Briefly

INTERNATIONAL

Are we witnessing the world's 6th mass extinction?

A new study based on the range contractions of 27,600 terrestrial vertebrate species and a more detailed analysis of population extinctions during 1900–2015 in 177 mammal species has suggested that the Earth is experiencing its 6th major extinction event. Almost half of the mammal species surveyed lost more than 80% of their range during this timeframe and the study's authors refer to the event as 'biological annihilation'. Shrinking populations and range sizes are exacerbated by continued human population growth and overconsumption, although conservationists are warning that such a broad assessment of the loss of species overlooks localized gains and losses and their underlying drivers.

Source: PNAS (2017) pnas.org/content/early/2017/07/05/170494 9114.full, & *The Guardian* (2017) theguardian.com/environment/2017/jul/10/earths-sixth-mass-extinction-event-already-underway-scientists-warn

Drylands home to 40% more forests than previously thought

Dryland biomes cover two-fifths of Earth's land surface but estimating their forest area is difficult, as the resolution of satellite images is often too low to distinguish trees easily. Using high-resolution Google Earth images in which each pixel represents an area of <1 m, researchers have analysed $>200{,}000$ plots. The images have resulted in the identification of an additional 378 million ha of forest. Drylands host 40–47% more forests than expected, increasing total global forest coverage by $>9\%$. Using data from the study, researchers will be able to identify how best to conserve and restore these forested areas and calculate a more accurate estimation of the terrestrial carbon sink.

Source: Science (2017) sciencemag.org/news/2017/05/earths-forests-grew-9-new-satellite-survey, & science.sciencemag.org/content/356/6338/635

Bonn Challenge passes the 150 million ha milestone

Restoration pledges from Pakistan, Bangladesh, Mongolia and Sri Lanka have increased the Bonn Challenge commitments to 150.03 million ha. The Bonn Challenge is a global effort to restore 150 million ha of degraded and deforested land by 2020, and 350 million ha by 2030. It is estimated that restoring 350 million ha of land will generate USD 170 billion per year in net benefits and could also sequester 1–3 billion tonnes of CO_2 equivalent per year. At the first Asia Bonn Challenge High-level Roundtable, in Indonesia in May, Bangladesh pledged to restore 0.75 million ha, Mongolia 0.6 million ha, Sri Lanka 0.2 million ha, and Pakistan 0.1 million ha. During its economic transition Mongolia lost almost 467,600 ha of forests, and it hopes that by joining the Bonn Challenge it can access international expertise and increase its forest cover from 7.9 to 8.3%, to help tackle extended droughts.

Source: IUCN (2017) iucn.org/news/forests/201705/bonn-challenge-crosses-150-million-hectare-milestone-pledges-pakistan-bangladesh-mongolia-and-sri-lanka

Newly discovered plants could help diversify vital crops

According to the second annual State of the World's Plants report from the Royal Botanic Gardens, Kew, there have been $>1{,}700$ new plant species discovered in the past year. Among these are five new types of manihot, wild relatives of cassava, which could help in the development of more drought- and disease-resilient varieties of the third-most important tropical food crop. The report notes that some of the new species are already highly threatened, and warns that although 28,187 species have been recorded to have a medicinal use, only 16% are cited in medicinal regulatory publications and many species have different names, giving rise to confusion.

Source: New Scientist (2017) newscientist.com/article/2131426-hundreds-of-newly-discovered-plants-may-yield-new-crops-or-drugs/

Progress for in danger World Heritage site

Comoé National Park in Côte d'Ivoire has been inscribed on the List of World Heritage in Danger since 2003, when the Park was threatened by poaching and illegal gold mining. Since 2012, when the country's political situation stabilized, populations of elephants, chimpanzees and other species within the Park have recovered to the extent that IUCN has now recommended removing the site from the Danger List. Other sites facing the possibility of danger-listing in 2018 include Białowieża Forest in Poland, Plitvice National Park in Croatia, the Sundarbans in Bangladesh, the Golden Mountains of Altai in Russia, Dja Faunal Reserve in Cameroon and Coiba National Park and its Special Zone of Marine Protection in Panama.

Source: IUCN (2017) iucn.org/news/iucn-41whc/201706/iucn-says-ivorian-park-should-come-world-heritage-%E2%80%98danger-list%E2%80%99-chimps-make-comeback

Global study reveals impact of habitat fragmentation on species' extinction risk

A study has used high-resolution habitat-suitability models to measure the degree of habitat fragmentation threatening 4,018 land-dwelling mammal species across the globe. Data confirmed expectations that species with more fragmented habitats were at greater risk of extinction, as assessed for the IUCN Red List, even when factors including species' body size and overall range size were accounted for. Only 3.6% of the average species' range was found to consist of 'high-suitability habitat' located within known protected areas, despite 15% of global land area being currently set aside for conservation.

Source: PNAS (2017) dx.doi.org/10.1073/pnas.1705769114, & *Mongabay* (2017) news.mongabay.com/2017/07/as-habitat-fragmentation-increases-so-does-extinction-risk-study/

EUROPE

European Union suspends the re-export of raw ivory

Following a guidance document from the European Commission, the European Union suspended re-exports of raw ivory from 1 July 2017, even if they qualify as 'pre-Convention' specimens, of which re-export from the EU for commercial purposes was previously permitted. The suspension follows analysis of CITES Trade Data, which revealed EU ivory re-exports rose from an average of <100 items between 2006 and 2012 to >600 items in 2014 and 2016, raising concerns that legal imports were being used as a cover for laundering illegally sourced ivory into Asia. The latest guidance does not

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specify a complete suspension of the re-export of worked ivory items, although the EU plans to consult further on this topic.
Source: TRAFFIC (2017) traffic.org/home/2017/5/17/european-union-suspends-the-re-export-of-raw-ivory.html

Restrictions on unsustainable fishing practices are needed to protect anthozoan species in the Mediterranean...

An IUCN report warns that > 13% of anthozoan species in the Mediterranean Sea are threatened with extinction, and recommends immediate conservation action. Anthozoans include hard and soft coral, black coral, sea anemones and gorgonians. The Mediterranean Sea is home to some black coral colonies that are known to live for > 2,000 years, and to the Critically Endangered bamboo coral *Isidella elongata,* one of the longest-lived species of gorgonian in the Mediterranean. An estimated 212 anthozoans are native to the Mediterranean Sea, but of the 142 species assessed in the report, 69 are designated as Data Deficient. Anthozoans in the Mediterranean are under pressure from unsustainable fishing techniques, and are further threatened by rising sea temperatures, the spread of invasive species and commercial collection of some species.
Source: IUCN (2017) iucn.org/news/m%C3%A9diterran%C3%A9e/201705/iucn-rings-alarm-bells-corals-mediterranean

...but the Mediterranean's first artificial reef shows progress...

Researchers have developed 90 synthetic reefs designed to mimic the coralline algae *Ellisolandia elongata* in the hope that the structures will act as scaffolds for natural coralline reefs to grow. Each reef contains 20 fronds made from silicone elastomer, a highly elastic material that is non-toxic to the marine environment, anchored in clear resin near natural coralline algae reefs in the Gulf of La Spezia, north-west Italy. In the first month researchers noted that biofilms produced by bacteria and microalgae had begun to form on some of the artificial reefs, which suggests microorganisms are beginning to colonize the reefs.
Source: New Scientist (2017) newscientist.com/article/2134211-rubber-algae-help-create-first-artificial-reef-in-mediterranean/

...and EU Overseas Countries and Territories exceed marine conservation targets

The 25 EU Overseas Countries and Territories and nine Outermost Regions govern > 5% of the ocean surface and contribute to one third of global marine protection efforts. Together the EU Overseas entities have surpassed Aichi Target 11 and the Sustainable Development Goal 14 of protecting at least 10% of coastal and marine areas by 2020, having protected a total of 6.5 million km². The area protected has increased more than six times since 2010 and has nearly doubled in the past 2 years. Although six of the 10 largest protected areas are within the EU Overseas waters, the majority of the 350 marine protected areas in the EU Overseas are smaller and located in coastal waters. A qualitative assessment conducted as part of an IUCN review has revealed that, when managed well, large marine protected areas that cover both coastal and offshore areas are the most effective.
Source: IUCN (2017) iucn.org/news/marine-and-polar/201706/eu-overseas-marine-conservation-champions-already-protect-33-their-seas-and-coasts

Wild bees suffering from insecticide use

Research across 33 farmland sites in the UK, Germany and Hungary has analysed the impact of insecticide-treated oilseed rape fields on honeybees, bumblebees and solitary bees. The study demonstrated that the reproductive success of wild bees decreased as exposure to the insecticide increased, in all three countries. Exposure to insecticides in the UK and Hungary reduced the survival of honeybee colonies, as bees in these countries obtain 40–50% of their food from oilseed rape fields, compared to bees in Germany that obtain just 15%. The wild bees also showed evidence of having been exposed to neonicotinoids, which were not used in the trial. A second study revealed that neonicotinoid contamination is not confined to crop fields, as neonicotinoids are water soluble and can be taken up by other plants, with contaminated pollen found in wildflowers that are attractive to bees.
Source: Science (2017) dx.doi.org/10.1126/science.aaa1190 & dx.doi.org/10.1126/science.aam7470, & *The Guardian* (2017) theguardian.com/environment/2017/jun/29/pesticides-damage-survival-of-bee-colonies-landmark-study-shows

Melting ice in the Arctic affects the future of bears and birds...

In 2006 the Norwegian archipelago of Svalbard experienced a sudden loss of sea ice, changing the coastline on which local polar bears rely for their survival. Using tracking devices attached to 67 polar bears and 60 ringed seals researchers were able to compare their movements before and after the decline in sea ice. The melt has seen polar bears lose their hunting advantage and adopt high-risk energy-intensive strategies, as seals can now retreat to floating ice packs, forcing the polar bears to attack from the water. Results from the monitoring project show bears travelling further inland in search of alternative food sources such as bird eggs. Polar bears have been recorded feeding on geese eggs, and previous research has found that bird populations targeted by hungry polar bears can decline by up to 90%.
Source: Journal of Animal Ecology (2017) dx.doi.org/10.1111/1365-2656.12685, & *New Scientist* (2017) newscientist.com/article/2130821-polar-bears-shift-from-seals-to-bird-eggs-as-arctic-ice-melts/

...and Arctic beaches are besieged by plastic

A study of six beaches in Svalbard has recorded 876 pieces of visible litter per 100 m, far more than is typically found on European beaches, and on Jan Mayen Island, the most remote in the North Atlantic, 575 pieces were recorded. The study aimed to identify the origins of the plastic waste, to concentrate conservation action, but almost 50% of the plastic was too broken to be identified. Plastic bottle caps comprised 8% of the items, and 12% were nets, ropes and buoys from fishing vessels. Large quantities of strapping band used to secure fish boxes on fishing vessels were also found. The Gulf Stream carries plastic northwards, and previous research has found that, over the past decades, at least 1 tonne of plastic has already been frozen into the Arctic ice.
Source: The Guardian (2017) theguardian.com/environment/2017/jun/16/plastic-polluted-arctic-islands-are-dumping-ground-for-gulf-stream

Sweden aims to cut net carbon emissions to zero

Hydropower and nuclear energy already account for 83% of Sweden's electricity and the country has met its 2020 target of 50% renewable energy 8 years ahead of schedule. In a further step, new legislation commits Sweden to becoming carbon neutral by 2045, making it the first country to significantly upgrade its carbon goals since the 2015 Paris accord. To achieve its ambitious objective Sweden will focus on reducing emissions from transport and increasing the use of biofuels and electric vehicles. The country plans to reduce domestic emissions by at least 85% and will offset

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remaining emissions by investing in projects abroad and planting trees.
Source: New Scientist (2017) newscientist.com/article/2138008-sweden-commits-to-becoming-carbon-neutral-by-2045-with-new-law/

Wild wolves in Finland decline below sustainable levels...

According to data from the Finnish National Resources Institute there are currently only 150–180 wild wolves in Finland, fewer than the 230 individuals estimated in 2016 and far fewer than the estimated 800 individuals needed to maintain genetic diversity within the population. To reduce illegal killing of wolves entering remote communities and farmland, earlier this year Finland approved the culling of 50 grey wolves, specifying quotas for each region involved. However, conservationists warn that, in light of the new population estimate, culls could have drastic effects on wolf populations. Wolf numbers in Europe have risen to c. 12,000 individuals, and neighbouring Russia has an estimated wolf population of >50,000, complicating the management of wolf populations in Finland.
Source: The Guardian (2017) theguardian.com/world/2017/jun/26/finland-has-far-fewer-wild-wolves-than-previously-thought-census-shows

...but return to Denmark after a 200 year absence

Individual male wolves have been evident in Denmark since 2012 but the recent arrival of a female wolf means that Denmark has its first wild wolf pack since the country's last wolf was killed in 1813. DNA from the faeces of the female wolf confirms that she came from a pack 25 km south of Berlin and had therefore travelled 500 km to Denmark. Wolf packs have been re-established in France and Germany, with Germany's wolf population currently increasing at 25–30% per year and dispersing across central Europe. Denmark's wolf pack has settled in a farmed area of heathland with large populations of red and roe deer. In response, the Danish government has implemented a wolf management plan, which has been designed with input from game hunters, farmers and conservationists. The plan provides farmers with compensation for livestock losses to wolves and funding to erect wolf-proof fencing.
Source: The Guardian (2017) theguardian.com/environment/2017/may/04/denmark-gets-its-first-wild-wolf-pack-in-200-years

The UK's largest reintroduction of water voles begins

Water voles are the fastest declining land mammal in the UK, with a > 90% decline in the population. Water voles were predated voraciously by the invasive American mink, and the pollution of waterways, increased urbanization and loss of habitat amplified population losses. The prevalence of mink has kept water voles at bay from previous strongholds such as Kielder Forest in Northumberland, but as otter numbers in Kielder have increased, mink have been displaced, allowing water voles to return. Conservation efforts to protect the growing otter populations have been so successful that surveys since 2013 have confirmed that mink, which prefer not to share hunting grounds with otters, are no longer present in Kielder. In light of this, the biggest reintroduction of water voles in the UK has begun, with the planned release of a total of 675 individuals captured in Scotland and the North Pennines.
Source: The Guardian (2017) theguardian.com/environment/2017/jun/15/ratty-returns-hundreds-of-water-voles-released-in-uks-biggest-reintroduction

Scotland's seabird colonies at risk from wind farm developments

Scotland produces > 20% of Europe's wind energy but the country is also home to a third of the continent's nesting seabirds, some of which could be threatened by the development of four large-scale wind farms in the waters of the Firth of Forth and the Firth of Tay. The proposed project will consist of 335 turbines and could generate enough power to supply 1.4 million homes, but impact reports estimate that > 1,000 gannets would be killed by the turbines each week, along with similar numbers of puffins and hundreds of kittiwakes. The turbines will be built under old legislation that permits longer blades to be used, increasing the risk to seabirds. The Royal Society for the Protection of Birds has raised concerns that the presence of so many turbines will reduce suitable feeding sites for puffins, causing colonies to shrink drastically.
Source: The Guardian (2017) theguardian.com/uk-news/2017/may/20/scotland-birds-at-risk-windfarms-gannets-kittiwakes-puffins

UK taste for prawns has fatal implications for turtles

A study conducted by the French Guiana Fisheries Committee has estimated that up to 29,000 marine turtles are killed annually in tropical prawn trawl nets that export to the European Union. The UK is the EU's largest individual market for tropical prawns and 46% of the prawns imported into the country are wild-caught, the majority of which are being fished in tropical waters off the coast of India, Bangladesh and Vietnam. Thousands of turtles, including green, loggerhead and hawksbill turtles, are drowning in the nets deployed by trawlers. Conservationists are calling for escape panels to be added to fishing nets, which can reduce the capture of marine turtles by up to 97% while reducing the prawn catch by only 2%. The USA has banned tropical prawn imports where excluder devices such as escape panels are not used, and conservationists urge the UK to do the same.
Source: New Scientist (2017) newscientist.com/article/2134813-uks-hunger-for-prawns-is-killing-thousands-of-turtles-a-year/

Snake fungal disease detected in European snakes for the first time

Analysis of samples collected from wild snakes in the UK and the Czech Republic during 2010–2016 has confirmed the presence of snake fungal disease in Europe for the first time. This disease is caused by the fungus *Ophidiomyces ophiodiicola*, with symptoms including skin lesions, scabs and crusty scales, and can lead to death in some instances. The disease was identified in grass snakes *Natrix natrix* in the UK and in a single dice snake *Natrix tessellata* in the Czech Republic. Before this study the only wild populations known to be affected by the disease were in the central and eastern USA but the fungus strains found in European snakes are different from those identified in North America. Snake fungal disease poses no known threat to humans or livestock but, as fungal pathogens are becoming increasingly common, further research is required to assess the significance of the disease to Europe's snake populations.
Source: ZSL News (2017) zsl.org/science/news/snake-fungal-disease-identified-in-wild-british-snakes-for-first-time

Mapping the movements of seabirds in the UK and Ireland

Data from the satellite-tracking of more than 1,300 adult seabirds from 29 colonies around the UK and Ireland reveal that kittiwakes, shags, razorbills and guillemots use an area of at least 1.5 million km² when searching for food. According to the data from the GPS tags, the sea area used by all four species is concentrated in the coastal waters of Scotland, emphasizing the

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importance of conservation measures there. The data were also used in computer modelling to predict important areas at sea for colonies where no tracking took place, estimating where birds travelled from some 5,500 breeding sites. Kittiwake numbers have declined by 71% in the past 25 years and shag populations have dropped by 61%, and both razorbills and guillemots are 'amber listed' and require conservation action.
Source: New Scientist (2017) newscientist.com/article/2139990-uk-and-irish-sea-birds-search-area-size-of-spain-for-food/

Could light pollution in cities be helping rather than hindering blackbirds?

Researchers from the Helmholtz Centre for Environmental Research in Germany have found that European blackbirds *Turdus merula* that preferentially nest near street lights in cities laid their eggs almost a week earlier than blackbirds in dark areas such as forests, and were more likely to successfully rear hatchlings. Further research is needed to be certain that light is the key factor.
Source: Journal of Avian Biology (2017) dx.doi.org/10.1111/jav.01210, *Ibis* (2017) dx.doi.org/10.1111/ibi.12481, & *New Scientist* (2017) newscientist.com/article/2127981-the-bright-lights-of-big-cities-help-blackbirds-thrive/

Uncertain future for Italy's unique fairy shrimp...

The fairy shrimp *Chirocephalus marchesonii* is found only in Lake Pilato in the mountains of central Italy. Its ancestors are thought to have reached the Appennine range during the last ice age and the fairy shrimp's reproductive cycle has adapted to the seasonal hydrological balance of Lake Pilato. The basin is experiencing unusually low water levels this year, and from 1990 onwards researchers have recorded an increasing number of years with abnormally low water levels. The shrimp can survive long dry spells by burying its eggs under the lake bed, where they can remain alive for more than a year, but researchers are concerned the shrimps already present in the lake may not have enough time to reach sexual maturity before the basin dries out.
Source: New Scientist (2017) newscientist.com/article/2138358-italys-drying-lakes-imperil-rare-shrimp-species-found-only-here/

...and Italy fails to react to olive tree devastation

An incurable pathogen endemic to the Americas was first seen in Europe in Puglia in 2013. The pathogen, *Xylella fastidiosa pauca*, has caused olive quick decline syndrome in Italy's ancient olive trees but systematic monitoring of the infection began only in late August 2016, despite early warnings from scientists. National and regional authorities have disbursed just over half of the EUR 10 million budgeted for containment measures and, coupled with delays in uprooting infected trees and little to no processing of *Xylella* samples in 2016, the European Commission is now concerned that *X. fastidiosa pauca* could threaten Europe's entire olive industry. Intense monitoring at the end of 2016 found almost 900 *Xylella*-positive plant samples in the new containment zone in the south of Italy. Scientists have identified two varieties of olive tree in Puglia that show resistance to the disease but developing fully resistant trees could take a decade or more.
Source: Nature (2017) nature.com/news/italy-rebuked-for-failure-to-prevent-olive-tree-tragedy-1.22110

NORTH EURASIA

Record-breaking number of ruffs flock to Belarus

Turau Meadow in Belarus, an open floodplain in the middle of Pripyat River, is one of Europe's most critical nesting and stopover areas for > 50 species of migratory wading birds. The area is the largest stopover site for the ruff *Calidris pugnax* on its migration from Africa, and this year a record number of 120,000 ruffs were sighted in a single day, the highest since observations began in Turau Meadow in 1997. Ruff populations have declined significantly in Belarus but efforts are being made to reverse this. Belarussian authorities have recognized the Turau Meadows area as a locally significant wildlife sanctuary, and the floodplains are categorized as an Important Bird and Biodiversity Area. The ruff is listed on Belarus's Regional Red List, which means hunting of the species is not permitted and the government has a duty to protect its nesting area.
Source: BirdLife International (2017) birdlife.org/europe-and-central-asia/news/record-breaking-120000-ruffs-counted-belarus

NORTH AFRICA AND MIDDLE EAST

Corals in the Red Sea could thrive in warming waters

When exposed to water temperatures 1 °C warmer than the usual summer maximum for several weeks, corals normally experience bleaching, but corals in the northern Red Sea appear to be an anomaly. When sea levels rose after the last ice age the Red Sea was recolonized by corals from the south, where water temperatures can rise above 30 °C, and the corals now growing in the north of the Red Sea are descendants of these heat-tolerant corals. The coral *Stylophora pistillata* is common in the region and can thrive at temperatures 2 °C higher than the present maximum in the area. Researchers subjected the coral to conditions forecast for 2050–2100 for 6 weeks, and not only did the coral grow faster than current rates, the health of the algae living within the coral also improved. The coral was also found to be unaffected by ocean acidification at the level expected in the second half of this century.
Source: New Scientist (2017) newscientist.com/article/2131313-corals-that-grow-faster-in-warm-water-could-beat-climate-change/

Morocco's goats disperse argan seeds in their spit

Goat herders in Morocco lead their flocks through the argan *Argania spinosa* forests, where the animals can climb trees up to 10 m high to feed on fruit and leaves. Popular accounts suggest that when the goats defecate, the nuts of argan fruits are retrieved by herders to be used in the making of argan oil. Herders report that the goats mostly spit out the argan seeds however, and research with Spanish domestic goats confirms these accounts. The goats used in the study were most likely to spit out the largest seeds, whereas smaller seeds more often ended up in faeces. The researchers found that 70% or more of regurgitated seeds could still grow, meaning that spitting goats and other ruminants could be important for dispersal of seeds.
Source: New Scientist (2017) newscientist.com/article/2132751-tree-climbing-goats-spit-out-and-disperse-valuable-argan-seeds/

Weevils devastate Tunisia's palm trees

Since the end of 2010 an infestation of red palm weevils has spread in Tunisia, decimating palm trees in the north and gradually encroaching on crops in the south of the country. Tunisia's revenue from the tourist industry has been hit hard by the terror attacks of 2015 and the Tunisian dinar is at a record low. Tunisia is the world's largest exporter of dates, with exports generating GBP 179 million annually. There are 5.4 million palm trees in the country, and although not all are date palms they are all

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at risk from the weevil, and authorities fear that the Tunisian date industry is not prepared to tackle an invasion on this scale. The ministry of agriculture, along with the U.S. embassy in Tunisia, held a 3-day conference in May to design an action plan to control the weevil's spread from urban to agricultural areas.
Source: The Guardian (2017) theguardian.com/global-development/2017/may/17/panic-over-the-red-devils-threatening-to-strip-tunisia-of-its-grand-palm-trees

First photographic evidence of smooth-coated and Eurasian otters in Iraq since the 1950s

The first photographic record of the smooth-coated otter *Lutrogale perspicillata* in the wild in Iraq was obtained recently from Al Edheam Marsh at the northern edge of Hawizeh Marsh in southern Iraq, and first photographic records of the Eurasian otter *Lutra lutra* were obtained in the Al Hammar Marsh and at the Mosul Dam, in southern and northern Iraq, respectively. Both species are facing a significant decline as a result of illegal hunting and trapping, habitat loss and fragmentation, and thus strong conservation efforts are required to protect their populations. Iraq's endemic subspecies *L. perspicillata maxwelli* is a flagship species in the country and so this photographic record of the endemic smooth-coated otter is good news for the Mesopotamian Marshlands UNESCO World Heritage Site.
Source: OTTER, The Journal of the International Otter Survival Fund (2017), 3, 15–20.

SUB-SAHARAN AFRICA

Invasive weeds threaten vital grasslands in the Serengeti

Invasive plants, including devil weed *Chromolaena odorata* and famine weed *Parthenium hysterophorus*, were originally planted for decoration at tourist lodges in Kenya's Masai-Mara National Reserve but are now displacing native vegetation throughout the Serengeti–Mara ecosystem on which migrating animals depend for food. A survey of six invasive plant species that pose the greatest threat to migrating wildlife has found that devil weed has already reduced the chance of survival of lowland gorillas in Cameroon, and famine weed, now present in 34 African countries, has decimated native grasses in South Africa's Kruger National Park. Researchers recommend immediate removal of invasive plants from tourist lodges, tackling light infestations already in the wild and investigating whether beetles that attack the plant could help control invasions.
Source: New Scientist (2017) newscientist.com/article/2134478-devil-weeds-threaten-wildebeest-migrations-in-serengeti/

Development plans altered to protect rare gorillas in West Africa

The Critically Endangered Cross River gorilla *Gorilla gorilla diehli* is considered to be the most threatened of the African apes, with only c. 300 individuals remaining in the wild. Poaching and habitat loss are the main threats to the survival of this subspecies, as human encroachment continues to fragment forests, reduce connectivity between areas and isolate the species. The Cross River gorilla is found only in the Guinean Forests of West Africa Hotspot, in the Nigeria–Cameroon border region. The Cross River region is also home to endemic species including Preuss's gibbons, Nigeria–Cameroon chimpanzees, forest elephants and 26 endemic species of birds. In response to pressure from conservation groups, Nigerian officials have altered the path of a 260 km superhighway that was to pass through this unique rainforest. The new route will be to the west, away from the centre of the Cross River National Park.
Source: BirdLife International (2017) birdlife.org/africa/news/ray-hope-endangered-cross-river-gorilla-west-africa-forest

Aerial survey assesses impact of civil war on South Sudan's wildlife

During 2015–2016 an aerial survey was conducted over the areas of Boma, Badingilo, Nimule, Southern and Shambe National Parks, and the proposed Loelle protected area in South Sudan. South Sudan is home to the world's second-largest land mammal migration and provides habitat for elephants, giraffes, lions and hippopotamuses. Data from the aerial survey revealed that significant wildlife populations have survived the ongoing civil war, but levels of poaching, commercial wildlife trafficking, illegal mining, timber harvesting and charcoal production are all increasing. The survey recorded a minimum of 730 elephants in the surveyed areas, but c. 50% of previously documented important wildlife areas were inaccessible because of the conflict. Earlier surveys estimated a pre-civil-war elephant population of 2,300 in South Sudan.
Source: WCS (2017) newsroom.wcs.org/News-Releases/articleType/ArticleView/articleId/10089/South-Sudan-Wildlife-Surviving-Civil-War-but-Poaching-and-Trafficking-Threats-Increase.aspx

Black rhinoceroses return to Rwanda

Akagera National Park in eastern Rwanda was once home to > 50 black rhinos but widescale poaching decimated numbers and the last confirmed sighting was in 2007. Today there are < 5,000 black rhinos in the wild, and only c. 1,000 Critically Endangered eastern black rhinos. Since 2010 preparation has been underway at Akagera to prepare for 20 eastern black rhinos from South Africa to move into the Park, where the subspecies once thrived. African Parks has established a canine anti-poaching unit, and deployed an expert rhino tracking and protection team and a helicopter to improve security in the Park. This follows the successful reintroduction of lions to the park in July 2015, 15 years after they had last been sighted.
Source: The Guardian (2017) theguardian.com/world/2017/may/03/black-rhinos-return-to-rwanda-10-years-after-disappearance

Gabon announces vast network of marine protected areas

Gabon's President Bongo Ondimba has announced the creation of Africa's largest marine protected area network in an effort to protect Gabon's waters, which are home to the largest breeding populations of leatherback and olive ridley marine turtles as well as 20 species of whales and dolphins. The announcement follows 5 years of knowledge gathering and consultations with private fishing and oil companies, NGOs, universities and government bodies. The proposed network of nine new marine parks and 11 aquatic reserves will expand Gabon's protected waters by 53,000 km^2, and the largest protected area in the network will extend to the 200 nautical mile limit of Gabon's Exclusive Economic Zone, protecting marine life from the shore to depths of 4 km. Smaller marine parks will protect vital points such as river mouths.
Source: WCS (2017) newsroom.wcs.org/News-Releases/articleType/ArticleView/articleId/10114/Gabon-Announces-Vast-Marine-Protected-Area-Network-at-UN-Ocean-Conference.aspx

Poisoned elephant carcass kills Critically Endangered vultures in Zimbabwe

A poisoned elephant carcass in Gonarezhou, Zimbabwe, has caused the deaths of 94 Critically Endangered white-backed vultures

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that fed on the carcass. The carcass was found in an area along the country's border with Mozambique that has become a hub for illegal wildlife trade. It is suspected that the elephant was killed by a watermelon laced with Temik, a carbamate pesticide, and as the elephant's tusks were removed it is thought that it was the target of ivory poachers. Previous research has shown that a single poisoned elephant carcass can cause the death of up to 500 vultures, but poachers also target vultures directly in an attempt to prevent them circling above carcasses and thus drawing attention to poaching activity. In response to the incident, BirdLife Zimbabwe plans to build on its ongoing anti-poisoning work to prevent the decline of vultures in Africa.
Source: BirdLife International (2017) birdlife.org/africa/news/poisoned-elephant-carcass-kills-94-critically-endangered-vultures-zimbabwe

SOUTH AND SOUTH-EAST ASIA

Mapping migrations for conservation

The increasing number of railways, roads, pipelines and border fences being constructed across Central Asia are threatening migratory species, including the Saiga antelope, Mongolian gazelle, wild camel, Argali sheep and Asiatic wild ass. Infrastructure developments can fragment habitats and impede movements that are critical for breeding, feeding and the avoidance of drought or winter weather. In 2015 over 5,300 Mongolian gazelles died because they were unable to cross the fenced tracks of the Trans-Mongolian Railway to escape the harsh winter weather. Experts have now mapped the distribution and movement corridors of 10 migratory mammals in 10 countries across the Central Asian region. This migratory atlas also includes the threats posed by planned and constructed linear infrastructure, such as roads and railways. It is hoped that presenting the data in a single database will aid understanding of the impacts of barriers on migratory steppe and mountain ungulates.
Source: WCS (2017) newsroom.wcs.org/News-Releases/articleType/ArticleView/articleId/10036/First-Central-Asian-Migration-Atlas-Created-to-Reduce-Harm-to-Wildlife-from-Infrastructure.aspx

Planned highway threatens India's flagship tiger reserve

Corbett Tiger Reserve at the foot of the Himalayas is India's oldest national park and is home to over 300 Bengal tigers as well as Asian elephants, leopards, sloth bears and spotted deer. A 2014 report estimated that the reserve had the highest density of tigers in the world and some of the most productive tiger habitat. However, the planned transformation of a small, partially paved road into a national highway would bisect this reserve and tiger territories, which can span up to 1,000 km^2. A proposed solution is to raise sections of the highway to facilitate the passage of wildlife beneath, and discussions are ongoing as the Supreme Court has requested an alternative alignment of the highway.
Source: Mongabay (2017) news.mongabay.com/2017/06/a-dangerous-path-new-highway-could-jeopardize-tigers-in-india/

Pakistan declares its first Marine Protected Area

Pakistan has designated Astola Island as the country's first marine protected area. The 6.7 km^2 island is Pakistan's largest offshore island and its beaches provide nesting grounds for the Endangered green turtle and the Critically Endangered hawksbill turtle. The treeless island is also home to the endemic Astola saw-scaled viper and a diverse assemblage of migratory birds, and the surrounding marine environment boasts a variety of corals, which provide crucial breeding grounds for many marine species. The declaration by the Government of Balochistan is a milestone in the country's efforts to meet target 11 of the Aichi Biodiversity Targets, which stipulates that at least 10% of a country's coastal and marine areas must be designated as marine protected areas.
Source: IUCN (2017) iucn.org/news/pakistan/201706/astola-island-%E2%80%93-pakistan%E2%80%99s-first-ever-marine-protected-area-declared

Nepal's wildlife at risk from spreading diseases

Although poaching of rhinoceroses, tigers and elephants has been drastically reduced in Nepal since 2011, wildlife is still being threatened by the spread of disease, in part from domestic animals and livestock. A survey of 100 domestic dogs in the buffer zones of Chitwan National Park found 27 individuals with canine distemper, a disease that killed at least four Bengal tigers *Panthera tigris tigris* in neighbouring India in 2013. Screening of captive elephants throughout Nepal has also found that 13% carry tuberculosis antibodies, and in 2016 a rhinoceros in Chitwan died of the disease. Staff from Nepal's National Trust for Nature Conservation are aiming to collect serum samples from c. 500 domestic dogs in Chitwan's buffer zones to screen for canine distemper.
Source: Mongabay (2017) news.mongabay.com/2017/05/with-poaching-curtailed-a-new-menace-to-nepals-wildlife/

Spoon-billed sandpiper winter habitat becomes Myanmar's fourth Ramsar site

Up to 180–220 spoon-billed sandpipers *Calidris pygmaea* arrive in the Gulf of Mottama every winter, accounting for almost 50% of the entire global population of this Critically Endangered wader. The Gulf of Mottama is also a vital wintering habitat for other migratory waders, including the great knot *Calidris tenuirostris* and the spotted greenshank *Tringa guttifer*, but until now it has had no formal protection status. Overfishing and bird hunting threaten the estuary as both a habitat and resource. Over the past decade fish catches declined by 50–90%, forcing fishers to seek alternative livelihoods elsewhere. Following a decade of pressure from NGOs, 45,000 ha of the Gulf have now been granted Ramsar protection. According to the Convention on Biological Diversity, 40% of 1,000 wetlands sampled were lost during 1970–2008, so this designation comes as a welcome step in global wetland conservation.
Source: BirdLife International (2017) birdlife.org/asia/news/safe-last-spoonies-winter-wonderland-becomes-ramsar-site, & *IUCN* (2017) iucn.org/news/myanmar/201705/conserving-wetlands-myanmar-gulf-mottama-myanmar%E2%80%99s-fourth-ramsar-site

Endangered softshell turtles released in Cambodia

The Endangered Asian giant softshell turtle *Pelochelys cantorii* was thought to be extinct in the Cambodian portion of the Mekong River until its rediscovery in 2007 in a stretch of the river between Kratie and Stung Treng Provinces. A community-based protection programme run by the Wildlife Conservation Society in collaboration with Cambodia's Fisheries Administration and the Turtle Survival Alliance now hires former nest collectors from these provinces to search for and protect nests. With community participation, 329 nests have been protected and 7,709 hatchlings have been released since 2007. The most recent release saw 150 hatchlings returned to their natural habitat along the Mekong River in an effort to boost the wild population of the species.
Source: WCS (2017) newsroom.wcs.org/News-Releases/articleType/ArticleView/

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articleId/10178/Over-150-Asian-Giant-Softshell-Turtles-Return-to-the-Wild.aspx

Updated map of seizures used to conserve the helmeted hornbill

TRAFFIC and the Environmental Investigation Agency have published an updated trade hotspot map that confirms China and Indonesia as the world's most important countries involved in the illegal trade in helmeted hornbill *Rhinoplax vigil* parts and products. The helmeted hornbill was recategorized from Near Threatened to Critically Endangered in just 3 years as a result of an increase in trade of the species' solid keratin casque. During 2010–2017 at least 2,878 helmeted hornbill casques, skulls and products were seized in at least 59 known confiscations. Indonesian Borneo experiences high levels of poaching, and Soekarno-Hatta International Airport in Jakarta is Indonesia's major international exit point for trafficked wildlife. Hong Kong and Shenzhen are the most important ports connecting shipments of hornbill parts from Indonesia to China.
Source: TRAFFIC (2017) traffic.org/home/2017/5/16/mapping-seizures-to-aid-conservation-of-imperilled-helmeted.html

Numbers of owls being traded in Indonesia on the rise

A survey of 20 bird markets on the islands of Bali and Java has confirmed that the number of owls being sold rose from an estimated few hundred per year before 2001 to 13,000 by 2016. Recent data reveal that whereas in 2001 owls accounted for $<$ 0.1% of birds being sold in markets, in 2016 they accounted for c. 1.5% in some markets. Researchers suggest that the increasing sales of owls are linked to the popularity of Harry Potter books, the first of which was translated into Indonesian in 2000. Owls do not have an official catch quota so their trade is illegal in Indonesia but the authorities are yet to prevent the sale of the popular scops owl and other species, and the country's owl population remains unmonitored.
Source: Nature (2017) nature.com/news/has-harry-potter-mania-cursed-indonesias-owls-1.22198

EAST ASIA

Prices of raw ivory in Vietnam have fallen dramatically...

The demand for carved ivory comes predominantly from mainland China but since the government announced plans to ban its domestic legal ivory trade the price of raw ivory in Asia has dropped. Vietnam has one of the largest ivory markets but recent data suggest that in Hanoi the average price for raw ivory dropped from USD 1,322 per kg in 2015 to USD 660 per kg in February 2017. China's ivory factories were officially shut down by 31 March 2017 and all retail outlets are to be closed by the end of 2017. Although the market for raw ivory in China has slowed, poaching has not declined in parallel. Experts believe traders are either stockpiling ivory or moving into the illegal trade. Africa's elephants, the main source of tusks brought into Vietnam, remain under threat as traders can now obtain ivory at a lower price.
Source: The Guardian (2017) theguardian.com/environment/2017/jun/02/chinas-ivory-ban-sparks-dramatic-drop-in-prices-across-asia

...and Hong Kong moves to ban domestic ivory trade...

Hong Kong has more ivory items for sale than anywhere else, and TRAFFIC has found that over a third of licensed ivory dealers advise buyers on ways to smuggle ivory out of the city. There are 386 legally registered ivory traders in Hong Kong with licenses to sell ivory obtained before the 1990 international ban. Following in the wake of China, Hong Kong has now proposed a bill to ban the import and export of both raw and worked ivory by 2021. The bill would also ban the possession and sale of all ivory obtained before 1990 and traders would have 5 years to destroy their ivory and close their businesses. The 2021 deadline remains a source of concern as an open market in Hong Kong could fuel the illegal ivory trade in China and undermine China's recent efforts.
Source: The Guardian (2017) theguardian.com/environment/2017/jun/26/hong-kong-launches-bill-ban-domestic-ivory-trade

...but report documents declining but persistent online wildlife trafficking in China

Ongoing monitoring has revealed that the number of advertisements illegally offering wildlife products on e-commerce websites and social media in China had dropped from more than 2,000 per month in 2012 to fewer than 1,000 by December 2016. Researchers used 112 keywords, 40 just for ivory, used by dealers to search and identify the online products. Ivory products had the highest share (63.2%) of new monthly advertisements, followed by rhino horn products (18.1%), hawksbill turtle shells (7.7%), helmeted hornbill casques (4.7%), tiger bones (4%), saiga horns (1.6%), pangolin scales (0.5%), leopard bones (0.2%) and whale products (0.1%). TRAFFIC has worked with tech companies to remove thousands of illegal postings, as dealers post on e-commerce websites and other public platforms to steer potential buyers towards social media, which remains the main channel for wildlife trafficking.
Source: TRAFFIC (2017) traffic.org/home/2017/5/22/new-study-documents-persistent-wildlife-trafficking-on-e-com.html

Giant pandas struggling to cope as their habitat warms

Data collected across six mountains along the Chinese edge of the Tibetan plateau have confirmed that giant pandas are struggling to adapt to their warming habitat. Over the past 40 years the area within panda habitat exposed to a potential stress of up to 30 °C had increased from 332 km² to 4,482 km². Previous research has indicated that 25 °C is the threshold for giant pandas to suffer heat stress, and a consistently warm environment can affect their reproductive abilities and cause dehydration and metabolic problems. Researchers suggest that artificial microhabitats such as cool retreats and maternity dens could provide short-term shelter for pandas. Planting trees and more bamboo could also increase available canopy cover but multiple constructions would be needed to allow pandas to extend their range, and to connect their fragmented habitat.
Source: New Scientist (2017) newscientist.com/article/2134586-cool-retreats-are-needed-to-save-giant-panda-from-warmer-weather/

A population crash could be on the horizon for Japanese badgers

The endemic Japanese badger *Meles anakuma* is regarded as a pest by farmers on Kyushu Island, who regularly trap the badgers. In Kyushu's Kagoshima prefecture killings rose from a few hundred to 4,354 last year and ecologists fear that the rate of this cull could lead to a population crash. Government officials confirm that the number of badgers culled in the 12 months to March 2016 was 70% up on the preceding year and local governments are increasingly promoting the killing of pests in efforts to mitigate crop damage. The legality of the cull is unclear but researchers are concerned that it is excessive, and data are lacking as the Kagoshima prefecture does not monitor its badger population. Badger meat is also becoming more popular in Japanese restaurants but it is unclear whether this demand is driving the culls or responding to the ready supply.

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Source: Nature (2017) nature.com/news/ecologists-warn-of-japanese-badger-cull-crisis-1.22131

NORTH AMERICA

Greenland's narwhals to help measure underwater ice melt

Greenland's ice sheet is 2,400 km long, covers 80% of the island and holds 8% of the world's fresh water. Warming climates are melting the surface of this sheet and in turn speeding up the melt below the surface. Researchers estimate that sea levels would rise by 7 m if the entire ice sheet melted but it is hard to gauge how quickly the ice from glaciers flowing off Greenland is melting underwater. Recent research reveals that narwhals are spending large amounts of time in and around melting ice, so much so that it appears to be the species' preferred habitat. Narwhals have previously been tagged with temperature sensors in Baffin Bay, Canada, and a team hope to do the same with Greenland's narwhals in 2018. The data will be transmitted to National Oceanic and Atmospheric Administration satellites as part of NASA's Oceans Melting Greenland project.

Source: New Scientist (2017) newscientist.com/article/2131630-narwhals-could-help-us-measure-melting-glaciers-underwater/

Conservationists call for park protection for Canada's hidden gem

A study conducted by Wildlife Conservation Society Canada has stressed the importance of an area known as the Bighorn Backcountry, just east of Banff National Park, in Alberta's Eastern Slopes region. The area includes vital spawning habitat for the bull trout, Alberta's provincial fish, secluded areas for female grizzly bears, which can be displaced from prime feeding sites near secondary roads, and denning habitat for wolverines, which may increasingly need to move to higher altitudes in search of deep snow. The study revealed that a Wildland Provincial Park covering c. 68% of provincial lands in the Bighorn Backcountry would conserve 93% of the most important habitats for grizzly bear, bull trout, bighorn sheep and wolverine. The area lies in the headwaters of the North Saskatchewan River, which could play an increasingly important role in the movement of fish and wildlife in response to climate change.

Source: WCS (2017) newsroom.wcs.org/News-Releases/articleType/ArticleView/articleId/10162/Bighorn-Backcountry-an-Alberta-gem-that-needs-to-be-safe-guarded.aspx

Yellowstone bears no longer to be listed as endangered?

Grizzly bears have been protected under the Endangered Species Act in all continental U.S. states except Alaska since 1975 but now the bears that roam both inside and outside Yellowstone National Park could be removed from the list of endangered and threatened species. In 1975 the Yellowstone population of grizzly bears was just 136, as numbers had been decimated by hunting and trapping. Although grizzly bears now occupy only 2% of their original territory, numbers of bears in and around Yellowstone have risen to an estimated 700 individuals, leading the U.S. Fish and Wildlife Service to conclude that the population has recovered. If the final ruling removes Yellowstone's grizzly bears from the list, states will be permitted to plan limited bear hunts outside the Park's boundaries as long as a viable population of more than 600 bears is maintained.

Source: The Guardian (2017) theguardian.com/world/2017/jun/22/yellowstone-grizzly-bears-endagered-species-protections-lifted

Human noise levels in U.S. parks far higher than expected...

Researchers have analysed over 1.5 million hours of recordings from 492 protected sites across the USA to determine how much noise in these areas is generated by people. By comparing a background noise model that eliminated all potential sounds created by people, such as engine noises, with estimates of wild soundscape levels the researchers assessed the extent to which man-made sounds contributed to noise levels in the sampled protected areas. Noise levels in 63% of the protected areas were twice as loud as they should be, and in 21% of sampled areas were 10 times louder than background levels. The data also revealed that the areas with the highest levels of protection were the quietest, and overall, protected areas were quieter than the unprotected spaces directly surrounding them. Previous research has demonstrated that noise pollution can affect how animals search for food.

Source: Nature (2017) nature.com/news/human-noise-in-us-parks-threatens-wildlife-1.21933

... and whale entanglements off the west coast of the USA are on the rise

During the 2016 fishing season, 71 whales were entangled in fishing equipment off the coast of Washington, Oregon and California, the highest number ever recorded by the National Oceanic and Atmospheric Administration (NOAA), and nine more reported cases than in 2015. Of these reported entanglements, 54 were humpback whales *Megaptera novaeangliae*, and four blue whales *Balaenoptera musculus*, three grey whales *Eschrichtius robustus*, one killer whale *Orcinus orca* and nine unidentified cases were also recorded. Algal blooms in 2016 shortened the fishing season and put pressure on fisheries to increase yields in a shorter time span, so best practice guidelines, such as minimizing the length of the line between buoys to keep lines taut, were not implemented.

Source: Mongabay (2017) news.mongabay.com/2017/06/whale-entanglements-sky-rocket-off-the-u-s-west-coast/

CENTRAL AMERICA AND CARIBBEAN

Fish species suffering in the Caribbean and Pacific islands

According to two regional Red List reports published by IUCN, overfishing and degradation of coral reefs across the Caribbean and Pacific islands are putting multiple fish species at risk of extinction. An assessment of 2,800 marine species across the 22 island states and territories of Oceania has revealed that 11% of assessed marine species in the region are threatened with extinction. A similar assessment of 1,360 marine bony shorefishes across 38 Caribbean countries and territories found that 5% are threatened by overfishing, predation by invasive lionfish, and the degradation of coral reefs and estuaries. In the Caribbean the Vulnerable red snapper *Lutjanus campechanus* and the Endangered Atlantic bluefin tuna *Thunnus thynnus* are targeted by fishers, and in Oceania four Vulnerable species of groupers, which are an important local food source, are threatened by the degradation of mangrove, seagrass and reef habitats.

Source: IUCN (2017) iucn.org/news/secretariat/201706/overfishing-reef-decline-threaten-greater-caribbean-and-pacific-island-fisheries-%E2%80%93-iucn-reports

Five Pacific islands declared free of invasive predators

A collaboration between NGOs, including BirdLife International, Island Conservation and SOP Manu, supported by landowners, volunteers and local government, has

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successfully rid five Pacific islands of invasive mammals. The project targeted six islands (Vahanga, Tenarunga, Temoe, Kamaka, Makaroa and Manui) in French Polynesia's Acteon Gambier island group, and just 2 years later 1,000 ha has been declared predator-free. The project has more than doubled the secure habitat for the Critically Endangered Polynesian ground-dove *Alopecoenas erythropterus*. Fewer than 200 of the birds remain globally and the Acteon Gambier island group is now home to the only viable population. Since the eradication of rats, local livelihoods in these remote islands have benefited, as land managers reported a doubling of their coconut kernel production in 2016. Plans are now underway to reintroduce the Polynesian ground-dove and the Tuamotu sandpiper *Prosobonia parvirostris* to Temoe island.
Source: BirdLife International (2017) birdlife.org/paradise-saved-worlds-rarest-birds-rebound-pacific-islands-cleared-invasive

Governance diversity key for protected areas in Belize

Belize is home to the second largest coral reef in the world and has 68 varied ecosystems, and it is now one of only a few countries that have met Aichi Biodiversity Target 11: to conserve 17% of terrestrial areas and 10% of marine areas. Belize currently manages 36.6% of its terrestrial area in protected areas and 19.8% of its marine area through a National Protected Areas System that relies on co-management partnerships, privately protected areas and Indigenous and Community Conserved Areas, in that order. The diversity of actors involved in protected area management includes government agencies, NGOs, community groups and logging concession holders, and could offer a model for countries with expanding protected area systems.
Source: IUCN (2017) iucn.org/news/protected-areas/201704/governance-diversity-belize

SOUTH AMERICA

New reserve declared in Brazil's Atlantic Forest...

88% of the Atlantic Forest, which once stretched across the east coast of Brazil, has been replaced with plantations and quarries, but although the remaining forest is highly fragmented, it supports a vast array of plants and animals. The cherry-throated tanager *Nemosia rourei* was thought to be extinct until the 1990s, when it was rediscovered in the Atlantic Forest. Fewer than 200 adult birds are estimated to remain but there is hope for one of the last strongholds of the species, as 1,688 ha in the Brazilian state of Espírito Santo have now been designated as the Águia Branca Private Reserve. The area is home to > 250 bird species, including the cherry-throated tanager. The private reserve will also provide refuge for the Endangered buffy-headed marmoset *Callithrix flaviceps* and the brown-throated sloth *Bradypus variegatus*.
Source: BirdLife International (2017) birdlife.org/worldwide/news/ravaged-deforestation-new-refuge-brings-hope-cherry-throated-tanager

...but rising deforestation in Brazil jeopardizes financial support from Norway...

Although the rate of deforestation in the Amazon decreased steadily during 2008–2014, in 2016 annual deforestation in the Brazilian Amazon increased by 29% to 8,000 km², prompting Norway to reconsider its financial aid. Since 2008 Norway has provided USD 1.1 billion to Brazil's Amazon fund, tied to reductions in the rate of deforestation. The Amazon fund supports a diversity of projects that work on deforestation issues, land regulation and the environmental management of indigenous lands. Increased deforestation, coupled with budget cuts to the environment ministry and controversial moves to remove protection from large areas of the Amazon, have caused Norway to announce that further deforestation will result in a withdrawal of funding. Under the rules Brazil set itself for the Amazon fund, a rise in deforestation to 8,500 km² would see the end of Norway's payments.
Source: The Guardian (2017) theguardian.com/environment/2017/jun/22/norway-issues-1bn-threat-brazil-rising-amazon-destruction

... and a new disturbance map shows the extent of forest degradation in Brazilian Amazon

The Silent Forest project assesses the extent and impact of forest degradation in the Brazilian Amazon, using a disturbance map to highlight the black spots of forest degradation and draw attention to areas affected by roads, logging and forest fires. Degradation, including the thinning of tree density and the culling of biodiversity below the canopy, is difficult for satellites to monitor as canopies can appear to be intact from the air, and as a result the impacts of degradation are often underestimated. During the 2015–2016 El Niño, fires affected 38,000 km² of the Brazilian Amazon, more than five times the area classified as deforested. The disturbance map also includes biodiversity information and reveals that recent devastating wildfires occurred in the habitat of the Critically Endangered black-winged trumpeter *Psophia obscura*.
Source: The Guardian (2017) theguardian.com/environment/2017/jun/20/brazil-amazon-forest-degradation-map

First ringed storm-petrel nests discovered in Chile

A team of scientists and volunteers from the Chilean Network of Ornithologists have located nesting grounds of the ringed storm-petrel *Oceanodroma hornbyi* in the Atacama Desert of northern Chile. The Humboldt Current flows along the west coast of South America and supports numerous species of storm-petrels. The birds come inland only to breed and nest but until now the breeding grounds of the ringed-storm petrel were unknown. The birds use natural holes and crevices in the rocky landscape to make their nests, and by following the distinctive 'old sock' smell of the birds the researchers identified 25 active nests. Based on the discovery researchers will be able to begin estimating the population size of the ringed storm-petrel and determine whether mining activity and proposed wind farm projects in the Atacama Desert will threaten this elusive species.
Source: Mongabay (2017) news.mongabay.com/2017/06/elusive-seabird-breeding-grounds-discovered-in-chilean-desert/

PACIFIC

Plastic waste covers an island thousands of kilometres away from human habitation

An expedition to the 5 km wide Henderson Island in the South Pacific has found 38 million items of rubbish weighing a total of 18 tonnes spread across its beaches. Halfway between Australia and South America, Henderson Island is 5,000 km from human occupation but has the highest density of washed-up plastic rubbish in the world. The island is located on the edge of the South Pacific Gyre, a circular current that traps debris, and its beaches have an average of 239 items of rubbish per m², 99.8% of which are plastic. The waste includes items decades old, such as toy soldiers that were popular in the 1970s.

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A large portion of the rubbish originates from South America, where the South Pacific Gyre sweeps up the west coast of the continent.
Source: New Scientist (2017) newscientist.com/article/2131051-remote-pacific-island-found-buried-under-tonnes-of-plastic-waste/

Fiji commits to sustainably managing one of its most diverse and productive marine areas

Fiji's Ministry of Fisheries has announced the country's commitment to scaling up its marine conservation efforts, with the designation of the Bligh Waters and Central Viti marine managed areas. Spanning 13,650 km², both areas lie within Fiji's Vatu-i-Ra Seascape, an ecologically unique breeding and calving ground for humpback whales migrating from Antarctica. The rich biodiversity of the Seascape, including sharks, rays, corals, turtles, seabirds and > 200 fish species, provides USD 22.8 million annually from tourism alone. The fisheries benefiting from the Seascape are valued at USD 11.6 million, but overfishing, a growing human population and increased market access are threatening the area's sustainability. The designation of the Bligh Waters and Central Viti marine managed areas will contribute further to Fiji's commitments under the Convention on Biological Diversity.
Source: WCS News (2017) newsroom.wcs.org/News-Releases/articleType/ArticleView/articleId/10133/Fijis-Commitment-to-Marine-Managed-Areas.aspx

AUSTRALIA/ANTARCTICA/NEW ZEALAND

A warmer climate spells bad news for Antarctica's native plants and insects...

Since collection of meteorological data began in Antarctica in the 1950s the region has warmed by approximately 0.5 °C every decade. This warming climate has resulted in an influx of invasive plants, including non-native meadow grasses and sunflower species, and insects such as the common house fly, which carries foreign pathogens. Plant life occurs on only 0.3% of the continent, but as glaciers have retreated the newly exposed land is being colonized by mosses, which are growing four or five times faster than pre 1950 rates and are providing new habitats for invasive species. Researchers warn that current biosecurity measures in Antarctica are inadequate and need immediate attention. In addition to the threat of global warming, personal items of those visiting Antarctica can carry bugs or seeds, and with 43,000 tourists expected to visit the continent in the 2016–2017 season the scale of potential contamination is vast.
Source: The Guardian (2017) theguardian.com/world/2017/jun/17/antarctica-insect-plant-invasion-house-flies-mosses-warmer-climate

... and Emperor penguins

Emperor penguins are currently being considered for listing under the U.S. Endangered Species Act and a recent model predicts that many colonies will have vanished by 2100. Previous research has suggested that melting sea ice as a result of climate change could cause numbers of the largest penguin to drop by 19% by 2100 but this new model takes into account additional factors, including how individual penguins adapt to climate change by migrating to places with optimal sea ice coverage. The latest model used data collected from Pointe Géologie in Antarctica along with satellite images of penguin colonies to analyse travelling and foraging behaviour. The model projects that although populations will remain stable, or may even increase, for the next 2 decades, after 2050 climate change will have rendered their habitats inhospitable and global populations will plummet.
Source: Science (2017) sciencemag.org/news/2017/07/emperor-penguins-may-disappear-end-century, & *Biological Conservation* (2017) dx.doi.org/10.1016/j.biocon.2017.05.017

UNESCO urges Australia to act on water quality targets for Great Barrier Reef

A draft decision issued by UNESCO has suggested the Great Barrier Reef remains off the list of World Heritage sites in danger but warns that Australia will not meet the targets of the Reef 2050 report without rapidly addressing issues of water quality. The report noted the Australian and Queensland governments have established an AUD 1.28 billion investment strategy, the majority of which will be spent on improving water quality, but warned that progress on reducing the number of agricultural pollutants flowing into the reef has been slow and water quality targets crucial to the resilience of the reef are unlikely to be met at current rates. The latest data show a sharp decline in coral cover in the north of the Great Barrier Reef in May 2017, and back-to-back coral bleaching events have affected approximately two-thirds of the reef.
Source: The Guardian (2017) theguardian.com/environment/2017/jun/03/great-barrier-reef-australia-must-act-urgently-on-water-quality-says-unesco

Airguns used in oil exploration surveys kill krill

Researchers have shown for the first time that the seismic sound blasts emitted by airguns used to search for new oil reserves under the ocean floor kill zooplankton. Zooplankton, which includes worms, and crustaceans such as krill, is crucial for maintaining healthy populations of species higher up the food chain. Researchers surveyed zooplankton populations before and 1 hour after setting off an airgun near the south-east coast of Tasmania and found that the sound burst created a 2 km wide hole in the zooplankton population. In this area the number of dead zooplankton more than doubled and zooplankton abundance dropped by two-thirds. Airguns are used on 60,000 km of marine survey trips per year in Australia, and previous research has revealed that they also cause behavioural changes and hearing loss in whales, dolphins and giant squid, reducing their ability to hunt and communicate.
Source: New Scientist (2017) newscientist.com/article/2138326-oil-exploration-airguns-punch-2-kilometre-wide-holes-in-plankton/

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