

Briefly

SPOTLIGHT ON UNGULATES

Rhinoceros poaching reaches new highs in South Africa

Within the first 2 weeks of December 2021, poachers in South Africa had killed 24 rhinoceroses, following a quieter period earlier in the COVID-19 pandemic. Rhinoceros carcasses were found in four provinces, with seven individuals dead in Kruger National Park, six in KwaZulu-Natal, and seven in Mpumalanga. Four more rhinoceroses, including a pregnant female, were found at a game reserve. A fifth individual in this location had a gunshot wound but was still alive, and was taken into care. Nine people have been arrested for the rhinoceros killings, but there could be more poachers involved. The number of rhinoceroses poached has increased significantly, fueled by rising demand for rhinoceros horns in Asia, and poverty in rural African communities. By weight, the horn is now more valuable than gold. In 2020, 394 rhinoceroses were poached for their horn despite the restrictions imposed by the pandemic lockdown. This new wave of poaching highlights the devastating consequences of the rhinoceros horn trade.

Source: *One Green Planet* (2021) onegreenplanet.org/animalsandnature/south-africa-rhino-poaching-reaches-new-highs

Yucatán becomes location of the first tapir sanctuary in Mexico

Yucatán has become the headquarters of the first sanctuary for tapirs in Mexico. The new sanctuary aims to breed this unique mammal in a protected and controlled environment, and eventually return captive-bred individuals to the wild. To achieve this goal, the Mexican environmentalist Arturo Islas Allende has signed an agreement with Auto Safari Chapín de Guatemala, the most important tapir sanctuary globally. The sanctuary in Mexico's neighbouring Guatemala will provide tapir pairs that will be relocated to establish the Mexican breeding population. Captive breeding is deemed necessary in Mexico to support the decreasing wild populations. Tapirs are relatively slow to mature and have low reproductive rates: females can reproduce from c. 3 years of age, and then only produce a single calf every 2 years.

Source: *Yucatan Times* (2021) theyucatanimes.com/2021/12/yucatan-will-have-the-first-tapir-sanctuary-in-all-of-mexico

Second herd of kulan arrives in the Ukrainian Danube Delta

A herd of 20 kulan, also known as the Asiatic wild ass, has arrived on the Tarutino Steppe in the Danube Delta landscape restoration area in south-west Ukraine. This is the second group of kulan to arrive in the area; the first individuals were brought there in May 2020. The new herd was first kept in a 31-ha enclosure to acclimatize before being released on the steppe, as part of a long-term reintroduction programme that aims to establish a free-roaming herd of 250–300 individuals in the Danube Delta region by 2035. The animals will fill an important ecological niche, enhancing habitats for wildlife and boosting the local economy through tourism. Their grazing will keep grass short, benefitting animals such as ground squirrels and steppe marmots and mitigating wildfire risk by reducing excess vegetation. The kulan will also form an additional prey base for predators such as wolves. All the kulan involved in the programme will be sourced from the Askania-Nova Biosphere Reserve in southern Ukraine, where a small herd was brought from Turkmenistan in 1950. Source: *Endangered Landscapes Programme* (2022) endangeredlandscapes.org/second-herd-of-kulan-arrives-in-the-ukrainian-danube-delta

Tweaked fences are helping to save Alberta's pronghorn

The Alberta Fish and Game Association and the Alberta Conservation Association have wrapped up another season of their Pronghorn Corridor Enhancement Project, with changes to fencing that help pronghorns stay healthier and less vulnerable to predators. Pronghorns were once abundant across the grasslands of North America, but came close to extinction until large sections of their habitats were protected by conservation efforts. In Canada, they can now be found in south-western Saskatchewan and south-eastern Alberta. Pronghorns are the second-fastest land animal in the world, but they are not good at leaping the fences that now crisscross the prairies, preferring to travel under them. When pronghorns squeeze under fences, they can lose hair, which in the winter can lead to disease and frostbite. The two conservation groups decided to find a way to help. They have been working with landowners to replace the bottom strands of barbed wire fences with smooth wire and raise them up by 46 cm. Together, the two groups have adjusted c. 560 km of fencing on public and private land since 2009.

Source: *CBC News* (2021) cbc.ca/news/canada/calgary/pronghorn-fence-alberta-conservation-1.6298645

Rare antelope population booming in Chinese nature reserve

The population of a rare species of antelope, Przewalski's gazelle *Procapra przewalskii*, has surpassed 2,700 in Qinghai Lake National Nature Reserve, in Qinghai Province in north-west China, according to the Reserve's administration. The population comprised only 300 individuals in 1994. Przewalski's gazelles are mainly distributed in the Qinghai Lake Basin in Haiyan, Gangcha, Tianjun and Gonghe Counties. The species is under first-class national protection in China and is categorized as Endangered on the IUCN Red List. Located in the north-east of the Qinghai-Tibetan Plateau, Qinghai Lake is China's largest inland saltwater lake. It is also referred to as the gene bank of the plateau for its rich biodiversity. The Przewalski's gazelle population in the Reserve is closely monitored and managed, particularly during the breeding season from November to January, when rams fight for access to ewes. Injured rams are treated by Reserve staff, and supplementary food is provided for the herds to support their conservation.

Sources: *China Global Television Network* (2022) news.cgtn.com/news/2022-01-02/Rare-antelope-population-booming-in-China-natural-reserve-16uFuq43E64/index.html & *China News* (2021) chinanews.com.cn/sh/shipin/cns/2021/12-23/news911159.shtml

Scientists step up search for so-called Asian unicorn

Weighing up to 100 kg and sporting long straight horns and white spots on its face, the saola does not sound like an animal that would be difficult to spot. But this elusive creature, nicknamed the 'Asian unicorn', was only discovered in 1992; the first large mammal new to science in > 50 years. Since then, the population is believed to have declined massively because of poaching. The species is categorized as Critically Endangered on the IUCN Red List, and in 2006 a programme was initiated to find the last saolas in the wild for a captive breeding programme and future reintroduction to the wild. However, even intensive camera trapping during 2017–2019 failed to detect the saola, and efforts need to be increased to find it. A new initiative will train dogs to detect saola signs such as dung, with samples then to be studied on site using saola-specific DNA field test kits. Should the kits return a positive result, expert wildlife trackers will start searching for saola in the forest and try to secure individuals for captive breeding.

Source: *The Guardian* (2022) theguardian.com/environment/2022/jan/07/scientists-step-up-hunt-for-asian-unicorn-one-of-worlds-rarest-animals-aoe

INTERNATIONAL

Groundbreaking naturalists remembered

The world of conservation biology paid tribute to the accomplishments and legacies of three of the field's prominent figures who died in late 2021 and early 2022. Thomas Lovejoy (1941–2021) was an American ecologist credited with popularizing the term 'biodiversity' and was known for his passionate work to protect the Amazon. Edward O. Wilson (1929–2021) was an American biologist and prolific writer known to many as 'the modern-day Darwin' and who specialized in the study of ants and other insects. Richard Leakey (1944–2022) was a Kenyan paleoanthropologist and conservationist who helped establish that Africa was the birthplace of humankind, and was credited with helping to forge a path for African researchers to lead work in their own continent. Thousands have paid tribute to the three, whose achievements range from developing theories on ecosystems to reforming the Kenyan civil service and devising proposals to protect half the planet for nature.

Source: *The Guardian* (2022) [theguardian.com/environment/2022/jan/13/they-saw-bigger-things-richard-leakey-edward-o-wilson-and-thomas-lovejoy-remembered-aoe](https://www.theguardian.com/environment/2022/jan/13/they-saw-bigger-things-richard-leakey-edward-o-wilson-and-thomas-lovejoy-remembered-aoe)

A joint open letter to world leaders

Several conservation organizations and donors, including the Conservation Leadership Programme, sent a joint open letter to world leaders, calling for greater commitments to locally led nature conservation solutions at the 2021 United Nations Climate Change Conference, commonly referred to as COP26. The letter highlights the fact that although the scale of the biodiversity and climate crisis is global, some of the most impactful, sustainable and equitable solutions are local. It was signed by donors to and supporters of grassroots conservation leaders around the world. They argue that local communities are closely linked to the landscape and biodiversity within which they exist and are thus well placed to transform political aims into positive action benefitting nature. However, only 3% of global climate finance is spent on nature-based solutions that conserve and restore habitats for the benefit of nature and people. There is an urgent need to close this finance gap and provide long-term investment in grassroots conservation efforts.

Source: *Conservation Leadership Programme* (2021) [conservationleadershipprogramme.org/news/cop26-a-joint-open-letter-to-world-leaders](https://www.conservationleadershipprogramme.org/news/cop26-a-joint-open-letter-to-world-leaders)

Huge iceberg A68 released enormous volume of fresh water

The iceberg A68 was dumping more than 1.5 billion t of fresh water into the ocean per day at the height of its melting, which is equivalent to c. 150 times the amount of water used daily in the UK. A68 was, for a short period, the world's biggest iceberg, covering nearly 6,000 km² when it broke free from Antarctica in 2017. By early 2021, it had vanished. Researchers are trying to gauge the impact A68 had on the environment. A team led by Leeds University has examined satellite data to calculate the behemoth's changing dimensions as it moved north through the Southern Ocean and up into the South Atlantic. This has enabled the group to assess varying melt rates during the course of the megaberg's existence. Giant tabular, or flat-topped, icebergs are now recognized to have considerable influence wherever they roam. Their freshwater inputs alter local ocean currents, and iron, other minerals, and organic matter picked up through their lives and subsequently dropped into the ocean seed biological production.

Sources: *Remote Sensing of Environment* (2022) doi.org/10.1016/j.rse.2021.112855 & *BBC* (2022) [bbc.co.uk/news/science-environment-60060299](https://www.bbc.co.uk/news/science-environment-60060299)

New global search effort targets rediscovery of rarest birds on Earth

A new global search effort is calling on researchers, conservationists and bird enthusiasts to help find 10 rare bird species. The Search for Lost Birds is a collaboration of Re:wild, American Bird Conservancy and BirdLife International, with data support from the Cornell Lab of Ornithology and its eBird platform. The project hopes to harness the collective power of the global birding community to help search for birds that have not been documented in the wild in at least a decade, but are not categorized as Extinct on the IUCN Red List. The 10 species span five continents, and some have not been observed for more than a century. Two species, Siiau scops owl from Indonesia and Negros fruit dove from the Philippines, have only ever been documented once, when they were originally described in 1866 and 1953, respectively. The other eight species are the Himalayan quail (India), Prigogine's nightjar (Democratic Republic of the Congo), Santa Marta sabrewing (Colombia), Vilcabamba brushfinch (Peru), Cuban kite (Cuba), South Island kōkako (New Zealand), dusky tetraka (Madagascar) and Jerdon's courser (India). Source: *Bird Guides* (2022) [birdguides.com/news/new-global-search-effort-targets-rediscovery-of-rarest-birds-on-earth](https://www.birdguides.com/news/new-global-search-effort-targets-rediscovery-of-rarest-birds-on-earth)

Largest ever fish colony discovered under Antarctic ice

In the Weddell Sea near Antarctica, scientists have found the largest known colony of fish nests in the world. Researchers discovered the breeding ground by chance when they went on a 6-week expedition to the polar region in February 2021. They were on board a polar exploration ship, conducting a routine analysis of the seafloor, when a camera trailed behind the ship revealed thousands of nests made by Jonah's icefish *Neopagetopsis ionah*, a small ray-finned fish typically found in the Southern Ocean. Over the following 4 hours, many more nests were seen; the researchers estimate that the colony had > 60 million nests, and covered at least 240 km². Most nests were occupied by one adult fish, each guarding > 1,500 eggs. Data on the movements of seals in the area suggest that this concentrated fish biomass, estimated to be equivalent to > 60,000 t, may be utilized by predators such as the Weddell seal. The discovery provides support for the establishment of a regional marine protected area in the Southern Ocean. Sources: *Current Biology* (2022) doi.org/10.1016/j.cub.2021.12.022 & *New Scientist* (2022) [newscientist.com/article/2304458-largest-ever-fish-colony-hosts-100-billion-eggs-under-antarctic-ice](https://www.newscientist.com/article/2304458-largest-ever-fish-colony-hosts-100-billion-eggs-under-antarctic-ice)

Global evidence for reptile conservation

Approximately 11,440 extant reptile species are known, with several hundred new species described each year since 2008. Reptiles perform crucial ecosystem functions as seed dispersers, predators, prey and commensal species. In December 2021 a global synopsis of evidence for reptile conservation was published by an international team of authors and advisors. It compiles the available evidence for conservation actions from 707 articles that tested the effect of management actions on reptiles, following exhaustive searches of nearly 300 journals and eight report series (c. 700,000 articles). The evidence is described in 1,003 summary paragraphs and covers 195 actions. A further 117 potential actions were identified for which no evidence was found. The synopsis is freely available from the Conservation Evidence website as part of a searchable database or to download. This synopsis, along with the other 22 published, will be a valuable resource for decision makers and conservation practitioners alike, making consulting the available evidence quick, easy and free.

Source: *Conservation Evidence* (2022) [conservationevidence.com/data/index/?synopsis_id\[\]=15&conservationevidence.com/synopsis/pdf/9](https://www.conservationevidence.com/data/index/?synopsis_id[]=15&conservationevidence.com/synopsis/pdf/9)

EUROPE

Animal breeding at Jersey Zoo to be reduced

Jersey Zoo is looking at drastically reducing its breeding programme of threatened animals. Lesley Dickie, the Zoo's Chief Executive Officer said Brexit had caused problems in terms of moving animals, effectively cutting British zoos off from the European breeding programmes of which we were very integral members. Last year, British zoos have only been able to move c. 2–3% of the animals they normally transfer. A spokesperson from the Department for Environment, Food and Rural Affairs previously said animals could still be moved so long as zoos complied with a country's import conditions. However, Dr Dickie said the zoo was also restricted by legal regulations ensuring rare species were not traded commercially. Stopping the animals breeding could present risks to their health, but the alternative for the zoo was to build new exhibits, something she said would cost hundreds of thousands of pounds. Dr Dickie said the zoo was open for discussion on whether Jersey should be part of one legal authority with the UK.

Source: BBC (2022) [bbc.co.uk/news/world-europe-jersey-60360480](https://www.bbc.co.uk/news/world-europe-jersey-60360480)

Scotland's peat bogs breathe again

For much of human history peat bogs have been thought of as wastelands, but it is now recognized that they are among the greatest stores of carbon. The Scottish government's Peatland Action project, which started in 2012 and plays a key role in Scotland's green recovery, aims to restore 25,000 ha of degraded bogs. Researchers are now using satellite technology to monitor peatland health, identify the most threatened bogs and determine effective conservation efforts. When peatlands are being restored, the bog rises out of the land like a sponge and 'breathes' as changes in the weather and water level cause it to swell and contract. New satellite technology can detect just a few millimetres of change, providing an accurate indication of the site's health and carbon storage. At Flanders Moss bog in the landscape of the Carse of Stirling in Scotland, thanks to effective restoration work, the water table has risen by as much as 40 cm and is now at the surface. In addition to storing c. 3 million t of carbon, the bog helps reduce flood risk as it draws in water from the surrounding land.

Source: *The Guardian* (2022) [theguardian.com/environment/2022/jan/04/dank-ancient-and-quite-fantastic-scotland-peat-bogs-breathe-again-aoe](https://www.theguardian.com/environment/2022/jan/04/dank-ancient-and-quite-fantastic-scotland-peat-bogs-breathe-again-aoe)

France introduces ban on plastic packaging

Since 1 January 2022, c. 30 varieties of fruits and vegetables, including cucumbers, citrus fruit, leeks and bananas, have been banned from being wrapped in plastic in France. An estimated 37% of fruit and vegetable products in the country were thought to be sold in plastic wrapping before the ban. Government officials say the ban could prevent a billion items of single-use plastic from being used every year, and President Emmanuel Macron described it as 'a real revolution' and said it showed the country's commitment to phase out single-use plastics by 2040. Spain will also introduce a ban on plastic packaging of fruit and vegetables from 2023. Environmental groups have urged other countries to follow suit. Packs that weigh > 1.5 kg are exempt, as are chopped or processed fruit. Producers of some more delicate produce, including cherry tomatoes, raspberries and blueberries, have been granted longer to find alternatives to plastic, but plastic packaging will be gradually phased out for all whole fruits and vegetables by 2026.

Source: *Positive News* (2022) [positive.news/society/fruit-and-veg-unwrapped-frances-plastic-packaging-ban-begins](https://www.positive.news/society/fruit-and-veg-unwrapped-frances-plastic-packaging-ban-begins)

Scientists find hidden diversity amongst Iberian spiders

A new study has revealed previously unexpected diversity amongst Iberian spiders. Analysing DNA barcode sequences of c. 370 spider species dwelling in Spanish national parks, researchers showed that spiders that use silk to create aerial webs and balloons to travel through air are more homogenous and genetically connected than nocturnal spiders that hunt on the ground at night. Their findings also uncovered a surprising diversity based on the geographical patterns of genetic variation, which had not been suggested by previous research based on morphological data alone. The research is one of many studies using new genetic methods to catalog a quickly disappearing biodiversity in an attempt to save vulnerable wildlife. Variability in a population is important for the survival of a species. Dispersal is also crucial, allowing a larger population to settle in diverse habitats, thus giving a greater likelihood of survival. Studies such as this may become increasingly important in making conservation and management decisions, not just for spiders but also for other types of organisms.

Sources: *Insect Conservation and Diversity* (2021) doi.org/10.1111/icad.12552 & *Earth.com* (2021) [earth.com/news/scientists-find-a-hidden-diversity-among-iberian-spiders](https://www.earth.com/news/scientists-find-a-hidden-diversity-among-iberian-spiders)

Finland, Sweden and Norway to cull wolf population

Finland is joining Sweden and Norway in culling wolves to control their population, as conservation groups appeal to the EU to take action against the slaughter. Hunters in Sweden had in January already shot most of their annual target of 27 wolves, and Finland was to authorize the killing of 20 wolves in its first population management cull for 7 years. Norway was expected to kill c. 60% of its wolves, 51 individuals. Norway thus aimed to maintain a maximum of just three breeding pairs in the country, with its population including animals living between Sweden and Norway limited to four to six breeding pairs. Conservationists accuse Nordic nations of creating the most hostile environment for wolves in western Europe and flouting EU laws that protect the species. Wolves have made a comeback in recent years but remain threatened in many countries. In Norway, 5% of the country is designated a wolf protection zone, where the protection of wolves is a priority. Despite this, 25 wolves were to be killed inside the protection zone, unless the court action by Noah, together with WWF Norway and Association Our Predators, was going to be successful.

Source: *The Guardian* (2022) [theguardian.com/environment/2022/jan/15/finland-sweden-norway-cull-wolf-population-eu](https://www.theguardian.com/environment/2022/jan/15/finland-sweden-norway-cull-wolf-population-eu)

First Spanish crane census completed

The first national common crane census of the winter was completed in Spain in December 2021, with a total of 258,358 individuals counted. Cranes were noted widely across the country but Extremadura held the most, with 136,322 counted across the region. Aragón and Castilla la Mancha also held large numbers. The results were reported by the conservation group Grus Extremadura, which organized the census. The common crane is a wintering species in Spain and is included in the Regional Catalogue of Endangered Species of Extremadura, being classified as a species of special interest, with a management plan to ensure its conservation. Currently, the wintering population is growing, and Grus Extremadura hopes to carry out periodic censuses to monitor its changes over time. In Extremadura, a change in crops from open fields (where cranes feed) to intensive tree crops is being noted on many farms, and the conservation group is asking volunteers to submit data on land-use change that could affect cranes and other species, such as little and great bustards.

Source: *Bird Guides* (2022) [birdguides.com/news/first-spanish-crane-census-completed](https://www.birdguides.com/news/first-spanish-crane-census-completed)

AFRICA

Rising giraffe populations give hope to conservationists

A recent analysis of survey data from 21 countries across the African continent suggests giraffe populations are increasing. The total giraffe population is now estimated to be c. 117,000, which is 20% higher than when the last major survey was published in 2015. Researchers attribute this figure both to more accurate census data and to genuine growth in the populations of three of the four species: the northern *Giraffa camelopardalis*, reticulated *Giraffa reticulata* and Masai giraffes *Giraffa tippelskirchi*. Populations of the southern giraffe *Giraffa giraffa* have stayed stable. Despite this recent increase, populations remain relatively small, considering that 2 centuries ago there were estimated to be a million giraffes on the continent. All four species remain threatened by habitat degradation and fragmentation, climate change and poaching, but increased conservation efforts offer hope that when properly protected, populations can rebound. *Source: National Geographic (2022) nationalgeographic.com/animals/article/giraffe-populations-rising-giving-hope*

Elephant tusk DNA can expose poaching networks

Researchers have developed a way of using DNA from elephant tusks to solve poaching mysteries and bring animal traffickers to justice. It is estimated at least 10,000 African elephants are killed each year, with the ivory then packed into shipping containers and transported to ports throughout Africa. Often these shipments contain a cover load to disguise the ivory, such as timber or plastic waste. A few years ago, the team of scientists sequenced the DNA in seized ivory, which allowed them to link shipments from three large ivory-smuggling cartels. Now, they have expanded the scope of that work, studying DNA from more than 4,000 tusks in 49 large ivory seizures. The researchers thus identified trafficking networks by genetically matching tusks from the same individual or close relatives in separate shipments. These genetic links between shipments allow all the physical evidence collected by law enforcement officials to be combined, supporting the prosecution of transnational ivory traffickers for the totality of their crimes. *Sources: Nature Human Behaviour (2022) doi.org/10.1038/s41562-021-01267-6 & Georgia Public Broadcasting (2022) gpb.org/news/2022/02/18/elephant-tusk-dna-can-expose-poaching-networks-new-analysis-finds*

300,000 farmers adopt conservation agriculture in Zimbabwe

Over 300,000 farmers in Zimbabwe have adopted conservation farming, nearly tripling their crop production and improving household incomes, the Food and Agriculture Organization of the United Nations (FAO) announced. Conservation agriculture is built on three principles: minimum soil disturbance, permanent soil cover and crop rotation, which reduce erosion, improve soil quality, conserve water, reduce fuel costs and improve yields. When the idea was introduced in Zimbabwe, rural areas became dotted with parcels of land where farmers practiced the new approach, but these were surrounded by other fields where farmers continued with conventional methods. The FAO thus narrowed its focus to a small core group of farmers who were convinced of the benefits, established demonstration fields where farmers could observe the increased yields of conservation agriculture, and introduced new mechanized technologies. The country's government has also supported the approach because it mitigates effects of climate change and conserves soil and water resources. This resulted in more farmers adopting conservation agriculture and benefiting from increased maize and legume harvests, and thus enjoying increased food security and household incomes. *Source: Farmers Review Africa (2022) farmersreviewafrica.com/300-000-farmers-adopt-conservation-agriculture-in-zimbabwe*

Park rangers decry poor pay and working conditions

Poor working conditions of park guards are putting threatened African forest elephants and carbon-rich rainforest at risk, a union leader has warned. The west African nation of Gabon is 88% tree-covered and accounts for nearly one-fifth of the Congo Basin forest, the world's second largest rainforest and a major carbon sink. It has preserved much of its primary forest and boasts lower deforestation rates than neighbouring countries. The park guard union Syneq says these efforts could be undermined as hundreds of rangers from the National Park Agency are threatening to strike. They accuse the government of failing to pay them a fair wage on time and provide them with the necessary medical support. A walkout would leave the forest largely unprotected against poachers, illegal loggers and gold miners. The government rejects the idea that a strike represents a threat to the parks. *Source: Climate Change News (2022) climatechangenews.com/2022/01/14/haven-african-elephants-risk-say-park-rangers-decrying-poor-pay-conditions*

Release of wild cheetahs in Mozambique

Cheetah populations could get a boost if the reintroduction of a group of wild individuals into a large protected area in the Zambeze Delta in Mozambique is successful. Biologists believe the project is crucial to conserve the species, after discovering historical evidence that cheetahs occupied the area in the past. As part of the reintroduction, 11 cheetahs from South Africa and one from Malawi were transported to Mozambique over the summer of 2021. They were initially stationed in a fenced area to get acclimated before being released into a sizable, unfenced area that could possibly support up to 100 cheetahs in the future. Two additional females were released in December 2021. From the ground, a helicopter and via satellite imagery, the research team can track and monitor the animals, including their hunting and reproductive behaviour. In addition to the ample space and limited poaching in the preserve, the cheetahs are not prey for lions and have plenty of food sources to sustain a viable population. Cheetahs are categorized as Vulnerable on the IUCN Red List, with an estimated population of c. 6,700 mature individuals remaining in the wild. *Source: ABC News (2022) abcnews.go.com/International/release-wild-cheetahs-mozambique-answer-conservation-species-biologists/story?id=82327748*

Former African leaders to lead IUCN conservation conference

Three former African heads of state have been selected to lead the inaugural IUCN Africa Protected Areas Congress in Kigali, Rwanda. Hailemariam Desalegn, the former Prime Minister for Ethiopia, Issoufou Mahamadou, the former President of Niger, and Festus Mogae, the former President of Botswana, were announced in January 2022 as patrons for the international conservation conference. The conference, which was scheduled to take place in Kigali during 7–12 March, was said to come at a critical time when Africa needs more than USD 700 billion for biodiversity. Taking place in Africa for the first time, the summit was to be convened by IUCN Rwanda and the Africa Wildlife Foundation. It was expected to enhance the status of conservation in Africa and spearhead climate change mitigation by engaging governments, the private sector, civil society, academia, Indigenous peoples and local communities, to shape Africa's agenda for protected and conserved areas. *Source: The New Times (2022) newtimes.co.rw/news/rwanda-picks-former-african-leaders-lead-conservation-conference*

AMERICAS

New law on conservation funding and human rights in the USA

Lawmakers from the House of Representatives in the USA have introduced a bill that, if passed, would require human rights safeguards to be embedded in Department of Interior grants given to conservation organizations working overseas. The bill follows a congressional investigation into support that was provided by the USA for protected areas in Central Africa and South Asia, where rangers committed serious human rights abuses against local people. Supporters of the bill say it closes a loophole by requiring grants disbursed by the U.S. Fish & Wildlife Service to include human rights standards, including the vetting of ranger units receiving funds, and procedures for investigating allegations of abuse. The law would be a milestone in financing for global conservation, bringing it under a human rights framework that has the potential to impact support for global protected area expansion in the future. Some Indigenous rights advocates described it as a sign of progress toward accountability in conservation projects, and a success for the campaign to decolonize conservation.

Source: *Mongabay* (2022) news.mongabay.com/2022/03/new-law-would-tie-u-s-conservation-funding-to-human-rights-protection/

Fireflies debut on the Red List

Fireflies are charismatic bioluminescent beetles, yet conservation efforts are just getting underway. In 2021, the IUCN Firefly Specialist Group completed the first Red List assessments covering 132 taxa in the USA and Canada. These initial assessments found 18 species (14%) to be Critically Endangered, Endangered or Vulnerable, facing extinction risks because of habitat loss, light pollution, and sea level rise and drought as a result of climate change. In addition to their narrow geographical ranges, many threatened species have characteristics that make them particularly vulnerable to such threats, including habitat specialization, flightless females or courtship that relies on bioluminescent signaling. The extinction risk for many species (53%) could not be evaluated because of insufficient data. The researchers identified several priority conservation actions, including protecting at-risk species, preserving and restoring habitat, gathering data on population trends, and increasing outreach and education efforts.

Source: *PLOS ONE* (2021) doi.org/10.1371/journal.pone.0259379

Warmer waters threaten one of the most exploited fish species

Researchers studying sediment cores from the seabed off the coast of Peru have compared marine conditions during the last interglacial period to those predicted for the year 2100, with concerning implications for the commercially important anchoveta *Engraulis ringens*. The samples provide insights into species that lived along the Humboldt Current 130,000 years ago, when the ocean's oxygen levels were low and average temperatures were c. 2 °C warmer than today, conditions similar to those projected as a result of climate change. The samples from this period contain much smaller fishes that were better able to cope with low oxygen levels. Researchers argue that the current trajectory of environmental conditions and fish communities in the Humboldt Current points to a shrinking of fish over coming decades. Anchoveta biomass landings have already decreased, and combined with the pressures of industrial fishing, the impact of these changing conditions poses a substantial threat to the global fish supply. Researchers call on fishery managers and global markets to consider the effects of climate change and adapt accordingly.

Source: *Mongabay* (2022) news.mongabay.com/2022/01/warmer-oxygen-poor-waters-threaten-worlds-most-heavily-exploited-fish

UK zoo helps lost Mexican fish live to see another tequila sunrise

A charismatic little fish declared extinct in the wild has been reintroduced to its native Mexico after being bred in an aquarium at Chester Zoo, UK. The tequila fish *Zoogoneticus tequila*, which grows to no bigger than 70 mm long, disappeared from the wild in 2003 following the introduction of invasive, exotic fish species and water pollution. Named after the Tequila volcano that looms north of its native habitat, the species was discovered in 1990 in the Teuchitlán River in Jalisco, south-west Mexico. Now conservationists at Chester Zoo and the Michoacana University of Mexico have teamed up to return more than 1,500 fish to the river. Recent studies have confirmed that the fish are thriving and already breeding in the Teuchitlán. Experts say the project has created a blueprint for future reintroductions of other highly threatened fish species, with a rescue mission for another, the golden skiffia *Skiffia francesae*, now underway.

Source: *The Guardian* (2021) the-guardian.com/environment/2021/dec/29/uk-zoo-helps-lost-mexican-fish-live-to-see-another-tequila-sunrise

South American squid left exposed amid surge in China's fishing

Negotiators from the USA, China and 13 other governments failed to take action to protect threatened squid stocks on the high seas off South America amid a recent surge in activity by China's distant water fishing fleet. The South Pacific Regional Fisheries Management Organization (SPRFMO) is responsible for conservation and sustainable fishing off the west coast of South America. At the SPRFMO's annual meeting in January 2022, Ecuador and the EU proposed measures that would require all ships to have observers on board by 2028 and mandate they unload their catches only in ports instead of at sea to giant refrigerated vessels. Both of these regulations are considered key tools in limiting illegal, unreported and unregulated fishing. There were also competing proposals, one of them from China, to limit the amount of squid that could be caught. However, none of the proposed measures were adopted during the closed-door meeting, thwarting the efforts of environmentalists and some seafood importers in the USA and Europe who have been pushing for restrictions of fishing on the high seas.

Source: *AP News* (2022) apnews.com/article/business-china-south-america-squid-f4092351b2c070d515e87fb408c7d01d

Bears in Alaska's Hallo Bay are changing their diet

The brown bears of Alaska's Katmai National Park and Preserve normally feed on salmon from the Brooks River, a rich food source that allows them to fatten up for the winter and keeps them in top condition for breeding. But new research conducted on a stretch of the Park's coast shows that some of Alaska's bears have shifted their diets away from salmon, with unknown consequences for their future. The proportion of salmon in the diets of female brown bears in Hallo Bay has decreased by more than 50% over the past 3 decades, possibly in response to declining salmon runs. The bears replaced salmon with increased consumption of berries, sedges and leafy vegetation, although clams and other fish were available. In addition to decreased salmon numbers, other factors could also be at play, including an increasing number of human visitors to the coast and the disruption caused to the North Pacific marine ecosystem by an intense marine heatwave. More research is necessary to determine whether the shift in diet may affect the bears' ability to thrive and reproduce.

Source: *Hakai Magazine* (2022) hakaimagazine.com/news/bears-in-alaskas-hallo-bay-are-changing-what-they-eat

ASIA & OCEANIA

Great Blue Wall aims to protect Indian Ocean from looming threats

Ten nations in the western Indian Ocean have committed to the creation of a network of marine conservation areas in an initiative dubbed the Great Blue Wall. Launched in November 2021, the project aims to promote transboundary cooperation between Comoros, Kenya, Madagascar, Mauritius, Mozambique, Seychelles, Somalia, South Africa, Tanzania and France's overseas department of La Réunion in protecting coral reefs, mangroves and seagrass meadows. Only c. 5–8% of the marine area in the Indian Ocean is under legal protection, and existing protected areas are struggling to keep threats such as ocean warming, overfishing and oil and gas extraction at bay. In the western Indian Ocean, legislation governing protected areas varies between countries, and issues such as insufficient funds, personnel and enforcement persist. It is hoped the Great Blue Wall will complement existing transboundary initiatives to remedy these shortfalls.

Source: *Mongabay* (2022) news.mongabay.com/2022/01/great-blue-wall-aims-to-ward-off-looming-threats-to-western-indian-ocean

Conservationists tackle the Asian songbird crisis despite pandemic

Although the Asian songbird trade has persisted throughout the pandemic, conservation projects and birding tourism communities had to adapt their work. COVID-19 caused a decrease in funding, and difficulties in bringing experts to field sites. Despite all the challenges and pressure, the Cikananga Conservation Breeding Centre, the Ecosystem Impact Foundation, FLIGHT and several bird guides were able to find new ways to continue their work and demonstrate their commitment and resilience. New fundraising initiatives, expertise and support from organizations such as the IUCN SSC Asian Species Action Partnership, Oriental Bird Club, Birdtour Asia, the IUCN SSC Asian Songbird Trade Specialist Group, Mandai Nature and EAZA Silent Forest Group helped them to tide over the first 2 years of the pandemic. However, with the long-term impact of COVID-19 on regional economies, more sustained resources are needed to recover affected Asian songbird conservation projects and local communities.

Source: *BirdingASIA* (2021) static1.squarespace.com/static/5c1a9e03f407b482a158da87/t/61d422183f5edo82eb1545c/1641292306542/COVID-and-conservation.pdf

Elusive bird spotted in Fujairah to help boost global conservation efforts

A nocturnal bird on a flying visit to the United Arab Emirates is set to play a part in bolstering conservation efforts and facilitating a better understanding of migration patterns. The European nightjar *Caprimulgus europaeus* was spotted by an Emirati man on an evening outing near his farm in Fujairah. The bird typically breeds across Europe and migrates to Africa during the winter, with sightings in the Middle East thought to be less common. It typically has a 55-cm wingspan and grey plumage streaked with black. The man caught the bird and handed it over to environment authorities. A tracking bracelet was placed on its foot before it was allowed to spread its wings. If caught again elsewhere, its measurements will be taken again and notifications of the bird's location will help track its development and migration routes. This is part of international efforts to collect and share data that have the potential to support biodiversity conservation.

Source: *The National* (2021) thenationalnews.com/uae/environment/2021/12/29/elusive-bird-spotted-in-fujairah-to-help-boost-global-conservation-efforts

Blow for tiger conservation as two killed in Thailand

Tiger conservationists in Thailand were reeling following the killing of two Indochinese tigers *Panthera tigris corbetti* in January 2022 in Thong Pha Phum National Park by local farmers. Authorities confiscated the two carcasses and investigated the incident and possible links to the illegal wildlife trade. The farmers said the big felids had been killing cattle, according to local media reports. However, experts say the circumstances around the seizure indicate there may have been an additional intention to profit from the carcasses, possibly through the illegal wildlife trade. Thailand is the last stronghold of the Indochinese tiger, a subspecies that has been officially declared extinct in neighboring Cambodia, Laos and Viet Nam over the past decade because of poaching, habitat loss and indiscriminate snaring. The fact that there were no prior recorded reports of tigers killing cattle in the area, as claimed by the suspects, raised questions about this incident. It is yet another illustration of how conflict between large predators and human interests within and near protected areas can result in the death of highly threatened wildlife.

Source: *Mongabay* (2022) news.mongabay.com/2022/01/huge-blow-for-tiger-conservation-as-two-of-the-big-cats-killed-in-thailand

Giant pristine coral reef discovered off Tahiti

Marine explorers have discovered a pristine 3-km long coral reef at depths of 30 m off the coast of Tahiti, French Polynesia. It is one of the largest discovered at that depth. The reef was found in November 2021 during a diving expedition to a depth known as the ocean's twilight zone as part of a global seabed-mapping mission called the Seabed 2030 Project. French underwater photographer Alexis Rosenfeld said it had been magical to witness giant, beautiful rose corals stretching as far as the eye can see. Coral reefs are among the ocean's most threatened ecosystems, vulnerable to pollution, rising sea temperatures and the change in chemistry caused by carbon-dioxide emissions dissolving in the water.

Source: *BBC* (2022) bbc.co.uk/news/science-environment-60047368

Last known freshwater dolphin in north-eastern Cambodia dies

The last known freshwater Irrawaddy dolphin *Orcaella brevirostris* on a stretch of the Mekong river in north-eastern Cambodia has died. The dolphin was found dead, tangled in a fishing net, in February 2022 on a riverbank in Stung Treng province near the border with Laos. These freshwater dolphins are also known as the Mekong river dolphin and are categorized as Endangered on the IUCN Red List. Irrawaddy dolphins are found in coastal areas in South and South-east Asia, and in three rivers: the Ayeyarwady in Myanmar, the Mahakam in the Indonesian part of Borneo and the Mekong. The Mekong river Irrawaddy dolphins inhabit a 190-km stretch of the river between Cambodia and Laos and are scarce; just 92 individuals are estimated to still exist. In 1997, the fisheries department conducted its first census of Irrawaddy dolphins in Cambodia and estimated their population to be c. 200. By 2020, the population had gone down to 89. Besides fishing nets, the species is also threatened by pollution.

Source: *Independent* (2022) independent.co.uk/asia/southeast-asia/cambodia-last-freshwater-dolphin-dies-b2017148.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 Candace Fallon, William Morgan, Annkathrin Sharp and Sofiya Shukhova. Contributions from authoritative published sources (including websites) are always welcome. Please send contributions to oryx@fauna-flora.org.