

Briefly

SPOTLIGHT ON PRIMATES

New mouse lemur identified . . .

Molecular genetic studies have revealed a new, relatively large, reddish brown, small-eared mouse lemur. The species inhabits a community protected forest around the village of Ambavala, just west of Mananara-Nord in the province of Analanjirifo, north-western Madagascar. *Microcebus jonahi* was described by Dominik Schüßler and numerous colleagues, and named after Jonah Ratsimbazafy, co-founder and president of the Madagascar Primate Study and Research Group, and Houston Zoo's Director of Madagascar Programs. Jonah has dedicated his life to the conservation of lemurs. Five distinct *Microcebus* lineages have now been described from a 130-km-wide stretch of lowland rainforest in north-east Madagascar, making it one of the most species-rich areas so far identified for mouse lemurs, a micro-endemism hotspot. *Microcebus jonahi* brings the number of known mouse lemur species to 25, and the number of lemur species to 112. Sources: *American Journal of Primatology* (2020) doi.org/10.1002/ajp.23180 & *Science* (2020) [science.science.org/content/369/6501/230](https://www.science.org/content/369/6501/230)

. . . and almost all lemur species threatened with extinction

Verreaux's sifaka *Propithecus verreauxi* was once common across the south of Madagascar, but this lemur species is now categorized as Critically Endangered on the IUCN Red List, a status sadly shared by many of its cousins. A recent IUCN Red List update found more than half of African primates outside Madagascar are under threat. In Madagascar, rampant deforestation and hunting have decimated lemur populations: c. 95% of known lemur species are now threatened with extinction. Increasing trade in lemurs as pets has also emerged as a new pressure, and traditional values that once offered protection are changing. For example, local taboos banning the hunting of Verreaux's sifaka had previously helped preserve the species, but as charcoal production booms and new people are moving to the forests they occupy, that protection has evaporated. The species is active in the day, making it potentially suitable for ecotourism, which has played an important role in protecting some of Africa's primates. Source: *New Scientist* (2020) [news.scientist.com/article/2248508-almost-all-lemur-species-are-now-officially-endangered](https://www.newscientist.com/article/2248508-almost-all-lemur-species-are-now-officially-endangered)

Monkey species native to Malaysia spotted in Singapore

Scientists in Singapore are assessing how the presence of a new monkey could affect the country's two native species, the long-tailed macaque and Raffles' banded langur. Three dusky langurs, a species native to Malaysia but not Singapore, were first seen in woodlands in August 2019. By December, two of them had reached Thomson Nature Park where they remained until January 2020. The third individual was not seen after September last year, and could have died or left the group. By March the researchers found that the two remaining individuals, both male, had ventured farther south to Windsor Nature Park. The langurs appeared healthy and wild, which indicates that they could have swum across the narrow Johor Strait or entered Singapore via the Causeway. Numerous encounters between the dusky langurs and Singapore's two native monkey species have been documented since. Further monitoring will be required to assess their impact on local primates. Sources: *Journal of Threatened Taxa* (2020) doi.org/10.11609/jott.5818.12.9.15967-15974 & *Straits Times* (2020) [straitstimes.com/singapore/environment/monkey-species-native-to-malaysia-spotted-here](https://www.straitstimes.com/singapore/environment/monkey-species-native-to-malaysia-spotted-here)

Corridors for white-headed langurs and black lion tamarins

The first biological corridor for primates in China was established in Guangxi's Chongzuo White-headed Langur National Nature Reserve. It will allow white-headed langurs to move freely between their habitats, which were separated by a national highway. The species is Critically Endangered and native to Guangxi Zhuang Autonomous Region, with a population of c. 1,000. In Brazil, The Black Lion Tamarin Conservation Programme created a series of forest corridors to connect areas with isolated populations of this Endangered primate, of which only c. 100 were left in the wild in the 1970s. Thanks to the Programme, which was founded in 1984, there are now c. 1,800 black lion tamarins. Endemic to inland São Paulo, a region of heavy agricultural activity, the species is most threatened by forest fragmentation. Sources: *China Global Television Network* (2020) news.cgtv.com/news/2020-07-19/First-biological-corridor-for-primates-in-China-established-in-Guangxi-SfuM1wnyve/index.html & *Mongabay* (2020) [news.mongabay.com/2020/07/the-woman-building-the-forest-corridors-saving-brazils-black-lion-tamarin](https://www.mongabay.com/2020/07/the-woman-building-the-forest-corridors-saving-brazils-black-lion-tamarin)

Treetop cameras capture first known video of a wild roloway monkey

When conservationists set up treetop cameras in Côte d'Ivoire's Tanoé-Ehy forest, they hoped to capture videos of the elusive Miss Waldron's red colobus monkey *Ptilocolobus waldroni*, a Critically Endangered species that has not been spotted in 42 years. But instead, another rare primate presented itself: the roloway monkey *Cercopithecus roloway*. This is the first time a wild roloway monkey has ever been filmed. Rowloway monkeys used to live across southern Côte d'Ivoire and Ghana, but hunting and trapping greatly reduced the species' range. Now these animals primarily live in the Tanoé-Ehy forest in south-east Côte d'Ivoire, with a much smaller population in the Kwabré forest in Ghana, and possibly a few individuals in the central coastal region of Côte d'Ivoire. The roloway monkey is Critically Endangered, with fewer than 2,000 individuals left in the wild, according to a 2019 assessment. A more recent survey estimates that only c. 300 individuals remain. There are efforts to protect the species in the Tanoé-Ehy forest through research, education, community engagement, surveillance and habitat preservation. Source: *Mongabay* (2020) [news.mongabay.com/2020/07/treetop-cameras-capture-first-known-video-of-a-wild-roloway-monkey](https://www.mongabay.com/2020/07/treetop-cameras-capture-first-known-video-of-a-wild-roloway-monkey)

Rare gorillas with infants captured on camera in Nigeria

Conservationists have captured the first images of a group of rare Cross River gorillas with multiple infants in Nigeria's Mbe Mountains, proof that the subspecies once feared to be extinct is reproducing. Only c. 300 Cross River gorillas were known to be alive at one point in the isolated mountain cluster in Nigeria and Cameroon. Experts do not know how many Cross River gorillas remain, and have been trying to track the subspecies for some time. Some 50 cameras were set up in 2012 and multiple images have been captured in Cameroon's Kagwene Gorilla Sanctuary and in Nigeria's Mbe Mountains community forest and Afi Mountain Wildlife Sanctuary. But Cross River gorillas are notoriously difficult to capture together on camera and no images had captured multiple infants. An alliance of nine local communities, the Conservation Association of the Mbe Mountains, has been working with the Wildlife Conservation Society since the mid 1990s to help protect the Cross River gorilla. Since that time, there have been no recorded deaths in Nigeria. Source: *AP News* (2020) [apnews.com/462d53e0f258141f579487a6406ae9b9](https://www.apnews.com/462d53e0f258141f579487a6406ae9b9)

INTERNATIONAL

For human survival, we need urgent changes in farming...

We depend on farming for our survival but this activity takes up more than one-third of the world's landmass and contributes to the plight of 62% of all threatened species globally. However, researchers say that with proper management, agricultural landscapes could support rather than damage biodiversity, through a global transition to agroecological production. An international team of over 360 scientists from 42 countries, led by the University of Göttingen in Germany and Westlake University in China, argue that agroecological principles should be integrated in the post-2020 Global Biodiversity Framework. Reversing the trend in species decline is essential for people and the planet, but it will require co-ordinated actions and a move to sustainable agriculture. Intensive farming relies on excessive pesticides and fertilizer, with negative effects on biodiversity. The scientists say that by adopting agroecological principles, farming landscapes can provide habitats for biodiversity, promote connectivity between protected areas and increase species' ability to respond to environmental threats.

Source: *Phys.org* (2020) phys.org/news/2020-07-farming-urgent-biodiversity-scientists.html

... a sustainable blue recovery...

We all rely on the ocean, which covers two-thirds of our planet, to regulate our climate, provide us with food, medicine, energy and even the air we breathe. The ocean is valued at c. USD 3 trillion annually and supports the livelihoods of more than 3 billion people. But the natural assets that the blue economy depends on are fast eroding under the pressure of human activities. Already, 94% of all wild fish stocks are being fully utilized, with one-third exploited in an unsustainable manner. In addition, the ocean is becoming acidic because of increasing levels of CO₂ being absorbed by it, rising temperatures have killed up to half of the world's coral reefs, and by 2050 there could be more plastic than fish in the ocean. We cannot afford to continue mismanaging this important global resource; a regenerative, sustainable and equitable blue economy must be part of the world's social and economic recovery from the COVID-19 pandemic.

Source: *United Nations Conference on Trade and Development* (2020) unctad.org/en/pages/newsdetails.aspx?OriginalVersionID=2436

... and mainstreaming of biodiversity

According to the Intergovernmental Science–Policy Platform on Biodiversity and Ecosystem Services, more than 1 million animal and plant species are threatened with extinction because of human actions. However, relatively few people seem to understand what biodiversity is or why species matter, despite global attempts to mainstream biodiversity and relate it to the provision of ecosystem services upon which all life depends, and to value nature in monetary terms. Perhaps the COVID-19 pandemic will help alter popular perceptions of humanity being immune to, and cocooned from, biodiversity loss and ecosystem destruction. The destruction of undervalued wild habitats and the exploitation of wildlife have brought humans in close proximity with zoonotic viruses, and 75% of all emerging diseases are zoonotic in origin. The time has come to ensure that biodiversity is brought centre stage in our understanding, but also in our policies and laws.

Source: *The Citizen* (2020) thecitizen.in/index.php/en/NewsDetail/index/13/19082/Are-We-Mainstreaming-or-Simply-Trivialising-Biodiversity

Switch to green technologies could speed up biodiversity loss

Conservation efforts often overlook the threats posed by growth in renewable energies. However, the global switch to green technologies could speed up biodiversity loss, scientists have warned. Technologies such as solar panels, batteries and wind turbines require mined materials such as lithium, cobalt, copper and aluminium, and demand for these materials could fuel the expansion of mining operations into fragile habitats harbouring rare wildlife. In a new study, scientists mapped mining areas and assessed their spatial coincidence with biodiversity conservation sites and priorities. The researchers found that mining potentially influences 50 million km² of the world's land surface, with 8% coinciding with protected areas, 7% with key biodiversity areas, and 16% with remaining wilderness. Most mining areas (82%) target materials needed for renewable energy production. They warn that mining threats to biodiversity will increase as more mines target materials for renewable energy production and, without strategic planning, these new threats to biodiversity could surpass those averted by climate change mitigation.

Sources: *Nature Communications* (2020) nature.com/articles/s41467-020-17928-5 & *iNews* (2020) inews.co.uk/news/environment/green-technologies-switch-electric-vehicles-biodiversity-loss-615339

European hamster and caterpillar fungus on brink of extinction...

Species around the world are facing unprecedented declines because of human activities. According to the latest update of the IUCN Red List, the European hamster, once common across much of Europe and Russia but now extirpated from most of its original range, will go extinct within 30 years if current trends continue. The key reason for the decline is a drastic reduction in the birth rate. Whereas previously female hamsters gave birth to > 20 young every year, now they produce only 5–6 pups annually. The reasons are not known, but intensive farming, global heating and increasing light pollution may all play a role. The updated Red List also highlights the decline of the caterpillar fungus *Ophiocordyceps sinensis*, which occurs only on the Tibetan plateau and parasitizes the larvae of ghost moths. It is highly prized in traditional Chinese medicine for its supposed effects on the kidneys and lungs. High demand has led to a decline of nearly one-third in its abundance. For many people selling the fungus, which can fetch higher prices than gold by weight, it is their main source of income (see also *Oryx*, 53, 247–255 & 256–264).

Source: *The Guardian* (2020) theguardian.com/environment/2020/jul/09/caterpillar-fungus-and-european-hamster-on-brink-of-extinction

... and sharks functionally extinct on one in five coral reefs

In one of the most comprehensive studies on shark abundance to date, Global FinPrint surveyed all reef shark species globally by reviewing over 18,000 hours of video captured by more than 120 scientists on 371 tropical coral reefs. At 19% of the reefs sampled, no sharks were caught on video, suggesting they may no longer be present in high enough numbers to perform an ecological role at those locations. Fortunately, some locations such as the Bahamas and French Polynesia maintain healthy shark populations on their reefs. Countries with highest shark abundance were typically those that had declared protected areas and regulated fishing with effective enforcement. The places that are doing worst have few or poorly enforced fishing regulations and higher levels of poverty. The data are now being used to review the conservation status of various shark species, and the impact on reefs when they are extirpated. The research suggests that the success of different conservation measures is context-dependent, but that actions supporting reef shark recovery must be prioritized.

Source: *Science* (2020) sciencemag.org/news/2020/07/sharks-functionally-extinct-one-five-coral-reefs

EUROPE

Bison brought back to UK for first time in thousands of years...

Bison are being introduced to a British woodland to restore an ancient habitat and its wildlife. The move is part of a GBP 1 million project led by Kent Wildlife Trust and the Wildwood Trust to help manage Blean Woods near Canterbury, Kent. European bison, the continent's largest land mammal, are the closest living relative to ancient steppe bison that once roamed Britain and naturally managed the habitat. A closely-knit herd of four European bison will be introduced into a fenced enclosure away from public footpaths, in what is the first time the animals have been introduced to a nature reserve in the UK. They will be within a wider 500 ha area that will also harbour other grazing animals such as Konik ponies, to create a varied and healthy habitat. Bison fell trees by rubbing up against them, and they eat bark, creating areas of space and light in the woods and providing deadwood which will help fungi and insects such as stag beetles. Patches of bare earth created by the bison dust bathing are expected to benefit lizards, burrowing wasps and rare arable weeds. In the UK, lack of woodland management is one of the biggest drivers of species decline, according to the Wildwood Trust.

Source: *The Independent* (2020) [independent.co.uk/environment/bison-reintroduced-wildlife-project-kent-canterbury-blean-woods-a9610791.html](https://www.independent.co.uk/environment/bison-reintroduced-wildlife-project-kent-canterbury-blean-woods-a9610791.html)

... and lynx set to be brought back to Scottish forests

Plans to reintroduce the lynx to Scotland have taken a major step forward after a site was chosen for the project. One male and two females will be released into the Queen Elizabeth Forest Park, just 50 km north of Glasgow. Hunted to extinction for their fur in the UK c. 1,300 years ago, the Eurasian lynx has been successfully reintroduced in various European countries. Now the Lynx UK Trust hopes for similar success in Scotland, starting at Queen Elizabeth Forest Park, where the individuals released into the wild will be monitored over 5 years. Over the past year, the Trust has been carrying out an extensive ecological feasibility study to assess habitat suitability for the lynx across the whole of Scotland. Local economies would benefit from the lynx becoming a tourist attraction. The felids also help to control native deer populations, and no lynx attack on humans has ever been recorded.

Source: *The National* (2020) [thenational.scot/news/18655124.lynx-set-brought-back-scottish-forests-five-years](https://www.thenational.scot/news/18655124.lynx-set-brought-back-scottish-forests-five-years)

Global warming shrinks bird breeding windows...

A new study suggests that as the climate warms, birds are not only breeding earlier, but their annual breeding windows are also shrinking—some by as many as 4–5 days. This could lead to increased competition for food that might threaten many bird populations. To find out how the length of breeding periods has changed over time, a team analysed an extensive dataset from amateur ornithologists, coordinated by the Finnish Museum of Natural History. The data are from 1975–2017 and include the nesting records of 73 species and more than 820,000 birds from a 1,000 km² area in Finland's boreal forests. The findings suggest that breeding periods are generally occurring earlier in the year, but the end dates are shifting back faster than the start dates. This results in breeding windows that are on average 1.7 days shorter in 2017 than they were in 1975. During that same period, Finland's mean annual temperature rose by 0.8 °C, suggesting many bird species are responding to changing temperatures.

Source: *Science* (2020) [sciencemag.org/news/2020/07/global-warming-shrinks-bird-breeding-windows-potentially-threatening-species](https://www.sciencemag.org/news/2020/07/global-warming-shrinks-bird-breeding-windows-potentially-threatening-species)

... and threatened European birds face habitat loss

In parts of Europe, low intensive agricultural practices have created semi-natural agro-steppes that hold important populations of great bustards, lesser kestrels, rollers and other European bird species. However, a new study has shown that these habitats could be at risk because farmers are converting their land to meet increased demand for products such as olive oil and wine. Traditional olive groves and vineyards are occasionally used for feeding or resting by several threatened European birds, but intensively managed versions of these and other crops are inadequate for such birds. In the early 2000s several agro-steppe sites were designated as Special Protection Areas for bird conservation, as part of the EU Natura 2000 network of priority areas for conservation. Researchers assessed the effectiveness of Natura 2000 at conserving Western Europe's agro-steppes over a 10-year period. The research suggests the Natura 2000 network may have helped prevent losses of c. 36,000 ha of agro-steppe habitat in Iberia. However, of the 21 Special Protection Areas surveyed in Spain and Portugal, all agro-steppe sites experienced losses.

Source: *Open Access Government* (2020) openaccessgovernment.org/endangered-european-birds/90793

First database of funding for environmental restoration in Europe

In preparation for the launch of the UN Decade on Ecosystem Restoration (2021–2030), ambitious targets and commitments for restoration need to be supported by an increased availability and coordination of funding. Information on allocations for restoration projects across Europe has previously been scattered and decentralized. With support from the Endangered Landscapes Programme, the UN Environment Programme–World Conservation Monitoring Centre and Fauna & Flora International have now collated funding information for over 400 European restoration projects implemented since 2010. By providing an overview of funding trends across Europe, funders and decision makers can now better identify and address gaps, opportunities and priorities for restoration, and coordinate between initiatives to enable effective and sustainable restoration of degraded marine, terrestrial and freshwater ecosystems. The data and accompanying report are available online, and users can discover current and historic global funding efforts, including details of total project cost, spatial and temporal scale, donors, beneficiaries and thematic area. Not all projects disclose funding information online and further contributions of data are welcome.

Source: *Restoration Funders* (2020) restorationfunders.com

European banks urged to stop funding oil trade in Amazon

Indigenous people living at the headwaters of the Amazon have called on European banks to stop financing oil development in the region, as it poses a threat to them and damages a fragile ecosystem. A new report found previously undisclosed funding for oil in the region. The headwaters of the Amazon in Ecuador and Peru are home to more than 500,000 Indigenous people, including some who choose to live in voluntary isolation. Many banks have pledged to halt or limit the finance they provide to fossil fuel projects, but the new report focuses on a grey area: instead of project finance, the authors looked at trade finance. Project finance is used to start and develop oil wells, fossil fuel extraction, refineries and pipelines, but trade finance is used to move the oil and gas from production to refineries. The report revealed USD 10 billion of trade finance from 19 European banks for oil operations in the headwaters of the Amazon since 2009.

Source: *The Guardian* (2020) [theguardian.com/environment/2020/aug/12/european-banks-urged-to-stop-funding-oil-trade-in-amazon](https://www.theguardian.com/environment/2020/aug/12/european-banks-urged-to-stop-funding-oil-trade-in-amazon)

AFRICA

Madagascar's fishers chase dwindling sea cucumbers

There are c. 1,250 different species of sea cucumber, ranging in size from c. 1.9 cm to more than 1.8 m. For centuries, they have been used in China for traditional medicine or as a high-status food, typically eaten in soups and stews. In recent decades, as a result of the enormous economic transformation in China, demand and prices for sea cucumber have skyrocketed, with some species retailing for up to USD 3,500 per kg. Predictably, sea cucumber populations are in decline globally. In Madagascar, one of the world's poorest countries, the practice of SCUBA diving for sea cucumbers was banned in 1993 in an attempt to manage the fishery. However, many fishers continue to dive for the precious catch, risking arrest for illegal fishing, but also their lives by diving far deeper and for far longer than safe diving protocol allows, often in old and poorly maintained diving gear. A glimmer of hope is offered by community sea cucumber aquaculture programmes in a few villages. These are attempting to provide alternative income for traditional small-scale fishers and to alleviate pressure on wild sea cucumbers.

Source: *Mongabay* (2020) news.mongabay.com/2020/07/risking-death-and-arrest-madagascar-fishers-chase-dwindling-sea-cucumbers

Campaign to plant 20 million trees in Senegal

A vast reforestation campaign is underway in Senegal, with the objective to plant up to 20 million trees across the country. According to the Senegalese Minister of the Environment and Sustainable Development, Abdou Karim Sall, the reforestation campaign initiated by the Senegalese government is arousing great interest throughout the country. The planting of baobab trees, in particular, is intensifying as a result of the government's campaign. This large tree is typical of tropical regions, particularly West Africa, where it takes 8–10 years to reach maturity. The fruits of this tree are used to make soft drinks, which nutritionists believe to be rich in vitamins B1 and C. Monkey bread, a common name for the dried baobab fruit, is also becoming a major export product, particularly to factories in Europe and America. The planting of baobab is encouraged by several organizations, including the National Agency for Agricultural Integration and Development.

Source: *Afrik21* (2020) afrik21.africa/en/senegal-a-campaign-to-plant-20-million-trees-by-the-end-of-september

Somali sengi: new records of a lost species in the Horn of Africa

The Somali sengi *Elephantulus revoilii*, a little-known mammal, has been rediscovered in Africa after 50 years of obscurity. The last scientific record of this species of elephant shrew was in the 1970s, despite local sightings. In a new study, scientists report to have found the animals in Djibouti, a country in the Horn of Africa, during an expedition. The team set > 1,000 baited traps at 12 locations. They caught one of the creatures in the first trap they set in the dry, rocky landscape. In total, they saw 12 sengis during their expedition and obtained the first-ever photos and video of live Somali elephant shrews for scientific documentation. The researchers did not observe any immediate threats to the species' habitat, which is inaccessible and far from farming and human developments. For Djibouti the discovery is an important story that highlights the great biodiversity of the country and the region and shows that there are opportunities for new science and research there. Elephant shrews, or sengis, are the size of mice or shrews, but are related to aardvarks, elephants and manatees. They have distinctive trunk-like noses, which they use to search for insects.

Sources: *PeerJ* (2020) peerj.com/articles/9652 & *BBC* (2020) bbc.co.uk/news/science-environment-53820395

Rosewood trafficking worsens in the Gambia

A recently published report by the Environmental Investigation Agency has shed new light on the scale and workings of the illegal trade of rosewood timber in the Gambia. It revealed that the country exported c. 1.6 million rosewood trees during June 2012–April 2020. Most of this timber, known locally as *keno*, is illegally harvested and smuggled from neighbouring Senegal, and according to the findings, most of these exports are in violation of CITES. The trafficking has contributed to political instability in the Casamance region of southern Senegal, where the illegal logging has been concentrated. The Gambia's current president Adama Barrow imposed a re-export ban in February 2017 and agreed to a joint enforcement initiative to combat the trafficking with the president of Senegal, Macky Sall, in 2018. However, despite these measures, China's imports of rosewood from the Gambia have increased in 2017–2020 compared to 2015–2016.

Source: *Earth Island Journal* (2020) earthisland.org/journal/index.php/articles/entry/rosewood-trafficking-worsens-the-gambia-china

Wildlife corridors could save South Africa's leopards

South Africa's leopard population faces an uncertain future. In a country where reserves and national parks are surrounded by farms, roads and developments, leopards have been forced into ever smaller areas. In some populations this has led to inbreeding, which can diminish the felids' resistance to illnesses and extreme weather events such as droughts, and can result in local extinction. In a recent study, scientists examined two populations of leopards in South Africa and found low genetic diversity in one of them. The researchers proposed wildlife corridors as one possible solution to encourage gene flow. Tracts of land through which animals can safely disperse or migrate, such as pockets of undeveloped land or underpasses that allow animals to cross busy roads, can connect what would otherwise be separated populations. In India, wildlife corridors have been shown to be effective for various carnivores. Despite many challenges, there are plans to establish such corridors in South Africa. The Cape Leopard Trust, for example, is investigating the integrity of potential corridors in the Western Cape. These could protect not only leopards, but also fynbos vegetation, orchids and amphibians such as the Endangered Cape platanna frog.

Source: *BBC* (2020) bbc.com/future/article/20200826-the-bold-plan-that-could-save-south-africas-leopards

Meru National Park sees baby boom of rhinoceros in sanctuary

Meru National Park in Kenya includes a 83 km² rhinoceros sanctuary in the northern part of the Park. To protect rhinoceroses from poaching, the sanctuary is surrounded by a high voltage electric fence designed to keep rhinoceroses in but allow other wildlife such as giraffes to move freely. The fence and other security measures have helped reduce poaching, and in the last 2 years, there has been no poaching incident at Meru National Park. The Park has witnessed a baby boom in the past year with the birth of nine calves, including seven white and two black rhinoceroses. Nationally, 31 births have been recorded in the past year, with 17 of those being black and 14 being white rhinoceroses. The white rhinoceros reaches maturity at the age of 4 years, whereas the black rhinoceros matures at 6 years. The life expectancy of both species is 50–60 years and their gestation period is 15–16 months.

Source: *The Standard* (2020) standardmedia.co.ke/eastern/article/2001380996/park-sees-baby-boom-of-rhinos-in-sanctuary

AMERICAS

America's oldest conservation group denounces racism of its founder

The oldest conservation group in the USA, The Sierra Club, will take down monuments to its founder because of his racist history. John Muir, who founded the group in 1892 and whose activism helped preserve the Yosemite Valley and Sequoia National Park, also had ties to white supremacists and made derogatory comments about Indigenous people and people of colour that drew on deeply harmful racist stereotypes. As the USA begins to confront its past with the removal of many statues related to the Confederacy, the group has decided to re-examine its own history and its substantial role in perpetuating white supremacy. The early membership of the club included vocal advocates for white supremacy and eugenics, was defined by whiteness and privilege and allowed for wilful ignorance about the spaces the group enjoyed once being the homes of native peoples, forced off their lands by white settlers. Exclusionary membership practices continued until at least the 1960s.

Source: *The Independent* (2020) [independent.co.uk/news/world/americas/sierra-club-john-muir-racism-white-supremacy-monuments-conservation-a9633036.html](https://www.independent.co.uk/news/world/americas/sierra-club-john-muir-racism-white-supremacy-monuments-conservation-a9633036.html)

Victory for Yellowstone's grizzly bears as court rules they cannot be hunted

In a victory for wildlife conservationists and Indigenous tribes—and for bears—a US court ruled that grizzly bears living in the vast Yellowstone ecosystem will remain federally protected and must not be subjected to sport hunting. The U.S. Fish & Wildlife Service had sought to strip Yellowstone-area grizzlies of safeguards conferred by the Endangered Species Act. This would have allowed the states of Wyoming, Montana and Idaho to permit a limited number of people to obtain hunting licenses. The Greater Yellowstone population of bears is globally renowned and the focus of a robust nature tourism industry. It is also synonymous with the wild character of Yellowstone, the world's first national park. The number of bears in the region has rebounded from c. 140 in the 1970s to > 700 today, and grizzlies have expanded their range to places where they have not been in 100 years. Their comeback is considered one of the greatest successes in conservation history.

Source: *The Guardian* (2020) [theguardian.com/environment/2020/jul/09/yellowstone-grizzly-bears-federal-protections-court](https://www.theguardian.com/environment/2020/jul/09/yellowstone-grizzly-bears-federal-protections-court)

Millions of animals trafficked within and out of Brazil annually

Every year in Brazil, millions of native animals are trafficked domestically, as well as exported internationally, according to a new report that calls for a national strategy to combat this problem. Published by wildlife trade monitoring network Traffic, the report was prepared by Freeland Brasil, an NGO aiming to conserve biodiversity by combating illegal wildlife trade. Species trafficked in Brazil include river turtles, jaguars, rare species of birds and fish, and venomous snakes. One issue pointed out in the report is the incongruity of data on illegal trafficking in the country, which varies across sources such as environmental agencies and the police force. This inconsistency suggests that the country's illegal wildlife trade is not taken seriously enough. A representative of IBAMA, a federal environment agency, stated that the prevailing sense of impunity among wildlife traffickers stems from the fact that existing legislation does not consider wildlife trafficking a serious crime, with mild penalties that do not act as a disincentive.

Source: *The Swaddle* (2020) theswaddle.com/millions-of-animals-trafficked-within-and-out-of-brazil-annually-report

Brazil records dramatic increase in Amazon fires

The number of fires in the Amazon region showed a dramatic increase in July 2020 compared to July 2019. Brazil's National Space Agency reported that there were 6,803 fires, a 28% increase on July 2019, when there had been 5,318 fires. Since the reports of increased fires, concerns are mounting that this year's fires would exceed the blazes from last year. Many fires are deliberately started by illegal loggers and farmers wanting to clear the ground quickly. Agricultural and mining activities are encouraged by Brazil's President Jair Bolsonaro, who wants to increase development and economic opportunities in the Amazon region. The increasing number of fires corresponded with a sharp drop in penalties for environmental violations, while the environmental agency remains understaffed and underfunded. NGO Greenpeace has said that to protect the Amazon and its peoples, the Brazilian government needs to increase environmental agencies' funding, strictly implement environmental laws and protect Indigenous people's rights.

Source: *Nature World News* (2020) [natureworldnews.com/articles/44183/20200803/brazil-records-big-increase-amazon-forest-fires.htm](https://www.natureworldnews.com/articles/44183/20200803/brazil-records-big-increase-amazon-forest-fires.htm)

Scientists join forces to save Lake Titicaca giant frog

Five scientific institutions are joining forces in a cross-border effort to preserve the Endangered Lake Titicaca giant frog *Telmatobius culeus*. It is one of the world's largest exclusively aquatic frogs, with a body length of up to 14.5 cm. The frog lives in Lake Titicaca, which straddles the border between Peru and Bolivia, and in nearby lagoons, at depths of up to 100 m. It has loose, baggy skin that ripples around its body in folds. Scientists think the skin flaps help the frogs absorb more oxygen in the lake's water, which is at an altitude of 3,800 m. The species is threatened by pollution from mining and also by its use as food and in traditional medicine. The frogs are also caught as they are mistakenly thought to be an aphrodisiac. In 2016, thousands of the frogs were found dead on the shores of a tributary to Lake Titicaca. Pollution from agriculture and plastics were thought to have caused the mass dying. To help conserve the species, the scientists will study the frogs' habitat and carry out genetic analyses. The project is backed by the Peruvian and Bolivian governments and by the United Nations Development Programme.

Source: *BBC* (2020) [bbc.co.uk/news/world-latin-america-53553636](https://www.bbc.co.uk/news/world-latin-america-53553636)

First comprehensive list of Panama's trees with geographic ranges

Central America is one of the most diverse floristic regions in the world, but a lack of comprehensive plant records and knowledge of its threatened, endemic tree species impedes conservation work. A new study provides the first comprehensive checklist with geographic ranges of the tree species included. The researchers used an innovative, repeatable method for assessing extinction risk of trees in poorly studied areas. It involves synthesizing field data with available online records to create a verified list of the trees of Panama and their estimated geographic ranges. These range sizes provide a quantitative basis for assessing extinction risk of poorly studied tropical tree species, and offer a starting point for planning conservation efforts. The researchers estimate that 16.2% of Panama's 3,043 tree species had ranges < 20,000 km², which often signals a status of Endangered. This percentage of narrow endemics is proportionate to that of North America. The new study provides a strategy for which trees to study next and where, and how to be more effective in conserving rare trees.

Sources: *Forest Ecosystems* (2020) doi.org/10.1186/s40663-020-00246-z & *EurekAlert!* (2020) eurekalert.org/pub_releases/2020-08/tma-rafo81320.php

ASIA & OCEANIA

First extinction of a marine fish in modern times ...

In the summer of 2020, a group of Australian scientists confirmed that the smooth handfish *Sympterichthys unipennis* is now extinct. The researchers drew the conclusion after failing to find any individuals over the course of 2 decades of extensive underwater surveys in the species' limited range off south-eastern Australia. The distinctive species, a slow-moving fish that walked along the benthos using modified pectoral fins, is only known from a specimen collected in an early scientific expedition in the 1800s. Thirteen species of handfish, all endemic to Australian waters, now remain. Unusually for marine fish, their larvae do not have a midwater stage; instead adults give birth to fully formed juveniles directly onto the seabed. This life cycle makes them highly vulnerable to fishing gear that disturbs their sea-floor habitat, and the fate of the smooth handfish has been highlighted in calls to address the impacts of destructive fishing practices.

Source: *Fauna & Flora International* (2020) fauna-flora.org/news/farewell-smooth-handfish-can-learn-worlds-first-marine-fish-extinction

... and dire outlook for Australian freshwater fishes

Around 22 native Australian freshwater fish have a 50% or higher chance of becoming extinct within 2 decades unless targeted action is taken to save them, according to a new study carried out through the Australian federal government's national environmental science programme. The most threatened species is Victoria's tiger-striped shaw galaxias, with an 80% chance of being gone in 20 years' time. Nineteen of the 22 fish species identified in the study are not listed nationally as threatened. Circa half of the species on the list have only been officially described in the scientific literature in the past 10 years; seven have not yet been formally described. The list emerged from workshops during which 15 experts were asked to estimate the threats to species across all of Australia's 315 different groups of freshwater fish. The participants also ranked the chances of those fish surviving, given the present knowledge about threats, and the current management regimes.

Source: *The Guardian* (2020) theguardian.com/environment/2020/aug/14/dire-outlook-for-native-freshwater-fish-with-22-species-given-less-than-50-chance-of-survival

New Guinea has greatest plant diversity of any island in the world

New Guinea is home to more than 13,500 species of plants, two-thirds of which are endemic, according to a new study that suggests it has the greatest plant diversity of any island in the world—19% more than Madagascar, which previously held the record. Ninety-nine botanists from 56 institutions in 19 countries trawled through samples, the earliest of which were collected by European travellers in the 1700s. Large swathes of the island remain unexplored and some historical collections have yet to be looked at. Researchers estimate that a further 4,000 plant species could be found in the next 50 years, with discoveries showing no sign of levelling off. Botanical exploration is now urgently needed to ensure unknown species can be collected. New Guinea is the most mountainous and largest tropical island in the world, with snow-capped peaks up to an altitude of 5,000 m. One of the most surprising discoveries was how many plants are exclusively found on the island. For example, 98% of the island's heather species are endemic, as are 96% of African violets and 95% of ginger species.

Source: *The World News* (2020) twnews.co.uk/gb-news/new-guinea-has-greatest-plant-diversity-of-any-island-in-the-world-study-reveals

Drones driving community conservation of the dugong

Dugongs, or sea cows, are found in the Indian and western Pacific Oceans, where they graze on seagrass meadows. In doing so, they are keeping crucial ocean ecosystems in balance: healthy seagrass meadows provide habitat for numerous animals and play an important role in sustaining clean seawater and safeguarding coasts from erosion. Dugongs can be difficult to find and research by boat, which is why researchers are using unmanned aerial vehicles, or drones, to survey them and their habitats. The vast amount of data generated by these aerial surveys is having a significant impact on dugong conservation and management. A 3-week research trip can involve 90 survey flights and generate c. 25,000 images; a level of detail that is difficult to achieve by other means. Location data collected by drones are also more accurate. The aerial surveys are complemented by GPS and accelerometry tags that enable the researchers to develop a broader understanding of the animals' use of space and behaviour.

Source: *Phys.org* (2020) phys.org/news/2020-08-drones-sea-cow.html

New tiger sightings in Thailand raise conservation hopes ...

Camera traps in a forest in western Thailand have captured footage of tigers in an area for the first time in 4 years, raising hopes to preserve the species in the South-east Asian country. The video and photographs showed three male tigers roaming at night. There are estimated to be c. 160 Indochinese tigers left in the wild in Thailand. They are also found in Myanmar, Lao, Viet Nam, Cambodia and south-western China. The total population may only be c. 350, according to the World Wildlife Fund. Globally there are estimated to be only c. 3,900 tigers left in the wild, including the larger Bengal and Siberian tigers. The sightings mean Thailand is on the right track trying to preserve tigers and their prey.

Source: *Channel News Asia* (2020) channelnewsasia.com/news/asia/new-tiger-sightings-in-thailand-raise-conservation-hopes-12971266

... and newborn gazelle a milestone for conservation in Saudi Arabia

The first steps of a baby gazelle, taken earlier this year under the watchful eyes of rangers from Al Ula's Sharaan Nature Reserve, were a milestone for the region in Saudi Arabia. They represented the first success in efforts to rewind Al Ula, after decades of overgrazing and other human activity destabilized the fragile natural environment. The baby gazelle's new home, Sharaan, was designated as a nature reserve because of its extensive geological, topographical and environmental features. The aim is to restore a fully functioning ecosystem, with a view to eventually reintroducing the Critically Endangered Arabian leopard in the area. Over the next 2 years, researchers will place up to 80 cameras in each of 10 study sites. A baseline of wild Arabian leopard populations across Saudi Arabia will provide information needed to fine-tune the vision for a reintroduction of Arabian leopards in Al Ula.

Source: *The National* (2020) thenational.ae/lifestyle/travel/newborn-gazelle-represents-a-milestone-for-conservation-efforts-in-saudi-s-al-ula-1.1029221

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 Amy Duthie, Anthony Rylands and Annkathrin Sharp. Contributions from authoritative published sources (including websites) are always welcome. Please send contributions by e-mail to oryx@fauna-flora.org.