

International

New study pinpoints extinction epicentres

A new study has named 794 species threatened with imminent extinction and identified 595 sites around the world that need to be safeguarded to help stave off an imminent global extinction crisis. Only one-third of the sites are known to have legal protection, and most are surrounded by human population densities that are approximately three times the global average. Particular concentrations of sites are found in the Andes of South America, in Brazil's Atlantic Forests, throughout the Caribbean, and in Madagascar. With 63 however, Mexico holds the most sites, and the USA is amongst the 10 countries with the most sites. One of the species under threat is the Critically Endangered Jerdon's Courser *Rhinoptilus bitorquatus* (an enigmatic, nocturnal wading bird, rediscovered in 1986 after having not been seen for almost a century; see *Oryx*, 36, 182–188). The only known site for this species has come under threat from a new irrigation canal.

Source: [Http://www.zeroextinction.org/AZE_report.pdf](http://www.zeroextinction.org/AZE_report.pdf)

Is mahogany dysgenically selected?

A concern for the conservation of mahogany is that selective logging, as a form of negative phenotypic selection, might have led to deterioration in the genetic quality of populations, i.e. dysgenic effects. Loggers have tended to avoid diseased, small, very large and poorly-formed individuals, and therefore tended to increase the proportion of poor quality phenotypes in at least some conditions. However, the maximum negative dysgenic response to a single logging-mediated phenotypic selection event is expected to be <5%. As a threat to mahogany conservation and long-term sustainable production, dysgenic selection is probably insignificant in comparison with other genetic and non-genetic factors.

Source: *Environmental Conservation* (2005), 32(2), 129–139.

Whale sharks monitored using algorithm designed for star constellations

The whale shark *Rhincodon typus* is the world's largest fish and is categorized as Vulnerable on the IUCN Red List. Photo identification is usually used to collect sighting data based on the body pigmentation unique to each individual. However, this process, based on visual matching of individuals, is impractical in large datasets. Researchers have now developed an automated technique for identifying and matching spot colourations from the flanks of whale sharks based on a computer algorithm used by astronomers for comparing star constellations. Preliminary results yielded a success rate of >90%, and it is anticipated that this technique may be valuable in allowing researchers to monitor other animals that can be identified by the algorithm.

Source: *Journal of Applied Ecology* (2005), 42(6), 999–1011.

Turtles in the soup

The high-market value of turtles has resulted in the deaths of >140 marine turtles in fishing nets off the north-western coast of Borneo as a result of deliberate targeting by local fishermen. The majority of the turtles that drowned in the nets were green turtles *Chelonia mydas*, a Critically Endangered species. Elsewhere, turtles tagged in Nicaragua only have a 50% chance of surviving to the following year, with c. 11,000 green sea turtles harvested every year in an unregulated and unsustainable fishing industry. Ironically, some of the adult turtles harvested in Nicaragua are individuals that started their lives on the strictly protected nesting beaches around Costa Rica and neighbouring countries.

Source: *Marine Pollution Bulletin* (2005), 50(9), 909–910.

Production of whale burgers condemned by anti-whaling groups

Seafood producers in Japan and Norway are selling fast food whale products in a bid to attract a new generation of whale meat consumers, which they hope will reverse the declining fortunes of the whale meat industry. One such product is the Lofotburger, made from minke whale meat and pork by the Norwegian company Karsten Ellingsen, who also sell whale steaks in some Norwegian shops. Anti-whaling groups, such as the UK's Whale and Dolphin Conservation Society, have denounced the selling of these burgers, claiming the Japanese and

Norwegian companies are attempting to cash in on their governments' intentions to increase their whaling quotas.

Source: *Earthdive News* (July 2005).

Millions needed to save amphibians

A global action plan for amphibians drawn up at a summit held in September has estimated that the price of saving the world's amphibians will be USD 404 million over the next 5 years. About a third of all amphibians are threatened with extinction, which the global action plan puts down to six main reasons, including habitat loss and infectious disease. The USD 404 million would be used to protect habitats, prevent disease and set up captive-breeding projects. There is some way to go before the plan can be put into action, however, as the USD 404 million still needs to be raised.

Source: *BBC News* (September 2005).

Afforestation provides glimmer of hope for world's forests

Global deforestation continues at an alarming rate, with about 13 million hectares lost each year, according to the *Global Forest Resources Assessment 2005* published by the UN Food and Agriculture Organization. However, a tentative cause for optimism is provided by the statistics for the net change in forest area: –7.3 million hectares per year during 2000–2005 compared to –8.9 million hectares per year during 1990–2000. The reduction in net loss of forests has been brought about by forest planting, landscape restoration and natural expansion of forests. The forests of Africa and South America continue to suffer the greatest net loss of forest area whereas Asia has witnessed a net gain in forests, thanks to high afforestation rates reported by China.

Source: [Http://www.fao.org/forestry/index.jsp](http://www.fao.org/forestry/index.jsp)

Biofuel use prompts further rainforest destruction

The use of vegetable oils to run cars and power stations in Europe and North America is further encouraging the destruction of tropical rainforests. As the demand for green energy grows, the international price of palm oil also increases, with the result that south-east Asian rainforests are being cleared to make way for palm plantations. Soybean oil, the main alternative to palm oil, is also credited with rainforest destruction, because soya is the largest single cause of rainforest loss in the Brazilian Amazon.

With the global demand for biofuels increasing at 25% per year, action is needed to ensure that the oils used as biofuels are produced in a suitably sustainable way. *Source: New Scientist* (2005) **188** (2526), 19.

Great apes could be extinct in a generation

Some of the great apes could be extinct in the wild within a human generation, a new assessment (*World Atlas of Great Apes and their Conservation*) has concluded. It brings together data from many sources to assess comprehensively the prospects for the remaining great apes: the gorillas, chimpanzees and bonobos of Africa, and the orang-utans of south-east Asia. The Critically Endangered Sumatran orang-utan, of which around 7,300 remain in the wild, mainly occurs in Aceh province at the northern tip of Sumatra, which saw armed conflict for decades between the Indonesian government and separatist rebels, and which suffered heavily during December's tsunami. The mountain gorilla of the Democratic Republic of Congo, and the Cross River gorilla, found on the border between Nigeria and Cameroon, are also categorized as Critically Endangered, with numbers estimated at 700 and 250, respectively. For gorillas and chimpanzees, ebola fever is also emerging as a significant threat.

Source: [Http://news.bbc.co.uk/1/hi/sci/tech/4202734.stm](http://news.bbc.co.uk/1/hi/sci/tech/4202734.stm)

Circular hook to help save turtles

Every year more than a quarter of a million turtles die when they are caught as by-catch in nets and hooks. Fishing with circular hooks, however, rather than the usual J-shaped hooks, reduces the risk of by-catching a turtle by 90%. In a joint project Mustad, a hook manufacturer, has provided WWF with 250,000 circle hooks to be distributed in areas where by-catch is a big problem, such as Malaysia, Mexico, Papua New Guinea and Ecuador.

Source: Marine Pollution Bulletin (2005), **50**(11), 1150.

Europe

Unregulated fishing poses risk to deep sea species

A report for the International Council for the Exploration of the Seas has highlighted the damage wrought to deep

sea fish stocks by largely unregulated fisheries off north-west Europe. The main target species are monk fish and deep water sharks, with some vessels catching 40 t of deep water sharks per week. The report estimates that there are 5,800–8,700 km of nets continually fishing these areas, and as the nets are only hauled every 3–10 days a significant amount of the catch is discarded because it is unfit for human consumption. Additionally, a large numbers of nets are lost each year, and there is also evidence of illegal dumping of nets at sea.

Source: [Http://www.ices.dk/products/CMdocs/2005/N/N0705.pdf](http://www.ices.dk/products/CMdocs/2005/N/N0705.pdf)

Ban on fisheries below 1,000 m in the Mediterranean

A Mediterranean-wide ban on the use of towed dredges and trawl nets at depths beyond 1,000 m came into force in September 2005 as part of eight measures that have been adopted by 24 countries of the General Fisheries Commission for the Mediterranean and are now to be enforced at national level by all member countries. This general approach of preventing an extension of fishing practices as a precautionary measure is in line with the recommendations of the Convention on Biological Diversity.

Source: Marine Pollution Bulletin (2005), **50**(11), 1149.

European otter is a poor umbrella species

The umbrella species concept suggests that entire communities can be protected by focusing conservation efforts on the most area-demanding species, often a top predator. Otters fit the bill of a good umbrella species, with their large home ranges, top predator status and sensitivity to human disturbance. However, recent findings from studies in the Pays de Loire region suggest that the European otter *Lutra lutra* makes a poor umbrella species for freshwater communities. It was found that the number of bird, amphibian and mollusc species in areas where otters were present was comparable to equivalent sites where otters were absent, despite management in some areas preserving bankside vegetation for otter conservation. These results were attributed firstly to otters being habitat specialists and secondly to the other taxa studied being affected by factors that do not influence otter distribution.

Source: Biological Conservation (2005), **126**, 523–527.

Pearl mussels reintroduced to Cairngorms

Freshwater pearl mussels have been successfully reintroduced into rivers at two secret locations in Scotland's Cairngorms National Park. The mussels, which help to maintain river water quality through their prodigious filtering abilities, are protected under Scottish law because they are targets for illegal pearl fishing. Although Scotland's pearl mussels have been declining for centuries, they still constitute about half the world's population. The initial success of the project means that further reintroductions are likely, which is good news for the local economy as high water quality is beneficial to the salmon fisheries that bring in GBP 11 million to the area every year.

Source: [Http://www.cairngorms.co.uk/news/archive.php](http://www.cairngorms.co.uk/news/archive.php)

Presence of raptor nests in forest stands dependent on structural diversity

A study in Estonia has found that forest-dwelling raptors prefer to nest in natural forests as opposed to managed forests. However, it seems that timber harvesting is not the main factor governing site preference. Instead, the most important factor determining the presence of nests is the structural diversity of the forest stands, with a natural forest structure significantly increasing the likelihood of raptors nesting in an area. Buffer zones around raptor nests should therefore preserve natural stand diversity as far as possible, but limited non-commercial harvesting may be possible outside the breeding season.

Source: Animal Conservation (2005), **8**, 443–450.

Basking shark listed on Convention on Migratory Species

The basking shark *Cetorhinus maximus* has been listed on Appendix I and II of the Bonn Convention on Migratory Species (CMS), strengthening protection measures in international waters. The proposal, compiled by the UK Marine Conservation Society, was submitted by the UK delegation at the CMS Conference of Parties, which was held in Nairobi in November. Listing the basking shark under the Convention means that nation states that have populations of basking sharks must work with adjacent member states to introduce strict legislation to prevent capture and landing of the shark. Basking sharks have been protected in UK waters since 1998 under the Wildlife & Countryside Act

but beyond the 200 nautical mile boundary of UK jurisdiction the species is vulnerable to exploitation. It is widely accepted that fisheries for basking sharks are not sustainable due to the species' life history characteristics of low numbers of offspring per adult and slow growth rates.

Source: Marine Conservation Society (<http://www.mcsuk.org/>) press release, 25 November 2005.

North Eurasia

Ravine threatened by plans for CO₂ extraction factory

The upper reaches of the Terek river where it flows through the Trusso ravine in Georgia are threatened by plans to build a factory to extract the CO₂ present in the area's mineral springs. The problem is exacerbated by the fact that, although the area was listed as a Natural Monument, the legislation overseeing the designation of sites and their subsequent protection was abolished in 1996 and has not been reinstated. Despite protests by NGOs, the Ministry of Environment Protection and Natural Resources has issued a permit allowing research and extraction of CO₂ from mineral springs.

Source: *Caucasus Environment* (2005), 3(12), 7–10.

North Africa and Middle East

Lebanon revives ancient protection for IBAs

The Society for Protection of Nature in Lebanon is reviving the *hima*, a traditional system under which communities manage natural areas such as woodlands, grasslands and wetlands, and protect them from overexploitation. Two *hima* have been established in areas of high biodiversity, Ebel es Saqi (a potential Important Bird Area, and raptor flyway bottleneck), and the Kfar Zabab marshlands. Following Municipal Council decisions, hunting has been banned at both sites. Dating back at least to the 6th century, the *hima* system began to decline with modern changes in land use and transport, and the availability of

imported livestock feed and other substitutes for natural resources. The *hima* system allows a mixture of strict protection and sustainable use, and one of its side effects has been the preservation of biodiversity.

Source: [Http://www.birdlife.org/news/news/2005/10/spnl.html](http://www.birdlife.org/news/news/2005/10/spnl.html)

Sub-Saharan Africa

Logging causes increased parasite loads in primates

Selective logging in the Kibale National Park, Uganda, causes increased gastrointestinal parasite infections in populations of redtail monkeys *Cercopithecus ascanius*, with 92% of monkeys infected in logged forests compared with 29% in undisturbed forests. Logging reduces the abundance of fruit, causing redtail monkeys to eat more invertebrates, some of which transfer parasites to the monkeys. Invertebrates acting as secondary hosts are more abundant in logged forests, which also increases the infection rate. In contrast, red colobus *Piliocolobus tephrosceles* and black and white colobus *Colobus guereza* from logged and undisturbed forests showed no significant difference in parasite loads, possibly because logging does not affect the diet of these species.

Source: *Journal of Applied Ecology* (2005), 42, 699–707.

Alternatives to bushmeat

Dietary studies of people in urban Equatorial Guinea have revealed a strong preference for fresh animal protein. Yet, in reality, frozen goods are purchased daily at a significantly lower price, reflecting national market trends driven primarily by income. A consumer survey carried out in 2003 identified fresh fish as the favoured protein source in 49% of urban households, whereas bushmeat was chosen by 36% of households and fresh livestock by less than 10%. This result defies existing reports that bushmeat is the most sought after luxury food item. Although bushmeat is widely available, tribe, nationality and religion all influence a predisposition to consumption. Urban development and increasing foreign investment may generate growth in the demand for bushmeat unless additional protein sources are explored. Fresh domestic meat is expensive, as cattle are imported

live from Cameroon, but it is suggested that future expansion in the national rearing and sale of livestock could promote fresh meat alternatives to bushmeat.

Source: *Biological Conservation* (2005), 126, 206–215.

Amboseli stripped of National Park status

Amboseli National Park in Kenya has been degazetted to the status of game reserve, which means that control of the Park and the administration of its considerable income moves from the Kenya Wildlife Service to the local Maasai authority. Supporters of the decision by Kenya's president claim that the change in status corrects the wrong committed against the Maasai when the land was stolen from them 31 years ago. A number of wildlife groups, however, see the move as a way for the president to gain Maasai votes in November's constitution referendum, and are concerned that the de-gazetting of Amboseli could lead to the eventual disintegration of Kenya's national parks system.

Source: *BBC News* (October 2005).

South and South-east Asia

Protective role for coastal vegetation in the Asian tsunami

The scale of the 26 December 2004 Indian Ocean tsunami was almost unprecedented. In areas with the maximum tsunami intensity little could have prevented catastrophic coastal destruction. Further away, however, areas with coastal tree vegetation were markedly less damaged than areas without. A recent study indicates that mangroves and *Casuarina* plantations attenuated tsunami-induced waves and protected shorelines against damage. Human activities reduced the area of mangroves by 26% in the five countries most affected by the tsunami, from 57 to 4.2 million ha between 1980 and 2000. Conserving or replanting coastal mangroves and green belts should buffer communities from future tsunami events.

Source: *Science* (2005), 310, 643.

ASEAN countries form regional law enforcement network

To address the persistent criminal activity targeting South-east Asia's biological

diversity, representatives from the 10 Member Countries of the Association of South-east Asian Nations (ASEAN) have agreed to form a regional law enforcement network to combat the illegal trade in animals and plants. South-east Asia has long been targeted as a hotspot for the global trade in wildlife, including a variety of animals and plants ranging from tigers and elephants, to rare orchids, endemic reptiles and songbirds. Recognizing that the problem is beyond national boundaries, the 10 countries have detailed their response in a 5-year commitment, the ASEAN Regional Action Plan on Trade in Wild Fauna and Flora 2005–2010, which was recently endorsed by the ASEAN Ministers of Agriculture and Forestry. A key component is the need to mobilize a network focused on coordinated law enforcement responses against illegal wildlife trade. *Source:* Press release, Department of National Parks, Thailand, 20 October 2005.

Habitat disturbance more detrimental to endemics than non-endemics

Research carried out in rainforests in south-west Sri Lanka has revealed that endemic forest-dwelling birds and small mammals find it harder to adjust to modified landscapes than other taxa. Whereas non-endemic species used both forest and non-forest habitat types, endemic species were more selective in their use of sites, showing strong preference for less-disturbed forest plots. These experiments support earlier studies that suggest endemic species display strong habitat sensitivity and as a result are less able to invade modified landscapes than non-endemic species. *Source:* *Journal of Tropical Ecology* (2005), 21(6), 661–668.

Conservation opportunities and problems from the tsunami

In spite of the massive ecological impacts of the Asian tsunami, conservation opportunities have arisen as a result of the disaster. For example, the tsunami deposited large amounts of sand on some beaches that had previously been degraded by heavy mining and excavations for tourist resorts with the result that these areas have now become suitable for sea turtles. However, careful management is needed to ensure the cleanup does not undo any positive effects of the tsunami. Lessons from natural disasters in other ecosystems need to guide the post-tsunami cleanup,

such as protecting sensitive ecosystems from contamination brought about by the dumping of cleared debris. Many ecosystems have a well-developed capacity to recover (often remarkably quickly) from natural disturbances, even large rare ones. Quarantining some areas from intensive cleanup operations could be extremely important for biodiversity conservation. *Source:* *Conservation Biology* (2005), 19, 991.

Milky stork on verge of extinction in Malaysia

Habitat loss, in conjunction with human disturbance and poaching is threatening the existence of the milky stork *Mycteria cinerea* in Malaysia. The Malaysian Nature Society has announced that only 10 birds remain in Malaysia, making extinction within the next 5 years a distinct possibility. The estimated global population of the stork is c. 5,550 individuals, with about 5,000 in Sumatra. However, the stork's habitat in Indonesia is also under threat, from agricultural conversion and development schemes. A captive breeding programme is underway in Malaysia but the decline will continue unless the mangrove forests are protected from development. *Source:* [Http://www.birdlife.org/news/news/2005/09/milky_stork.html](http://www.birdlife.org/news/news/2005/09/milky_stork.html)

Moves to protect Gangetic river dolphins in Assam

The first-ever survey of the Endangered Gangetic river dolphin *Platanista gangetica* in Assam, India, has found that only about 240 remain in the state, which once had thousands of this species. The 10-month survey was supported by an award from the BP Conservation Programme. By-catch, in which the dolphins drown in fishing nets not meant for them, is the major threat to the species, although it is also killed for its meat and fat. The Forest Department has now taken some steps to save the dolphin, with the passage of mechanized boats through the river system within the Dibru Saikhowa National Park being restricted.

Source: *The Telegraph*, Calcutta, India, 7 September 2005 (http://telegraphindia.com/1050907/asp/northeast/story_5205114.asp#)

Vietnam survey team finds rare primate

A recent survey to prepare for the establishment of Bac Huong Hoa Nature

Reserve in Vietnam's Quang Tri province discovered a new population of globally threatened primate. Twelve Hatinh langurs *Trachypithecus francoisi hatinhensis* were found living on a limestone cliff. The local Van Kieu minority people call the species *con cung*, which translates as 'black, cliff-dwelling monkey with a long tail'. The actual number of Hatinh langurs in the area is thought to be considerably higher than 12, as inclement weather and lack of time prevented more intensive searching. The Hatinh langur, categorized as Endangered on the IUCN Red List, is endemic to Vietnam. This is the first time that it has been seen in Quang Tri province. Previously it was known from only two locations, Phong Nha-Ke Bang and Kim Lu limestone forest in Quang Binh province. Despite its name, the species has never been confirmed to occur in Ha Tinh province.

Source: [Http://www.birdlife.org/news/news/2005/11/langur.html](http://www.birdlife.org/news/news/2005/11/langur.html)

First national park for Timor-Leste

The Australian Government's Regional Natural Heritage Programme has awarded AUD 193,000 for the identification of conservation priorities and building partnerships for managing Timor-Leste's first national park. (Timor-Leste was formerly East Timor and has been officially independent since 2002). The area to be focussed on will be in the Lore/ Lake Iralalalo/ Jaco Island region, including three Important Bird Areas that hold populations of the Critically Endangered yellow-crested cockatoo *Cacatua sulphurea*, the Endangered Timor green-pigeon *Treron psittaceus*, and several Near Threatened and endemic species.

Source: [Http://www.birdlife.org/news/news/2005/12/east_timor.html](http://www.birdlife.org/news/news/2005/12/east_timor.html)

East Asia

Surveys reveal new species in China's Yinggeling Provincial Nature Reserve

Biodiversity surveys conducted in Yinggeling Provincial Nature Reserve have unearthed species new to science (e.g. a species of *Begonia*) as well as species previously unrecorded in Hainan province, despite the surveys only covering about 5% of the 500 km² Reserve's

area. Three such surveys are being conducted in the hope that the Reserve will be upgraded to the status of a national level nature reserve on the strength of their findings. Evidence of illegal harvesting of timber and wildlife collected during the surveys emphasizes the need for strict protection of this biodiversity hotspot.

Source: *Living Forests* (Autumn 2005), 3.

Tibetan sacred sites more biodiverse than non-sacred sites

Areas revered by Tibetan Buddhists as sacred sites are richer in both plant numbers and species than neighbouring sites that are not held as sacred. The Medicine Mountains of China's Yunnan Province harbour rare species as well as species with practical significance for Tibetans, such as those used in traditional medicine. While the question remains as to whether people chose more diverse sites in the first place, or whether sacred areas are used less than non-sacred areas, there are clearly conservation opportunities arising from these findings.

Source: *New Scientist* (2005), 188(2527), 18.

Saemangeum destruction given go-ahead

The Seoul High Court has decided that the South Korean Government can resume the Saemangeum wetland reclamation, which is designed to transform large tidal flats off the south-western coast into farmlands and a freshwater reservoir. The 40,000 ha project has generated controversy as the area is one of the most important wetland sites for migrating waterbirds in Asia, with about 400,000 waterbirds annually passing through the wetlands or using them as a staging area. The wetlands also support the highest fish diversity in Korea, and are a vitally important spawning ground. The livelihoods of 25,000 Korean fishermen depend on them. The project to reclaim Saemangeum for rice growing began in 1991. It met with local and international opposition that resulted in a one-year suspension in 2001, before again being suspended in 2003. However by that time around 90% of the sea wall had already been completed. The Korean Government's own expert panel advised that the reclaimed land would be too poor for agricultural use. Campaigners are seeking an injunction to bar the resumption of work and bring the case to the Supreme Court.

Source: http://www.birdlife.org/news/news/2005/12/saemangeum_decision.html

North America

Pollutants transported to the Arctic by seabirds

Freshwater ponds on Devon Island in the Canadian Arctic are being polluted by heavy metals that enter the water from the excrement of northern fulmars *Fulmarus glacialis* nesting on the cliffs above. Researchers found that lakes below cliffs used by fulmars during summer months had 10–60 times more pollutants, including mercury and DDT, than lakes without fulmars. The fulmars accumulate toxins from eating contaminated prey such as squid, and although the birds themselves seem unaffected the poisons are passed on through the food chain. Norwegian studies have also found evidence of a link between migratory bird movement and the transportation of toxins to the Norwegian Arctic. Although wind and sea currents are responsible for most of the pollution in the Arctic, birds may contribute to the formation of pollution hotspots.

Source: *Africa – Birds & Birding* (2005), 10(5), 8–9.

US Senate blocks Arctic drilling

In a 56–44 vote on 21 December 2005 the United States Senate blocked drilling in the Arctic National Wildlife Refuge, at least for the time being. Opening a portion of the refuge to gas and oil exploration has been a goal of US companies for 25 years. Alaska Republican Ted Stevens had attached the measure to the Department of Defense appropriations bill (an essential piece of legislation) in a last minute attempt to push forward the Arctic drilling provision. However, the Senate rejected the measure, with a number of Republican Senators joining 41 Democrats in the vote to protect the refuge. The Arctic National Wildlife Refuge, which has been called America's Serengeti, provides essential habitat for a wide range of wildlife, including polar bears, caribou, musk oxen, wolves and wolverines. Huge number of birds, including Golden Eagles *Aquila chrysaetos*, Snowy Owls *Nyctea scandiaca* and many other species, are also found there. Although the result of the vote is good news, the drilling legislation is likely to be presented again separately to the Senate.

Source: http://www.birdlife.org/news/news/2005/12/arctic_drilling.html

Audubon denounces 'Extinction Bill'

Since its passage in 1973 the Endangered Species Act has successfully protected many Endangered species. Only nine of the 1,800 species listed as Threatened or Endangered have gone extinct since the act has been in existence. However, on 29 September the US House of Representatives voted to pass legislation (HR 3824, dubbed the 'Extinction Bill') that, according to the National Audubon Society, undermines the protection of habitat critical to threatened wildlife. Habitat critical for the recovery and survival of threatened species will no longer be protected. The bill would exempt all pesticide decisions from compliance with the Act for at least 5 years, ignoring the fact that pesticides have been a significant factor in the historic decline of species, including the Bald Eagle, and pose a current problem for many other species. The bill prohibits the Fish and Wildlife Service from using any scientific information about a threatened species that is learned after a conservation plan is completed.

Source: <http://www.birdlife.org/news/news/2005/10/audubon.html>

Lipid-poor diets affect the cognitive abilities of seabirds

A link has been found between the lipid content of fish eaten by young kittiwakes and their cognitive abilities. This may explain the dramatic fall in seabird numbers on the Pribilof Islands in the Bering Sea following a climatic shift that decreased the availability of lipid-rich fish to seabirds. In experiments on captive kittiwakes the ability of young birds to associate the colour of a dish with the presence of food was linked to the nutritional stress suffered by chicks during their development, with individuals fed on a low-energy lipid-poor diet unable to associate colour with the presence of food. This has serious implications for birds that rely on visual clues, such as topographic landmarks, to find food.

Source: *Proceedings of the Royal Society B* (2005) online content

By-catch prevents recovery of the Grand Banks fishery

Despite the 1994 moratorium on cod fishing in the Canadian Grand Banks, cod stocks have failed to recover. A report by WWF has revealed that cod and other commercially valuable species continue to be caught as by-catch, which fishermen are allowed to sell for profit. Fishermen are known to target areas

where accidental by-catch of protected species is likely to occur, with the result that by-catch may constitute 80% of the landed catch. The report estimates that 5,400 t of cod were caught as by-catch in 2003 in the southern Grand Banks, which equates to 90% of the total cod population of that area. WWF is calling on the Canadian government and other members of the Northwest Atlantic Fisheries Organization to take immediate steps to reduce the cod by-catch.

Source: [Http://www.panda.org/news_facts/newsroom/news/index.cfm?uNewsID=23370](http://www.panda.org/news_facts/newsroom/news/index.cfm?uNewsID=23370)

Canadian charged with selling endangered species

A 17 month investigation by the USFWS and the Canadian Wildlife Service resulted in the arrest of a Canadian man in New York. Mark J. Gleberzon has been charged with the possession and sale of endangered species on an internet auction site. The items, which included parts of a sperm whale and a walrus, were sold between October 2002 and May 2005. Mr Gleberzon, who has been charged under both US and Canadian law, faces fines of USD 25,000–150,000 per offence and possible imprisonment for up to 5 years. Source: *Marine Pollution Bulletin* (2005), 50(9), 912.

Black abalone wiped out by withering syndrome

Black abalone, once ubiquitous throughout the intertidal zone from Baja California to Oregon, are suffering from a chronic wasting disease. Previously occurring in densities of 60–80 individuals per m² these shellfish are influential in the distribution of other intertidal organisms such as mussels. Concern about overfishing prompted the closure of California's abalone fishery in 1993 but a bacterial withering syndrome which can wipe out >90% of a population in a matter of months has prevented the abalone's recovery. Recovery in affected populations is slow as abalone reproduce by broadcast fertilization that is ineffective when the shellfish are at low densities. The National Marine Fisheries Service is carrying out a review to assess whether the black abalone qualifies as Threatened or Endangered under the US Endangered Species Act.

Source: *National Geographic News* (2005).

Microhabitat destruction by reptile collectors

A by-product of collection methods employed to catch reptiles in the rocky outcrops of US deserts is the destruction

of cracks and crevices that provide cool microhabitats for reptiles. A recent study in Arizona found a negative correlation between the abundance of specialist rock-dwelling species and the level of microhabitat destruction. Chuckwallas, an especially popular species, were 50% scarcer in heavily disturbed plots. Additionally it was observed that the microhabitats were utilized by a variety of small mammals, amphibians, birds, insects and plants, meaning that collector-mediated habitat destruction may have far-reaching ecosystem effects. It is suggested that tighter control over commercial activities involving reptiles, coupled with a review and regulation of collection methods would lessen pressure on desirable species, while better education of reptile collectors would increase awareness of the vulnerability of whole communities to the damaging activities associated with reptile collection.

Source: *Biological Conservation* (2005), 125, 47–54.

Explosions of insect numbers threaten Mount Graham red squirrel

A study of the Endangered Mount Graham red squirrel *Tamiasciurus hudsonicus grahamensis* in the Pinaleno Mountains, USA, has indicated that insect outbreaks can be disastrous for isolated small mammal populations and result in long-term decline. Over a 10 year period insect outbreaks caused a 35–40% decline in the native conifer trees that the squirrels depend upon for food, shelter and protection from predators. Some insect outbreaks were so severe that squirrels were completely eliminated from those areas. Catastrophic insect outbreaks such as those of the spruce aphid *Elatobium abietinum* are already common and often associated with above average temperatures. Global warming may therefore cause population explosions by insects to become more frequent.

Source: *Biological Conservation* (2005), 126, 491–498.

Rising Yellowstone wolf numbers affect ungulate populations

The reintroduction of wolves *Canis lupus* into Yellowstone National Park is showing signs of changing the Park's ungulate populations. Thirty-one animals were released into the wild during 1995–1996 and by last year the population was 159 individuals. Yellowstone's elk *Cervus elaphus* population has declined by >50% since the reintroduction, as elk are the

main food source for wolves during the winter. No major effects on other ungulate populations have currently been recorded. However it is anticipated that pronghorn *Antilocarpa americana* may benefit in the long term as coyote *Canis latrans* numbers diminish through interspecific competition with the wolves, whereas bison *Bison bison* numbers are predicted to increase as they move into some of the trophic niches vacated by the reduced elk population. Source: *Biological Conservation* (2005), 125, 141–152.

Indirect extirpation of a large mammalian carnivore

A study on the Canada's Anticosti Island has provided what is thought to be the first evidence for the indirect extirpation of a large mammalian carnivore by an introduced herbivore. Black bears *Ursus americanus* were common on the island until the first half of the 20th century, while white-tailed deer *Odocoileus virginianus* were introduced to the island in 1896. It is thought that the deer, whose population increased rapidly, greatly reduced the numbers of berry-producing deciduous shrubs on the island, with the result that the bears were unable to accumulate sufficient body reserves for hibernation and lactation. This study is yet further evidence of the negative impacts of introduced and invasive species on communities.

Source: *Conservation Biology* (2005), 19(5), 1668–1671.

Mexico sees bigger monarch butterfly migration

Good weather is expected to bring a surge in the number of monarch butterflies migrating to Mexico this year, after last year's cold resulted in the lowest numbers in more than a decade. Each autumn tens of millions of monarch butterflies begin arriving in central Mexico's Michoacan state to winter in fir trees after a 4,800 km flight from Canada. At El Rosario reserve, one of five butterfly sanctuaries in Mexico, the insects are expected to occupy far more forest this year than the 2.2 ha they took up last year, which saw the smallest migration in 14 years. After leaving Mexico, it takes three or four generations of monarch butterflies to reach their summer grounds in Canada and the northern USA. The last generation, which has a longer life span, then makes the journey south to Mexico for the winter.

Source: [Http://forests.org/articles/reader.asp?linkid=48477](http://forests.org/articles/reader.asp?linkid=48477)

Central America and Caribbean

Translocation programme aims to help Bermuda petrels recover from hurricane damage

An ambitious translocation programme aims to help the Bermuda petrel or cahow *Pterodroma cahow* recover from the impact of Hurricane Fabian, which destroyed many of its nesting burrows in 2003. Bermuda's Department of Conservation moved 14 cahow chicks from vulnerable low-lying islets to artificial burrows on the larger Nonsuch Island in 2004, with all young fledging successfully. A further 21 birds were moved in 2005, again with 100% fledging success. In total 90–100 birds are to be translocated over a 5-year period. The cahow, thought to be extinct and only rediscovered in 1951, now has a world population of about 250 birds. The real test of the programme's success will come when the translocated chicks have matured and return to their new nesting site.

Source: [Http://www.birdlife.org/news/news/2005/09/cahow.html](http://www.birdlife.org/news/news/2005/09/cahow.html)

Panama Bay IBA joins Western Hemisphere Shorebird Reserve Network

The Upper Bay of Panama is the first site in Central America to join the Western Hemisphere Shorebird Reserve Network (WHSRN), a partnership of organizations working to protect shorebirds and their habitats through a network of key sites across the Americas. The bay was identified as an Important Bird Area (IBA) in 2003. It is also on the Ramsar list of wetlands of international importance. Every year the Upper Bay of Panama is visited by as many as 2 million shorebirds travelling between North and South America via the Isthmus of Panama. Counts of shorebirds along the Panama coast at times exceed 10,000 per km. The site is used by more than 30% of the world female population of Western Sandpiper *Calidris mauri*, and is globally important for at least six other shorebird species. Based on these high migratory bird counts, the area has been recognized as a WHSRN Site of Hemispheric Importance.

Source: [Http://www.birdlife.org/news/news/2005/10/panama_bay.html](http://www.birdlife.org/news/news/2005/10/panama_bay.html)

5-year plan to get St Vincent parrot off Red List

The wild population of St Vincent parrot *Amazona guildingii* numbers 500–600

individuals and is categorized as Vulnerable on the IUCN Red List. It is endemic to the island of St Vincent in the Caribbean. The species is threatened each year by hurricanes, and at more irregular intervals by volcanic eruptions that have drastically reduced numbers over the last century. The bird is also at risk from human activities. Habitat degradation has confined St Vincent parrot to 15% of its original range, and a proposed cross-country road threatens to open up remaining fragments of primary rainforest on which most of the breeding parrots depend. Collectors are ready to pay high prices for this species, and significant numbers of young birds and eggs have been smuggled off the island in recent years. The first species conservation plan for the St Vincent parrot has now been prepared, with three objectives: improve habitat and protect the wild-living birds so that the St Vincent parrot can be removed from the IUCN Red List, establish a captive-breeding population, and enshrine the protection of the species in national legislation and culture.

Source: [Http://www.birdlife.org/news/news/2005/10/st_vincent.html](http://www.birdlife.org/news/news/2005/10/st_vincent.html)

South America

Two new protected areas in Brazil

On the 20 October 2005 Brazil's Ministry of the Environment announced the creation of two protected areas in the state of Santa Catarina. The 12,481 ha Araucárias National Park and the 6,563 ha Mata Preta Ecological Station are both of great importance in protecting remnant forests of the paran  or Brazilian pine *Araucaria angustifolia*. The *Araucaria* pine forest of southern and south-eastern Brazil, a distinctive formation of the Brazilian Atlantic forest, once covered more than 20 million ha but, devastated by the timber industry and clear-cutting, is today reduced to remnants covering a mere 2% of that area. The Brazilian pine has been on the Brazilian threatened species list since 1992.

Source: [Http://www.sbs.org.br](http://www.sbs.org.br)

A new deforestation frontier in Rond nia, Brazil

In the past few decades the Brazilian State of Rond nia has been the destination of many rural migrants, and the synergistic effects of factors such as logging and farming have fuelled deforestation. The total area deforested in the state in 1978 was 4,200 km², whereas 67,764 km²

was deforested in 2003. In response a network of conservation units was created into the 1990s, and the units have been useful in curbing deforestation within their boundaries. However, the units face pressure from the combined activities of illegal loggers, cattle ranchers and small-scale farmers seeking timber and land. For example, an analysis of the rate of deforestation in Rond nia's Bom Futuro National Forest has shown that at the present rate the area will be completely deforested by 2017 unless measures are taken to reverse this trend. Source: *Environmental Conservation* (2005), 32(2), 149–155.

Selective logging in the Brazilian Amazon

Although Amazonian deforestation has been measured by remote sensing for 3 decades, selective logging has mostly been invisible to satellites. However, a large-scale, high-resolution remote sensing analysis of selective logging in the top five timber producing states of the Brazilian Amazon has shown that logged areas ranged from 12,075 to 19,823 km² per year between 1999 and 2002. This is equivalent to 60–123% of the previously reported area of deforestation. Up to 1,200 km² of logging per year was observed on conservation lands. This selective logging doubles previous estimates of the total amount of forest degraded by human activities.

Source: *Science* (2005), 310, 480–482.

Brazil's Atlantic Forest to be covered with chocolate

BirdLife has received USD 2 million of European Union funding for its programme to restore the Atlantic Forest in Brazil's Bahia region. The project combines forest conservation with long-term poverty reduction, aiming to produce shade-grown organic cacao to meet growing international demand for environment-friendly chocolate. The Atlantic Forest once covered 1 million km² of Brazil but has been reduced to isolated fragments, particularly in the north-east where only 2% of the original habitat remains, mostly in southern Bahia, and is largely unprotected. Bahia is the primary cacao (cocoa) growing region in Brazil. The project aims to restore the traditional *cabruca* method, which uses the shade of native forest trees to protect the crop. The scheme will lead to an increase in protected forest, as organic certification requires growers to preserve or restore at least 20% of the forest.

Source: [Http://www.birdlife.org/news/news/2005/09/cacao.html](http://www.birdlife.org/news/news/2005/09/cacao.html)

Displaced vampire bats infect people with rabies in the Amazon

Amazonian deforestation in the Brazilian state of Maranhao is displacing rabid vampire bats from their natural habitat and forcing them into close proximity to humans, with the result that 23 people died from rabies during September–October 2005, and a further 1,300 people were bitten. Outbreaks of rabies in Brazil have been occurring since 1986 but this year has been particularly severe. The problem is exacerbated by the herds of cattle that frequently occupy deforested areas. Artificially large bat colonies are able to thrive on the food supply they obtain from the cattle. Currently the only way to prevent infection is to avoid being bitten, and while mosquito nets are successful in this respect, the poorest people are unable to afford these.

Source: *New Scientist* (2005) breaking news online (3 November 2005).

Domestic chickens threaten Galapagos endemics

Pathogens identified in domestic chickens pose an immediate conservation concern to the native and endemic bird species of the Galapagos islands. Increased poultry production over the last 5–10 years, combined with feral chicken populations and a policy of non-vaccination, present an increasing threat to native species that have little resistance to introduced disease, including lava gulls *Larus fuliginosus* and Galapagos penguins *Spheniscus mendiculus*. Other island ecosystems, such as Hawaii, have already suffered declines in native species as a consequence of the introduction of exotic species linked with infectious disease. While pigeons *Columba livia* are being eradicated on the Galapagos Islands because of potential transmission of pathogens and public health risk, eradication of all chickens is an economic, political and social impossibility.

Source: *Biological Conservation* (2005), **126**, 429–439.

Galapagos Island threatened by another oil spill

Several thousand litres of diesel were released into Academy Bay on the island of Santa Cruz after a tour boat, the Galapagos Explorer, sank while at anchor. A diesel slick travelled across the Bay and ended up amongst mangroves. Cleanup operations were carried out by students and staff from the Charles Darwin Research Station and the Galapagos National Park Service and other local people, using sorbants to remove surface oil. Fortunately there

were no recorded casualties amongst the marine iguanas, sea lions and seabirds. The last oil spills were in 2001 (off San Cristobal), 2002 (off Isla Isabela) and 2003 (in Academy Bay).

Source: *Marine Pollution Bulletin* (2005), **50**(11), 1149.

Cerulean warbler reserve protects Colombian endemics

Part of a newly-identified Colombian Important Bird Area (IBA), also home to at least two Critically Endangered and three Endangered species, is to be protected as a reserve for Vulnerable wintering cerulean warblers *Dendroica cerulea*. Fundación ProAves and the American Bird Conservancy have announced the purchase of land in the Rio Chucuri Basin of Santander, within the Serrania de los Yariguies IBA. Serrania de los Yariguies is one of 14 Colombian IBAs that have been identified as wintering grounds for the cerulean warbler, which also winters at 14 IBAs in Venezuela and two in Ecuador. The cerulean warbler breeds from Quebec and Ontario (Canada), east to Nebraska and south to northern Texas, Louisiana, Mississippi, Alabama and Georgia (USA). It migrates south through the south-eastern USA and Caribbean, and spends its winter mainly east of the Andes in Ecuador, Peru and possibly Bolivia. The species has declined by 26% per decade over 1980–2002.

Source: <http://www.birdlife.org/news/news/2005/09/cerulean.html>

Pale-headed brush finch on the road to recovery

In November 1998 a small colony of about 10 pairs of the pale-headed brush finch were found at Yunguilla, Azuay Province, Ecuador. The species had not been seen since 1969 and was thought to be possibly extinct. The Yunguilla Reserve was created to protect the remnant population, and the number of breeding pairs has now increased. It was found that nest-parasitism by shiny cowbirds was a major problem, and work to reduce the impact of cowbird parasitism over the last 3 years has improved breeding success. By 2004 there were about 30 breeding pairs of brush finches, and this year about 50 pairs, an increase of 80% since the rediscovery in 1989.

Source: *World Land Trust eBulletin*, **34**, December 2005 (<http://www.worldlandtrust.org/>).

Fuel spill on Chilean coast

On 31 October the cargo vessel EIDER, registered in Hong Kong, came aground on the rocky shores of Antofagasta City in northern Chile. A large amount of

diesel was discharged into the sea, along with heavy mechanical lubricant hydrocarbons. About 7 km of coastal shore has been affected by the resulting oil slick. The Chilean authorities have been preventing oil entering small bays, known as *caletas*, using floating booms. Species affected by the slick include Franklin gulls, brown pelicans, several gray, band-tailed and kelp gulls, and red-legged and neotropical cormorants, and green turtles. This stretch of coast is of global importance for Humboldt penguins, Peruvian boobies, brown pelicans, various endemic gull and tern species as well as three species of cormorant (Guanay, neotropical and red-legged cormorant).

Source: <http://www.birdlife.org/news/news/2005/11/chile.html>

Pacific

Philatelic praise for Pacific's parrots and pigeons

Two new sets of stamps have been issued highlighting the diversity of the Pacific's birds. Three sheets have been issued from Nauru. *Threatened fruit-doves of the Pacific* includes illustrations of the Mariana fruit-dove *Ptilinopus roseicapilla*, Cook Islands fruit-dove *Ptilinopus rarotongensis*, Rapa fruit-dove *Ptilinopus huttoni*, atoll fruit-dove *Ptilinopus coralensis*, Henderson fruit-dove *Ptilinopus insularis* and whistling dove *Ptilinopus layardi*. These globally threatened species face threats from invasive, introduced species such as snakes and rats, and from forest destruction. Three new sets have also been issued by the Solomon Islands, commemorating the islands' pigeons, parrots and forest birds.

Source: http://www.birdlife.org/news/news/2005/09/nauru_solomon.html

Australia/Antarctica/New Zealand

Single invading rat avoids capture for 18 weeks

A single Norway rat *Rattus norvegicus* evaded capture for over 4 months after being released on a rat-free island off the coast of New Zealand. The rat was fitted with a radio-collar to study its behaviour and the effectiveness of traditional detection and elimination

methods. Not only did the rat evade conventional detection and trapping techniques, but after 10 weeks on Motuhoropapa Island it swam 400 m across open water to another uninhabited island. Detection rates of the rat on this second island were more successful, although it took a further 8 weeks before it was caught. Single invading rats are disproportionately difficult to eliminate because they display atypical behaviour and baited-traps may be less efficient in the absence of competition for food from conspecifics.

Source: *Nature* (2005), 437(7062), 1107.

Eight New Zealand rivers infested with rock snot

Following a national survey, eight of New Zealand's rivers have been found

to contain the invasive algae didymo. Didymo is a diatom from the Northern Hemisphere that forms large brown mats on river beds when it blooms, giving rise to its alternative name of rock snot. A single drop of water is enough to transfer the organism between water bodies and the presence of didymo is only apparent once blooming is underway. Although didymo has no adverse effects on human health, it is feared that the diatom may have a negative impact on river ecosystems, affecting the food sources of fish and aquatic birds, and on recreation. Biosecurity New Zealand have launched an extensive public awareness campaign to try and halt didymo's spread.

Source: *Biosecurity New Zealand* (2005).

The *Briefly* section in this issue was written and compiled by Elizabeth Allen and Martin Fisher, with additional contributions from Zoe Allen, Chris Bielby, Claire Buchanan, Richard Bull, Iain Bray, Sarah Brook, Guillaume Chapron, Helen Cross, Michael Hoffman, Helen Keeble, Anthony Kiragu, Anthony Rylands, Andrew Symes and Abdul Wakid. Contributions from authoritative published sources (including web sites) are always welcome. Please send contributions to Martin Fisher, Fauna & Flora International, Great Eastern House, Tenison Road, Cambridge, CB1 2TT, UK, or by e-mail to oryx@fauna-flora.org