

## INTERNATIONAL

### Old-growth forests unjustly overlooked as carbon sinks...

An investigation of the literature on carbon sequestration by old-growth forests has revealed that these forests continue to accumulate carbon, in contrast to the long-held view that old forests are carbon neutral. The study found that net ecosystem productivity in forests aged 15–800 years is usually positive; even when old trees fall, the carbon that the decaying wood releases is added to the atmospheric carbon pool over a time span of decades, while other tree species grow in their place, maintaining the level of productivity. Half of the world's primary forests are located in the boreal and temperate regions of the Northern Hemisphere, and this study suggests that these forests alone sequester  $1.3 \pm 0.5$  gigatonnes of carbon a year, which is not considered when offsetting increasing atmospheric  $\text{CO}_2$  concentrations.

Source: *Nature* (2008), 455(7210), 213–215.

### ... while cities unfairly take the rap for high greenhouse gas emissions

An examination using statistics from the IPCC's Fourth Assessment has debunked the commonly-held idea that cities are responsible for 75–80% of global greenhouse gas emissions. The study shows that this figure understates the contributions of agriculture, deforestation, heavy industry, fossil-fuelled power stations and high-consumption households not located in cities. The report suggests that, worldwide, cities are likely to generate less than half of all anthropogenic greenhouse gas emissions within their boundaries, although this will vary considerably depending on the city in question. However, as the author points out, many higher-polluting European cities have high-density centres where walking, cycling and public transport are favoured, and, crucially, well catered for, and where elements contributing to a high quality of life that is not necessarily highly consumptive abound.

Source: *Environment & Urbanization* (2008), 20, 539–549. <http://eau.sagepub.com/cgi/reprint/20/2/539>

### Action needed for world's wetlands

Researchers have underlined the need to develop an action plan to protect the world's wetlands, which are threatened by many factors including desiccation as the

planet warms. Despite covering a mere 6% of the Earth's land surface, wetlands store up to 20% of terrestrial carbon. They also act as sources, reservoirs and regulators of water, capture sediment, cleanse water of organic pollutants and mitigate downstream flooding, and may be as biodiverse as rainforests and coral reefs. Despite these accolades, c. 60% of wetlands have been destroyed in the last 100 years, with most areas having been drained to provide land for agriculture. Estimates show that drained tropical swamp forests release 40 t of carbon  $\text{ha}^{-1} \text{year}^{-1}$  and drained peat bogs release 2.5–10 t of carbon  $\text{ha}^{-1} \text{year}^{-1}$ .

Source: *BBC News* (2008), <http://news.bbc.co.uk/1/hi/sci/tech/7513638.stm>

### Presence of people puts off carnivores in protected areas

Research carried out in 28 Californian protected areas has found that the presence of people has a serious effect on carnivores, with the density of coyotes and bobcats five times lower in areas that permitted recreation than in undisturbed areas. Furthermore, the researchers found that disturbed areas also harboured more non-native species, particularly dogs. The most worrying aspect of this finding is that the recreation measured in the study was quiet, non-consumptive recreation such as hiking, cycling and horse-riding. This has serious implications for protected area design and management, as nature-based tourism in areas designated for biodiversity conservation generates public support and revenue for these areas. The study's authors stress the importance of incorporating private land in reserve networks, as this is often closed to recreational use.

Source: *Conservation Letters* (2008), 1, 146–154.

### Thinnest ever sea ice recorded at North Pole...

In addition to decreasing considerably in extent, the sea ice at the North Pole has now been found to be thinner than at any previous time since records began. The ice's depth was measured using helicopter-borne instruments that measured the conductivity of large areas of ice, and was compared to previous calculations of ice thickness. In 2001 and 2004 the late summer ice was 2.3 m and 2.6 m deep, respectively, but in these most recent calculations, from 2007, the ice was found to be only 1.3 m deep on average. Much of the summer ice at the North Pole is now first-year ice,

which has only had one winter during which to develop, whereas in the past the ice would have been 'old' ice that had existed through many winters.

Source: *New Scientist* (2008), 199(2667), 7.

### ... but lowest Arctic sea ice extent remains higher than in 2007

The summer sea ice melt in the Arctic caused the ice's extent to fall to the second lowest level since records began in 1979, with an average area of 4.67 million  $\text{km}^2$  recorded during the month of September. In 2007 the level dropped to 4.28  $\text{km}^2$ , but researchers are pessimistic that the 2008 figure does not represent much of a recovery, as the 2008 sea ice extent is still 34% below the average extent measured between 1979–2000. The large amount of first-year ice in the Arctic accounted for much of the ice melt, as this ice, being thinner, melts faster than older ice. However, the different weather conditions in 2008 compared to 2007, most notably lower temperatures, cloudy skies, and a different wind pattern prevented the extent of the ice falling to 2007 levels or below.

Source: *National Snow and Ice Data Center press release* (2008), [http://nsidc.org/news/press/20081002\\_seaice\\_pressrelease.html](http://nsidc.org/news/press/20081002_seaice_pressrelease.html)

### Concerns raised about CBD advisory body

A number of Swedish researchers have voiced their concerns about the scientific credentials of the international body that advises the Convention on Biological Diversity (CBD); concerns that are widely shared, according to the executive secretary of the Convention. The CBD has been signed by 168 countries who have pledged to reduce the current rate of biodiversity loss by 2010. The ten scientists that comprise the Swedish delegation fear that some parties to the convention are trying to steer away from science to ensure that the Convention does not interfere with trade and economic growth. The Convention itself states that government representatives 'shall be competent in the relevant field of expertise', but one UK researcher has pointed out that the nominations system tends to promote government nominees, rather than scientists familiar with current research.

Source: *Nature* (2008), 454(7206), 809.

### No take zones do not protect against coral bleaching

Research into the effects of the 1998 global coral bleaching event have shown that coral reefs in no take zones fared no better than in areas where fishing is permitted. No take zones have been shown to be beneficial for fish stock recovery, but hopes that they would provide greater resilience and promote faster regeneration among coral reefs following environmental degradation have proved unfounded. However, the impact of coral bleaching was highly variable across the Indian Ocean region where the study took place, and some reefs were found to be more resilient to bleaching than others. Researchers were able to identify that well-connected reefs where the coral extends to depths of 40–50 m and where anthropomorphic influence is minimal suffered least damage, and these findings will be important in the planning of future conservation and management efforts.

Source: *PLoS One* (2008), 3(8), e3039. <http://dx.doi.org/10.1371/journal.pone.0003039>

### Hunting proposed as solution to save species from extinction

A controversial new report has been prepared by researchers at the Centre for International Forestry Research that proposes legalizing and regulating hunting so that local communities instead of governments can take charge of managing local resources. In central Africa 1 million t of bushmeat are harvested every year, supplying 80% of the protein and fat consumed in the region. Much of this hunting is illegal, unregulated and unsustainable. Although some such schemes do currently exist they are few and far between, and generally occur in isolated areas with little poaching. The report's recommendations have been given a cautious welcome by other NGOs, although there is scepticism as to whether the scheme will work in the face of weak governments, a lack of effective enforcement, and the difficulties of policing hunting in tropical areas.

Source: *New Scientist* (2008), 199(2674), 6–7.

### Acidic oceans amplifies underwater noise

Rising levels of CO<sub>2</sub> in the atmosphere, which dissolves as carbonic acid in seawater, are responsible for reducing the average pH of the oceans by 0.12 during the 20th century, and, although the exact mechanism is not fully understood, the acidity of the oceans is known to affect the distance that sound can travel under water. For example, the call of a whale travels further in the North Pacific than in the North Atlantic, due to differences in pH. Given

that current estimates suggest an average drop in ocean pH of 0.3 before the end of the 21st century, it is expected that the oceans will have higher levels of ambient noise in the future. The effect of this on marine mammals is as yet unclear, although one study has indicated that blue whales are calling at lower frequencies than previously.

Source: *New Scientist* (2008), 199(2675), 10.

### Risk of underestimating threats to species

A new study has been published that suggests the way in which extinction risk is calculated could be underestimating the risk, with some species potentially 100 times more at risk of going extinct than previously thought. Current methods used to assess extinction rate concentrate on the birth-death ratio of a species and environmental conditions such as habitat destruction. However, according to the new study other factors including male-to-female ratio and the physical size of individuals in a species can also play an important role in extinction risk. The report's authors suggest that the extinction risk of large, charismatic species with growing population sizes is probably not underestimated but smaller species such as insects may not have such an accurate estimation of extinction risk.

Source: *BBC News* (2008), <http://news.bbc.co.uk/1/hi/sci/tech/7487223.stm>

### New language for conservation

The conservation process may become a bit more streamlined in future thanks to a paper co-authored by researchers from a number of conservation organizations who extracted the best elements of previous initiatives and merged them into unified classifications of threats and actions. This new classification provides an improved way of analysing and comparing information across conservation projects, and will also make it easier for cross-project learning to take place. Throughout the world conservationists will be able to use the new lexicon to describe precisely the problems they face, and any potential solutions.

Source: *BirdLife International News* (2008), [http://www.birdlife.org/news/news/2008/08/conservation\\_gets\\_new\\_language.html](http://www.birdlife.org/news/news/2008/08/conservation_gets_new_language.html)

### Corals join amphibians in the highly threatened stakes

A global assessment of coral species has found that one third are at risk of extinction, making corals more threatened than any terrestrial species except amphibians. Threats to corals are manifold, with coral

bleaching as a result of warming sea temperatures a major problem likely to worsen in the future. Coral bleaching can wipe out whole areas, as evidenced during the 1997/1998 El Niño event when 16% of reefs were irreversibly destroyed. Other threats to corals include ocean acidification, coastal development, and overfishing, particularly where destructive fishing techniques such as trawling are used. The value of coral reefs is hard to calculate, but estimates have put the figure at USD 30–180 billion per year, in part because one quarter of marine species are thought to depend on coral at some stage in their life cycle.

Source: *BBC News* (2008), <http://news.bbc.co.uk/1/hi/sci/tech/7498502.stm>

### Leatherback tracking reveals migration route

A tracking project in which 46 female Critically Endangered leatherback turtles were tracked over three field seasons has provided insights into the migration route taken by turtles nesting on the Pacific coast of Costa Rica. Whereas most sea turtles have varied migration routes from their nesting beaches, the leatherbacks were found to follow a migration corridor that went past the Galapagos and across the equator to an area in the South Pacific, seldom varying their route. Knowing the route followed by the leatherbacks is seen by some as the key to their salvation. Despite this breakthrough in knowledge, researchers are still perplexed as to why turtles head for the South Pacific, where they spend their time in the South Pacific Gyre, an area of apparently low productivity.

Source: *Stanford University* (2008), <http://storybank.stanford.edu/stories/leatherback-turtles-newly-discovered-migration-route-may-be-roadmap-salvation?page=0%2C0>

### BirdLife researcher receives accolade

Stuart Butchart, BirdLife's Global Research and Indicators Coordinator, has won the Zoological Society of London's Marsh Award for Conservation Biology. Normally presented to university academics, the award has been given to Stuart in recognition of his work at BirdLife International. Stuart's work has been particularly significant in the field of developing indicators to track changes in biodiversity trends over time. Stuart led a collaboration that used BirdLife's datasets on birds to develop the Red List Index, which provides a way of assessing the relative rate at which species change in threat status as quantified by Red List categories. The Red List Index has now been applied to other taxonomic groups

and is also being used by the Convention on Biological Diversity to report on progress towards the 2010 target to reduce biodiversity loss.

Source: *BirdLife International News* (2008), [http://www.birdlife.org/news/news/2008/07/ZSL\\_Marsh\\_award.html](http://www.birdlife.org/news/news/2008/07/ZSL_Marsh_award.html)

### Half of primates at risk of extinction

The first comprehensive review of primates for 5 years has found that nearly half are at risk of extinction. The main threats to primates identified by the review are habitat destruction, hunting for food and the illegal wildlife trade. Primates in South-east Asia are particularly at risk, with 70% categorized as Critically Endangered, Endangered or Vulnerable, rising to 90% of species considered to be at risk of extinction in Vietnam and Cambodia. There are a few good news stories, however. The black lion tamarin, for example, has been down-listed from Critically Endangered to Endangered after 3 decades of conservation efforts. The review also highlights that much is still to be discovered about primates, with 53 species having been described since 2000 (see also *Oryx*, 40, 29–35, & 42, 360–366).

Source: *IUCN News* (2008), [http://www.iucn.org/news\\_events/news/index.cfm?uNewsID=1391](http://www.iucn.org/news_events/news/index.cfm?uNewsID=1391)

### Deep-diving turtles explained

A project that tracked leatherback turtles found that 0.4% of their dives were deeper than >300 m, with some as deep as 1,250 m. Analysis of data obtained from satellite loggers attached to adult turtles revealed that two of the hypotheses put forward for these deep dives are not supported: predator evasion is unlikely because turtles descend at a reduced rate when starting a deep dive, plus pre-dive preparation and post-dive recovery at the surface would leave a turtle vulnerable to predation, and thermoregulation is also unlikely because water temperatures decrease only negligibly below 350 m. Instead, the authors suggest the leatherbacks are undertaking deep dives to survey the water column for gelatinous prey that will ascend to the surface at night. As most deep dives occurred predominantly during migration, it may be that turtles are using deep dives to look for suitable areas in which to feed en route.

Source: *Journal of Experimental Biology* (2008), 211, 2566–2575.

### One quarter of world's mammals under threat

The 2008 Red List, launched at the IUCN World Conservation Congress, reveals that almost one in four mammal species is threatened with extinction, and researchers

warn that this number could even be an underestimate, as 836 mammal species are categorized as Data Deficient. Habitat loss and degradation affect 40% of the world's mammals, particularly in Central and South America, West, East and Central Africa, Madagascar and South and South-east Asia. Over-harvesting also poses a serious threat. On a more positive note, 5% of threatened mammals are showing signs of recovery in the wild. The black-footed ferret, for example, has been down-listed from Extinct in the Wild to Endangered following a reintroduction programme. Overall, the 2008 Red List includes 44,838 animal and plant species, of which 3,246 are categorized as Critically Endangered, 4,770 as Endangered, and 8,912 as Vulnerable.

Source: *IUCN News* (2008), [http://www.iucn.org/news\\_events/news/index.cfm?uNewsID=1695](http://www.iucn.org/news_events/news/index.cfm?uNewsID=1695)

## EUROPE

### Lynx persist in central Spain

Recent studies have reported that only two Iberian lynx populations, both located in southern Spain, remain extant, a huge reduction from the 48 breeding areas that existed in 1990. However, a study led by researchers from Madrid's National Museum of Natural Sciences has found evidence of lynx in four out of five areas investigated in central Spain where the cat is considered extinct. The researchers collected faeces from areas in central Spain with historic records of Iberian lynx, and analysed these using genetic identification techniques. Out of 581 faecal samples collected, 18 were identified as lynx faeces. Furthermore, at three of the survey sites more than one sample was found, which the authors suggest may be indicative of the regular occurrence of the species in these areas.

Source: *Animal Conservation* (2008), 11, 297–305.

### Bird crime at record level in Britain

The RSPB received 262 reports of illegal shooting, trapping and nest destruction of birds of prey in 2007, a 40% increase on the 2006 figures. In addition, there were 29 reports of birds of prey being poisoned, including one half of the only pair of golden eagles in the Scottish borders. Crimes against all wild birds have also increased, with a total of 1,208 incidents reported in 2007, compared to 1,109 reported in 2006. Part of the increase can be attributed to the improved data sharing agreement between the police, RSPB, RSPCA and the newly-formed National Wildlife Crime Unit. How-

ever, the RSPB believes that the figure is probably much higher, with some crimes taking place in remote areas and thus going unreported.

Source: *RSPB press release* (2008), <http://www.rspb.org.uk/news/details.asp?id=tcm:9-195019>

### Vanishing puffins

The largest colony of puffins in England has fallen by one third in 5 years, according to a puffin counting survey carried out on the Farne Islands. Researchers are unsure what is causing the decline, because there were plenty of young puffins in burrows, and the parents appeared to be bringing in sufficient food. This has led researchers to suspect that the problem may lie out at sea, where puffins spend 8 months of the year. The findings echo those published earlier in 2008 concerning the UK's largest puffin colony, in the Firth of Forth, where numbers were also down by c. 30%. To monitor the situation on the Farne Islands it has been decided to return and check the colony next year.

Source: *BBC News* (2008), <http://news.bbc.co.uk/1/hi/sci/tech/7526313.stm>

### Scottish bees in clover

A partnership between the Britain's Bumblebee Conservation Trust and the Royal Society for the Protection of Birds Scotland has resulted in the world's first bumblebee reserve, an 8 ha meadow in Perth and Kinross, Scotland. The meadow, initially a grass field, has been created over 2 years, during which it was first deep-ploughed to bury nutrients, and then sown with a specific seed mix. In the first year poppies and cornflowers flourished, but it was only in the second year that the clovers, vetches and trefoils that comprise the ideal nectar and pollen sources for bumblebees appeared. The meadow proved popular with many bumblebee species, including the rare blaeberry bumblebee, a species that generally forages on blaeberrys and heathers but was seen visiting the meadow, having flown down from the nearby uplands.

Source: *Bumblebee Conservation Trust* (2008), <http://www.bumblebeeconservationtrust.co.uk/vane.htm>

### Beaked whale survey comes up trumps

A project between nine European marine conservation and research organizations to try and discover more about some of the world's most elusive species has had a successful summer, with over 120 sightings of whales and dolphins. The survey, which took place in the Bay of Biscay in July 2008, recorded at least nine definite sightings of Cuvier's beaked whales, and another rarely



seen beaked whale species, Sowerby's beaked whale, was also seen. Beaked whales are known to be sensitive to underwater noise, and cases of mass strandings of beaked whales have been linked to concurrent use of military sonar. Data from the project will be useful in identifying the range and movements of Cuvier's beaked whales, information that is required for the effective design of conservation strategies for the species.

Source: *Diver 2008 Project press release* (11 September 2008).

### Seabirds suffer mixed fortunes during 2008 breeding season

Observations at seabird breeding sites along the coast of Britain have revealed mixed results for breeding seabirds. Nesting success varied among species and breeding sites, although generally colonies on the northern isles of Orkney and Shetland fared badly and kittiwakes had a poor season at many of their sites. Britain has the most significant concentrations of kittiwakes, guillemots and razorbills in the European Union, so the fact that breeding problems appear now to be an annual event is of concern. The major problem for the birds is an alteration, thought to be linked to climate change, in the availability of the fish they depend on, which is making it more time-consuming for adult birds to find sufficient food.

Source: *RSPB press release* (2008), <http://www.rspb.org.uk/news/details.asp?id=tc:194192>

### Green roof toolkit launched

The Environment Agency of England and Wales has launched a toolkit to encourage best practice in green roof design and implementation, as part of its Guide for Developers Pack. Launched at the World Green Roofs Congress in London, the toolkit has been developed by the Environment Agency in partnership with the green roof organization Livingroofs.org and CIRA. Some buildings in London already sport green roofs, and many others are planned throughout the capital. Green roofs have many benefits, including reducing flood risk, insulating buildings, reducing the urban heat island effect, and encouraging and enhancing biodiversity.

Source: *Environment Agency press release* (17 September 2008).

## NORTH AFRICA AND MIDDLE EAST

### Lebanon's forests under threat

The area of Lebanon covered by forests has shrunk from 35% in 1965 to 13% in 2007,

and researchers fear that the rate of forest loss is set to increase. Higher temperatures linked to climate change have increased the dryness of the soil and vegetation, leading to more severe fires that are starting earlier in the year. On average 1,500 ha of woodland are affected by forest fires every year but in 2007 4,000 ha were lost in the most severe fires to affect Lebanon for decades. Deforestation is being exacerbated by rising fuel prices, which have put the price of diesel beyond what many families can afford. These people are resorting to fuelwood to see them through the cold Lebanese winter. Deforestation is a particular problem in the mountainous areas of the country where trees are vital in preventing landslides.

Source: *IRIN* (2008), <http://www.irinnews.org/report.aspx?ReportID=80561>

### Qatar joins BirdLife partnership

A BirdLife fund has been instigated in Qatar through a USD 1 million donation by Her Highness Sheikha Jawaher Bint Hamad Bin Sahim Al-Thani, consort to the Heir Apparent of Qatar. Part of the donation will be put towards establishing *hima*, a traditional system that has been pioneered in Important Bird Areas across the Middle East. *Hima*, the concept of which originates in Islamic law, involves communities managing natural areas such as grasslands and woodlands, and protecting them from overexploitation, so that people and biodiversity can benefit. BirdLife is considering establishing an office in Qatar to provide a base for its work in the Gulf region, and to support the development of the bird conservation programme of Qatar's BirdLife affiliate, Friends of the Environmental Centre.

Source: *BirdLife International News* (2008), [http://www.birdlife.org/news/news/2008/05/qatar\\_money.html](http://www.birdlife.org/news/news/2008/05/qatar_money.html)

### Yemen names quartet of national bird, mammal, tree and plant

After much deliberation the Yemen Council of Ministers has named the golden-winged grosbeak as its national bird, the Arabian leopard as the national mammal, the dragon blood tree as the national tree and the aloe as the national plant. It is hoped that these flagship species will help to promote education and conservation activities in the country. Discussions have already taken place regarding the creation of a leopard reserve, which would bring benefits to a number of endemic Yemeni species. The golden-winged grosbeak is recognized by BirdLife as consisting of three distinct species, the Arabian, Somali and Socotra grosbeak. The latter is endemic to the Socotra archipelago, located in the Indian Ocean and adminis-

tered by Yemen, and which was declared a Natural World Heritage Site by UNESCO in 2008.

Source: *BirdLife International News* (2008), [http://www.birdlife.org/news/news/2008/07/yemens\\_national\\_bird.html](http://www.birdlife.org/news/news/2008/07/yemens_national_bird.html)

### Captive breeding of northern bald ibis suggested

A workshop that focused on the conservation of the Critically Endangered northern bald ibis has suggested that the Palmyra population should be supplemented by juveniles from a semi-wild population at Birecik in Turkey. The Talila Wildlife Reserve, part of the al-Badia rangelands east of Palmyra has been put forward as a possible site for a northern bald ibis captive breeding facility. Young birds would be brought to the aviary from Birecik, and raised in adapted compounds previously used for captive breeding of the Arabian oryx. Captive breeding is being seen as a last resort that would be instigated if fewer than two pairs of ibis fail to breed in 2009. Birds from the Birecik population have been found to be genetically similar to the Palmyra population. Source: *BirdLife International News* (2008), [http://www.birdlife.org/news/news/2008/09/nbi\\_meeting.html](http://www.birdlife.org/news/news/2008/09/nbi_meeting.html)

## SUB-SAHARAN AFRICA

### Lowland gorillas thriving

A Wildlife Conservation Society census of the Critically Endangered western lowland gorilla has shown that populations are doing better than expected, with c. 125,000 alive in two adjacent areas covering 47,000 km<sup>2</sup> in the northern Republic of Congo. A previous census in the 1980s estimated that c. 100,000 remained and numbers were since thought to have halved because of hunting and the ebola virus. In the latest census densities were found to be as high as eight individuals per km<sup>2</sup>, one of the highest gorilla densities ever recorded. A combination of factors, including long-term conservation management of the country's protected areas and the remoteness of some of these areas, is responsible for such high gorilla numbers. However, many of the gorillas live outside existing protected areas, although the Congolese Government has committed to creating a new national park in the region.

Source: *BBC News* (2008), <http://news.bbc.co.uk/2/hi/science/nature/7544967.stm>

### New robin identified

A species of robin first observed 7 years ago in Gabon by scientists from the Smithsonian Institution has now been revealed to be

a new species. The olive-backed forest robin *Stiphrornis pyrrholaemus* was initially thought to be an immature specimen of a previously discovered species, but on comparing the plumage of several specimens with that of other species from the *Stiphrornis* genus it became apparent that there were considerable differences. A comparison of the DNA of the newly collected specimens with DNA of other robins in the Smithsonian collection indicated that species was previously unrecorded. The new species has a distinctive olive rump and back, and males sport a fiery orange throat and breast. Both sexes also have a distinctive white spot in front of each eye.

Source: *Smithsonian Institution press release* (2008), [http://newsdesk.si.edu/releases/nzp\\_new\\_robin.htm](http://newsdesk.si.edu/releases/nzp_new_robin.htm)

### Submerged logs to be pressed into service

An innovative plan to curb logging rates in Ghana was unveiled at the UN Climate Change conference in Accra, with the announcement that a Canadian logging company is preparing to log hardwood trees from Lake Volta, created 40 years ago by the building of a hydroelectric dam. Lake Volta, the largest man-made lake in Africa, is thought to contain at least 14 million m<sup>3</sup> of timber worth c. USD 4 billion, making it a valuable resource despite the increased costs associated with retrieving the wood from beneath the lake's surface. Not only will the logging reduce the number of fatalities resulting from boats colliding with submerged stumps, but it will also reduce the rate of logging on land, and thus curb the CO<sub>2</sub> emissions that are released when forests are destroyed.

Source: *Reuters* (2008), <http://www.reuters.com/article/environmentNews/idUSLP39117720080825>

### Biofuels project halted for the moment

The Kenyan High Court has stopped a controversial project destined to convert 20,000 ha of wetlands in the Tana River Delta into sugar cane plantations. Ever since the plans were first made public there has been much concern that the project will have a negative effect on many of the species that live in the wetland, which include 350 bird species, some of which are globally threatened. The project had originally been cleared by Kenya's National Environment Management Authority in June 2008, a move that was criticised by many, with the Kenyan NGO Nature Kenya claiming that the costs of water, land and the loss of community livelihoods had not been taken into account.

Source: *BirdLife International News* (2008), [http://www.birdlife.org/news/news/2008/07/tana\\_reprieve.html](http://www.birdlife.org/news/news/2008/07/tana_reprieve.html)

### Lesser flamingos at risk again—this time in South Africa

Having seen off, for the time being at least, the plans to develop a soda ash extraction plant on the shores of Lake Natron in Tanzania, lesser flamingos are once again at risk, in this case at their only breeding site in South Africa. Proposed housing developments around Kamfers Dam near Kimberley will destroy c. 350 ha of the dam's buffer zone, and the current water quality of the dam is falling as a result of raw sewage being deposited in the lake from a malfunctioning sewage treatment plant. There is speculation that the sewage may be leading to the lesions and abnormalities recently observed on some flamingos. In 2008 9,000 lesser flamingo chicks hatched on the artificial flamingo breeding island in the dam, one of only four breeding sites for the species in Africa.

Source: *BirdLife International News* (2008), [http://www.birdlife.org/news/news/2008/07/kamfers\\_dam.html](http://www.birdlife.org/news/news/2008/07/kamfers_dam.html)

### Neglected tuft sedge rediscovered after 200 years

A plant that was last seen 9 years before Napoleon was exiled to St Helena in 1815 has been rediscovered on a remote part of the island. The plant was found by researchers working on the South Atlantic Invasive Species project, which is funded by the European Union and managed by the RSPB, and is working to control the tide of invasive species that threatens to engulf St Helena's native wildlife. The sedge itself is at risk from invasive plants, including a recently-colonized African grass. St Helena has the dubious honour of being known as an extinction hotspot, with seven out of eight endemic bird species having become extinct since the island's discovery in 1502. The remaining species, the Critically Endangered St Helena plover, suffers egg and nestling predation by introduced feral cats and common myna.

Source: *BirdLife International News* (2008), [http://www.birdlife.org/news/news/2008/07/St\\_helena\\_plant\\_rediscovered.html](http://www.birdlife.org/news/news/2008/07/St_helena_plant_rediscovered.html)

### Logging company accused of tax fraud

Greenpeace has published a report accusing the Danzer Group of price-fixing to avoid paying taxes to the Democratic Republic of Congo (DRC) and Republic of Congo for timber logged in these countries. According to the report, Danzer Group logging companies based in the two countries have been selling their wood to the Danzer Group's

Swiss-based trading arm Interholco AG at an official price below the actual market value of the timber. Unofficial payments, which make up the shortfall, are made to offshore bank accounts in Europe, enabling the Danzer Group to evade paying taxes to which it is liable in the DRC and Republic of Congo. Greenpeace alleges that this has denied the governments of these countries at least EUR 7.8 million in tax revenue, equivalent to 50 times the DRC Ministry of Environment's annual operating budget.

Source: *Conning the Congo* (2008), <http://www.greenpeace.org/raw/content/international/press/reports/conning-the-congo.pdf>

### Hake trawl fishery is bad for seabirds

An assessment of the impact of South Africa's deep-water hake fishery has estimated that it kills c. 18,000 seabirds a year. Previous considerations of the effects of fishing on seabirds have focused on long-lining, which kills thousands of seabirds annually, enough to account for observed decreases in seabird populations. The study, which examined South Africa's hake trawl industry, found that 85% of mortality resulted from interaction with trawl warps (collision, entanglement or being dragged under the water's surface by the warp), and 15% from entanglement in nets. Albatrosses were most frequently killed by the hake fishery in South Africa; 43% of all birds killed were Near Threatened shy albatrosses and 37% Endangered black-browed albatrosses. Recommended mitigation measures for the fishery include not dumping offal and discarded catch overboard, and fitting bird-scaring lines to keep seabirds away from the warp.

Source: *Animal Conservation* (2008), 11, 247–254.

### Congolese fighting threatens park's wildlife

An increase in the intensity of fighting in the east of the Democratic Republic of Congo has led to chaos in the vicinity of the Virunga National Park, with an estimated 100,000 people having fled the area. The rebels' seizure of the Rumangabo army camp, just 4 km from the Park's headquarters, prompted the evacuation of park rangers with the assistance of the International Gorilla Conservation Programme. The Virunga National Park is home to > 380 of the remaining 720 Critically Endangered mountain gorillas, and there are fears that the situation may put some gorillas at risk. UN peacekeeping forces are supporting the Congolese army, amid reports of protesters attacking the UN's base in Goma, south of

the fighting, claiming the UN was not doing enough to protect civilians.

Source: *IGCP News* (2008), [http://www.igcp.org/news/news\\_ranger\\_relocation.html](http://www.igcp.org/news/news_ranger_relocation.html) and *BBC News* (2008), <http://news.bbc.co.uk/1/hi/world/africa/7692932.stm>

### Languishing lagoon

South Africa's most important wetland for waders, Langebaan lagoon, is under threat from port expansion, pollution from sewage, urban development and tourism infrastructure development, according to BirdLife South Africa. The lagoon, which is a Ramsar site, plays host to up to 34,500 waders in the summer, of which 93% are Palearctic migrants. One of the most serious threats to the lagoon is the expansion of the iron ore terminal, which is set to double its capacity for exports. This expansion has been criticised by conservationists because of its expected impact on the hydrology, sediments, bird life and shoreline of the lagoon. Damage to the wetland caused by the original port development in the early 1970s is still in evidence on the eastern shores of the lagoon.

Source: *BirdLife International News* (2008), [http://www.birdlife.org/news/news/2008/09/langebaan\\_lagoon.html](http://www.birdlife.org/news/news/2008/09/langebaan_lagoon.html)

### Okapi spotted in the Democratic Republic of Congo

A camera trap has secured the first official sighting of an okapi in the Virunga National Park for 50 years, indicating that this shy relative of the giraffe is managing to survive in the area, despite the civil conflict that has blighted the region for years. Okapis are known to occur in three protected areas in Africa, but are threatened by overexploitation for the bushmeat trade. In the Virunga National Park the poaching of okapi has reached such high levels that the species is at risk of being poached to the point of extinction. Researchers in the area report that okapi meat is now regularly on sale in the town of Beni, near the National Park.

Source: *BBC News* (2008), <http://news.bbc.co.uk/1/hi/sci/tech/7609393.stm>

## SOUTH AND SOUTH-EAST ASIA

### Aceh avoided deforestation project wins prestigious award

Environmental Finance magazine has named Fauna & Flora International's Ulu Masen forest initiative Carbon Finance Transaction of the Year. Carbon credits are set to be generated through the protection of 750,000 ha of rainforest in Aceh

Province, thereby preventing 100 million t of CO<sub>2</sub> emissions over 30 years. Merrill Lynch has indicated an interest in buying the credits from the Governor of Aceh. The project will direct revenue from the sale of the carbon credits to local communities around Ulu Masen as an incentive to protect the forest. The award demonstrates that the global business community is waking up to the huge potential of utilizing markets for environmental protection.

Source: *Fauna & Flora International* (2008), [http://www.fauna-flora.org/news\\_ulu\\_masen.php](http://www.fauna-flora.org/news_ulu_masen.php)

### Tiger translocation in India

A male Bengal tiger has been translocated by helicopter from the Ranthambore tiger reserve to the Sariska tiger reserve, an area where the species was wiped out a few years ago. WWF and the Governments of Rajasthan and India have worked together on the translocation project, which will see more tigers transferred from Ranthambore to Sariska in the near future. The young male tiger has been fitted with a radio collar, and is being kept in an enclosure for observation prior to his release into the tiger reserve. This translocation is the first of its kind in India, and, if successful, may prove a useful technique in the bid to protect India's tigers.

Source: *WWF press release* (2008), <http://www.worldwildlife.org/who/media/press/2008/WWFPresitem9508.html?enews=enews0708c>

### Camera trap catches clouded leopard

A camera placed in Borneo's Sebangau National Park has photographed a clouded leopard, the first time that this species has been recorded in the area. The clouded leopard was only classified as a separate species in 2007, when an examination of its DNA found more than 40 differences compared to that of clouded leopards in mainland Asia. Estimates of the cat's population suggest there may be no more than 10,000 sexually mature adults. Sebangau National Park is one of the world's largest deep peat-swamp forests but, as with many such forests in the area, it is at risk from illegal logging and forest fires. The camera trap that photographed the leopard is part of the Sebangau Felid Project, which aims to document the Park's big cat fauna.

Source: *BBC News* (2008), [http://news.bbc.co.uk/1/hi/in\\_depth/sci\\_tech/green\\_room/7561940.stm](http://news.bbc.co.uk/1/hi/in_depth/sci_tech/green_room/7561940.stm)

### Habitat of Jerdon's courser saved from development

Plans for a new 430-km canal in India have been redesigned so that the canal avoids the

only remaining habitat of the Critically Endangered Jerdon's courser. The courser, thought to number no more than 50 individuals, has specific habitat requirements that limit it to an area of the Eastern Ghats. When plans for the new Teluga Ganga canal were revealed to be threatening the Sri Lankamalleswara Wildlife Sanctuary, specially designated to protect the courser's habitat, there was an outcry from conservation groups and now, 3 years later, a new route has been approved. Furthermore, the Andhra Pradesh Irrigation Department has agreed in principle to buy 1,210 ha of scrub forest between the new canal route and the Sanctuary, which will be managed by the state's Forest Department in a bid to increase the courser's range.

Source: *BirdLife International News* (2008), [http://www.birdlife.org/news/news/2008/08/jerdons\\_courser.html](http://www.birdlife.org/news/news/2008/08/jerdons_courser.html)

### New book highlights wetlands

Wetlands are crucial habitats in India, not just because of their high biodiversity value but because in a country where nearly 80% of the population depends on agriculture the services provided by wetlands are vital. Now a new book, *Potential and Existing Ramsar Sites in India*, has highlighted the need for more of India's wetlands to be protected. The book describes 160 coastal and freshwater sites of which only 25 have been classified under the Ramsar wetland treaty, although some of the other sites do have some protection under Indian law. However, the authors of the book point out that these 25 Ramsar protected wetlands do not represent even a fraction of the diversity of wetland habitats in India, and other sites urgently need protection from threats such as development and pollution.

Source: *BirdLife International News* (2008), [http://www.birdlife.org/news/news/2008/07/indian\\_wetlands.html](http://www.birdlife.org/news/news/2008/07/indian_wetlands.html)

### New primate populations found in Cambodia

A survey of a 789 km<sup>2</sup> area of Cambodia has discovered two new populations of threatened primates in the Seima Biodiversity Conservation Area. Before the survey, led by researchers from the Wildlife Conservation Society, the largest known populations of black-shanked doucs (600 individuals) and yellow-cheeked crested gibbons (200 individuals) were located in Vietnam, the only other country where these Endangered primates occur. The populations discovered in Cambodia are considerably larger than these, with an estimated 42,000 black-shanked doucs and 2,500 yellow-cheeked crested gibbons. According to researchers, the populations discovered in Cambodia are



undoubtedly the largest remaining global populations of either species. The reasons for the persistence of these large populations are principally the area's inaccessibility, protection of the habitat by the logging concessionaire in the 1990s and, more recently, a government-backed conservation programme.

Source: *National Geographic News* (2008), <http://news.nationalgeographic.com/news/2008/09/080903-new-monkeys.html>

### Major new funding announced for Indochina

The Indo-Burma Biodiversity Hotspot, one of the most threatened 34 global biodiversity hotspots, is set to receive a boost in the form of a new USD 9.5 million 5-year investment that aims to conserve biodiversity by engaging and building NGO capacity. The Critical Ecosystem Partnership Fund (CEPF) for Indo-Burma, a collaboration between BirdLife International and CEPF officially launched in August 2008, covers the Indochina region of this hotspot, which includes Cambodia, Lao PDR, Thailand, Vietnam and parts of southern China. One of the key goals of the initiative is to ensure that civil society is engaged in biodiversity conservation, and CEPF will provide grants to NGOs, community groups and other private sector groups to help conserve the hotspot. In Indochina economic development and the increasing human population are placing huge pressures on the region's natural resources.

Source: *CEPF press release* (2008), <http://www.cepf.net/xp/cepf/news/releases/2008.indochina.xml>

## EAST ASIA

### Yangtze turtle eggs fail to hatch

Conservationists have had their hopes of boosting the world population of Yangtze giant soft-shell turtle dashed after eggs laid by the 80-year old China Girl failed to hatch. Over half of the 100 eggs appeared to be fertile but examinations showed that the embryos died early on in development, with speculation that the thin or cracked shells of many of the eggs may have been a problem. The poor quality of the shells is thought to be related to China Girl's diet, which has been low in calcium for many years. Both she and the 100-year old male are now on a diet of freshwater crayfish, whole fish and meat containing bones, as well as receiving calcium and other vitamin supplements. Hopes for this Critically Endangered species are now pinned on the 2009 breeding season.

Source: *Turtle Survival Alliance News* (2008), <http://www.turtlesurvival.org/news/attempt-to-breed-rafetus-in-captivity-ends-in-disappointment/>

### Booming Chinese economy aids invasive immigrants

Having been a source of invasive species in the past, it now appears that China may be gearing up to play host to many invasive species, with evidence suggesting that the rate at which alien species are arriving in the country is accelerating in line with China's burgeoning economic growth. The number of international ports of entry into China, 253 in 2007, is double the number in 1987, and these provide easy entry into the country for hitchhiking invasive species. Furthermore, ecosystems that have been disturbed by, for example, construction development, provide habitats for invasive species to gain a foothold. China is considered to be one of the world's biodiversity hotspots, home to > 30,000 native vascular plants and 2,340 native terrestrial vertebrates, and invasive species could wreck havoc.

Source: *BioScience* (2008), 58, 317–324. [Http://www.aibs.org/bioscience-press-releases/re-sources/April%2008.pdf](http://www.aibs.org/bioscience-press-releases/re-sources/April%2008.pdf)

### Bumper crop of baby pandas

The birth of four panda cubs within a 14-hour period in China has boosted the population of this Endangered species. Estimates suggest that the number of surviving pandas is c. 1,600, with most of these individuals located in Sichuan, Shaanxi and Gansu provinces. In addition to the wild population there are 180 pandas being raised in captivity in China. The four baby pandas were all born at the Chengdu Panda Breeding Research Centre, in Sichuan, with one female giving birth to twin female cubs, while the other two cubs were born to different mothers. The panda is threatened in the wild because its forest habitat is being destroyed, and because isolated panda populations have little contact with one another.

Source: *BBC News* (2008), <http://news.bbc.co.uk/1/hi/world/asia-pacific/7527613.stm>

## NORTH AMERICA

### Drop in pressure proves fatal for bats at wind farms

Post-mortems carried out on bat carcasses retrieved from a wind farm in southern Alberta have revealed that 90% of bats showed signs of internal haemorrhaging, leading researchers to speculate that the

bats' lungs had over-expanded and burst as a result of a sudden drop in pressure around the turbines. While the echolocation system used by bats to navigate means that they are generally able to avoid the turbines themselves, echolocation is useless when it comes to detecting the areas of low pressure around the turbine blades. Bats are more susceptible to sudden drops in pressure than birds, which have more rigid lungs less prone to over expansion. All three species of bats killed by turbines are migratory, so bat deaths in Canada may have far-ranging impacts on America's ecosystems.

Source: *University of Calgary press release* (2008), <http://www.ucalgary.ca/news/aug2008/batdeaths>

### Polar bear in snowstorm of lawsuits

The USA's recent listing of the polar bear as a threatened species has prompted five industry groups, including the US Chamber of Commerce and the American Petroleum Institute, to challenge the ruling in court, claiming that because projects in the Alaskan state must now undergo reviews of their greenhouse-gas emissions the decision discriminates against Alaskan businesses. It's been a busy year for the bears; in May the governor of Alaska, Sarah Palin, sued the US government, claiming the listing of the polar bear harmed oil and gas exploration in Alaska. Meanwhile, the Centre for Biological Diversity, the body that urged the listing in the first place, is trying to upgrade the bear's status from threatened to endangered.

Source: *Nature* (2008), 455(7209), 13.

### Environmentally aware people choosing to live in natural areas

An investigation of 416 households in Idaho and Wyoming has revealed that immigrants (i.e. those not originally born in the study area) with the lowest education levels and fewer concerns about the environment were more likely to live in established residential areas, whereas older, more educated and environmentally aware immigrants were more often found to live in natural areas. People dwelling in natural areas had a higher environmental impact per person, because of their location in more pristine areas, and also because small households (> 3 people/household) were four times as likely to exist in natural areas as large households. Given the fact that populations are ageing, becoming more educated and potentially more environmentally aware this could spell bad news for the natural areas of the world.

Source: *Conservation Biology* (2008), 22, 912–921.

### Box turtles get their own tunnel

The box turtle population in Washington County has received a boost in the form of a USD 130,000 federal grant to the Humane Society of the United States to build a road crossing for the reptiles. Because box turtles don't reproduce until they are 8–10 years old and lay few eggs, most of which are eaten by predators, the death of even a few adult turtles on roads can have a grave impact on the population. The grant will be used to build a permanent fence along a road that borders Greenbrier State Park, and to improve existing culverts. Culverts built previously by the Humane Society were used by box turtles but the money will enable them to be widened and given a more natural feel, with the intention that they will attract more turtle traffic.

Source: *The Herald-Mail* (2008), [http://www.herald-mail.com/?story\\_id=198834&cmd=displaystory](http://www.herald-mail.com/?story_id=198834&cmd=displaystory)

### Fishes' future turning murky

The third review of imperiled and extinct North American freshwater and diadromous fish has revealed that the number of fish in danger of becoming extinct has almost doubled since the last review was published in 1989. Between 1989 and 2008 only 6% of taxa improved in status to allow for their down-listing, while most taxa (89%) have the same or worse conservation status. Three regions were identified as containing particularly high numbers of threatened fish species: the south-eastern USA, the mid-Pacific coast and the lower Rio Grande and coastal and endorheic basins of Mexico. The major threat facing fishes across the North American continent is habitat degradation, which affects 92% of the species included on the list, many of which are restricted to small ranges.

Source: *Fisheries* (2008), 33, 372–407. [http://www.fisheries.org/afs/docs/fisheries/fisheries\\_3308.pdf](http://www.fisheries.org/afs/docs/fisheries/fisheries_3308.pdf)

### Everglades restoration flounders in bureaucratic quagmire

The second biennial review of the Comprehensive Everglades Restoration Plan, launched in 2000 with the aim of restoring historical water flows to the Everglades, has found that efforts are being hampered by the complex federal planning and approval process, a symptom of which has been the slow release of funding at the federal level. The Plan is also affected by the lack of a systematic approach to analyse costs and benefits across the c. 50 major projects that comprise this project. The scale of the Restoration Plan has been acknowledged as an unprecedented challenge but some progress has been made, including the acquisition of

75,000 ha of agricultural land in 2008. However, there are concerns that unless substantial progress is made soon, habitats may deteriorate to a point where it may be difficult or even impossible to restore them. Source: *National Academies press release* (2008), <http://www8.nationalacademies.org/onpinews/newsitem.aspx?RecordID=12469>

### Arctic gains more protection

An announcement by the Canadian Government that more than 450,000 ha of land will be protected in Nunavut province has been welcomed by conservationists. Three new National Wildlife Areas will be created on the north-east side of Baffin Island. This area of Canada is particularly important for migrating birds, and includes two Important Bird Areas. Nunavut province is also home to Canada's largest colony of northern fulmar. Although delighted, conservationists have urged the government to ensure sufficient funding for the National Wildlife Areas system, pointing out that nearly 12 million ha of wilderness are currently being managed on a budget of < USD 4 million annually.

Source: *BirdLife International News* (2008), [http://www.birdlife.org/news/news/2008/09/canadian\\_protection.html](http://www.birdlife.org/news/news/2008/09/canadian_protection.html)

## CENTRAL AMERICA AND CARIBBEAN

### Tiny endemic snake slithers forth

The smallest snake in the world, with an average length of 10 cm, has been discovered on the island of Barbados. The endemic snake, which feeds on termites, is thought to be as small as a snake can evolve to be. Unusually among snakes, some of which can lay up to 100 eggs in a clutch, the newly discovered species lays only one egg, and the hatchlings are half the size of the adult. Researchers speculate that if the hatchlings were smaller, as they might be were the female to lay more than one egg, they might not be able to find any prey small enough to eat. The snake's future is uncertain, as the forest habitat in which it lives is becoming increasingly fragmented.

Source: *BBC News* (2008), <http://news.bbc.co.uk/1/hi/sci/tech/7537932.stm>

## SOUTH AMERICA

### Western Amazon under threat from demand for oil

A study has collated information from government sources to ascertain the status of current and future oil and gas exploration

in the western Amazon, the most biologically rich part of the Amazon basin that includes part of Bolivia, Colombia, Ecuador, Peru and western Brazil, and is home to many indigenous ethnic groups, including some that are among the world's last uncontacted peoples. The researchers found that c. 180 oil and gas blocks (i.e. areas zoned for hydrocarbon activities) have been designated in the western Amazon, covering c. 688,000 km<sup>2</sup>, including some land in the most species-rich part of the Amazon, and overlapping with many indigenous boundaries. The authors point out that without improved policies, the planned increases in hydrocarbon extraction will lead to an intensification of negative environmental and social impacts.

Source: *PLoS One* (2008), 3(8), e2932. <http://dx.doi.org/10.1371/journal.pone.0002932>

### Huge protest at hydroelectric dam plans

In May 2008 hundreds of tribal people from the Amazon basin gathered to protest against plans to build hydroelectric dams along the Xingu River, the largest tributary of the Amazon. One of the dams under discussion was the Belo Monte Dam, which would be the world's third largest hydroelectric dam, requiring the resettlement of at least 16,000 people, and causing the desiccation of over 100 km of the river. The Brazilian government has recently stated that the Belo Monte Dam would be viable as a stand-alone dam without any need for additional dams upstream, a statement greeted by scepticism by many, who fear that the Xingu's low flow rate in the dry season will be insufficient to sustain the dam. Tensions ran high at the meeting, the largest gathering of indigenous groups in the Amazon for 20 years, with an official who defended the scheme being injured with a machete.

Source: *International Rivers* (2008), <http://internationalrivers.org/en/latin-america/amazon-basin/xingu-river/amazon-tribes-fight-keep-xingu-alive>

### New reefs discovered off Brazil

Researchers have discovered new reef structures that may double the size of the Abrolhos Bank, the largest and richest reef system in the Southern Atlantic Ocean. The researchers had some idea from local fishermen that there were further structures to be discovered in the site off Brazil's Bahia state but they were unprepared for the size of the previously unknown structures. Because of the reefs' inaccessibility and depth they were found to harbour a myriad of species, in some places supporting 30 times the density of marine life found on shallower reefs. Parts of the Abrolhos Bank are designated



as Marine Protected Areas but the majority of the reefs are unprotected and are threatened by local anthropogenic activities including coastal development, shrimp farms and oil drilling, as well as the global threats of climate change and ocean acidification. *Source: Conservation International press release* (2008), <http://www.conservation.org/newsroom/pressreleases/Pages/New-Reefs-in-Brazil.aspx>

### **Brazilian government named as worst logger of the Amazon**

The Brazilian Environment Ministry has drawn up a list of the 100 worst illegal loggers, and has placed the Institute of Colonization and Agrarian Reform (INCRA), a government department, at the top of the list. According to the Environment Minister, Carlos Minc, the six largest deforested areas since 2005 all belonged to INCRA, although the department claimed that all six areas were legally settled between 1995 and 2002. The publication of the list coincided with a report indicating that deforestation in the Amazon is increasing, with c. 760 km<sup>2</sup> of forest destroyed in August 2008, compared with 230 km<sup>2</sup> in August 2007. Mr Minc told a press conference that legal action would be taken against all 100 loggers, with an environmental police force with 3,000 armed officers being created to help in this resolve. *Source: BBC News* (2008), <http://news.bbc.co.uk/1/hi/world/americas/7643346.stm>

### **Lonesome George to become a father?**

Researchers on the Galapagos island of Santa Cruz are celebrating the discovery, since July, of three nests of eggs in the corral of Lonesome George. A total of 16 eggs have been found, all of which have been removed from the enclosure and placed in incubators. The eggs, 14 of which are thought to be fertile, are being incubated at different temperatures, to ensure that both male and female tortoises are produced. Lonesome George, the last remaining Pinta Island tortoise, has shared his enclosure with two females belonging to a closely related species, *Geochelone becki*, since 1993. DNA testing will be performed on the hatchlings to check that George is the father, as female tortoises can store sperm for some years. *Source: Galapagos Conservancy News* (2008), <http://www.galapagos.org/2008/index.php?id=148>

## **PACIFIC**

### **Indirect effects of brown tree snakes being felt on Guam**

New research has revealed that the indirect effects of the invasive brown tree snake's

presence on Guam may be having an adverse effect on the island's forests. Following its introduction in the 1940s the brown tree snake decimated Guam's avifauna, with 10 out of 12 native forest bird species going extinct. Now researchers have compared seed dispersal on Guam and another island, Saipan, where the brown tree snake does not occur, and found that seeds in Guam were only found beneath the parent tree, while on Saipan seeds were found up to c. 20 m away. Given that 60–70% of tree species on the island appear to rely on birds for their seed dispersal, the lack of forest birds on Guam means that the structure of the forests are at risk. *Source: University of Washington news* (2008), <http://uwnnews.org/article.asp?articleid=43191>

## **AUSTRALIA/ANTARCTICA/NEW ZEALAND**

### **Fungus-resistant frogs found**

The armoured mist frog may sound like a name for a military vehicle, but the species' rediscovery in Queensland, Australia, is proof of its durability. Researchers had feared that the amphibian had succumbed to the outbreak of the fatal chytrid fungus that affected the wet tropics from the 1980s onwards, and which is thought to have caused the extinctions of all known high elevation populations of seven frog species in the region. Recent surveys in the area discovered populations of both the armoured mist frog and the waterfall frog, and although most individuals showed signs of infection, they appeared to be in good health. Now researchers at James Cook University, who rediscovered the populations, are trying to establish how the amphibians manage to co-exist with the deadly fungus.

*Source: James Cook University media release* (2008), [http://cms.jcu.edu.au/news/searchresults/JCUPRD\\_037882](http://cms.jcu.edu.au/news/searchresults/JCUPRD_037882)

### **Chytrid fungus susceptible to increased salt concentrations**

A researcher has found that a possible reason for persistence of amphibian populations in areas where the chytrid fungus is present may be related to the concentration of salt in the ponds where the frogs live. Populations of the green and golden bell frog have vanished from c. 90% of their habitats but there are some isolated areas where these species persist. A comparison of the pond water in areas where the frogs have become extinct and where they still occur revealed that the chytrid fungus grew more slowly in frog-occupied ponds. Further ex-

periments revealed a significant relationship between salt concentration and chytrid fungus growth, with higher concentrations inhibiting fungal growth. This research was nominated for the People's Choice section of the Australian Museum Eureka Prizes.

*Source: Australian Museum Eureka Prizes* (2008), <http://www.amonline.net.au/eureka/index.cfm?objectID=A7DF0951-A463-055F-0518AFF3CFA597F5&view=pca&displayEntry=true>

### **Hundreds of new species found during reef surveys**

A systematic survey of the waters around Lizard Island and Heron Island (in the Great Barrier Reef) and Ningaloo Reef have discovered as many as 150 new soft coral species, as well as a number of crustacean species previously unknown to science and new species of bristle worms. Surveys of these sites will be carried out annually over the next 3 years, to continue investigating the marine life of the reefs and to measure the impacts of climate change and other processes. In preparation for future surveys, divers fixed layered plastic structures, called Autonomous Reef Monitoring Structures, to the ocean floor at Lizard and Heron Islands. These structures, which have been compared to empty dolls houses, provide shelter to a variety of sea life, which will, in time, be collected and examined by researchers.

*Source: Census of Marine Life press release* (2008), [http://www.coml.org/comlfiles/press/COML\\_CReefs\\_9.18.2008.pdf](http://www.coml.org/comlfiles/press/COML_CReefs_9.18.2008.pdf)

### **Early humans wiped out mammals**

A paper has put forward the theory that humans were responsible for the extinction of Tasmania's megafauna, rather than climate, as has previously been suspected. Radiocarbon and luminescence dating techniques were used to determine the ages of fossilized remains in Tasmania, leading to the discovery that some of the animals survived for 2,000 years after humans arrived, and eventually became extinct at a time when the climate was not changing drastically. The researchers suggest that these species were hunted to extinction following the influx of humans onto Tasmania 46,000 years ago when the island was temporarily connected to mainland Australia by a land bridge. Megafauna on islands around the world may have suffered the same fate, according to the paper's authors. *Source: BBC News* (2008), <http://news.bbc.co.uk/1/hi/world/asia-pacific/7555206.stm>

### **Too cold to hop?**

A 'toad olympics' staged in an Australian lab has yielded some positive news for those in colder parts of the country bracing themselves for a cane toad onslaught.

During the 2-m sprint it was found that temperatures of 15°C reduced the toads' hopping speeds to a mere 0.3 km h<sup>-1</sup>, whereas toads hopping in temperatures of 30°C managed speeds of 2 km h<sup>-1</sup>. In addition, cooler temperatures also have a negative impact on the development of cane toad tadpoles. Previous studies have predicted that the toads will eventually reach Melbourne and other southern regions of the country from Australia's north-east regions, where they were originally introduced for pest control in 1935. In warmer, wetter parts of the country, such as Darwin, the poisonous toads are doing well, reaching hopping speeds equivalent to > 50 km yr<sup>-1</sup>. Source: *BBC News* (2008), <http://news.bbc.co.uk/1/hi/sci/tech/7584815.stm>

### Correction

In the October 2007 issue of *Oryx* we wrote that corals of the *Corallium* genus had been placed on CITES Appendix II (Protection for corals used in jewellery; *Oryx*, 41(4), 419). It has since been brought to our attention that this is incorrect. Although the proposal was originally accepted by 62 votes in favour to 28 against after a long discussion in Committee I of the 14th Conference of the Parties, the discussion of the proposal was reopened in the plenary session and ultimately rejected by the Conference of the Parties. However, as of 1 July 2008 four *Corallium* species have been included in Appendix III at the request of China: *C. elatius*, *C. japonicum*, *C. konjoi* and *C. secundum*.

All internet addresses were up to date at time of writing. Note that in the HTML version of this document (at <http://journals.cambridge.org>) all internet links are live and can thus be used to navigate directly to the cited web sites. The *Briefly* section in this issue was written and compiled by Elizabeth Allen and Martin Fisher, with additional contributions from Jonathan Barzdo, John Fellowes, Anthony Rylands and M. Zafar-ul Islam. Contributions from authoritative published sources (including web sites) are always welcome. Please send contributions by e-mail to [oryx@fauna-flora.org](mailto:oryx@fauna-flora.org), or to Martin Fisher, Fauna & Flora International, 4th Floor, Jupiter House, Station Road, Cambridge, CB1 2JD, UK.