



Action



THE MAGAZINE FOR WWF MEMBERS

AUTUMN 2021



FEELING THE HEAT

We can help safeguard iconic wildlife if we act now to tackle the climate crisis



RHINOS ON THE RISE

We're celebrating Nepal's exciting new record for greater one-horned rhinos – but there's still work to do

FOREST GUARDIAN

Meet the Indigenous leader fighting to save his Amazon home from deforestation, and learn how you can support him



“NATURE MUST BE PLACED AT THE HEART OF CLIMATE ACTION”

THE TIME FOR TALK IS OVER



In my 10 years of working for WWF, the need for climate action has never been clearer. The UN says we're on 'code red' but with climate talks (known as COP26) coming to Glasgow in November, we have the opportunity to change things. COP26 will be the most important gathering on climate change since the Paris Agreement in 2015. World leaders will come together to report on progress and make crucial decisions to help tackle climate change. The commitments made by nations so far are not enough to ensure we'll avoid the most devastating impacts. COP26 must set us firmly on a path to keeping global warming under the crucial 1.5°C by the end of this century.

Scotland and the rest of the UK have already put in place targets to transform electricity supply, protect trees, decarbonise transport and much more. But commitments are not enough. To be world leaders on climate change, they must deliver on their targets, and offer assistance to nations less able to do so.

This must be a decade of delivery, where we get to grips with the climate and nature emergencies and create a cleaner and fairer future. The way ahead is clear. As world leaders take their seats in November, we look forward to helping them deliver the benefits for generations to come.

Lang Banks, director of WWF Scotland

We invited people across Scotland to share their creative visions of the greener, fairer nation they want to see by submitting their artwork and poetry to The Great Scottish Canvas. This piece is called *Green energy powering the nation* and is by Gavin Harrison

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knowledge of the elusive snow leopard. But we're working hard to fill them for the future. By Paul Bloomfield

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MEET THIS ISSUE'S GUEST CONTRIBUTORS



STEPHEN CORNELIUS

is our chief adviser on climate change. "Few environmental problems are as big and complex as climate change," he says. "It's something we can't leave to future generations to clean up."



RISHI KUMAR SHARMA

leads our global snow leopard conservation programme. "We need to understand what we must do to enable snow leopards and people to live in harmony if we are to help secure their future," he explains.



GHANA S GURUNG

is the country representative at WWF-Nepal. Under his leadership, we've supported the recovery of key species including tigers, rhinos and snow leopards.



VISIT MY ACTION

We're delighted to announce the launch of our new online home for conservation news and stories for members, **My Action**. Visit the site to learn more about the issues we explore in each edition of *Action*, and to enjoy **exclusive photo galleries, videos and other interactive content**. Check for regular updates at myaction.wwf.org.uk

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☎ 01483 426333

WWF-UK Living Planet Centre, Rufford House, Brewery Road, Woking, Surrey GU21 4LL

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MEET THE ACTION TEAM

Editor Liz Palmer editor@wwf.org.uk

Editorial executive Holly Towner

Senior supporter engagement manager Hannah Crawley

Supporter engagement manager Stephen Osborne

Senior editor Guy Jowett

For Immediate Media Co.

Consultant editor Sophie Stafford

Art editor Nicole Mooney

Production editor Charlotte Martyn

Account manager Katy Hewett

Design director Will Slater

Editorial director Dan Linstead

THANKS TO OUR CONTRIBUTORS

Paul Bloomfield, Stephen Cornelius, Isabelle Groc, Ghana S Gurung, Barney Jeffries, Becci May, Derek Niemann, Rishi Kumar Sharma, Cel Spellman, Bitaté Uru-eu-wau-wau, Jaap Van Der Waarde

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EXTRA!

To find out more scan the QR code when you see this box.



My Action

YOU HELPED UNDERSTAND MARINE TURTLES IN FIJI

Marine turtles have a better chance of coping with the impacts of climate change thanks to research you've enabled in Fiji. Climate change threatens Fiji's marine turtles, with rising sea levels and coastal erosion causing nesting beaches to be submerged or washed away. We're working with trained volunteers and community-based monitoring teams, known as Daunivonu, to collect crucial information on marine turtles and their nests, eggs and hatchlings. The teams relocate nests at risk of flooding, clear away washed-up debris that can prevent turtles from nesting, and replant coastal vegetation to protect nesting beaches from high tides and coastal erosion. ■



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© CAMILO DIAZ / WWF-COLOMBIA

YOU HELPED STUDY AMAZON PINK RIVER DOLPHINS

With your support, researchers in Colombia went on a 10-day expedition to gather vital information about endangered pink river dolphins in the Amazon. Dams, overfishing, deforestation and pollution are all taking a toll on the dolphins' rivers, so learning more about these mysterious creatures and the state of their habitat is crucial if we're to ensure their future. During the trip, the researchers made 188 observations of pink river dolphins, and carefully fitted a satellite tag to a female. The tag will track her and her calf, providing essential information about the dolphins' travels and the habitats they use, including for reproduction and rearing their young. ■



YOU HELPED PROTECT PRECIOUS PEAT IN SCOTLAND

Climate-wrecking peat burning is being banned in Scotland – and the future for Britain's vital peatland habitats is looking up, thanks to you. Peatlands in the UK store more carbon than all of our forests put together and are home to many rare species, but around 80% are degraded. Peat bogs are stripped for compost, drained for farming and forestry, and burnt to maintain habitats for grouse shooting. But you helped persuade the Scottish government to ban peat burning from this year, and the sale of peat-based compost is set to be banned in both Scotland and England. Holyrood and Westminster have also pledged funds to help restore our precious peatlands. ■

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YOU HELPED KENYA GO A YEAR WITH ZERO RHINO POACHING

Thanks to you, not a single rhino was killed by poachers in Kenya during 2020 – the first time that's happened in more than 20 years. During the last decade, poaching in Africa soared to crisis levels: in 2013, 59 rhinos were killed in Kenya. But with your support, we've been working with Kenya Wildlife Service, partners and local communities to bring that number down and help rhinos recover. You've helped supply vital equipment, such as GPS devices, vehicles and cameras, and provided rangers with boots, rations and mosquito nets, as well as face masks and personal protective equipment. Elephant poaching also fell, from a peak of 384 cases in 2012 to 11 last year. ■

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YOU HELPED DRIVE DOWN DEMAND FOR IVORY IN CHINA

Thanks to you, demand for ivory in China has reduced over the last four years – and that's good news for elephants. China, the world's largest ivory market, banned all ivory sales in 2017 after years of campaigning by WWF and others. Since the ban was introduced, WWF has conducted an annual consumer survey (in cooperation with the research organisation GlobeScan) in 15 Chinese cities about the elephant ivory trade. In 2017, 43% of people surveyed said they intended to buy ivory in the future, though that dropped to 18% once they were reminded of the ban. Last year, 19% said they'd buy ivory before being reminded about the ban – after which just 8% said they would. ■

© ANDY ISAACSON / WWF-US

“THERE ARE ENCOURAGING SIGNS THAT CHINA'S ELEPHANT IVORY TRADE BAN IS BEING ENFORCED EFFECTIVELY”

BECCI MAY, SENIOR ASIA PROGRAMME ADVISER

YOU HELPED AMUR LEOPARDS TRIPLE THEIR RANGE IN RUSSIA

Thanks to you, Amur leopards are roaring back in the Russian far east, with new research showing that their territory has tripled this century. At the turn of the millennium, around 30 Amur leopards were left in the wild in an area of just over 2,200 sq km – smaller than Dorset. But conservation efforts, including a vast protected area created in 2012, are starting to pay off. Recent data from camera traps shows that Amur leopards now occupy a territory of around 6,000 sq km, which includes areas within China. Their population has tripled too, to around 100. ■

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My Action

DISCOVER MORE

Learn more about these successes and other inspiring stories at **myaction.wwf.org.uk**

TOGETHER, WE DID IT!



WWF IN ACTION

How we're building a better world for wildlife and people



South America's Atlantic Forest is home to extraordinary wildlife such as the black-eared fairy hummingbird. Though it has been reduced to only 15% of its original size, the forest is recovering on its own

FOREST REGENERATION OFFERS HOPE FOR THE FUTURE

An area of forest almost twice the size of the British Isles has grown back this century, showing the huge potential for nature to regenerate if we give it the chance

Satellite images show that nearly 590,000 sq km of forest have regenerated worldwide since the year 2000. Natural forests on that scale have the potential to store the equivalent of 5.9 gigatonnes of carbon dioxide – more than the annual emissions of the US – as well as providing a habitat for countless species.

The figures come from a new global map of forest regeneration by Trillion Trees – a joint venture between WWF, BirdLife International and Wildlife Conservation Society. Our vision is to restore, save and protect a trillion trees worldwide by 2050.

Brazil's Atlantic Forest, where we've been working for many years, is one of the biggest success stories. Restoration projects and more responsible forestry and farming have led to the regeneration of 42,000 sq km of rainforest in Brazil, more than half the size of Scotland. Other regeneration hotspots include Canada, central Africa and Mongolia.

Unfortunately, deforestation continues at an alarming pace in other parts of the world. In the same period, over 3.8 million sq km of tree cover was lost worldwide – more than six times the area of naturally regenerated forest identified in the research.

Many countries, including the UK, have pledged to restore forests as part of their climate plans. But these commitments include limited expansion of natural forests, despite the benefits this brings.

"We've known for a long time that natural forest regeneration is often cheaper, richer in carbon and better for biodiversity than actively planted forests," says Will Baldwin-Cantello, who leads our work on nature-based solutions to climate change. "This research tells us where and why regeneration is happening, and how we can recreate those conditions elsewhere."

"But we can't take regeneration for granted – deforestation still claims millions of hectares every year, vastly more than are regenerated. To realise the potential of forests as a climate solution, we need support for regeneration in plans to tackle the climate crisis. And we must address the drivers of deforestation, which in the UK means strong domestic laws to prevent our food causing deforestation overseas."

WHAT IS REGENERATION?

Forest regeneration is about letting nature take the lead. But while some areas just need to be left alone for the forest to grow back, others need a helping hand. Broadly speaking, there are three categories...



1. ACTIVE RESTORATION

This is necessary if land is very degraded or can't recover on its own. This often involves planting areas of native trees and shrubs, including around crops and grazing land (known as agroforestry).



2. ASSISTED NATURAL REGENERATION

This is about encouraging former forest to reassert itself, for example by removing invasive vegetation or fencing the land to prevent animals grazing down young trees.



3. SPONTANEOUS NATURAL REGENERATION

This is when an area is able to reforest itself of its own accord, without human input – and sometimes even without our knowledge. This hands-off approach is often the best-case scenario for reforestation.

Explore the map of regeneration hotspots at wwf.org.uk/regeneration

NEWS IN BRIEF



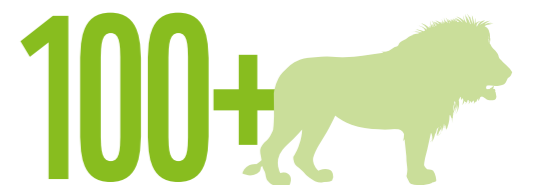
YOUR ACTION MAG IS NOW ALSO ONLINE

Do you love *Action* magazine, and want to know more about our wonderful planet and its amazing diversity of life? Then our new **My Action** website is the place for you! Discover inspiring stories, spectacular photos and easy ways you can help build a more sustainable future. Delve deeper into *Action's* most compelling conservation stories, enjoy tales from the field, learn about iconic species from tigers to turtles, and take action to protect our one shared home. There's always something new to discover at myaction.wwf.org.uk

NEWS IN NUMBERS



Feeding insect protein to pigs, poultry and farmed salmon could cut the UK's future soy import footprint by 20%, according to a report by WWF and Tesco. We've asked the government to carry out vital research to enable insect meal to be fed to livestock farmed for human consumption. This could protect landscapes like the Brazilian Cerrado and help tackle the climate and nature crises.



We trained more than 100 herders in Kenya's Maasai Mara on ways to reduce livestock losses to predators. A fall in tourism due to Covid has left communities more reliant on grazing livestock, and attacks by predators such as lions have increased. Training included safer herding practices and claiming compensation for loss of livestock.

NEWS IN BRIEF



© SILVIA SCALI

DRONE BOOST FOR DOLPHINS

New Zealand's Māui dolphin is the world's most endangered dolphin, and with only an estimated 63 left, we need to remove the threats facing every one of them. Our colleagues in New Zealand have launched a groundbreaking partnership using drones equipped with artificial intelligence that enables them to find the dolphins and follow their movements. We'll be able to see if they're using areas where fishing boats are operating, or where seismic tests might take place, and make sure they get the protection they so desperately need.



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ASSEMBLE, WALRUS DETECTIVES!

You may remember 'Walrus From Space', our new joint project with British Antarctic Survey, from the spring issue. Over the next five years, we aim to learn more about how some populations of walrus are affected in the face of rapid climate change and sea ice loss. And we need your help. Can you help us spot every walrus in the thousands of satellite images that have been collected? To become a walrus detective and get searching, head online to wwf.org.uk/walrus-from-space

#WEWONTFORGET

With the world on the brink of irreversible harm, 2021 must be a turning point for climate action. To secure a future for people and wildlife, we're demanding that every climate promise is kept – starting with the UK government

The UK has made significant progress in reducing its carbon emissions over the last decade, and has led other major economies around the world in announcing ambitious climate targets, including a promise to reach 'net zero' by 2050. But despite the warm words, our actions currently leave us off track to meet this commitment, putting the global ambition to limit temperature rise to 1.5°C at risk.

Lots of climate promises have been made: to keep the climate as safe as possible, to stop increasing carbon in the atmosphere (to get to net zero), to protect our forests, to make our money greener, and to work with nature to restore our one shared home. We won't forget these promises – and the UN climate summit in Glasgow in November provides a unique opportunity to hold our leaders to account.

We're calling for the UK government to urgently publish its long-term strategy

for reaching net zero, along with a detailed action plan to show step-by-step how each sector of the economy will decarbonise – and then to start implementing it immediately.

We've developed a Net-Zero Test, which, if introduced, would require the UK Treasury to measure all spending and taxation decisions in budgets and spending reviews against commitments on climate and nature, ensuring the overall package keeps the nation on track to meet its goals.

In July, the government committed to working closely with regulators to encourage and support firms to publish net-zero transition plans. This followed a study we commissioned with Greenpeace which showed that some UK banks and investors were responsible for financing 805 million tonnes of CO₂ emissions in 2019. We're now engaging with the finance sector, regulators and government on what these plans will look like, including how they take nature into account.

Together, we won't forget. Help us demand that leaders keep their climate promises. Join our campaign to keep climate action on track: wwf.org.uk/climate-promises



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SEAGRASS RESTORATION HONOURS REUBEN'S MEMORY

Earlier this year, WWF supporter Reuben Dossett sadly passed away aged just 19. But his memory will live on through a project that would have meant a lot to him – the restoration of seagrass meadows

Reuben's love of nature started at a young age. He even bought WWF animal adoptions for his friends. His passion for the natural world led him to study geography at Royal Holloway, University of London. He wanted to better understand the human impact on wildlife and habitats and find sustainable solutions. Reuben's university professor described him as "a young man with a passion for life, for university, for his studies, for improving the world".

Reuben will be very much missed by the community that he leaves behind, including us all at WWF. Gifts made to WWF in Reuben's memory will support our seagrass restoration project with Sky Ocean Rescue and Swansea University – the biggest project of its kind in the UK. More than one million seagrass seeds have been collected from sites around the country by a team of volunteers.



© LEMIS JEFFERIES/WWF-UK

Seagrass is a wonder-plant – it's vital to the health of our seas and can help address environmental issues

Together we've planted over 1.2 million seagrass seeds in Pembrokeshire, restoring 20,000 square metres of vital seagrass meadows that will lock up carbon and provide a home for fish and other marine creatures. Gifts made in Reuben's memory have already raised more than £7,000, which will help to restore this critical UK ecosystem.

If you'd like to find out more about giving in someone's memory or leaving a gift in your will, please email Maria and Rebecca on stewardship@wwf.org.uk, call us on **01483 412153**, or visit wwf.org.uk/in-memory



Protecting Annie's forest habitat has never been more important, as we work to double the number of koalas on Australia's east coast by 2050

KOALA RESCUE

A year after being rescued from the catastrophic bushfires of 2019–20, Annie the koala has returned to the wild

Annie would never have made it without the generosity of WWF supporters around the world. She was found by members of the public in Victoria in January 2020. With severe burns to the pads of her feet and close to death, she was given life-saving specialist care from Zoos Victoria. Four months later she was transferred to a rehabilitation enclosure at Phillip Island Nature Parks.

Emergency donations from WWF's global community helped fund the treatment of Annie and other koalas rescued from the fires. Your donations also paid for the construction of three rehabilitation enclosures that help prepare the koalas for their return to the wild.

At the end of last year, Annie joined 14 other koalas returning home, where they belong. She's one of the lucky ones. Thousands of koalas died in the bushfires, and an estimated 60,000 were affected, from a population already in serious decline.

Our colleagues in Australia have launched an ambitious recovery plan for the habitats and species devastated by the bushfires. Koalas are a top priority – we're aiming to double their numbers in eastern Australia by 2050.

My Action

SEE MORE!

Watch a video of Annie's release at myaction.wwf.org.uk



© ZOOS VICTORIA

MAKE NATURE OUR CLIMATE HERO

Coral reefs have suffered as a result of warming oceans, but some are less vulnerable and could help restore damaged reefs – if we keep sea temperatures down. Every fraction of a degree of warming we avoid can prevent irreversible damage to critical ecosystems

Nature can be one of our greatest allies in the fight against climate change. We're calling for urgent action from governments to limit global warming to 1.5°C – with the help of nature-based solutions

Climate change is already having an impact on all types of animal and plant life on every continent. A warming planet means a warmer ocean, with devastating consequences for tropical coral reefs. These colourful undersea cities are some of the most wildlife-rich ecosystems on the planet, providing shelter, food and spawning grounds for thousands of marine species. But they may not survive for much longer.

Coral reefs are sensitive to even the smallest changes in temperature, and climate change threatens their existence. Mass coral-bleaching events can turn vibrant reef ecosystems that once teemed with life into dead, white skeletons. The world's average surface temperature has already risen by 1.1°C since the Industrial Revolution, according to the latest Intergovernmental Panel on Climate Change report. It's projected that if the global temperature rise reaches 1.5°C, coral reefs will decline by more than 70% by 2050. Virtually all of them will be lost if the planet heats up by 2°C.

Our recent report on the impacts of climate change on 12 iconic species across the world highlighted that every half a degree of additional warming can irreversibly damage many important ecosystems that provide vital services to hundreds of millions of people and lead to the extinction of the precious wildlife that lives in these places.

Our climate change chief adviser, Stephen Cornelius, compares the risks associated with the failure to limit global warming to the injuries a person faces when falling off a winners' podium onto a hard concrete floor. While falling off a one-metre platform is likely to result in minor bruises, the risk of serious harm increases if the platform is one-and-a-half or two metres high. "When falling, every half a metre matters," he explains. "With global warming, every half a degree matters."

KEEP 1.5°C ON THE TABLE

To tackle climate change and its negative impacts, 196 countries (together with the EU) adopted the Paris Agreement in 2015. They agreed to try to limit global temperature rises to 1.5°C above pre-industrial levels. Many countries, including ►

the UK and the US, as well as the EU, have promised cuts in emissions by 2030 and mid-century. But despite the nations' climate pledges and 'net zero' targets, the world is not on track to slow climate change enough. In fact, even if all the pledges and targets are achieved, the promised cuts will still lead to a global temperature rise of 2.4°C by the end of the century.

With our survival in the balance, 2021 must be a turning point for climate action.

As host of the upcoming UN climate conference (COP26) in Glasgow in November, the UK government can ensure that the goal of limiting global warming to 1.5°C is kept on the table. "There is a huge gap between setting climate targets and taking the actions required to achieve them," warns Stephen. "2021 is a critical year to start implementing policies. Setting more ambitious targets is important, but meeting them is crucial."

PUTTING NATURE FIRST

If we're to achieve the targets we need to meet, not only do we have to shift away from fossil fuels, but nature must be placed at the heart of climate action. While scientists acknowledge that the climate and nature emergencies are interconnected, previous

"WITH YOUR HELP, WE'RE DEVELOPING NATURE-BASED SOLUTIONS THAT REDUCE THE IMPACTS OF CLIMATE CHANGE"

policies have often addressed them separately, which can result in poor outcomes. "Biodiversity loss and climate change are two sides of the same coin and can only be solved together," says Stephen.

With your support, we're developing nature-based solutions that not only directly benefit wildlife and people, but also reduce the impacts of climate change. For example, forests, peatlands and seagrass meadows can act as 'carbon sinks' by drawing down carbon from the atmosphere and storing it. But the rapid degradation and destruction

of these habitats accelerates the climate crisis and releases more carbon dioxide into the atmosphere. On the other hand, when these ecosystems are protected and restored, they help regulate floods, improve water quality, slow down coastal erosion and create economic opportunities for local communities. Through our seagrass restoration project with Sky Ocean Rescue and Swansea University, we've helped plant 20,000 sq m of seagrass in Pembrokeshire – and we aim to plant 200,000 sq m in coastal areas around the UK by 2026.

As COP26 approaches, we're demanding that UK governments put in place the policies needed to cut emissions, including from the agriculture, business and finance sectors, as well as boosting the investments needed to help deliver a 1.5°C world. And nature-based solutions should be at the forefront of global plans to combat climate change and biodiversity loss.

"Many countries are not acting now because they have other priorities," says Stephen. "But it's clear that taking climate action should be seen as an investment and not a cost. The choices we make now will determine the future prosperity and health of us all, and of our one shared home." ■

FEELING THE HEAT

Most species are adapted to a particular climate. Some may be able to adapt to tolerate higher heat and altered rainfall patterns, but others will need to shift their range to follow their preferred climates. In the UK, the ranges of many species, from birds to butterflies, have shifted north over the past four decades



BLUEBELLS BLOOMING OUT OF SYNC

Bluebell woods in bloom are one of spring's most magical experiences. But the sight may become rarer as our warming climate makes large swathes of southern and central England inhospitable to these and other countryside plants. Warmer temperatures cause bluebells to leaf or flower earlier in spring, and become out of sync with the conditions that give them the best chance to grow and set seed. Our native British bluebells are already under threat from pollution, woodland destruction and introduced Spanish bluebells.



ATLANTIC PUFFINS TOO LATE FOR LUNCH

The 'clowns of the sea', Atlantic puffins can't survive if ocean temperatures continue to rise. Global warming causes more severe weather, including high winds and heavy rain that affect the birds' ability to hunt. It also chills eggs and destroys nests with chicks. Puffins feed their young sandeels; in turn, sandeel larvae rely on tiny crustaceans called copepods. Warmer waters cause copepods to bloom before sandeels hatch. This results in less food for young puffins, causing colonies to fail.

90%

Europe is home to over 90% of the Atlantic puffin population, but numbers have crashed in the last two decades



MOUNTAIN HARES WRONG COAT FOR SURVIVAL

Mountain hares in the Scottish Highlands change colour to escape predators. They turn brown for camouflage against summer hillsides, then moult to white to blend in with snow. But in a warming climate, this strategy is increasingly out of sync. From 1960 to 2016, annual snow cover in the Highlands declined by over 37 days on average – much faster than hares can adapt. On snowless hills, their white coats make them vulnerable to predators. Hares need the cold. Their alpine habitat is shrinking and warmer weather will force them to move higher, into smaller, more fragmented territories.

KEY

-  **Bluebells**
Southern and central England
-  **Mountain hares**
Scotland
-  **Bumblebees**
Whole of UK
-  **Atlantic puffins**
Wales, Scotland and northern England



BUMBLEBEES TOO HOT TO FLY

Among our most vital pollinators, bumblebees thrive in cold climates as their fuzzy bodies generate heat while flying. But our warming world is making them overheat. A recent study found evidence of rapid and widespread declines worldwide. Bumblebees have been hit hardest in warm places, such as Spain, but even in the UK they're in decline. While some species have colonised the cooler north, others are flying towards extinction. Bumblebees pollinate many wild plants and crops, so their loss threatens not just biodiversity but our food security.

CLIMATE RISKS: 1.5°C vs 2°C GLOBAL WARMING

EXTREME WEATHER
1.5°C 100% increase in flood risk

2°C 170% increase in flood risk

SPECIES
1.5°C 6% of insects, 8% of plants and 4% of vertebrates will be affected
2°C 18% of insects, 16% of plants and 8% of vertebrates will be affected

PEOPLE
1.5°C 9% of the world's population (700 million people) will be exposed to extreme heatwaves at least once every 20 years

2°C 28% of the world's population (two billion people) will be exposed to extreme heatwaves at least once every 20 years

FOOD
Every 0.5°C of warming will consistently lead to lower yields and lower nutritional content in tropical regions

OCEANS

Lower risks to marine biodiversity, ecosystems and their ecological functions and services at 1.5°C than at 2°C

SEA-LEVEL RISE

10cm higher at 2°C than at 1.5°C in 2100. This difference would expose up to 10 million more people to risks



TOO HOT TO HANDLE

Climate change could make critical ecosystems around the globe unsuitable for wildlife or people. Here are just some of the stories from the front line of the climate emergency



ALASKAN PEOPLE ESCAPING THE SEA

Like the rest of the Arctic, Alaska is warming faster than almost anywhere else. Port Heiden has been forced to adapt rapidly. Due to its exposed position on the Alaskan peninsula, the village is often hit with powerful storms, severely eroding the coastline. In recent decades, the erosion has accelerated due to receding sea ice and heavier storms. In some towns, such as Meshik, the sea was taking the land from beneath people's homes. Starting in the late 1980s, villagers have been forced to relocate to higher ground 5km from the sea. Today, there's almost no trace of Meshik, and Port Heiden loses 18m of shoreline a year.



ARABICA COFFEE THE LAST SHOT

Coffee is one of the best-loved crops threatened by climate change. The wild species *Coffea arabica* can't cope with warming conditions, low or unpredictable rainfall, or extreme weather. It's predicted that by 2050, the amount of land in Latin America suitable for arabica coffee production will fall by up to 88%, affecting 100 million livelihoods. Elevated temperatures make coffee plants more vulnerable to pests and diseases, and they also need bees to pollinate them. Sadly, the average number of bee species in areas suitable for coffee is predicted to fall by 18% by 2050. Only around five bee species in each area are expected to survive – one last shot at saving coffee.



MAASAI HERDERS PASTURES TURNING TO DUST

In Tanzania, many Maasai people raise livestock to support their families. As livestock numbers increase, there's more competition for pasture land, which is also used by wildlife. Ever-longer dry seasons and drought leave the ground bare – and when the rains finally come, the soil washes away. As a result, there isn't enough grass for livestock or wildlife. But herders are ready to manage their pastures in a different way. Many have joined the African People & Wildlife's Sustainable Rangelands Initiative, which supports communities to assess the condition of their pastures and agree where livestock can graze to create a healthier habitat for the future.



SNOW LEOPARDS ON THE EDGE

As mountain climates change, snow leopard habitat is projected to decline by 23% by 2070 if we don't take global action to cut greenhouse gas emissions. In Bhutan and Nepal, the loss will exceed 80%. Rising temperatures and rainfall are expected to shift the tree line higher up the mountains. As alpine meadows are lost to forest, other more adaptable predators and people with livestock will move up into the mountains, increasing competition for food and the risk of conflict. Where blue sheep are displaced by livestock, hungry snow leopards may predate livestock. But there is hope if we can secure known snow leopard habitats in the high mountains as climate refuges.

4,000
Threatened by poaching, habitat destruction and conflicts with people over livestock, it's estimated there are as few as 4,000 snow leopards left across 12 countries.

- KEY**
- Leatherback turtles
Costa Rica
 - Alaskan people
Alaska
 - Arabica coffee
Latin America
 - Black-headed squirrel monkeys
Brazil
 - Maasai herders
Tanzania
 - Emperor penguins
Antarctica
 - Snow leopards
Himalayas, Tibetan Plateau, and the mountains of central Asia

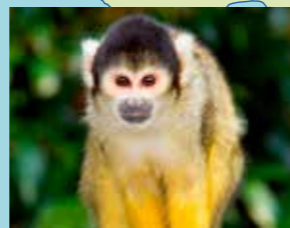


LEATHERBACKS SURVIVING SHIFTING SEX RATIOS

Today, six of the seven marine turtle species are threatened with extinction. Leatherbacks are sensitive to tiny changes in temperature. Their sex is determined in the egg, and the number of males and females in a clutch depends on the temperature of the sand around the nest. Hotter sand consistent with global warming leads to more females. There's already evidence that a beach in Costa Rica produced 90% female hatchlings over several nesting seasons. If temperatures climb too high, eggs fail to hatch, threatening whole populations. Marine turtles are resilient, but the pace of climate change could be too fast for them to adapt.



50%
Habitat loss is expected to result in a decline of at least 50% of the black-headed squirrel monkey population over the next 30 years. Many primates found in the Brazilian Amazon are found nowhere else on Earth.



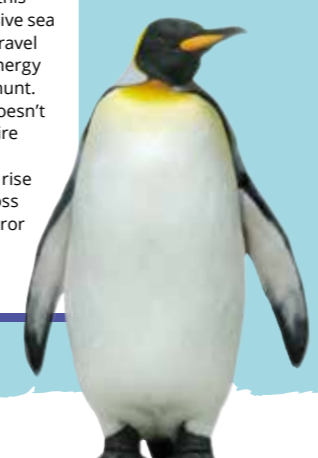
AMAZON MONKEYS TINY HOME AT RISK

Climate change will make the homes of many Amazon primates inhospitable, forcing them to adapt or move. For some, there may be little other suitable habitat available. The black-headed squirrel monkey lives on just one floodplain in Brazil. Its home is expected to be reduced by almost 100% due to rising water levels, higher temperatures and floods driven by climate change. Because the whole population lives in just one place, a huge flood could wipe out the entire species. Its future, and that of other Amazon primates, depends on protecting wildlife corridors to give them time to adapt and find a new home.



EMPEROR PENGUINS MARCHING TO EXTINCTION

Emperors are uniquely adapted to the extreme conditions of Antarctica, but the sea ice must be exactly right for them to breed. They need thick, stable ice for at least nine months to raise chicks. They also need gaps in the sea ice, so they can feed. Changes due to rising temperatures threaten this delicate balance. Extensive sea ice means adults must travel further and use more energy to reach open water to hunt. Faster-melting sea ice doesn't give chicks time to acquire waterproof plumage. If emissions continue to rise and the rate of sea ice loss continues, 80% of emperor penguin colonies could be lost by 2100.



BE A CLIMATE HERO

You already support our vital projects tackling climate change and restoring nature, but will you help us take more climate action? An extra gift will fund nature-based solutions such as:

- £10** could help buy the equipment needed to plant more seagrass in UK coastal waters and restore marine habitats
- £20** could help support youth groups in Tanzania with planting trees and restoring coastal forests, to improve the resilience of people and nature to climate change
- £50** could help support critical research to identify marine protected areas to safeguard Antarctic krill, which play a vital climate role by absorbing atmospheric carbon dioxide through their food, phytoplankton
- £100** could help support our advocacy work to ensure the goal of limiting global warming to 1.5°C is kept on the table at COP26

Donate at www.org.uk/climate-hero

ARCTIC ON THE EDGE

The health of the Arctic Ocean is essential to the whole planet, so we've helped develop a plan to protect its precious marine biodiversity

With its dramatic panoramas of ice and snow, the Arctic exceeds even the wildest imagination. Its unique ecosystems provide food, livelihoods and cultural identity for Indigenous communities, and a home for iconic wildlife such as polar bears. It even helps to regulate the Earth's climate.

The Arctic may seem distant, but the loss of even one link in its delicate web of life could threaten the wellbeing of people and wildlife around the world. It's the fastest-warming place on Earth and the resulting impacts of soaring temperatures, melting sea ice and rising sea levels will be felt by us all.

So with our Arctic offices we've developed ArcNet - a network of 83 priority areas of conservation across the entire Arctic Ocean - to give people and nature the space and time to adapt. Based on rigorous science and indigenous knowledge, ArcNet will not only help secure the future of wildlife, Arctic cultures and summer sea ice, it will ensure the critical ecosystem on which we all depend is more resilient.



This snow leopard was photographed on a camera trap in the Tian Shan mountains of Kyrgyzstan. It had just swum through the freezing river and was coming up a trail

THE HUNT FOR KNOWLEDGE

After more than a century of research into snow leopards, information about these elusive big cats remains sparse. With your help, we're working to fill crucial gaps in our knowledge to improve conservation efforts

The snow leopard is designed to vanish. Thick grey fur, dappled with dark rosettes in a pattern unique to each individual, provides camouflage akin to an invisibility cloak in its rocky habitat. Together with its stealth and remote, high-altitude habitat, this makes it among the most challenging animals to study. But we need to overcome the difficulties and ramp up research to ensure these majestic animals don't disappear for good.

That's the conclusion of a new WWF report reviewing snow leopard research since 1904. Highlighting gaps in knowledge, it identifies research priorities to provide more effective conservation, including the basic details: how many snow leopards survive, and where.

These 'ghosts of the mountains' prowl lofty ranges in 12 Asian countries, from the Himalayas in the south to Russia in the north. It's a vast area, spanning over 1.7 million sq km – of which more than 77% is untouched by snow leopard research of any kind, let alone rigorous surveys.

"Most research has focused on estimating populations and mapping their distribution, yet we have robust figures for less than 3% of the species' range," explains Rishi Kumar Sharma, WWF's global snow leopard programme leader and first author of the new report. "That's worrying, because a lot of conservation decisions – including big ones, such as IUCN conservation status – are based on such knowledge."

GUESSING GAME

That deficit is reflected in the vastly different population estimates, which range from 3,920 to 6,930. We're working with the Global Snow Leopard and Ecosystem Protection Program on a five-year plan to obtain a more accurate estimate. In 2016, Bhutan was the first country to complete a comprehensive snow leopard survey, estimating a population of 96. And this March, Mongolia published the results of its nationwide survey, a four-year project by the Ministry of Environment and Tourism with the help of partners including WWF. The study, involving more than 500 people, 40 field surveys, 15 collared cats and 1,475 camera traps, estimated 953 adults.

In Nepal – believed to host the fourth-largest snow leopard population, last estimated at 300–400 – we're supporting the government's research efforts. In May, two ►

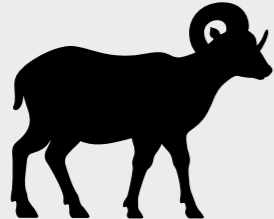
THREATS TO SNOW LEOPARDS

HABITAT DEGRADATION AND LOSS



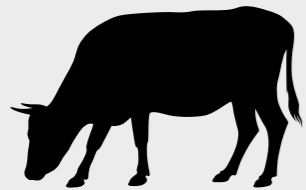
People and their livestock live in and near snow leopard habitat, which is also affected by new roads, mines and other economic developments. Climate change will exacerbate these pressures: it's estimated that by 2070 snow leopard habitats will decline by 8–23% and become increasingly fragmented.

DEPLETION AND LOSS OF PREY



Livestock grazing at higher altitudes can lead to a reduction in numbers of the snow leopards' natural prey species such as blue sheep. Human hunting of species such as argali sheep also reduces the availability of prey.

CONFLICT WITH PEOPLE

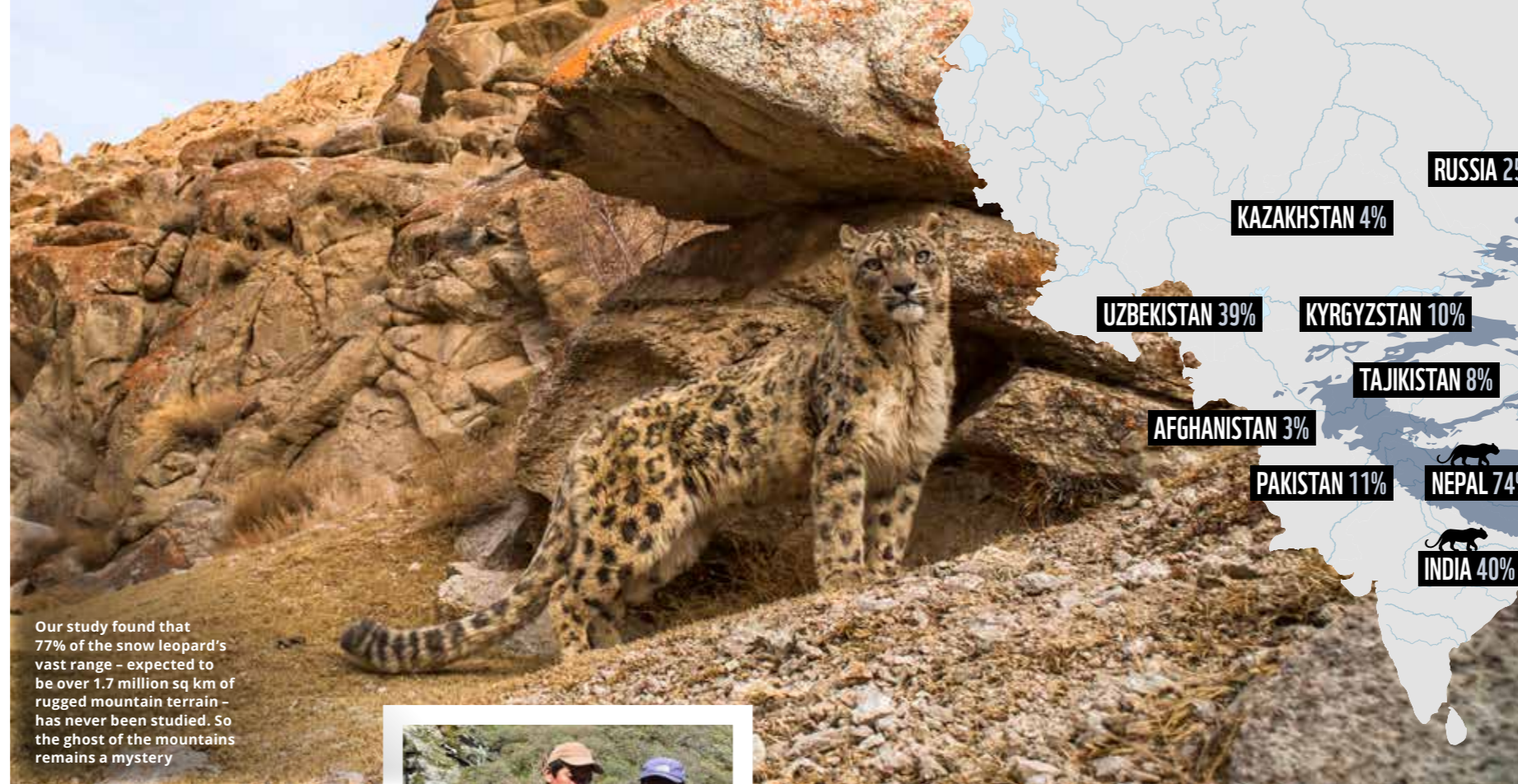


Snow leopards sometimes kill domestic livestock, often when the availability of their wild prey has been reduced. Of the estimated 221–450 snow leopards killed by people annually across their range, 55% are targeted by herders in response to livestock predation.

POACHING AND ILLEGAL TRADE



Snow leopards have long been hunted for their luxuriant, beautiful fur. Illegal hunting and trade in pelts, as well as other body parts – sometimes for traditional remedies – continues. Snow leopard cubs orphaned by hunters are also captured and sold.



Our study found that 77% of the snow leopard's vast range – expected to be over 1.7 million sq km of rugged mountain terrain – has never been studied. So the ghost of the mountains remains a mystery



Volunteer Himal Rakshaks (mountain guardians) have helped survey remote areas

“80–85% OF SNOW LEOPARD HABITAT IS OUTSIDE FORMAL PROTECTED AREAS”

adults were fitted with GPS collars in Shey Phoksundo National Park, bringing Nepal's tally of collared cats to eight, providing data about territories and movements.

CITIZEN SCIENTISTS

We're also building on long-established relationships with mountain communities. “The survey areas in Nepal are so remote, research wouldn't be possible without local citizen scientists,” explains Nicky Robertson, our senior adviser on Asia programmes. “Having lived here for millennia, they know the landscape like the backs of their hands, and can offer valuable insights into snow leopard behaviour. They know where to place camera traps and where we might stand the best chance of capturing a cat for collaring.”

Similarly, in the Indian state of Sikkim we're supporting the training of Himal Rakshaks (mountain guardians) to monitor biodiversity. And in China, which is home to around 60% of the world's snow leopard habitat, we work with communities, including Aksay herdsmen, to set camera traps and collect data. We're also collaborating with government authorities and other NGOs in China to develop research programmes in protected areas such as Wolong National Nature Reserve which, though best known for giant panda conservation, is yielding insights into its snow leopard population.

Crucially, the new report highlights that snow leopard research needs to cover aspects other than population and distribution. “To understand where to focus our conservation efforts, we must improve our knowledge of threats and population trends,” explains Becci May, WWF's expert on Asia's big cats.

Snow leopards are targeted by poachers, and their habitats are affected by mining, large-scale infrastructure projects, livestock grazing, over-harvesting of cordyceps (‘caterpillar fungus’) and poorly managed tourism. Climate change is another major threat: it's estimated that by 2070 only 35% of the current snow leopard range will maintain a suitably stable climate (see page 15). Many of these issues affect people, too.

“When I analysed the data, I realised that 80–85% of snow leopard habitat is outside formal protected areas,” says Rishi, “so local people are dependent on the same ecosystems as the cats. Yet there's been little research into the human dimensions of conservation.”

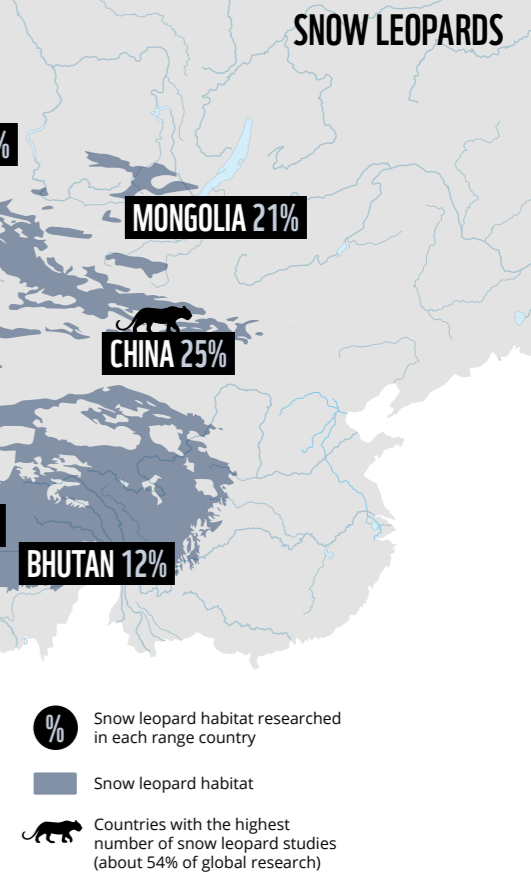
That means trying to understand the opportunities from, and threats to, coexistence between people and snow leopards. In Nepal, citizen scientists are helping survey blue sheep, a key snow leopard prey species. If blue sheep numbers decline, perhaps because of intensive grazing by domestic herds, hungry big cats are more likely to prey on livestock.

With your help, we're exploring practices that reduce overgrazing and improve the habitat for blue sheep. We're also supporting the construction of predator-proof corrals (pens) to protect livestock overnight, and community-based insurance schemes that provide financial relief to herders who lose animals to snow leopards. Testing methods for reducing conflict helps us better understand what works best where, and how effective these techniques are.

A HOLISTIC APPROACH

In India, our snow leopard strategy focuses on ensuring local people and wildlife alike benefit. “We foster partnerships, supporting communities to become stewards for conservation,” explains Rishi. “Rather than focusing on the needs of one species, we're exploring how to protect rangelands for the snow leopards' wild prey and for the communities whose livestock graze those landscapes, and who rely on it for other resources. That requires research into the productivity and carrying capacity of the land, and finding solutions to reconcile the needs of people and wildlife. It's a holistic method that sees snow leopards, people and livestock as one socio-ecological system.”

Thanks to you, we support this work in Sikkim and a new project in Arunachal Pradesh, trialling a fresh approach in the



Mago-Chu valley. “We've spent a year listening to communities in Mago-Chu, trying to understand their perspectives on snow leopard conservation, on ecosystems, on their own lives,” says Rishi. “We're asking: what solutions might they devise? They've lived here for generations and represent huge repositories of traditional knowledge that can be blended with modern conservation science to develop more effective interventions.”

If Rishi's report demonstrates a pressing need for research, it's also a launchpad for collaborative efforts. By sharing what we've learned with partners, we're continuing to develop the local and international relationships on which our work is built.

“At WWF we're not interested in merely collaring a few individuals or estimating populations in one landscape,” says Rishi. “We're focused on finding solutions to complex issues and challenges that have long-term impacts on snow leopard conservation.” ■

DISCOVER MORE...

Find out more by turning to page 15, scanning this QR code with your phone, or online at myaction.wwf.org.uk



My Action

RHINOS ON THE RISE



Home to 696 greater one-horned rhinos – almost a fifth of the 3,550 left in the wild – Chitwan National Park is one of the world’s most important refuges, and critical to the recovery of the species. Its rhino population is so stable that individuals are being relocated to bolster neighbouring reserves

After decades of work, Nepal’s rhino population has risen to an exciting new milestone. But we’re still working hard to overcome growing threats, build a thriving population and restore the species to its former range

A year behind schedule, the survey team fan out to search the tall grass for their target – an armour-plated, greater one-horned rhino weighing in at more than 2,000kg. The confidence of conservationists has been knocked during Covid-19 by a resurgence in the activity of the greatest enemy of this rare species. The pandemic that delayed a five-yearly survey of rhinos in Nepal has also allowed poachers to take advantage of chaos and confusion – four rhinos dead and 14 poachers arrested. Flash flooding in 2017, likely due to climate change, saw at least 15 rhinos swept across the Indo-Nepal border.

What will these setbacks mean to the survey and the future of one of Asia’s most threatened mammals? Thankfully, they haven’t prevented numbers from continuing to rise. We estimate that there are now 752 rhinos in Nepal, a healthy leap from the previous count of 645 made in 2015. It’s a remarkable transformation for a species that was heading towards extinction when *The Beatles’ Help* was in the charts.

Poaching remains the number one threat to these rhinos, to meet a relentless demand for rhino horn for traditional medicine and as a status symbol in China and Vietnam. However, the recovery owes a great deal to a decade of astonishing success in practically stemming the losses. Since 2011, Nepal has celebrated seven periods of zero poaching of rhinos, when not a single animal was killed. How was that possible?

Ghana Gurung is our country representative in Nepal. “Nepal’s success in achieving so many periods of zero poaching is the result of a coordinated, collaborative effort,” ▶

1973



Chitwan National Park, Nepal’s first national park, is established to halt the decline of the country’s rapidly diminishing rhino population. It will remain the most important single site for rhinos in the decades to come.

1986



The first group of 13 rhinos is translocated from Chitwan National Park to Royal Bardia National Park. The aim is to establish a second viable population in western Nepal.

2006



We establish a wildlife trade monitoring programme in Nepal. Working with enforcement agencies, local people and international partners, it supports the government in curbing poaching and the illegal wildlife trade.

2011



Thanks to the efforts of frontline protection staff, local communities and conservation partners, including WWF, Nepal manages 365 days of zero poaching for rhinos – the first time this has ever been achieved.

WORDS: DEREK NIEMANN | IMAGES: MICHEL GUNTHER/WWF | © NARENDRA SHRESTHA/WWF © AKASH SHRESTHA/WWF-NEPAL | © GETTY

he says. “The political will comes from the top – the prime minister talks about tigers and rhinos, so political machinery is geared towards protecting them. The army is committed to controlling poaching 24/7.

“WWF was instrumental in setting up the environmental crime control pillar within Nepal’s Central Investigation Bureau, and the Nepalese government’s law enforcers won an award from CITES [Convention on International Trade in Endangered Species of Wild Fauna and Flora] for their work in tackling illegal wildlife trade. We’re supporting the police and park rangers to adopt new technological advances such as GPS tracking and camera traps – our eyes in the parks – to stay ahead of the poachers.”

PEOPLE POWER

Crucially, that common purpose extends right down to the local communities, exemplified by the area of Amaltari, a hub for rhino and tiger poaching up until only a few years ago. In 2020, this once-notorious district enjoyed its 11th successive year of zero poaching. Here and elsewhere, the people now have a vested interest in stopping wildlife crime. Rhinos, tigers and elephants earn them a living, and the locals’ commitment has been vital to the success of conservation efforts.

“The community groups who live in the buffer zones around the national parks receive 30–50% of the parks’ revenue,” explains Becci May, our Asian species specialist. “Visitors also stay with local people in their ‘homestays’ and whole villages run this accommodation as a collective effort. They see they are gaining benefits through conservation.”

Local communities help the army and national park staff patrol the areas, and this relationship is critical for protecting people and wildlife. And the upcoming generation has embraced the conservation message, with more than 5,000 anti-poaching youth groups throughout the country. It’s a huge deterrent.



Greater one-horned rhinos follow familiar forest tracks they mark with a scent gland on the soles of their feet



◀ LEFT: Sniffer dogs are a vital part of efforts to fight wildlife crime. They’re trained to help rangers in Chitwan National Park detect signs of poaching and deter illegal activity



BOTTOM LEFT: Since 2014, four rhinos have been collared in Khata corridor. Biodata, such as horn diameter, is collected during the process. The information helps inform conservation efforts

“THE LOCALS’ COMMITMENT HAS BEEN VITAL TO THE SUCCESS OF CONSERVATION EFFORTS”

Ghana cites habitat change as the second biggest challenge facing rhinos. These great landscape engineers with their prodigious appetites graze the grass to just the right level for smaller herbivores, disperse seeds in their dung and maintain waterholes with compulsive wallowing. But they won’t touch unpalatable invasive plants such as *Mikania micrantha* (known in the UK as mile-a-minute), which is smothering vast areas of national parks, or water hyacinth, which is choking the wetlands.

As the quality of habitat and the quantity of food available falls, rhinos are roaming further to forage. This brings them more often into conflict with people, when they raid

farmers’ crops. Work is under way to remove the invasive species or reduce their impact, and to restore grasslands and waterholes. “We hope this will reduce the rhinos’ wanderlust,” explains Ghana.

Climate change has also brought massive change in a short space of time. Already, the vegetation is altering, as long periods without rain begin to favour more drought-resistant plants. Extremely dry conditions mean waterholes dry up, grassland burns and the fires cause air pollution. And when the rains do come, they’re more intense, resulting in flash flooding. Rhinos love water and are good swimmers, but they can’t survive without floodplains and are sometimes swept away.

All these challenges require inventive thinking to find solutions. After the floods of 2017, we had the idea of creating a rhino mound – a large, raised earth platform – as a refuge for rhinos and other animals to escape inundation. And so far, it seems to work! The same spirit of innovation and a willingness to negotiate for solutions runs through how we address the drive to modernise Nepal. Roads, railways and irrigation canals are being carved through landscapes, even national parks. Not only is there the risk of fatalities as heavy rhinos meet even heavier trucks and trains, there’s also the worrying prospect of habitat fragmentation, as whole populations become separated by man-made obstacles.

Ghana is typically upbeat. “We’re working very closely in partnership with government ministries and departments to produce wildlife-friendly guidelines for transport infrastructure,” he says. “Mostly we’re looking at providing underpasses in critical wildlife corridors – and camera traps and the use of GPS satellite collars will tell us which animals are crossing – so that the vehicles can pass overhead and the animals can cross underneath. It’s already been done in Chitwan, where there are four underpasses, and it’s been successful. There was also a proposal for a railway line to run through the national park and, after much negotiation, the government agreed that the line would be re-routed around the edge of the park.”

LOOKING TO THE FUTURE

Our long-term goal is for a sustainable rhino population in Nepal of around 800 individuals. If achieved, it’s thought that this would be a record number for the country. Our studies into capacity show that Chitwan National Park, home to more than 90% of the country’s rhinos, is full, but other national parks have very few. A translocation project has seen 13 hand-picked rhinos moved to other parks within the past five years, expanding both their numbers and range.

WWF and our partners are supporting the Nepal government with science and technology, habitat management and community development. As we tackle each challenge with purposeful teamwork, prospects look bright for this armoured giant. ■

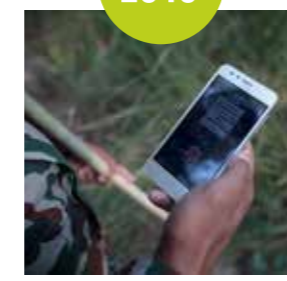
© DOCS / WWF-NEPAL | © WWF-NEPAL | © NARENDRA SHRESTHA / WWF | © NINIC / BCC © WWF-CANON / RICHARD STONEHOUSE | © WWF-TIGERS ALIVE INITIATIVE

2015



Nepal hosts the first symposium focused on how to reach zero poaching. Delegates from more than 13 tiger range countries, representing conservation, police and prosecution, share knowledge and tools.

2016



Nepal celebrates two consecutive years since one of its rhinos was poached. More effective protection efforts include the use of a software system that helps rangers identify poaching hotspots and improve rapid-response measures.

2017



Conservation partners including WWF help the Nepal government rescue 10 rhinos swept across the border from Nepal’s Chitwan National Park to Valmiki Tiger Reserve, in the Indian state of Bihar, during flash floods.

BE INSPIRED
Read more about our work for rhinos and tigers in Chitwan and our sniffer dog programme online at myaction.wwf.org.uk



FIGHT FOR LIFE

The Uru-eu-wau-wau indigenous territory in the state of Rondônia covers 18,700 sq km (almost the area of Wales) and is vital for its biodiversity and water sources. Rondônia is one of the most deforested and dangerous areas in Brazil. Communities face invasions of their land and threats to their lives due to land grabbing and illegal cattle grazing

A leader of his people, **Bitaté Uru-eu-wau-wau** is determined to defend his cultural lands and the Amazon. He talks to *Action* about the fight against deforestation

At 21 years old, you're one of the youngest presidents of the Uru-eu-wau-wau Indigenous People's Association. How do you lead the protection of your territory?

I grew up inspired by a chief who died early, due to an accident, and who wanted my people to keep their lands. My culture does not allow us to speak the name of someone who died a long time ago, but I always wanted to be like him.

I believe it's now my turn to be on the front line. I saw my father and my grandparents protecting the territory to keep out invaders. I am continuing the work of my ancestors. From a young age, I had an active voice in the community. When I was about 12 or 13 years old, I already stood up for the pursuit of our rights and the fight for our territory.

Tell us more about your life growing up.

My mother is of the Juma people, from the state of Amazonas, and my father is Uru-eu-wau-wau, from Rondônia. When my mother returned to her village, I stayed with my father and became interested in protecting the places where I learned to hunt and fish, and exploring the culture of my people. I enjoy village life, bathing in the river and talking to my relatives. Our land is everything to us – I want to protect it for myself and future generations.

What's changed since your people came into contact with outsiders in the 1980s?

My grandfather always says that in the past they were unconcerned about invasions. They had a happy life. The rivers had more fish, you didn't have to go far to hunt, and the weather wasn't as hot as it is today, because it rained more.

The arrival of non-indigenous invaders changed it all – everything is more difficult today. A small hydroelectric plant 60km away means some species of fish are no longer found here, while others have decreased in number. There are also many hunters who enter our land and kill animals – often just for fun. Because of this, we must walk a lot further to find food for the villages. The impact is huge.

Describe your community's love of nature.

Living close to nature is so good. Our land gives us everything we need: food, medicinal plants

and subsistence (such as harvesting nuts from the forest). But we never extract more than we need to live. We live without destroying the forest. And everyone benefits when we protect our territory. The sources of the main rivers that supply Rondônia are all within the Uru-eu-wau-wau indigenous land.

What are the biggest threats you face?

Nowadays, the biggest threats to our territory are land grabbing, illegal gold mining and logging causing increasing deforestation. Encouraged by the actions of the Brazilian government, illegal invaders are snatching more and more land from protected areas and indigenous territories. The destruction has taken place in the blink of an eye. The buffer zone has failed to protect us. It's as if there are no laws in Brazil. This is genocide.

How has WWF helped?

WWF donated drones and ran a drone-piloting training course, which people from our community attended, with support from Kanindé Ethno-Environmental Defence Association. This technology gives us strength as it helps us to see, monitor and record evidence of land invasions or deforestation, and then report it to the authorities.

What would you say to world leaders?

World leaders should seek to understand the reality of both Indigenous peoples and the Amazon, and the problems we face. And to learn the origin of the meat and wood they buy from Brazil. Much of what is exported comes from indigenous lands and protected areas. Large foreign companies are buying meat produced within the Uru-eu-wau-wau indigenous territory. If there was supply chain verification and all products could be traced back to their source, deforestation rates would fall. World leaders need to help us protect our future survival.

JOIN THE FIGHT FOR OUR FORESTS

We're supporting the rights of Indigenous peoples and protecting the Amazon. We're demanding that it be made illegal for any products that have caused deforestation to be made or sold in the UK. Find out how you can help at www.org.uk/fight-for-the-amazon

60 YEARS OF WWF

1961 - 2021

Today's young people will be the stewards of our planet in the future. So with the help of actor and WWF ambassador **Cel Spellman**, we're empowering our young ambassadors to take action today

WHY IS IT VITAL YOUNG PEOPLE ARE HEARD?

I'm fortunate to have worked with young people for 10 years, and I'm always amazed by their intuition, intelligence, understanding and compassion. It's their future – they'll live and breathe the consequences of the actions we take today, so they should be at the forefront of the conversations at COP26 and beyond. They have brilliant ideas and they question the way we do things – we can all learn from them.

WHAT ARE THEIR GREATEST CONCERNS?

If they'll have a future! They're aware we're on the road to catastrophe and no one can say what life will be like on the other side, but the world as we know it is not going to exist. The unknown is the scariest thing. They feel helpless when they hear about another species going extinct, or a threat to the planet, or watch governments making decisions that will affect them the most but can't do anything about it. Yet they still believe we can turn things around.

WHY DID YOU BECOME A WWF AMBASSADOR?

When I learned about global warming, and how we were continuing to do the same damaging things to our planet, it scared me. The feeling grew and made me want to do my bit. When I was 15, I emailed WWF to offer my help. My dream was to support its work in whatever way I could, but to be an ambassador makes me so proud. Through this role, I've met key people in important industries and now I want to use my position to influence change and action.

HOW DOES WWF SUPPORT YOUNG PEOPLE?

There are so many brilliant campaigns and initiatives, such as the partnership with Scouts (wwf.org.uk/a-million-hands). I'm proud to work with WWF's youth ambassador scheme (wwf.org.uk/ambassadors). These amazing young people are spearheading WWF's campaigns and suggesting ways to connect with their peers. Rather than telling them what to think, we find out what they're passionate about and equip them to make decisions and take action.

ARE THERE MORE OPPORTUNITIES TODAY?

Yes! Over the past decade, the conversation has grown and taken on a pace of its own, spearheaded by key moments such as the school climate strikes. Inspiring and energising, the strikes are a shining example of what adults can learn from young people. They would never have happened when I was at school. Now more people and businesses actively want to hear from young people. There are so many more ways for youngsters to get involved. They're becoming the most important pieces of the puzzle in solving the climate crisis.

CAN YOU SHARE ANY INSPIRING STORIES?

In Kenya, I met a young man called Kevin who was spearheading his school climate strikes. He travelled for five-and-a-half hours every Friday to take part in the strikes in Nairobi. Kevin has so much commitment, strength and passion, his story will stay with me for ever. Closer to home, a 10-year-old girl started a campaign to ban single-use plastic toys on the covers of kids' magazines. It went all the way to Westminster, and Waitrose pledged to stop stocking magazines with disposable toys. She did that. It blew my mind.

HOW CAN YOUNG PEOPLE MAKE A DIFFERENCE?

It's your future we're talking about, so use your voice, ask questions and demand answers. Write to the COP26 president, Alok Sharma, or to your local MP. MPs often say they don't hear from young people, and a letter from you is more powerful than you think. Use social media to get your voice heard and drum up interest. Let your parents and friends know you care about the environment, so they'll hopefully want to help. Adopt a more plant-based diet, try to shop more sustainably and invest in ethical companies. Most importantly, don't settle for anything less than what you deserve. We can make this world a fairer and more sustainable place by working together. **Let's meet some of the young people leading the change...**

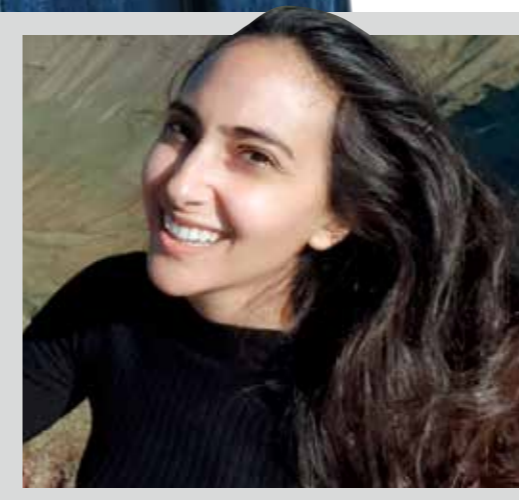


SALLY WWF YOUTH AMBASSADOR

I'm passionate about protecting our oceans and I want to do it for the rest of my life. I fear for our world amid the uncertainty of climate change, but this fear drives my passion to create change and protect our planet – and our lives.

Through working with WWF, I've gained the confidence to try to inspire others. I've been involved in many amazing things, from presenting at the Changemakers Convention to delivering assemblies at primary schools. WWF are inclusive, they take on board my views and invite my ideas. I see my role as getting more people involved. I try to show how little it takes to do your bit for the environment – from plastic cutlery in schools to litter picks in towns. It's easy to get involved.

But we can only truly progress if we're backed by the governments of the world. I would love to see big actions today, not just ideas for the future, and a progression towards a greener, cleaner world. Hear us loud and clear! We are desperate for change, and for them to be effective, any changes must be now and they must be big. This is our world we're fighting for.



ALFIE BOWEN PHOTOGRAPHER

I've had a lifelong obsession with wildlife. My first word was 'mallard'! I grew up watching David Attenborough documentaries until I could recite them word for word, so I can't imagine a world without the iconic species I've grown to love. We mustn't let that happen on our watch. Becoming a wildlife photographer saved my life. I was being bullied because of my autism

spectrum disorder, and photography gave me a voice I didn't have. It's a universal language that grabs the attention and touches the heart. It's a privilege to help WWF, and I hope my images will inspire people to fight to save nature.



THOMAS CUB SCOUT

I am nine years old, and I am an environmentalist. I think it's terrible that humans hurt wildlife with our plastic pollution. It's up to us to do something about it. I give talks to my Cub pack on how to be 'plastic clever' and think there should be more Scout badges that help the environment. I've been working with a company to provide litter-picking



equipment for my Cub pack and have designed my own badges saying: 'The sea is not a dustbin'. Governments should make green alternatives to plastic cheaper, so more people use them. They should also teach people to use less plastic. What we do use, we need to reuse or recycle. We should all pick up litter to stop plastic getting into our oceans.

ARIELLE EAT4CHANGE INTERNATIONAL YOUTH TEAM

Growing up in Ethiopia in a multi-ethnic family while also attending an international school, I was exposed to a wide range of cultures from a young age. This experience gave me the opportunity to taste a variety of different foods which in turn made me into the massive foodie I am today, always eager to try new foods. When, on the Eat4Change International Youth Team, I learned about the true cost of the meat and dairy industry, changing my diet was

pretty straightforward; all I had to do was look to foreign cuisines for healthy, unprocessed vegan meals. Food we eat in the UK comes from all over the world and, because of this, consumers have a duty to understand how this impacts people, ecosystems and climate in other parts of the world. I urge you to look at WWF's website and use the tool they've created to understand the true impact of your diet. wwf.org.uk/eat4change



PLAY BINGO WITH THE ANIMALS

This family-friendly game is packed with amazing but threatened creatures from all over the world. Learn about the okapi, whale shark and sea otter and be inspired to take action. **£19.99**



TAKE A PANDA SHOPPING

Inspired by our iconic panda logo, Fenella Smith has created beautiful pieces – from a vegan leather cosmetic case to a purse and a panda keyring – to celebrate WWF's 60th anniversary. **From £17.50**



For more sustainable and inspiring gift ideas for Christmas, see our full range at wwwf.org.uk/shop

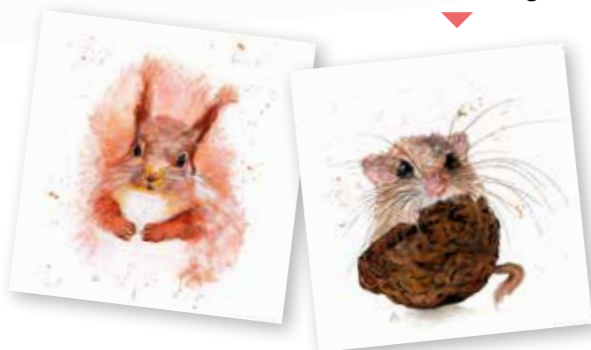
COUNTDOWN TO CHRISTMAS

Make every day of December delightful with Jane Foster's exclusive WWF advent calendar. Each window reveals a beautiful colour illustration of 24 creatures that live in our coldest climes. **£4.99**



SEND A SWEET SQUIRREL

Our exclusive Elizabeth Grant Christmas card collection features four original wildlife designs printed on FSC-certified card with vegetable ink. **£3.99** for a pack of 10 cards of one design.



WEAR A WALRUS

Help protect walruses by buying one of these graphic-inspired T-shirts created by Barry Tranter. Made from premium, super-soft 100% organic GOTS* cotton with AZO-free dyes and no plastic packaging. S, M, L, XL **£19.50**

* Global Organic Textile Standard



Bouvier's red colobus monkey lives deep in swampy forests, where it's proved elusive for several decades

FINDING A MYSTERY MONKEY



Capturing a rare primate on video for the first time ever is quite a feeling! Bouvier's red colobus monkey was first described by French zoologists in the 19th century. With no confirmed sightings since the 1970s, the IUCN had concluded that it was probably extinct. But in 2015, it was rediscovered in Ntokou Pikounda National Park in the Republic of the Congo – a swampy, almost inaccessible area of forest that's home to elephants, chimpanzees and gorillas.

Finding an animal that's managed to stay hidden for nearly half a century is quite a challenge. From the capital of Brazzaville, it took me and my team a day-and-a-half by car until the road peters out, then another half a day on the river in a dugout canoe to reach the last village on the edge of the park. We were there to install a solar-powered water point, and decided to extend our stay to try and catch a glimpse of the red colobus.

We spent a full day cruising up the river in the canoe – a dark, black river with impenetrable forest on either side, full of noises. After two days hiking through the swamps, knee deep in the mud, we still hadn't seen a single red colobus. So on our final morning, we took one last hike along the river in search of the elusive monkeys, hope fading.

LOST PRIMATE: REDISCOVERED!

Suddenly, we heard them. Following their distinctive call, we were rewarded with a view of five adults and an infant. But I still had to get them on film. I'd zoom in, focus... then they'd move away. But eventually one of the group, who seemed to have been tasked with keeping an eye on us, stayed still long enough for me to hit record. Cameras have limited battery life out in the field, so we had to wait until we got back to camp to check the footage. That evening we all watched the film for the first time. It was an incredible feeling.

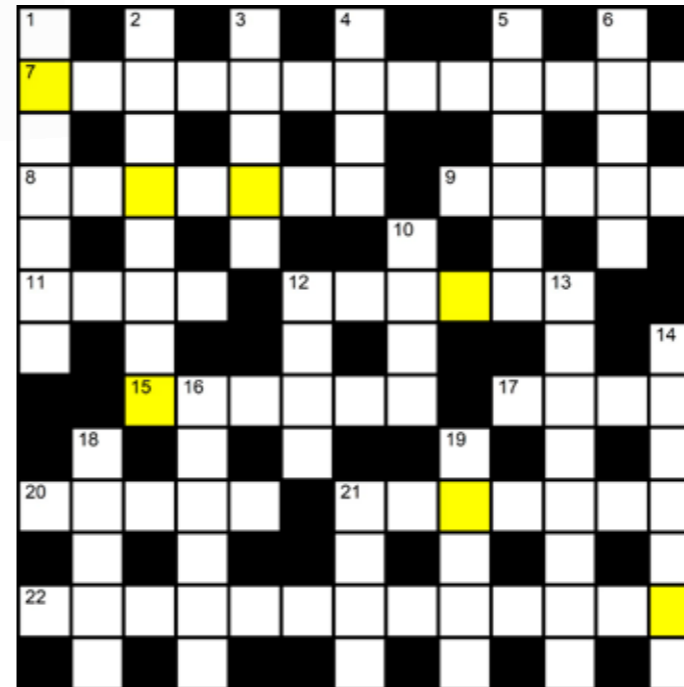
We know next to nothing about Bouvier's red colobus monkeys, though we think that between 1,000 and 10,000 may survive in the wild. So far, it's only been proven that they live in Ntokou Pikounda. I feel so privileged to have been part of this expedition. And if a largish monkey can go unrecorded for so long, it makes you wonder: what else is out there?

Jaap van Der Waarde

WWF-CAMEROON
Watch Jaap's film at wwwf.org.uk/colobus

CROSSWORD

Solve our puzzle and you could win a copy of Richard Barrett's *Wild World* (Merlin Unwin Books, RRP £30). Take a sneak peek: myaction.wwf.org.uk



WWF ACTION CROSSWORD 49: Autumn 2021 issue. Compiled by Aleric Linden

After solving the crossword, take each letter from the shaded squares (going from left to right and top to bottom) to spell out the prize word. To be in with a chance to win, just send a postcard with the prize word to the address on page 30, or email it to competition@wwf.org.uk. The closing date is Friday 19 November 2021.

Clues across

- 7 Global theme of the UN's COP26 summit (7,6)
- 8 Snow _, magnificent mountain cat (7)
- 9 Heavyweight African 'river horse' (5)
- 11 _ East, region that included the Ottoman Empire (4)
- 12 Granted land concessions to mining companies (6)
- 15 Oil transportation (6)
- 17 A desert of China and Mongolia (4)
- 20 Like rhinoceros skin (5)
- 21 UK host city of the 2021 COP26 conference (7)
- 22 Green, in an ecological sense (13)

- 10 What grows most noticeably on an elephant's tail and chin (4)
- 12 Baikal is the world's oldest and deepest one (4)
- 13 Extended periods of water shortage (8)
- 14 Petroleum extraction site (3,4)
- 16 _ National Wildlife Refuge, protected area in Alaska (6)
- 18 Greater one-horned animal whose Nepal population has seen a 16% increase in the past six years (5)
- 19 Heat _, extreme weather events becoming more common with climate change (5)
- 21 Poachers are armed with them (4)

Clues down

- 1 Volcanic island north-west of the UK (7)
- 2 _ hours, units of electricity (8)
- 3 Critically endangered rhinoceros (5)
- 4 Group of elephants (4)
- 5 _ turtles, creatures such as the olive ridley (6)
- 6 The Nile Delta is located in this country (5)

Summer 2021 answers

Prize word: ISLAND
Across 1. Wildflowers 8. Russian 9. Sweet 10. Walk 11. Index 15. Nature 16. Aurora 19. Uluru 20. Acid 22. Basin 23. Erosion 24. Tidal energy
Down 2. Insulate 3. Drip 4. La Niña 5. Wasteful 6. Sperm 7. Growing 12. Sri Lanka 13. Poaching 14. Gardens 17. Freeze 18. Giant 21. Pole

CHRISTMAS GIVEAWAY!

One lucky winner will receive an **Endangered Animals Bingo set**. Three runners-up may choose the item they would like from our exclusive **Fenella Smith panda accessories range**.

HOW TO ENTER

Send an email with your name, address and phone number, along with *Action Christmas Competition* in the subject line, to competition@wwf.org.uk

Alternatively, post your entry to **Action Magazine, WWF-UK, Living Planet Centre, Rufford House, Brewery Road, Woking, Surrey GU21 4LL.**

Only one competition per entry. Closing date: Friday 19 November 2021. For terms and conditions, visit: wwwf.org.uk/compterm

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**...AND HELP TURN
OUR WORLD AROUND**

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wwf.org.uk/lottery or scan the QR code

£1 per entry. Drawn each and every Friday. All winning entries are selected by a computerised random number generator. You must be 18 or over to play. Under-age gambling is an offence. WWF-UK is licensed and regulated in Great Britain by the Gambling Commission under account number 5250 (www.gamblingcommission.gov.uk). Promoter: WWF-UK, The Living Planet Centre, Brewery Road, Woking, GU21 4LL. Responsible Person: Michael Dent. All proceeds to WWF-UK. WWF-UK is a registered charity in England and Wales 1081247, and in Scotland SC039593. Full terms and conditions, how proceeds are used, and the likelihood of winning a prize can be found at wwf.org.uk/lottery

If you feel you have a problem with gambling, visit www.begambleaware.org or call the National Gambling Helpline on 0808 8020 133.

BeGambleAware.org



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