Briefly

SPOTLIGHT ON FELIDS

Traffic light system helps Iberian lynx cross the road

A hi-tech system is set to be used in Spain to prevent the Endangered Iberian lynx *Lynx pardinus* from one of its biggest threats—being run over by cars. Infrared sensors and a thermic camera register the presence of one of the world's most threatened cats as they approach roads and send a warning to a control unit. This unit triggers an alert signal for drivers and warns them through signs to slow down. The programme also includes signs asking motorists to slow down in areas where the lynx is known to live. Veterinarians, who have been behind a 20-year programme called Life LynxConnect to save this felid from extinction, know the exact locations where the lynx occurs because individuals are tracked by GPS collars after being released from captivity into the wild. It is estimated that there are 1,100 of these felines in Spain and Portugal, based on a 2020 census, compared to only 94 individuals in 2002. The Andalusian regional government in southern Spain, where the country's largest lynx population is centred, is to invest EUR 370,000 in the programme.

Source: iNews (2022) inews.co.uk/news/world/spain-installs-traffic-light-system-to-help-rare-iberian-lynx-cross-the-road-1583540

'Tiger of the Highlands' in South Devon zoo

Two Critically Endangered Scottish wildcats, sometimes referred to as 'tiger of the Highlands' have arrived at Dartmoor Zoo in South Devon. The two females, Morag and Moraig, came from New Forest Wildlife Park. Scottish wildcats are one of the most threatened felids. Following a history of habitat loss, persecution and, more recently, breeding with domestic cats, they are now close to extinction, with only a few individuals left. It is hoped that the arrival of the two females in Devon marks the beginning of a captive breeding and release programme. The animals also provide an opportunity to educate visitors about one of the rarest mammals in Britain. The cats' enclosure, which mimics natural habitat, was built with the help of students from Ivybridge Community College, as part of the zoo's school inclusion programme.

Source: Devon Live (2022) devonlive.com/news/local-news/scottish-wildcats-arrived-south-devon-7004987

Can oxytocin help lion conservation...

Scientists have tested the potential use of oxytocin for lion conservation. The hormone, which in humans is associated with childbirth and breastfeeding, appears to also play a role in social bonding in other animals. As lions are frequently affected by negative interactions with people, individuals are regularly relocated from areas where they are at risk from humans, and reintroduced to protected areas. But lions are highly territorial, and bringing a new individual into an area with resident lions can be risky. Scientists in South Africa lured lions into an enclosure and sprayed oxytocin in their noses, finding that the 23 lions given oxytocin were more tolerant of others and less territorial. They hope that their work could help wildlife facilities that need to promote social bonding between unfamiliar lions.

Source: Newsweek (2022) newsweek.com/lions-africa-love-hormone-oxytocin-conservation-1693667

... and should leopards be paid for their spots?

The leopard's spots—or, more accurately, rosettes—although evolved as a form of camouflage, are irresistibly eye-catching to humans. As a result, leopard skin has been repurposed as prestigious clothing for millennia, for example by ancient Egyptians, for whom feline characteristics were linked with divinity. Since it first entered Western fashion in late-18th-century France, leopard print has become a proliferating fashion design with perpetual appeal. But as demand for leopard-print textiles has soared, leopards themselves have disappeared from > 75% of their historical range. Researchers have quantified the fashion interest in leopard print to evaluate whether its popularity reflects an interest in leopards or spotted cats, and whether this could contribute to conservation. Conservationists suggest that one way to translate the appetite for the pattern into a sense of obligation to the species from which it stems could be through a species royalty, a charge applied to the sale of leopard print items that supports leopard conservation. They argue that such a charge could make people understand that, while celebrating the leopard, they can also give back and support the preservation of this iconic species.

Sources: Journal for Nature Conservation (2021) doi.org/10.1016/j.jnc.2021.125976 & *The New Yorker* (2022) newyorker.com/magazine/2022/03/28/should-leopards-be-paid-for-their-spots

Community forest harbours elusive clouded leopard...

New records show photographic evidence of the clouded leopard *Neofelis nebulosa* in a community-owned forest along the Indo–Myanmar border in Nagaland, at an altitude of 3,700 m—one of the highest reported altitudes for this species. The tree-climbing clouded leopard is categorized as Vulnerable on the IUCN Red List. Because it mostly inhabits lowland evergreen rainforests, the sighting is significant. The team, led by researchers from the Delhi-based non-profit Wildlife Protection Society of India and including residents of Thanamir village, placed > 50 camera traps in the community forest, capturing photographs of at least two adults and two cubs in 2020 and 2021. Other species photographed include Asiatic black bear, yellow-throated marten, macaques, Asiatic golden cat, marbled cat and leopard cat, highlighting the biodiversity value of community forests, even if they are not protected by law.

Sources: Indian Express (2022) indianexpress.com/article/north-east-india/nagaland/clouded-leopard-sighted-nagaland-mountains-7709328 & *CAT news* (2021) catsg.org/index.php?id=175

... and forest connectivity vital for jaguar conservation

As a result of deforestation, jaguars now occupy just 54% of their former range. Eighty per cent of forest cover in Central America has been removed or degraded, and 75% of jaguars inhabit landscapes fragmented by human activities. Many jaguar populations are restricted to refuges, known as Jaguar Conservation Units, some of which are isolated, and others connected by thin corridors of forest. The Jaguar Corridor Initiative, which began in 2013, is an ongoing effort led by NGO Panthera to conserve jaguar populations by connecting refuges across their remaining range. Belize, in particular, is a crucial stepping stone for the movement of jaguars and other wildlife. A newly-protected area, the Belize Maya Forest, together with the Rio Bravo, connects Belize's forests to a 15-million ha trinational block known as the Selva Maya. Spanning northern Guatemala, Belize and southern Mexico, it is the largest continuous block of tropical forest north of the Amazon, and one of the few locations where jaguars still have a high chance of survival.

Source: Geographical (2022) geographical.co.uk/places/forests/item/4302-the-connectivity-of-the-largest-forest-block-in-mesoamerica-is-dangling-by-a-thread

https://doi.org/10.1017/S0030605322000606 Published online by Cambridge University Press

INTERNATIONAL

Heatwaves at both of Earth's poles alarm climate scientists...

In February 2022, startling heatwaves at both of the Earth's poles caused alarm among climate scientists, who have warned the unprecedented events could signal faster and abrupt climate breakdown. Temperatures in Antarctica reached record levels, an astonishing 40 °C above normal in places. At the same time, some weather stations near the north pole showed temperatures 30 °C above normal. At this time of year, the Antarctic should be rapidly cooling after its summer, and the Arctic only slowly emerging from its winter, as days lengthen. The rapid rise in temperatures at both poles is a warning of disruption in Earth's climate systems. The danger is twofold: heatwaves at the poles are a strong signal of the damage humanity is wreaking on the climate, and the melting could also trigger further cascading changes that will accelerate climate breakdown.

Source: Euractiv (2022) euractiv.com/section/climate-environment/news/heatwaves-at-both-of-earths-poles-alarm-climate-scientists

... and UN issues 10,000-page red alert on climate change

Accelerating global warming is driving a rising tide of impacts that could cause profound human misery and ecological disaster, and there is only one way to avoid catastrophe: drastic reduction of greenhouse gas emissions. These are the main take-aways from a trio of UN reports on climate change, published between August 2021 and April 2022 and spreading across 10,000 pages. The three tomes—each with hundreds of authors—focus on physical science, impacts and the need to adapt, and how to slash carbon pollution. This will be the sixth such trilogy since the Intergovernmental Panel on Climate Change (IPCC) delivered its first report in 1990 and positioned itself as a landmark on the science behind global warming. The IPCC insists that it does not provide recommendations, only background information and policy options so decision makers can make the right choices to ensure a liveable future for the planet and its inhabitants. But all roads leading to a 1.5 °C or even a 2 °C world involve rapid, deep and in most cases immediate reductions of greenhouse gas emissions in all sectors, including industry, transportation, agriculture, energy and cities.

Source: Phys.org (2022) phys.org/news/2022-04-page-red-climate.html

New UN ocean treaty

National delegates and intergovernmental organizations met at the UN's New York headquarters in March to negotiate a new treaty on the oceans, described as the most significant ocean protection agreement in 4 decades. It is hoped that the treaty, which will set out a legal framework to protect biodiversity and govern the high seas, will be a significant improvement on the existing patchwork of international bodies and treaties managing resources and human activity in areas beyond national jurisdictions, which make up 64% of the ocean's surface area. These activities range from fishing and whaling to shipping, seabed mining and bioprospecting. The current, disconnected approach involves varied mandates and overlapping jurisdictions, which undermines effectiveness and makes establishing and enforcing marine protected areas legally challenging. It is hoped the new treaty will facilitate improved protections for biodiversity and the creation of marine parks on an international scale.

Source: The Guardian (2022) theguardian.com/environment/2022/mar/10/un-ocean-treaty-is-once-in-a-lifetime-chance-to-protect-the-high-seas

New challenge aims to rewild 40 globally significant island ecosystems

As island communities around the world suffer some of the worst effects of biodiversity loss and climate change, Island Conservation, Re:wild, Scripps Institution of Oceanography at the University of California San Diego, the government of Panama, and the government of Palau have identified the critical need for conservation efforts that strategically benefit both islands and their interconnected ocean ecosystems. In April 2022, they launched the 2030 Island–Ocean Connection Challenge at the Our Ocean Conference in Palau. The challenge calls on NGOs, governments, philanthropists and foundations to support the ambitious but achievable goal of restoring at least 40 globally significant island ecosystems from ridge to reef by 2030 to benefit biodiversity, climate and communities. To date, the founding partners and their supporters have secured USD 50 million of the USD 160 million needed to achieve this vision. By focusing on the links between land and sea ecosystems, the Island–Ocean Connection Challenge will maximize the co-benefits of island conservation for their surrounding marine ecosystems, including coral reefs, seagrass meadows, mangroves and others.

Source: Island Conservation (2022) islandconservation.org/rewilding-40-globally-significant-island-ecosystems-from-ridge-to-reef-by-2030

Wildlife trafficking thrives on Facebook despite pledge to fight illegal trade

Facebook remains a thriving marketplace for online wildlife trafficking despite the tech giant's pledge to help combat the illegal trade, according to a new investigation. Tiger cubs, leopards, ocelots and African grey parrots were among the threatened animals that researchers found on Facebook pages and public groups. In 2018 Facebook co-founded the Coalition to End Wildlife Trafficking Online with experts such as WWF, which set out to cut the illegal trade by 80% by 2020. The company says it has made progress but a report published in April 2022 suggests Facebook remains popular with animal traffickers. Over 2 days, researchers found 129 pieces of potentially harmful content, including posts selling or seeking animals listed in CITES Appendices. This suggests Facebook's algorithms do not align with its own policies or public commitment to curb the online wildlife trade, the report concludes.

Source: The Guardian (2022) theguardian.com/environment/2022/apr/13/wildlife-trafficking-facebook-avaaz-endangered-species

More investors are funding women-led conservation endeavours

Women-led philanthropy garnered renewed attention after MacKenzie Scott, former wife of Amazon founder Jeff Bezos, announced in March 2022 that she had given away USD 3.9 billion in grants to 465 organizations since June 2021, with c. 60% of them led by women. Women-led NGOs are rare in many sectors, including climate change. Currently, 80% of climate philanthropy goes to NGOs led by men, and 90% of philanthropic funding for climate change goes to organizations led by white people. Rachel's Network, named after the late pioneering conservationist Rachel Carson, was founded to break down structural barriers faced by women environmentalists. Every year, the Network's Catalyst Award programme provides women environmental leaders of colour with a USD 10,000 prize, networking opportunities and public recognition of their work. In response to research by the Global Greengrants Fund that only 0.2% of all foundation funding focuses explicitly on women and the environment, Wild Elements Foundation was launched in 2021 to invest in scaling up projects led by innovators such as women conservationists, scientists and community organizers. The group places a special focus on Indigenous women and women of colour.

Source: Eco-Business (2022) eco-business.com/news/more-investors-funding-women-led-conservation-endeavours

EUROPE

Traditional knowledge guides rewilding efforts in Finland

Undisturbed peatlands act as carbon sinks and support biodiversity. Finland has drained 60% (> 60,000 km²) of its peatlands, releasing vast amounts of carbon dioxide into the atmosphere, and destroying entire ecosystems. To reverse this damage, scientists and Finnish traditional and Indigenous knowledge holders are now collaborating to rewild and protect peatlands and associated forests and rivers, turning them into carbon sinks again. These efforts are bringing back wildlife and are supporting fishing, hunting and even tourism, benefitting the local communities. The Finnish collaborations are also serving as inspiration and guide to those seeking to use rewilding to curb climate change, enhance biodiversity, create sustainable land use systems, and restore forest, freshwater and wetland ecosystems, while supporting traditional communities. Rewilding Europe, for example, is launching a collaborative rewilding project in Sweden with the Sámi that aims to attract tourists to the restored landscape. It is hoped that local communities will initiate similar schemes throughout the Arctic.
Source: Mongabay (2022) news.mongabay.com/2022/03/traditional-knowledge-guides-protection-of-planetary-health-in-finland

Britain's butterflies bolstered by conservation efforts

Some of the UK's most threatened butterflies weathered a poor year in 2021 thanks to conservation efforts, annual survey results have shown. The woodland-loving heath fritillary has doubled in abundance in the past decade, although it has declined by 90% compared to numbers in 1980. The silver-studded blue also thrived, recording its best year since 1996. The restoration of lost habitats enabled these species to fare well despite bad weather, including a cold, drenching May in England. The UK Butterfly Monitoring Scheme, comprising almost half a million records, showed 2021 was a difficult year for overall butterfly abundance, ranking 28th of 46 years in records dating to 1976. The long-term trends for British butterflies are mainly driven by human activity, in particular destruction and degradation of natural habitats by intensive farming. Of the 54 species for which there is long-term data in England, 20 show declines and 12 are increasing.
Source: The Guardian (2022) theguardian.com/environment/2022/mar/30/britains-butterflies-conservation-species-2021

War in Ukraine poses environmental risk

As Russian forces bombard Ukraine, the nation's ecosystems are becoming scorched and scarred, rewinding decades of conservation work, according to Ukrainian climate advocates. Svitlana Romanko, a Ukrainian climate justice activist and former environmental law professor, said that the consequences of the damage on the environment and biodiversity will be felt for years to come. Nearly one-third of the country's protected waters and lands have been occupied by Russian forces, leaving the Ukrainian government and environmentalists in the dark about climate risks or how the land might have been harmed. Evgenia Zasyadko, climate policy coordinator for Ecoaction, a Ukrainian environmental advocacy organization, said they are reluctant to collect data on the climate and environmental impact now, given the challenges posed by the ongoing conflict.
Source: MSN (2022) msn.com/en-us/news/politics/war-in-ukraine-poses-environmental-risk-now-and-in-the-future-advocates-say/ar-AAWmLPO

Birds of prey affected by lead poisoning from gun ammunition

Poisoning caused by preying on or scavenging animals shot by hunters using lead ammunition has left the populations of many raptors far smaller than they should be, according to the first study to calculate these impacts across Europe. When birds such as eagles and red kites scavenge carcasses or eat injured animals with fragments of toxic lead from gun ammunition embedded in their bodies, they can become poisoned, suffering slow and painful deaths. Smaller doses have been shown to alter behaviour and physiology. Now, scientists have used data on lead levels in the livers of over 3,000 raptors found dead in more than a dozen countries to calculate the extent to which poisoning by lead ammunition has affected Europe's raptor populations. Researchers estimate that, for 10 raptor species, poisoning from lead ammunition alone has resulted in an absence of c. 55,000 adult birds from European skies. Worst affected are species such as eagles that are naturally long-lived, rear few young per year and breed later in life. They estimate that the overall European population of 10 raptor species is at least 6% smaller than it should be, solely as a result of poisoning from lead ammunition.
Sources: Science of The Total Environment (2022) doi.org/10.1016/j.scitotenv.2022.154017 & *Phys.org* (2022) phys.org/news/2022-03-birds-prey-populations-europe-suppressed.html

Opinions divided over reintroduction of lynx to Scotland

The first detailed social feasibility study into a trial reintroduction of lynx to Scotland has found that opinions on the idea are divided. The wild cats were once native to Britain but were driven to extinction 500 to 1,000 years ago. The Lynx to Scotland project commissioned the research in the Cairngorms National Park and Argyll. The year-long study sought the views of rural workers and communities, interviewing farmers, foresters, gamekeepers and conservationists. It identified some support for bringing back lynx but found opposition among rural residents and workers. The perceived benefits included ecotourism and lynx helping to control roe deer numbers in areas where they damage woodland, but there were concerns that the felids could prey on livestock. According to the researchers, there was very little concern that the cats posed any danger to people. But they also said there was general agreement the wider public did not know enough about lynx to make informed decisions on whether they should return. Lynx to Scotland said the study showed a successful reintroduction would be dependent on people's attitudes, and it believed a trial could still be possible. The researchers have recommended setting up a working group to examine the points of disagreement.
Source: BBC (2022) bbc.com/news/uk-scotland-highlands-islands-61242930

Belgium to ban import of hunting trophies from protected species

In March 2022 the Belgium Parliament took a significant step against the import and trade in animal trophies, adopting with overwhelming support a resolution urging the government to immediately end the authorization of trophy import permits of certain threatened species. Among those included are the rhinoceros, African elephant, lion, polar bear and argali sheep, which are listed in Annex A of the EU's regulation on trade in plants and animals. The resolution also includes certain animal species listed in Annex B of the same regulation. The resolution is in line with the major public interest in Belgium in animal welfare. The country has some of the highest levels of opposition to trophy hunting among EU member states. According to the results of a survey by Ipsos commissioned by Humane Society International/Europe, 91% of Belgians oppose trophy hunting and 88% support the prohibition of importing any kind of hunting trophy.
Source: Humane Society International (2022) hsi.org/news-media/belgium-parliament-ban-the-import-of-hunting-trophies

AFRICA

Promoting community vulture conservation efforts in southern Africa

Vulture populations in Africa have declined drastically in recent years because of poisoning, use of vulture parts for traditional medicine, and electrocutions on power lines. To halt this decline, BirdLife partners in Zimbabwe, Zambia and Botswana are working with local communities to protect vultures. For example, in 2019, BirdLife Zimbabwe established the 12,000 ha Gwayi Vulture Safe Zone, comprising private and communal game farms, adjacent to Hwange National Park. Three Vulture Support Groups were formed in 2020 in the area and participants trained in vulture identification, monitoring and rapid response to poisoning incidences. The mandate of these self-governing volunteer groups is to raise awareness, champion vulture conservation, partake in vulture monitoring, liaise with landowners, report mortalities and help rescue injured birds. Based on the success and lessons learnt from Gwayi, two more Vulture Support Groups are in the process of being formed in Zimbabwe, and another two are being trialled in Zambia and Botswana.

Source: Surfbirds (2022) surfbirds.com/community-blogs/blog/2022/05/01/promoting-community-vulture-conservation-efforts-in-southern-africa

Forests emptied of wildlife as appetite for wild meat in city restaurants soars...

An estimated 10,000 wild meat dishes are sold in restaurants every day in just two central African cities, researchers say. Monkeys and porcupines are among the most popular species consumed in Brazzaville, the capital of the Republic of the Congo, and Kinshasa, the capital of the Democratic Republic of the Congo. A new study shows the level of wildlife poaching to supply urban centres has significant ecological consequences, with extinctions now widespread across the Congo Basin's forests. The scientists surveyed 326 restaurants in Brazzaville and Kinshasa, the adjoining capital cities separated only by the Congo River, which make up an urban agglomeration now considered to be the largest in Africa. They warn that the wild meat trade poses a zoonotic disease risk as pathogens are transported into populous cities.

Sources: African Journal of Ecology (2022) doi.org/10.1111/aje.12993 & *Independent* (2022) independent.co.uk/news/world/africa/wild-meat-africa-congo-hunting-restaurant-wildlife-b2048575.html

... but wildlife is flourishing again in Rwanda's Akagera Park...

Just over a decade ago, many of the animals that once lived in Akagera Park in eastern Rwanda had disappeared. After the 1994 genocide ended, many refugees returned from neighbouring Tanzania, and the Rwandan government gave away more than half the National Park so people could raise their livestock. Predator attacks on cattle led to retaliatory poisonings, and by 2001, all of Akagera's lions and many other animals had been killed. But in 2010, the Rwanda Development Board partnered with conservation NGO African Parks, building an electric fence to protect the Park and introducing effective law enforcement alongside community engagement projects. Since then, lions and black rhinoceroses have been reintroduced from South Africa and from European zoos. Last year, African Parks flew 30 white rhinoceroses from South Africa to Rwanda. Thanks to such conservation efforts, Central Africa's largest protected wetland is now once again home to iconic species such as elephants, hippopotamuses, giraffes and zebras, as well as crocodiles and 480 species of birds.

Source: iNews (2022) inews.co.uk/inews-lifestyle/travel/how-wildlife-flourishing-rwanda-akagera-park-africa-wetland-1599615

... and rhinoceroses return to Zinave National Park after 40 years

The governments of Mozambique and South Africa have announced plans to reintroduce rhinoceroses to Zinave National Park in southern Mozambique, where the animals were extirpated 40 years ago. The reintroduction will see > 40 rhinoceroses transferred into a high-security sanctuary within the 4,000 km² Park. The rhinoceroses will be translocated from South Africa over a period of 1–2 years. The project is being spearheaded by the South African NGO Peace Parks Foundation and the Exxaro Resources company, a coal and mining firm. Since 2016, a rewilding programme has reintroduced > 2,300 animals from 14 species, including buffalos, elephants and leopards, into the Park. In 2002, Mozambique, South Africa and Zimbabwe entered into a treaty to establish the Great Limpopo Transfrontier Conservation Area, spanning over 100,000 km² and incorporating five national parks, including the iconic Kruger National Park.

Source: Africa News (2022) africanews.com/2022/04/25/historic-return-of-rhinos-at-zinave-national-park-after-40-years

Côte d'Ivoire's chimpanzee habitats are shrinking, but there is hope

Conservationists feared that chimpanzees in Comoé National Park might have been wiped out during a decade of civil conflict in Côte d'Ivoire. But camera-trap footage found a healthy population and has since documented unique behaviours not observed in other chimpanzee populations in West Africa. The western chimpanzees of this Park have a unique way of drinking water during the dry season: they chew the ends of sticks to make a brush and then dip the end into tree cavities where water has accumulated, then pull the stick out and suck on the end of the brush. This type of behaviour had been observed occasionally in other populations before, but researchers were surprised by how common it was among Comoé chimpanzees. Recent studies suggest the environment plays a role in the behaviours displayed by certain groups. One study of 144 groups and found that chimpanzees in variable environments tend to develop a wider range of behaviours.

Source: Mongabay (2022) news.mongabay.com/2022/04/cote-divoires-chimp-habitats-are-shrinking-but-theres-hope-in-their-numbers

Tanzania's Maasai appeal to stop eviction for conservation plans

Thousands of Maasai pastoralists in northern Tanzania have written to the UK and USA governments and the EU, appealing for help to stop plans to evict them from their ancestral land. More than 150,000 Maasai people face eviction by the Tanzanian government because of moves by UNESCO and a safari company to use the land for conservation and commercial hunting. The Maasai say their lives are at stake, as they will not be able to keep livestock and provide food for their communities if they are evicted. The government plans to evict Maasai in the Ngorongoro Conservation Area, a designated World Heritage Site, and Loliondo, near the Serengeti National Park. Both are famous for luxury safari tourism. The Tanzanian government and UNESCO believe Ngorongoro is overpopulated to the detriment of wildlife. The Maasai, who have led a semi-nomadic, pastoralist lifestyle for centuries, have for years been subjected to violent campaigns to clear areas for tourism. Eviction notices were issued in 2021 but were halted when allegations of intimidation of Maasai emerged.

Source: The Guardian (2022) theguardian.com/global-development/2022/apr/22/tanzania-maasai-appeal-to-west-stop-evictions-due-to-conservation-plans

AMERICAS

Giraffe deaths spark probe in Brazil with 15 confiscated from Rio zoo

Brazilian authorities are investigating the deaths of three giraffes and allegations that another 15 were mistreated at a zoo in Rio de Janeiro, according to the federal police. In January 2022, two men were arrested for ill-treatment of the animals, confiscating 15 giraffes that had been imported from Africa at a safari resort on the south coast of Rio. The animals were confiscated as part of a police probe into the death days earlier of three other individuals from the same group, which had been imported by the BioParque do Rio, the city's new zoo. The BioParque vehemently denied that the giraffes had been mistreated and that there were irregularities in the import process, which they said was approved by African and Brazilian authorities. The Rio zoo was reopened in 2021 under the name BioParque do Rio, after undergoing reforms to improve the conditions for the animals, with a focus on environmental conservation.

Source: The South African (2022) thesouthafrican.com/lifestyle/environment/giraffe-deaths-spark-probe-in-brazil-with-15-confiscated-from-rio-zoo

Legal controversies about protection of American wolves

The Biden administration has appealed the federal court ruling that sent the grey wolf *Canis lupus* back onto the endangered species list, emphasizing the unsettled protection status of the iconic apex predator across the USA. The U.S. Department of Justice recently filed a notice of appeal to the decision of a federal judge in California who, in February, ordered the wolf back under the safeguards of the Endangered Species Act. Animal welfare advocates and hunting proponents reacted to the news with uncertainty; neither camp is sure what this means for the future of America's largest wild canine. Over the last 20 years, the species has repeatedly been shielded, and not shielded, by protective laws either because of policy changes or court orders; the status has changed half a dozen times. The flip-flopping status and constant legal fights make for shifting legal sands beneath the feet of what is for many a beloved top predator, but is unwelcome by some who have lost pets or livestock to wolf predation.

Source: mLIVE (2022) mlive.com/public-interest/2022/05/feds-file-to-appeal-re-listing-of-gray-wolves-as-endangered.html

Time is running out for porpoise on the brink of extinction

Scientists fear for the last remaining individuals of the world's smallest cetacean, the vaquita *Phocoena sinus*. The outlook for the Critically Endangered porpoise is bleaker than ever: a recent survey found fewer than 10 individuals remaining in their limited geographical range in Mexico's Gulf of California. The vaquita's population has been reduced by 99% over the past decade, a decline driven by bycatch in gillnets used to fish for totoaba, a fish highly prized in Chinese medicine. Responding to international pressure, the Mexican government outlawed totoaba fishing and the use of gillnets, but the ban was ineffective and eventually rolled back. The impact on local livelihoods and the lure of a lucrative black market for totoaba, combined with a lack of enforcement and limited provision of alternative gear or means of income for fishers, led to the involvement of cartels and an expansion of the totoaba market, which coincided with 50% annual declines in vaquita numbers. Conservationists emphasise the need for improved governance, support for fishers, and community buy-in if the vaquita is to survive.

Source: The Guardian (2022) theguardian.com/world/2022/feb/11/tiny-vaquita-numbers-less-than-10-can-they-be-saved

Avian flu outbreak threatens wild birds in North America. . .

An outbreak of avian influenza that has been spreading across the USA and Canada over the past months appears to be getting worse. First appearing in Canada in late 2021, the disease has ravaged industrial flocks and has also been detected in a wide variety of North American wild birds, raising alarm among ecologists. A particularly virulent strain known as the highly pathogenic avian influenza A ($H5N1$), or HPAI, the virus has already killed millions of domestic North American fowl. To date, more than 28 million domestic poultry in 29 states have died either through infection or preventative culling. This particular strain of HPAI appears to be more infectious and deadlier to wild birds than previous versions, but gauging the pathogen's true impact on wild populations is more difficult than with domestic poultry, whose numbers are regularly recorded. The virus, which can cause severe neurological and respiratory issues in birds, was probably transmitted by wild birds contaminated from last year's Eurasian HPAI outbreak.

Source: Audubon (2022) audubon.org/news/north-american-birds-face-their-own-pandemic-latest-bout-avian-flu

. . . but radar-powered forecasts help save birds from deadly city lights

The skies above North America host some 3 billion fewer birds today than in 1970, according to a 2019 analysis. Among the reasons for this dramatic decline are not only climate change, vanishing habitat and pesticides, but also light pollution. Strong lights attract migratory birds who end up wasting time and precious body fat, are easy prey for predators and often collide fatally with windows of city buildings. One tool that could ease the toll is weather radar, which bounces off birds as well as raindrops. Radar has been used in recent years to quantify the orbiting birds attracted by the annual light installation to commemorate the 9/11 attacks in New York City. In 2017, researchers found $>$ 10,000 birds were attracted within 20 minutes of lighting up. Based on these studies, a programme called BirdCast has been launched, which incorporates continent-scale weather radar and machine learning to forecast the exact nights when hundreds of millions of migratory birds will torrent over cities in the USA. Researchers feed those data to conservationists and policymakers, to help the birds survive the journey by dimming lights along the way.

Source: Science (2022) science.org/content/article/radar-powered-forecasts-save-birds-deadly-city-lights

Miniature frog species discovered in Mexico

Scientists from the University of Cambridge, UK have discovered six new species of frog the size of a thumbnail in Mexico; the frogs are c. 15 mm long when fully grown. Lead researcher Tom Jameson said the new species had gone unnoticed so far because they are small and brown and look similar to other frogs. The new species are direct-developing: rather than hatching from eggs into tadpoles as most frogs do, they emerge from the eggs as perfect miniature frogs. The researchers warned that climate change and expansion of human activities could threaten the existence of these small amphibians that live in the dark, humid leaf litter of the forests. One species in particular is under threat from the development of a mine. The frogs are also threatened by a deadly fungal disease, chytridiomycosis, which is wiping out amphibian populations across the world. The researchers hope the frogs have a future, as areas have been identified that can be protected.

Source: ITV News (2022) itv.com/news/anglia/2022-04-27/tiny-frogs-smaller-than-1p-coin-discovered-by-scientists

ASIA & OCEANIA

Critically Endangered silvery pigeon faces additional threat in Indonesia

A new study has discovered at least 10 Critically Endangered silvery pigeons *Columba argentina* for sale on social media in Indonesia between October and December 2021. The species is endemic to Indonesia and Malaysia, and this figure is alarming considering the current population estimate, according to the IUCN Red List, of < 50 birds. This finding confirms trade is a threat and suggests that actual population numbers may be larger than previously thought. The authors encourage further field research and the creation of a species conservation action plan to catalyse efforts to tackle the illegal trade. They also suggest that regulation of international trade is imperative, especially as international interest from collectors of rare species may cause a spike in prices and demand. The article makes specific recommendations for a listing of the silvery pigeon in CITES, and of the sympatric and superficially similar pied imperial pigeon *Ducula bicolor* to prevent false declaration in the trade.

Source: Nature Conservation (2022) doi.org/10.3897/natureconservation.46.80064

Rare Sumatran rhinoceros born in captive-breeding centre

Indonesia has reported the birth of a Sumatran rhinoceros *Dicerorhinus sumatrensis* calf in a captive-breeding programme aimed at saving the Critically Endangered species from extinction. The female was born on 24 March 2022 at the Sumatran Rhino Sanctuary in Way Kambas National Park in Sumatra's Lampung province, according to a statement from Indonesia's environment ministry. The calf is the offspring of Andatu, a male born at the sanctuary in 2012, and Rosa, a female captured from the wild in 2005. The ministry has yet to announce the name of the newborn. It is the third Sumatran rhinoceros born at the Way Kambas Sanctuary, and the sixth born since intensive efforts to breed the species began in the 1980s. Indonesia is the last refuge for the Sumatran rhinoceros. Eight captive individuals, including the newborn, live in Way Kambas National Park, and a lone female is kept at the Kelian Sanctuary in Indonesian Borneo. The wild population is estimated to be no more than 80 individuals living in small, fragmented habitats in Sumatra and Borneo.

Source: Mongabay (2022) news.mongabay.com/2022/03/its-a-girl-super-rare-sumatran-rhino-born-in-captive-breeding-center

Great Barrier Reef: Australia confirms new mass bleaching event

Australia's Great Barrier Reef is being devastated by another mass bleaching event. It is the fourth time in 6 years that such severe and widespread damage, caused by warm sea temperatures, has been detected. Only two mass bleaching events had ever been recorded until 2016, the first in 1998. Scientists say urgent action on climate change is needed if the world's largest reef system is to survive. There are particular concerns that this bleaching event has occurred in the same year as a La Niña weather phenomenon. Typically, in Australia, a La Niña brings cooler temperatures. Scientists are now fearful of the damage that could be caused by the next El Niño. The declaration was made by the Great Barrier Reef Marine Park Authority, which has been conducting aerial surveys. In 2021 Australia controversially lobbied to exclude the reef from a UNESCO list of World Heritage Sites that are in danger. It has recently pledged money towards reef-protection measures, but critics said these did not address the dominant threat of climate change.

Source: BBC (2022) bbc.co.uk/news/world-australia-60870239

Australian scientists discover some sharks do need their sleep

Scientific evidence of sharks sleeping has been documented in Australia for the first time. A team of scientists has observed sleep in draughtsboard sharks *Cephaloscyllium isabellum*, a bottom-dwelling species endemic to Australia, by analysing the animals' metabolism and posture. There was previously anecdotal evidence of sleep in sharks, mostly from observations by scuba divers. The team monitored seven draughtsboard sharks over a 24-hour period, and found that the sharks' metabolism, as measured through oxygen consumption, dropped during periods of inactivity longer than 5 minutes, compared to when they were awake but resting, or actively swimming. In addition, the animals also changed their body posture to lying flat while sleeping. Draughtsboard sharks are ambush predators. When awake but inactive, the sharks stick out their pectoral fins and sit with their heads up. The sharks sometimes slept with their eyes shut, but the researchers noted this happened more often during the day. They surmise the shut eye was associated with light levels rather than sleep.

Sources: Biology Letter (2022) doi.org/10.1098/rsbl.2021.0259 & *The Guardian* (2022) heguardian.com/environment/2022/mar/10/sleeping-with-fishes-australian-scientists-discover-some-sharks-do-need-their-shut-eye

Sri Lanka growing as smuggling hub for star tortoises...

The Indian star tortoise *Geochelone elegans* is the most smuggled tortoise, with thousands trafficked annually from India, Sri Lanka and Pakistan despite a total ban on the international trade in the species. India is the main country of origin for wild-caught star tortoises, and Sri Lanka has become both a prominent source and transit hub for trafficking networks that move the animals to East and South-east Asia. Experts have called for better collaboration between law enforcement authorities in the source countries to curb the smuggling. Herpetologists also warned against releasing seized star tortoises from India in Sri Lanka, as this threatens to wipe out the unique characteristics of Sri Lankan population.

Source: Mongabay (2022) india.mongabay.com/2022/03/sri-lanka-growing-as-smuggling-hub-for-star-tortoise-mainly-collected-india

... and Critically Endangered turtles confiscated in Hanoi

The endemic Vietnamese pond turtle is so rare that it has been considered either extinct or functionally extinct in the wild. However, in January, more than 70 individuals were illegally transported from Da Nang to Hanoi and confiscated by Hanoi's police. It is unclear if these individuals are purebred or of hybrid origin. To resolve the issue for potential future restocking efforts, the Asian Turtle Program, Cologne Zoo, and Central Institute for Natural Resources and Environmental Studies of Vietnam National University, Hanoi, are working to assess the origin of the confiscated turtles using a molecular approach. The three organizations are also collaborating to locate potential areas for future release. Funding is provided through the Cologne Zoo's Species Conservation Euro Programme. It is hoped that the efforts will help to recover the wild population of this Critically Endangered species.

Sources: VN Express (2022) e.vnexpress.net/news/news/hanoi-police-find-100-critically-endangered-turtles-hidden-in-car-4414321.html & *Vietnam National University* (2022)

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 Minh Le, Annkathrin Sharp and Chris Shepherd. Contributions from authoritative published sources (including websites) are always welcome. Please send contributions by e-mail to oryx@fauna-flora.org.