new glass frog discovered

A new species of glass frog has been described after its discovery in the foothills of a small mountain range in the Cordillera Occidental in south-western Ecuador. The new species, *Cochranella buenaventura*, brings the number of glass frogs known to occur in the foothills, slopes and highlands of Cordillera Occidental to 11. *C. buenaventura* is described as having lemon green hands, with yellow discs, and a yellowish-silver iris with maroon reticulations, and adult males are 20.9–22.4 mm long. Its species name reflects both the private nature reserve in which it was found, Reserva Biológica Buenaventura and, as buenaventura means 'good fortune', the feelings of the researchers who discovered it.

Source: *South American Journal of Herpetology* (2007), 2(1), 1–10.

Bolivia's parrots still being traded

Researchers who spent a year investigating the trade in wild birds in a pet market in Santa Cruz found that many parrots were being traded, despite this offence carrying a 2-year jail sentence. Nearly 7,300 individual parrots belonging to 31 species, including some listed under CITES, passed through the pet market, and as this market is one of five in Santa Cruz alone, other trade may also be occurring. Some arrests of traffickers have been made but enforcement of the laws governing illegal trade is minimal, mainly because national, departmental and municipal heads do not stop the trade in the centre of the town, and the police refuse to get involved with what they perceive as low priority crime.

Source: *BirdLife International News* (2007), http://www.birdlife.org/news/news/2007/12/bolivia_trade.html

San Rafael National Park is a hotspot of avian biodiversity

Surveys carried out in Paraguay's San Rafael National Park have shown that the Park has almost the same amount of species' richness as much larger areas of Atlantic Forest. The Park was found to harbour 405 bird species, including 70 species that are endemic to the Atlantic forest, and 12 species on the IUCN Red List, and is also an important site for grassland birds, with 14 species endemic to this type of habitat. San Rafael was declared a National Park in 1992 but its borders were only delimited in 1997, and there has as yet been no legal recognition of these

boundaries. The majority of the Park's 748 km² are still unprotected, leaving them vulnerable to agricultural encroachment.

Source: *BirdLife International News* (2008), http://www.birdlife.org/news/news/2008/01/san_rafael.html

Tribe leads scientist to new species of monkey

A new species of uakari monkey has been discovered in a remote part of the Brazilian Amazon, after a primatologist followed native Yanomamo Indians on their hunting trips along the Rio Aracá. The Yanomamo had told researchers about the existence of the monkey species but 5 years of searching failed to locate the uakari. When it was eventually found it transpired that it lives in atypical uakari habitat, occupying a mountainous region along the Brazil-Venezuela border, instead of the flooded river forests normally inhabited by uakaris. The researchers have emphasized the need for swift conservation action to protect the new species, as its population appears small and its habitat is not protected.

Source: *National Geographic News* (2008), <http://news.nationalgeographic.com/news/2008/02/080204-new-monkey.html>

Amazon deforestation unprecedented for time of year

Only a few months after celebrating a reduction in Amazonian deforestation rates, the Brazilian government has announced a huge rise in the amount of land cleared, with 3,235 km² lost in the last 5 months of 2007. The monthly rate of deforestation rose from 243 km² in August to 948 km² in December, the highest deforestation rate ever recorded for this time of year. There is no firm reason why the deforestation rate should have increased by so much, although it is thought that the rising prices of raw materials and commodities could be responsible. There are fears that the actual rate may be even higher than already reported as more detailed satellite images of the Amazon are analysed.

Source: *BBC News* (2008), <http://news.bbc.co.uk/go/pr/fr/-/1/hi/world/americas/7206165.stm>

Brazil clamps down on illegal logging

Following the rise in illegal logging in the Amazon (see above), the Brazilian government has announced new measures to curb this activity. One immediate action has been the raiding of illegal saw mills in Para state. One hundred and forty police officers swooped on eight saw mills in the city of Tailandia, which is in the south of the state, one of the areas most affected by the rise in

illegal deforestation. The police seized 10,000 m³ of timber, described as one of the biggest ever hauls of illegal wood.

Source: *BBC News* (2008), <http://news.bbc.co.uk/1/hi/world/americas/7244295.stm>

Grisly find in Galapagos National Park

Fifty-three sea lions have been found dead on the island of Pinta in the Galapagos archipelago, each having been killed by a strong blow to their heads. The motive for these deaths is unknown, as the bodies showed no signs of having had parts removed, which has happened in the past to supply the demand in traditional medicine for sea lions' teeth and genitals. The Galapagos Islands are Ecuador's most popular tourist attraction but were placed on the list of World Heritage Sites in Danger in 2006 because they are being negatively affected by invasive species, increased tourism and rising immigration.

Source: *BBC News* (2008), <http://news.bbc.co.uk/go/pr/fr/-/1/hi/world/americas/7214860.stm>

Avian gold on display at Colombian Reserve

A new reserve, which contains the highest concentration of continental range-restricted birds in the world, has been inaugurated in the Sierra Nevada de Santa Marta mountain range of northern Colombia. The Colombian NGO Fundación ProAves launched a campaign to protect the area, which was at risk from development, deforestation and invasion by non-native pine species, and with the help of a number of other NGOs managed to acquire c. 680 ha of this region, thereby securing the future of 21 endemic species such as the Santa Marta parakeet and the Santa Marta antpitta. The El Dorado Bird Reserve, named after the legendary city of gold, contains ecotourism facilities to help make it a sustainable concern.

Source: *American Bird Conservancy* (2008), <http://www.abcbirds.org/newsandreports/releases/080213.html>

PACIFIC

World's largest marine reserve declared

An area of ocean the size of California has been formally designated as a Marine Protected Area by the Pacific Island nation of Kiribati. At 410,500 km², the Phoenix Islands Protected Area is the largest such reserve in the world, and protects one of the earth's last intact coral archipelago ecosystems. Within the reserve's bound-

aries are eight coral atolls, unsurveyed submerged reef systems, sea mounts, deep sea habitats, and tuna spawning grounds. The largely uninhabited Phoenix Islands are located in the Central Pacific, between Hawaii and Fiji, and form an archipelago stretching for several hundred kilometres.

Source: *Conservation International press release* (2008), <http://www.conservation.org/newsroom/pressreleases/Pages/PIPA-largest-protected-area-in-pacific.aspx>

Oil palm plantations oust New Britain's birds

A novel use of satellite imagery has revealed that the number of birds threatened with extinction on the Papua New Guinean island of New Britain is higher than previously thought. Researchers compared high-resolution images of the island between 1989 and 2000 to determine the extent of deforestation, and then overlaid the maps of forest loss with habitat preference maps of the island's birds. Approximately 12% of forest cover was lost between 1989 and 2000, with 20% loss in lowland areas. In many regions the deforested areas were replaced with oil palm plantations. The researchers' calculations showed that 21 bird species will have suffered significant declines following this deforestation, and with land clearance for oil palm set to increase rapidly over the next few years the outlook is bleak.

Source: *BirdLife International News* (2008), http://www.birdlife.org/news/news/2008/01/new_britain.html

AUSTRALIA/ANTARCTICA/ NEW ZEALAND

Why leave when the going's good?

Researchers have discovered a population of turtles that do not migrate long distances between their breeding and feeding grounds. Whereas most turtles travel between 200 and 3,000 km, the green turtles living in the Indian Ocean lay their eggs on North Cocos Island and then swim c. 35 km to feed around the South Cocos atoll. Unlike other turtles, the Cocos turtles can breed every year, instead of once every 3-9 years, and the conservation of these turtles is made easier because they are only found within the waters of one country, unlike in other areas where turtles migrate between countries. Researchers believe that the reason behind the turtles' homeliness is simple; they have good feeding grounds in close proximity to their nesting sites.

Source: *New Scientist* (2008), 197(2637), 8.

Corals keep their cool

Researchers in Australia and the USA have discovered an apparent temperature-controlling system that seems to be protecting corals from the effects of global warming. Surveys of the water temperature in the Western Pacific Warm Pool, off the north-east coast of Australia, between 1950 and 2006 show that the water has warmed by $<0.1^{\circ}\text{C}$, compared to an average ocean temperature increase of $0.5\text{--}0.7^{\circ}\text{C}$ over the last 30 years. The result is that the corals in the Western Pacific Warm Pool have only suffered four bleaching outbreaks in the last 25 years. The mechanism behind this temperature control is not yet understood but the waters in the Warm Pool are, unsurprisingly, warmer than elsewhere in the oceans, and this may have caused the corals to develop a natural protection against bleaching.

Source: ScienceNOW Daily News (2008), <http://sciencenow.sciencemag.org/cgi/content/full/2008/208/2>

Antarctica's marine life threatened by fast-moving invasive species

Increasing ocean temperatures as a result of global warming will provide predators such as king crabs, sharks and other predators the opportunity to move further north into waters that are currently too cold for them. King crabs, normally confined to deep waters, have already been seen on sea floors around Antarctica, and with warmer ocean temperatures it is likely that they will move to increasingly shallow waters. In contrast to most oceans the shallow waters around Antarctica are colder than the deeper waters because of currents that swirl around the continent. However, a temperature rise of only 1.8°C will be sufficient to enable the

crabs to enter these areas, and once they do they will discover a cornucopia of species ill-adapted to deal with fast-moving predators capable of crushing shells.

Source: National Geographic News (2008), <http://news.nationalgeographic.com/news/2008/02/080215-crab-invasion.html>

All internet addresses were up to date at time of writing. The *Briefly* section in this issue was written and compiled by Elizabeth Allen and Martin Fisher, with additional contributions from Antony Rylands, Gertrud Neumann-Denzau and Suzanne Sharrock. Contributions from authoritative published sources (including web sites) are always welcome. Please send contributions by e-mail to oryx@fauna-flora.org, or to Martin Fisher, Fauna & Flora International, 4th Floor, Jupiter House, Station Road, Cambridge, CB1 2JD, UK.