

## INTERNATIONAL

### Eight new natural sites added to the UNESCO World Heritage List

Twenty-seven new sites were added to the UNESCO World Heritage List during the 32nd session of the World Heritage Committee. Among these sites are eight new natural sites, including the Socotra Archipelago in Yemen, Saryarka steppe and lakes in northern Kazakhstan, and the lagoons of New Caledonia. The newly designated cultural sites include the Mijikenda Kaya Forests in Kenya and the wooden churches of the Slovak part of the Carpathian Mountain Area in Slovakia. The latest additions bring the total number of sites on the World Heritage List to 878, of which 174 are natural sites.

Source: *UNESCO news service* (2008), [http://portal.unesco.org/en/ev.php-URL\\_ID=43067&URL\\_DO=DO\\_TOPIC&URL\\_SECTION=201.html](http://portal.unesco.org/en/ev.php-URL_ID=43067&URL_DO=DO_TOPIC&URL_SECTION=201.html)

### Ocean's movements to be tracked from space

A satellite called Jason-2 has been launched from California amid hopes that it will provide enhanced information on the impacts of climate change on the planet. The satellite will provide a topographic map of 95% of the ice-free oceans every 10 days, with an accuracy of better than 4 cm. Ocean height can indicate to oceanographers what is happening below the waves, in terms of temperature and salinity. Data from Jason-2 will have many uses, including being able to track drift of marine pollution incidents, indicating waters that are good areas for whale breeding and feeding, and informing industries where the optimum locations are for undersea drilling. The accuracy of the data from Jason-2 means that it should provide comprehensive information about sea level changes across the globe.

Source: *BBC News* (2008), <http://news.bbc.co.uk/1/hi/sci/tech/7457818.stm>

### Junk food diet doesn't satisfy marine animals

Evidence is accruing for a controversial idea that places as much importance on the quality of food consumed by marine animals as the quantity. The 'junk food hypothesis' was first described for Steller sea lions off Alaska, where a rise in low-fat pollock at the expense of high-fat herring was linked to a collapse in the sea lion

population. At the time this finding was questioned, with some suggesting that the collapse was due to increased predation by humans and killer whales. The new analysis of 47 marine species provides further evidence for the hypothesis, however; for example, in the 1990s guillemot chicks in the Baltic Sea were found to be lighter than previously despite an increase in cod fishing, which had enabled the guillemots' prey, sprats, to increase in number. However, the sprats were still competing for the same amount of zooplankton, meaning that each sprat weighed less, and provided fewer calories for the chicks.

Source: *New Scientist* (2008), 198(2661), 11.

### Ocean acidification effects studied at ecosystem scale

Studies off the coast of the Italian island of Ischia have provided an insight into what might happen as a result of CO<sub>2</sub>-driven decreases in the pH of seawater. Volcanic CO<sub>2</sub> vents on the shallow sea floor have caused a drop in pH from normal (8.1–8.2) to lowered (7.8–7.9, minimum 7.4–7.5), and researchers found that the organisms occurring at lower pH ranges are different to those at normal pH levels. In particular, they recorded a change from typical rocky shore communities complete with calcareous organisms to communities lacking in scleractinian corals and with reduced abundance of sea urchins and coralline algae. It is thought that this is the first time ocean acidification effects have been studied *in situ*.

Source: *Nature* (2008), 454(7200), 96–99.

### Waterlogged timber stores carbon for longer

An investigation of oak wood in streams and floodplains using tree-ring and C<sup>14</sup> dating has revealed that wood buried in these watery environments is an effective carbon sink. The mean length of submergence among the studied tree remains was 3,515 years, with trees retaining their carbon for an average of 1,960 years, considerably longer than trees that break down in terrestrial habitats. The oldest oak wood found during the study, carried out in the waterways of northern Missouri, USA, was 14,000 years old but researchers report that few samples dated back to the last 150 years. They suggest that this form of carbon storage is sensitive to changes in climate, and also to anthropogenic influences on fluvial processes.

Source: *Ecosystems* (2008), 11, 643–653.

### Birds provide early warning system for lead poisoning

Studies of birds affected by lead poisoning from ammunition indicate that the risk to human health may be more severe than previously thought. A number of studies examining birds such as ravens and raptors that often eat hunter-killed animals have found that these birds had higher levels of lead in their bodies during the hunting season as a result of ingesting bullet fragments remaining in the carcasses. As a result, concerns are growing that humans who eat game shot with lead bullets may be at risk of lead poisoning. Exposure to even low levels of lead causes a number of problems in humans, including organ damage, hearing loss and Alzheimer's disease. The state of California recently banned the use of lead bullets in the California condor's range because of concerns that the species was suffering losses from lead poisoning.

Source: *American Bird Conservancy press release* (2008), <http://www.abcbirds.org/newsandreports/releases/080430.html>

### Deforestation continues unabated

Rainforests have been in the public eye for years now, so it comes as an unwelcome surprise that their deforestation continues at the same rate as in the 1990s. A team of researchers used low- and high-quality satellite data sets to calculate the amount of deforestation over 2000–2005. The results, obtained using a probability-based analysis, found that 27 million ha of rainforest were cleared during this time, which equates to 2.4% of the world's rainforest cover. Over half of all rainforest deforestation (55%) occurred within 6% of the biome area, supporting the idea of clearing 'hotspots'. Brazil was the country with the highest percentage of biome clearance (48%), and Indonesia the country with the next highest rate (13%).

Source: *Proceedings of the National Academy of Sciences* (2008), 105, 9439–9444.

### New resource for information about freshwater ecosystems

A project that has taken over 10 years to complete has recently presented its findings. Over 200 researchers have worked on the Fresh Ecosystems of the World project (<http://www.feow.org>), which has resulted in the first ever comprehensive map and database detailing the diversity of life in the world's freshwater ecosystems. The database divides the world's freshwater systems

into 426 distinct conservation units and its species list includes 13,400 fish, 4,000 amphibians, 300 turtles and 20 crocodile species. It is hoped that the Fresh Ecosystems of the World project will provide accessible information on freshwater systems that will lead to a better understanding, and thus more effective conservation, of these valuable ecosystems.

Source: *WWF press release* (2008), <http://www.worldwildlife.org/who/media/press/2008/WWFPresitem8917.html>

### **Nutrient-poor grasslands contain hidden riches**

A study of a nutrient-poor grassland in England has revealed that these sorts of ecosystems are particularly resilient to climate change. Experiments that simulated climate change in the grassland found that species' composition remained relatively unchanged even 13 years after the manipulation. The study's authors believe that similar nutrient-poor ecosystems, such as European pastures and tropical grasslands, may share this trait, which is believed to result from the lack of nutrients preventing non-native species from gaining a hold in the ecosystem. All the more reason, therefore, to protect these areas from nutrient enrichment, a significant source of which is runoff from agriculture.

Source: *New Scientist* (2008), 190(2664), 7.

### **Cleaned fish are relaxed fish**

New research has revealed that areas where cleaner fish ply their trade on coral reefs are safe havens for all fish, as the cleaner fish massage their 'patrons' during the cleaning session, and this appears to result in more relaxed predators. Experiments that created mini coral reefs in aquaria showed that predatory fish chased prey one-third as often in tanks with cleaner fish compared to tanks where cleaner fish were absent, and that even when the client fish were not actively being cleaned, they still chased prey less frequently. What is more, the number of chases decreased the longer a cleaner fish stroked the predator.

Source: *New Scientist* (2008), 199(2664), 19.

### **Genetic resistance discovered in frogs**

Experiments on African clawed frog tadpoles have found that different genetic make-up at the major histocompatibility complex (MHC) confers differing degrees of resistance to tadpoles. Experiments in which tadpoles with different combinations of four MHC haplotypes were exposed to the common bacterial pathogen *Aeromonas hydrophila* showed that particular haplo-

types appeared to confer resistance, or at least tolerance, to the pathogen. The experiments also showed that MHC haplotype appeared to affect growth rate, with some evidence that tadpoles with resistant haplotypes grew more slowly during exposure to the pathogen. This could imply a trade-off between growth and immune system activity.

Source: *PLoS One* (2008), 3(7), e2692 (<http://dx.doi.org/10.1371/journal.pone.0002692>).

### **Global GDP to fall as biodiversity is lost**

A report billed as the Stern Report for biodiversity has found that living standards along the poor may halve as intact ecosystems start to disintegrate. The Economics of Ecosystems and Biodiversity review found that current rates of biodiversity loss may reduce global GDP by c. 7% by 2050 but the effects of the loss will be felt disproportionately by the world's 1.5 billion poor, as these are currently the major beneficiaries of intact ecosystems. The report also acknowledges that costs relating to the loss of certain ecosystems are barely known; the 7% decline in GDP estimate is largely based on forest loss. It is hoped that by couching the issues of biodiversity loss in economic terms governments will be moved to take the urgent action required to halt this loss.

Source: *BBC News* (2008), <http://news.bbc.co.uk/1/hi/sci/tech/7424535.stm>

### **Rarity tastes better**

Experiments at luxury receptions and in supermarkets reveal a worrying desire among consumers for rare caviar in preference to caviar from a common species. Researchers offered tasters two sorts of caviar, one purporting to be from a rare sturgeon and one from a common sturgeon, although the samples were in fact from the same tin of farmed sturgeon caviar. Even before tasting the caviar, the rare caviar was preferred, and the number of people preferring this type rose even further after sampling the caviar. Of particular concern is the fact that this preference was recorded across the board, indicating that as more people become able to afford commodities like caviar, pressure on already beleaguered sturgeon populations will become even greater.

Source: *New Scientist* (2008), 199(2665), 15.

### **Urchin munching sounds carry under water**

The sound of sea urchins scraping algae off rocky reefs has been found to increase just after sunset and before dawn, creating a

marine dusk and dawn chorus. The chewing sound made by urchins is amplified by the shape of their bodies, which act as resonance chambers, but the particularly loud sounds at the beginning and end of the night are thought to correspond to the urchins' first feeding session and their last. During the day sea urchins hide in crevices to avoid predation, so the dusk and dawn sounds are comparable to breakfast and supper for the urchins. Researchers speculate that this regular pulse of sound could act as a navigational aid for marine larvae to help them return to reefs, as previous experiments indicate that some marine larvae can orient towards sound.

Source: *New Scientist* (2008), 199(2665), 16.

### **Rising temperatures threaten tropical insects**

A study of tropical insects has revealed that this group of organisms may suffer disproportionately from higher global temperatures, as they are unable to regulate their body temperatures in ways that warm-blooded animals can. Of particular concern is the finding that insects in the tropics appear to be living at, or close to, their thermal optimum, meaning that the 2–4° temperature rise predicted for these areas by the end of the 21st century could cause problems for the survival of these species. Although some may be able to migrate to higher latitudes, or evolve to cope with warmer temperatures, other species may go extinct, which will have secondary effects on plants that rely on these species for pollination.

Source: *BBC News* (2008), <http://news.bbc.co.uk/1/hi/sci/tech/7384807.stm>

### **Fear perhaps the driving force behind locust swarms**

For years researchers have been trying to discover the reason for the huge swarms of locusts that can devour tens of thousands of tonnes of vegetation per day. Now recent research has provided a new, grisly theory for the swarms; the locusts at the front of the swarms are fleeing cannibalistic locusts at the rear of the swarm. Although locusts are mainly herbivorous, young, flightless locusts have been known to eat each other as food supplies dwindle. The new study suggests that other locusts start to panic, and band together in an attempt to flee their cannibalistic co-specifics. The locusts are thought to remain in these groups even after they reach the adult stage of their lives and start to fly.

Source: *BBC News* (2008), <http://news.bbc.co.uk/go/pr/fr/-/1/hi/sci/tech/7395356.stm>

### Single island harbours a quarter of world's newly listed Critically Endangered birds

Following a revision of the Red List eight birds have joined the ranks of the Critically Endangered, with two of these eight occurring on one island in the South Atlantic. The Gough bunting and Tristan albatross are restricted to the UK-owned Gough Island, where they are at severe risk of extinction as the result of predation by introduced house mice. Of the other six newly listed Critically Endangered birds, four others also occur on islands, illustrating the risks posed to island-dwelling species. Following this latest revision, the Red List now includes 1,226 bird species in all threat categories, and the number categorized as Critically Endangered is 190. Six species have been downgraded from Critically Endangered, although one of these is no longer recognised as a separate species. *Source: RSPB press release (2008), <http://www.rspb.org.uk/media/releases/details.asp?id=tcm:9-189822>*

## EUROPE

### EU biofuels policy likely to cause widespread environmental destruction

A new report by BirdLife International has raised serious concerns about the EU's revised proposals for sustainability standards in European legislation concerning biofuels. The report compares case studies where the production of biofuels is leading to the destruction of natural habitats against the EU's sustainability standards, and finds that even the most extreme cases of environmental destruction would be considered sustainable under the proposed legislation. Among the weakness of these new standards is the fact that they ignore indirect effects of biofuels production such as US corn ethanol subsidies precipitating soya expansion in the Amazon, and they also fail to offer protection to key habitats such as set-aside in Europe. *Source: BirdLife International News (2008), [http://www.birdlife.org/news/news/2008/05/biofuels\\_report.html](http://www.birdlife.org/news/news/2008/05/biofuels_report.html)*

### Wall built for newts

A fence has been constructed in the Scottish borders to protect great crested newts from nearby harvesting of trees. The 250 m-long wall is curved, which allows newts to climb over to get to their breeding ponds but prevents the amphibians from returning to the other side of the fence. The fence panels were made using materials from a recently completed road-building project, and it is the first time that a fence of this kind has been used for newt exclusion in a wooded

setting in Scotland. It is illegal to disturb great crested newts in any way, as they are protected by the Wildlife & Countryside Act, the Nature Conservation (Scotland) Act and the European Habitats & Species Directive. *Source: Forestry Commission news release (2008), <http://www.forestry.gov.uk/newsrele.nsf/73a61bd672e8992980256a1c0052f832/8e418b505oad4d7280257426004a14bf!OpenDocument>*

### Ghost slug with taste for worms discovered in Wales

Much to the concern of Welsh gardeners (and worms) researchers have announced the discovery of a new species of slug in a garden in Cardiff. The new discovery, found last year, has been given a partially Welsh name, *Selenochlamys ysbryda*; ysbryd means ghost in Welsh. The new slug is very distinctive, as it lacks body colour and eyes, and lives underground. Unlike most slugs, the ghost slug is carnivorous, killing worms at night with its long blade-like teeth and sucking them into its mouth like spaghetti. *Source: BBC News (2008), [http://news.bbc.co.uk/1/hi/wales/south\\_east/7498195.stm](http://news.bbc.co.uk/1/hi/wales/south_east/7498195.stm)*

### Statutory rights granted to apes by Spain

In what is thought to be the first decision of its kind, the Spanish parliament's environment committee has approved resolutions to grant chimpanzees, gorillas and orangutans some rights that have previously only applied to humans. The resolutions, which are expected to become law within a year following approval by the full parliament, are based on the Great Ape Project, a framework drawn up by scientists and philosophers. Activities expected to be banned under the new laws will include harmful research, ape trading and using apes in performances. It is thought that zoos will probably still be allowed to keep apes but only under optimal living conditions. *Source: Nature (2008), 454(7200), 15.*

### Dormice and birds clash as result of warmer weather

A data set started in 1973 has provided an example of a species interaction that may become more common as global temperatures change. Good weather conditions coupled with good mast years have seen the dormouse population of a deciduous woodland in eastern Czech Republic increase. Dormice and cavity-nesting birds both compete for nest-boxes in which to raise their young and, despite the dormouse's vegetarian reputation, they sometimes destroy and eat eggs and kill nestlings and adults. During this study the number of nests destroyed increased in line with

dormouse population increase for three out of four bird species studied. Additionally, while dormice emerged from hibernation earlier in the year as annual temperatures rose, only one bird species, the spotted flycatcher, advanced its breeding dates. *Source: Journal of Zoology (2008), 275, 209-215.*

### British great tits cope well with warming

A long-term study from an English woodland has revealed that great tits are starting to breed earlier so as to continue to take advantage of a glut in spring caterpillars, needed to feed their hungry broods. The appearance of the caterpillars is related to ambient temperature, and it is thought that the great tits' breeding cycle is also triggered by spring temperatures. Whatever the mechanism, the evidence from this study shows that great tits are breeding 2 weeks earlier than they were when the study started in 1947. Across the Channel, however, there is a different story, with the breeding time of Dutch great tits advancing every year, but the appearance of the caterpillars advancing three times faster. *Source: BBC News (2008), <http://news.bbc.co.uk/1/hi/sci/tech/7390109.stm>*

### Disappearing cod may mean more toxic tides

Researchers have discovered a link between declining cod stocks and increasing numbers of phytoplankton that can form toxic algal blooms in the Baltic Sea. The two main factors behind the blooms are thought to be increasing nutrient levels in the sea and higher water temperatures as a result of climate change. However, research that examined 3 decades of data from the Baltic Sea food web also found that as cod stocks decreased, the numbers of one of their main prey items, sprat, increased. The result of increased sprat numbers was a decrease in the numbers of zooplankton, the chief prey of the sprat, with the end result that the phytoplankton, normally eaten by zooplankton, were able to increase. How much overfishing may have an effect on algal blooms outside the Baltic Sea is not known. *Source: BBC News (2008), <http://news.bbc.co.uk/1/hi/sci/tech/7386458.stm>*

### EU transport projects threaten hundreds of nature sites

A report presented to the European Parliament by NGOs and environmental groups has revealed that many EU-funded transport schemes threaten protected European nature areas. The report examines 21 Trans-European Transport Network Priority Projects and found that, were these projects to go

ahead, they would affect 379 Special Protection Areas and 935 Sites of Community Importance/potential Sites of Community Importance. These sites are all part of the Natura 2000 network, which was established in a bid to prevent Europe's natural areas from being further degraded. The report's authors suggest that impacts on these sites could be lessened if, as is required by EU environmental law, Natura 2000 sites are taken into account in the early planning stages.

Source: *BirdLife International News* (2008), <http://www.birdlife.org/news/news/2008/05/tent.html>

### Hedgehogs' poor road sense proves fatal

Research on the reaction of hedgehogs to traffic explains why c. 15,000 die every year on British roads. Hedgehogs wait until vehicles are, on average, only 17 m away, and then they tend to freeze rather than run. Worse still, hedgehogs are drawn to roads as the tarmac is warm, which also attracts insects, making roads the equivalent of an under-floor heated café for hedgehogs. Population studies of hedgehogs make for gloomy reading, with numbers having declined by > 50% in some places. Researchers believe that the hedgehogs killed on the road amount to 1–2% of the population, while habitat loss and fewer hedges are causing still greater declines.

Source: *BBC News* (2008), <http://news.bbc.co.uk/1/hi/sci/tech/7422299.stm>

### Iceland and Norway export whale meat to Japan

Companies in Iceland and Norway have exported c. 60 tonnes of fin and minke whale meat to Japan, prompting criticism from conservationists that they are breaching the principles of CITES and the International Whaling Commission (IWC). Commercial whaling has been prohibited under the IWC since 1986, and global trade in whale meat is banned under CITES, but in both cases the countries involved have lodged a formal reservation or objection, meaning that the trade is not illegal. Conservationists are concerned that the trade will jeopardize recent attempts to heal the breach between pro- and anti-whaling countries within the IWC.

Source: *BBC News* (2008), <http://news.bbc.co.uk/1/hi/sci/tech/7431568.stm>

### Balloons not such a party item for marine wildlife

Britain's Marine Conservation Society is calling on mass balloon releases to be banned in Britain, as balloons pose a serious risk to marine life. Turtles are particularly susceptible to ingesting marine litter such as

balloons, as they can resemble their jellyfish prey; a juvenile green turtle that washed up on the English coast in 2001 had starved to death after eating a balloon that lodged in its gut. Other species at risk from balloons, either by ingesting them or becoming entangled in their ribbons, include dolphins, seabirds and whales. Despite many authorities in Britain having banned mass balloon releases, the number of balloons found on UK beaches has more than tripled in the last 12 years, from 3.4 km<sup>-1</sup> to 11.5 balloons km<sup>-1</sup>. Source: *Marine Conservation Society press release* (2008), [http://www.mcsuk.org/newsevents/press\\_view/227](http://www.mcsuk.org/newsevents/press_view/227)

### Small-scale farmers miss out on EU funds

EU programmes that view farmers as food producers means that many small-scale farmers are ineligible for funding, despite often being the stewards of land rich in biodiversity. Although funding schemes do allow for the value of areas with natural assets, many small-scale farmers work on land that is not considered agricultural, as it is too forested or stony. In Bulgaria and Romania, for example, EUR 2.6 billion is available until 2013 for rural development and environment but in Romania there are 4 million subsistence farmers with < 2 ha of land who are not eligible for any support. It is often these small-scale subsistence farmers whose land is valuable in protecting environmental benefits and services.

Source: *WWF News Archive* (2008), [http://www.panda.org/news\\_facts/newsroom/news/index.cfm?uNewsID=135361](http://www.panda.org/news_facts/newsroom/news/index.cfm?uNewsID=135361)

## NORTH EURASIA

### Lake Vostok drilling temporarily on hold

A central component of Russia's Antarctic programme has been delayed for a year, with the director of the Russian Antarctic Expedition citing technical and legal reasons for the postponement. The controversial plan to drill into the sub-glacial Lake Vostok, almost 4,000 m below the East Antarctic ice sheet, has attracted criticism from researchers who fear that the drilling may cause chemical and biological contamination of the lake. Drilling will commence during the 2009–2010 drilling season, allowing Russia to submit a final environmental evaluation, including responses to contamination concerns, to the members of the Antarctic Treaty at their April 2009 meeting.

Source: *Nature* (2008), 454(7202), 258.

### Smugglers jailed

A group of people who tried to smuggle > USD 200,000 worth of wildlife products from Russia to China have been sentenced to imprisonment and penalties. The haul included c. 900 paws of brown and black bears, four tiger skins, 531 saiga horns and > 60 kg of tiger bones, representing a serious depletion of the wildlife of Far Eastern Russia. The group of smugglers consisted of three Russians and three Chinese, and they had been caught previously in March 2008 trying to smuggle 120 bear paws across Khana Lake but managed to get away, leaving the bear paws behind. The most active members of the group, one Russian and one Chinese, have been sentenced to 8 years' imprisonment and a penalty of USD 8,500.

Source: *WWF News Archive* (2008), [http://www.panda.org/news\\_facts/newsroom/news/index.cfm?uNewsID=135421](http://www.panda.org/news_facts/newsroom/news/index.cfm?uNewsID=135421)

### Mongolian gazelles hampered by fence

Hundreds of Mongolian gazelles were caught by and killed on 2-m high barbed-wire fences on the border between Russia and Eastern Mongolia in May 2008. The gazelles encountered the fences, erected to prevent cross-border cattle theft, after a migration of hundreds of kilometres from the drought-afflicted areas of Eastern Mongolia. At least 30,000 Mongolian gazelles gathered at the border as they searched for food and water. The Russian army and border control and WWF-Russia assisted Russian rangers to make temporary openings over a 40 km stretch of the fence. Supplementary food and water was also provided, along with pens for the wounded animals.

Source: *Large Herbivore Foundation press release* (2008), [http://www.largeherbivore.org/images/pdf/lhfpress%20release%20m%20gazelle%20fb%20210508%20\(2\).pdf](http://www.largeherbivore.org/images/pdf/lhfpress%20release%20m%20gazelle%20fb%20210508%20(2).pdf)

## NORTH AFRICA AND MIDDLE EAST

### Africa's ecological footprint close to ecological limits

The first ever detailed assessment of Africa's ecological footprint has found that, although small by western standards, it is nonetheless approaching the point where natural resources are being depleted faster than they can be replaced. A growing number of countries, headed by Egypt, Libya and Algeria, are living beyond their ecological means, and other countries such as South Africa, Morocco and Nigeria are not far behind. The average African has an ecological footprint (the area of land or sea

used annually in providing for personal consumption) of 1.1 global ha, which is considerably less than the global average of 2.2 ha but the amount of land available for use per person in Africa is 1.3 ha, 28% less than the global average.

Source: *WWF News Archive* (2008), [http://www.panda.org/news\\_facts/newsroom/news/index.cfm?uNewsID=136521](http://www.panda.org/news_facts/newsroom/news/index.cfm?uNewsID=136521)

## SUB-SAHARAN AFRICA

### Mysterious crocodile deaths in Kruger

More than 30 crocodiles died during late May and early June 2008 in the Kruger National Park, and staff are unsure of the reason behind the deaths. The cause of death is thought to be related to hardened fatty deposits in the tails of the dead reptiles, with speculation that these deposits hampered the crocodiles' swimming abilities, resulting in their drowning. Deposits of this type have in the past been related to a condition called pansteatitis, caused by the eating of rotten or rancid fish, but fish and other piscivores appear to be unaffected. Another possibility is that the deaths were related to a pollution event, as the river in which the crocodiles live, the Olifants, is one of the most polluted in the Park. Tests are continuing in an attempt to discover the culprit, with initial results inconclusive.

Source: *New Scientist* (2008), 199(2665), 6.

### Company withdraws discredited report

The company behind plans to build a soda ash plant on the shores of Lake Natron, Tata Chemicals Limited, has withdrawn its Environmental and Social Impact Assessment Report, following sustained criticism from national and international NGOs. The move has been welcomed, as has the response to this latest development by Tanzania's new environment minister, who warned Tata Chemicals Limited that unless the new report satisfied environmental and social concerns approval would not be granted. Some NGOs believe, however, that the project should be withdrawn altogether, as any development around the lake would result in serious risks to the lesser flamingos that breed there, as well to local communities.

Source: *BirdLife International News* (2008), [http://www.birdlife.org/news/news/2008/05/Lake\\_Natron.html](http://www.birdlife.org/news/news/2008/05/Lake_Natron.html)

### Range states act together to protect pond heron

Contrary to what its name suggests, the Endangered Madagascar pond heron occurs in nine African states at different times of

the year. The species, considered common 50 years ago, breeds on a number of Western Indian Ocean islands, including Madagascar, but overwinters on the African mainland in small, tree-lined freshwater pools. During a meeting in Nairobi representatives of all range states met to draw up a Species Action Plan containing key recommended actions to safeguard the bird's survival, including raising its profile and protecting its breeding sites. The world population of the species is thought to number c. 6,000, spread across an area of 2 million km<sup>2</sup>.

Source: *BirdLife International News* (2008), [http://www.birdlife.org/news/news/2008/05/madagascar\\_pond\\_heron.html](http://www.birdlife.org/news/news/2008/05/madagascar_pond_heron.html)

### Virunga's elephants suffer same fate as gorillas

Fourteen elephants were killed in the Democratic Republic of Congo's Virunga National Park between mid April and May, prompting fears that the Park's population is at risk from the effects of South Africa's decision to lift their 13-year moratorium on elephant culling. The most serious impact of the lifting of the moratorium is that the legal ivory trade can commence, meaning that illegal ivory can also be sold more easily. The Virunga National Park, a UNESCO World Heritage site, has ongoing poaching problems, as evidenced by the killing of five mountain gorillas in 2007. A 5-year conflict ceased officially in 2003 but several militia groups still exist in the 8,000 km<sup>2</sup> Park. Congolese conservationists estimate that the Park's elephant population numbered 70,000 before the war, whereas it now numbers < 350.

Source: *BBC News* (2008), <http://news.bbc.co.uk/2/hi/africa/7379775.stm>

### Satellite to track Congolese deforestation

A high resolution camera is due to be placed on board a satellite to monitor the rate of deforestation in the Congo Basin. This project is part of the Congo Basin Forest Fund, a joint initiative of the UK and Norwegian governments that aims to prevent deforestation in the Congo region and thereby reduce climate change. The camera will photograph from an orbit of 650 km altitude, and will provide ground sampling at a rate of 10 m per pixel. The rainforest in the Congo Basin is the second largest in the world, containing more than a quarter of the world's remaining rainforest, and is also home to more than 50 million people. Predications suggest that unless drastic action is taken to reduce logging > 66% of the rainforest will be lost by 2040.

Source: *BBC News* (2008), <http://news.bbc.co.uk/1/hi/sci/tech/7459472.stm>

### Recommendations for greater bamboo lemur

A study of 70 sites in Madagascar has only found the Critically Endangered greater bamboo lemur in 11 of these sites, prompting the study's authors to urge for drastic action to prevent the extinction of the species in the next few decades. Fossil evidence suggests that this lemur was once abundant in Madagascar, and the chronology of its decline is not fully understood. The researchers speculate that the species' specialized diet of bamboo and its apparent need to drink from streams are likely to be contributing factors. It appears that the low population size is leading to novel behaviour patterns, such as a female leading a group in long distance migration, apparently searching for males. The study's authors provide a list of recommendations to protect the greater bamboo lemur from extinction, including research into the feasibility of translocation from areas threatened by destruction.

Source: *Primate Conservation* (2008), [http://www.primates-g.org/PDF/PC23\\_prolemur.crisis.pdf](http://www.primates-g.org/PDF/PC23_prolemur.crisis.pdf)

## SOUTH AND SOUTH-EAST ASIA

### Algae smothering corals while its origin is disputed

PepsiCo and India's Central Salt and Marine Chemicals Research Institute are each blaming the other for the introduction of a non-native alga, *Kappaphycus alvarezii*, into the Gulf of Mannar marine bioserve. PepsiCo started cultivating the algae for the food thickener carrageenan in 2001, while the Institute imported the algae for research. Whatever the origin of the algae, the results are undisputed; the alga is smothering corals fringing one of the islands in the Gulf. Furthermore, there is concern that *K. alvarezii*, which is currently spreading asexually, may switch to sexual reproduction by spores, with the result that these could be carried on the wind to the other 20 coral-fringed islands in the reserve.

Source: *Nature* (2008), 453(7196), 710-711.

### Forests fall victim to spread of oil palm plantations

Despite assertions by oil palm producers that forests in Indonesia and Malaysia are not being cleared for plantations, land cover data from the Food and Agriculture Organization tell a different story. An analysis indicates that during 1990-2005 55-59% of oil palm expansion in Malaysia, and at least 56% in Indonesia, occurred at the expense of forests. Using data on the

diversity of forest birds and butterflies in Malaysia's forests, researchers have concluded that the creation of oil palm plantations in both primary and secondary (logged) forest will have a serious detrimental effect on biodiversity. The researchers recommend that plantations be created on the sites of pre-existing crop land where the effect on biodiversity will be less severe. *Source: Conservation Letters* (2008), 1, 60–64. [Http://dx.doi.org/10.1111/j.1755-263X.2008.00011.x](http://dx.doi.org/10.1111/j.1755-263X.2008.00011.x)

### **Bangladesh's Sundarbans again threatened by oil and gas exploration**

In 2001 Shell signed a contract with the Bangladesh Government for hydrocarbon exploration, causing protests from environmentalists as the area they intended to explore, Block 5, covers almost the entire Bangladesh Sundarbans, one of the last strongholds of the Bengal tiger. Before commencing with any work, however, Shell withdrew from Bangladesh. Now, after a new bidding round in May 2008, Tullow Oil offered to conduct seismic surveys and to drill two wells in the shallow water zone of Block 5 along the southern edge of the Bangladesh Sundarbans, while ConocoPhillips submitted a bid for an offshore block adjoining Block 5 to the south. Meanwhile ONGC and IndianOil, which had planned to drill four wells in the ocean floor near the Indian Sundarbans, failed to complete their Bengal offshore campaign in June 2008, after suffering various problems with rigs and finding that two wells were dry. *Source: The Daily Star* (8 May 2008), <http://www.thedailystar.net/story.php?nid=35533> and *The Hindu Business Line* (9 June 2008), <http://www.thehindubusinessline.com/2008/06/09/stories/2008060951640300.htm>

## **EAST ASIA**

### **Tiger bone wine on offer in safari parks**

Investigators from the Environmental Investigation Agency have found that so-called safari parks in China are selling tiger bone wine, despite national and international bans on trade in tiger body parts. The wine made from crushed tiger bone is sold as an alcoholic health tonic and fetches prices of USD 186 a bottle. The wine is apparently made from the bones of deceased captive tigers kept on the parks' premises as part of a range of attractions for tourists. During previous investigations into the selling of tiger bone wine in 2007 one particular establishment, Qinhuangdao Wild Animal Park, was revealed as openly advertising the wine,

and the fact that this Animal Park is still selling wine has caused the investigators to chastise Chinese authorities for turning a blind eye to the trade.

*Source: EIA press release* (2008), <http://www.eia-international.org/cgi/news/news.cgi?a=459&source=&t=template>

### **Last ditch breeding attempt for world's rarest freshwater turtle**

Conservationists are hoping that an attempt to breed the Yangtze giant soft-shell turtle will be successful, as this species has been reduced to just four individuals, three of which are male. The female, named China Girl, was only discovered recently, when the Wildlife Conservation Society sent a message to every zoo in China asking whether they had a Yangtze turtle in their collection. China Girl, 80 years old, was introduced to her prospective mate, a centenarian, at the beginning of June, and despite neither having seen another of their species for decades, they got on well from the beginning. So well, in fact, that China Girl has already laid fertile eggs, due to hatch in August.

*Source: The Observer Newspaper* (1 June 2008), <http://www.guardian.co.uk/environment/2008/jun/01/endangeredspecies.animalbehaviour> and *Turtle Survival Alliance* (2008), <http://www.turtlesurvival.org/news/rafetus-update-from-china/>

### **China loses its white-handed gibbons**

A team of researchers from Switzerland and China has concluded that the white-handed gibbon is now extinct in China. The species was last seen in China in 1989, and last heard in 1992. The main reason for the loss of this species in China has been the destruction and fragmentation of its forest habitat. The loss is particularly serious as the white-handed gibbon that occurs in China was considered a distinct subspecies, the Yunnan white-handed gibbon, and although there is some hope that this subspecies may survive in neighbouring Burma, there is no evidence for this. China has a rich ape fauna but it is increasingly threatened, as this latest news indicates.

*Source: Zurich University press release* (2008), [http://www.gibbonconservation.org/05\\_projects/2008\\_unicom\\_media\\_en.pdf](http://www.gibbonconservation.org/05_projects/2008_unicom_media_en.pdf)

## **NORTH AMERICA**

### **Common herbicide linked to hormone disruption in mammals**

The herbicide atrazine, banned in Europe but still in widespread use in the USA despite evidence linking it to reproductive

abnormalities in fish and amphibians, has now been shown to alter hormonal signalling in human cells. In experiments with human placental cells researchers from the University of California found that atrazine increased activity of a gene that is linked with abnormal birth weight when over-expressed in the placenta, as well as targeting another gene that has been found to be amplified in the uterus of women with unexplained infertility. In parallel studies with zebra fish atrazine caused feminization of the population, increasing the ratio of female to male fish.

*Source: University of California, San Francisco news release* (2008), <http://pub.ucsf.edu/newsservices/releases/200805064/>

### **Huge colony of tricoloured blackbirds protected with farmer's help**

One third of the world's entire population of Endangered tricoloured blackbirds has been protected thanks to an agreement between a farmer and Audubon California. Tricoloured blackbirds form breeding megacolonies, often nesting in crop fields where they suffer losses if farmers cultivate the fields before the young birds can fly. In the new agreement the farmer will delay the harvesting of 65 ha of crops to allow the colony of 80,000 individuals to complete the rearing of their chicks. Under the agreement the farmer will be compensated for any loss of the crops' market value as a result of the delayed harvest.

*Source: BirdLife International News* (2008), [http://www.birdlife.org/news/news/2008/05/tricoloured\\_blackbird.html](http://www.birdlife.org/news/news/2008/05/tricoloured_blackbird.html)

### **Ten walrus tagged in Greenland**

For the second year in a row researchers have fitted satellite tags to walrus in west Greenland in an attempt to discover where the animals go during the summer. It is known that the animals migrate to Canada but the exact location is unknown, and a more comprehensive understanding of the animals' movements will be useful in analysing the effects of climate change, hunting and oil exploration on the walrus. Last year only one tag was successful, and revealed that the tagged female walrus travelled to Baffin Island. The satellite tags are attached remotely, using a modified harpoon, but the thick skin of the walrus means they barely feel the device being secured.

*Source: BBC News* (2008), <http://news.bbc.co.uk/1/hi/sci/tech/7388162.stm>

### **Pollution threat to America's national parks**

Concern is growing in the USA about plans for regulatory changes that will make it

easier for coal-fired power plants to be built close to national parks. Although the Clean Air Act empowers the Environmental Protection Agency and National Park Service to protect park air quality by preventing states from allowing new plants that would threaten air quality, the current administration is seeking to undermine this by implementing legislative changes that will make it easier for power plants to be built within the 300 km air shed of national parks. The National Park Service has listed the 10 parks that will be particularly at risk of pollution damage should these changes go ahead, which include the most visited park in the country, the Great Smokey Mountains.

Source: *Dark Horizons* (2008), [http://www.npca.org/darkhorizons/pdf/Dark\\_Horizons\\_Report.pdf](http://www.npca.org/darkhorizons/pdf/Dark_Horizons_Report.pdf)

### Commercially reared bumblebees may be causing a decline in wild bees

Researchers who suspected commercially reared bumblebees of transmitting a protozoan pathogen, *Crithidia bombi*, to wild pollinators have created a model of how this could occur, and found during field trials that the prevalence of *C. bombi* in the wild pollinator population fitted this model. Commercially reared bumblebees are used to pollinate crops in greenhouses, with the annual value of crops pollinated by them estimated at USD 12 billion. However, the bees are known to escape from the greenhouses and forage at plants also utilized by wild pollinators, which is where pathogen overspill can occur. The researchers found higher levels of *C. bombi* infection on wild bees that foraged close to commercial greenhouses, and that this could be contributing to the decline of wild *Bombus* species in the USA.

Source: *PLoS One* (2008), 3(7), e2771 (<http://dx.doi.org/10.1371/journal.pone.0002771>).

### Introduced sucker prompts three-way hybridization in Colorado's rivers

DNA samples from three fish species that inhabit the Colorado River basin have revealed that the presence of an introduced fish species, the white sucker, is resulting in the formation of numerous varieties of hybrids. The white sucker interbreeds frequently with the native flannelmouth sucker, and occasionally with the bluehead sucker, but researchers also discovered a hybrid containing DNA from all three species. Bluehead and flannelmouth suckers are not known to interbreed, so it seems that the presence of the white sucker is breaking down genetic barriers between the native species. There are fears that other suckers may end up being drawn into the

'hybrid swarm', resulting in the loss of an entire assemblage of native species.

Source: *New Scientist* (2008), 199(2666), 13.

### Humpback whale numbers on the increase

A 3-year project involving more than 400 researchers has found that the northern Pacific Ocean population of humpback whales has increased from a low of 1,400 in 1966 to over 20,000 today. The project to monitor the population was funded by the USA's National Oceanic and Atmospheric Administration, the Canadian government and private sources, and used many different techniques to census the whales, from ocean-going research vessels to motorized canoes. There is still concern, however, for a population of c. 900 humpbacks that migrates to the western Pacific, where they are at risk of entanglement in nets and illegal hunting. A separate population of humpbacks, in the southern Pacific, remains a target for Japanese whalers who planned to kill 1,000 humpback, minke and fin whales under their 'scientific whaling' quota in 2007 but reduced this number to 550 minkes following international pressure.

Source: *Nature* (2008), 453(7194), 433.

### Ivory trade thriving in USA

A new report has revealed that ivory is sold on a large scale in the USA, with the country being the second largest consumer of ivory jewellery. Jewellery and small carved figures make up most of the items of ivory on sale in the USA, many of which are labelled as antique or mammoth ivory, to enable the traders to exploit loopholes in the general ban on importation and sale of ivory in the USA. Between 1979 and 1989 the elephant population crashed from 1.2 million to 600,000, following which a ban on the ivory trade was introduced under the auspices of CITES.

Source: *Care for the Wild International press release* (2008), [http://www.careforthewild.com/projects.asp?detail=true&I\\_ID=569&pageName=Reports](http://www.careforthewild.com/projects.asp?detail=true&I_ID=569&pageName=Reports)

### Record number of Kemp's ridleys in Texas

The number of Kemp's ridley turtle nests on the Texan coast has beaten the record set for the previous year for the fifth year in a row. This year 148 nests have been confirmed along the coast, exceeding the previous highest record number of nests, 128, set in 2007. The Critically Endangered Kemp's ridley turtle, which occurs in the Gulf of Mexico, was close to extinction in the mid 1980s but has been the focus of a joint conservation project between Mexico and the USA. Beach protection in both Mexico and the USA, combined with the

US federal requirement that shrimp trawls carry Turtle Excluder Devices to enable turtles to escape drowning and a release programme for hatchlings are credited with increasing the ridley's population.

Source: *Sea Turtle Restoration Project press release* (2008), <http://www.seaturtles.org/article.php?id=1091>

## CENTRAL AMERICA AND CARIBBEAN

### Coral reefs suffering from lionfish attack

Warnings are being sounded about the effects of red lionfish on coral reefs in the Atlantic Ocean, after experiments showed that the predatory lionfish can reduce survival of young fish on reefs by as much as 80%. Native to the Indo-Pacific, the presence of the red lionfish in the Atlantic Ocean has all the hallmarks of a classic invasive species situation, with fears that the spread of the species in the Bahamas is now too advanced to be able to control. Conservationists working in nearby areas where the red lionfish is not yet so established are being urged to take measures to control the fish's spread to safeguard their reefs.

Source: *Nature* (2008), 454(7202), 265.

### Shock at giant blue iguana slaughter

Islanders and conservationists have expressed their outrage at the killing of six Critically Endangered giant blue iguanas in a captive breeding facility on Grand Cayman. The six iguanas had been stabbed, and also showed evidence of having been kicked and stamped on in an attack that left an additional three iguanas injured. One of the dead iguanas, known as Digger, features on the Cayman Islands' stamps. In 2005 the world population of these reptiles numbered only 25 but a successful captive breeding and release programme has resulted in 230 iguanas living freely in a nature reserve on the island and another 140 in the captive breeding facility. However, it is estimated that the population needs to number 1,000 individuals to stabilize.

Source: *BBC News* (2008), <http://news.bbc.co.uk/1/hi/sci/tech/7388256.stm>

### Caribbean monk seal declared extinct

Following a 5-year review by American researchers the Caribbean or West Indian monk seal has been declared extinct, the first time that a seal has become extinct as a result of human causes. Previously widespread throughout the Caribbean Sea, Gulf

of Mexico and west Atlantic Ocean, the seals were easy targets for hunters while out of the water on beaches. The seals were first discovered during Columbus's second voyage in 1474 but were exploited, primarily for their blubber, following European colonization in the 1700s. It is hoped that lessons learnt from the extinction of the Caribbean monk seal will help protect the two remaining monk seal species, the Endangered Hawaiian monk seal and the Critically Endangered Mediterranean monk seal (see also *Oryx*, 42, 278–285).

Source: *Environmental News Service* (2008), <http://www.ens-newswire.com/ens/jun2008/2008-06-09-02.asp>

## SOUTH AMERICA

### 100,000 beavers to be eradicated

Plans are gathering pace for the largest eradication project ever attempted, as concerns increase about the effect of North American beavers in the Tierra del Fuego archipelago. Fifty beavers were introduced in the 1940s by the Argentine government for the fur industry but a lack of native predators enabled the population to flourish, and it now numbers an estimated 100,000 individuals. Unlike North American trees South American trees are not able to regenerate following beaver damage, and the dams created by beavers become stagnant and eventually turn into meadows that attract exotic species. Furthermore, the beavers are spreading, with a few individuals already spotted in mainland Chile. The Argentine and Chilean governments are currently reviewing a feasibility study for the eradication of the beavers, which some researchers fear may be impossible because of the archipelago's rugged and remote terrain.

Source: *Nature* (2008), 453(7198), 968.

### Sustainable Amazon Plan launched

Brazil is embarking on a new Sustainable Amazon Plan, which aims to encourage farmers to develop sustainable sources of income, to try and stem the illegal logging that currently takes place in the Amazon region. Under the plan's auspices GBP 300 million will be available to farmers at an annual interest rate of 4% instead of the 11.75% normally charged on bank loans. In addition, there will be social security and unemployment benefits for c. 40,000 families formerly involved in logging. The Plan aims to bring together the twin strands of economic development and conservation, and also aims to improve highways, river transport and ports on the Amazon, and broaden access to electricity.

Source: *Guardian Newspaper* (10 May 2008), <http://www.guardian.co.uk/environment/2008/may/10/forests.brazil>

### Frog rediscovered in Colombia's forests after 14 years

A group of researchers, several of whom were supported by the Conservation Leadership Programme, have rediscovered the Critically Endangered carrikeri harlequin frog in a remote part of the Sierra Nevada de Santa Marta mountains. The frog, which had not been seen for 14 years, is c. 5 cm long, and lives in páramo habitat at an altitude of c. 4,000 m. The particular population of this species discovered by the researchers is unusual in that it has orange markings, which are generally rare within the species. Colombia is a hotspot for amphibians, with more than 583 species recorded there, although many populations are declining, particularly at higher elevations.

Source: *Conservation Leadership Programme press release* (11 March 2008).

### Carbon credits lead to jaguar reserve's creation

An innovative partnership between the Jaguar Conservation Fund and MANTECORP, one of Brazil's largest pharmaceutical firms, has resulted in the creation of a private reserve for jaguar conservation. The reserve is categorized as an RPPN, a type of reserve designated as an area of land under permanent protection in exchange for tax incentives. The reserve is in the Pantanal, and protects > 400 ha of prime jaguar habitat. The Pantanal is considered a stronghold for jaguars but is also an area of high human-jaguar conflict (see *Oryx*, 39, 406–412).

Source: *Jaguar Conservation Fund newsletter* (1 May 2008), no. 15.

### Brazil's new environment minister takes up position

The replacement for Marina Silva, who stepped down from her position as environment minister in frustration at the Brazilian government's environment policies, has been sworn in amid concerns from environmentalists that he will be unable to curb deforestation in the Amazon. Carlos Minc has said he intends to maintain the priorities set by Marina Silva, and has already come under fire from soya farmers after saying that new figures illustrate a rise in deforestation in Mato Grosso province, something that the farmers dispute. Conservationists are concerned that arguments for economic development, particularly for the Amazon region's 25 million people, will carry more weight than the calls for environmental protection.

Source: *BBC News* (2008), <http://news.bbc.co.uk/1/hi/world/americas/7421418.stm>

### Uncontacted tribe photographed in Brazil...

A plane flying over one of the most remote parts of the Amazon rainforest, in the Acre region on the border between Brazil and Peru, has photographed one of the few remaining uncontacted indigenous tribes. The photographs clearly show red-painted tribe members shooting arrows at the plane overhead. The photographs were taken by officials from the Brazilian government to document the existence of the tribe and help to protect its land. Such tribes are threatened with extinction if their land is not protected, with other tribes in the area at risk from illegal logging. Survival International estimates that more than half of the world's 100 uncontacted tribes live in Brazil or Peru.

Source: *BBC News* (2008), <http://news.bbc.co.uk/1/hi/world/americas/7426794.stm>

### ... and Peru to act to protect tribes

Following the photographing of the tribe in the Acre region of Brazil, the Peruvian government has promised to stop loggers encroaching on the land occupied by this tribe. The government's statement was prompted in part by the possibility that the photographed tribe had been ousted from their land by loggers, and a team has been dispatched by the government to ascertain whether this is the case. Authorities in Peru's Madre de Dios state have pledged to stop illegal loggers who travel deep into the rainforest in search of tropical hardwoods. These loggers are often the first people to encounter remote tribes, and such an encounter can prove fatal for the tribes as they are susceptible to diseases such as flu, for which they lack the correct antibodies.

Source: *BBC News* (2008), <http://news.bbc.co.uk/1/hi/world/americas/7435272.stm>

## PACIFIC

### Papua New Guinea's forests disappearing faster than the Amazon's rainforest

New research using satellite imaging has shown that the rate of deforestation in the supposedly pristine rainforests of Papua New Guinea is occurring at a higher rate than that of the Amazonian rainforests, with 1.7% of forests degraded or cleared in 2007, compared with an annual clearance rate of 0.9% in the Brazilian Amazon. Years of logging in nearby Malaysia and Indonesia has meant that logging companies have



been turning their attention to Papua New Guinea in recent years, while clearance for subsistence agriculture also accounts for much of the current deforestation. Estimates by researchers suggest that, should the current rate of deforestation continue unabated, more than half the forest extant in 1975 will have disappeared by 2021.

Source: *New Scientist* (2008), 198(2659), 6.

## AUSTRALIA/ANTARCTICA/ NEW ZEALAND

### Counter-intuitive plan so crazy that it may just work...

Australia's leading herpetologist has suggested that one way of lessening the destruction wrought by cane toads might be to release baby toads in areas where they do not currently occur yet. Rick Shine's idea is based on the fact that native animals that eat cane toads and survive learn very quickly not to try them again. The amount of poison is related to the size of the cane toad, so small toads generally cause their predators to vomit. These 'teacher toads' would be sterile males, and there are also plans to infect the toads with a host-specific lung parasite so that they would not go on to invade the areas where they are released.

Source: *New Scientist.com news service* (2008), <http://environment.newscientist.com/channel/earth/endangered-species/dn13847-teacher-toads-could-be-deployed-as-bioweapons.html>

### ... but it could be too late for freshies

Surveys in Australia's Northern Territory in 2005 and 2007 have revealed an alarming trend in freshwater crocodile deaths. Since 2005 mass die offs of freshwater crocodiles in the Victoria River have been witnessed, and researchers believe that cane toads are to blame. In some populations up to 77% of freshwater crocodiles have died, and there are fears that the disappearance of these large predators may trigger a cascade of ecosystem changes in the affected areas. Proving a causal link between the toxic toads and the crocodiles' deaths is hard because crocodiles digest the toads quickly but reports of crocodile deaths have spread in line with the advance of the toads, and surveys often find toads and freshwater crocodiles in close proximity, particularly in cases where dry conditions force them to share waterholes.

Source: *New Scientist.com news service* (2008), <http://environment.newscientist.com/article/dn14221-australian-crocs-hit-by-cane-toad-wave-of-death.html>

### No-take zones good for fish and bad for crown of thorns starfish

In 2004 the Australian government rezoned the Great Barrier Reef Marine Park, creating the world's largest area of no-take zones, with fishing banned in over 100,000 km<sup>2</sup>. Now a study has revealed that populations of one of the most commonly fished reef fishes, coral trout, have increased by 30-75% in most of the no-take zones 18-24 months after re-zoning. A separate study examining predatory crown of thorn starfish outbreaks has also found in favour of no-take zones, with the frequency of outbreaks on reefs that were open to fishing 3.75 times higher than on reefs in a no-take area. The mechanism behind this finding is as yet unknown, although it is suggested that no-take zones could contain larger numbers of benthic invertebrates that prey on juvenile starfish.

Source: *New Scientist* (2008), 198(2662), 6, and *Current Biology* (2008), 18, R598-R599, <http://www.current-biology.com/content/article/fulltext?uid=PIIS0960982208006714>

### Tasmanian devils compensate for reduced life expectancy

Evidence from Tasmania indicates that Tasmanian devils occurring in areas affected by the fatal devil facial tumour disease are breeding earlier, with 80% of females in some populations breeding in their first year, compared to 10% who bred in their first year in areas before the cancer arrived there. In areas where the disease has become established, life expectancy among devils has fallen to 2-3 years old, from c. 5 years. The reason behind the earlier breeding is not known, although there is speculation that it may be related to increased access to food as a result of less competition from older devils. Devil facial tumour disease was first recorded in 1996, and has since spread to more than half of the devil's range, with some researchers estimating that the population will die out in the wild within 25 years.

Source: *New Scientist* (2008), 199(2665), 17.

### Resident waders fade away

Aerial surveys of wetlands in eastern Australia between 1983 and 2006 have revealed a worrying decline in numbers of resident wading birds. During this period of time 81% of resident waders disappeared, with researchers suspecting that agricultural extraction and inadequate water allocation are probably to blame. The species whose numbers declined the most was the banded lapwing, which suffered a population decline of 98%. Wetlands in this arid part of Australia depend on regular flooding to enable their resident birds to breed but floods are becoming increasingly rare as flood waters are dammed or drained off for agricultural use.

Source: *BirdLife International News* (2008), [http://www.birdlife.org/news/news/2008/06/resident\\_wader\\_decline.html](http://www.birdlife.org/news/news/2008/06/resident_wader_decline.html)

### Tuna commission instigates mitigation for bycatch

The Indian Ocean Tuna Commission has adopted new rules to reduce seabird bycatch. Under the new measure all vessels fishing for tuna and swordfish in the Indian Ocean south of 30°S are obliged to implement two techniques to reduce bycatch. The fisheries can choose which measures to implement from a range including setting hooks at night when birds are less active, dyeing bait blue to decrease its visibility, using bird streamers to scare the birds and weighting bait to make it sink more quickly. It is hoped that these measures will help birds such as the Vulnerable wandering albatross and the Critically Endangered Amsterdam albatross, of which only 17 pairs remain. Four out of the world's five tuna commissions now have bycatch mitigation measures in place, and the fifth is considering measures to reduce bycatch of seabirds.

Source: *BirdLife International News* (2008), [http://www.birdlife.org/news/news/2008/06/iotc\\_success.html](http://www.birdlife.org/news/news/2008/06/iotc_success.html)

### Well-travelled tag

A small electronic device that was used to tag a steelhead salmon in Oregon has been found on Mokonui Island, part of the Titi Islands located at the south of New Zealand. The tag was last recorded 2 years before its discovery, at the Bonneville Dam on the Columbia River, a distance of 10,170 km from where it was found. It is thought that a sooty shearwater ate the steelhead salmon while overwintering in the area of the North Pacific. Sooty shearwaters, which breed on the Titi Islands, are categorized as Vulnerable on the IUCN Red List, having undergone a population decline. The reason behind the decline is thought to be a combination of factors including the harvesting of 250,000 birds annually, long-line fishing and possibly climate change.

Source: *BirdLife International News* (2008), [http://www.birdlife.org/news/news/2008/06/sooty\\_shearwater\\_tag.html](http://www.birdlife.org/news/news/2008/06/sooty_shearwater_tag.html)

### Job losses at NZ Department of Conservation cause concern

Conservationists in New Zealand are keeping a close eye on the restructuring of the country's Department of Conservation, which has resulted in the loss of 56 jobs. Of particular concern is the dismantling of the Department's marine conservation unit, which is to be integrated into the mainstream operations of the Department. The Department of Conservation has had

a large overspend recently as a result of increased expenditure on fire-fighting in protected areas following drought conditions. The New Zealand NGO Forest & Bird believes that funding for fire-fighting should not come out of core conservation funding but that the Department should receive contingency funding for this activity. *Source: Forest & Bird media release (2008), [http://www.forestandbird.org.nz/mediarelease/2008/0421\\_docjoblosses.asp](http://www.forestandbird.org.nz/mediarelease/2008/0421_docjoblosses.asp)*

**Record number of Chatham Island taiko chicks fledged**

Thirteen Critically Endangered taiko chicks have fledged from a protected area in the south of Chatham Island. The chicks hatched in the Tuku Nature Reserve and

were monitored using scanners in burrows that detected the frequency with which the adult taikos, fitted with identification tags, fed their chicks. Just before the chicks were ready to fledge they were moved to the Sweetwater Conservation Covenant, a 4-ha fenced area with artificial burrows. Here the chicks were monitored daily, and given the occasional sardine smoothie when necessary. After 6–18 days the chicks fledged, all of them reaching the sea on their first attempt at flight. It is hoped that the chicks will identify Sweetwater as their breeding ground and return to breed there when they reach maturity in 4–5 years.

*Source: Department of Conservation media release (2008), <http://www.doc.govt.nz/templates/news.aspx?id=50258>*

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