WWF Action

THE MAGAZINE FOR WWF MEMBERS SPRING 2026

Walk of hope

Helping communities and Asian elephants thrive

Penguin *truths*

Discover the sights, sounds and smells of Antarctica's penguin colonies

Panda *patrol*

Meet the ranger protecting giant pandas – and their mountain home

DNA *detectives*

When people picture Fiji, they imagine paradise, but beneath the beauty lies a deeper story. Fiji is one of the few places where five of the world's seven marine turtle species still survive. Sadly, these mariners face growing threats from habitat loss, fishing-gear entanglement and overharvesting for meat, eggs and shells.

To protect them, we work with communities, governments and global partners. I recently helped lead a workshop in Fiji's capital, Suva. We provided training on ShellBank, the world's first marine turtle DNA database and traceability toolkit, developed with partners including NOAA, the Australian Museum and TRACE Wildlife Forensics Network.

Using DNA from turtles, their nests or even seized shells, ShellBank traces where individual turtles came from, links them to populations at risk, and builds evidence to combat illegal trade. With over 15,000 samples from more than 50 countries, it's connecting science with enforcement.

Genetic data can now be linked with satellite tracking and nesting records to map turtles' global migration routes. These travellers cross oceans, connecting ecosystems and communities, so protecting them means protecting reefs, fisheries and livelihoods.

Thankfully, global efforts are paying off! In October 2025, the green turtle's conservation status was changed on the IUCN's Red List from Endangered to Least Concern. It's a result of decades of tireless conservation work around the world.

Nicola

Nicola Loweth
WWF senior programme adviser for Asia

“THE GREEN TURTLE'S CONSERVATION STATUS WAS CHANGED ON THE IUCN'S RED LIST TO LEAST CONCERN”

Right: ShellBank helps trace and protect marine turtles, like this green turtle, and their global migration routes

Contents

On the cover

Regulars

WWF *in action*

Nature in *schools*

We think every child should benefit from a daily dose of nature. So we've launched a new schools initiative called *Happy By Nature*.

Spending time in nature is great for children's physical and mental health. It improves their concentration and even boosts academic performance. But our research shows that, in 70% of UK primary schools, children don't get to connect with the natural world every day. *Happy By Nature* is our new initiative to make nature part of everyday learning and play for a million primary schoolchildren by 2028.

To support this goal, we have offered £10,000 grants and expert guidance to 10 pilot schools to make their outdoor spaces greener. We're also providing free toolkits with practical advice for enhancing nature-based play and learning, and we've launched a new website for teachers to inspire pupils through exploration, with live lessons from wildlife presenters. We're working with partners to supply outdoor gear so that no child misses out.

Steve Backshall – WWF ambassador, wildlife presenter and dad of three young children – is supporting *Happy By Nature*. "Far too many children miss out on magical moments in nature," he says. "By making time outdoors a regular part of the school day, we can open up a world of discovery, learning and joy, and help raise a generation that's not only healthier and happier, but more connected to the world around them."

Happy By Nature

Get a free resource pack and register at: **wwf.org.uk/happy-by-nature**

Right: Our new project, supported by Steve Backshall (inset), will bring children closer to nature

© Nathan O'Brien / WWF-UK

News in *numbers*

£25,858

Nature lovers **Miranda Richardson** and **Maggie Service** raised £25,858 for WWF with a sponsored **wild swimming challenge** in Norfolk. The actors swam 4km from Blakeney Harbour to Pinchen's Creek.

£358,561

YouTubers, gamers and other content creators raised an amazing £358,561 for WWF last December as part of the **online festive fundraiser Jingle Jam.** Hundreds of creators and their fans took part in the event.

20,000

Through our Trillion Trees partnership we're helping **plant 20,000 trees** round the outside of Bwindi Impenetrable National Park in Uganda, which will benefit local people and mountain gorillas in the protected area.

A forest-first *future*

Ten years after the adoption of the Paris Agreement, governments gathered at the UN COP30 climate summit in November, in the heart of the Brazilian Amazon, to accelerate action on their climate commitments.

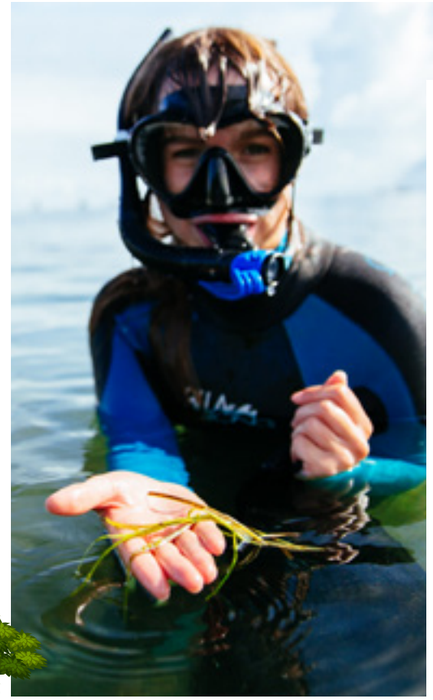
Ahead of and during the summit we pushed, with many partners, to secure action on ending deforestation. Forests, home to 80% of all land-based species, absorb up to a third of the world's greenhouse gas emissions, making them vital for people and nature.

COP30 produced some positive results: major investments were announced for tropical forest protection and Brazil unveiled a 'roadmap' to halt and reverse deforestation by 2030, which must now be fleshed out and supported by all countries.

But a lot more work is needed to transform the way we produce and consume food – the main driver of deforestation – and ensure that finance flows towards protecting instead of destroying our precious forests.

Above: More than 50,000 people joined the climate march at COP30 calling for more urgent climate action

© Jacqueline Lisboa / WWF-Brazil



Above: Volunteers, supported by 2030 Circle members, collected seeds to replant lost seagrass meadows

United for *good*

Since launching in 2020, our 2030 Circle giving club has raised over £2 million to power our vital work – a testament to what's possible when we unite for climate, nature and people.

As we pass the halfway point of this decade-long mission, we've achieved remarkable progress thanks to the support of our growing community. We've helped end the domestic elephant ivory trade in China and neighbouring countries, and supported the protection and restoration of over 60 million hectares of forest around the world.

We've also worked with communities in Kenya and Tanzania to reduce conflict with wildlife by more than 40%. Successful measures have included developing sustainable livelihoods and installing lights to deter predators from attacking livestock.

These milestones reflect the impact of collective action for nature. To learn more about the 2030 Circle, visit **wwf.org.uk/2030circle**

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Rare cubs *offer hope*

Two separate Amur tiger families caught on camera in north-east China are a powerful sign that decades of conservation efforts are helping this endangered big cat recover.

Camera traps have captured a rare image of a tiger family enjoying a drink in a stream, and another of a tigress walking with her five cubs. These sightings signal hope for a species that was reduced to an estimated 20 individuals in the wild in China in 2010. Today, the population has risen to around 70 – a comeback that reflects decades of work. WWF and partners have restored forests, reconnecting more than 1,000 sq km of prime tiger habitat through vital corridors. We've trained over 1,000 rangers and supported 6,000 patrols each year to curb poaching and protect the cat's prey.

Communities are also part of this success, with early warning systems to support coexistence, and education initiatives to inspire future conservation champions. These cubs represent the future – a new generation that could repopulate landscapes from which tigers have been absent for decades.

© NCTLNP

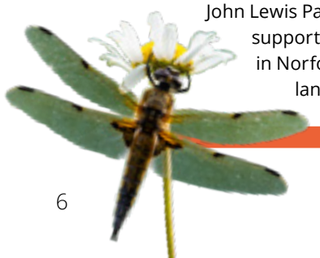
> "THE POPULATION HAS GROWN FROM 20 TO AROUND 70 TIGERS"

Above: You can watch rare footage of the four (top) and five (above) tiger cubs here:

NEWS IN **BRIEF**

Pond *life*

Working with Norfolk Rivers Trust and Norfolk Ponds Project, we've opened up overgrown ponds in the county to let in more sunlight and removed years of dead leaves to improve water quality. The results are amazing – plants have grown back from dormant seeds, and insects, amphibians and birds are returning. As well as providing vital habitats for wildlife, healthy ponds store carbon and reduce flood risk. We're grateful to the John Lewis Partnership for supporting our work in Norfolk's farming landscapes.



From class *to court*

Countries have a duty to protect the climate as well as people and nature affected by climate change, according to the International Court of Justice in The Hague. They can also be held accountable if they don't. This landmark opinion, given last July, is the result of a legal journey that began with law students in Fiji in 2019. Their class project on climate justice grew into a campaign to ask the court to clarify states' obligations to protect the climate. WWF was among groups supporting the campaign, using our scientific expertise to argue that nature and climate should be equally protected.

Koala *comeback*

Australian wildlife is recovering from devastating bushfires, thanks to your support. Wildfires destroyed over 126,000 sq km of forest and bushland – that's more than half the size of the UK – in 2019-20, with catastrophic impacts on wildlife. An emergency appeal led by WWF-Australia raised over AU$51m (almost £25m), including £2.6m from WWF supporters in the UK. This has funded more than 250 projects to help nature and wildlife recover.

A highlight is the new 4,760 sq km Great Koala National Park – a haven for koalas, glossy black cockatoos and other threatened species.

© Joseph Gray / WWF-UK | © Getty

Supporting sustainable palm oil

By tracing palm oil back to where it's grown, we can ensure products we buy aren't driving deforestation. Under proposed UK regulations, traceable and sustainably produced palm oil is becoming a legal requirement. But proving its origins can be hard for small-scale producers. Supported by our partners Reckitt and HSBC, and other funders, WWF-Indonesia is helping smallholders use the Hamurni traceability app.

More than 3,600 users have traced over 20,000 tonnes of fruit through Hamurni, boosting market access and improving plantation management. The app can also help ease workloads for women in palm oil production by giving access to labour-saving technologies.

© WWF-Indonesia

Right: The Hamurni traceability app is transforming the palm oil industry in Indonesia by empowering smallholder farmers, especially women

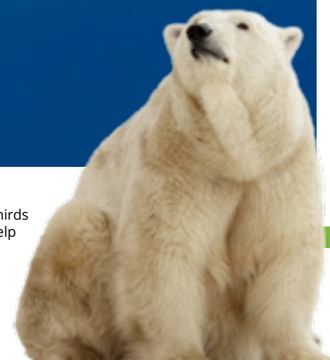
Above: The High Seas Treaty will help protect marine biodiversity in international waters, covering nearly two-thirds of the ocean. It will strengthen conservation efforts and help safeguard migratory routes and some Arctic habitats

Marine milestone

The new High Seas Treaty came into force in January, offering greater protection for about two-thirds of the ocean outside national jurisdiction. Last September, Morocco became the 60th country to ratify the treaty – the number needed for it to enter into force.

Two decades in the making, the deal will enable the creation of marine protected and conserved areas in international waters. These are vital for safeguarding ocean wildlife from threats such as overfishing and pollution, and for meeting the global goal of protecting 30% of the ocean by 2030.

We're developing proposals for governments to create high seas marine protected areas, including in the Arctic Ocean's Last Ice Area. This is vital for Arctic communities, polar bears and other species that rely on the ice. The treaty could also help protect 'blue corridors' – migratory routes used by whales, sharks, turtles and many other species.



© Judith van de Grindt / WWF | © Getty

Asian elephants once roamed across most of Asia. Now they're restricted to just around 5% of their original range, in a number of fragmented and isolated populations in south and south-east Asia and southern China

MEMBERSHIP IN ACTION

READ TIME 15 MINS

The last great *wanderers*

Asia's elephants stand at a crossroads. With your support, we're helping to protect their last wild strongholds and build a future where these amazing animals and people can thrive together

Size matters. Take *Elephas maximus*. The clue's in the name: the Asian elephant is the largest land animal on its continent. Standing over three metres tall and weighing more than five tonnes, this mighty mammal does everything on a mammoth scale. To fuel that bulk, it consumes about 150kg of vegetation daily – much of which comes out the other end, producing up to 100kg of dung.

Its activities also have outsized impacts on its habitat. By moving through undergrowth, elephants forge paths for other animals and open clearings where new plants can grow. Their nutrient-rich droppings fertilise soil and disperse seeds, earning them the nickname 'gardeners of the forest'.

But one thing about the species is alarmingly small: its population. The Asian elephant is endangered, with fewer than 50,000 left in the wild – a number that's estimated to have halved over the past century. Today, it survives in fragmented pockets across 13 countries in south and south-east Asia and southern China. Its historical range once stretched as far west as the Persian Gulf; now it occupies around 5% of that territory.

The causes of this decline are complex. In densely populated regions, habitat loss and fragmentation are driven by logging, agriculture and expanding settlements. Increasingly isolated populations face genetic bottlenecks and local extinctions. As human communities expand into elephant habitat, contact sparks conflict – and fatalities on both sides.

Though Asian elephants' tusks are smaller than those of their African cousins, and are found almost exclusively on males (some females have small tusks called 'tushes'), they still attract poachers seeking ivory. They're also targeted for their meat, skin, tails and hair. Climate change adds more pressure: average temperatures in south-east Asia could rise by up to 3.8°C in the next 30 to 40 years, triggering droughts, water shortages and more frequent natural disasters. In Myanmar, elephants already suffer heat stress.

COMMUNITY SUPPORT

We've long worked across the region to address these threats. In 2023, we launched the Asian Elephant Alliance – nicknamed Elly Allies – focusing on south-east Asia and China. Here, only 8,000-11,000 elephants remain in countries including Cambodia, Indonesia, Laos, Malaysia, Myanmar, Thailand and Vietnam. The initiative aims to reduce human-elephant conflict, curb habitat loss and fragmentation, and better understand and restore elephant populations, ensuring their numbers have stabilised by 2030.

One key focus is Sabah, Malaysia's easternmost state, home to most of Borneo's wild elephants – a population of around 1,000. Their range here has shrunk by at least 60% in the past four decades, with much of their ▶

Words: Paul Bloomfield. Images: © Alamy | © Getty

Below: Tesso Nilo National Park in Riau, Indonesia, is home to one of Sumatra's last wild populations of Asian elephants. Around 60-80 individuals live in this fragmented rainforest, facing intense pressure

forest converted for logging or agriculture, particularly oil-palm plantations.

"Wild elephants often come into conflict with people, especially near forest reserves," says Cheryl Cheah, project lead for our Sabah Landscapes programme. "In plantations and nearby communities, people can be harmed – sometimes fatally."

We're supporting a range of strategies to reduce the risks. "Large plantations can install electric fences, which are effective but harmless barriers to elephants," Cheryl explains. "But small communities often lack the resources. So we've supported a project installing low-cost fences with tripwire alarm systems: if an elephant touches a nylon line, it triggers a siren to alert the landowner. We've also helped set up a community ranger team to help drive elephants away from crops."

Scientific data helps target these efforts. Since 2013, we've gathered information on elephant movements from Sabah Wildlife Department and satellite-collared dozens of individuals. "This gives us insights into their preferred habitats and peak activity times," Cheryl says. "It helps us identify critical areas that need protection, focus our protection measures and plan the location of wildlife corridors.

"To tackle human-elephant conflict at a landscape level, we bring together plantation companies, government district officers and wildlife and forestry departments," she adds. "Together, we coordinate electric-fence installations in plantations, which reduce elephant incursions into community zones."

> "THANKS TO OUR EFFORTS, CONFLICTS HAVE DECLINED SIGNIFICANTLY AND CROP DAMAGE HAS FALLEN BY 90%"

Above: A wild Bornean elephant navigates an oil-palm plantation, where we're working to restore and reconnect the forest

Right: WWF's Cheryl Cheah focuses on reducing human-elephant conflict and restoring fragmented habitats

Since 2012, we've also partnered with Sabah Softwoods Berhad – a company that manages timber and oil-palm plantations – to establish and restore a 1,067-hectare (ha) wildlife corridor linking fragmented forest to a larger forested area. "We've planted natural vegetation including fruiting trees," Cheryl explains. "This benefits not just elephants, but also orangutans, sun bears and birds. The company is even planting grass specifically for elephants, recognising the potential for ecotourism."

Thanks to these and other efforts, conflicts have declined significantly and crop damage has fallen by around 90%. "In areas where plantations and communities are willing to coexist, elephants are having more young than in areas where people remain antagonistic," Cheryl says.

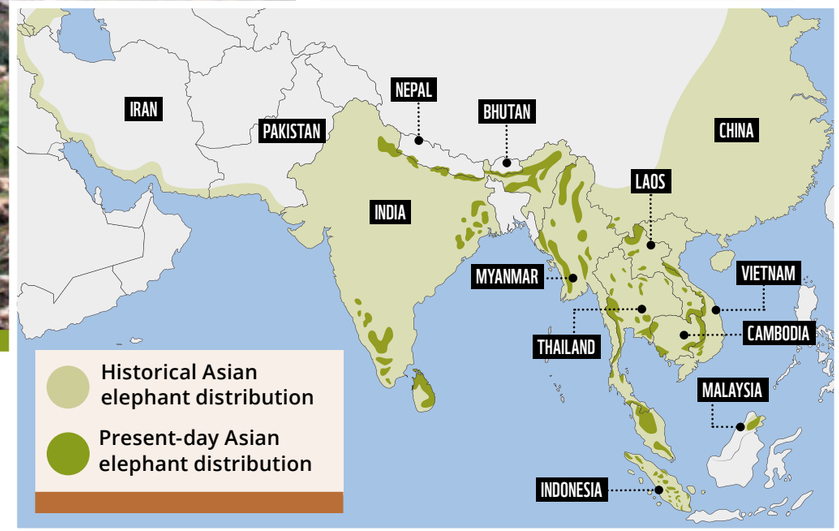
SAFE CROSSINGS

Infrastructure development, particularly roads, can divide critical habitats and pose serious risks to elephant populations. "We advocate for sustainable road design to reduce the risk of vehicle collisions," says Cheryl. "Using data from collared elephants and from wildlife surveys, we identify areas where detection systems and wildlife-friendly structures such as viaducts or overpasses could allow wildlife to safely cross large roads."

With climate impacts accelerating, we're helping shape plans for transboundary wildlife corridors between Malaysia and Kalimantan, Indonesia's share of Borneo. "Over the coming decades, climate models will predict which habitats are vulnerable to climate change impacts," explains Cheryl. "Because elephants are so large and need reliable access to substantial supplies of fresh water, we expect they'll need to move into cooler forests at higher altitudes. ▶

A shrinking *home*

Historically, the smaller Asian elephant roamed across vast swathes of southern and south-east Asia – from what's now Iraq and the Persian Gulf in the west, to Borneo and Sumatra in the east. Even in the early 20th century, it's likely the population exceeded 100,000. Today, fewer than half that number survive in the wild, confined to just 5% of their original range. Most are found in India, with only 16-20% (around 8,000-11,000) living in fragmented populations in southern China and seven south-east Asian countries: Cambodia, Indonesia, Laos, Malaysia, Myanmar, Thailand and Vietnam. In Myanmar, elephant numbers have dropped by up to 80% since the 1940s, from 10,000 to around 2,000. In Sumatra, the wild population may be fewer than 1,360.



Map data: IUCN/SSC AsESG, WCS, WWF 2020 | Map illustration: Julia Young
Images: © WWF-Indonesia | © Chris J Ratcliffe / WWF-UK

Above: Camera traps monitor elephants in Thailand's Kui Buri National Park. Once pineapple fields, the area is now a haven for elephants after we worked with communities to create watering holes and plant grasses

Above: This wild Sumatran elephant was translocated from villagers' plantations in Lampung, Indonesia. It was fitted with a satellite collar so that its movements can be tracked in future

Above: The Gerik–Jeli highway cuts through a vital wildlife corridor in Malaysia. In 2015, a 200m viaduct was built to help wildlife such as elephants cross safely. We're advocating for more of these crossings in Sabah

"IN AREAS WHERE PLANTATIONS AND COMMUNITIES COEXIST, ELEPHANTS ARE HAVING MORE YOUNG"

Left: Planting saplings is helping restore land set aside for a wildlife corridor on Sabah Softwoods Berhad's oil-palm plantation

Main: We believe that coexistence – for wild Asian elephant families and communities – is possible, so long as certain safeguards are put in place

So we're working with plantations, communities and authorities to ensure these climate refuges are protected."

The challenges faced by Asian elephants are widespread across south-east Asia. In Myanmar, for example, wild populations have plummeted by an estimated 80% since 1940 – it's likely that fewer than 2,000 elephants remain. Since 2016, with your support, we've focused on priority landscapes to tackle the drivers of this decline: poaching, habitat loss and conflict with people.

As in Sabah, efforts include monitoring elephants and their movements using collars and camera traps, combating poaching, and training local community response teams to help move elephants away from crops.

Crucially, we're tailoring our approach to each location for impact. After elephants damaged crops and homes in Ngapudaw, a township in Myanmar's Ayeyarwady Delta, we worked with the community to establish grasslands, saltlicks and check dams (low barriers that slow water flow). This created habitats with food, water and minerals for wild herds, far from homes and fields. Elsewhere, we've supported installing solar-powered lights to deter nocturnal elephant intrusions and helped build solar-powered electric fences.

CORRIDOR OF LIFE

The Indonesian island of Sumatra is home to a critically endangered subspecies: the Sumatran elephant. Numbers have declined by around 60% in just two decades. The wild population is now estimated at no more than 1,360.

It's under pressure from unsustainable logging, poaching, forest fires and the conversion of forests into farmland and commercial plantations. Sumatra has lost well over half of its forests since 1985, though deforestation rates in Indonesia have slowed in recent years. As their natural habitat disappears, elephants run up against communities, sometimes damaging crops and homes – and face injury or death from homemade electric fences, poison or snares.

With the support of the British and Indonesian governments and local partners, we're starting a new project in the Peusangan landscape of Aceh province. The Peusangan corridor – a 57,000ha refuge for elephants in northern Sumatra – is the focus of a new initiative to secure habitat and support communities to reduce conflict with wild herds. We're working with forestry company PT Tusam Hutani Lestari to restore degraded forest and dedicate 20,000ha within its concession as a safe haven for elephants.

At the same time, we're supporting nearby communities to use early warning systems, fences and monitoring tools. We're also helping boost local incomes by developing livelihoods that reduce conflict with elephants. These include agroforestry and coffee growing, along with training to improve yields and productivity.

Together, these efforts can help protect and reconnect habitats, reduce conflict, and build a landscape where elephants and people can live safely side by side. With your help, we can achieve great things for these forest giants. ■

Will you be an *elly ally?*

Your support could help create safe havens for Asian elephants, improve coexistence with people and boost sustainable livelihoods.

£20 could help plant trees and grass seeds to restore elephant habitats and create wildlife corridors

£30 could go towards solar-powered electric fences that keep elephants away from crops and reduce the damage caused

£50 could help create check dams and elephant saltlicks, providing essential water and minerals

£100 could support training for smallholder farmers in agroforestry and coffee growing, helping them improve their productivity

You can donate using the enclosed freepost envelope or by scanning this QR code

Donate today at **wwf.org.uk/elly-allies**

YOU HELPED

READ TIME 10 MINS

The truth *about* penguins

From satellite sleuthing to the stench of guano, British Antarctic Survey scientist Peter Fretwell shares the sights, sounds and surprises of his life among penguins

1. *Vital science*

Penguins are extraordinary birds, yet they face mounting threats from habitat loss, overfishing, invasive species and climate change. They're one of the most threatened bird families on Earth. To help protect these charismatic creatures, vital science and conservation efforts are under way in Antarctica and across the globe. My own journey began when I accidentally discovered that emperor penguin colonies could be seen from space via satellite imagery. Fifteen years on, I've discovered the location of over half the world's emperor colonies. I've also conducted critical monitoring and fieldwork to understand where they breed, forage and moult. Today, my focus is on how emperors – and other penguin species – are coping with a rapidly changing Antarctic environment.

2. *Penguin cities*

Working with penguins is endlessly fascinating. They're remarkable creatures with unique adaptations and abilities. On top of that, they're beautiful – and often very curious. Working with them is deeply rewarding and memorable. Many of my experiences have been in the Antarctic, where colonies of Adélie, chinstrap, emperor and gentoo penguins crowd the icy coastline. Adélie and chinstrap colonies can be vast, sometimes hundreds of thousands strong. They're bustling metropolises of life, often hosting a mix of penguin species, seabirds like blue-eyed shags and gulls, and aerial scavengers and predators such as sheathbills, skuas and giant petrels, which prey on penguin chicks.

One of the largest colonies I've visited is the Adélie colony on Paulet Island, an extinct volcano in the Weddell Sea. If you go there, it feels as though every inch of the island is covered in penguins. The old crater is ringed with nests, but it's only when you crest the rim and see the coastal plain – where nesting penguins stretch as far as the eye can see – that you grasp the true scale of it. The sight is breathtaking – though the acrid stench of guano (poo) from 300,000 penguins is unforgettable in its own way!

3. *Punks and poison gas*

I've recently been working on images from Zavadovski Island, a small volcano in the remote South Sandwich archipelago, in the middle of the South Atlantic. It's home to the world's largest penguin colony – over a million nesting birds, a mix of chinstraps with their smart black-and-white plumage (above), and macaroni penguins (above right) sporting yellow, punk-like crests. The island spans roughly 4km and is densely packed with nests right up to the volcano's slopes. But unlike Paulet, this volcano is active. Noxious gases from volcanic vents and cracks in the ground – combined with a million penguins – make it one of the smelliest places on Earth.

4. *Finding their voice*

Much of my work focuses on emperor penguins. In November 2024 I visited the colony at Snow Hill Island in the Weddell Sea – one of the species' few accessible breeding sites. I've been there four times and each visit is thrilling. The adults stand over a metre tall and constantly travel back and forth to the ice edge, foraging for their chicks. They have a slow, ponderous, rocking gait.

The chicks are impossibly cute bundles of fluff, constantly calling for food with a high-pitched, melodious song. Each chick has a unique call – it's how adults find their offspring in a colony that's always moving around. The sweet, fluting calls of the chicks, interspersed with the booming baritone trumpeting of the adults, creates a soundscape that's astonishing and evocative.

5. *Feathers and fellowship*

Emperors breed during the Antarctic winter and have some amazing adaptations to deal with the freezing cold and hurricane-force winds of the polar night. Their unique feathers provide 90% of their insulation against the weather. This complex plumage includes around 18 different types of feathers: some for insulation, some for waterproofing, and others to give shape to their flippers and heads. But when temperatures plunge, the birds huddle, gathering together to withstand blizzards and snowstorms. Each huddle can contain over 1,000 penguins, packed tightly, heads down, to keep out the wind. Outside, it might be -50°C, but at the centre of the huddle, temperatures can reach over 30°C.

6. *The long wait*

Penguin breeding strategies can be wonderfully strange. Perhaps the oddest belongs to the king penguin, which nests on remote Southern Ocean islands. It follows an asynchronous cycle, raising two chicks every three years. Eggs hatch in summer, but the poor chicks can't reach fledging age before winter sets in, so the adults feed them up – then leave them to face the cold alone. The chicks stand in the snow, forlorn and starving, for months on end. In spring, the adults return and, if the chick has survived, it will have lost nearly half its bodyweight. Then the race is on to gain weight and fledge into their adult plumage before the next winter. It seems like a crazy strategy but it works – king penguins are among the few species thriving in today's changing climate.

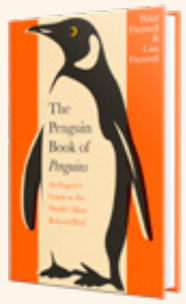
7. *Edge of survival*

My recent work uses satellite imagery to track how emperor penguins are coping with warming seas around Antarctica. The signs are troubling. Emperors rely on sea ice for nearly every stage of their annual breeding cycle – and as the ocean warms, that ice is vanishing. They depend on it as a stable platform to moult, breed and raise their chicks. But sea ice break-up is forcing chicks into freezing water before their feathers are waterproof, and immersing adults before they've finished their moult.

This problem has only emerged in the last few years, and we're still working to understand its full impact. What's urgently needed is to halt the warming of the Southern Ocean – a crisis driven by global climate change. And climate change is caused primarily by burning fossil fuels, a responsibility we all share. Emperor penguins are among the first to suffer in a warming world, but they won't be the last. If we can't save one of our most iconic and beloved birds, what hope remains for other species?

WIN *the book*

The Penguin Book of Penguins, An Expert's Guide to the World's Most Beloved Bird, by Peter Fretwell and Lisa Fretwell, published by Penguin (RRP £14.99) is out now. For your chance to win one of four copies, see the 'How to enter' box on page 30.



Leap of faith

As sea ice declines in Antarctica, emperor penguins might be forced to breed on towering ice shelves instead.

In this image from Wildlife Photographer of the Year 2025, Bertie Gregory reveals the story of one such colony, where chicks faced a 15m drop to reach the ocean. With no parental guidance and having missed the route offering a more gradual ice ramp, they leapt – one by one – into the freezing water. This temporary adaptation may become more common as climate change reshapes sea ice. Scientists have already observed breeding colonies relocating onto ice shelves, raising concerns about chick survival and population stability.

Discover more amazing wildlife photos from the competition at nhm.ac.uk/wpy

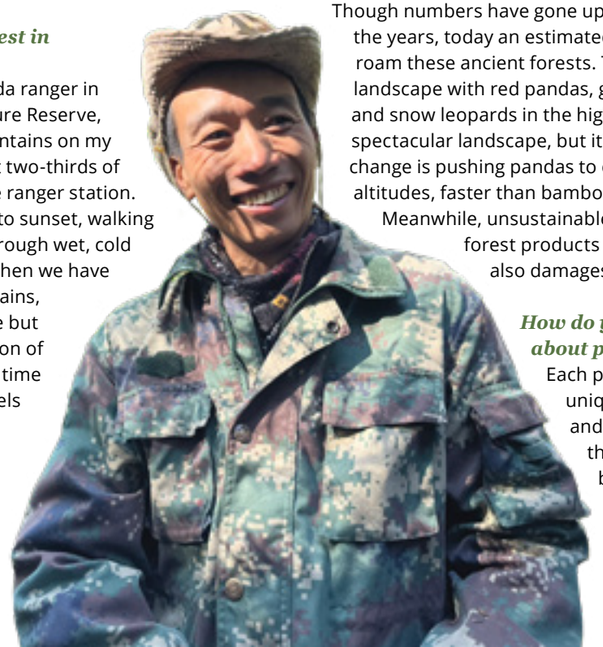
READ TIME 5 MINS

Giant panda *patrol*

Giant panda ranger **Li Xinrui** shares his life in China's mountain forests. From soaked boots to sacred trees, he explains why giving himself to nature is his greatest reward

How did your journey into conservation begin?
It began when a WWF speaker came to my school. As they talked about giant pandas, something shifted in me. Before then, I hadn't thought much about the mountains behind my village in Pingwu county in Sichuan, but I realised they were home to pandas and other interesting things. That talk planted a seed in my heart. I started learning more and won a national essay award on panda conservation. It was the beginning of a close relationship with nature.

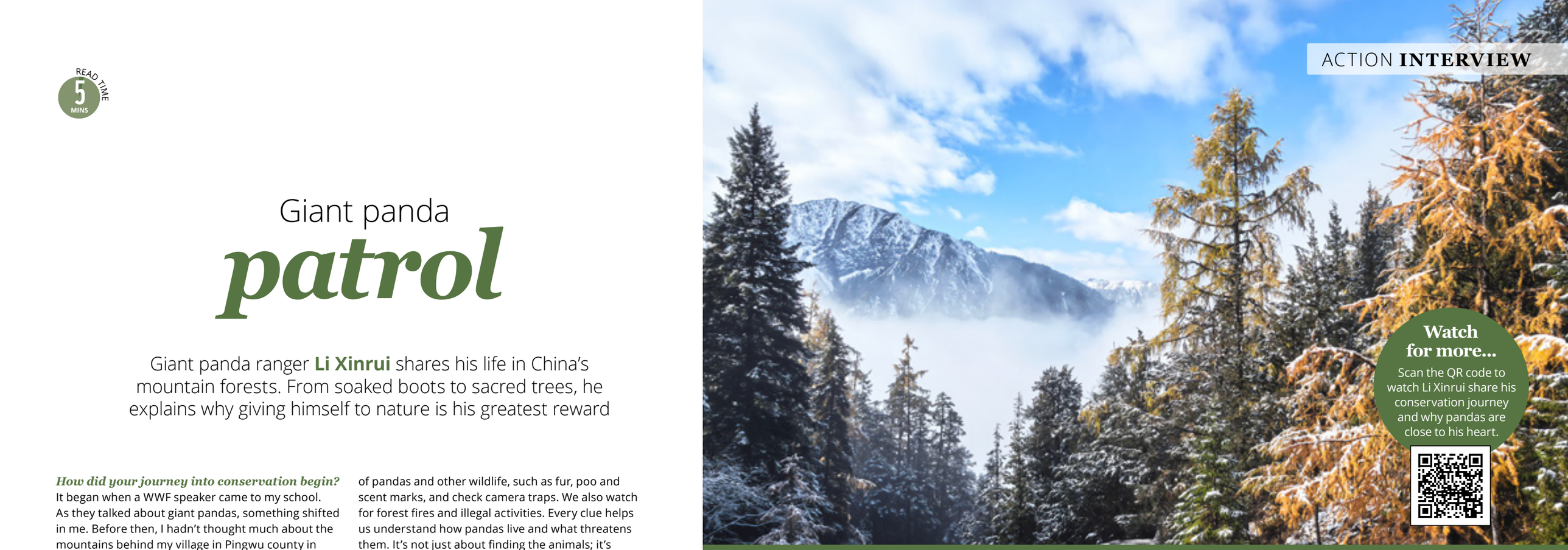
Where did your interest in nature lead you?
Now I'm a full-time panda ranger in Wanglang National Nature Reserve, which includes the mountains on my doorstep. I spend about two-thirds of each month living at the ranger station. We patrol from sunrise to sunset, walking dozens of kilometres through wet, cold forest. It's hard work. When we have to cross the high mountains, our bodies may struggle but our spirits soar. I am a son of these mountains. Every time I climb a mountain, it feels like coming home.



What do you look for on patrol?
We search for signs of pandas and other wildlife, such as fur, poo and scent marks, and check camera traps. We also watch for forest fires and illegal activities. Every clue helps us understand how pandas live and what threatens them. It's not just about finding the animals; it's about reading the forest like a book. Each patrol is a new chapter, and every detail matters in protecting this fragile ecosystem.

What's the panda population like here?
Though numbers have gone up and down over the years, today an estimated 28 individuals roam these ancient forests. They share the landscape with red pandas, golden monkeys and snow leopards in the high peaks. It's a spectacular landscape, but it's fragile. Climate change is pushing pandas to cooler, higher altitudes, faster than bamboo can follow. Meanwhile, unsustainable harvesting of forest products like mushrooms also damages their habitat.

How do you learn more about pandas?
Each panda has a unique jaw width, and they chomp their way through bamboo in one clean bite. When we find partially digested bamboo pieces, we can identify individuals and estimate the population size. We also study trees that pandas mark with scent to leave messages for rivals and mates. This helps us understand panda communication and breeding behaviour.



Watch for more...
Scan the QR code to watch Li Xinrui share his conservation journey and why pandas are close to his heart.

Above: Xinrui's work takes him to dizzying heights, trekking to the top of 5,000m peaks in the name of conservation

Right: Xinrui and his team help us to understand the local panda population and shape efforts to protect their forests

Left: Xinrui says: "Whether the world is good or not depends on our actions. Nature feeds everyone in this world. So, we all need to realise that we can take action."

What's special about Wanglang's forests?
Some of the trees here are 600 years old. Locals call the Min Jiang fir, Chinese yew and purple-coned spruce the 'three elders'. These ancient trees regulate temperature, protect watersheds and anchor biodiversity. They're more than tall – they're timeless. In their presence, I feel humbled. They remind me that we're just one part of a much longer story.

What motivates you about your work?
I need to feel like I'm living a valuable life. The forest is still writing its story. I want to help tell that story, so today I continue WWF's legacy of nature education, sharing the wonder and importance of giant pandas and their habitat with local communities. Conservation isn't just about science – it's about connection, purpose and hope.

What message do you share with others?
Earth is our home. Nature feeds everyone. Whether the world is good or not depends on our actions. People dream of Mars, but there are eight billion of us here on Earth. Protecting nature here is what truly matters. Everyone has the power to act. Conservation isn't just for scientists – it's for anyone who wants to leave the world better than they found it. ■

How to...

Amazing ideas for bringing our world back to life

LIVE GREEN TOP TIPS

Get your daily dose of nature with parkrun

With our new partnership, reconnecting with nature is a walk (or a run) in the park

Exercise + nature = better physical and mental health. That's why we teamed up with parkrun to promote nature-rich 5k trails across the charity's 850+ UK locations, as part of our Prescription for Nature campaign. We're sharing ideas on how to connect with nature during your parkruns, the benefits of prioritising time outdoors and points of interest to look out for in your local parks.

Joining a weekly Saturday morning parkrun is a great opportunity to enjoy the uplifting effects of outdoor exercise, while reconnecting with the natural world on your doorstep. Spending time in nature can do wonders for your mental health too, boosting your mood and easing stress levels. The partnership will culminate with a special themed parkrun on Earth Hour day on 28 March, where we're inviting you to 'wear it wild' – come along in animal fancy dress!

To find an event near you, jog on over to **wwf.org.uk/prescription-for-nature**

© parkrun

Running wild!

Will you be joining a nature-themed parkrun for ***Earth Hour day*** (28 March)? Send us a photo of your animal-themed fancy dress – we'll print the best! **editor@wwf.org.uk**

EXPERT INFO

Satellite tag a turtle

Marine turtles spend most of their lives at sea. Fitting them with high-tech tags helps us track their movements to protect their vital ocean habitats. Here's how we do it...

1 At night during nesting season, we search for flipper marks in the sand that tell us a gravid (pregnant) female has come ashore.

2 After the turtle has laid her eggs, we quickly and carefully secure her using a wooden box and place a cloth over her eyes to keep her calm.

3 Her shell is cleaned before we glue on the lightweight satellite tag. The process is safe and non-invasive, with tags naturally falling off after a few months.

4 Tag in place, we let the turtle return to the ocean. The tag sends data every time she surfaces to breathe, providing vital information on migration routes and feeding grounds.

Above: We recently helped fit trackers to 10 hawksbill turtles, marking a first for the species in Fiji

© Getty | © WWF-Pacific / Waka Media

Write your will *for free*

Writing your will can help you plan for the future and provide peace of mind to you and your loved ones. And by leaving a gift to WWF, you can help secure the planet's future too.

As a member of several specialist will-writing schemes, WWF can help you write or amend your will, often for free. We can put you in touch with participating solicitors locally or online who can help guide you carefully through the whole process.

There's no obligation to leave a gift to WWF – but we're hugely grateful to everyone who does.

A thriving planet is the greatest gift we can pass on to future generations. We're thankful to all our supporters who, by remembering WWF in their will, are leaving a lasting legacy for nature and the planet.

To find out more about making or updating your will for free, call **01483 412153** or email **stewardship@wwf.org.uk**

© Getty

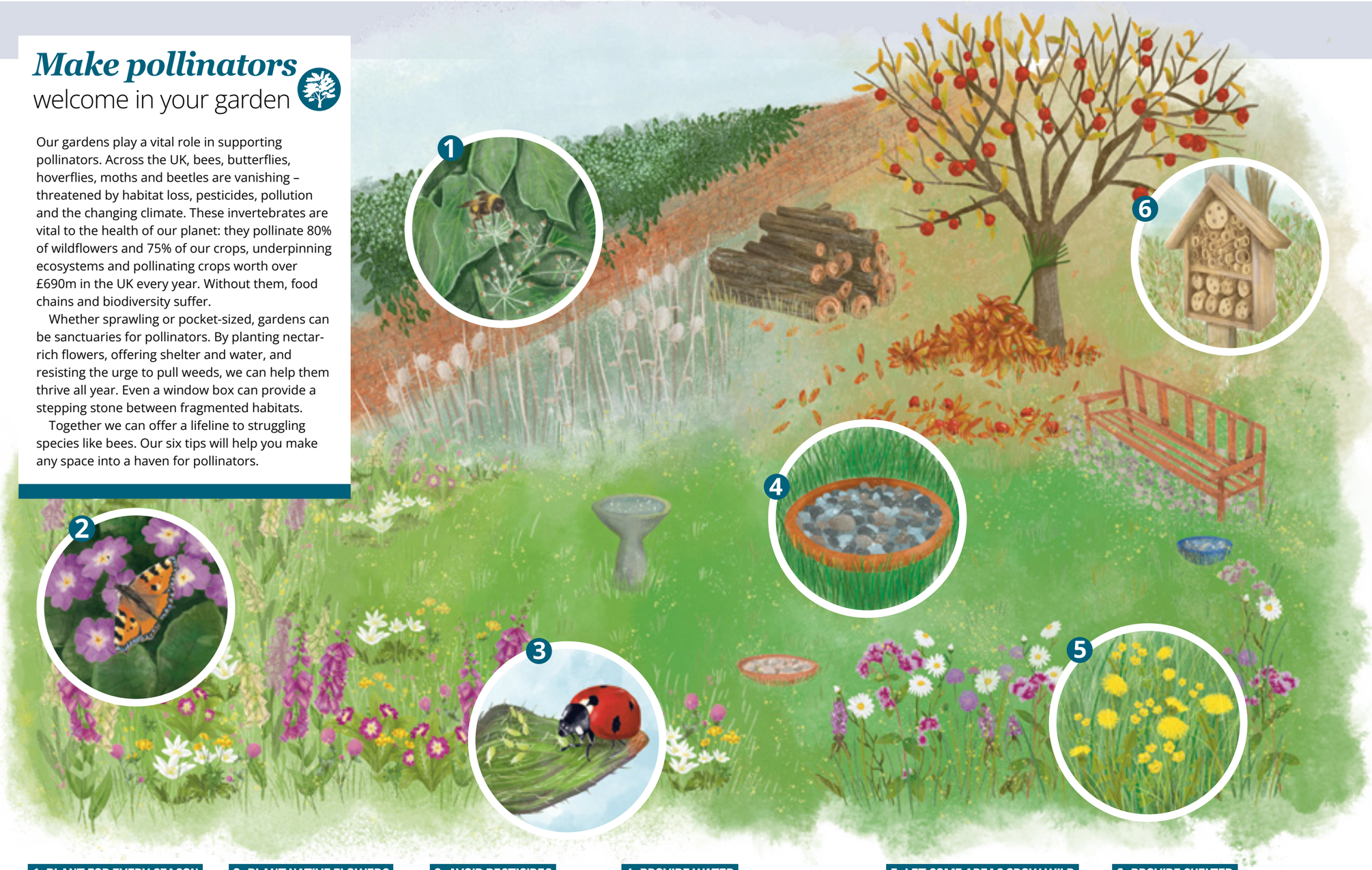
Left: Make plans for your loved ones and help safeguard our planet's future by leaving a gift to WWF in your will

Make pollinators welcome in your garden

Our gardens play a vital role in supporting pollinators. Across the UK, bees, butterflies, hoverflies, moths and beetles are vanishing – threatened by habitat loss, pesticides, pollution and the changing climate. These invertebrates are vital to the health of our planet: they pollinate 80% of wildflowers and 75% of our crops, underpinning ecosystems and pollinating crops worth over £690m in the UK every year. Without them, food chains and biodiversity suffer.

Whether sprawling or pocket-sized, gardens can be sanctuaries for pollinators. By planting nectar-rich flowers, offering shelter and water, and resisting the urge to pull weeds, we can help them thrive all year. Even a window box can provide a stepping stone between fragmented habitats.

Together we can offer a lifeline to struggling species like bees. Our six tips will help you make any space into a haven for pollinators.



1. PLANT FOR EVERY SEASON

To provide pollinator food all year round, try to grow plants that bloom from early spring through to winter. In the autumn, ivy flowers offer vital nectar before winter sets in.

2. PLANT NATIVE FLOWERS

Native flowers provide the right nectar at the right time for native insects. The densely packed petals of some exotic blooms make it hard for pollinators to reach the nectar.

3. AVOID PESTICIDES

Pesticides harm pollinators directly and indirectly. Use natural pest control methods like companion planting, picking off pests by hand or encouraging predators.

4. PROVIDE WATER

Pollinators need water to cool down and stay hydrated. Offer shallow dishes of water filled with pebbles or create damp margins around ponds that give insects safe access.

5. LET SOME AREAS GROW WILD

Unmown patches, long grass and flowering weeds create rich, layered microhabitats. Plants like red clover and dandelions provide essential food and shelter for pollinators.

6. PROVIDE SHELTER

Install bee hotels (see prize giveaway on page 30) for solitary species like mason bees. Leave hollow stems, dead wood and untidy corners in your garden as shelter for overwintering insects.

Pollinator ID guide

Buff-tailed bumblebee

This important pollinator is active February to September, nests in the ground and visits flowers like clover.

Marmalade hoverfly

Striped like a tiny wasp, this harmless and agile insect pollinates ox-eye daisies. Its larvae help gardeners by feasting on aphids.

Peacock butterfly

This butterfly sips nectar from flowers like betony and knapweed from spring to autumn, while its caterpillars feed on nettles.

Red mason bee

These early emergers nest in hollow stems or bee hotels and pollinate fruit trees such as apples and cherries.

Small tortoiseshell butterfly

This butterfly loves flowers including scabious, sedum and dandelions. Its caterpillars feed on nettles growing in sunny patches.

Rose chafer

This metallic green beetle eats the pollen of elder and roses. Its larvae recycle decaying wood underground.

Garden and species illustrations: Esther Curtis

READ TIME 10 MINS

The high life

An impressive new survey of the high Himalayas in India has caught some unexpected cats on camera

A year-long camera-trapping survey in the eastern Himalayas has smashed altitude records for some of the world's most elusive cat species. Four of the six caught on camera in India's Mago Chu valley were spotted living higher than ever in this area: the leopard, leopard cat, clouded leopard and marbled cat. And Pallas's cats were a new species for Arunachal Pradesh, a state the size of Scotland.

The findings add weight to the case for prioritising this area of the Himalayas, a part of India wedged between Tibet, Bhutan and Myanmar, as a global diversity hotspot. It's one of the most wildlife-rich, yet least studied places on the planet.

A team from WWF-India carried out the survey, which was funded by the UK government's Darwin Initiative. It forms part of our Reviving Trans-Himalayan Rangelands project, which aims to bring together sustainable, community-led initiatives with protection and restoration of an alpine ecosystem that's around 4,000-5,500 metres above sea level.

In a remote and sparsely populated landscape, the team managed to set 136 camera traps in 83 locations. Conditions were challenging, with the rocky terrain often cloaked in ice and snow. By the end of July 2025, the cameras had snapped 31 species of wildlife, including some rarities and a new species for the state. The grey-headed flying squirrel flew higher than ever known, while the Himalayan wood owl hooted at new heights.

The cameras recorded wildlife around the valley of the Brokpa herding communities: small groups who guide their livestock around traditional grazing sites in the alpine meadows. And the footage provides clear evidence of human-wildlife conflict: a snow leopard entangled in wire, and feral dogs harrying flocks of blue sheep and killing a marmot.

All this recorded material will be crucial in long-term planning for conserving this incredible place, for both people and wildlife. ▶

Vanishing heights

Climate change is predicted to shrink the snow leopard's habitat by up to a third in parts of its range, so this easternmost stretch of the Himalayas is becoming increasingly crucial. A camera-trap project, run alongside a survey of the cats' ungulate prey (hoofed grazers such as blue sheep, musk deer and Himalayan gorals), is revealing vital insights into the species' range and distribution. And some surprising behaviour. Though famed for their shyness, snow leopards were seen scent-marking the same spot as a common leopard – a striking sign that these closely related species can coexist in this fragile alpine landscape.

Remote reconnaissance

The survey team relies on tracking skills during trips to find animal pathways, and speaks with knowledgeable locals. Then mountaineering skills come into play. Often using ropes, crampons and ice axes, they climb snowbound slopes and loose scree to reach clifftops, ridges and high-altitude passes. Setting up survey cameras across such challenging terrain requires every team member to be physically fit and fully acclimatised to the conditions.

Cold capture

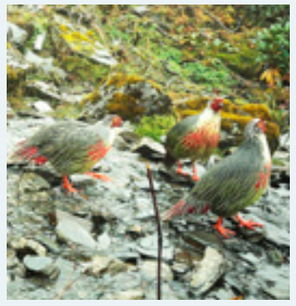
Every three or four months, the team returns to check the cameras, gathering around to scan the images. Each device runs on lithium batteries – known for their durability in sub-zero temperatures – and is fitted with high-capacity memory cards. During each check, they make sure the camera is working, replace batteries, retrieve memory cards and – if all goes to plan – download images. They also make sure the camera is still facing in the right direction.

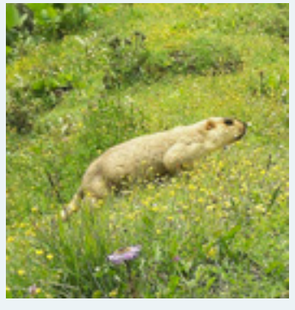
Glacial passage

Wilderness doesn't come much wilder than this. In the high-altitude valleys of Mago Chu, bridges are few and far between, so streams and rivers must be crossed on foot – even when in full flow. The glacial waters are often ice-cold. Horses and mules serve as vital, sure-footed porters, carrying precious cargo. Their saddlebags are packed with camera gear, batteries and provisions – the kind of equipment that must stay secure and dry.

Cold air, warm heart

This close-up 'selfie' reveals the snow leopard's enlarged nasal cavity – a vital adaptation that warms icy air before it enters the cat's lungs, helping it survive in sub-zero conditions.





Alpine cast

Clockwise from top left: yellow-throated martens are diurnal omnivores that often hunt in pairs. Blood pheasants were one of four upland-dwelling pheasant species recorded by the camera traps. Nyingchi alpine toads, found only in the Himalayas, eke out a living along cold mountain streams. Himalayan marmots live in groups in burrows and hibernate for seven months of the year.

Grassland guardians

Herds of yak and sheep are under the care of the region's Brokpa communities (the name means 'highlander'). But these shared pasturelands face overgrazing, as herders seek to maximise their meagre earnings from yak and sheep's wool. Our project aims to support these stewards of the landscape to enhance their income through sustainable practices that protect both culture and ecology.

Grace under pressure

Despite its name, the curly-horned 'blue sheep' (or bharal) is more closely related to goats. Its dense coat often carries a blue-grey tinge, offering perfect camouflage on rocky slopes. This nimble, sure-footed grazer is built for altitude – and it needs to be. It's also a snow leopard's favourite prey.

Highland hunter

With its dense orange-grey fur, short legs and impressive set of Victorian grandfather whiskers, a Pallas's cat is unmistakable. It's said to yelp like a dog, but as a notoriously secretive species, few people get close enough to find out. This camera-trap image marks the first confirmed sighting in Arunachal Pradesh. Here, marmots are likely to be its main prey, making this high-altitude habitat a promising hunting ground.

Pushing the limits

Even the most widespread wild cat is pushing boundaries upwards here. In this Himalayan valley, a leopard was recorded at 4,260 metres – the highest elevation recorded in Nepal. A supremely adaptable nocturnal hunter, it will stalk anything from marmots to blue sheep and is able to get as close as two metres from its prey before its presence is detected.

Win! *A special-edition Beevive backpack*

Bee ready for adventure!

Inspired by an encounter with a tired bee and a mission to help it recover, Devon-based company Beevive was born. Its flagship Bee Revival Kit offers an on-the-go solution to perk up exhausted bees and help them pollinate our planet. Since then, Beevive has created a buzz with its eco-friendly products and we're proud to be partnering with the company on the WWF x Beevive Adventure Backpacks (from £35).

Made entirely from recycled plastic bottles, these robust backpacks are perfect for any outdoor adventure. Even better, we have one to give away! Choose between a roll-top (khaki, grey or black) or the 15-litre style (in blue, yellow or grey). Whichever you pick, you'll be helping reduce waste that might otherwise end up in our oceans.

For your chance to win, see the 'How to enter' box below.

Win! *Walk with giants*

Witness elephants as you've never seen them before

Experience a breathtaking tribute to African elephants in *Walk The Earth.* Featuring over 110 photographs by Federico Veronesi, this spectacular book captures the majesty, vulnerability and quiet resilience of tuskers across Amboseli, Mana Pools and beyond. Veronesi's evocative portraits and personal reflections reveal intimate moments in wild landscapes – from matriarchs on the move to bulls beneath vast skies. We've got three copies to give away (RRP £45), courtesy of Prestel. For your chance to own this celebration of nature's grandeur and fragility, see the 'How to enter' box (right) for details.

New in the shop!

Attract pollinators and give exhausted bees a boost with the **Beevive x WWF-UK Bee Revival Kit Gift Box (£22).**

Welcome solitary bees into your garden and experience their pollinating powers with this **DIY Bee Hotel Kit (£25).**

Find more great gifts online:
wwf.org.uk/shop

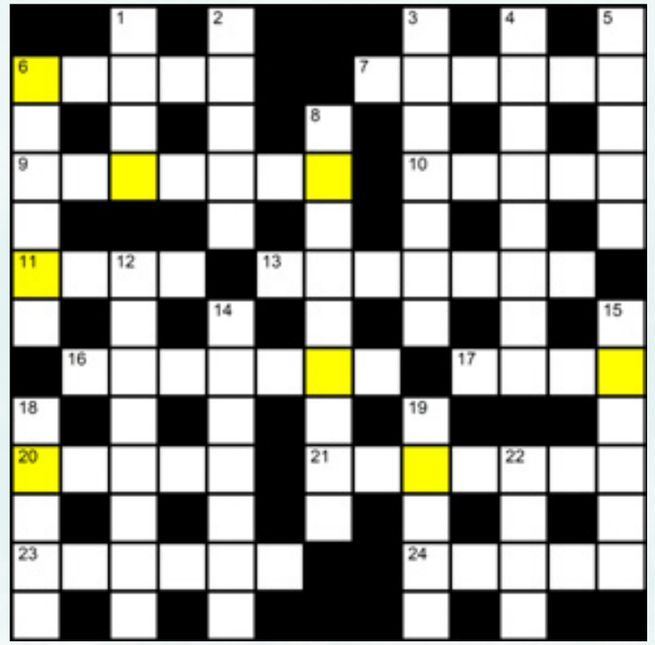
How to enter
Action giveaways

Email us with your name, address and phone number, with 'Beevive', 'Elephants' or 'Penguins' as the subject: **competition@wwf.org.uk**

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

Closing date: Friday 20 March 2026. For full terms and conditions, visit: **wwf.org.uk/compterms**

Crossword



WWF ACTION CROSSWORD 62: Spring 2026 issue. Compiled by Aleric Linden

Solve our crossword and you could win a copy of Renaturing: Small Ways to Wild the World, by James Canton *(Canongate Books, RRP £18.99)*

Clues across

6 _ Pole, important geographic point in Antarctica (5)
7 _ transport, a more eco-friendly alternative to individual car use (6)
9 Fiji and Polynesia are in this region (7)
10 A commonly recycled print medium (5)
11 Atmospheric blur created by smog (4)
13 _ gas, methane-based fossil fuel (7)
16 Antarctic icon – largest of all the penguin species (7)
17 Four _ petrol, fuel that was replaced by unleaded (4)
20 A steep slope formed from erosion or faulting (5)
21 Large frozen masses, key indicators of climate change (3,4)
23 Prince _ Island, Canadian province nicknamed "Garden of the Gulf" (6)
24 Flightless birds hunted to extinction centuries ago on Mauritius (5)

Clues down

1 Natural sand habitat, often wind-formed (4)
2 Giant panda country – also home to a few hundred Asian elephants (5)
3 _ dioxide, pollutant released by volcanic activity and the burning of fossil fuels (7)
4 Asian creature – Asia's biggest land mammal (8)
5 An oak forest favourite for many an autumn forager (5)
6 Slow-moving arboreal rainforest inhabitants (6)
8 Ecologically rich region at the southern tip of South America (9)
12 Victoria Falls are located between Zambia and which other country? (8)
14 Amur _ , critically endangered wild cat (7)
15 Climate _ , an urgent global environmental issue (6)
18 The burnt remnants of trees savaged by fire (5)
19 Groups of elephants (5)
22 Global disease caused by HIV (4)

After solving the crossword, take each letter from the shaded squares (going from left to right and top to bottom) to spell the **prize word**. To be in with a **chance to win**, just send a postcard with the prize word to the address on this page, or email it to **competition@wwf.org.uk The closing date is Friday 20 March 2026.**

Autumn 2025 answers

Prize word: TREES
Across 1. Plant 7. Snow 8. Artificial 9. Ears 10. Skin 11. Buck 12. Grey 14. Bogs 15. Blue 17. Paws 19. Asia 21. Black rhino 22. Lake 23. Pests

Down 1. Parks 2. Acidity 3. Tail 4. Isles 5. Roaring 6. Bicycle 11. Belugas 13. Russian 14. Beaches 16. Label 18. Sands 20. Skip

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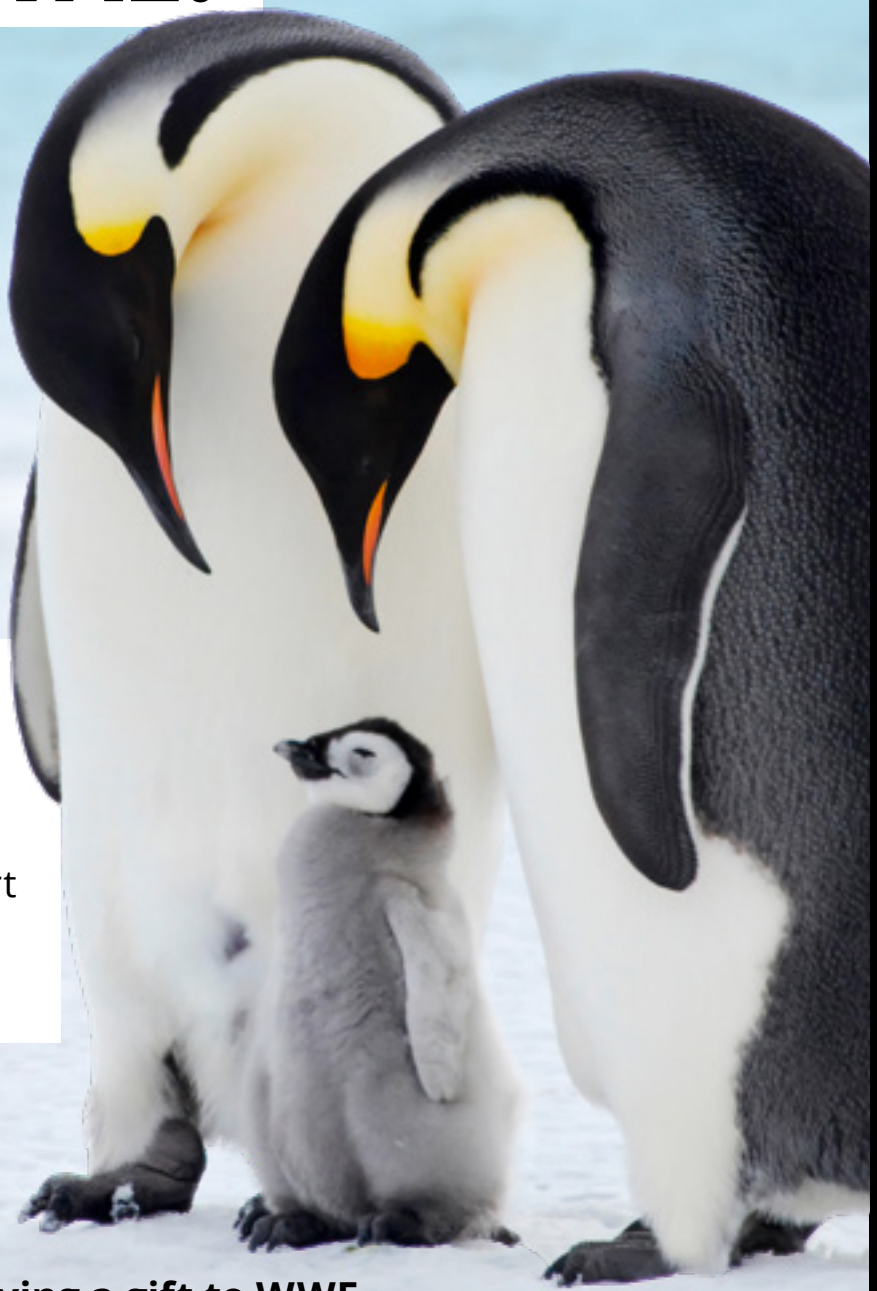
NEW ARRIVAL?



Welcoming a new addition to the family is a great time to make or update your will. By leaving a gift to WWF you can help protect nature for future generations

Around 20% of our funding comes from gifts in wills. Remembering WWF with a gift in your will is one of the most powerful ways you can support our work and create a brighter future for our world.

To find out more about leaving a gift to WWF, or to let us know if you already have, call Ella on 01483 412153 or email stewardship@wwf.org.uk

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FSC logo to go here

All information correct at time of printing, January 2026