WWF

Action

THE MAGAZINE FOR WWF MEMBERS

SPRING 2024

INSIDE

WIN AN EXCLUSIVE MAY BOTANICALS SKINCARE SET

PAGE 30

MARSH MARVELS

Saltmarshes are wildlife-rich wonderlands – and a new line of defence against climate change

THE SOUND OF SCIENCE

You're helping protect endangered river dolphins from fishing nets thanks to a new sonic gadget

HOPE FOR TIGERS

Indigenous communities are taking action to protect the last tigers left in Malaysia

“WE MUST ACT NOW TO PROTECT THE PLANET THAT SUPPORTS US”

WE NEED TO RESTORE NATURE, NOT DESTROY IT

Our planet is giving us countless warnings that it’s in grave danger. Wildfires, droughts and floods are increasing in severity and frequency as temperatures soar. We must act now to protect the habitats that support us, and rethink how we produce the food that sustains us.

Last October, our State of the Planet Address focused on forests – their beauty and people, the threats they face and our dependence on their survival. Forests are our greatest ally in tackling our biggest challenge: climate change. But we’re failing them. We now spend at least 100 times more public funding on environmentally harmful subsidies than on finance for forests, despite our leaders promising to help solve the nature and climate crises.

If we’re to meet the triple challenge of feeding people, reducing emissions and restoring nature, we need to move to a net zero, nature-positive economy. But rather than accelerating progress, we’ve seen a worrying delay and softening of commitments from the UK government.

Thanks to your support, we’re holding our leaders to account. We believe it’s possible to achieve a net zero future, where nature is protected and the connections between our food and how it’s produced are re-established. With your help, we’re working with farmers, supermarkets and UK governments to drive change in our food system. The science shows that we can tackle the climate crisis and restore nature, but we need to stand together.

Tanya Steele, WWF-UK chief executive

Our 2023 State of the Planet address, held at the Frameless immersive art venue in London (pictured), was a compelling reminder of the threats facing the world’s forests, and the steps we can all take to bring them back to life

WATCH NOW

Scan the QR code to see highlights from our State of the Planet Address: **myaction.wwf.org.uk/SOPA_2023**

CONTENTS

MEET THIS ISSUE’S GUEST CONTRIBUTORS

DAPHNE WILLEMS is WWF’s global River Dolphins Rivers Initiative lead. She’s been studying ways to keep dolphins safe around human activity. “Each freshwater dolphin species keeps its river system healthy,” she says.

TOM BROOK is WWF’s blue-carbon technical officer, investigating the potential of marine habitats to mitigate climate change: “The goal is to build a framework that can create more investment in saltmarshes.”

GERI HALLIWELL-HORNER is an author and singer. She hopes her new book will encourage young people to stand up for nature. “The world needs a new hero to give people the courage they never knew they had.”

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- Amazing wildlife videos
- Exclusive features

Find all this and more at **wwf.org.uk/myaction**

EXTRA! Scan the QR code when you see this logo

My Action

YOU HELPED TURN THE PEOPLE'S PLAN INTO ACTION IN THE UK

Thousands of you shared your views about what we can do for nature in the UK – and now the plans you helped develop are being put into action. In September 2022, with our partners at the National Trust and the RSPB, we invited everyone to share why nature mattered to them and their vision for the future. We received over 30,000 responses!

Next, we brought together 103 people representing the population of the UK to form the People's Assembly for Nature. After four weekends of intense debate, they agreed a series of key actions they wanted to see taken forward: the People's Plan for Nature.

Since the plan was published in March 2023, members of the People's Assembly for Nature have held meetings with ministers, MPs and peers, been interviewed in the media, and taken part in discussions with businesses and farmers. Over 40,000 people have added their names in support of the People's Plan for Nature, and more than 20,000 have written to their MP asking them to champion the plan. At WWF, we've published a detailed response setting out how we'll put the plan into action in our own work, and we're calling on others to do the same. ■

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Visit your members-only site to find more successes you're helping achieve around the world

"I'M JUST A CUSTODIAN OF THE LAND. IT'S ABOUT LEAVING BEHIND SOMETHING BETTER THAN WE FOUND"

LIZ FINDLAY, NANTCLYD BIODYNAMIC FARM, CEREDIGION

YOU HELPED SUPPORT NATURE-FRIENDLY FARMING IN WALES

Thanks to your support, Wales took a big step towards a nature-friendly future by passing new laws that will transform the country's farming system. The Agriculture (Wales) Act received Royal Assent in August 2023 and will shape the development of the Sustainable Farming Scheme, which will be the main source of government support for farmers in Wales.

Along with the rest of the UK, Wales is one of the most nature-depleted countries in the world. Almost 90% of Wales is farmed, so supporting farmers to adopt more climate- and nature-friendly practices is crucial to securing our future and our ability to produce food.

The Sustainable Farming Scheme seeks to reward farmers for managing their land in ways that are good for nature, climate and people, such as improving soil health, increasing tree cover, using fewer chemicals, restoring peatlands and enhancing habitats. Farmers will be paid not just for the food they produce but also for *how* they produce it, giving them an incentive to adopt regenerative farming practices that work with nature rather than against it.

WWF Cymru's Land of Our Future campaign will call on the Welsh government to ensure the new scheme is funded and implemented in a way that encourages as many farmers as possible to adopt a nature-friendly approach. ■

© David Bebber / WWF-UK | Aled Llywelyn / WWF Cymru

YOU HELPED RHINOS SURVIVE THE DROUGHT IN KENYA

Thanks to you, endangered rhinos in Kenya received extra food and water to stay healthy during a devastating drought.

Like much of east Africa, the country has been ravaged by drought over several years, threatening people and wildlife alike. With your support, we helped the Lewa Conservancy – which is home to around 14% of Kenya's rhinos – buy 1,850 bales of hay and lucerne (a crop grown to feed livestock) to support wildlife. At least 60 rhinos benefited from the extra nutrition, as did buffaloes, elephants, warthogs, eland antelopes and zebras. Thanks to the boost to their diet, all the rhinos maintained or improved their body condition.

Elsewhere in Kenya, your support helped install solar power at a borehole in Lake Nakuru National Park when the drought was at its peak. As a result, there's now a constant supply of drinking water for wildlife, three rangers' camps and the neighbouring community of over 100 households.

Although the rains finally arrived last year, droughts are becoming more severe as a result of climate change. So though we're ready to respond in an emergency, our long-term focus is on helping communities and wildlife become more resilient and adapt to our changing climate. ■

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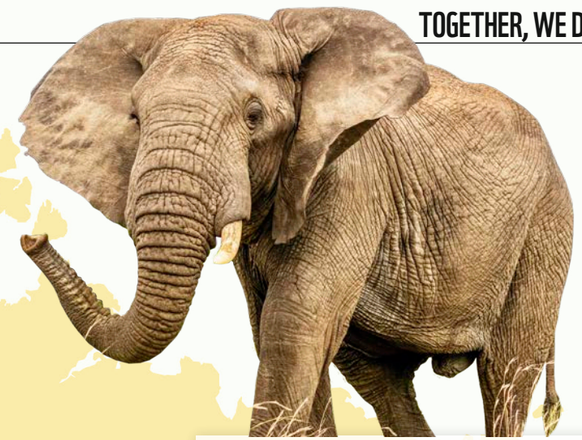


YOU HELPED PEOPLE AND ELEPHANTS COEXIST IN TANZANIA

With your help, we're providing some sweet and spicy solutions to reduce conflict between people and elephants in Tanzania.

Elephants damaging crops can be a major problem for communities: a large herd can destroy a season's harvest in a single night, leaving families devastated. This can lead to retaliatory killings, and undermine local support for conservation efforts.

With your help, we've supported communities with simple strategies to keep elephants away, such as planting chillis around crops, and smothering fences with chilli paste. Elephants hate the smell: in four villages where we work, they avoided 80% of fields protected by chilli fences.

Placing beehives around crops is another effective deterrent. Elephants avoid bees, which can sting the soft skin inside their trunks and around their eyes. As a bonus, the honey provides extra income for local people. Between July 2022 and June 2023, WWF-Tanzania ran beekeeping training for 22 members of Juhiwangumwa Wildlife Management Area, and provided 40 hives and other tools such as beekeeping suits. ■

© Alamy | © WWF-Kenya

Thanks to your membership, we can help protect wildlife and wild places. Here are some of the great things supporters like you have helped achieve

TOGETHER, WE DID IT!

WWF IN ACTION

How we're bringing our world back to life

Plan at least one meat-free day a week, and check what you have before you shop, to avoid food waste. If budget allows, consider swapping your usual fruit and veg for something you've never tried before, to encourage food producers to grow diverse crops

© Getty | © Kaisa Malin / WWF | © Gonzalo Taylor

BRINGING CHANGE TO THE TABLE

What we eat and how we produce it are among the biggest threats to our world. That's why we're rethinking our relationship with food – and we urgently need your help.

We need food to survive, yet the way we produce it is harming the planet we rely on. Agriculture and food production are responsible for nearly 60% of biodiversity loss and 30% of greenhouse gas emissions globally. They make up about 12% of all our carbon emissions in the UK.

We live in one of the most nature-depleted countries in the world, yet the way we consume food is putting unbearable pressure on our wildlife. Our industrialised system has long since lost its connection with the natural processes that once sustained it. Our food system is broken.

But it doesn't have to be this way. It's more important than ever that the food we produce and eat is good for our world and our health. It's time to create a food system that supports farmers and producers to protect and restore nature, while providing us all with a healthy and affordable diet.

That's why we're working to rethink how we produce and consume food – and we need your support. Tackling the global food system can feel like a huge challenge, but together we can create change. Making smarter choices and adopting small changes in our food routines are among the most important things we can do to tackle the climate and nature emergencies.

Eat4Change is a WWF-led project that brings together science and communities to call on businesses and governments to change with us. It's about eating well, feeling good and doing good. Everyone can make simple changes that are easy to stick to and cost effective. From meal swaps to energy-efficient cooking, we can make choices that will help protect our planet.

We're encouraging everyone, particularly young people, to take an active role in bringing change to the table and talking about food with friends and family. Last October, more than 60 youngsters from across the globe, including six from the UK, met for the Eat4Change Youth Summit in Finland to push for a shift toward more sustainable diets and food production.

The event aimed to empower the next generation to address global food challenges, to connect youth-led networks, and to help participants think big about how we can influence policies to create positive changes for the future of our planet.

We can all change what we eat, one plate at a time, to protect our planet: **wwf.org.uk/eat4change/bring-change-to-the-table/guide**

FOOD FOR THOUGHT

We asked four Eat4Change Youth Summit participants for their food advice

WHAT WOULD YOU SAY TO YOUNG PEOPLE INTERESTED IN TALKING ABOUT FOOD?

"Get involved with networks of other young people doing similar work around food and climate activism. As you start educating yourself about issues with our food systems, you can influence people around you."
Niamh

WHICH FOOD-RELATED CHANGE DO YOU HOPE TO SEE?

"We need to see greater diversity in the food we eat and an understanding that different regions across the world require unique solutions. There's no 'one size fits all' way to create sustainable food systems."
Clara

WHAT CAN YOUNG PEOPLE DO TO ADDRESS GLOBAL FOOD CHALLENGES?

"We can be activists and educators. Summits like this help equip us with the leadership skills and knowledge to show change is possible. Now we can teach the future generations. Our activism can leave a good legacy for the planet."
Sam

HOW CAN PEOPLE GET INFORMED ABOUT FOOD?

"Be curious about how the food you eat gets onto your plate. Be open to new ideas. You don't need to jump to a 100% plant-based diet straight away – take small steps. Try eating more vegetables or having one meat-free day a week."
Ferozah

My Action

YOUR FOOD QUESTIONS ANSWERED

Visit My Action to hear from all our Eat4Change delegates and watch a Q&A on sustainable eating with our food experts Maleeka and Gonzalo.
myaction.wwf.org.uk/sustainable-food

NEWS IN BRIEF

© Danielle Brigida / WWF-US

AFRICAN RHINOS ON THE RISE

The number of wild rhinos in Africa has increased by over 5%, bringing new hope for these wildlife icons. The IUCN African Rhino Specialist Group estimated there were 23,290 rhinos across the continent at the end of 2022, a rise of 5.2% since 2021. There was good news for black and white rhinos, whose populations increased by 4.2% and 5.6% respectively. And 2022 saw the first overall increase in white rhino populations in over a decade. All this is only possible due to the efforts of organisations including WWF, governments and local people.

UK NEWS IN NUMBERS

544

Native oysters and seagrass meadows are returning to the Firth of Forth in Scotland, thanks to support from local community volunteers. Our Restoration Forth project has trained 544 volunteers to date, in skills such as surveying, harvesting and planting seagrass seeds, and ensuring reintroduced oysters are healthy. Oysters and seagrass improve water quality, store carbon and support biodiversity.

1 MILLION

In 2023, we collected around a million seagrass seeds from a healthy meadow in Porthdinllaen, North Wales, with the help of our partners and local volunteers. The seeds will be planted around the Llŷn Peninsula and Anglesey in the coming year. This project is part of the UK-wide Seagrass Ocean Rescue programme, which aims to help restore 15% of the UK's seagrass by 2030.

NEWS IN BRIEF

© Kalsa Siren / WWF

CREATING ELLIE ALLIES

An ambitious new regional conservation initiative is aiming to reverse the decline in Asian elephant populations in China and south-east Asia. Globally endangered, Asian elephants are particularly threatened in China and south-east Asia. Only around 8,000-11,000 wild elephants remain in the region, with some countries having only a few hundred individuals where there used to be thousands. Through the new initiative, WWF will work with governments, private companies and communities living in close proximity to wild elephant populations to secure and restore habitats, and manage conflicts so that elephants and people can coexist.

© David Bebber / WWF-UK

NATURE-FRIENDLY FINANCE

We've launched a new partnership with NatWest Group to support the transformation of the UK's food system. Agriculture is the biggest cause of biodiversity loss in Britain and one of our largest contributors to climate change. But with the right support and incentives, our farmers could produce high-quality food in ways that protect and restore nature and help us reach net zero. By teaming up with NatWest, one of the UK's biggest business banks with over 30,000 agricultural customers, we're exploring how to channel more private and public finance into regenerative farming that's good for nature and the climate.

HIGH HOPES FOR THE HIGH SEAS

Nearly half the planet can look forward to better protection after more than 80 countries signed up to a new High Seas Treaty. This paves the way for new rules to help conserve marine life and restrict harmful activities across the two-thirds of the ocean that lie beyond national jurisdiction.

The high seas – which are outside the control of any individual country – cover around 42% of the planet's surface. Some parts plumb depths of almost seven miles, deeper than Mount Everest is tall. They make up by far the largest habitat on our planet, but also the least understood. Only around 5% of the world's oceans have been explored.

What we do know, though, is that the high seas are full of life – from iconic species such as whales, sharks, tuna and albatrosses that travel vast distances, to the phytoplankton that form the basis of marine food chains and produce more than half of the planet's oxygen.

We also know the ocean is in trouble. A lack of joined-up, protection-based regulation has left many species vulnerable to the impacts of damaging fishing practices, collisions with ships, pollution and climate change. Deep seabed mining is another potential threat that could have devastating impacts on little-understood ecosystems.

The new High Seas Treaty is the culmination of over two decades of negotiations. The terms of the treaty were agreed last June, and over 80 countries have signed up to it, though it may take some time to enter into force.

One important outcome of the treaty will be to make it possible to establish marine protected areas in places beyond national jurisdiction. Governments have committed to protect 30% of the ocean by 2030, but less than 1% of the high seas is currently protected – and existing high seas marine protected areas aren't universally recognised. The treaty will also strengthen rules to assess and manage the environmental impacts of activities such as industrial fishing, shipping and mining.

"On the face of it, the treaty is very good news," says Dr Simon Walmsley, WWF-UK's marine chief adviser, who's been working on the creation of the treaty for more than 10 years. "It will provide a biodiversity protection framework for the high seas. We now have a mechanism for establishing globally recognised marine protected areas in the high seas.

"We just need to get through the process of adopting the text and ratifying it – 60 countries have to do this before the treaty enters into force. This could take time, but it marks a new start for a large part of the ocean."

The historic High Seas Treaty creates a coordinated approach to establishing marine protected areas on the high seas, which is a critical step to conserving ocean biodiversity

© Getty

By reconnecting our wild landscapes, we can enable pollinators and other wildlife to move freely, supporting nature's recovery

GETTING FROM A TO BEE

Just as we use roads to get around and service stations to refuel, bees and other pollinators need well-connected networks of habitat with feeding places along the way. Roadside verges offer an ideal opportunity.

In Leicester, we've been working with the city council, the Trent Rivers Trust and Air Wick to create wildflower meadows alongside the roads that circle the city centre. Planted with a mix of perennials and colourful, nectar-rich flowers, these 'bee roads' will act as superhighways for bumblebees, butterflies and other wildlife, connecting larger green spaces such as the lakes and nature reserves of Watermead Country Park. They'll also benefit other species such as birds and hedgehogs, bringing more wildlife into the city centre.

Our partnership with Air Wick aims to help people reconnect with nature by restoring 20 million square feet of wildflower habitats in the UK. Over the last century, 97% of lowland wildflower meadows in the UK have been lost, drastically reducing the habitats that our native wildlife needs to thrive.

You can help by sowing native wildflowers in your garden or a community area, providing more food for pollinators such as bees and butterflies.

© Paul Rogers / WWF-UK

BIG WINS FOR PEOPLE AND THE PLANET

A long-time WWF supporter recently became the first £10,000 rollover winner in the WWF Weekly Lottery.

"I was already giving to WWF," said jackpot winner 'Mr B', who lives in Manchester. "I'm a big supporter, so I thought it was a great idea to get on board with the WWF Weekly Lottery.

"I'd already won a couple of small prizes, but winning £10,000 was a fantastic surprise. I'm going to spend a little, but the rest will give me some security for the future. Playing the WWF Weekly Lottery means the money goes to a great cause, and you've got a good chance of winning."

Other long-term supporters have also won big in the weekly lottery. A recent £3,200 winner said: "I started supporting WWF over 13 years ago to help protect tigers, but only recently started playing the lottery. I never expected to win, but it's great to get something back."

"I've always been a supporter of WWF, from completing sticker albums as a child to adopting an animal today," added another winner who scooped a £5,600 prize. "When I got the call saying I'd won a rollover I couldn't believe it.

Our planet wins every time you play the WWF Weekly Lottery

© WWF

I've put the money towards a new electric car, which will hopefully help the planet further."

The lottery offers over 100 cash prizes every week, with a top weekly prize of £1,000 and a rollover draw that can rise to an amazing £10,000. It costs just £1 per entry – and our planet wins every time you play! For your chance to win visit **lottery.wwf.org.uk/action**

The WWF Weekly Lottery is available to those aged 18+ and residents of Great Britain only. For full terms and conditions, please see lottery.wwf.org.uk/terms

THE SOUND OF SAFETY

The Mahakam river in East Kalimantan is the last sanctuary in Indonesia of endangered Irrawaddy dolphins. Only around 80 individuals survive. As with all other river dolphins, their major cause of direct mortality is bycatch in nets

The world's freshwater dolphins are endangered, their numbers today a fraction of their former populations. But a pioneering sonic device could reduce the risk of them being caught in fishing nets – and throw these charming cetaceans a vital lifeline

In the depths of Kalimantan in Indonesian Borneo, the river rolls on, latte brown and sluggish beneath air syrupy with humidity. A breeze ruffles the surface and sets bankside boughs dancing. All else is silence.

Then comes a soft, whispered exhalation, "*shhhhhhhh*", announcing a long-anticipated arrival. A gleaming grey, dome-shaped head breaks the surface, followed by a stubby fin slicing smoothly through the water. At last, an Irrawaddy river dolphin, known locally as a *pesut*. To describe such an encounter as precious would be a huge understatement. Just 67 individuals are known to survive in the Mahakam river in eastern Kalimantan, the pesut's last stronghold in Indonesia. It's one of six remaining species of freshwater dolphin worldwide – all of them endangered or critically endangered.

"I've been lucky enough to see every species – and each time it's magic," smiles Daphne Willems, WWF's global River Dolphin Rivers Initiative lead. "You've been looking, maybe for hours – and then, finally, there's that special moment when you spot a fin and a dolphin appears."

A BAROMETER OF RIVER HEALTH

Across their ranges in east and south-east Asia, the Indian subcontinent and South America, river dolphins (see page 13 for details of each species) face a range of threats, particularly water infrastructure development, unsustainable fishing and pollution.

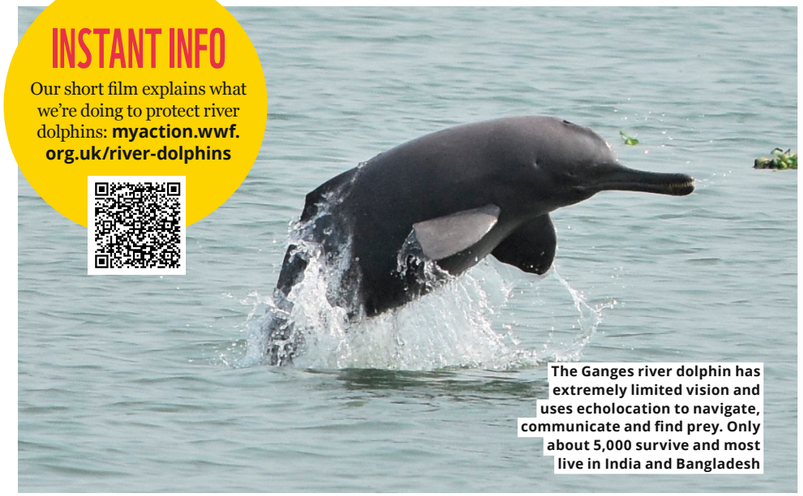
Losing any species is a tragedy, of course, and these are particularly charismatic and appealing mammals. But there are more fundamental reasons to fight for their survival. "A freshwater dolphin is a potent symbol, as well as an indicator of healthy rivers," explains Daphne. "More importantly, each freshwater dolphin species is the apex predator of its ecosystem – like a tiger or a jaguar controlling numbers of prey, river dolphins influence the diversity of fish species, keeping the river system healthy and in balance. If we lose them, the food chain is broken."

Numbers are estimated to have plummeted by 73% since the 1980s, and one – the Yangtze river dolphin or *baiji* – was declared possibly extinct in 2007. But establishing accurate population figures can be tricky. In the Mahakam river, where our partner has been working for over 20 years, estimated dolphin numbers are confirmed by thorough abundance surveys. But for the Amazon – a vast network ▶

Words: Paul Bloomfield | Image © WWF / Naturepl.com / Roland Seitre

INSTANT INFO

Our short film explains what we're doing to protect river dolphins: **myaction.wwf.org.uk/river-dolphins**



The Ganges river dolphin has extremely limited vision and uses echolocation to navigate, communicate and find prey. Only about 5,000 survive and most live in India and Bangladesh

of waterways and flooded forests home to two species and perhaps hundreds of thousands of dolphins – numbers are uncertain. Similarly, figures for other species are also estimates.

That said, population trends are clear. "Following a 10-year fishing ban imposed in 2021, numbers of the Yangtze finless porpoise – the only freshwater porpoise in the world – started going up for the first time in 30 years," says Daphne. "The population is still small – an estimated 1,249 individuals in 2022, up from just over 1,000 in 2017 and way down on around 2,500 in 1991. But there is hope."

In Pakistan, the Indus river dolphin is also recovering, thanks to community engagement, education and improved protection measures. Its range has shrunk by about 70%, though, and the small population of around 2,000 individuals is restricted to a 1,200km stretch of river. It's still the most endangered cetacean surviving only in freshwater habitats. Numbers of the other four species are falling – and all need our help.

RIVERS OF CHANGE

The decline of these marvellous cetaceans is primarily a result of large-scale changes seen across many of the world's great river systems: infrastructure developments such as hydroelectric dams and irrigation barrages, sand mining, embankment construction, pollution and the impacts of climate change.

By tackling these problems through our global River Dolphin Rivers Initiative, we aim to stop the decline of populations in Asia and South America, and restore and double the most vulnerable populations by 2030. And there's one threat we can target in the short term: bycatch in freshwater fisheries, particularly in gillnets, the main cause of direct deaths of river dolphins worldwide.

These netting curtains, hanging vertically in the water from a line of floats, are cheap and easily available, so they're the preferred fishing gear in many countries. But because they're in place for long periods – sometimes overnight and right across the river – they pose a significant risk to river dolphins, which become entangled when they try to feed on fish trapped in the nets. If they can't free themselves, they drown. This is bad news for fishermen, too, whose nets are damaged and who mostly don't want to kill dolphins.

Accidental entanglement in fishing nets has caused over two-thirds of dolphin deaths in the Mahakam river in the past 25 years – as well as many others in the Indus, Ganges, Ayeyarwady, Amazon, Orinoco and Mekong rivers – and has been strongly linked to the baiji's decline.

That's where the 'pinger' comes in. This electronic underwater device, which is around the same size as a banana, emits high-frequency sounds that deter dolphins from approaching. It's already been tested in marine environments, where bycatch kills at least 300,000 cetaceans each year, and has been shown to reduce bycatch of harbour porpoises by 92%, for example.

Now, with local partners, we've been trialling pingers for reducing river dolphin bycatch. The first trial was launched on the Mahakam river in 2018, attaching pingers to gillnets and recording sightings of dolphins at varying distances from the nets, as well as monitoring bycatch numbers and impacts on fishers' catches.

THE SOUND OF SUCCESS

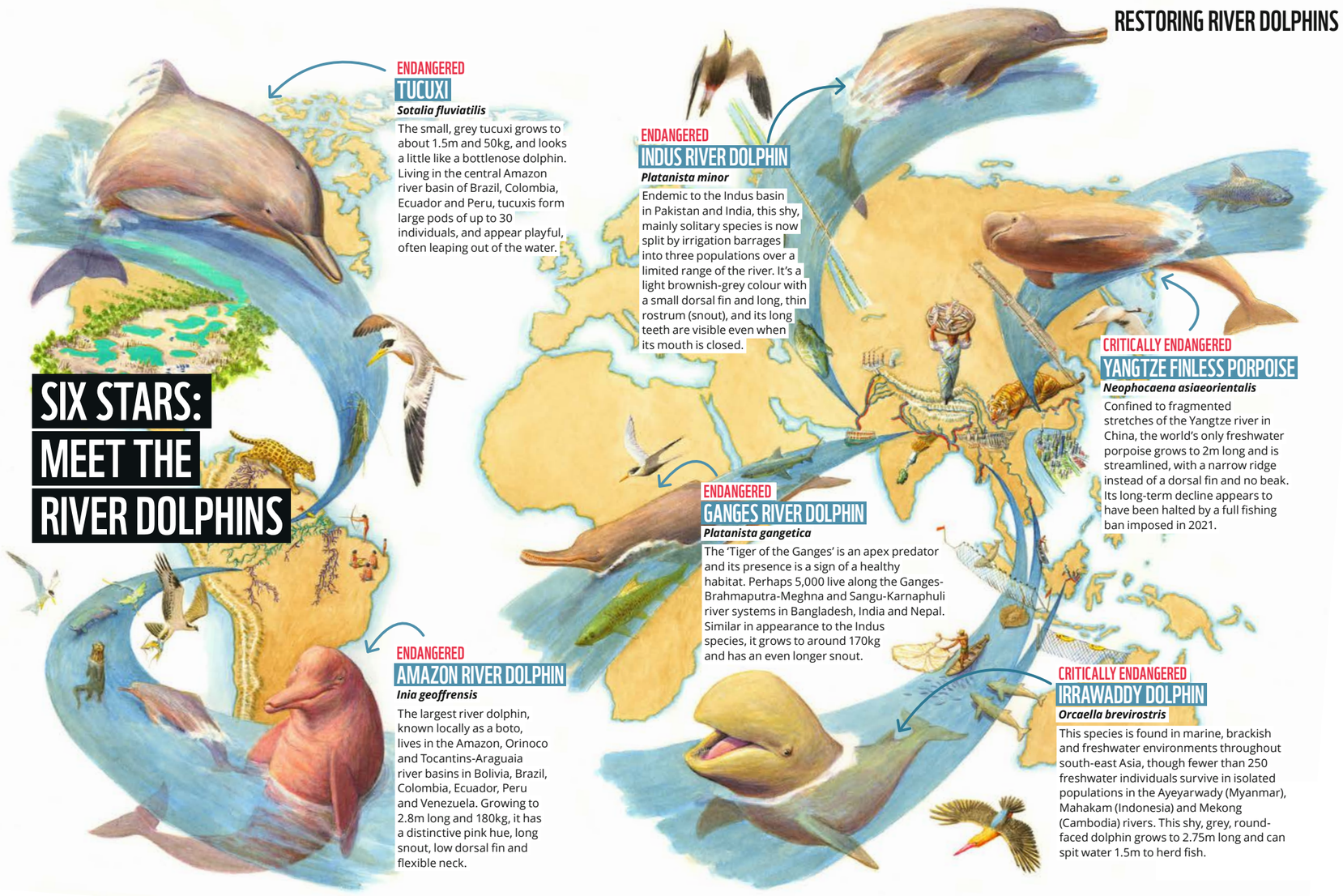
"It took three years to get right," recalls Daphne. "The first pinger was too quiet to deter dolphins; then they became easily habituated, and we discovered that we needed to vary the frequencies. But once that was resolved, it was easy to scale up, and very popular with the local fishers."

The study revealed that river dolphins don't closely approach nets with pingers, instead staying 10 metres or further away. In the pilot project areas, there were no deaths of dolphins in nets. Fishers also reported that costly damage to their nets was avoided, and they enjoyed a 40% increase in average catches, helping to boost livelihoods. More than 200 pingers have now been distributed – a big step on the road to zero mortality from gillnets in the Mahakam river.

Trials launched in Pakistan from January 2023 are similarly promising. The Sound of Safety (SoS) project has tested three types of pingers, with varying frequencies and cycles or periods of 'pinging', at different stretches of river in the Sindh and Punjab regions. Again, pingers deterred dolphins from approaching the nets, reducing bycatch and increasing fishers' hauls both in terms of numbers and proportions of commercially valuable fish species. Importantly, when pingers weren't operating, the dolphins returned to those areas, so they weren't permanently displaced from key foraging grounds – they could return to feed there when nets weren't set. So far, dolphins aren't becoming habituated, so the pingers are still effective.

Trials on the Hooghly river in West Bengal, India, began in April 2023, and the government has expressed interest, so we hope the use of pingers might be included in ▶

SIX STARS: MEET THE RIVER DOLPHINS



ENDANGERED
TUCUXI
Sotalia fluviatilis

The small, grey tucuxi grows to about 1.5m and 50kg, and looks a little like a bottlenose dolphin. Living in the central Amazon river basin of Brazil, Colombia, Ecuador and Peru, tucuxis form large pods of up to 30 individuals, and appear playful, often leaping out of the water.

ENDANGERED
INDUS RIVER DOLPHIN
Platanista minor

Endemic to the Indus basin in Pakistan and India, this shy, mainly solitary species is now split by irrigation barrages into three populations over a limited range of the river. It's a light brownish-grey colour with a small dorsal fin and long, thin rostrum (snout), and its long teeth are visible even when its mouth is closed.

CRITICALLY ENDANGERED
YANGTZE FINLESS PORPOISE
Neophocaena asiaeorientalis

Confined to fragmented stretches of the Yangtze river in China, the world's only freshwater porpoise grows to 2m long and is streamlined, with a narrow ridge instead of a dorsal fin and no beak. Its long-term decline appears to have been halted by a full fishing ban imposed in 2021.

ENDANGERED
GANGES RIVER DOLPHIN
Platanista gangetica

The 'Tiger of the Ganges' is an apex predator and its presence is a sign of a healthy habitat. Perhaps 5,000 live along the Ganges-Brahmaputra-Meghna and Sangu-Karnaphuli river systems in Bangladesh, India and Nepal. Similar in appearance to the Indus species, it grows to around 170kg and has an even longer snout.

ENDANGERED
AMAZON RIVER DOLPHIN
Inia geoffrensis

The largest river dolphin, known locally as a boto, lives in the Amazon, Orinoco and Tocantins-Araguaia river basins in Bolivia, Brazil, Colombia, Ecuador, Peru and Venezuela. Growing to 2.8m long and 180kg, it has a distinctive pink hue, long snout, low dorsal fin and flexible neck.

CRITICALLY ENDANGERED
IRRAWADDY DOLPHIN
Orcaella brevirostris

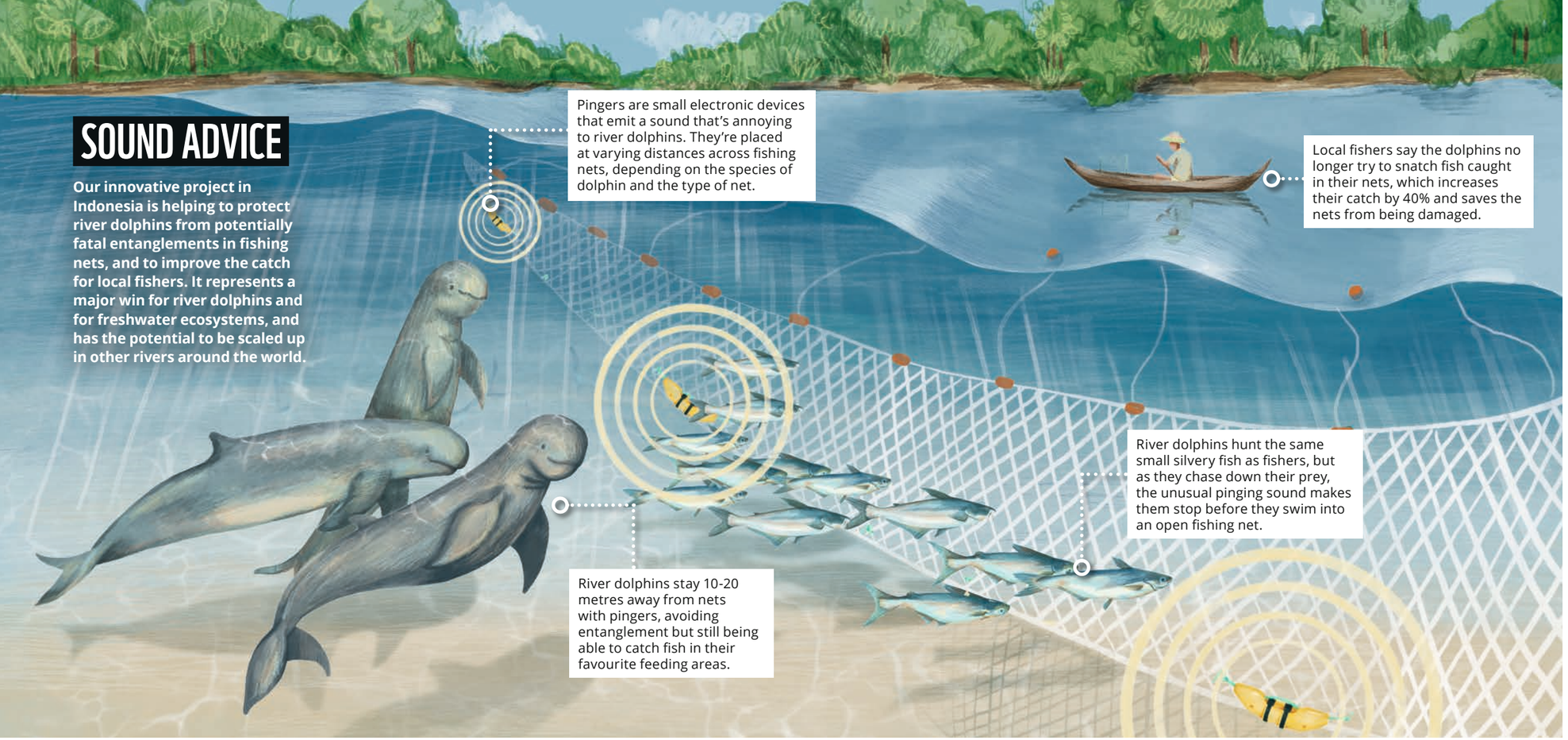
This species is found in marine, brackish and freshwater environments throughout south-east Asia, though fewer than 250 freshwater individuals survive in isolated populations in the Ayeyarwady (Myanmar), Mahakam (Indonesia) and Mekong (Cambodia) rivers. This shy, grey, round-faced dolphin grows to 2.75m long and can spit water 1.5m to herd fish.

WE AIM TO RESTORE AND DOUBLE THE MOST VULNERABLE POPULATIONS OF RIVER DOLPHINS BY 2030

▲ Only about 1,250 Yangtze finless porpoises survive in China's Yangtze river, where its range has declined significantly. Translocations and the establishment of several reserves aim to help numbers recover

SOUND ADVICE

Our innovative project in Indonesia is helping to protect river dolphins from potentially fatal entanglements in fishing nets, and to improve the catch for local fishers. It represents a major win for river dolphins and for freshwater ecosystems, and has the potential to be scaled up in other rivers around the world.



▼ **Danielle Kreb, scientific programme leader at Yayasan Konservasi RASI, our partner on the Mahakam river project, records underwater dolphin signals while monitoring their behaviour and distance from the pingers. This helps us compare dolphin activity on days when the pingers are active compared to when they're not**

legislation as a requirement when granting fishing permits.

So far, so good – but challenges remain. For one thing, even though pingers are relatively inexpensive – perhaps £50, depending on the type – they're still too costly for many fishers. In any case, fitting pingers to every net would be detrimental.

A STEP TOWARDS A SOLUTION

"You don't want pingers everywhere," explains Daphne. "Dolphins would go crazy, because in rivers where they're restricted to small areas, there's nowhere for them to go to escape the noise. So pingers need to be used in a controlled way. We also need to learn more about the long-term impacts and problems with habituation before scaling up to the hundreds of thousands of pingers needed to bring bycatch down to zero."

Clearly, pingers aren't a miracle cure. "We see pingers as a useful tool, but not the end solution," says Daphne. "In Indonesia, our partners are working with the government to create protected areas where fishing isn't permitted, and on legislation to mandate fishing gear that's not less effective but is safer for dolphins. In the end, we need a full package of sustainable practices, including community fishery agreements governing what sizes of fish can be caught, where and when. We see the pinger as an emergency measure – if we can bring down river dolphin bycatch now, we will have time to create more complex sustainable fishery approaches with governments and communities."

"PINGERS WILL BUY US TIME TO CREATE MORE COMPLEX SUSTAINABLE FISHERY SOLUTIONS"

Signs are positive for the four river dolphin species in Asia in terms of responses to pingers. As long as fishing isn't permitted in the Yangtze river, there's no need for pingers in China. They've been shown to work for Irrawaddy river dolphins in Indonesia, and seem to be effective for Indus and Ganges dolphins in Pakistan and India. So we need funds to roll them out more widely and to continue monitoring – to ensure effectiveness and guard against habituation – but also to maintain discussions with governments and communities to use them wisely.

The next frontier is South America. "We've run two trials in Brazil and one in Peru," says Daphne, "but so far they're inconclusive. Amazon river dolphins are comparatively very big – 180kg or so – and react differently to pingers. I've heard that they get annoyed by the sound and move away – but minutes later come back and drag the net or attack the annoying noise.

"We will make it work, though," she asserts. "We might need louder sounds, but we don't want something that works for Amazon river dolphins but upsets the smaller, more timid tucuxi that share the same rivers."

One possible solution might involve combining pingers with a light-emitting device. Though the Ganges and Indus dolphins are functionally blind, relying on echolocation, those in the Amazon have some sight. And light-emitting devices have been shown to work for marine turtles.

◀ **The strikingly pink Amazon river dolphin is found only in the rivers of South America. Unlike other river dolphins, it has a flexible neck that allows it to twist and turn while hunting fish through flooded forests when the river is high**

A HISTORIC DECLARATION

On a larger scale, an ambitious campaign to save freshwater cetaceans is gaining traction. In October 2023, representatives from all 14 range countries – Bangladesh, Bolivia, Brazil, Cambodia, China, Colombia, Ecuador, India, Indonesia, Myanmar, Nepal, Pakistan, Peru and Venezuela – gathered in Bogotá, Colombia, to sign the Global Declaration for River Dolphins. It's the first time such a declaration has been agreed for freshwater species. In doing so, governments commit to undertake a range of vital measures, including engaging with industries to tackle water quality and quantity issues; driving river dolphin research and threat monitoring; eradicating unsustainable fishing practices; and creating networks of protected rivers.

Officials were joined there by influential funders – donors, charitable foundations, multinational banks (including the World Bank) – and NGOs involved in research and innovation, pledging to help governments implement what they've promised.

Ultimately, the aim of all this work is a healthier global river network for wildlife and people. "People like dolphins: they're smart, playful and curious," smiles Daphne. "That helps us all to connect with river systems. My goal is to show people around the world the magic of rivers, and just how much we need and depend on them. Dolphins help me bring that story to life." ■

RIVERS OF LIFE

You already support our work to protect river dolphins. But we urgently need funds to tackle the threat of bycatch. Here's how an extra gift could make a difference today:

£10 could help a monitoring team survey river dolphins near fishing nets

£20 could help fund underwater acoustic equipment to record how dolphins respond to pingers

£50 could buy a pinger for a fisher's net in the Mahakam river in Indonesia

£100 could support our work with governments to develop more sustainable fishing practices

You can help stop river dolphins' decline. Donate today at **wwf.org.uk/river-dolphin**

MALAYSIA'S LAST TIGERS

Against all odds, we've captured a rare image of a tiger in Malaysia, offering a glimmer of hope for these big cats

As the boat bumps against a steep bank in the rainforest, the patrol team are in high spirits. Despite the vertical climb ahead, the almost-impenetrable vegetation and lack of any obvious path, the leeches are taking a day off and the ground is dry underfoot. Life is good.

A high ridge is the team's destination and the place where Emmanuel Rondeau will set up his final camera trap. As the wildlife photographer fiddles with sensors and flashes, the team laugh at each other prowling like tigers past the camera, ensuring any photos taken will be framed perfectly. But their joking is tinged with concern – there could be fewer than 150 tigers left in Malaysia, and without conservation intervention this could be the last generation of tigers in the country.

The tiger's last remaining stronghold in Malaysia is a swathe of forest reserves in the peninsular region known as the Belum-Temengor Forest Complex. Estimated to be more than 130 million years old, these ancient rainforests are a hotspot for biodiversity. But hunting is rampant here, the forest floor littered with deadly snares that catch everything from sunbears and clouded leopards to the deer and boar that tigers like to eat – even the cats themselves for the illegal wildlife trade. Tigers have been driven to extinction in neighbouring countries, and without urgent intervention it's feared that Malaysia's population could go the same way within five years.

A TURNING POINT?

But the wildlife has a lifeline. Belum-Temengor is also home to the Orang Asli, the 'original people' of the forest. With their guidance and intimate knowledge of the land, WWF and the government are working to remove snares, deter poachers and collect data on illegal activities. Thanks to Indigenous patrol teams – of which there are currently 106 – the number of active snares in the forest has been reduced by 98%. The teams also set up and check hundreds of camera traps across the landscape to monitor wildlife and identify threats.

Merapi Bin Mat Razi is part of an Orang Asli 'elite' patrol team. He knows it's a dangerous job, but he says: "I need to stay vigilant, it's my duty." His work gives him hope.

Many weeks later, Merapi and the team return to the camera on the ridge. The team hold their breath as they skim past shots of Malayan tapirs and hornbills. Then, there it is: one of the last wild tigers in Malaysia, gazing directly into the lens as if imploring the viewer to help rewrite its future. ▶

MISSION IMPOSSIBLE
In the 1950s, as many as 3,000 wild tigers were estimated to roam Malaysia's forests. But, by 2022, habitat loss and widespread hunting had caused the population to plummet to fewer than 150 individuals. It's hoped this spectacular new camera-trap photo will help draw attention to the need to safeguard crucial habitat and restore numbers of Malaysia's national animal.

Words: Kelly-Louise Ray | Image © Emmanuel Rondeau / WWF

▲ FORESTS FOR LIFE

For the Orang Asli, as well as the tigers, the forest is life. Around 6,000 people live in 19 villages across the Belum-Temengor Forest Complex. Their way of life is one of harmony with nature – they depend on the forest for food and a place to live. Today, close-knit teams of Orang Asli patrol a huge area of forest, where they've set up 500 camera traps. Here, photographer Emmanuel (far right) persuades the whole team to strike a tiger pose.

▲ STAMPING OUT SNARES

Since 2018, Orang Asli patrols have greatly reduced the threat of snares in the forest. These homemade wire traps – here, held by Merapi – lie in the leaf litter, indiscriminately catching animals of all species for food and the illegal wildlife trade. Navigating through the forest using GPS devices, equipped with high-tech tracking technology provided by WWF, the patrols have reduced the number of active snares by 98%.

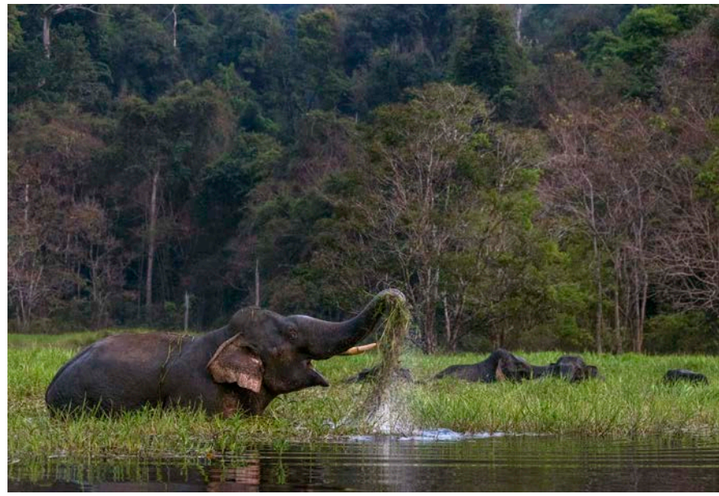
▲ SHORTER BY WATER

Reaching the Orang Asli's villages and the teams' patrol areas each day often requires navigating a sprawling network of waterways across Belum-Temengor. Unfortunately, it's hard to prevent poachers from also accessing the forest via a vast human-made lake at the heart of the landscape.

THE ANCIENT TROPICAL RAINFOREST OF BELUM-TEMENGOR IS OLDER EVEN THAN THE AMAZON

PREHISTORIC FOREST

The tropical rainforest of Belum-Temengor is believed to be over 130 million years old. This makes it one of the oldest rainforests in the world, pre-dating the Amazon and the Congo Basin. The second-largest continuous forest complex in Peninsular Malaysia, Belum-Temengor spans some 3,400 sq km – more than four times the size of Singapore – and is one of three priority areas for wild tigers in the country.



▲▲ GUARDIANS OF THE FOREST

The longest-established inhabitants of Peninsular Malaysia, the Orang Asli have deep-rooted cultural ties to the forest. They've lived here as nomadic hunter-gatherers for generations, and understand this ancient landscape better than anyone else. A people of strong beliefs, they're crucial to the success of conservation efforts. After initial support with planning, patrolling and setting camera traps, the Orang Asli now manage all the work, recruitment and training themselves. By protecting the tigers and their forest, we're also helping to safeguard the future of these communities.

▲ CLOSE ENCOUNTERS OF THE ELEPHANT KIND

This rainforest is home to rare mammals such as dog-like dholes and gaur (Indian bison) as well as rich birdlife, including 10 species of hornbills. Encounters with large wild animals are a challenge for patrols and for local communities. Asian elephants like to eat crops, such as the bamboo cultivated around the edges of villages. They're not always deterred by the communities' attempts to stop them, causing damage to buildings and loss of livelihoods – and even lives. We're working with local people across Asia to avoid such conflicts.

A recent study found that one restored coastal saltmarsh in the UK stores as much carbon over four years as just over one million new trees grown for 10 years. This is equivalent to taking 32,900 UK cars off the road for one year. More studies will enable us to build an even clearer picture

A CHANGING TIDE

Saltmarshes are serious multitaskers – they provide vital sea defences and a home for wildlife, and they're super-speedy carbon absorbers. Thanks to Aviva, we're investing in cutting-edge technology to understand more about these precious habitats and help tackle climate change

Words: Paul Bloomfield | Image © AndrewParkinson / WWF-UK

▼ Saltmarshes are home to unique plants such as the glasswort family that thrive in salty environments. Their roots absorb and store carbon, making them a valuable ally in the fight against climate change

Walking around Lancashire's Ribble estuary, taking a breath of fresh wetland air, you might struggle to make sense of last summer's new arrival. Why would there be a squat yellow scaffolding tower in the nature reserve's marsh, with no visible purpose? In years to come, this odd structure – part of a research partnership between WWF and Aviva – may be hailed as a hero in the fight against climate change. But for now, it just keeps counting.

The tower's damp feet are sunk in a habitat whose dual nature is embodied in its name: saltmarsh – a once-ubiquitous feature of the UK's flatter coastal fringes, where rivers and streams meander and spill out into the ocean, meeting tides that rush inland. In this mixing of waters, silty deposits become ever-shifting mudflats, while wave-borne sediment accumulates on the land.

Plants with a taste of the sea, such as samphire and sea lavender, grow and flourish on the accumulating sediment. Wading birds and wildfowl come in their hundreds and thousands to feed on a banquet of snails and worms in the mudflats, and roost in the marshes. Otters fish the creeks.

WILD PLACES

There are saltmarshes in all of our great estuaries – the Thames, Bristol Channel, Wash, Humber, Mersey, Solway Firth, Firth of Forth, Clyde and Cromarty Firth – as well as other sheltered coastal places. But there aren't as many as there should be.

Though rich in wildlife, saltmarshes have often looked poor when seen through human eyes. Since Roman times, people have 'reclaimed' this land for agriculture. More than 85% of our saltmarshes have vanished, and now a new threat has emerged: they're at ever-increasing risk from rising sea levels caused by climate change. But one particular tide may be starting to turn for the better.

We've long known about the soft power of saltmarshes – their ability to absorb and dissipate the energy of waves and soak up water that might otherwise flood further inland. Economists pore over the perceived value of such flood mitigation and estimate it's worth £2 billion. And if sea levels continue to rise, this value can also only go up.

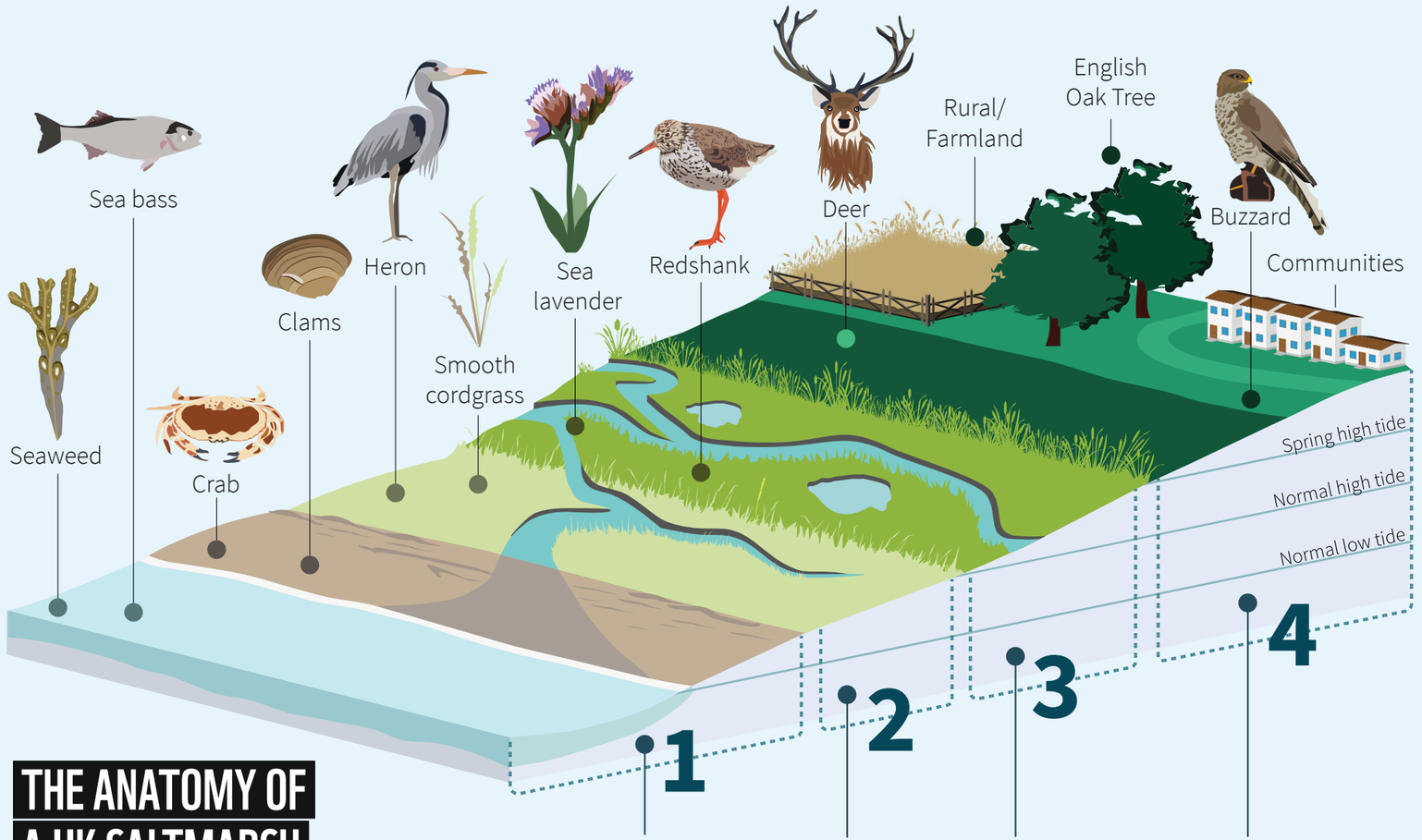


Illustration: Provided by Aviva

THE ANATOMY OF A UK SALTMARSH

Saltmarshes have a key role to play in reversing nature loss in the UK as they provide a range of rich and unique habitats. They support a variety of plants with different levels of tolerance to salt water and tidal flooding, and provide a nursery for young fish. They're important for resident and migratory birds such as herons, egrets and waders, which use the tall grass to raise their young and the mudflats as a source of fish, molluscs and insects.

TIDAL ZONE AND MUDFLATS

The lowest part of the saltmarsh. It's rarely above water other than at low tide. Home to seaweeds, fish, crustaceans and shellfish.

LOW MARSH

Submerged frequently by the high tide. Home to wading birds, grasses, fish and shellfish.

UPPER MARSH

Only submerged during very high tides. Home to a wide variety of grasses and plants as well as nesting for migratory birds.

INLAND

The border of the saltmarsh. Rarely submerged outside of storm conditions. Inland areas receive natural protection against coastal flooding from saltmarshes. Home to woodland, grasses, deer, birds of prey – and people.

The Ribble Valley is a migration hotspot for many birds. As the tide encroaches onto the saltmarsh, skulking snipe are flushed into view

The degree of interest has mounted as storms become stormier and high tides rise ever higher. Many saltmarshes have been lost as incoming waves flood over them, hit the barrier of the concrete sea walls behind them, and then wash away the marshes as they retreat. And in time storms will wash away the walls themselves.

In an accepting approach called 'managed realignment', we're beginning to adapt, to let the waters come in, opening gaps in sea walls to allow controlled incursions, a process that in itself will restore the saltmarshes.

We know about the properties of saltmarshes in purifying both river and sea waters, absorbing and storing in deep (and deepening) soil the chemicals from fertilisers and heavy metals. But there's one more benefit that could be this habitat's most effective saviour – the amazing ability of saltmarshes to absorb and store carbon.

SAVING FOR THE FUTURE

The concept of 'blue carbon' was all but unknown when wetland biogeochemist Annette Burden completed her marine biology studies in 2006. Upon graduation she accepted a job in peatland research with the UK Centre for Ecology & Hydrology (UKCEH). Years later, her land-based role has proved to have an uncanny connection with a seashore need, and Annette has become a key figure in supporting a new and vital WWF saltmarsh project. This is because it's become evident that saltmarshes act like a bank – only the gold is blue. We're talking blue carbon, the term used for carbon captured by marine and coastal ecosystems.

"Once a saltmarsh becomes vegetated, it forms a stable habitat," says Annette, explaining how the 'bank' works. "Just like peatland, a saltmarsh is waterlogged, so when the vegetation dies off it isn't broken down. Instead it's incorporated as carbon. Taking cores of sediment – sampled using tubes pushed into the ground – enables us to see how much carbon is stored there."

How does a saltmarsh become vegetated? It's a race against time and tide. Sediment builds up on the saltmarsh and provides a substrate for plants. However, rising sea levels threaten to wash away the sediment ▶

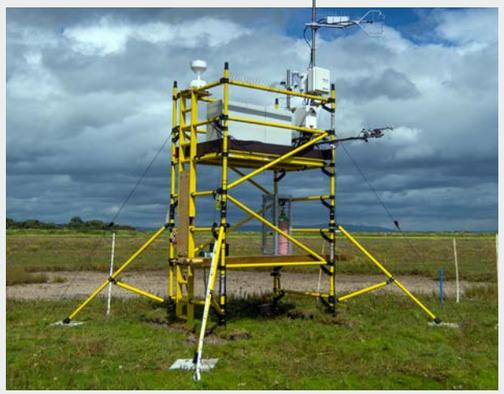
"SALTMARSHES PROVIDE NATURAL PROTECTION FROM FLOODING AND COASTAL EROSION TO UK HOMES"

Images: © Andrew Parkinson / WWF-UK | © Terry Whittaker / 2020VISION

My Action

DISCOVER MORE

You can find out more about saltmarshes, their role as wildlife and climate champions, and our new flux tower in our short film: **myaction.wwf.org.uk/saltmarshes**



CARBON FLUX: VISUALISED

Sitting on the Ribble estuary, the WWF saltmarsh flux tower, funded by our partner Aviva, measures the flow of greenhouse gas. It can be likened to a weather station, with cutting-edge sensors that measure gas exchange. It's continuously collecting a 3D view of wind speed and direction, allowing us to measure the capture and release of carbon from a large area of saltmarsh. The flux tower is online, so UKCEH researchers can observe in near real time what's happening with carbon dioxide in the air and where it's flowing between the land and the atmosphere. Other sensors measure the weather, sediment and tides.

Bring all this data together and you get a picture of the flow of carbon between the saltmarsh and the atmosphere. We know how much carbon is stored in the ground but understanding how long it's stored for, and whether it will remain stable in a changing climate, is a critical piece of the saltmarsh carbon puzzle.

Our flux tower is complemented by another placed by Natural England on the nearby RSPB reserve at Hesketh Out Marsh. The WWF platform is on natural marshland, whereas the Natural England platform is on a site that was restored 12 years ago. Such flux towers are already functioning on peatlands, croplands, grasslands and forests throughout the UK, and UKCEH's aim is to install more to widen our understanding of regional differences among the UK's saltmarshes.

◀ Along the Ribble estuary, saltmarshes provide a haven for wildlife alongside built-up areas. Tunnels under roads and gaps in sea walls allow sea water onto the marshes to regenerate them

▼ Short-eared owls are often seen hunting over saltmarshes, particularly during the winter. They mainly hunt during the day, flying low over the marsh to feed on field voles and small birds, such as pipits and larks

before plants have a chance to take hold. How quickly can saltmarshes stack up sediment, outcompete sea level rises and therefore maintain themselves?

The first aim of the project, which brings together WWF with Aviva and UKCEH, is to set up the UK Saltmarsh Monitoring Network to answer these questions. The team have pinpointed six estuaries around the UK to study the rates of sediment build-up and determine which areas of saltmarsh can or can't respond to rising sea levels. The sites have been chosen to encompass all their differences – in plants, hydrology, geography, geology and rates of sea level rise. Such evidence will enable us to prioritise which areas around the UK coast need protection or restoration.

A NEW FRONTIER

The second aim leads to that mysterious tower, AKA the WWF saltmarsh flux tower. Science is trying to prove how

"OUR PROJECT WILL STUDY THE ROLE UK SALTMARSHES CAN PLAY IN FIGHTING CLIMATE CHANGE"

effective saltmarshes are at capturing carbon, how much is stored, how quickly and for how long. But Annette identifies a critical gap in our understanding: "Scientists have focused on carbon stored in the sediment, either brought in on the tide, or from the plants. Not as much emphasis has been put on carbon moving in and out as a gas." And elementary biology tells us that while plants breathe in carbon dioxide, they also breathe it out once darkness falls.

The flux tower is there to provide the sophisticated technology that will give us the missing data (see box, left) and true figures for saltmarshes' capacity for storing blue carbon. Why do we need such exactitude? Here we turn to Tom Brook, WWF's blue-carbon technical officer, for an answer.

"At the moment, a shift in society dictates that companies looking to take more responsibility in the push towards net zero need to show that they're being nature-positive and climate-neutral," Tom explains. "For them that means good results in terms of communications and ethics." Essentially, it's about ascribing a numerical value to blue carbon – one that shows how much is stored and for how long, in a way that's easily understood by companies and consumers.

UKCEH's intention is to replicate the lead taken on woodland and peatland and create a Saltmarsh Code – a voluntary scheme in which companies formally contribute to climate-change mitigation. The scheme has a specific target – at least £1 billion of private investment in saltmarsh restoration projects over 25 years, covering 22,000 hectares of habitat. That would increase the area of UK saltmarsh by a third or more.

CARBON CODE

Tom is sure that as the pressure to reach net zero quickly increases, the voluntary aspect of the scheme will be overtaken. "The signs are that we're moving towards companies having financial incentives and legal obligations to invest in nature-based solutions that will tackle the climate emergency," he says. "We're working with Aviva to demonstrate how the business sector can take leadership in moving toward a low-carbon future. Through this climate research, Aviva are also making an important contribution to achieving societal net zero ambitions, with the project taking a significant step in addressing critical knowledge gaps in saltmarsh management. Our ultimate goal is to build a framework that can be used to create more investment in saltmarshes."

If the numbers look promising, saltmarshes could also be the first blue carbon habitat in the UK incorporated as a mitigation measure in our Nationally Determined Contributions (our plan to reduce emissions) under the Paris Agreement. The future for saltmarshes may yet be brighter, not just here, but all over the planet. But for now, that yellow tower just keeps counting. ■

INSPIRING WILD READERS

Geri says that people need to let nature take charge so that wildlife can thrive, and to avoid the temptation to get 'air-brushed perfection' in their gardens

Geri Halliwell-Horner – pop icon and WWF supporter – tells us how she hopes her new series of children's books will inspire young conservationists

***Where did you get the idea for your new book,* Rosie Frost and the Falcon Queen?**
Heroes in books have always inspired me and given me courage. I just felt the world needed a new hero, someone ordinary and vulnerable, to give people the courage they never knew they had.

What made you decide to donate some of the proceeds to WWF?
I always say that the more you give to the world, the more the world will give back to you. The planet needs our help right now, and if my book can help, while encouraging readers to find their power, that's wonderful. WWF does incredible work for endangered species and that's exactly what Rosie Frost stands for, so I just felt it was the right fit.

When did you become interested in nature?
I've always loved animals ever since I was a little girl. We only had a tiny back garden when I was growing up, but I remember collecting snails and naming them Peter and Paul.

How can we help young people like Rosie connect with nature?
I'd always just go to the park or be outdoors in our small back garden. I found that going to a zoo that was focused on conservation helped me feel closer to nature. I also read a lot about wildlife and watched David Attenborough's TV series.

Why are you passionate about protecting UK wildlife?
All animals deserve our love and care. The ones that are seen as more ordinary don't always get as much attention as rarer species such as wildcats. But they're unsung heroes; they all deserve our protection.

Can you tell us more about how you're making space for nature at home?
Rewilding is such a beautiful thing, at whatever scale you can do it. There's a big piece of land at the back of our garden – we just let it grow wild and it looks absolutely beautiful. I'm by no means an expert but it's easy to see how nature is thriving there, especially the bees. People are sometimes inclined to want air-brushed perfection in their gardens, but if you let Mother Nature be in charge, it will benefit everything.

How do you try to reduce your impact on the planet?
There are big things and little things we can all do. I don't have all the answers, but I do think that raising awareness is the first step. It's all too easy to feel powerless over what's happening to the planet, but even small, everyday steps can have a big impact, such as recycling more, limiting your use of plastics and upcycling your clothing. I'm always open to learning more – rethinking our habits and changing our actions is important.

What do you wish people would do to restore nature?
I wish people would have kindness and grace, and educate themselves about what's going on.

What messages do you hope the readers of your book will take away?
There are four key rules in the book – the Falcon Queen's Rules. They are: have courage and make the choice you fear the most; united we stand; be of service and never give up; and if you don't like these rules, then you can make up your own – there's no set way to do something!

WIN GERI'S BOOK!

We've got two signed copies of *Rosie Frost and the Falcon Queen* to give away, courtesy of Scholastic. For your chance to win, see the 'How to enter' box on page 30.

STEP UP TO THE CHALLENGE

As new year resolutions become a distant memory, finding the motivation to get fit or keep moving can be tough. But a fundraising challenge is the perfect inspiration to lace up your trainers, dust off your bike or get your wetsuit out of retirement.

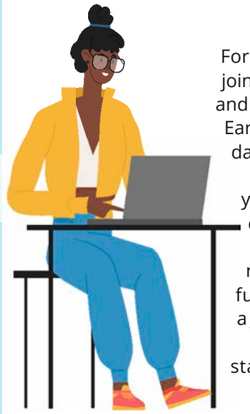
This year, we'll be hosting a range of events across the UK, giving you the opportunity to run, walk, swim or cycle on stunning routes – all with the aim of helping us protect and restore nature.

Not all our events are for super-sporty supporters. Our Great Wild Walks are perfect for families, and our virtual challenges – such as 100 Miles in March – can be completed however and wherever you want. In fact, some of our fundraising ideas will challenge you in other ways, whether it's your gaming prowess with our livestreaming event or your wardrobe creativity on a Wear it Wild dress-up day.

However you choose to support us, it will make a real difference to the work we do.

MARCH

There's still time to sign up for this year's 100 Miles in March virtual challenge. You can tackle the distance however and wherever you like. Run, walk, cycle, swim, dance... the choice is yours. You can even do it without leaving home – why not take to the saddle of an exercise bike? Just join our 100 Miles in March Facebook group (**wwf.org.uk/100milesinmarch**) to register and create your fundraising page – and enjoy the group's support.



APRIL

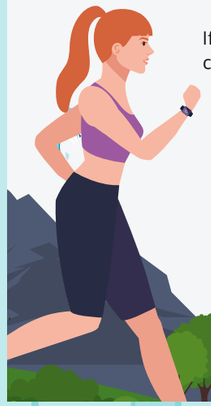
For a fully virtual fundraiser, join the WWF Livestreamers and host a charity stream on Earth Day (22 April) – or any day this month – to help us protect nature. Whether you're a gamer or content creator, use the power of your online following to raise awareness and vital funds for our work. Create a JustGiving page, connect your page to Twitch and start gaming or connecting with your community.

MAY

With summer beckoning, it's time to embrace the great outdoors. Why not join the Jurassic Coast Challenge? With routes to suit all experience levels, you can walk, jog or run along this spectacular World Heritage Site in Dorset on 18-19 May. We're an official partner for the event, so you'll get a discount on registration fees. If you'd prefer to set your own pace, why not create your own challenge? Download our fundraising pack for ideas: **wwf.org.uk/fundraise/do-your-own-fundraising**

JUNE

Go on a Great Wild Walk in the UK and raise funds for the places you love all over the world. Designed to be as sustainable as possible, these five- or 10-mile walks are family-friendly, taking in the beauty of our English forests. Some routes are accessible, too, so they're suitable for all-terrain buggies and wheelchair users. You'll receive a WWF T-shirt and medal on the day to celebrate your fundraising achievement.



JULY

If you're ready for the ultimate challenge, sign up for our Lake District 10 Peak Challenge. Exclusively for WWF supporters, this event on 12-14 July will see you trek some of the most dramatic peaks in Grasmere in the Lake District. With two nights' accommodation and vegetarian meals included, we'll support you before and during the event, so you can focus on training and fundraising.

AUGUST

Dress-down days are tame – it's time to Wear it Wild! Whether it's at school, in the office or with your club or youth group, organise an animal fashion day and raise money for nature. You can Wear it Wild on any day you like. Just ask participants for donations as they pull on stripy socks, an animal-print jumper or go the whole hog with a full-body animal suit. You could even charge for eco-friendly face-painting – it all counts towards supporting wildlife. **wwf.org.uk/wear-it-wild**

GO FOR IT!

You can find out about all the events on this page (and many more) at **wwf.org.uk/events**

SEPTEMBER

If you're a summer runner, now's the perfect time to train for the Great North Run, which is on 8 September this year. This annual race is the biggest half marathon in the UK – you'll be among 60,000 people (including elite athletes) following the route from Newcastle to South Shields. If you run as part of our WWF team, we'll set you up with everything you need: a fundraising pack, training support and a vest or T-shirt, so the crowds will know you're racing for the planet.

OCTOBER

London's Royal Parks Half Marathon is the perfect way to enjoy the city's green spaces. The route takes in famous landmarks (Buckingham Palace, Trafalgar Square, the London Eye) as well as Hyde Park, Green Park, St James's Park and Kensington Gardens. It's a great day out for family and friends to support you, and one of the most eco-friendly races in the UK – and a great opportunity to support WWF's work, too.

WE CAN'T DO IT WITHOUT YOU!

Our events are only possible thanks to our amazing volunteers. Their work is just as vital to our fundraising as the efforts of our runners and other participants. Whether you know someone taking part, need some volunteering experience or just want to help, joining our team is a great way to enjoy the buzz. There are roles for everyone, from welcoming walkers to joining our cheer squad: **wwf.org.uk/events/volunteer**

CASE STUDY

WILD STYLE

Bure Valley School in Norwich has held a Wear it Wild day for the past two years. The events haven't just raised funds – they've provided an opportunity for staff and pupils to learn about wildlife while exploring other aspects of the curriculum.

"Last year we used our Wear it Wild day to launch our 'Take Care of the Planet, Take Care of You' week, focusing on children's mental health," says Sally Fox, the school's pastoral lead. "The resources from WWF are amazing and really helped teachers with ideas for activities to inspire the children.

"We suggested the children could dress as an animal or just in an animal-related accessory. Our staff also took on the spirit of Wear it Wild – someone even had a full-body giraffe outfit!"

SUSTAINABLE SKINCARE

We've got one May Botanicals travel essentials gift set

Beauty products can often contain a baffling list of synthetic ingredients. But model and designer Georgia May Jagger has launched her own range of high-performance organic skincare, May Botanicals, which promises to be kinder to your skin and the planet.

Made using ingredients such as beeswax and seaweed, the range is for everyone, including people with sensitive skin. Free from palm oil and never tested on animals, the certified natural formulas combine science-based functionality with responsibly sourced ingredients that work – perfect for anyone wanting to celebrate their skin without harming nature.

What's more, all the products are packaged in recycled cardboard printed with waterless ink, which helps to reduce their environmental footprint. And a percentage of sales from the collection will go directly to WWF, to help us protect and restore forests and wildflower fields in the UK and around the world.

One lucky winner will receive a travel essentials gift set from the new range, worth £120. The set includes the Daily Dose Moisturiser, Super Balm Skin Saviour, Kelp! Seaweed Sheet Mask, Clean Slate Cleanser and Save Face Spot Solution – all in a gorgeous cosmetics pouch.

For your chance to win, follow the instructions in the box below.

HOW TO ENTER OUR ACTION GIVEAWAYS

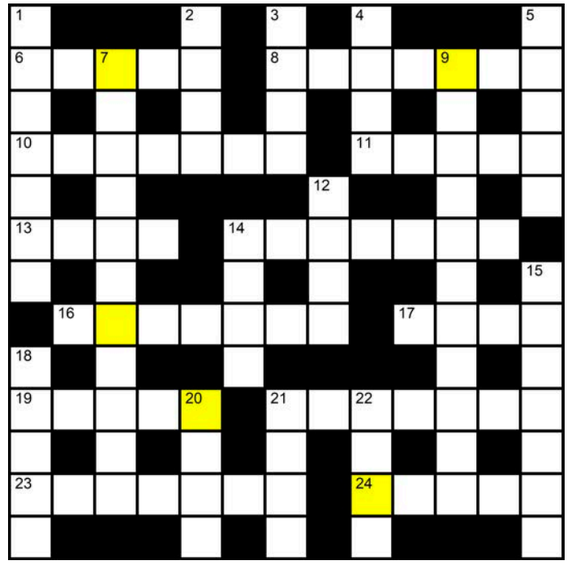
Send an email with your name, address and phone number, along with Botanicals Competition or *Falcon Queen* Competition in the subject line, to **competition@wwf.org.uk**

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

Closing date: Friday 29 March 2024. For full terms and conditions, visit: **wwf.org.uk/compterms**

CROSSWORD

Solve our puzzle and you could win a copy of the stunning *Remembering Leopards* by Wildlife Photographers United and worth £49.50 (*rememberingwildlife.com*)



WWF ACTION CROSSWORD 56: Spring 2024. 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 29 March 2024.*

Clues across

6 Technology used in LiDAR forest mapping (5)
8 River _ , endangered aquatic mammal (7)
10 _ tiger, critically endangered cousin of the Indochinese tiger (7)
11 _ toothed tiger, extinct predator (5)
13 Like any domesticated animal (4)
14 Scheduled trips whose carbon emissions are sky-high (7)
16 A more ecologically-friendly choice of food (7)
17 Active volcano in Sicily (4)
19 Large alpine lake on the California-Nevada border (5)
21 _ oxide, greenhouse gas in the Earth's atmosphere (7)
23 Areas like the Kalahari, Gobi, etc (7)
24 _ management, the practice of dealing with recycling, rubbish disposal, etc (5)

Clues down

1 _ change, global threat characterised by an increase in extreme weather events (7)
2 _ wolf, canine species which has become extinct from much of its former range (4)
3 _ Project, Cornwall visitor attraction featuring biome domes (4)
4 The Matterhorn is located in this major European mountain range (4)
5 The spectacled bear is native to these South American mountains (5)
7 'Blue carbon' habitats pivotal in combating climate change (11)
9 The destruction of animals' homes – a major threat to their survival (7,4)
12 Metal present in some batteries (4)
14 Appendages for which sharks are brutally hunted to make a Chinese soup delicacy (4)
15 White-petalled flowers with a yellow centre – common on fields and lawns (7)
18 A piece of research (5)
20 Giant pandas have black ones on top of their heads (4)
21 'Bottle'-style body part of a certain dolphin (4)
22 It's larger than a village but smaller than a city (4)

Autumn 2023 answers

Across 1. Cereals 5. Stump 9. Zero 10. Soy bean 11. Grid 12. Marshes 14. Antarctic 18. Jaguars 20. Fern 22. Twister 23. Asia 24. Terns 25. Wardens

Down 2. Energy 3. Erosion 4. Loss 6. Trees 7. Minkes 8. By-catch 13. Parrots 15. Iceland 16. Cattle 17. Indian 19. Union 21. Orca

Elephants like David (left) travel vast distances following seasonal shifts in the abundance of food and water

LONG-DISTANCE TRAVELLER

An alert on my phone tells me David is nearby. He's been in Tanzania for the past six months, so we're excited to see him back in Kenya. We jump into the vehicle and go to look for him.

David, I should explain, is an elephant, one of the bulls that WWF and Kenya Wildlife Service are tracking in the Maasai Mara National Reserve in the south of Kenya. He's fitted with a collar equipped with a GPS tracking device that broadcasts his position every three hours. Monitoring the movements of these elephants helps us to understand more about their behaviour. It also provides an early warning system if elephants are moving too close to communities, so we can work with people there to avoid any potential conflict.

It isn't always easy to locate the collared elephants, despite the GPS signal, particularly if they're in dense vegetation. But we eventually spot David, browsing beneath a tree. Our software shows he's travelled around 6km in the past three hours.

THERE... AND BACK AGAIN

Elephants like David will travel large distances in search of food and water. It's likely he's returned to Kenya due to the start of the rains, which mean lots of fresh vegetation to eat and more water.

He's not alone in making the journey. Every year, more than 1.3 million wildebeest and 200,000 zebras migrate between the Serengeti in Tanzania and the Mara in Kenya. These animals don't care about borders, so transboundary cooperation is critical. WWF's work encompasses the whole of what we call the SOKNOT landscape – which stands for south of Kenya, north of Tanzania. It's a vast area, about the size of the whole of England.

Tracking elephants like David helps us to identify and protect the most important areas of habitat, the most significant corridors connecting these areas, and understand how things are changing. This is vital in a region that's coming under increased pressure from human activities and climate change. Monitoring elephants also helps us conserve the other species that share this habitat, such as rhinos, lions, giraffes, cheetahs and many more.

If David was a person, I think he would be a dual citizen of both Kenya and Tanzania. And I'm proud to work with my east African colleagues – we're one team on both sides of the border.

Bernard Kuloba

Senior research scientist, Kenya Wildlife Service

"OUR WORLD GIVES US SO MUCH. I WANTED TO GIVE BACK"

"Our world gives us so much. But over my lifetime I've been shocked by how much we've taken from it – and how quickly wildlife has declined. I wanted to give something back. So when I made my will, I included a gift to WWF. I feel empowered knowing I'm doing something good, reflecting a fulfilling life, well lived."

Anthony, WWF supporter

YOU REALLY CAN GIVE BACK TO YOUR WORLD IN YOUR WILL

If you're thinking about writing your will or leaving a gift in your will to WWF-UK, please contact us for more information. With our partners you can have a simple will written for free. To get in touch, please call Grace on **01483 412153** or email **grace@wwf.org.uk**

For a future where people and nature thrive | wwf.org.uk

All information correct at time of printing, February 2024