

# Briefly

## SPOTLIGHT ON CORONAVIRUS

### Coronavirus: 'Nature is sending us a message'

Nature is sending us a message with the coronavirus pandemic and the ongoing climate crisis, according to the UN's environment chief, Inger Andersen, who said humanity is placing too many pressures on the natural world, with damaging consequences. She also noted other environmental impacts, such as the Australian bushfires and the worst locust invasion in Kenya for 70 years. Scientists have commented that the COVID-19 outbreak is a clear warning shot. To prevent further outbreaks, both global heating and habitat destruction have to end, as both drive wildlife into contact with people. Human infectious disease outbreaks are rising, and in recent years there have been Ebola, bird flu, Middle East respiratory syndrome, Rift Valley fever, severe acute respiratory syndrome, West Nile virus and Zika virus, which are all transmitted from animals to humans.

Source: *The Guardian* (2020) [theguardian.com/world/2020/mar/25/coronavirus-nature-is-sending-us-a-message-says-un-environment-chief](https://www.theguardian.com/world/2020/mar/25/coronavirus-nature-is-sending-us-a-message-says-un-environment-chief)

### China and Viet Nam ban wildlife trade because of coronavirus...

The coronavirus pandemic, which probably started in a market in Wuhan that sold live wild animals, has prompted China and Viet Nam to ban consumption of wild animals. Consumer demand in the two countries has contributed to the decline of threatened fauna such as the rhinoceros and pangolin, which are used for food and medicinal purposes. This trade has been linked not only to the recent outbreak but also to previous epidemics. In January 2020 China imposed a ban on all farming and consumption of terrestrial wildlife of important ecological, scientific and social value. In Viet Nam, prompted by an open letter from conservationists highlighting wildlife trade as a source of disease outbreaks, the prime minister has tasked the Ministry of Agriculture and Rural Development with formulating directives to ban the trade and consumption of wildlife.

Source: *New York Post* (2020) [nypost.com/2020/03/28/china-and-vietnam-finally-ban-wildlife-trade-due-to-coronavirus](https://nypost.com/2020/03/28/china-and-vietnam-finally-ban-wildlife-trade-due-to-coronavirus)

### ... but bear bile promoted as virus treatment

Scientists agree that China's wildlife trade, notably markets where species are crammed closely together, was the most likely origin of the coronavirus pandemic. But in a list of recommended treatments for COVID-19, the country's National Health Commission promotes injections of a traditional treatment containing bear bile. An estimated 12,000 bears are held in captivity on farms in China and Viet Nam, where their bile is regularly extracted for medicinal uses. Remedies containing bear bile are often used to treat bronchitis, but experts say there is no evidence that bear bile is an effective treatment for coronavirus. China's ban on the consumption and the transport of wild animals for food did not cover use of wildlife products in traditional medicine or as ornamental items. Conservationists have condemned the continued promotion of the use of threatened wildlife in medicine as hugely irresponsible in an era of unprecedented biodiversity loss.

Source: *The Independent* (2020) [independent.co.uk/news/world/asia/coronavirus-china-treatment-bear-bile-cages-animals-asia-a9429116.html](https://www.independent.co.uk/news/world/asia/coronavirus-china-treatment-bear-bile-cages-animals-asia-a9429116.html)

### Global climate conference postponed because of pandemic

The UN has postponed a pivotal climate conference amid the coronavirus pandemic, delaying an international effort to head off the worst consequences of climate change. The gathering, scheduled to be hosted by the UK in November in Glasgow, typically draws tens of thousands of activists, government officials and business leaders from many countries. This year's meeting was envisioned as a moment for nations to offer more ambitious plans to reduce carbon emissions and transition away from fossil fuels. But the arena where the event was to take place is being converted into a field hospital for patients infected by the virus. Patricia Espinosa, executive secretary of the UN Framework Convention on Climate Change, announced the postponement to an unspecified date in 2021, saying that although COVID-19 is the most immediate threat facing humanity, we must not forget that climate change is the biggest threat over the longer term.

Source: *Washington Post* (2020) [washingtonpost.com/climate-environment/2020/04/01/un-climate-coronavirus-cop26](https://www.washingtonpost.com/climate-environment/2020/04/01/un-climate-coronavirus-cop26)

### Drop in carbon emissions, but for how long?

One indicator of the pandemic's far-reaching impact is its effect on fossil fuel consumption and carbon emissions. According to preliminary data from some of the biggest economies, emissions are in for a sharp, if temporary, decline. In China emissions were down an estimated 18% in February and March as a result of decreased coal consumption and industrial output, avoiding c. 250 million t of carbon pollution. In the EU, declining power demands and depressed manufacturing could cause emissions to fall by nearly 400 million t this year. However, they could rise quickly when the pandemic ends if nations rely on polluting energy sources such as oil to rebuild their economies. Governmental support for clean energy could tilt economies in a more climate-friendly direction and societal changes resulting from coronavirus lockdowns, including widespread telecommuting and virtual meetings, could support this shift.

Source: *National Geographic* (2020) [nationalgeographic.co.uk/environment-and-conservation/2020/04/carbon-emissions-are-falling-sharply-due-coronavirus-not-long](https://www.nationalgeographic.co.uk/environment-and-conservation/2020/04/carbon-emissions-are-falling-sharply-due-coronavirus-not-long)

### Coronavirus lockdown is a threat, not a blessing, for many species

Although some wildlife has apparently benefitted from decreased human activities during the widespread lockdowns, many species that rely on conservation management are affected negatively. Habitat generalists such as coyotes and wild boars are roaming in American and European cities normally bustling with human crowds. In Africa, however, where ecotourism funds conservation efforts, the decline in tourism has caused widespread unemployment and economic hardship, exposing many animals to a high risk of poaching. The closure of European flower markets is threatening livelihoods in Africa, leaving people few choices but to hunt wild animals to provide for their families. Conservation on oceanic islands is hampered by the enforced pause on efforts to control invasive species, and vital conservation laboratory and field work is put on hold. Monitoring of ocean health is compromised as data normally collected during beach patrols by scientists and volunteers are lacking.

Source: *Wired* (2020) [wired.com/story/coronavirus-lockdown-conservation](https://www.wired.com/story/coronavirus-lockdown-conservation)

## INTERNATIONAL

### David Attenborough backs calls for a ban on deep sea mining

Sir David Attenborough has called on governments around the world to ban deep sea mining following the publication of a study by Fauna & Flora International (FFI) that warns of potentially disastrous consequences for marine life and ecosystem health (see p. 439). Dozens of exploratory licenses sponsored by various national governments have already been issued for large tracts of the seabed, but the rules governing the responsible exploitation of ores and minerals found there are yet to be finalized. The study finds that proposed mining could cause a devastating series of impacts, ranging from significant biodiversity loss and sediment plumes to methane release and the destruction of as-yet unstudied ecosystems. Given the extensive strain that existing human activities are already placing on the ocean, Attenborough argued it was 'beyond reason' for countries to consider deep sea mining until its impacts are better understood.

Source: *The Guardian* (2020) [theguardian.com/environment/2020/mar/12/david-attenborough-calls-for-ban-on-devastating-deep-sea-mining](https://www.theguardian.com/environment/2020/mar/12/david-attenborough-calls-for-ban-on-devastating-deep-sea-mining)

### Oceans could be successfully restored by 2050

The oceans are proving remarkably resilient despite severe anthropogenic pollution. New research argues that building on that resilience could potentially lead to a full recovery within 3 decades. Climate change and the challenges of scaling up existing conservation efforts are the big hurdles, and the window for action is now very narrow. The oceans have been exploited by humans for centuries, but the negative impacts have only become clear over the last 50 years. This review recognizes the scale of the problems, but also documents the recovery of marine populations, habitats and ecosystems following conservation interventions. It provides recommendations to scale proven solutions globally. There are nine key components to recovery: salt marshes, mangroves, seagrasses, coral reefs, kelp, oyster reefs, fisheries, megafauna and the deep ocean. Researchers recommend a range of actions including protecting species, harvesting wisely and restoring habitats.

Sources: *BBC* (2020) [bbc.co.uk/news/science-environment-52122447](https://www.bbc.co.uk/news/science-environment-52122447) & *Nature* (2020) [doi.org/10.1038/s41586-020-2146-7](https://doi.org/10.1038/s41586-020-2146-7)

### Fallout from cold war-era bombs used to age whale sharks

Little is known about whale sharks, the world's largest fish. We don't know, for example, how long they live. Although it is possible to identify growth rings on the vertebrae of whale sharks *Rhincodon typus*, the period of time between each ring forming has long been disputed, stymying efforts to estimate their life spans. New research has used indicators resulting from cold-war era bombs to pinpoint the ages of whale sharks more accurately. During 1955–1963, atomic bomb testing doubled the amount of carbon-14 in the atmosphere. The excess was absorbed into the ocean and all marine life, leaving a trace captured in cartilaginous shark skeletons. Comparing the amount of the isotope in the oceans during certain years with its levels in successive vertebral growth bands enabled researchers to discern the age of two sharks, with one aged 50 years old. That individual was half the size reached by some members of its species, suggesting whale sharks may reach 100 year life spans—a longevity that may make them more vulnerable to threats than previously thought.

Source: *National Geographic* (2020) [nationalgeographic.com/animals/2020/04/whale-sharks-bomb-dating-age](https://www.nationalgeographic.com/animals/2020/04/whale-sharks-bomb-dating-age)

### New tool to track wildlife trade

TRAFFIC has announced the launch of the Wildlife Trade Portal, which is set to become the most comprehensive open-access repository of wildlife trade data. The initial launch allows users to access information from TRAFFIC's wildlife seizure database. The Portal was developed with the support of Arcadia, a charitable fund of Lisbet Rausing and Peter Baldwin, via the Reducing Trade Threats to Africa's wild species and ecosystems project. All information available on the Portal is obtained from publicly accessible sources. Seizure data can be viewed as a list or within a dashboard of interactive charts and maps. Users can gather in-depth information about specific incidents, such as the species involved, products seized or locations involved. The results can be exported for further analysis. TRAFFIC's partners can also contribute their own data and over time the Portal will be expanded to include information on a wide range of wildlife trade—both legal and illegal. The Wildlife Trade Portal is available at [wildlifetradeportal.org](https://wildlifetradeportal.org).

Source: *TRAFFIC* (2020) [traffic.org/news/new-tool-to-track-wildlife-trade](https://www.traffic.org/news/new-tool-to-track-wildlife-trade)

### Tropical forests are losing their ability to absorb carbon...

Tropical forests are carbon sinks accounting for half of all land-based carbon absorption. Climate models predict they will continue acting as sinks for decades, but the reality may be different. An international consortium of European and African scientists, led by the University of Leeds, conducted a 30-year study on over 300,000 trees in the Amazon and African tropics. They found average yearly CO<sub>2</sub> absorption dropped from a peak of 4.6 billion t in the 1990s to 2.5 billion t since 2010. This indicates the forests are rapidly moving towards carbon saturation. However, this trend was not uniform: African tropical forests had been stable until as recently as 2015, whereas the Amazon has been suffering a longer-term decline. Now the resilience of African forests has been exceeded, the global downward trend of CO<sub>2</sub> absorption by tropical forests is accelerating. Consequently, tropical forests are predicted to become carbon sources in only 15 years. Emissions would need to be halved by 2030 to avoid this damaging transition.

Source: *Nature* (2020) [doi.org/10.1038/s41586-020-2035-0](https://doi.org/10.1038/s41586-020-2035-0)

### ... and huge ecosystems could collapse in less than 50 years

Ecosystems under stress can reach a point where they rapidly collapse: the clear water of a lake can turn green with algae in a few months, colourful coral reefs can quickly become bleached and barren in hot summers, and deforestation in a tropical forest can cause a loss of humidity and a rapid shift to savannah grassland with few trees. New research shows that the size of the ecosystem is important for such processes. Once a tipping point is triggered, large ecosystems could collapse much faster than previously thought possible. This finding has worrying implications for the functioning of our planet. Scientists collected data on ecosystem collapse in various settings and found that although larger ecosystems take longer to collapse than small systems, because stresses are diffused across large distances and time lags, larger systems shift relatively faster. Estimates based on computer models suggest the Caribbean coral reefs could collapse in only 15 years and the whole Amazon rainforest in just 49 years. The researchers warn that humanity needs to prepare for changes in ecosystems that are faster than previously envisaged.

Source: *The Conversation* (2020) [theconversation.com/huge-ecosystems-could-collapse-in-less-than-50-years-new-study-133008](https://www.theconversation.com/huge-ecosystems-could-collapse-in-less-than-50-years-new-study-133008)

## EUROPE

**No-take zone revives Scottish fishery devastated by dredgers**

After the government allowed trawlers to come closer to Scottish shores in 1984, the marine ecosystem around the Isle of Arran steadily collapsed, as bottom-trawlers and dredgers intensively combed the seabed. Now, over 30 years later, there has been a dramatic revival. A 2.67 km<sup>2</sup> no-take zone, where fishing is not permitted, was implemented in 2008, after a community-based campaign to lobby the Scottish government. It has been a huge success according to a new report that shows a substantial increase in biodiversity: lobsters are now over four times more abundant in the no-take zone than in adjacent areas, king scallop density is four times higher than in 2013, carbon-absorbing weeds have returned to the seabed, and the area is now a nursery for juvenile fish, especially cod. Many species of fish produce more eggs as they age, which makes no-take zones so crucial to allowing species repopulation.

Sources: *The Guardian* (2020) [theguardian.com/environment/2020/feb/25/how-no-take-zones-revived-one-devastated-scottish-fishery-isle-of-arran](https://www.theguardian.com/environment/2020/feb/25/how-no-take-zones-revived-one-devastated-scottish-fishery-isle-of-arran) & *Frontiers in Marine Science* (2020) [doi.org/10.3389/fmars.2020.00076](https://doi.org/10.3389/fmars.2020.00076)

**No ice makes it a tough winter for seal pups in Baltic Sea**

Hundreds of grey seal pups are dying on the shores of the Baltic Sea in Estonia and Latvia as the coastline faced the first winter without ice in decades. Grey seals need ice to breed during the winter. Without it, they have been forced onto islets they would not normally inhabit, causing overcrowding, disrupting the breeding season and reducing the survival rate of newborns. Some of the larger islands were so overpopulated that researchers estimated the mortality rate among seal pups there would be at least 50%. This is in part because pups lose their mothers more easily and so do not get enough food. Around 3,000 seal pups are born each year on the Baltic Sea coast. The Nature Conservation Agency of Latvia has received hundreds of calls daily about seals that would normally be living on the ice appearing on the coast.

Source: *Reuters* (2020) [reuters.com/article/climate-latvia-seals/no-ice-makes-it-a-tough-winter-for-seal-pups-in-baltic-sea-researchers-idUSL8N2BK6T8](https://www.reuters.com/article/climate-latvia-seals/no-ice-makes-it-a-tough-winter-for-seal-pups-in-baltic-sea-researchers-idUSL8N2BK6T8)

**Sharing the DNA of conservation**

In early 2020, the University of Malta hosted the first international training school in the use of genomics and genetics for conservation as part of the G-Bike COST Action in which it is a partner. The training school enabled experienced scientists and practitioners in these fields from various countries to share their knowledge in view of increasing demands at local, regional, EU and global levels to meet biodiversity conservation targets. Topics included DNA barcoding for accurate identification of species and the discovery of cryptic species or new alien species, and environmental DNA, which is increasingly contributing to monitoring of biodiversity, together with detailed population genetics and genomics. Feedback from the training school participants was positive and encouraged the G-Bike COST network to continue working to promote the use of the high-tech genomics and genetics tools to help answer conservation management questions and achieve more effective results. Source: *Times of Malta* (2020) [timesofmalta.com/articles/view/sharing-the-dna-of-conservation.778316](https://www.timesofmalta.com/articles/view/sharing-the-dna-of-conservation.778316)

**New funding under LIFE programme**

Nine EU member states will receive an accumulative EUR 101.2 million under the LIFE programme. These are Cyprus, Estonia, France, Greece, Ireland, Latvia, Slovakia, the Czech Republic and Spain. Spanning almost 30 years, the LIFE programme is the only EU financial instrument entirely dedicated to environmental protection, nature conservation, climate change and sustainable development. It has financed more than 5,000 projects with a constantly increasing budget. Currently, this is set at more than EUR 3 billion. However, the European Commission proposes a 60% increase for the next programme period, 2021–2027. With reference to the European Green Deal and the new financing period starting next year, the Commission approved more than EUR 100 million of funding for 10 projects in these nine countries. It is expected that they will further mobilize more than EUR 6 billion of local private and public financing through other stakeholders and funds. The projects encompass priority areas such as nature conservation, water management, waste management, air quality, adaptation to climate change and sustainable financing.

Source: *The Mayor* (2020) [themayor.eu/new-funding-under-life-programme](https://www.themayor.eu/new-funding-under-life-programme)

**House sparrows flocking back to British gardens...**

The decline of the house sparrow in British gardens appears to be reversing, according to the latest national garden survey by the Royal Society for the Protection of Birds (RSPB). As well as a rise in house sparrows, the milder winter also brought long-tailed tits, wrens and coal tits to British gardens in huge numbers this year. Nearly half a million people across the country took part in the Big Garden Birdwatch on 25–27 January and counted nearly 8 million birds. The RSPB, which has run the event for 41 years, said the results showed much of the population kept in touch with nature by watching garden birds. The house sparrow was the most counted visitor this winter, with nearly 1.3 million sightings over the bird-watching weekend. Since the Big Garden Birdwatch began in 1979 house sparrow numbers have declined by 53%. But in the past 10 years their numbers have begun to recover, with a 10% increase in sightings. This year the house sparrow remained at the top of the rankings as the most commonly seen garden bird, followed by the starling and blue tit.

Source: *The Guardian* (2020) [theguardian.com/environment/2020/apr/02/house-sparrows-flocking-back-british-gardens-survey-shows](https://www.theguardian.com/environment/2020/apr/02/house-sparrows-flocking-back-british-gardens-survey-shows)

**... and bearded vultures get a new lease of life**

A captive breeding programme to protect one of the four European vulture species is continuing successfully, according to the head of an international organization working on vulture conservation. Bearded vultures once faced extinction in Europe, but continued to survive in Turkey, where their population is connected to the Caucasus region and where there are currently c. 150 pairs. The Vulture Conservation Foundation's bearded vulture breeding programme had 178 birds and 70 pairs as of March 2020. It is unique in that it is managed entirely for the conservation and reintroduction of these birds into the wild. Founded in 2009, the foundation is an international NGO working for the conservation of the European vulture species: bearded, griffon, cinereous and Egyptian vultures. Despite the difficulties and time demands, the programme has been highly successful and proven invaluable in efforts to protect the bearded vulture and increase its numbers in the wild.

Source: *Anadolu Agency* (2020) [aa.com.tr/en/life/bonebreaker-vultures-get-a-new-lease-on-life/1780483](https://www.aa.com.tr/en/life/bonebreaker-vultures-get-a-new-lease-on-life/1780483)

## AFRICA

### The mission to save Africa's manatees

The African manatee *Trichechus senegalensis* is categorized as Vulnerable on the IUCN Red List, with c. 10,000 left across 21 countries, from the coast of Senegal south to Angola and inland to Chad. The species is threatened by entanglement in fishing nets, entrapment in dams, habitat change, food scarcity and poaching. Conservationists working to protect them have formed a network in Senegal, Gambia, Nigeria, Cameroon and the Democratic Republic of Congo, to document manatee killings. The project identified high mortality in Nigeria, where manatee meat and body parts are highly valued and conservation laws are unenforced. There are also negative cultural beliefs: according to Nigerian myth, manatees will tickle people until they laugh so hard they drown. Conservationists are urging authorities and politicians to change this, and to modify dam structures, establish aquatic reserves and develop ecotourism around the manatee's presence, to change attitudes and provide alternative livelihoods.

Source: *The Guardian* (2020) [theguardian.com/environment/2020/mar/23/a-manatee-is-worth-more-alive-the-mission-to-save-africas-sea-mammals](https://www.theguardian.com/environment/2020/mar/23/a-manatee-is-worth-more-alive-the-mission-to-save-africas-sea-mammals)

### Critically Endangered black rhinoceros populations increase

IUCN's March 2020 update of the Red List of Threatened Species revealed gradual progress for the recovery of the African black rhinoceros *Diceros bicornis*. Although still Critically Endangered, its population has grown modestly by c. 2.5% annually during 2012–2018, from an estimated 4,845 to 5,630 animals in the wild. Population models suggest that with continued conservation efforts within its range, this progress will continue over the next 5 years. The report highlighted the vital role of transnational law enforcement and intensive population management in the recovery of the rhinoceros. Poaching for the illegal trade in rhinoceros horn backed by organized crime remains the principal threat to the species' survival. As costly as these intensive efforts are, the report demonstrates they are justified, and continued progress is still dependent on sustained conservation action.

Source: IUCN (2020) [iucn.org/news/species/202003/conservation-efforts-bring-cautious-hope-african-rhinos-iucn-red-list](https://www.iucn.org/news/species/202003/conservation-efforts-bring-cautious-hope-african-rhinos-iucn-red-list)

### Success story: return of South Africa's sea turtles

Sodwana Bay is part of the 332,000 ha iSimangaliso Wetland Park, which stretches along South Africa's Maputaland coast, from the iMfolozi swamps north to the Mozambique border. Almost the entire nesting range for both leatherback and loggerhead turtles lies within the Park, South Africa's first natural World Heritage Site. It was not until as recently as 1963 that the Natal Parks Board realized turtles nested here. The board initiated the Sea Turtle Programme on the Maputaland coast in 1963–1964. The research continues today, making it the longest-running turtle study in the world. During 1970–2000, the programme tagged and recorded more than 350,000 hatchlings. The numbers of turtles nesting annually have grown dramatically since the programme started. During the early years c. 200 loggerhead females were recorded per year, which over 50 years has grown to more than 1,000 per year, showing the success of the team's conservation efforts. The programme also provides much needed training and employment in the remote area.

Source: *Post Magazine* (2020) [scmp.com/magazines/post-magazine/travel/article/3077039/return-south-africas-sea-turtles-conservation](https://www.scmp.com/magazines/post-magazine/travel/article/3077039/return-south-africas-sea-turtles-conservation)

### A lab in Namibia is saving the cheetah from extinction

Human conflict, loss of habitat and the illegal pet trade have all played a part in the cheetah's race towards extinction. Over 100 years ago, 100,000 wild cheetahs roamed across Africa, the Middle East and Asia. The global population has since dwindled to c. 7,000. In Otjiwarongo, northern Namibia, scientists are working hard to restore the cheetah population through conservation science. Dubbed the cheetah capital of the world, the city is home to 1,400 cheetahs and the only cheetah genetics laboratory in Africa. It is run by the Cheetah Conservation Fund and holds the largest database of wild cheetah biological material along with blood, tissue, semen and egg samples collected from over 1,000 cheetahs. In 2007, the Fund and collaborators produced the first ever in-vitro cheetah embryo. Knowledge of the species' genetics has allowed conservation scientists to understand why the cheetah population has declined dramatically. Low genetic diversity is one of the biggest challenges cheetahs face. Because the individuals within the population are so similar, an outbreak of disease could wipe them out entirely.

Source: *CNN* (2020) [edition.cnn.com/2020/03/19/world/namibia-saving-cheetahs-extinction/index.html](https://www.edition.cnn.com/2020/03/19/world/namibia-saving-cheetahs-extinction/index.html)

### Rare megamouth shark recorded in Liberia

A rare example of the megamouth shark *Megachasma pelagios* has been recorded in Liberia by the Environmental Justice Foundation, which runs a community science programme in the country. The conservation group says that only c. 100 examples of the elusive species have been recorded since it was first identified in Hawaii 44 years ago, and only one has been noted in West African waters before, 25 years ago. The 3.8 m male shark was brought in by a canoe fisherman in a remote town on 26 March 2020. He reported that it had died after becoming entangled in an abandoned driftnet. The shark's vast head, rubbery lips, dentition and elongated gill-slits facilitated positive identification. Megamouth sharks are the smallest of the three filter-feeding species, and have been found in various parts of the Indo-Pacific region, mainly around Japan, Taiwan and the Philippines. According to the Environmental Justice Foundation the latest find, along with two others from the North Atlantic, indicates that the global population could be highly migratory.

Source: *DiverNet* (2020) [divernet.com/2020/04/05/rare-megamouth-shark-recorded](https://divernet.com/2020/04/05/rare-megamouth-shark-recorded)

### Camera traps in trees reveal species richness in Rwandan park

In the montane tropical forest of Nyungwe National Park, Rwanda, a team of researchers climbed 10 m up into the trees to rig arboreal camera traps. They also placed a camera at the base of each tree. The 108 cameras captured > 27,000 photographs of wildlife over a 30-day period, with 35 mammal species, including six primate species and a rare Central African oyan *Potiana richardsonii*, a small catlike mammal that had not previously been seen in the Park. Nyungwe National Park contains many threatened species and is a priority site for conservation. Knowing which animals are present in an area is an important first step towards protecting them. The researchers found that using a variety of methods, including ground and arboreal cameras along with line transect surveys, gives the most complete picture of species richness. They concluded that despite its logistical and technical challenges, arboreal camera trapping is a viable method for species monitoring, especially for studying primates.

Source: *Mongabay* (2020) [news.mongabay.com/2020/03/camera-traps-in-trees-reveal-a-richness-of-species-in-rwandan-park](https://news.mongabay.com/2020/03/camera-traps-in-trees-reveal-a-richness-of-species-in-rwandan-park)

## AMERICAS

### Canada plans to protect right whales with help of robots

With only c. 400 North Atlantic right whales *Eubalaena glacialis* remaining, the Canadian government is stepping up its efforts to keep them safe, while trying to keep lucrative snow crab and lobster fisheries in business. In February 2020 officials announced the latest plan for reducing the number of whales being hit by ships or tangled up in fishing nets. It calls for regulating fishing and shipping in a larger area than in previous years but aims to restrict most activities only after a whale has been spotted nearby. These dynamic restrictions will partially rest on data collected by robotic submarines with sensors that can detect right whale calls, and airborne drones doing visual surveys. Under the dynamic regulations, fishing is prohibited and ship speeds are reduced for 2 weeks in areas where a whale is spotted.

Source: *Science* (2020) [sciencemag.org/news/2020/02/canada-s-dynamic-plan-protect-endangered-right-whales-rests-robots](https://www.sciencemag.org/news/2020/02/canada-s-dynamic-plan-protect-endangered-right-whales-rests-robots)

### Can alien species restore ecosystem functions?

Nearly 3 decades after Pablo Escobar's death, dozens of hippopotamuses, descendants of animals the drug lord had kept in his private zoo, are thriving in small lakes in northern Colombia (see *Oryx*, [doi.org/10.1017/S0030605318001588](https://doi.org/10.1017/S0030605318001588)). They are the largest invasive animal, but contrary to the conventional wisdom that large alien herbivorous mammals have strictly negative effects on their new environments, the hippos suggest some introduced species could be helpful. Biologists have compared the traits and ecosystem impacts of invasive large herbivores with their extinct counterparts from the late Pleistocene (c. 116,000–12,000 years ago), such as mammoths, giants sloths and giant wombats. They found some invasive species restore parts of ecosystems, thereby counteracting a legacy of anthropogenic extinctions. Colombia's feral hippos are similar in diet and body size to extinct giant llamas, and use semiaquatic habitats much like notoungulata, an extinct order of hoofed mammals. So although they do not perfectly replace any one extinct species, they could help restore important ecological functions that were previously provided by several species.

Source: *The Guardian* (2020) [theguardian.com/environment/2020/mar/24/pablo-escobars-cocaine-hippos-show-how-invasive-species-can-restore-a-lost-world-aoe](https://www.theguardian.com/environment/2020/mar/24/pablo-escobars-cocaine-hippos-show-how-invasive-species-can-restore-a-lost-world-aoe)

### USA's environmental protection regulations dismantled

The Trump administration is committed to an aggressive campaign of environmental deregulation. It is led by, but not limited to, the Environmental Protection Agency, and includes proposals to remove 50 year old regulations such as the Clean Air Act. The administration state they are maintaining environmental protection while cutting red tape, but according to their own scientists and the wider scientific community, these rollbacks will lead to significant environmental damage. One example is the Environmental Protection Agency rescinding the Clean Water Act to aid industry and farm lobbies, despite warnings from their Science Advisory Board. Further rollbacks are planned or have been completed in the energy sector, the automotive industry, protected areas, agricultural pesticides and endangered species protection. Removing environmental restrictions deemed cumbersome or unfair also became a global issue early in Trump's presidency, with his decision to pull out of the Paris climate agreement. This will facilitate the expansion of damaging industries, including oil and gas extraction.

Source: *CNN* (2020) [edition.cnn.com/2020/01/25/politics/trump-environmental-rollbacks-list/index.html](https://edition.cnn.com/2020/01/25/politics/trump-environmental-rollbacks-list/index.html)

### Jaguar population rises in Iguazú Falls region

The Iguazú Falls region contains two national parks on either side of the Iguazú River, which forms the border between Brazil and Argentina. In the early 2000s this region of Atlantic Forest lost almost its entire jaguar population. On the Brazilian side there were only eight individuals remaining from a population previously in the hundreds. However, in 2018, 28 Jaguars were recorded in Brazil and 105 across the entire region. Three major drivers of this change have been proposed. Firstly, collaboration between Argentina and Brazil resulted in intensified law enforcement, with poachers arrested, weapons seized and illegal camps destroyed. Secondly, an agricultural shift from livestock towards soybean and corn reduced conflict between ranchers and jaguars. Thirdly, the collaborative Onças do Iguazú Project has run educational workshops and supported alternative income sources to improve attitudes towards the jaguar.

Sources: *Scientific Reports* (2016) [doi.org/10.1038/srep37147](https://doi.org/10.1038/srep37147) & *Mongabay* (2020) [news.mongabay.com/2020/03/on-the-prowl-jaguar-population-rises-in-iguazu-falls-region](https://news.mongabay.com/2020/03/on-the-prowl-jaguar-population-rises-in-iguazu-falls-region)

### Remote South American kelp forests surveyed

Kelp forests are highly diverse ecosystems threatened by climate change and anthropogenic activities. However, those in remote locations are understudied. Tierra del Fuego, in southernmost Chile, retains one of these remote kelp forests. The last detailed survey was in 1973. In 2018, researchers from the National Geographic Society's Pristine Seas project revisited the region and conducted observational scuba surveys using key indicators such as kelp, fish and sea star counts. They found no significant change in kelp density and no evidence of sea urchin barrens, where urchin grazing goes unchecked. Additionally, satellite imaging was used to evaluate kelp cover. Although fluctuations were found, there was no evidence of a decline in the 20 years of available data. The findings reveal a kelp forest that has maintained a relatively pristine state. However, the kelp is predicted to suffer from rising sea temperatures in the near-future and this baseline data will be invaluable for directing conservation efforts.

Sources: *PLOS ONE* (2020) [doi.org/10.1371/journal.pone.0229259](https://doi.org/10.1371/journal.pone.0229259) & *Science Daily* (2020) [sciencedaily.com/releases/2020/03/2003114\\_0539.htm](https://sciencedaily.com/releases/2020/03/2003114_0539.htm)

### Return of Spix's macaw to Brazil overshadowed by controversy

Twenty years after Spix's macaw *Cyanopsitta spixii* was officially declared Extinct in the Wild, 52 individuals arrived in Brazil's Bahia state for eventual reintroduction into their native habitat. But there is controversy around the organization providing the captive-bred birds: the Association for the Conservation of Threatened Parrots (ACTP), whose founder has been accused of running a private collection linked to wildlife trafficking and organized crime. The ACTP is funding the Spix's macaw reintroduction programme, but the origin of the money is unclear. The ACTP website says it depends on donations for financial support. But it gives no mention of who these donors are. The Brazilian government, a partner in the programme, is reportedly pressuring local breeders in Brazil to send their birds to the ACTP, which is based in Germany. The exact number of Spix's macaws in Brazil and in the ACTP's possession is not clear. The birds are due to be released into the wild in 2021.

Source: *Mongabay* (2020) [news.mongabay.com/2020/03/spixs-macaw-returns-to-brazil-but-is-overshadowed-by-controversy](https://news.mongabay.com/2020/03/spixs-macaw-returns-to-brazil-but-is-overshadowed-by-controversy)

## ASIA & OCEANIA

### Renewable energy projects threaten key wildlife habitats

Renewable energy is crucial in the fight against global warming, but the development of wind, solar and hydropower projects in important conservation areas could be detrimental for wildlife. Researchers have carried out a comprehensive study of current and future renewable energy projects and found 922 large projects in the global pipeline that overlap with conservation areas. Over 300 of the planned projects are in South-east Asia and India. Numerous planned hydropower projects overlap with conservation areas in India and Nepal, and the planned Batang Toru hydropower project in North Sumatra could threaten the only habitat of the Critically Endangered Tapanuli orangutan. Researchers say there is enough degraded land to support the energy transition, and urge the energy industry to recognize that avoiding important conservation areas is critical.

Sources: *Eco-Business* (2020) [eco-business.com/news/solar-wind-and-hydro-projects-are-threatening-key-wildlife-habitats-in-southeast-asia-india](https://eco-business.com/news/solar-wind-and-hydro-projects-are-threatening-key-wildlife-habitats-in-southeast-asia-india) & *Global Change Biology* (2020) [doi.org/10.1111/gcb.15067](https://doi.org/10.1111/gcb.15067)

### Myanmar announces major expansion of protected mudflats

One of Asia's most important shorebird sanctuaries has quadrupled in size. Surveys lead by BANCA (BirdLife in Myanmar) and collaborators in the early 2010s revealed that over 200 spoon-billed sandpipers were overwintering in the previously barely explored Gulf of Mottama in southern Myanmar, which was 50% of the global population at the time. The Gulf boasts some of the largest congregations of shorebirds in South-east Asia, with over 90,000 birds overwintering annually. BANCA and collaborators helped protect this precious landscape by working closely with local people, who were found to be hunting shorebirds in substantial numbers. Through their dedicated advocacy, in 2017 the Myanmar government declared c. 40,000 ha of in the eastern side of the Gulf a Wetland of International Importance under the Ramsar convention. The site was extended in early 2020, quadrupling the area to 161,030 ha. The extension of the Gulf of Mottama Ramsar site is a major step forward in wetland conservation in Myanmar and South-east Asia as a whole.

Source: *Bird Guides* (2020) [birdguides.com/news/myanmar-announces-major-expansion-of-protected-mudflats](https://birdguides.com/news/myanmar-announces-major-expansion-of-protected-mudflats)

### Indonesian man convicted for smuggling protected songbirds

An Indonesian court has sentenced a bird smuggler to over 1 year in jail—a departure from the usually low sentences meted out for wildlife crime involving birds. On 19th March 2020, the man was sentenced to 14 months in prison and a fine of IDR 10,000,000 (USD 606) at the Tanjung Karang District Court, Lampung for transporting protected animals. Courts in Sumatra and Kalimantan have recently been imposing stiffer penalties for bird smugglers, with penalties exceeding 1 year prison sentences. In November 2019, the man was intercepted while attempting to smuggle over 1,500 songbirds from South Sumatra to Lampung. The seized birds were destined for Java and had been packed into plastic crates and cardboard boxes and hidden in a car. The seizure included protected species such as Sumatran laughing-thrush, greater and lesser green leafbird, blue-winged leafbird and common green magpie. Conservationists welcomed the sentence as a demonstration of Indonesia's commitment to tackling wildlife crime. In 2019, 40,000 birds were seized, which has seen some level of disruption in criminal activities of traders in Sumatra.

Source: *Traffic* (2020) [traffic.org/news/indonesian-man-convicted-for-smuggling-protected-songbirds](https://traffic.org/news/indonesian-man-convicted-for-smuggling-protected-songbirds)

### Snow leopards fitted with satellite collars to aid conservation work

Two snow leopards in Nepal have been fitted with satellite collars to gather information that could help protect the threatened species. The elusive mountain-dwelling felids are found in 12 countries in Asia, where they are threatened by loss of prey, poaching and illegal trade, conflict with local people and loss or deterioration of their habitat. Two males were fitted with satellite collars in Nepal's Shey Phoksundo National Park, by a team of local citizen scientists, national park staff, members of the National Trust for Nature Conservation and WWF researchers. Under the guidance of a wildlife veterinarian the two adult individuals were sedated and checks were carried out, showing both were healthy. The data from the satellite collars will provide information on behaviour, movement and habitat use, which will help improve conservation plans to better protect the species.

Source: *Irish News* (2020) [irishnews.com/magazine/science/2020/04/08/news/snow-leopards-fitted-with-satellite-collars-to-aid-conservation-work-1895427](https://irishnews.com/magazine/science/2020/04/08/news/snow-leopards-fitted-with-satellite-collars-to-aid-conservation-work-1895427)

### Great Barrier Reef suffers third mass bleaching in 5 years

Australia's Great Barrier Reef has suffered another mass bleaching event—the third in just 5 years. Higher sea temperatures, particularly in February 2020, are feared to have caused huge coral loss across the reef. Scientists have detected widespread bleaching, including extensive patches of severe damage, but have also found healthy pockets. Two-thirds of the reef was damaged by similar events in 2016 and 2017, wiping out coral populations and destroying habitats for other sea life. The reef system is a World Heritage Site recognized for its enormous scientific and intrinsic importance. Last year, Australia was forced to downgrade its 5-year reef outlook from poor to very poor because of the impact of human-induced climate change.

Source: *BBC* (2020) [bbc.co.uk/news/world-australia-52043554](https://bbc.co.uk/news/world-australia-52043554)

### Tibet reports remarkable increase in wild animals

The forestry authorities of China's Tibet autonomous region said they have seen significant growth of the wildlife population resulting from their continuous protection efforts. Compared to statistics released by the regional wildlife conservation society in the 1990s, the populations of many species have increased, including the Tibetan antelope, Tibetan wild ass, black-necked crane, wild yak, snow leopard, argali and blue sheep. Over the last decades Tibet has implemented regulations and laws to create a better environment for both wildlife and local communities. The region has invested more than CNY 1.3 billion (c. USD 185 million) to build breeding bases, nature reserves, monitoring stations and rescue stations for wildlife. Nearly CNY 640 million were used as compensation paid to local people who suffered damage caused by wild animals. Tibet plans to strengthen the monitoring and prevention of wildlife epidemics and establish an early warning mechanism for wildlife diseases in the future.

Source: *The Jakarta Post* (2020) [thejakartapost.com/life/2020/04/14/tibet-sees-remarkable-increase-in-wild-animals.html](https://thejakartapost.com/life/2020/04/14/tibet-sees-remarkable-increase-in-wild-animals.html)

All internet addresses were up to date at the time of writing. The Briefly section in this issue was written and compiled by Emma Muench, Julia Hochbach and Martin Fisher, with additional contributions from Antony Bagott, Jack Murphy and Annkathrin Sharp. Contributions from authoritative published sources (including websites) are always welcome. Please send contributions by e-mail to [oryx@fauna-flora.org](mailto:oryx@fauna-flora.org).