Briefly

INTERNATIONAL

Database helps prioritize islands to be cleared of invasive species

Newly published research indicates that 41% of the world's highly threatened vertebrates live on islands and two thirds of them overlap with invasive species. The Threatened Island Biodiversity Database documents which of the IUCN Red List's 1,189 Endangered and Critically Endangered vertebrate species occur on each of the world's islands and whether invasive vertebrates, such as rats and cats, occur in the same area. Analysis has revealed that 60% of islands support both highly threatened vertebrates and invasive vertebrate species. Eradication of these invasive alien species could benefit 95% of threatened island species. Sixty-one per cent of all recorded extinctions since the 16th century have occurred on islands, 44% of which have been caused by invasive species. Analysis has facilitated identification of priority areas for conservation, such as Gough Island, which is home to millions of breeding birds threatened by a giant strain of invasive house mice.

Source: BirdLife International (2017) birdlife.org/worldwide/news/new-study-reveals-why-islands-are-our-biggest-extinction-battlegrounds

Raptors hardest hit by wind farms

The first quantitative global assessment of the relative collision vulnerability of species groups with wind turbines has revealed that birds of prey are most vulnerable to collision with wind turbines. Researchers quantified the potential vulnerability of 9,538 bird and 888 bat species globally, taking into account factors such as migratory behaviour and ecology, as well as wind turbine height and capacity. The white-tailed eagle *Haliaeetus albicilla*, golden eagle *Aquila chrysaetos* and griffon vulture *Gyps fulvus* were amongst the most vulnerable species and migratory birds were also found to be highly exposed to the risk of collision, especially where wind farms occur in important flyways. Migration corridors, such as the Central American isthmus from Mexico to Panama, have high concentrations of vulnerable species and researchers emphasize the importance of location, number and size of turbines in reducing the risk of fatal collisions.

Source: BirdLife International (2017) birdlife.org/worldwide/news/new-study-pinpoints-birds-prey-hardest-hit-wind-farms, & *Proceedings of the Royal Society B* (2017) rspb.royalsocietypublishing.org/content/284/1862/20170829

Joining forces to reverse deforestation

The Wildlife Conservation Society, WWF UK and BirdLife International have launched the Trillion Trees programme, a 25-year initiative to protect and restore one trillion trees by 2050. It is estimated that one trillion trees is the number needed to not just halt, but reverse, the global decline in tree cover. Ten billion trees are currently being lost annually but the remaining forests hold more than 45% of terrestrial carbon, are home to two thirds of terrestrial fauna and flora, and support the livelihoods of 1.6 billion people. The three organizations are already independently restoring forests worldwide but it is hoped that the collaborative initiative will enable sharing of knowledge and resources across organizations whilst avoiding duplication of effort. One of the focuses of the programme will be involving corporate actors, as corporate commodity supply chains are collectively linked to 80% of tropical forest loss across Asia, South America and Sub-Saharan Africa.

Source: BirdLife International (2017) birdlife.org/worldwide/news/trillion-trees-three-conservation-giants-join-forces-end-deforestation

Natural World Heritage sites threatened by climate change

A report issued by IUCN reveals that the number of Natural World Heritage sites being damaged and at risk from global warming has almost doubled to 62 in the past 3 years. Increasingly frequent wildfires are damaging monarch butterfly reserves in Mexico and areas of fynbos plants in South Africa. Rising sea levels in the Sundarbans mangrove forest on the delta of the Ganges, Brahmaputra and Meghna rivers have already submerged two islands. Wetland ecosystems, such as the Everglades, are being damaged by influxes of salt water. Australia is highly vulnerable to global warming and has 10 Natural World Heritage sites where climate change is rated as a high or very high risk, including the Gondwana rainforests, Shark Bay in western Australia and islands such as Fraser and Macquarie. Invasive species have also been identified by the report as one of the leading threats to the world's Natural Heritage sites.

Source: The Guardian (2017) theguardian.com/environment/2017/nov/13/from-the-everglades-to-kilimanjaro-climate-change-is-destroying-world-wonders

Seagrass meadows vital to livelihoods worldwide

Seagrass meadows are found around every continent except Antarctica and new research reveals their importance to fishing worldwide. Seagrass meadows cycle nutrients, stabilize sediments and act as carbon sinks and also provide food and habitat for many marine species. After interviewing experts and gathering data from case studies in the Philippines, Zanzibar, Indonesia, the Turks and Caicos Islands and locations in the Mediterranean, researchers found that across all these regions fishers actively target seagrass meadows and recognize their productivity. Both small-scale recreational fishers and large-scale commercial fishers harvest species of crab, shrimp, clam and fish including mullet, herring and snapper, from seagrass meadows. The study emphasized the multitude of people worldwide that rely on catch from seagrass meadows for their daily protein intake and note that action is needed to conserve nearshore waters as seagrass meadows are threatened by agricultural and urban run-off.

Source: BBC News (2017) bbc.co.uk/news/science-environment-42028699

Just 20% of the earth's surface now survives as wilderness

According to research from the University of Queensland, 10% of the earth's wilderness has been lost due to human pressure in the past 2 decades. Since 1992 3 million km^2 of wilderness has been lost. One third of the Amazon wilderness region has been lost since 1992 and, according to the study, conservation efforts are being outpaced by the decline, which is fuelled by massive global population and economic growth. Areas of untouched wilderness still exist in the deserts of Central Australia, the Amazon rainforest in South America, Africa, the Tibetan plateau in Central Asia and the boreal forests of Canada and Russia, but these remaining areas are under pressure from logging, oil and gas exploration, mining, infrastructure development and agriculture. Researchers urge conservationists to focus on these as-yet untouched areas of wilderness as, once the wilderness has been lost,

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biodiversity, livelihoods and ecological processes are all at risk.
Source: The Guardian (2017) theguardian.com/environment/2017/dec/21/losing-the-wilderness-a-tenth-has-gone-since-1992-and-gone-for-good

Latest IUCN Red List update reveals impact of human activity...
Assessment of 91,523 species has found 8,455 are Endangered, 5,583 Critically Endangered and 866 are Extinct. Australia's Vulnerable western ringtail possum has been reclassified as Critically Endangered after a population decline of 80% over the past decade. The species is sensitive to heat stress at temperatures above 35 °C, an increasingly common phenomenon, and can now only be found in a few fragmented peppermint and eucalyptus forests in Western Australia, where it used to be widespread. Three species of wild rice, along with two of wild wheat and 17 types of wild yam have been listed as threatened as a result of deforestation, urban expansion and pressures from intensive agriculture. Fishing practices have caused the Irrawaddy dolphin and finless porpoise to be reclassified as Endangered. Three reptile species on Christmas Island—the whiptail-skink, the blue-tailed skink and Lister's gecko—have been declared Extinct in the Wild (see also *Oryx*, 2018, 52, 171–174).
Source: The Guardian (2017) theguardian.com/environment/2017/dec/05/red-list-thousands-of-species-at-risk-of-extinction-due-to-human-activity

... and state of the world's birds
Of the 11,122 bird species currently recognized by BirdLife International and IUCN, 13% are globally threatened (Vulnerable, Endangered or Critically Endangered on the IUCN Red List). Twenty-eight per cent of the 238 bird species reassessed for the latest Red List update have been downgraded to a lower threat category but 26% have been assigned higher threat categories. Populations of the yellow-breasted bunting *Emberiza aureola* have declined by more than 80% since 2002, in part because of large-scale hunting of songbirds in China, and in 2017 the species was uplisted from Endangered to Critically Endangered. In New Zealand, rapid population declines have resulted in the uplisting of the kea *Nestor notabilis* from Vulnerable to Endangered; 60% of kea nests are devastated by introduced mammalian predators every year but use of poison bait to control these predators is a risky business as kea populations are habituated to receiving food from tourists and their curiosity can cause them to eat the poisoned bait.
Source: BirdLife International (2017) birdlife.org/worldwide/news/red-list-2017-seabirds-starving-songbirds-trapped-hope-pelican-and-kiwis

Snowy owl classified as Vulnerable for the first time...
Until recently the snowy owl *Bubo scandiacus* was categorized as Least Concern on the IUCN Red List, with an estimated global population of 200,000 and no evidence of significant decline. Recent research suggests that the snowy owl has a more fragmented distribution than previously thought, in seven loose agglomerations. The species' range and population fluctuate in response to prey availability but it is now estimated that in poor years the global population could drop as low as 5,000 pairs. There are thought to be approximately 14,000 pairs of snowy owls globally but the population could be undergoing high rates of decline as a result of illegal hunting, and collisions with vehicles and power lines. Climate change is also expected to alter snow cover and prey availability. As a result of these revised numbers and rapid rates of decline the species has been uplisted to Vulnerable.
Source: BirdLife International (2018) birdlife.org/worldwide/news/snowy-owl-faces-frosty-future-classed-vulnerable-first-time

... but good news for pelican populations in Europe
Long-term conservation efforts have been rewarded as numbers of the Dalmatian pelican *Pelecanus crispus* have increased fourfold in Europe since the 1990s. Under a dedicated Species Action Plan, and the protection of the European Union's Birds and Habitats Directives, crucial breeding sites in Greece, Romania and Bulgaria have been conserved. After the floating nesting rafts used by pelicans on Lake Skadar, Montenegro, were cordoned and monitored to protect birds from disturbance, the population had their most successful breeding season ever, raising 60 chicks. The European population is increasing; in Greece, populations have risen by almost 200% in under 20 years. The species relies on full-time conservation management for breeding success in some wetlands in Europe however, as they are highly sensitive to disturbance, and the current status of the Central Asian population remains unclear.
Source: BirdLife International (2017) birdlife.org/worldwide/news/red-list-2017-seabirds-starving-songbirds-trapped-hope-pelican-and-kiwis

Not enough time for reefs to recover between bleaching events
Analysis of bleaching records at 100 globally distributed reef locations from 1980 to 2016 has shown that the median time between periods of severe bleaching is now only 6 years whereas in the 1980s similar events were 25–30 years apart. Prior to global warming, coral bleaching events were relatively rare and localized but the frequency of bleaching events is now stripping reefs of their ability to recover fully. It can take at least a decade for a reef to recover from coral bleaching but without a sufficient interval between events, and as temperatures continue to rise, mass mortality of corals is becoming more common. Tropical sea surface temperatures are warmer during current La Niña conditions, the cooler counterpart to El Niño, than they were during El Niño events 30 years ago. 2016 and 2017 marked the first-ever consecutive annual bleaching events on the Great Barrier Reef and as temperatures rise, bleaching events are more likely in all El Niño–Southern Oscillation phases.
Source: Mongabay (2018) news.mongabay.com/2018/01/reef-bleaching-five-times-more-frequent-now-than-in-the-1980s-study-finds/, & *Science* (2018) science.sciencemag.org/content/359/6371/80

Nations agree to ban fishing in the central Arctic Ocean
After 2 years of negotiation, nine nations and the European Union have agreed to place the central Arctic Ocean off limits to commercial fishers for at least the next 16 years. The agreement includes not just nations with coastal claims in the Arctic, but nations such as China, Japan and South Korea with fishing interests in the newly protected 2.8 million km² area of international waters. Thick ice and uncertain fish stocks have kept commercial fishing vessels out of the central Arctic Ocean but in recent summers as much as 40% of the this Ocean has been open water. Without protection these high seas would be open to unregulated but legal fishing. Countries involved in the deal have agreed a joint programme of scientific research and monitoring to identify species abundance, as well as threats to these species, and existing predator–prey relationships in the central Arctic Ocean.
Source: Science (2017) sciencemag.org/news/2017/12/nations-agree-ban-fishing-arctic-ocean-least-16-years

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EUROPE

European ferns highly threatened

The first assessment of the extinction risk of all 194 European lycopod and fern species has found a fifth of these ancient species are at risk of extinction, with the same proportion showing a declining trend. Lycopods and ferns are essential to healthy ecosystems and date back to over 400 million years ago but are now the most threatened plant group of those assessed so far in Europe. Species are primarily threatened by habitat fragmentation as a result of urbanization, and pollution from agricultural waste. According to the report, aquatic species are more at risk than terrestrial species and the Critically Endangered Piedmont quillwort *Isoëtes malinverniana* has declined by more than 80% in the last 30 years, mainly as a result of pollution from inappropriate irrigation channel management.
Source: IUCN (2017) iucn.org/news/europe/201710/ancient-ferns-highly-threatened-europe-–-iucn-red-list

Scotland to ban plastic-stemmed cotton buds

Scotland's waste treatment systems are not designed to remove small plastic items such as plastic-stemmed cotton buds and a recent clean-up operation run by the environmental charity Fidra has found hundreds of buds on Gullane beach in Scotland. Plastic buds can be found on shorelines across the globe and, if swallowed, can kill marine animals and birds. Many large retailers have now switched to biodegradable paper-stemmed cotton buds but imported plastic brands continue to be sold by smaller outlets and, despite campaigns, these buds are still being flushed down toilets. The Scottish government has announced plans to ban the manufacture and sale of plastic-stemmed cotton buds, a move which could make Scotland the first country in the UK to impose an outright ban on the product.
Source: The Guardian (2018) theguardian.com/uk-news/2018/jan/11/scotland-to-become-first-uk-ban-plastic-cotton-buds

Bid to save rare freshwater pearl mussel in Wales

Numbers of the Endangered freshwater pearl mussel *Margaritifera margaritifera* have been in decline for decades, with many non-recruiting subpopulations. In Welsh rivers, where the long-lived mussels were once abundant, evidence suggests that they have not reproduced successfully for the last 50–60 years. They need rivers with clean, well-oxygenated water and stable gravels. To address the decline a breeding programme is being run by Natural Resources Wales in a hatchery in Brecon, where experts have been able to adopt a technique pioneered in places such as Norway and Luxembourg to rear mussels using tubs with sediment and algae. So far, 1,300 juvenile mussels have been grown, and they are now a few millimetres long. It is hoped that within 12–18 months they will be capable of filter feeding and ready for controlled release into Welsh rivers, although suitable release sites have yet to be identified.
Source: BBC News (2018) bbc.co.uk/news/uk-wales-42534615

Five-year conservation plan launched for Northern Ireland bogs

A 5-year conservation project is set to preserve hundreds of acres of bog and improve habitats for wildlife in Northern Ireland. The EU-funded project will see work done in three protected areas of counties Antrim and Fermanagh, including the blocking of drains and introduction of controlled grazing on the Garron Plateau. These measures will help restore the area and improve habitats for the marsh fritillary butterfly, birds like hen harriers, curlews and cuckoos, and plants like marsh saxifrage and Irish lady's-tresses orchids. Northern Ireland Water owns and manages the site, and hopes the conservation work will improve the quality of raw water it takes from the area. RSPB Northern Ireland is the lead partner in the project, the biggest it has ever undertaken. Projects in Scotland and the Republic of Ireland will also benefit. In total more than 2,000 ha of bog will be improved.
Source: BBC News (2017) bbc.co.uk/news/uk-northern-ireland-42287042

The birds and the bees: wildflower planting on farms boosts bird and insect populations

Intensive agriculture has caused numbers of farmland birds the UK to decrease by more than 50% since 1970. However, new research shows that planting wildflowers and protecting nests on farms enables birds to bounce back rapidly from long-term declines. Researchers assessed bird numbers between 2008 and 2014 at more than 60 farms in three UK regions. Farms enrolled in the Higher Level Stewardship scheme sowed seed-rich plants and wildflowers, which support insects and in turn birds, left patches of fields fallow for birds, and avoided hedgerow cutting when birds were nesting. These farms increased farmland bird numbers significantly. However, the success varied widely between different bird species, and the researchers also found that more land than currently covered by environment schemes would have to be treated in the same way to halt the loss of farmland birds.
Source: The Guardian (2018) theguardian.com/environment/2018/jan/03/wildflower-planting-on-farms-boosts-birds-from-skylarks-to-starlings

Reintroduced red squirrels flourishing in Scottish Highlands

Throughout 2016 and 2017 the conservation charity Trees for Life relocated over 80 red squirrels across the north-west Highlands of Scotland, and early signs show that the population has expanded. Red squirrel numbers have dropped dramatically as a result of competition with introduced grey squirrels, which have larger appetites and are less susceptible to disease than native red squirrels. In 2007 just 25,000 red squirrels could be found throughout the UK after a one-time high of 3.5 million but the newly introduced red squirrels in the north-west Highlands have now been seen breeding in their new homes. The squirrels have been sighted up to 15 km away from their release sites and this expansion into new areas is a promising sign as the red squirrels appear to be naturally recolonizing.
Source: The Guardian (2017) theguardian.com/environment/2017/nov/06/red-squirrels-successfully-established-in-scottish-highlands

England's only resident population of bottlenose dolphins identified

Analysis of 3,843 records from the south-west of England between 2007 and 2016 has identified a distinct group of bottlenose dolphins that are resident throughout the year. The unique shape and markings of a dolphin's dorsal fin allowed individual identification of 98 bottlenose dolphins from a large number of data sources, and 28 dolphins were found to be present year-round. Dolphins are wide-ranging species but this new research could prompt conservation activities as the UK's other two resident bottlenose dolphin populations in the Moray Firth in Scotland and Cardigan Bay in Wales are under protection. Bottlenose dolphins in the south-west are threatened by pollution from plastics and chemicals, disturbance from recreational activities and injury from fishing nets. For conservation of the species to progress, further research is needed on the movements and behaviour of the group, which lives in the shallow coastal waters of Cornwall, Devon and Dorset.

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Source: The Guardian (2017) theguardian.com/environment/2017/dec/20/bottlenose-dolphins-giving-england-the-fins-up-all-year-round-research-shows

Climate change alters UK's bird life

The 2017 State of the UK's Birds report outlines the impacts of climate change on Britain's bird life. Average temperatures in the UK have increased by almost 1 °C in recent decades and as a result migratory birds are arriving and breeding earlier than in the 1960s. Warming temperatures have caused swallows to delay their migration to Africa by 4 weeks and, whilst the great tit is a full-time resident in the UK, it now lays its eggs 11 days earlier than 40 years ago. Some short-distance migratory birds have given up their migrations altogether in favour of the UK's increasingly warm and wet winters and rising temperatures have more than doubled breeding numbers of blackcaps and chiffchaffs since 1970. For species adapted to cooler climates, global warming could pose a risk of extinction. The dotterel, whimbrel and common scoter have all experienced significant population declines.

Source: The Guardian (2017) theguardian.com/environment/2017/dec/05/climate-change-is-radically-reshuffling-uk-bird-species-report-finds

Germany's former death zone now a haven for wildlife...

In 2017 the German Federal Environment Foundation honoured the Green Belt conservation project with its yearly prize. The Green Belt, a strip of land 1,400 km long and up to 200 m wide, was once part of the border separating East and West Germany. For almost 40 years access to the area was highly restricted, and it has remained relatively undisturbed in the nearly 3 decades since reunification. The Green Belt is now home to > 1,200 threatened species, including rare orchids such as the lady's slipper, birds such as the black stork, red-backed shrike, whinchat, corn bunting and the European nightjar, and also to aquatic species such as dragonflies and the European tree frog. The success of the German project has inspired the large-scale European Green Belt project, covering 12,500 km, on which 150 conservation organizations throughout Europe are now working.

Source: euronews (2017) euronews.com/2017/12/30/germany-s-green-belt-was-death-zone-during-cold-war-n824091, *Deutsche Welle* (2017) dw.com/en/german-environmental-prize-from-death-zone-to-nature-reserve/a-40399243, & *DBU* (2017) dbu.de/2547.html

... but insect populations across the country have plummeted

According to a new study insect populations in Germany have plummeted by > 75% in 3 decades. Researchers from Germany, the Netherlands and the UK have measured total insect biomass using Malaise traps, deployed over 27 years in 63 nature protection areas, and found that the decline is apparent regardless of habitat type. Changes in weather, land use, and habitat characteristics cannot explain the overall trend, and the scientists speculate that intensive agriculture surrounding the nature reserves has played a role, but they don't have data on factors such as pesticide use in neighbouring fields. The loss of insects is certain to have adverse effects on ecosystem functioning, as they play a central role in pollination, herbivory and detrivory, nutrient cycling and providing a food source for higher trophic levels such as birds, mammals and amphibians.

Source: Science (2017) sciencemag.org/news/2017/10/germany-s-insects-are-disappearing, & *PLoS ONE* (2017) journals.plos.org/plosone/article?id=10.1371/journal.pone.0185809

Carnivore controversy as Germany's wolf population on the rise...

Researchers found 60 packs of wolves *Canis lupus* living across Germany in 2017, 13 more than the year before. There are now 150–160 adult wolves in the country, most of them in the eastern states of Brandenburg and Saxony. Wolves were extinct in the wild in Germany at the end of the 19th century but in 2000 wolves from expanding populations in Poland moved west and crossed the German border. Although a growing population is seen as positive by conservation organizations, conflicts regularly arise with farmers who fear for their flocks and argue that shooting wolves should be allowed to control their numbers and protect livestock. From May 2016 to April 2017 five wolves were reported to have been killed illegally. Road traffic, however, remains the biggest danger to the animals: 140 of the c. 200 wolves that died since 2000 were victims of road accidents.

Source: Deutsche Welle (2017) dw.com/en/germanys-wolf-population-on-the-rise-new-data-shows/a-41503395

... a sighting of a wolf in Belgium has been welcomed...

The last country in continental Europe to have wolves return is Belgium. A wolf was spotted in January 2018 in Flanders after having previously been seen in the Netherlands. The individual was identified as having come from Germany by its electronic tracking collar. It was the first time in over 100 years that a wolf has been found in the country; environmental groups have welcomed the news as they consider wolves to be important keystone predators who control prey species populations such as deer, which can cause positive effects for other animals, plants, and even the landscape in which they are reintroduced. Conservationists are asking the government to further encourage the wolves' return and to implement a system in which farmers whose livestock is killed by wolves are compensated.

Source: ZME Science (2018) zmescience.com/ecology/animals-ecology/wolf-spotted-belgium-first-time-100-years/, & *AFP* (2018) phys.org/news/2018-01-wolf-northern-belgium-years.html

... and French farmers are alarmed by the arrival of jackals

In December 2017 a camera trap activated by a motion sensor captured an image of a golden jackal *Canis aureus* in Savoy near France's eastern border with Switzerland, the first sighting of the species so far west in Europe. Jackals are normally found in south-eastern Europe, Asia and Africa, but their range has expanded north and west in recent years. Like wolves, which returned to France in 1992, the jackal had crossed the Alps. Wolves have spread rapidly in the country and now officially number 360. They killed > 10,000 sheep and other livestock last year and the government has authorized the cull of up to 40 wolves nationwide by July 2018. Jackals are smaller than wolves and less likely to attack sheep but farmers want to be allowed to hunt them as they fear that they will kill lambs and poultry. Conservationists are calling for new legislation to protect jackals in the same way as wolves.

Source: The Telegraph (2017) telegraph.co.uk/news/2017/12/19/jackal-recorded-first-time-near-swiss-border/

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NORTH EURASIA

Canine Distemper Virus confirmed in Amur leopard

The Amur or Far Eastern leopard *Panthera pardus orientalis,* is one of the world's rarest big felids. An estimated 80 Amur leopards live along the border of the Russian Far East and neighbouring north-east China, and a leopard in the Russian territory of Primorskii Krai has recently been found to be infected with Canine Distemper Virus (CDV), a disease well known in domestic dogs that also infects a wide range of carnivore species. This is the first documented case of CDV in a wild Amur leopard. The virus is likely to spread relatively slowly among solitary cats like leopards and tigers but even infrequent transmission could threaten the small breeding populations of Amur leopards. Research has estimated that extinction of small populations of tigers is 65% more likely when they are exposed to CDV. Conservationists are attempting to identify the source of the virus, to target vaccinations and other interventions.
Source: WCS (2018) newsroom.wcs.org/News-Releases/articleType/ArticleView/articleId/10948/Canine-Distemper-Confirmed-in-Far-Eastern-Leopard-Worlds-Most-Endangered-Big-Cat.aspx

Khulan reintroduction in Kazakhstan

As a result of illegal hunting and habitat loss the population of Turkmenian kulan *Equus hemionus kulan* has significantly declined and the species has disappeared entirely from some areas. The kulan is native to Central Asia and was commonly found in the deserts, deltas and steppes between northern Afghanistan, southern Siberia and western China. In 2016 the species was categorized as Endangered on the IUCN Red List but conservationists are working to restore the natural ecosystems of the central Kazakhstan steppe. The majority of the world's largest population of Turkmenian kulan reside in Altyn Emel National Park but the Park is struggling to cope with the herd's growth. Individuals from this herd have now been translocated to two state nature reserves in the Turgai steppe in central Kazakhstan, an area where they previously existed, and the group of nine animals will be released from their purpose-built centres in spring 2018.
Source: BirdLife International (2017) birdlife.org/europe-and-central-asia/news/coming-home-kulan-central-kazakhstan

NORTH AFRICA AND MIDDLE EAST

New ibis breeding sites discovered in Morocco

During the 2017 breeding season two new northern bald ibis *Geronticus eremita* breeding sites were discovered by researchers, on two distinct coastal cliffs north of Tamri in south-west Morocco. Disturbance of nest sites, range reduction, hunting, and poisoning from pesticides had resulted in an all-time population low in 1997, with just 59 breeding pairs remaining. Today almost all remaining wild northern bald ibis are restricted to Morocco, having once ranged across North Africa, the Middle East and Europe. GREPOM, BirdLife in Morocco, have employed rangers to prevent disturbance of vital ibis colonies at Souss-Massa National Park and Tamri and it was thanks to these efforts that adult northern bald ibis were recorded incubating at three new confirmed active nests, totalling a new record of 122 wild breeding pairs. The global population of wild northern bald ibis has now reached 600 birds for the first time in modern history.
Source: BirdLife International (2017) birdlife.org/worldwide/news/important-new-breeding-sites-mythical-ibis-discovered

Trafficked frogs returned to the wild

7,500 frogs have been released into the wild after Turkey's gendarmerie captured five poachers involved in one of the largest frog trafficking operations in the country. Turkey issues licenses for the hunting of frogs but only during certain seasons, and some endemic or threatened species cannot be legally traded. The frogs were taken from the basin of the Kızılırmak river, without a license and outside of permitted hunting areas. The Kızılırmak delta and wetlands are among the most ecologically diverse regions in Turkey, with >350 bird species and 560 plant species. The frogs have been released but the export of edible frogs to markets in France and China remains a lucrative option for poachers in Turkey.
Source: The Guardian (2017) theguardian.com/world/2017/oct/18/replenish-the-swamp-turkey-returns-7500-trafficked-frogs-to-the-wild

SUB-SAHARAN AFRICA

Concern continues despite decline in elephant poaching

A recent report issued by CITES reveals that elephant poaching in Africa has declined for the fifth year in a row, and in east Africa, where elephant populations have nearly halved in a decade, illegal killing has fallen to pre-2008 levels. In southern Africa elephant numbers are stable or increasing but in central Africa, a hotspot for poaching, illegal killing remained high in 2016. Global illegal ivory trade transactions remained as high as in previous years but this could be because traffickers were quickly selling stock in response to domestic bans. Seizures of large-scale illegal ivory shipments were at a record high in 2016, possibly a result of greater levels of enforcement, a time lag between poaching and trafficking, or stockpiles entering the illegal trade. Although notable progress has been made, on average 55 elephants are still killed per day, and in areas of central Africa poaching continues unabated.
Source: The Guardian (2017) theguardian.com/environment/2017/oct/24/elephant-poaching-drops-africa-but-populations-continue-to-fall

West African dolphin now listed as one of Africa's rarest mammals

A recent assessment of the Atlantic humpback dolphin *Sousa teuszii* has resulted in the species being uplisted from Vulnerable to Critically Endangered on the IUCN Red List. The Atlantic humpback dolphin rarely ventures more than a few kilometres from the shore and is extremely vulnerable to hunting and being caught as bycatch in fisheries. The species is poorly studied but the global population is likely to number $<1,500$ breeding adults, distributed among small, isolated subpopulations. The presumed range of the Atlantic humpback dolphin stretches $>7,000$ km along the coastal areas of Western Sahara to central Angola but appropriate management interventions that limit habitat loss, bycatch and hunting are minimal across most of this range. Declines have been observed, or suspected, for every known population and without appropriate management these declines are expected to continue.
Source: WCS (2017) newsroom.wcs.org/News-Releases/articleType/ArticleView/articleId/10842/West-African-Dolphin-Now-Listed-As-One-of-Africas-Rarest-Mammals.aspx

Military-trained rangers bring elephants back from the brink in Chad

Zakouma National Park in Chad holds one of the largest single herds of elephants in Africa but the park has lost 90% of the 22,000 elephants it had in the mid 1970s. War with Libya and the increasing demand

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for ivory reduced the population to 4,300 by the early 2000s, and civil war cut that to < 500 by 2010. Janjaweed mercenaries from Dafur, in western Sudan, pose the greatest threat to the Park's rangers and elephants as they are military-trained and heavily armed. In response, African Parks, a private non-profit organization now managing the Park, has provided military training to rangers and established a network of radios in the surrounding villages as an early warning system. Zakouma hasn't lost an elephant in 18 months, or a ranger in 5 years, and although in 2013 there was only one elephant under 3 years old in the park, there are now 85.
Source: BBC News (2017) bbc.co.uk/news/world-africa-42367560

Sustainable harvesting of papyrus boosts income and protects wetland

The Mara Wetland in Tanzania is a swamp dominated by papyrus *Cyperus papyrus*, which provides one of the few sources of free, accessible income in the area. Papyrus is mainly harvested by women as they own neither livestock nor land for farming and therefore have the most difficulty earning income. Illegal fishing and bush fires were devastating the wetland's biodiversity but, by working with local conservation groups, BirdLife International has now established two Weavers Groups in the area, designed to empower local communities to both benefit from and sustainably manage their wetland resources. Six women and six men from the Weavers Groups attended a 6-day project in which they were trained to produce > 26 different papyrus products and harvest raw papyrus sustainably. On their return, the representatives shared their knowledge with 30 Group members and raised awareness of the importance of papyrus and the wetland among the wider community.
Source: BirdLife International (2017) birdlife.org/africa/news/sustainable-use-papyrus-saves-wetlands-and-boosts-income

New Ramsar site in the Democratic Republic of Congo

One of the world's largest wetland protected areas has been established in the Democratic Republic of Congo. Covering almost 4.5 million ha the Lufira Basin has been designated a wetland of international importance under the Ramsar convention. The area includes Africa's highest waterfall, four national protected areas and a network of rivers, lakes, floodplains and swamp forests. The new Ramsar site is the fourth in the Democratic Republic of Congo and brings the country's total area of wetland under protection to almost 12 million ha. Earlier in 2017 the largest transnational Ramsar site, Lac Télé Lac Tumba, was also announced, unifying wetland protected areas in the Democratic Republic of Congo and the Republic of Congo. Lac Télé Lac Tumba is home to the largest tropical peat bog in the world, which stores up to 30 billion tonnes of carbon.
Source: WWF (2017) wwf.panda.org/wwf_news/?316910/New-protected-area-in-Congo-basin-is-bigger-than-Switzerland

SOUTH AND SOUTH-EAST ASIA

Pakistan's population of Endangered Indus river dolphin on the rise

A month-long survey conducted by WWF has estimated that there are now 1,816 Endangered Indus river dolphins in Pakistan. Community-based conservation efforts have been credited with helping the population increase from the 1,200 dolphins estimated in 2001. The species, otherwise known as the blind dolphin, is confined to just 20% of its natural range because of the construction of dams and barrages. Dolphins also get stranded in irrigation canals and caught as bycatch in fishing nets. The Indus river dolphin is now found mainly in Pakistan, except for an isolated population of c. 30 individuals in India's Beas River. Since 1992 WWF–Pakistan and the Sindh Wildlife Department have successfully rescued and released 131 dolphins from irrigation canals and have established a dolphin monitoring network in collaboration with local communities. The active participation of communities along the Indus River has been critical for successful conservation of the species.
Source: WWF (2017) wwf.panda.org/?uNewsID=318636

South Asia's first-ever release of captive-reared Critically Endangered vultures

In November 2017 six Critically Endangered white-rumped vultures were released into a provisional vulture safe zone cleared of diclofenac, with the aim of boosting wild populations. The release is the culmination of efforts by Bird Conservation Nepal and RSPB working as part of the Saving Asia's Vultures from Extinction consortium. Undercover surveys of pharmacies in the provisional safe zone have found no diclofenac in the last 4 years and surveys of vulture populations have shown that the declines have slowed and possibly reversed. Six young vultures have been tagged and released into this area and the solar-powered satellite tag attached to each bird will track their movements and allow the team to assess how the captive-reared birds behave in the wild. Data from tagging will also enable any deceased vultures to be recovered and the cause of death investigated, to prevent more vultures dying from that cause.
Source: BirdLife International (2017) birdlife.org/worldwide/news/big-moment-nepal-releases-its-first-ever-captive-reared-vultures

Over 100 new species found in the Greater Mekong region

A report published by WWF has confirmed that in 2016 scientists identified 115 new species in the Greater Mekong region. Among the new species is the Vietnamese crocodile lizard *Shinisaurus crocodilurus vietnamensis*, which lives in freshwater and forest habitats of south China and northern Vietnam. A snail-eating turtle *Malayemys isan* was identified in a market in north-east Thailand, a mountain horseshoe bat *Rhinolophus monticolus* in the forests of mountainous Laos and Thailand and two moles *Euroscaptor orlovi* and *Euroscaptor kuznetsovi* in a network of streams and rivers in northern Vietnam. More than 2,500 species have been discovered in the past 20 years and these discoveries highlight the rich biodiversity of the Greater Mekong and the importance of conserving this region. Many of the newly identified species are already threatened by poaching, the illegal wildlife trade, habitat destruction and the creation of new infrastructure.
Source: The Guardian (2017) theguardian.com/environment/2017/dec/19/crocodile-lizard-one-115-new-species-found-greater-mekong

Bee-mimicking moth rediscovered after 130 years

The oriental blue clearwing *Heterosphecia tawonoides* was previously only known from a damaged specimen collected in 1887 but genetic analysis of four individuals has confirmed that the species has been rediscovered in Malaysia's lowland rainforest. The oriental blue clearwing is a generalized mimic of a number of bee species, displaying striking blue colours similar to many species of bee extant in Malaysia. The moth was seen alongside the bees it mimics, collecting salts and minerals from damp areas of a national park. The moth has also been seen in unprotected parts of the rainforest and on field trips in 2013, 2016 and 2017 just 12 moths were observed and

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filmed. Researchers are stressing the importance of cataloguing the species as Malaysia has one of the highest rates of deforestation in the world and the country's palm oil plantations doubled in size between 2000 and 2012.
Source: The Guardian (2017) theguardian.com/environment/2017/dec/15/lost-species-of-bee-mimicking-moth-rediscovered-after-130-years

New species of orangutan formally identified

After decades of unconfirmed reports, genetic analysis of a male orangutan skeleton has revealed a distinct species of orangutan, now described as *Pongo tapanuliensis*. The new species has a smaller head, flatter face and frizzier hair than that out of other orangutans in Sumatra or Borneo and is also distinct in genetics and behaviour. The species is known only from a population estimated at <800 individuals in the Batang Toru forest in western Sumatra, and may already be under threat. Much of the Tapanuli orangutan's habitat is protected but a proposed hydroelectric dam on the Batang Toru river would flood part of the area and divide the population in two. Researchers warn that this could bring more people to the area, potentially increasing hunting pressure, and would diminish the gene pool of an already inbred population. Conservation groups are working with government officials to find an alternative site for the project.
Source: Nature (2017) nature.com/news/newly-discovered-orangutan-species-is-also-the-most-endangered-1.22934

Illegal trade threatens Critically Endangered pangolin in Indonesia

A recent TRAFFIC report mapping Indonesian pangolin seizures has found that 35,632 pangolins were seized in 111 enforcement cases between 2010 and 2015. The volume of pangolins and parts seized annually between 2010 and 2015 ranged from the equivalent of 2,436 to 10,857 pangolins per year. Domestic seizures accounted for 83% of the 111 cases studied and authorities identified or arrested a minimum of 127 suspects linked to those cases. Trade in wild-caught Sunda pangolins *Manis javanica*, the country's only species of pangolin, is prohibited under domestic law but despite efforts by the Indonesian government to tackle illegal trade, the species remains under intense pressure from poaching. Indonesia acts mainly as a source country for pangolins, with illegal trade destined for China and Viet Nam. Sumatra is a major collection site, and Malaysia was identified as the most prominent transit country in the movement of pangolins from Indonesia.
Source: TRAFFIC (2017) traffic.org/home/2017/12/21/illegal-trade-hammering-critically-endangered-sunda-pangolin.html

EAST ASIA

Experts warn that Japan's ivory market must close

A report compiled by TRAFFIC and WWF reveals 2.42 tonnes of ivory, including elephant tusks, antiques and jewellery items, was illegally exported from Japan during 2011–2016. Experts have condemned inaction by Japan's government, which has allowed the smuggling of undocumented ivory overseas, mainly to China, potentially undermining China's forthcoming ban on the domestic trade of ivory. Almost 95% of illegal ivory exports from Japan go to China, and in the same period that 2.42 tonnes of ivory was exported from Japan, the country's illegal ivory imports totalled just 43 kg. Japan's domestic legislation does not regulate ivory trade between individuals, except in cases where tusks are concerned, and inadequate regulation of illegal trade has allowed Japan to become a major source for illegal ivory bound for markets in East Asia. Very few illegal consignments are seized in Japan and online sales are posing a major problem for law enforcers.
Source: TRAFFIC (2017) traffic.org/home/2017/12/20/traffic-study-japans-ivory-market-must-close.html, & *The Guardian* (2017) theguardian.com/environment/2017/dec/20/japan-inaction-on-illegal-ivory-exports-threatens-chinese-ban-report-says

NORTH AMERICA

Narwhals' response to stress could harm their survival

In 2014 a team used suction cups to attach heart-monitoring electrodes to narwhals *Monodon monoceros* in Greenland and found that they have a highly surprising response to stress. Narwhals lower their heart rate as they dive, to extend their oxygen supply, but researchers expected heart rates of tagged animals to increase after release as the whales' muscles would need more oxygen to flee faster. Data from five narwhals revealed that they combine the two responses, making deep, rapid dives after release but also lowering their heart rates to as low as 3–4 beats per minute. This puts a dangerous amount of pressure on their cardiovascular system and an escape dive used up to 97% of a narwhal's oxygen stores, compared with just 52% for other dives. Conservationists are concerned that this unique freeze-flee response to stress could make narwhals particularly vulnerable to human disturbance.
Source: Science (2017) sciencemag.org/news/2017/12/melting-sea-ice-stressing-out-narwhals, & *Nature* (2017) nature.com/articles/d41586-017-08244-y

Evidence shows common pesticide harms migrating sparrows

Researchers analysing the effect of the neonicotinoid imidacloprid on white-crowned sparrows that migrate from the southern USA and Mexico to northern Canada have found that this widely used insecticide can cause migrating birds to lose their sense of direction. White-crowned sparrows were given doses equivalent to less than a single corn seed and within hours became weak, developed stomach problems and soon lost 17–25% of their weight, depending on the dose. Birds given imidacloprid also became unable to identify the northward direction of their migration, a worrying effect as neonicotinoids are commonly applied to seeds so that they can permeate the entire plant, and another study has recently shown that birds can eat spilled seeds. Birds given imidacloprid recovered their weight and sense of direction when tested after 14 days but delays to migration or arrival at breeding grounds in poor condition could lower the chances of successful breeding.
Source: The Guardian (2017) theguardian.com/environment/2017/nov/29/common-pesticide-can-make-migrating-birds-lose-their-way-research-shows

Backcountry skiers put pressure on Canadian caribou

Over the past 30 years the population of Endangered Atlantic-Gaspésie mountain caribou in Gaspésie National Park in southern Quebec province has decreased by 63% to c. 70 animals. The decline has been attributed to increased predation by coyotes and black bears but new research has shown that the presence of backcountry skiers in the National Park is playing a surprising role in this fall in numbers. Researchers have used GPS telemetry to monitor the responses of caribou to skiers and found that whilst $>12\%$ of caribou locations were within the ski area when skiers were absent, use of the area by caribou decreased to 6% when skiers were present. Caribou were not significantly displaced

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within the first 6 hours of exposure to skiers but thereafter moved to lower elevations for up to 5 days, where they are potentially at greater risk of predation by coyotes.
Source: Science (2017) sciencemag.org/news/2017/12/skiers-are-putting-these-rare-canadian-caribou-slippery-slope, & *Biological Conservation* doi.org/10.1016/j.biocon.2017.10.030

Ecosystems struggle to bounce back from wildfires

Climate change is resulting in more wildfires and longer periods of drought, and research in conifer forests in the U.S. Rocky Mountains has revealed that forest ecosystems are struggling to regenerate. Researchers compared seedlings collected from sites that had experienced wildfires between 1988 and 2011, to seedlings from sites that had experienced no fires, and combined this analysis with temperature and moisture data to determine the ability of forests to regenerate. Rising temperatures and droughts coincided with the inability of areas to recover and the proportion of sites with no regrowth almost doubled after 2000, from 19% to 32%. Some forests may not grow the old trees back, but could in the future be composed of different species that are more resilient to drier weather.
Source: Science (2017) sciencemag.org/news/2017/12/ecosystems-could-once-bounce-back-wildfires-now-they-re-being-wiped-out-good

Documenting California's changing deserts

Between 1908 and 1939 renowned ecologist Joseph Grinnell travelled across California cataloguing the state's birds and mammals in c. 700 locations, and conservationists still use Grinnell's records as a baseline for comparing the density and distribution of animal populations. Over the past 14 years the Grinnell Resurvey Project has sought to repeat these surveys, capturing current conditions and quantifying future ecological shifts, with the latest focus on California's rapidly changing deserts. As deserts become hotter and drier, the cooler regions may be out of reach for slow-moving or short-lived species. Preliminary results indicate that of the 135 bird species surveyed in the Mojave Desert, only the common raven *Corvus coral* has significantly expanded its range since the early 20th century; the ranges of 38 other species have contracted.
Source: Nature (2017) nature.com/news/the-ambitious-effort-to-document-california-s-changing-deserts-1.22799

World's oldest known wild bird lays egg at 67

Wisdom, a Near Threatened Laysan albatross *Phoebastria immutabilis* and the oldest known wild bird, at 67, has laid an egg at her home on the Midway Atoll. Wisdom and her current mate, Akeakamai, return each year to the Papahānaumokuākea Marine National Monument to nest and raise a single chick. On 13 December 2017 the US Fish and Wildlife Service confirmed the pair were incubating a new egg. Wisdom was banded on Midway Atoll on 10 December 1956 by USFWS biologist Chandler Robbins, and was next seen 46 years later, in 2002, when Robbins recaptured her. Her seemingly advanced age and good health earned her the name Wisdom. Nearly 70 % of Laysan albatrosses nest on Midway.
Source: National Geographic (2018) news.nationalgeographic.com/2018/01/birds-animals-oceans-parents-albatross

Mexico takes impressive steps to conserve marine life

Mexico has created the largest ocean reserve in North America, covering c. 148,000 km^2 around the Revillagigedo islands. The archipelago comprises four volcanic islands, known as the Galapagos of North America. The surrounding waters support humpback whales, sea turtles and migratory birds, and the local ecosystem provides nutrients for c. 400 species of fish, sharks and ray. The waters are a breeding ground for tuna, sierra and other commercially fished species but populations were unable to recover fast enough to compensate for the rate at which they were being fished. All fishing activities will now be prohibited within the reserve, as announced by Mexico's president in a decree that also bans mining and the construction of new hotels on the islands.
Source: The Guardian (2017) theguardian.com/environment/2017/nov/25/mexico-creates-vast-new-ocean-reserve-to-protect-galapagos-of-north-america

CENTRAL AMERICA AND CARIBBEAN

Rare salamander rediscovered in Guatemala

A Jackson's climbing salamander has been sighted for the first time since 1975 by a ranger on his lunch break. Ramos León-Tomás from the Q'anjob'al Mayan community, was having lunch on the edges of the Finca San Isidro Amphibian Reserve in Guatemala when he discovered a juvenile, black and gold salamander. Many surveys have searched for the lost species but this individual was found c. 200 m higher in altitude than researchers expected. This is only the third-ever sighting of a Jackson's climbing salamander, the other two being recorded in 1975. A training project had been held earlier in 2017 to enable forest guards to identify this species. After using Whatsapp to send through pictures to the Foundation for Ecodevelopment and Conservation, the species was confirmed as the elusive Jackson's climbing salamander. Climate change may have pushed the species to higher altitudes and conservationists hope to expand the existing reserve to higher elevations.
Source: The Guardian (2017) theguardian.com/environment/radical-conservation/2017/nov/14/lunching-ranger-discovers-species-lost-for-40-years

Changing climate doesn't account for decline in turtle hatchlings

The fall in the number of leatherback turtle *Dermochelys coriacea* hatchlings in the US Virgin Islands continues to baffle researchers because two prime factors, rising temperatures and changes in rainfall patterns, appear not to be responsible for the decline. A recent study of a nesting beach in the Sandy Point National Wildlife Refuge on St Croix island collected temperature and precipitation data at nest sites over 20 years but found no trend that could fully account for the decline in hatchling numbers. In 1990 74% of eggs laid by leatherback turtles successfully hatched on this nesting beach in the Caribbean Sea but in 2010 the rate had fallen to 55%. Despite this finding, the number of nesting females and the population size has been increasing at this site but conservationists are concerned that the decrease in the number of hatchlings could negatively affect leatherback populations within the next 1–2 decades when hatchlings come of age.
Source: Nature (2017) nature.com/news/crash-in-sea-turtle-births-stumps-ecologists-1.22748

SOUTH AMERICA

Colombia surpasses conservation goals

The Government of Colombia has announced the establishment of a new marine and coastal area for conservation and sustainable use. The National Integrated

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Management District covers 190,282 ha and connects protected areas in the Colombian Pacific with the Manglares Cayapas Mataje Reserve in Ecuador. The area will be co-managed by local communities in Tumaco, Colombia, and will strengthen the rights of Afro-Colombian communities that have historically inhabited the area. The District includes mangroves, turtle nesting beaches, feeding and resting sites for birds, and important fisheries resources. The area will protect 57 species important for artisanal fishing, 30 species of molluscs, 22 species of mammals, 20 species of birds and 12 species of reptiles. The National Integrated Management District brings the country's percentage of protected marine and coastal environments to 13.73%, meeting Aichi Target 11, which aims for a country to conserve at least 10% of its coastal and marine areas.
Source: WCS (2018) newsroom.wcs.org/News-Releases/articleType/ArticleView/articleId/10935

Satellite data allows more accurate monitoring of deforestation

New monitoring techniques have revealed that the Brazilian Amazon lost 184 km² of forest in December 2017. Radar imagery from the European Space Agency's new Sentinel-1 satellite is being used by a Brazilian NGO, Imazon, to monitor deforestation in the Amazon region. Since August 2017 the organization has been using a higher-resolution sensor, which detects small-scale deforestation, in addition to implementing a satellite with radar images. Radar can monitor land cover even through clouds, allowing researchers to monitor deforestation during rainy periods with far greater accuracy than before. The resulting data has been used to create a map of deforestation in regions with heavy cloud cover in December 2017, revealing that more than half of the forest clearing, 55%, was on private lands and nearly 10% was detected in protected areas, including sustainable use areas and indigenous lands.
Source: Mongabay (2018) news.mongabay.com/wildtech/2018/01/new-satellite-detects-amazon-deforestation/

Peru declares new National Park

The Minister of the Environment and the President of the Republic have signed a declaration confirming the creation of Yaguas National Park in northern Peru. The 868,927 ha of forest in the Loreto Region were previously designated a reserved area but the upgraded status is expected to improve the well-being of c. 70 local communities. Surveys conducted by the Peruvian government found that communities will save more than USD 5.2 million as the protection conferred by National Park status will help halt declines in species, such as the white-lipped peccary, which residents depend on. Yaguas National Park is home to 550 fish species, representing two-thirds of Peru's freshwater fish diversity, and up to 3,500 species of plants. The National Park will also protect large areas of peat bogs, preventing the loss of c. 1.5 million tons of carbon in the next 20 years.
Source: Mongabay (2018) news.mongabay.com/2018/01/peru-declares-a-huge-new-national-park-in-the-amazon/

PACIFIC

Evidence of deep-sea organisms ingesting plastic

Researchers studying 90 individual animals in trenches between 7 and >10 km deep have found ingestion of plastic ranged from 50% in the New Hebrides Trench to 100% at the bottom of the Mariana Trench. The Mariana Trench is home to the deepest point in the ocean, Challenger Deep. The study tested samples of crustaceans found in trenches across the Pacific including the Mariana, Japan, Izu-Bonin, Peru-Chile, New Hebrides and Kermadec trenches and has recorded plastic fibres inside animals at depths of almost 11 km. The team identified fragments from microfibres such as Rayon, Lyocell and Ramie, and plastic fibres that are likely to be from bottles, fishing equipment and everyday packaging. Around 8 million tonnes of plastic enters our oceans every year and evidence of microplastic occurrence and ingestion in these ultra-deep trenches demonstrates the extent of the problem.
Source: The Guardian (2017) theguardian.com/environment/2017/nov/15/plastics-found-in-stomachs-of-deepest-sea-creatures

Vital protection for Papua New Guinea's rainforests

3,600 km² of rainforest in the southeast of Papua New Guinea has become the country's largest-ever conservation area. Managalas Conservation Area was officially declared in November 2017 after 32 years of work by conservation organizations, governments and local communities. The newly established Conservation Area will protect the Managalas Plateau and its expansive tracts of primary forest from logging and large-scale agriculture. Twenty-one thousand people reside in the Area and the involvement of local communities in the development of the management plan has ensured that subsistence and livelihood activities such as coffee cultivation are permitted. Stakeholders are calling for the region's roads to be improved so that crops grown by local communities can reach outlying markets. The official declaration is a remarkable step forward for the protection of Papua New Guinea's rainforests but further work is needed as currently mining is not excluded from the Area, leaving the forest potentially open to encroachment.
Source: Mongabay (2017) news.mongabay.com/2017/12/papua-new-guinea-gets-its-largest-ever-conservation-area/

AUSTRALIA/ANTARCTICA/ NEW ZEALAND

Pregnant sharks and rays abort their young if captured

Approximately 80% of sharks and rays caught by recreational fishermen in Australia are released back into the water but new research shows that the trauma of being caught can cause pregnant sharks and rays to abort their pups. New research into recorded instances of sharks and rays either aborting their pups or undergoing a premature birth once captured found 24% of pregnant females across 88 species lost their young. The rate of abortion on capture for the pelagic stingray was 85%. Rates such as this could harm the survival of many shark and ray species, which have gestation periods of up to 2 years. Experts recommend fishing restrictions in known nursing grounds of species that appear to be particularly affected by capture-induced abortion, such as angel sharks, and suggest that if a pregnant shark or ray is caught, whether by recreational fishers or researchers tagging individuals, it is released without being raised from the water.
Source: The Guardian (2017) theguardian.com/environment/2017/nov/02/pregnant-sharks-and-rays-likely-to-abort-their-young-if-caught

Changing climate skews sex ratio of green turtle populations

Research from the National Oceanic and Atmospheric Administration, California State University and WWF Australia has found that rising temperatures in the Great Barrier Reef are affecting the sex ratio of green turtle populations. Researchers

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examined two genetically distinct populations of turtles and found that in the northern group of c. 200,000 animals, females accounted for 99.1% of juveniles, 99.8% of subadults and 86.8% of adults. Green turtle rookeries in this population have been producing primarily females for more than 2 decades and the research suggests that complete feminization of this population is possible in the near future. The southern population also displayed a skewed ratio, with females accounting for 65–69% of the population. The proportion of female hatchlings increases when nests are in warmer sands and as temperatures rise, large reproductive males are going to become even more vital to the future of the species.
Source: The Guardian (2018) theguardian.com/environment/2018/jan/08/great-barrier-reef-rising-temperatures-turning-green-sea-turtles-female

Population of rare penguin plummets in New Zealand...

A recent survey of the island sanctuary of Whenua Hou (Codfish Island) in New Zealand has found that almost half of the island's breeding population of yellow-eyed penguins has disappeared. Yellow-eyed penguins, the most threatened species of penguin, are endemic to New Zealand's South Island and sub-Antarctic islands where there are now 3,200–3,600 individuals left in the wild, down from almost 7,000 in 2000. Rangers on the island sanctuary recorded 14 nests in 2017, 10 less than in 2016, and as the island is predator-free, evidence suggests that the birds have disappeared at sea. Conservationists warn that it is likely that the birds have been caught and drowned in the nets of commercial fishing trawlers which are active in the penguins' foraging grounds. Elsewhere in New Zealand the population of yellow-eyed penguins is at its lowest level in 27 years.
Source: The Guardian (2017) theguardian.com/world/2017/nov/27/population-worlds-rarest-penguins-plummets-yellow-eyed-new-zealand

...and penguin colonies in Antarctica suffer catastrophic breeding event

In 2017 researchers studying a colony of c. 18,000 breeding Adélie penguin pairs on Petrels Island, Antarctica, found just two surviving chicks at the start of the year. Thousands of starved chicks and unhatched eggs were discovered, prompting calls for the establishment of a Marine Protected Area in East Antarctica. Record amounts of summer sea ice and heavy rains caused a similarly catastrophic breeding event in 2013, when no chicks survived. The 2017 event has also been attributed to unusually large amounts of sea ice, which forced penguins to travel greater distances in search of food for their young. In 2010 a piece of ice almost 80 km long and 40 km wide broke off from a glacier 250 km from Petrels Island, and experts suggest that this event has severely affected ice formation in the region. A Marine Protected Area would limit anthropogenic threats that could place further stress on penguin populations.
Source: The Guardian (2017) theguardian.com/environment/2017/oct/12/penguin-catastrophe-leads-to-demands-for-protection-in-east-antarctica

Cause for celebration as two kiwi species no longer Endangered

The rowi *Apteryx rowi* and northern brown kiwi *Apteryx mantelli* have been downlisted from Endangered to Vulnerable after nearly 30 years of action by government bodies, local conservation groups and the Maori community. Invasive species such as cats, stoats and ferrets preyed upon kiwi eggs and chicks, causing a dramatic decline in numbers. In response, conservationists removed kiwi eggs from the wild, hatched the chicks in captivity and then released them once they reached a stoat-safe weight of c. 1 kg. This technique increased juvenile survival from 5% to 60%. Kiwi sanctuaries have been established in the wild and local communities have become involved in managing kiwi populations as part of a healthy, functioning ecosystem. In some areas, populations of the northern brown kiwi are estimated to be growing by $> 2\%$ a year and the rowi has increased from 160 individuals in 1995 to 400–450 adults today.
Source: BirdLife International (2017) birdlife.org/worldwide/news/stars-red-list-two-kiwi-species-are-no-longer-endangered

Antipodean albatross in breeding crisis...

Breeding exclusively on a few New Zealand islands, the Endangered Antipodean albatross *Diomedea antipodensis* mates for life and reproduces just once every 2 years, spending almost an entire year raising a single chick. The Antipodes Islands are home to nearly half of the global population of Antipodean albatrosses but the population has declined by 12% per year in the past 13 years. Warming oceans are now forcing these birds to fly further in search of food, increasing the risk of albatrosses being caught on baited hooks as they scavenge for fish from the surface of the waves. Tracking data since 2011 show that females have adjusted their foraging range, travelling further north and east in search of food and coming into contact with a greater number of fisheries. Twice as many females are being killed as males and this skewed sex ratio is expected to cause further declines as fewer breeding pairs are able to form.
Source: BirdLife International (2017) birdlife.org/worldwide/news/two-males-every-female-antipodean-albatross-breeding-crisis

...but it's not all bad news

The populations of some species of albatross are growing and there are now an estimated 700,000 breeding pairs of black-browed albatross *Thalassarche melanophris,* and the species has been downlisted from Near Threatened to Least Concern on the IUCN Red List. An estimated 100,000 albatrosses a year of multiple species are dying as accidental bycatch in longline and trawl fisheries but the Albatross Task Force, led by the RSPB for the BirdLife International Partnership, has made significant progress in tackling this threat. Thanks to the efforts of the Task Force, the Argentinian fishing authorities announced in 2017 the mandatory use of bird-scaring lines on all freezer trawlers from May 2018 onwards, and in Namibia 100% of trawl and demersal longline vessels now have bird-scaring lines. The introduction of similar mitigation measures in South Africa has reduced albatross deaths in the hake demersal trawl fishery by 99%.
Source: BirdLife International (2017) birdlife.org/worldwide/news/two-males-every-female-antipodean-albatross-breeding-crisis

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