

# Briefly

## INTERNATIONAL

### Could sustainable shark fishing be a feasible solution?

High demand for shark products, poor fishery regulation and high levels of incidental catch have resulted in many shark populations being overfished. However, research that examined the global stock assessments of 65 shark populations of 47 species found that 39 of the populations, representing 33 species, are currently harvested at sustainable levels. Whilst the take of biologically sustainable sharks comprised 7–9% of global totals, just 4% of global trade in sharks was sustainably managed. Knowing the speed with which sharks reproduce and the proportion of old versus young fish in a population is vital to understanding whether a species is biologically sustainable, and labelled and traceable products are necessary to ensure shark products emanate from a well-managed source. Currently just 9% of shark fins on the market originate from sharks whose populations are being fished sustainably and few products are easily traceable.

Source: *Nature* (2017) [nature.com/news/harvesting-sharks-could-be-key-to-saving-them-1.21463](https://doi.org/10.1016/j.cub.2016.12.017), & *Current Biology* (2017) [dx.doi.org/10.1016/j.cub.2016.12.017](https://doi.org/10.1016/j.cub.2016.12.017)

### ... and world's first guidelines for shark and ray tourism operators are issued

One in four shark and ray species are now threatened with an increased risk of extinction but the global tourism industry related to rays continues to grow. The number of tourism operations centred on interactions with sharks and rays is predicted to double in the next 20 years, generating an estimated USD 780 million. To capitalize on the conservation potential of well-managed shark and ray tourism operations, Project AWARE, WWF and The Manta Trust have released the world's first guide to best practice for responsible shark and ray tourism. The guide includes access to the latest science-based guidance and practical tools to help tourism operators, NGOs and communities sustainably conserve shark and ray species.

Source: WWF (2017) [wwf.panda.org/wwf\\_news/?294091/Worlds-first-ever-best-practice-guide-for-responsible-shark-and-ray-tourism-released](https://www.panda.org/wwf_news/?294091/Worlds-first-ever-best-practice-guide-for-responsible-shark-and-ray-tourism-released)

### Numbers of invasive species continue to rise despite international efforts

Analysis of over 45,000 records of almost 17,000 established alien species confirms that the number of new introductions of invasive species is increasing. Throughout the last 2 centuries numbers have continued to rise, with more than a third of all first introductions recorded between 1970 and 2014. Increases in first records of invasive vascular plants in the 19th century can be partially explained by the intensification of horticulture, and the steep rise in new introductions of algae, molluscs and insects after 1950 is likely to be a result of the growth of global trade. Numbers of invasive alien species are expected to rise across all classes, with the exception of mammals and fish. To safeguard biodiversity and human well-being in light of these increases, the Honolulu Challenge on Invasive Alien Species was launched at the IUCN World Conservation congress in Hawai'i.

Source: IUCN (2017) [iucn.org/news/secretariat/201702/invasive-alien-species-rise-worldwide](https://www.iucn.org/news/secretariat/201702/invasive-alien-species-rise-worldwide)

### Discrepancies in palm oil reporting leave almost one million ha unaccounted for

Analysis conducted by the Zoological Society of London's Sustainable Palm Oil Transparency Toolkit team has revealed that many of the largest palm oil producers report only on the areas of planted land they hold, rather than the total land under their management. Oil palm plantations currently cover almost 27 million ha worldwide, and failure to measure all managed land precludes sustainability and accountability. Unreported areas include undeveloped land that could be at risk of deforestation, infrastructure areas where negative impacts should be mitigated, and areas designated for the conservation of Critically Endangered species, including the Sumatran tiger *Panthera tigris sumatrae* and orangutan *Pongo abelii*.

Source: Zoological Society of London (2017) [zsl.org/conservation/news/palm-oil%E2%80%99s-hidden-hectares](https://www.zsl.org/conservation/news/palm-oil%E2%80%99s-hidden-hectares)

### Uncertain future for *Numeniini* species...

A recently published review of threats to large waders—curlews, whimbrels, godwits and upland sandpipers—across their migratory flyways has concluded that seven

out of 13 species are now threatened with extinction. Every year these migratory birds travel from their breeding sites in the northern hemisphere to the southern extremities of all continents apart from Antarctica. One member of the *Numeniini* tribe, the bar-tailed godwit *Limosa lapponica*, travels 11,000 km from Alaska to New Zealand annually, the longest known non-stop migration without feeding. The study concludes that the most serious threat to large waders is habitat loss and degradation, especially across Asia. A quarter of the mudflat habitats in the Yellow Sea have been lost since the 1980s, dramatically reducing roosting and feeding opportunities in non-breeding ranges and leaving at least 27 species at risk of extinction.

Source: *BirdLife International* (2017) [birdlife.org/worldwide/news/curlews-crisis](https://www.birdlife.org/worldwide/news/curlews-crisis)

### ... and flying foxes

Almost half of flying fox species are threatened with extinction as a result of deforestation, invasive species and, primarily, hunting by humans. The fruit bats are hunted for their meat, their supposed medicinal properties and sport, and to protect fruit crops. The threats are exacerbated by the fact that most species of flying foxes inhabit islands, where there may be fewer refuge options available. The bats are of critical importance to island ecosystems, where in many cases they are the only pollinators and seed dispersers. Their loss could have cascading effects that would ultimately result in ecosystem collapse. Recovery is possible if island nations act to provide legal protection for the bats and enforce existing laws. On Pemba Island, in the Indian Ocean, the population of flying foxes has recovered from just a few individuals to more than 20,000 as a result of 2 decades of conservation action.

Source: *Science* (2017) [dx.doi.org/10.1126/science.aam7582](https://doi.org/10.1126/science.aam7582), & *New Scientist* (2017) [newscientist.com/article/2126378-flying-foxes-are-facing-extinction-on-islands-across-the-world/](https://www.newscientist.com/article/2126378-flying-foxes-are-facing-extinction-on-islands-across-the-world/)

### Performance of marine protected areas hindered by lack of management resources

Marine protected areas are a popular conservation approach to protecting marine resources and biodiversity; however, their impact depends on the levels of staff and funding allocated to their management.

A 4-year global study of 589 marine protected areas compiled and analysed data on site management and fish populations, and set out to answer a number of key questions, including whether marine protected areas are meeting their social and ecological objectives, and whether they are being managed effectively. The study found that the recovery of fish populations was being hindered by inadequate staffing and funding. Although fish populations increased in 71% of the marine protected areas studied, the conservation impacts were highly variable, with staff and budget being the strongest predictors of conservation impact. These results highlight the potential for enhancing the management of marine protected areas by building their capacity to ensure they achieve optimal conservation outcomes.

Source: *Nature* (2017) [dx.doi.org/10.1038/nature21708](https://doi.org/10.1038/nature21708), & *WCS* (2017) [newsroom.wcs.org/News-Releases/articleType/ArticleView/articleId/9933/Lack-of-Staffing-Funds-Prevent-Marine-Protected-Areas-from-Realizing-Full-Potential.aspx](https://www.wcs.org/News-Releases/articleType/ArticleView/articleId/9933/Lack-of-Staffing-Funds-Prevent-Marine-Protected-Areas-from-Realizing-Full-Potential.aspx)

### Earth Hour's 10th anniversary

A record number of countries and territories participated in WWF's Earth Hour on 25 March, with more than 3,000 iconic landmarks switching off their lights, including Sydney Opera House, the Empire State Building, the Eiffel Tower, Sheikh Zayed Grand Mosque, the pyramids of Egypt, the Tokyo Tower, and Big Ben and the Houses of Parliament in London. The event marked the 10th anniversary of the Earth Hour movement, which aims to inspire and mobilize people to unite as a global community to take action against climate change at personal, community and national levels, with a focus on issues such as renewable energy, sustainable lifestyles, biodiversity conservation, and climate policy. Millions of individuals, businesses and organizations worldwide participated, and seven countries focused their campaigns specifically on changing policy. Source: *WWF* (2017) [www.panda.org/wwf\\_news/?295870/Climate%2Daction%2Dshines%2Dbright%2Das%2Drecord%2Dnumber%2Dof%2Dcountries%2Dand%2Dterritories%2Djoin%2DEarth%2DHours%2Dtenth%2Danniversary](https://www.panda.org/wwf_news/?295870/Climate%2Daction%2Dshines%2Dbright%2Das%2Drecord%2Dnumber%2Dof%2Dcountries%2Dand%2Dterritories%2Djoin%2DEarth%2DHours%2Dtenth%2Danniversary)

### IUCN World Heritage report highlights vulnerability of steadily warming Arctic

As sea ice retreats, previously inaccessible areas of the Arctic Ocean are being opened up to activities such as oil exploration, shipping and bottom trawl fishing. In light of this, a report produced by IUCN in

partnership with UNESCO's World Heritage Centre and the Natural Resources Defense Council has identified seven globally significant marine sites in the Arctic Ocean that warrant protection. A number of these sites could potentially qualify for World Heritage Status, including the Remnant Multi-Year Sea Ice and Northeast Water Polynya Ecoregion, which has the oldest and thickest ice in the Arctic; the Northern Baffin Bay Ecoregion, home to the largest aggregation of a single species of seabird (the little auk); and the Scoresby Sound Polynya Ecoregion, the world's largest fjord system, which supports the Critically Endangered Spitsbergen stock of bowhead whale.

Source: *IUCN* (2017) [iucn.org/news/secretariat/201704/iucn-world-heritage-report-stresses-urgency-protecting-arctic-ships-and-oil-ice-melts](https://www.iucn.org/news/secretariat/201704/iucn-world-heritage-report-stresses-urgency-protecting-arctic-ships-and-oil-ice-melts)

### Corals at risk as rising carbon emissions favour destructive seaweeds...

A study conducted on Heron Island, a coral cay north-east of Gladstone at the southern end of the Great Barrier Reef, has revealed that greater concentrations of carbon in oceans cause some algae to produce more potent chemicals, increasing the rate at which corals are suppressed or killed. As common weed-like algae compete for space they can poison corals and if CO<sub>2</sub> emissions continue at today's rates vital corals will be significantly harmed by 2050 and wiped out by 2100 as these seaweeds spread. One of the most damaging seaweeds identified in the study is present in reefs worldwide and as removal of seaweeds is practically impossible because of their ability to regrow rapidly, cutting carbon emissions is the only way to reduce the risk of algae overtaking coral on a global scale.

Source: *The Guardian* (2017) [theguardian.com/environment/2017/feb/03/rising-carbon-emissions-could-kill-off-vital-corals-by-2100-study-warns](https://www.theguardian.com/environment/2017/feb/03/rising-carbon-emissions-could-kill-off-vital-corals-by-2100-study-warns)

### ...and depleted oxygen levels threaten fish stocks

A study conducted at Geomar Helmholtz Centre for Ocean Research in Germany has analysed data for 1960–2010, comprehensively documenting changes in oxygen distribution in the world's oceans. According to the study, oxygen levels in oceans have fallen 2% in 50 years as a result of climate change, and if global warming continues unchecked this could rise to 7% by 2100. The Pacific has suffered the greatest volume of oxygen loss and the Arctic has witnessed the sharpest percentage decline.

Oceans absorb more than 30% of the carbon produced on land and lower oxygen levels are expected to force marine animals into shrinking areas of suitable habitat. Fish that rely on dissolved oxygen will experience slower growth, reach smaller sizes and produce fewer offspring.

Source: *The Guardian* (2017) [theguardian.com/environment/2017/feb/20/fish-under-threat-oxygen-depletion-oceans-study](https://www.theguardian.com/environment/2017/feb/20/fish-under-threat-oxygen-depletion-oceans-study)

### Shh! Whales whispering!

New recordings have shown that humpback whale mothers and calves whisper to each other. The quiet grunts and squeaks can be heard only at close range, whereas the well-known haunting sounds of this whale can be heard at great distances. The research team, who tracked eight baby whales and two mothers outside Exmouth Gulf off West Australia, believe that by calling quietly to its mother the calf is less likely to be overheard and preyed on by killer whales. Calves must stay close to their mother to feed and grow before they set off on their long annual migration to the food-rich waters of the Antarctic or Arctic. The nursery grounds of tropical waters, where they feed and build up fat stores, are key to their survival during migration.

Source: *Functional Ecology* (2017) [dx.doi.org/10.1111/1365-2435.12871](https://doi.org/10.1111/1365-2435.12871), and *BBC News* (2017) [bbc.co.uk/news/science-environment-39720454](https://www.bbc.co.uk/news/science-environment-39720454)

## EUROPE

### Cave-dwelling fish recorded for the first time in Europe

There are c. 200 species of cave fish globally but until recently none had been discovered in Europe. The cave loach discovered in a 250 km<sup>2</sup> underground cave in southern Germany is believed to be the most northerly species of cave fish ever recorded. The scaleless, pink fish has limited vision but genetic analysis has revealed it is closely related to stone loaches found in the nearby rivers, the Danube and the Radolfzeller Aach. Divers have observed approximately 150 of the fish but it is expected that numbers are much higher, given that only a small portion of the cave is accessible to divers. The finding in Germany came as a surprise as there are an estimated 400 cave-dwelling creatures in the Western Balkans so if a cave fish was to be discovered in Europe, it was thought likely to be in this more southerly region.

Source: *BBC News* (2017) [bbc.co.uk/news/science-environment-39446505](https://www.bbc.co.uk/news/science-environment-39446505)

### Population crash likely as wrasse numbers drop

Wrasse are used to remove sea lice from the skin of farmed salmon, enabling salmon farmers to use fewer damaging pesticides. In the wild, wrasse feed on molluscs and crustaceans and control populations of sea urchins that can otherwise devastate kelp forests. Samples from four marine protected areas where fishing is banned, and four regions where fishing is permitted, all along the Skagerrak coast of southern Norway, have revealed that wild wrasse populations are declining. Goldsinny wrasse were 65% more abundant in samples from non-fishing zones and the corkwing wrasse was 92% more abundant in some samples from non-fishing zones. In 2008 <2 million wrasse were taken by Norwegian fishing crews to supply salmon farmers, but by 2016 the catch had increased to 22 million. In light of these findings the Directorate of Fisheries in Norway is reviewing the relevant fishing regulations.

Source: *New Scientist* (2017) [newscientist.com/article/2125726-fish-that-keep-salmon-clean-and-healthy-risk-being-wiped-out/](http://www.newscientist.com/article/2125726-fish-that-keep-salmon-clean-and-healthy-risk-being-wiped-out/)

### Gin o'clock is safe...

The future of gin is safe following the collection and protection of seeds of juniper plants, the spirit's key ingredient, from across the UK. The seeds will be stored in the Millennium Seed Bank in Wakehurst, Sussex. While gin sales have enjoyed a recent boom, juniper has been threatened by disease. The fungus *Phytophthora austrocedrae* has been particularly damaging for juniper in Scotland, one of the main areas for juniper growth. Although the seed storage will not cure disease, project managers hope it will aid conservation and save juniper from extinction. The project is run by the Royal Botanic Gardens, Kew, and funded by the People's Postcode Lottery. Juniper hotspots in the UK include Wiltshire, Oxfordshire, Cumbria, Conwy and the Scottish Highlands. The juniper seeds will be kept in jars and stored in freezers at  $-20^{\circ}\text{C}$ .

Source: *BBC News* (2017) [bbc.co.uk/news/uk-38802397](http://www.bbc.co.uk/news/uk-38802397)

### ... UK plans to save 20 species from extinction...

The Back from the Brink initiative, supported by lottery funding of GBP 4.6 million, will bring together charities and conservation organizations from across the UK to save 20 target species, including little-known insects and plants, from

extinction. The scheme will focus on boosting conservation efforts in 150 key habitats and landscapes, and is expected to have positive impacts on a further 200 threatened species, including pine martens, hedgehogs, lesser butterfly orchids, and large garden bumblebees. The majority of species on the brink of extinction are invertebrates, including bugs, beetles, ants and spiders, and one of the projects of the initiative will involve the reintroduction of the chequered skipper butterfly, which became extinct in England in 1975. Adult butterflies will be collected from healthy populations in Belgium and released in Rockingham Forest, in Northamptonshire. Other projects include restoring locally extinct plants in agricultural landscapes, and creating a network of grasslands in the Cotswolds.

Source: *New Scientist* (2017) [newscientist.com/article/2126399-uk-plans-to-bring-20-species-back-from-brink-of-extinction/](http://www.newscientist.com/article/2126399-uk-plans-to-bring-20-species-back-from-brink-of-extinction/)

### ... but barn owls are struggling...

Research from the Barn Owl Trust suggests that numbers of barn owls *Tyto alba* in the UK dropped by 70% during the 20th century. Improvements in farming techniques mean farmers can now cultivate the majority of their farmland, reducing the availability of rough grassland verges for barn owls to hunt in. The development of sealed grain silos means that grain is no longer stored in enclosures on farmland and thus another potential hunting area for barn owls has almost vanished. Road fatalities, rat poisons and the loss of suitable nesting sites are also contributing to the decline. Results from the Barn Owl Trust's annual nest site survey reveal that in 2016 the number of nesting pairs was down 6% on the all-year average, and the number of young in the nest was down 7%. Whilst concerning, these figures are an improvement on 2015 numbers, when severe weather caused nesting occupancies to drop to 25% below the all-year average.

Source: *BirdLife International* (2017) [birdlife.org/europe-and-central-asia/news/british-barn-owls-still-struggling-adapt-modern-life](http://www.birdlife.org/europe-and-central-asia/news/british-barn-owls-still-struggling-adapt-modern-life)

### ... and UK beaches are littered with nurdles

The Great Winter Nurdle Hunt organized by Fidra in collaboration with Fauna & Flora International, the Marine Conservation Society, the Environmental Investigation Agency, Greenpeace and Surfers Against Sewage revealed that 73% of UK beaches contained nurdles—small plastic pellets about the size of a lentil. Approximately 127,500 pellets were

collected on a 100 m stretch of beach at Widemouth Bay in Cornwall, the highest number recorded in this year's survey. These plastic pellets are one of the main sources of primary microplastics and campaigners are asking the government to ensure best practice is in place along the entire plastic supply chain to prevent further build-up of nurdles. The data collected by over 600 volunteers will inform the government's consultation on how best to tackle microplastic pollution.

Source: *The Guardian* (2017) [theguardian.com/environment/2017/feb/17/tiny-plastic-pellets-found-on-73-of-uk-beaches](http://www.theguardian.com/environment/2017/feb/17/tiny-plastic-pellets-found-on-73-of-uk-beaches)

## NORTH EURASIA

### Year of Ecology in Russia

Changes to legislation concerning water, forestry and land codes in Russia will come into effect this year accompanied by public events across all regions of Russia. 2017 also sees Russia celebrate the 100th anniversary of the state's first natural reserve—Barguzinsky. Seven national parks, two state nature reserves and two federal wildlife reserves are to be created, the highest number of federally Protected Areas created in a year to date. The Year of Ecology is intended to be a landmark in Russia's strategy to strengthen and expand protected areas whilst promoting environmental education amongst the public. A new volume of the Red Book of Endangered Species of the Russian Federation will be published and efforts to reintroduce European bison, the Persian leopard and Przewalski's horse will continue. Russia also intends to restore 800,000 ha of forest in 2017 as vast areas, including within the Baikal natural territory, were decimated by wildfires in 2015.

Source: *IUCN* (2017) [iucn.org/news/eastern-europe-and-central-asia/201703/year-ecology-russia](http://www.iucn.org/news/eastern-europe-and-central-asia/201703/year-ecology-russia)

## NORTH AFRICA AND MIDDLE EAST

### Reptiles sold openly in Moroccan markets

Surveys in 2013 and 2014 recorded more than 1,500 specimens of at least nine reptile species for sale openly in 14 markets in Moroccan towns. Morocco has one of the highest diversities of reptiles in the Mediterranean, with approximately 25 endemic species. Under national law, collection of species should not occur unless trade can be proved to be sustainable but

lack of resources has hampered enforcement and monitoring. Reptiles are sold for use in traditional medicines or as good luck charms, and researchers estimated that the combined value of the live, dried, or stuffed animals recorded for sale during the surveys was USD 100,000. Species protected under CITES, to which Morocco has been a party since 1975, including the Mediterranean chameleon, Bell's Dabb lizard and the spur-thighed tortoise, were openly displayed for sale.

Source: *Mongabay* (2017) [news.mongabay.com/2017/04/reptiles-being-sold-openly-and-illegally-in-moroccan-markets/](https://news.mongabay.com/2017/04/reptiles-being-sold-openly-and-illegally-in-moroccan-markets/)

### Lucrative poaching of songbirds continues in Cyprus

A study conducted by the UK's Royal Society for the Protection of Birds and BirdLife Cyprus during the autumn migration season between September and October last year found that 1.7 million birds were illegally killed across the Republic of Cyprus. Cape Pyla, located within British military territory, is a rest stop for nearly half of the migratory bird species from Europe, Africa and the Middle East. According to the study this area is the worst in the country for bird trapping, with trapped songbirds being sold on the black market for as much as GBP 1 each. Recorded birdsong lures birds towards acacia shrubs where they are caught in mist nets that can trap 400 birds each. Researchers are calling on British authorities to remove these acacia bushes but, as the majority of restaurants serving the songbird delicacy *ambelopoulia* are within the Cyprus Republic, action is also needed from Cypriot authorities.

Source: *BBC News* (2017) [bbc.co.uk/news/science-environment-39281924](https://www.bbc.co.uk/news/science-environment-39281924)

## SUB-SAHARAN AFRICA

### Early signs of success as scimitar-horned oryx return to the Sahara

The scimitar-horned oryx *Oryx dammah* traditionally occupied the edges of the Sahara desert but was categorized as Extinct in the Wild in 2000 following extended civil unrest in the 1980s and 1990s across the southern Sahara. Since then the species has survived in captivity only but now a joint project led by the Government of Chad and the Environment Agency of Abu Dhabi has successfully released 14 captive-bred oryx in a remote region of Chad. The group of six males and eight females join a herd of 21 oryx that were reintroduced

to the 78,000 km<sup>2</sup> Ouadi Rimé-Ouadi Achim Reserve in late 2016. The herd is thriving in their native grasslands and have experienced the first birth of a scimitar-horned oryx in the wild for more than 2 decades. Each oryx has a GPS-enabled satellite tag, allowing conservationists to track the movements of this iconic species.

Source: *ZSL News* (2017) [zsl.org/conservation/news/scimitar-horned-oryx-returns-to-sahara](https://www.zsl.org/conservation/news/scimitar-horned-oryx-returns-to-sahara)

### Cameroon commits to restoring 12 million ha of forest...

The Bonn Challenge was launched in 2011 in a global effort to restore 150 million ha of degraded and deforested land by 2020 and 350 million ha by 2030. Cameroon's pledge to restore 12 million ha of forest is the biggest commitment made so far in the Congo Basin and brings the total number of ha pledged under the Bonn Challenge to >148 million. 46% of Cameroon is covered by forests that are renowned for their high levels of biodiversity, and as part of the country's obligations under the Paris Agreement Cameroon has a national target of reducing carbon emissions by 32% by 2035. At the global level it is thought that achieving the 2030 Bonn Challenge goal could result in sequestering up to 1.7 gigatonnes of CO<sub>2</sub> equivalent annually as well as providing economic benefits from watershed protection, improved crop yields and forest products.

Source: *IUCN* (2017) [iucn.org/news/forests/201702/cameroon-restore-12-million-hectares-forest-species-rich-congo-basin](https://www.iucn.org/news/forests/201702/cameroon-restore-12-million-hectares-forest-species-rich-congo-basin)

### ...and reaffirms its determination to tackle pangolin poaching

On 17 February, on the eve of World Pangolin Day, Cameroon burnt over 3,000 kg of pangolin scales that had been seized by traffickers, mainly at airports in the cities of Yaoundé and Douala. A further c. 5,000 kg of scales are being held under seal pending the trials of suspected traffickers. The move follows the burning of the country's ivory stockpile last year. Cameroon has three pangolin species, all of which are fully protected under CITES; however, in recent years there has been an upsurge in the illegal trade in pangolin scales, and over 8,000 kg of scales were seized during 2013–2016, which equates to the killing of several thousand pangolins. The burning of the scales signifies the government's determination to tackle poaching and illicit trade in pangolins, and the illegal wildlife trade in general. Pangolins are currently the most trafficked mammal.

Source: *WWF* (2017) [wwf.panda.org/wwf\\_news/?292691/Tons-of-pangolin-scales-up-in-flames-in-Cameroon](https://www.panda.org/wwf_news/?292691/Tons-of-pangolin-scales-up-in-flames-in-Cameroon)

### Gabon's forest elephants devastated by poaching

Minkébé National Park in Gabon was established in 2002, in part to protect Gabon's forest elephants *Loxodonta cyclotis*. The 7,570 km<sup>2</sup> National Park and 2,403 km<sup>2</sup> of adjoining buffer zones are in a remote region of Gabon, c. 48 km from the nearest major road and surrounded by dense forest and swamp. The area once had the highest density of elephants in Central Africa but recent research reveals that numbers of forest elephants in Gabon declined by 80% between 2004 and 2014. Scientists counted dung piles along 1 km long transects and concluded that the number of elephants in and around the park dropped from c. 35,000 to just 7,000 over the study period, probably as a result of poaching. The scale of loss in the area surrounding Minkébé National Park is high given that this isolated park was previously an elephant stronghold.

Source: *Science* (2017) [sciencemag.org/news/2017/02/no-place-safe-africa-s-hunted-for-est-elephants](https://www.sciencemag.org/news/2017/02/no-place-safe-africa-s-hunted-for-est-elephants)

### World's largest canary misidentified

*Neospiza concolor* has been renamed as the São Tomé grosbeak *Crithagra concolor* following years of fieldwork and recent genetic analysis. Endemic to the rainforests of São Tomé island in the Gulf of Guinea, the brown bird is about 20 cm long and lives in the forest canopy. This Critically Endangered bird is one of the least observed birds on the volcanic island, discovered in 1888 and not recorded again until 101 years later. Its flattened head and large beak caused the bird to be classified as a separate genus, *Neospiza*, meaning 'new finch' but it is actually the largest canary in the world, 50% heavier than the next largest species. Its closest relative is *Crithagra rufobrunnea* on the neighbouring island of Príncipe. São Tomé and Príncipe are also home to an endemic sunbird and weaver bird which, like the grosbeak, are the largest in their respective families.

Source: *New Scientist* (2017) [newscientist.com/article/2126894-worlds-largest-canary-discovered-on-island-of-giants-and-dwarfs/](https://www.newscientist.com/article/2126894-worlds-largest-canary-discovered-on-island-of-giants-and-dwarfs/)

### Discovery of new ginger species in one of the most biodiverse areas in Africa

A new species of wild ginger has been discovered on the Kabobo Massif, a

mountainous region in the Democratic Republic of Congo. The plant, *Aframomum ngamikense*, is named after the four main peaks in the Kabobo Massif: Ngandja, Misotshi, Kabili and Kabobo (Ngamikka) and is found only in the higher altitudes of forest at 1,500–2,000 m. There are c. 50 known species of ginger throughout Africa and both the fruits and roots of the plant are consumed by people and wildlife. The Kabobo Massif is a highly biodiverse region with over 1,410 documented plant species and 558 terrestrial vertebrates. Surveys in 2007 and 2012 identified eight new endemic species, including four mammals, a bird and three plants, and it is hoped that these discoveries will result in the upgrading of the status of both Kabobo Natural Reserve and the Ngandja Reserve to National Reserves.

Source: WCS (2017) [newsroom.wcs.org/News-Releases/articleType/ArticleView/articleId/9937/Discovery-of-New-Ginger-Species-Spices-up-Wildlife-Surveys.aspx](https://newsroom.wcs.org/News-Releases/articleType/ArticleView/articleId/9937/Discovery-of-New-Ginger-Species-Spices-up-Wildlife-Surveys.aspx)

### Coordinating responses to combat invasive caterpillars in Africa

The invasive fall armyworm *Spodoptera frugiperda* was first identified in West Africa in January 2016 and has since spread to at least 12 countries across the continent. Originating from Central and South America, the larval form of the fall armyworm moth has destroyed at least 290,000 ha of cropland across four countries to date. The Food and Agriculture Organization of the United Nations estimates that Brazil spends USD 600 million each year to control fall armyworm infestations. Unlike Africa's own species of the armyworm *Spodoptera exempta*, the invasive caterpillar eats the reproductive parts of plants and has severely impacted the production of staple crops, including maize, millet and sorghum. Following an emergency meeting in Zimbabwe, sixteen African countries have agreed to urgent plans to strengthen the region's capacity to manage crop pests. Research is also being undertaken to understand how the caterpillar reacts to insecticides and the potentially harder, genetically modified maize, *Bt* maize.

Source: *Nature* (2017) [nature.com/news/african-countries-mobilize-to-battle-invasive-caterpillar-1.21527](https://www.nature.com/news/african-countries-mobilize-to-battle-invasive-caterpillar-1.21527)

### New species of bushbaby in Angola's threatened forests

Scientists have described a new species of bushbaby, found in forest habitats along the escarpment region of western Angola. The Angolan dwarf galago *Galagoides kumbirensis* sp. nov. is distinguished from its

closest relatives by its distinctive call, larger body size, and differences in skull morphology, pelage colour and facial markings, but little is known about its diet or lifestyle. Angola's wildlife has been little studied, partly because of the country's decades-long civil war, which ended in 2002. The discovery of a new primate species highlights the importance of Angola's forests for endemic biodiversity, possibly including species that have not yet been discovered. However, the forests where the Angolan dwarf galago was discovered are unprotected and are severely threatened by logging and overexploitation, and there is an urgent need for conservation action and the creation of protected areas.

Source: *American Journal of Physical Anthropology* (2017) [dx.doi.org/10.1002/ajpa.23175](https://doi.org/10.1002/ajpa.23175), & *New Scientist* (2017) [news-scientist.com/article/2121970-new-species-of-bushbaby-found-in-disappearing-forests-of-angola/](https://www.newscientist.com/article/2121970-new-species-of-bushbaby-found-in-disappearing-forests-of-angola/)

### Despite efforts, rhino poaching is still rampant in South Africa...

According to data from the South African Department of Environmental Affairs the number of rhinos killed in South Africa declined from 1,175 in 2015 to 1,054 in 2016. In Kruger National Park, home to the largest population of white rhinos, the number of rhinos killed per year fell by 20% from 826 in 2015 to 662 in 2016, despite an increase in the number of reported incursions into the park. Although promising, the data also demonstrate how quickly criminal syndicates react to law enforcement actions. Rhino populations in KwaZulu-Natal have suffered a 38% increase in the number of rhinos killed in the province compared to 2015 figures, and extensive corruption and demand for illegal rhino horn continue to hinder progress in South Africa.

Source: *WWF* (2017) [wwf.panda.org/wwf\\_news/?293410/South\\_Africa\\_rhino\\_poaching\\_figures\\_2016](https://www.panda.org/wwf_news/?293410/South_Africa_rhino_poaching_figures_2016)

### ...as country lifts ban on domestic trade in rhino horn

South Africa's constitutional court has rejected the government's bid for the ban on domestic trade in rhino horn to remain in place. The ruling will allow rhino horns to be traded locally as long as permits for both selling and buying have been obtained. Almost 80% of the global population of c. 20,000 rhino live in South Africa and a third are held by private breeders. Rhino breeders are welcoming the court's ruling on the moratorium as many believe local, open trade or horns removed from anaesthetized live animals could reduce the

numbers of rhinos lost to poaching. Conservationists remain sceptical and WWF researchers have voiced concern that South Africa does not have the capacity to simultaneously manage legal domestic trade in addition to current levels of illegal rhino poaching in the country.

Source: *The Guardian* (2017) [theguardian.com/environment/2017/apr/06/south-africa-lifts-ban-on-domestic-rhino-horn-sales](https://www.theguardian.com/environment/2017/apr/06/south-africa-lifts-ban-on-domestic-rhino-horn-sales)

### Zero control of timber harvesting in Madagascar...

A study conducted between March 2010 and March 2015 found there was rampant, unregulated harvesting of precious timber resources in Madagascar, even in protected areas, in which at least 350,000 trees were felled illegally. Many of Madagascar's endemic rosewood and ebony species are highly sought after in Asia for their durability and attractive appearance, and China and Malaysia were among the destinations for at least 150,000 t of logs exported illegally during the study period. The situation has been blamed on political instability, poor governance, and corruption, as well as widespread poverty. The government is coming under international pressure to take action to mitigate the situation by implementing a Timber Action Plan and ensuring adequate enforcement against illegal timber harvesting, and could face trade sanctions if it fails to make sufficient progress. Madagascar recently joined the International Tropical Timber Organization and is a signatory to a number of international agreements on combating the illegal timber trade.

Source: *TRAFFIC* (2017) [traffic.org/home/2017/2/14/new-study-finds-timber-harvesting-in-madagascar-out-of-control.html](https://www.traffic.org/home/2017/2/14/new-study-finds-timber-harvesting-in-madagascar-out-of-control.html)

### ...and the rush for sapphires threatens people and biodiversity in Madagascar's rainforests

Vast areas of forest in Corridor Ankeniheny-Zahamena, a protected area Conservation International helps to manage, have been cleared as miners and gem traders flood into Madagascar following the discovery of sapphires in the region. More high-quality sapphires have been found in this highly biodiverse area in the past 6 months than were found in the entire country over the past 2 decades. The Corridor is home to more than 2,000 endemic plant species and 14 threatened species of lemurs but these rainforests are under intense pressure. The number of miners in the Bemainty area may now be as high as 200,000. Only a small percentage of local people profit from the mines as c. 70% of Madagascar's sapphire market is

controlled by Sri Lankans. Bandits are common and as demand for goods has increased, the prices of staples such as rice have risen by 50%. Conservation International has warned that without military intervention the situation will become unmanageable.

Source: *The Guardian* (2017) [theguardian.com/world/2017/apr/02/sapphire-rush-threatens-rainforests-of-madagascar](http://theguardian.com/world/2017/apr/02/sapphire-rush-threatens-rainforests-of-madagascar)

## SOUTH AND SOUTH-EAST ASIA

### Bangladesh leads the way in Asian vulture conservation

The use of the anti-inflammatory drug diclofenac was banned in Bangladesh in 2010 because of its devastating effects on Asia's four vulture species, all of which are now categorized as Critically Endangered. However, other drugs used as replacements for diclofenac have also been found to cause kidney failure and death in vultures, including aceclofenac, which has also been banned in Bangladesh. The Bangladesh government has now also banned the sale and use of ketoprofen in two Vulture Safe Zones, which span 25% of the country, and conservationists working in the region are hopeful that the ban will be extended to the entire country. Bangladesh is leading the way in vulture conservation, and in 2014 it became the first country to approve the declaration of Vulture Safe Zones. Other developments include the construction of a new rescue centre in the north of the country, and the approval of a National Vulture Conservation Action Plan.

Source: *BirdLife* (2017) [birdlife.org/asia/news/one-quarter-bangladesh-safe-recently-exposed-vulture-killing-drug](http://birdlife.org/asia/news/one-quarter-bangladesh-safe-recently-exposed-vulture-killing-drug)

### World's second breeding population of Indochinese tigers discovered

Until recently, Huai Kha Khaeng wildlife sanctuary in Thailand was thought to be home to the only viable breeding population of wild Indochinese tigers *Panthera tigris corbetti*. As of February 2016 there were 35–58 individuals in the sanctuary but a 2016 camera-trap survey in the country's eastern Dong Phrayayen–Khao Yai Forest Complex discovered a second breeding population of Indochinese tigers. The study revealed a density of 0.63 tigers per 100 km<sup>2</sup> and also provided the first photographic evidence of tiger cubs in Thailand's Eastern Forest Complex. The Dong Phrayayen–Khao Yai Forest Complex is a UNESCO World Heritage site and one of mainland South-east Asia's last contiguous tracts of forest

with adequate habitat for tigers. Illegal Siamese rosewood logging and wildlife poaching continue to threaten the species but increased patrols by forest rangers and motion-sensor cameras have been deployed to conserve these resilient tiger populations.

Source: *Mongabay* (2017) [news.mongabay.com/2017/03/worlds-second-breeding-population-of-indochinese-tigers-discovered-in-thailands-forests/](http://news.mongabay.com/2017/03/worlds-second-breeding-population-of-indochinese-tigers-discovered-in-thailands-forests/)

### Tragedy averted for trapped elephants in Cambodia

Eleven Asian elephants were rescued from a mud hole in Cambodia's Keo Seima Wildlife Sanctuary on 24 March in a joint effort by local farmers, conservationists and the Department of Environment. The three adult females and eight juveniles had become trapped in a bomb crater that had been enlarged by farmers to store water. The elephants are an important part of the Sanctuary's breeding population and their loss would have been a significant blow to conservation efforts at the site, which is one of the most important habitats for Asian elephants in Cambodia.

Source: *WCS* (2017) [newsroom.wcs.org/News-Releases/articleType/ArticleView/articleId/9955/Pulling-Together-to-Rescue-11-Asian-Elephants.aspx](http://newsroom.wcs.org/News-Releases/articleType/ArticleView/articleId/9955/Pulling-Together-to-Rescue-11-Asian-Elephants.aspx)

### Surprising Singapore stronghold for Endangered songbird

The demand for songbirds across South-east Asia continues to threaten many endemic species. The Endangered straw-headed bulbul *Pycnonotus zeylanicus* is one of the songbird species most affected by trapping, with wild-caught birds being sold in the bird markets of Java, Kalimantan, Sumatra and Peninsular Malaysia. The species is now extinct from Thailand and most parts of Indonesia where it used to be found, including the entirety of Java, and numbers are declining across Malaysia. However, data from the Annual Bird Census conducted by the Nature Society in Singapore has given new hope for this songbird. Wild populations of the straw-headed bulbul have risen steadily in Singapore over 15 years. Mainland populations are stable and the population on the island of Pulau Ubin, one of Singapore's few remaining rural areas, has increased by almost 4% annually. Singapore could now be hosting over a third of the global population of this popular songbird.

Source: *BirdLife International* (2017) [birdlife.org/worldwide/news/tiny-corner-asia-where-endangered-songbird-thriving](http://birdlife.org/worldwide/news/tiny-corner-asia-where-endangered-songbird-thriving)

### Sumatran UNESCO World Heritage Site facing new wave of destruction

The 2.6 million ha Leuser Ecosystem in the provinces of Aceh and North Sumatra, Indonesia, contains a large part of the Tropical Rainforest Heritage of Sumatra World Heritage Site. The site has been on the List of World Heritage in Danger since 2011 as a result of ongoing deforestation. New industrial projects are now planned for the Leuser Ecosystem despite being a violation of Indonesian law. A consortium of NGOs has submitted a report to the UNESCO World Heritage Centre critiquing a 2017 report to the World Heritage Centre, highlighting omissions and contradictions between the report and realities in the World Heritage Site. The Leuser Ecosystem is one of the last refuges of orang-utans, rhinos, tigers and elephants.

Source: *Haka press release* (2017) [http://www.haka.or.id/?page\\_id=2555](http://www.haka.or.id/?page_id=2555)

## EAST ASIA

### Virus sweeps through saiga populations in Mongolia

Researchers estimate that 2,500 Mongolian saiga *Saiga tatarica mongolica*, 25% of the entire Mongolian saiga population, have died since December 2016 in the Durgun steppe and Khuisin Gobi of Khovd and Gobi-Altai Provinces of Mongolia. It is thought that the livestock virus Peste des Petits Ruminants was first transmitted from goats and sheep in the saiga range in September 2016. Livestock in affected areas have now been vaccinated but researchers warn that the virus could spread to ibex and argali, reducing the prey base for snow leopards and other predators. The FAO/World Organisation for Animal Health Crisis Management Center and Animal Health rapid response team are collecting samples and conducting necropsies to determine how best to help the saiga recover. Understanding the age and proportion of the saiga population affected is vital to estimating future risks, particularly during birthing periods when large groups of saiga gather.

Source: *WCS* (2017) [newsroom.wcs.org/News-Releases/articleType/ArticleView/articleId/9836/A-Deadly-Virus-is-Killing-Saiga-Antelope-in-Mongolia.aspx](http://newsroom.wcs.org/News-Releases/articleType/ArticleView/articleId/9836/A-Deadly-Virus-is-Killing-Saiga-Antelope-in-Mongolia.aspx)

### Coral devastated by warming waters in the South China Sea...

Recent research suggests that limiting global warming to 2°C under the Paris Agreement may not be enough to safeguard

tropical reefs. In June 2015 the temperature of the South China Sea increased by 2 °C in response to an El Niño weather pattern but the shallow waters at Dongsha Atoll in the northern part of the South China Sea amplified effects, with surface temperatures rising to 6 °C above average. Unusually weak winds in the area struggled to disperse the heat into the surrounding waters and 40% of the coral at Dongsha Atoll was killed. Analysis of stress bands along the cores of 22 coral skeleton cores at the atoll reveal that during El Niño events in 1983, 1998 and 2007 less than 50% of coral was bleached but during the 2015 El Niño, 100% of the coral was bleached.

Source: *New Scientist* (2017) [newscientist.com/article/2125630-shock-mass-coral-die-off-in-asia-sounds-alarm-for-worlds-reefs/](http://www.newscientist.com/article/2125630-shock-mass-coral-die-off-in-asia-sounds-alarm-for-worlds-reefs/)

### ...but good news for China's wild population of giant pandas

With climate change expected to damage more than a third of the habitat of the giant panda *Ailuropoda melanoleuca* in the next 80 years, China is planning to create a giant panda reserve three times the size of Yellowstone national park. The 27,134 km<sup>2</sup> area will link 67 existing panda reserves on six isolated mountain ranges in the hope of enriching the gene pool and ensuring that a single authority will be responsible for protecting pandas across the Gansu, Shaanxi and Sichuan provinces in south-central China. Following a 17% increase in numbers between 2003 and 2013 giant pandas were recategorized from Endangered to Vulnerable on the IUCN Red List in 2016. An estimated 1,864 pandas survive in the wild and China wants to increase this number to 2,000 by 2025. Whilst the national park would help safeguard 8,000 endangered animals and plants the proposal may require the relocation of 170,000 people, exacerbating China's volatile history of forced removals.

Source: *The Guardian* (2017) [theguardian.com/world/2017/mar/31/china-to-create-giant-giant-panda-reserve-to-boost-wild-population](http://www.theguardian.com/world/2017/mar/31/china-to-create-giant-giant-panda-reserve-to-boost-wild-population)

## NORTH AMERICA

### Breakthrough for bats as hibernaculum discovered in Alberta's boreal forest. ...

Based on an estimated bat count, researchers have discovered the largest Alberta bat hibernation site outside the Rocky Mountains. The cave is being used as a hibernaculum by at least 200 little brown myotis bats *Myotis lucifugus*, a species listed as

Endangered under Canada's Species at Risk Act. Given the conditions of the small cave, precise bat counts were impossible so population numbers may be significantly higher. The find is important as it may indicate that similar habitats exist in other non-mountainous areas throughout the boreal forest. In 2016 white-nose syndrome was discovered in Washington State. The fungus causes bats to wake early from hibernation, forcing them to use their vital stored winter fat early. The fungus can kill more than 90% of resident bats in hibernation sites and in order to prevent the syndrome spreading in western Canada it is important to understand bat colonies and habitats such as this newly discovered hibernaculum.

Source: WCS (2017) [newsroom.wcs.org/News-Releases/articleType/ArticleView/articleId/9913/Big-Bat-Find-in-Albertas-Boreal-Forest.aspx](http://www.newsroom.wcs.org/News-Releases/articleType/ArticleView/articleId/9913/Big-Bat-Find-in-Albertas-Boreal-Forest.aspx)

### ...and protection for Canada's ancient sponge reefs

Following collaboration between The Canadian Parks and Wilderness Society, NGOs and scientists, and with support from the local fishing industry, a new marine protected area off British Columbia's northern coast has been announced. Discovered in 1987 by a team surveying the seafloor in Hecate Strait and Queen Charlotte Sound, these reefs are the only known large, living glass sponge reefs in the world and are more than 9,000 years old and eight stories high. The skeletal structure of the reefs makes them highly vulnerable to sedimentation and disturbances from trawling. Fishing closures have been enforced by the federal government since 2002 as over half of the reefs in the Hecate Strait had been destroyed by trawling activities. The marine protected area covers 2,140 km<sup>2</sup> and all bottom contact fishing activities are currently prohibited within 200 m of the reefs until there is evidence that they will not harm these ancient structures.

Source: IUCN (2017) [iucn.org/news/protected-areas/201702/canada-protects-unique-glass-sponge-reefs](http://www.iucn.org/news/protected-areas/201702/canada-protects-unique-glass-sponge-reefs)

### Trump review threatens protection for wilderness areas

U.S. President Donald Trump has triggered a review of protection of U.S. public land that could potentially rescind the designation of several national monuments declared by previous presidents. Trump has signed an executive order relating to the Antiquities Act, introduced by President Roosevelt in 1906, which gives presidents the ability to name areas of federal land and waters as national monuments. The secretary of the interior will review c. 30

large national monuments declared since 1996. No national monument's status has ever been revoked previously. One area that will be scrutinized is the 1.35 m acre Bears Ears national monument in southern Utah, designated by President Obama. The designation was applauded by tribal leaders, who regard the area as sacred, but criticized by republicans from Utah. The Grand Staircase-Escalante national monument in Utah, the Cascade-Siskiyou national monument in Oregon and the Rio Grande del Norte national monument in New Mexico are among those that will be scrutinized. Source: *The Guardian* (2017) [theguardian.com/us-news/2017/apr/26/trump-national-monuments-review-obama-wilderness](http://www.theguardian.com/us-news/2017/apr/26/trump-national-monuments-review-obama-wilderness)

### Trouble for migrating monarch butterflies in Mexico

Millions of monarch butterflies *Danaus plexippus* migrate 5,500 km from the US and Canada to Mexico each year where they winter in the fir and pine forests west of Mexico City. 2016 saw the number of monarch butterflies in Mexico rise from historically low numbers but numbers have dropped by 27% this year. It is thought that cold temperatures and winter storms, which destroyed more than 40 ha of forest in central Mexico, could be responsible for the loss of 7.4% of the estimated 84 million butterflies that wintered in Mexico. Although the rate of illegal logging in some areas is dropping, continued deforestation means that at last count the butterflies covered only 2.91 ha compared to the 18 ha that they covered 20 years ago.

Source: *The Guardian* (2017) [theguardian.com/environment/2017/feb/09/monarch-butterflies-mexico-migration-declines](http://www.theguardian.com/environment/2017/feb/09/monarch-butterflies-mexico-migration-declines)

### Gill nets decimate vaquita population. ...

Vaquita porpoises *Phocoena sinus* live exclusively in the Gulf of California, Mexico, where the population has declined by 90% in the past 5 years. There are now thought to be only 30 individuals remaining. The species' decline is attributed primarily to illegal fishing using gill nets to target the totoaba, a Critically Endangered fish species. Although the Mexican government introduced a 2-year ban on the use of gill nets in the vaquita's home range, in 2015, it has been poorly enforced. The International Committee for the Recovery of the Vaquita suggests that some vaquitas should be captured and held in a temporary sanctuary, although it is not known how they would respond to captivity. Other marine mammal species, including the northern elephant seal, have recovered from

extremely low numbers, but without urgent conservation action it is likely the vaquita will be lost within a few years.

Source: *New Scientist* (2017) [newsscientist.com/article/2120188-worlds-most-endangered-marine-mammal-has-30-individuals-left/](https://www.newscientist.com/article/2120188-worlds-most-endangered-marine-mammal-has-30-individuals-left/)

### ...as a last attempt to save the species receives funding

The Mexican government has announced that it will provide the vaquita conservation, protection and recovery plan with USD 3 million, and a further USD 1 million has also been donated by the Association of Zoos and Aquariums. The project is expected to begin in late 2017 and will use dolphins trained by the U.S. Navy to corral vaquitas into protective pens in their natural habitat. Vaquitas move away from motorized vessels so, once the vaquitas have been located in the 2,000-plus km<sup>2</sup> of the gulf where they are known to live, dolphins will help track the animals. Currently several designs of holding pen are being tested, with the hope vaquitas will be protected from gill nets and may even breed within these pens. No project has ever tried to catch vaquitas in this way before but whilst this plan is high risk, it may be the last hope for the surviving few.

Source: *Nature* (2017) [nature.com/news/last-ditch-attempt-to-save-world-s-most-endangered-porpoise-gets-go-ahead-1.21791](https://www.nature.com/news/last-ditch-attempt-to-save-world-s-most-endangered-porpoise-gets-go-ahead-1.21791)

### Is the totoaba doomed by environmental change?

Poaching of the giant totoaba *Totoaba macdonaldi* in the Gulf of California is a lucrative activity, and it was previously believed that poaching had driven this Critically Endangered fish species to the brink of extinction. However, data from an archaeological study suggest that radical changes in the fish's environment may have had a more devastating impact on the species. Ancient otoliths (a bone from the fish's inner ear) from a site in Baja California have been analysed to reconstruct the totoaba's early environment. The bones grow a new layer for each year of the fish's life, preserving the chemical composition of the water in the form of oxygen isotopes. They reveal that totoabas once spent their early years in brackish water, matured up to 5 years earlier, and grew to twice their current size; however, the freshwater input to the Gulf of California has been drastically reduced by the damming of the Colorado River in the 20th century.

Source: *Science* (2017) [dx.doi.org/10.1126/science.aal0992](https://doi.org/10.1126/science.aal0992)

## CENTRAL AMERICA AND CARIBBEAN

### Discovery of new shark species bolsters calls to protect Belize waters

The Belize Fisheries Department and researchers from Florida International University have confirmed a new shark species belonging to the bonnetheads type. The species is yet to be named but could serve as an indicator of the health of Belize waters as it is dependent on water clarity and requires mangroves for nursery areas. Belize's waters are rich in biodiversity that, through tourism and fisheries, provide income to more than half of the country's population. Belize is home to the Belize Barrier Reef Reserve system, a UNESCO World Heritage Site and the longest barrier reef in the northern hemisphere. Following pressure from NGOs and the public, the Belize government has suspended permissions for seismic surveys within a 1 km radius of the Barrier Reef but the area is still listed on the World Heritage 'in danger' list and a complete ban on oil exploration is needed to safeguard these waters.

Source: *WWF* (2017) [wwf.panda.org/wwf\\_news/?292351/Discovery-of-new-shark-species-highlights-need-to-protect-Belize-waters](https://www.panda.org/wwf/news/?292351/Discovery-of-new-shark-species-highlights-need-to-protect-Belize-waters)

## SOUTH AMERICA

### First fluorescent frog found

The South American polka dot tree frog *Hypsiboas punctatus* has translucent skin and appears as a mottled mixture of greens, yellows, and reds. Researchers have recently discovered that under UV light this frog emits a bright blue and green glow, making it the first amphibian known to exhibit this fluorescence. On land, fluorescence was previously known only in parrots and some scorpions, and the molecules in the frogs' lymph tissue, skin and glandular secretions are unique among known fluorescent molecules in animals. These molecules emit approximately 18% as much visible light as a full moon but it is not yet clear whether the South American polka dot tree frog can see its own fluorescence.

Source: *Nature* (2017) [nature.com/news/first-fluorescent-frog-found-1.21616](https://www.nature.com/news/first-fluorescent-frog-found-1.21616)

### Leaf-nosed bat discovered in fire prone montane forest

Following further genetic and morphological study a group of bats that had been classified as *Sturnira ludovici* have been reclassified as *Sturnira adrianae*, a species

previously unknown to science. The species is highly sexually dimorphic, i.e. with clear differences between the sexes, and researchers have identified two subspecies, one in western and north-central Venezuela (*S. adrianae adrianae*) and Colombia, the other (*S. adrianae caripana*) in a small area of north-eastern Venezuela. Although isolated, the mountain range inhabited by *S. adrianae caripana* is subject to intensive slash-and-burn clearing that, in turn, causes wildfires to spread through the steep hills. Researchers recommend that *S. adrianae caripana* be categorized as Vulnerable on the IUCN Red List because of an extent of occurrence less than 20,000 km<sup>2</sup>, declining extent and quality of habitat, and fragmentation of subpopulations.

Source: *Mongabay* (2017) [news.mongabay.com/2017/04/new-leaf-nosed-bat-uncovers-amidst-burning-habitat-in-venezuela/](https://news.mongabay.com/2017/04/new-leaf-nosed-bat-uncovers-amidst-burning-habitat-in-venezuela/)

### Protection for areas of Colombia's unique cloud forest

The newly created Caca Noria Regional Protected Area in Colombia will be managed by the local NGO Proaves, the regional environmental agency CorAntioquia, and the Anorí Environmental Working Group. The reserve covers 5,261 ha and will protect c. 400 species of birds, including the chestnut-capped piha *Lipaugus weberi*, a Critically Endangered species endemic to Colombia. Jaguars *Panthera onca centralis* and pumas *Puma concolor* use the area and the reserve will also be home to the spectacled bear *Tremarctos ornatus* and the silver-brown tamarin *Saguinus leucopus*, which are currently threatened by habitat loss and degradation. The cloud forest ecoregion of the Colombian Andes is continually exploited for commercial logging, mining and subsistence hunting. The reserve will include endemic tree species such as the black oak *Trigonobalanus excelsa* and the comino tree *Aniba perutilis* and although 90% of the reserve will be under strict protection, 10% will be allocated for sustainable agriculture and forest restoration projects.

Source: *Mongabay* (2017) [news.mongabay.com/2017/03/13000-acres-of-cloud-forest-now-protected-in-colombia/](https://news.mongabay.com/2017/03/13000-acres-of-cloud-forest-now-protected-in-colombia/)

### Canadian oil firm pulls out of national park in Peruvian Amazon

Canadian oil firm Pacific Exploration and Production has pulled out of a huge oil and gas concession—Lot 135, which extends for more than 1 million ha and is estimated to hold almost one billion barrels of oil—that overlaps Sierra del Divisor National Park in the Peruvian Amazon. The concession has provoked opposition in Peru and



across the border in Brazil, including from indigenous Matsés people. Both Lot 135 and the Park overlap territory used by the Matsés and a proposed reserve for indigenous people living in isolation. Despite Pacific's withdrawal the concession still exists, and therefore another company could be contracted to operate there. Regional indigenous federation Organización Regional de los Pueblos Indígenas del Oriente filed a lawsuit in November 2016 requesting the re-drawing of the boundaries of Lot 135 so that the proposed reserve for indigenous peoples in isolation is excluded.

Source: *The Guardian* (2017) [theguardian.com/environment/andes-to-the-amazon/2017/apr/22/canadian-oil-firm-pulls-out-of-national-park-in-peru-amazon](http://theguardian.com/environment/andes-to-the-amazon/2017/apr/22/canadian-oil-firm-pulls-out-of-national-park-in-peru-amazon)

### High-altitude frogs resist deadly fungus

Despite the threats of chytrid fungus *Batrachochytrium dendrobatidis* and rising temperatures as a result of climate change, three alpine frog and toad species are continuing to breed successfully in the glaciated Peruvian Andes. Research expeditions to areas within the Cordillera Vilcanota between 2003 and 2015 monitored the impacts of changing environmental conditions on the marbled water frog *Telmatobius marmoratus*, the Andean toad *Rhinella spinulosa* and the marbled four-eyed frog *Pleurodema marmoratum*. Researchers documented vegetation and temperature changes and the accelerated recession of glaciers, and tested skin swabs for the chytrid fungus and other pathogens. These amphibian populations appear resistant to temperature increases and the presence of the devastating fungus. As environmental conditions continue to change, however, maintaining connectivity of wetlands within the Cordillera Vilcanota range will be critical to continued amphibian adaptation.

Source: WCS (2017) [newsroom.wcs.org/News-Releases/articleType/ArticleView/articleId/9865/NEW-STUDY-Frogs-of-the-high-Andes-More-Resilient-To-Chytrid-Fungus-Than-Previously-Thought.aspx](http://newsroom.wcs.org/News-Releases/articleType/ArticleView/articleId/9865/NEW-STUDY-Frogs-of-the-high-Andes-More-Resilient-To-Chytrid-Fungus-Than-Previously-Thought.aspx)

### Bright future as Argentina declares two new National Parks

Following pressure from researchers, local people, Aves Argentinas and the Bird Watchers Club, the national government has approved the creation of two new National Parks in Argentina. Mar Chiquita, the largest saltwater lake in South America, and the Dulce River are a Wetland of International Importance and at 700,000 ha, the new National Park that

encompasses them will be the largest in Argentina. Over 100,000 Chilean flamingo *Phoenicopterus chilensis* nest in the area, and the grasslands are home to the maned wolf *Chrysocyon brachyurus* as well as rare birds such as the dot-winged crane *Porzana spiloptera* and the sickle-winged nightjar *Eleothreptus anomalus*. As a multiple-use reserve the area is currently threatened by forest clearing, illegal hunting and unsustainable water use. The agreement also includes the creation of a new 100,000 ha National Park in Estancia Pinas in the west of Córdoba province where populations of the Chaco eagle *Buteogallus coronatus* and the Chacoan peccary *Catagonus wagneri* reside.

Source: *BirdLife International* (2017) [birdlife.org/americas/news/argentina-will-have-two-new-national-parks](http://birdlife.org/americas/news/argentina-will-have-two-new-national-parks)

### New seabird bycatch data reveal toll of fisheries in the Southern Cone . . .

The waters of the Southern Cone in southern South America are some of the most productive in the world but Chilean and Argentinian trawl fisheries targeting species of hake in the area are taking huge numbers of seabirds as bycatch. The latest data from fisheries observers and BirdLife's Albatross Task Force reveal that an estimated 25,000 seabirds, mainly albatrosses, are killed annually by fishing operations in the Southern Cone of South America. Albatrosses take 7–10 years to reach sexual maturity, and lay a maximum of one egg per season, making population recovery challenging. The black-browed albatross *Thalassarche melanophrys* has declined by 19% in just 10 years on South Georgia. Trials conducted by the Albatross Task Force have demonstrated, however, that seabird bycatch in the Southern Cone can be reduced by more than 85% when mitigation measures, including bird-scaring lines, are used.

Source: *BirdLife International* (2017) [birdlife.org/americas/news/estimates-are-25000-seabirds-die-southern-cone-fisheries-every-year](http://birdlife.org/americas/news/estimates-are-25000-seabirds-die-southern-cone-fisheries-every-year)

### . . . but Argentina takes action

BirdLife's Albatross Task Force, the National Fisheries Secretariat, the Ministry of Environment and Sustainable Development, the National Institute for Research and Fisheries Development, the University of Mar del Plata and Fundación Vida Silvestre drafted a resolution for the use of bird-scaring lines on trawlers that was approved unanimously by the Argentinean government in March. Data indicate that 9,000–18,000 black-browed albatrosses

*Thalassarche melanophrys* are killed every year by Argentinian hake trawlers but bird-scaring lines can keep birds away from danger areas, including the trawl cables that tow the nets. The Federal Fisheries Council announced that the use of bird-scaring lines will be voluntary until 1 May 2018, after which it will be a mandatory mitigation measure for trawl fisheries.

Source: *BirdLife International* (2017) [birdlife.org/americas/news/argentina-approves-measures-save-seabirds](http://birdlife.org/americas/news/argentina-approves-measures-save-seabirds)

## AUSTRALIA/ANTARCTICA/ NEW ZEALAND

### Antarctica's sea ice shrinks further than ever before

Sea ice around Antarctica typically melts to its smallest for the year towards the end of February, before expanding again as temperatures drop in the autumn. Daily data from the U.S. National Snow and Ice Data Center reveal that this year the sea ice extent shrank to 2,286,998 km<sup>2</sup>, a fraction smaller than the previous low of 2,289,998 km<sup>2</sup> in 1997. In recent years the average extent of sea ice surrounding Antarctica has expanded despite the overall trend of global warming but this year could be a record minimum.

Source: *The Guardian* (2017) [theguardian.com/world/2017/feb/14/antarctic-sea-ice-shrinks-to-smallest-ever-extent](http://theguardian.com/world/2017/feb/14/antarctic-sea-ice-shrinks-to-smallest-ever-extent)

### Australia's turtles in poor health . . .

Green turtles *Chelonia mydas* on Australia's Great Barrier Reef have been exhibiting signs of widespread ill health since 2010, when two-thirds of the turtles surveyed in Brisk Bay had developed fibropapillomatosis, a condition linked to a turtle-specific herpes virus. In nearby Upstart Bay more than 100 green turtles were stranded in 2012, with the few that were still alive exhibiting a variety of neurological symptoms. Researchers are now investigating the causes of eye infections that are affecting the turtles' ability to find food and avoid predators, and in particular whether the turtles' immune systems are being damaged by metals in mining and agricultural runoff. Analysis of blood samples from the Upstart Bay turtles has revealed that their cobalt levels are between four and 25 times higher than normal, although it is not yet known whether this is linked to the turtles' health problems.

Source: *New Scientist* (2017) [newscientist.com/article/2121783-mystery-eye-disease-is-latest-blow-for-australias-sick-turtles/](http://newscientist.com/article/2121783-mystery-eye-disease-is-latest-blow-for-australias-sick-turtles/)

### ...and the Great Barrier Reef is hit by bleaching for the second year running

The Great Barrier Reef Marine Park Authority has announced that a mass bleaching event is devastating the Great Barrier Reef for an unprecedented second year in a row. A single day of aerial surveys revealed enough damage to declare the worst bleaching since 22% of coral was killed in 2016. Whilst the scale of the bleaching is yet to be confirmed, the concern is that much of the Great Barrier Reef coral remains stressed as high sea surface temperatures have limited reef recovery following 2016 events. It is likely to take at least 6 months before the death rate of coral is known but previously healthy corals at a reef between Port Douglas and Cairns, further south than those hardest hit last year, are already showing signs of bleaching.

Source: *The Guardian* (2017) [theguardian.com/environment/2017/mar/10/great-barrier-reef-coral-bleaching-worsens-as-scientists-fear-heatwaves-impact](http://theguardian.com/environment/2017/mar/10/great-barrier-reef-coral-bleaching-worsens-as-scientists-fear-heatwaves-impact)

### Elusive night parrot spotted for the first time in a century

A night parrot *Pezoporus occidentalis* has been sighted in Western Australia for the first time on record since 1912, when the only known specimen for more than 100 years was collected. The Endangered bird is endemic to Australia and was presumed extinct until it was rediscovered 4 years ago in Queensland, 2,000 km away from Western Australia. Night parrots nest in unburned spinifex, often near to salt lakes, gypsum plains or rocky outcrops in dry inland areas. The location of the sighting has not been disclosed but those who discovered the bird are hoping development projects will consider potential impacts on the species as it is likely to be particularly vulnerable to localized habitat destruction.

Source: *The Guardian* (2017) [theguardian.com/environment/2017/mar/23/night-parrot-sighting-confirmed-in-western-australia-for-first-time-in-100-years](http://theguardian.com/environment/2017/mar/23/night-parrot-sighting-confirmed-in-western-australia-for-first-time-in-100-years), & *IUCN Red List* (2016) [iucnredlist.org/details/22685237/0](http://iucnredlist.org/details/22685237/0)

### Lethal action taken to control feral animals in Australia's largest National Park

In the first aerial cull in the park since 2009, 3,654 feral horses, 1,965 buffalo, 294 pigs and a small number of donkeys have been killed in Kakadu National Park. In recent years the number of feral animals in the park has risen to over 30,000 individuals, putting extreme pressure on the environment. Horses and water buffalo were introduced to the Northern Territory in the 19th century and have been increasing at a rate of 25% a year in Kakadu, grazing on native grasses and thus removing competition for weeds that have swamped waterways and floodplains. The cull was negotiated with Bininj/Mungguy traditional owners who jointly manage the park with the Australian government, and enough animals have been left to support subsistence hunting and commercial opportunities.

Source: *The Guardian* (2017) [theguardian.com/australia-news/2017/mar/17/kakadu-aerial-cull-kills-more-than-6000-horses-buffalo-and-pigs](http://theguardian.com/australia-news/2017/mar/17/kakadu-aerial-cull-kills-more-than-6000-horses-buffalo-and-pigs)

### Extreme mangrove die-back in Gulf of Carpentaria

The most severe and widespread die-back of mangrove vegetation ever recorded occurred during late 2015 and early 2016 along 1,000 km of shoreline in Australia's Gulf of Carpentaria, with the loss of c. 7,400 ha of mangrove forest. Although the cause of the die-back is not fully understood, its timing coincided with an extreme weather event of high temperatures and low precipitation, and a temporary drop in sea level by up to 20 cm, which were correlated with the strong El Niño event of 2015–2016. Despite being hardy plants, the mangroves were already heat- and drought-stressed when the sea level dropped, and it appears they may have died of drought. Mangroves are among the most carbon-rich forests in the tropics and semi-tropics, and there is a risk that the movement of exposed mangrove sediments as a result of cyclonic

weather could lead to massive carbon emissions.

Source: *Marine and Freshwater Research* (2017) [dx.doi.org/10.1071/MF16322](https://doi.org/10.1071/MF16322), & *The Guardian* (2017) [theguardian.com/commentisfree/2017/mar/14/gulf-of-carpentarias-record-mangrove-dieback-is-a-case-study-of-extremes](http://theguardian.com/commentisfree/2017/mar/14/gulf-of-carpentarias-record-mangrove-dieback-is-a-case-study-of-extremes)

### Record rains tempt birds inland

Record-breaking rains have filled inland lakes in Australia to their highest levels in 3 decades and thousands of coastal birds have flocked to these newly flooded areas. Among the many are a newly discovered breeding colony of banded stilts *Cladorhynchus leucocephalus*, a native bird categorized as Vulnerable in South Australia. The discovery was made following an aerial survey of the wetlands, flooded rivers and lakes in the eastern Pilbara region of Western Australia, an area managed in part by Indigenous ranger groups. Conducted by Parks and Wildlife in conjunction with the Indigenous Desert Alliance, the survey revealed three breeding colonies of banded stilts around the lakes, one containing over 90,000 birds. Before 2011 there were only 39 known breeding events for banded stilts but inland lakes could be ideal nurseries for these birds, which may breed only twice in their lifetime.

Source: *The Guardian* (2017) [theguardian.com/environment/2017/apr/03/thousands-of-birds-flock-to-australias-inland-lakes-after-record-rain](http://theguardian.com/environment/2017/apr/03/thousands-of-birds-flock-to-australias-inland-lakes-after-record-rain)

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