

A WILD FUTURE

From mountain high to valley low, we're making Yorkshire's uplands greener

KIPCHOGE

JOIN THE TIGER TEAMS

Experience life on patrol with China's all-women team and Nepal's finest tiger tracker

RACING TO PROTECT NATURE

Meet the inspirational long-distance runner Eliud Kipchoge and learn about his mission to restore forests

"THIS IS AN EXCITING TIME IN HISTORY – WILD TIGER NUMBERS ARE STARTING TO RECOVER"

YEAR OF THE TIGER



Welcome to the lunar year of the tiger. During the last one, in 2010, a summit in Russia set up the next 12 years of tiger conservation. Governments in all

13 tiger range countries agreed the goal of doubling the number of these big cats in the wild, known as TX2.

This lunar year, we're shining a spotlight on the amazing progress made towards helping tiger populations recover in the wild, and on areas where urgent action is needed to avoid further declines towards extinction. Working on WWF's tiger conservation programmes, I've celebrated with our teams in countries that have overcome huge challenges to increase their wild tiger numbers - and shared disappointment about the countries where wild tiger populations remain worrying low.

But there's still a chance for wild tigers to bounce back if we can gain political support. September's tiger summit in Vladivostok will be a pivotal moment to set the path for the next 12 years, to sustain the achievements made so far, and to act as a turning point for countries where wild tiger populations have declined or become extinct. Now is the time for global leaders to play their part to 'bring back the roar', to benefit people and nature. Becci May, senior Asia programme adviser

Protecting wild tigers is about more than restoring a single species. Tigers play an important role in maintaining a healthy ecosystem. Every time we protect a tiger, we protect forests that sustain wildlife and local communities

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professiona

long-distance runner who is passionate about protecting the forests where he trains. He says: "The Kaptagat forest helped me to keep my dreams alive."

me, emperor penguins are the iconic Antarctic species," he explains. "When I first saw them on the ice, I was struck by their serene grace and intricate beauty."

GET IN TOUCH

wwf.org.uk/contact

01483 426333

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

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depend on it. Find out how we're helping protect these iconic birds. By Paul Bloomfield

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ROD DOWNIE eads our work the polar egions. "For

KNIGHT is our project manager for Wild Ingleborough. She says: "Wild Ingleboroug is a blueprint for restoration to show how we can boost nature's recovery and help fight

LIZZIE

MEET THE ACTION TEAM

Editor Liz Palmer editor@wwf.org.uk Editorial executive Holly Towner Senior supporter engagement manager Hannah Crawley Supporter engagement manager

climate change.

Stephen Osborne Senior editor Guy Jowett

For Immediate Media Co.

Consultant editor Sophie Stafford Art editor Nicole Mooney Production editor Charlotte Martyn Account manager Katy Hewett Design director Will Slater Editorial director Dan Linstead

THANKS TO OUR CONTRIBUTORS

Paul Bloomfield, Rod Downie, David Faulkner, Barney Jeffries, Azaria Kilimba, Eliud Kipchoge, Lizzie Knight, Jonathan Leadley, Becci May, Derek Niemann

CROSSWORD

Solve our crossword to win a copy of Into the Wild

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Azaria Kilimba explains how forests in Tanzania are being protected ... with fish paste

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EXTRA!

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



My Action

"LIFE ON EARTH, THE PERMANENCE OF HUMANITY, DEPENDS ON WHAT HUMANITY DOES"

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

YOU HELPED US Study Polar Bears In Svalbard

With your support, Arctic scientists have published groundbreaking research into the effects of climate change on the genetic diversity of polar bears. Analysis of 626 bears in four areas in Svalbard, Norway, revealed a 3-10% loss of genetic diversity over two decades. There's also been a 200% increase in genetic differences between distinct sub-populations. Both results suggest increased inbreeding within local groups as the loss of sea ice leaves bears increasingly cut off from each other. Genetic diversity is vital. With regular migration across the ice and breeding between different groups, the bears can mix and match the genetic traits that can help them adjust to rapid environmental changes. This study adds to growing concerns over the long-term future of polar bears.

DISCOVER MOR

My Action

Access exclusive extended articles for each of these stories and others at myaction.wwf.org.uk/ successes



YOU HELPED People and Lions Coexist in Kenya

Thanks to your support, livestock owners in Kenva can sleep more soundly after our partners at the Mara Predator Conservation Programme (MPCP) installed 300 lights to keep predators away. Around 500 lions live in Kenya's Mara landscape, and as natural habitat is lost and livelihood activities change, conflict with people is increasing. Last year, MPCP recorded 835 incidents of lions and other predators attacking livestock, leading some people to retaliate lethally. The flashing LED lights help prevent lions from attacking livestock in enclosures at night. Supporting coexistence isn't just about protecting livestock. When local communities benefit from and engage with conservation, both people and wildlife can thrive.



YOU HELPED ONE OF OUR RAREST CATS Roar back in Russia

Thanks to your support, the number of Amur leopards in the wild has stabilised. and there's new hope for the long-term survival of the species. The latest camera trap analysis in Land of the Leopard National Park in Russia's far east has identified 16 cubs over the last year, suggesting the population is growing. Conservationists studied some 700,000 photos from around 400 remote cameras, identifying individual leopards by their unique coats. Camera traps revealed that one female, Grace, has given birth for the fifth time. Two new cubs mean she's now raised 10 in total. Some Amur leopards are moving between Russia and China, so combined analysis from both countries later this year should give us an even better understanding of movements and population numbers.



YOU HELPED INDIAN TIGER RESERVES EARN THEIR STRIPES

Your support has helped raise standards in tiger conservation in India. Conservation Assured Tiger Standards (CA|TS) is the gold standard for tiger conservation. Developed by experts, it provides a set of criteria from managing habitats to community relations. Since 2020, the Indian government has been working towards CA|TS across all 50 of its tiger reserves. A year later, 14 sites in India had been CA|TS approved, including 10 in WWF priority landscapes where we support tiger conservation. CA|TS plays an important role in the goal of doubling the number of tigers in the wild. At the last count, in 2018, there were estimated to be around 3,000 wild tigers in India, and numbers seem to be increasing.

TOGETHER, WE DID IT!



TOGETHER, WE DID IT!



YOU HELPED TRACK Snow Leopards in The Himalayas

Thanks to you, we can strengthen efforts to protect snow leopards in Nepal after two of these elusive big cats were fitted with GPS collars. Two adult males were successfully collared in Shey Phoksundo National Park, the largest protected area in Nepal. The GPS collars provide invaluable information on the cats' movements, behaviour and primary habitats, allowing them to be closely monitored over the next 18 months. This will help strengthen the management of the landscape and reduce conflicts between snow leopards and people from local communities. Your support provided vital funding for collaring expeditions, and supplied essential equipment for the local community-based snow leopard conservation committees who play such an important role in our work.

YOU HELPED Orangutans in Borneo Reconnect

Because of your support, orangutan populations in two protected areas in Borneo will soon be reconnected. Work is about to begin to restore a 5kmlong forest corridor between Tabin Wildlife Reserve and Silabukan Forest Reserve in the island's Malaysian state of Sabah. About 1,000 orangutans live in Tabin and about 50 in Silabukan. The corridor will enable them and other wildlife, such as elephants. to move freely and safely between the two areas to feed and breed. Currently, the two forest reserves are separated by oil palm plantations. Over the next five years, with our partners, we aim to restore a safe passage so that orangutans can reconnect.

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WWF IN ACTION

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

THAT

NDIGENOUS RIGH

CLIMATE MARCH

For the Global Day of Action, over 100,000 people, including WWF staff and supporters as well as Indigenous leaders, braved the rain and marched along the streets of Glasgow, calling on governments to take action on climate change

WE'RE ALL IN THIS TOGETHER

The UN summit on climate change, COP26, took place in Glasgow in November. But did it deliver what the world needs?

We joined delegates at COP26 to hold world leaders to account, and demand that they keep all their climate promises. Thousands of us marched in Glasgow and around the world; we saw powerful speeches from Indigenous leaders; and activists and young people made sure their voices were heard.

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recognises the latest science, and calls on countries to return by the end of 2022 with stronger pledges and plans for how they'll reduce emissions and limit warming to 1.5°C. It's the first climate deal to reference coal – the most polluting fossil fuel – and phasing out fossil fuel subsidies. And the role and importance of nature as a climate hero in achieving the target of 1.5/2°C was formally recognised.

We celebrated a great win for sustainable finance, with the announcement of new rules that will require UK firms to outline plans for how they'll hit their climate targets and move closer to achieving net zero emissions. It will help drive business actions and investments that are good for people and nature.

Another significant development saw more than 130 countries representing over 85% of the world's forests – including many Amazon countries – make a commitment to reverse deforestation and land degradation by 2030. While this has huge potential for nature and climate action, countries must keep their promises and not delay in implementing measures to halt deforestation.

ORDEME

The end of the summit marked another milestone, as the UK's Environment Act became law. We've been campaigning for more than two years to strengthen this new legislation. Our efforts have helped ensure the act includes measures that will help tackle deforestation, and we'll continue pushing for secondary legislation that ensures companies in the UK are accountable for their impact on the environment overseas, not just at home.

After all the talk at COP26, now we need to see action. Together, we can keep the pressure on world leaders to deliver on their promises and keep 1.5°C within reach.

THE SCENE CLIMATE PP MUST L

FOREST OF PROMISES Schools, scout groups and home educators across the UK sent us handwritten paper leaves with their pledges to the planet, as well as messages asking world leaders to keep their climate promises. We displayed these messages in our Forest of Promises at COP26 for our leaders to read – and some even added their own promises to the tree. Here's WWF youth ambassador

Hattie with some of them.



Our youth ambassadors joined young climate leaders from across the world at the Youth Empowerment and Education Day. Sally made an inspiring speech before the climate march, and Hattie and Arielle spoke at a business leaders' meeting, while climate activist Txai Suruí was the only Brazilian Indigenous person to speak at the opening of the conference. Pictured above, from left, are Ollie, Sally, Anastasia, WWF ambassador Cel Spellman, Hattie, WWF-UK chief executive Tanya Steele, Txai, Izaak, Will and Arielle.



For more COP26 highlights and how you got involved, visit **myaction.wwf.org.uk**



FOR YOUR WORLD

NEWS IN BRIEF



OUR STATE OF THE PLANET ADDRESS

Days before world leaders gathered for COP26, we were joined by more than 300 influential guests for our State of the Planet Address. The event at London's Tate Modern highlighted the realities of climate change through immersive soundscapes and visual displays. Christiana Figueres (above), former UN climate chief and architect of the 2015 Paris Agreement, called on leaders to fulfil their promises, to cut greenhouse gas emissions by half by 2030 and restore the world's ecosystems.

NEWS IN NUMBERS

300

Wild tigers were on the brink of extinction in China 25 years ago, but thanks to political support for their conservation, today there are around 50. And there could be more to come. An exciting new study shows that, with better links between areas of habitat and recovering prey numbers, four forest landscapes in the north-east of the country could support around 300 individuals!



Last summer's unprecedented wildfires in Greece and Turkey destroyed thousands of hectares of forests, devastating livelihoods and habitats. More than 20,000 of you answered our call for aid, giving £150,545 through Revolut's app. Your donations will support wildlife rescue and landscape recovery, and help prevent fires in the region.

NEWS IN BRIEF



SEAGRASS SUPERHEROES

Seagrass is vital to the health of our oceans. Yet over the past century, the UK has lost up to 92% of our seagrass meadows. We're working with partners to plant approximately 1.2 million seagrass seeds across 20,000 square metres along the Pembrokeshire coast. And last August, we invited donors to Wales. After learning why seagrass is a nature superhero, they ventured under the water to experience the seed-harvesting process. "I sit in an office and read reports," said one donor, "but it's important to understand what it takes to bring a project to life."



FROM CONFLICT TO COEXISTENCE?

Human-wildlife conflict is now recognised as an increasing threat to wildlife, according to a groundbreaking report from WWF and the UN Environment Programme. As global consumption grows, there's more competition for space and resources, habitats shrink, and people and wildlife come into closer contact - which can lead to conflict. The report calls for a new coexistence-based approach, with strategies that create opportunities for people and wildlife to thrive together.

PREDICTING THE FUTURE OF SEA ICE

The melting of the Arctic's sea ice is one of the most visible symptoms of our rapidly heating planet. We're currently losing about 13% of the region's September sea ice per decade, and it's predicted that the Arctic could be virtually free of sea ice during the summer within our lifetime

The loss of this sea ice is having dramatic consequences for our global climate, for Arctic ecosystems and wildlife, and for Indigenous and local communities whose livelihoods may be linked to seasonal ice cycles.

We need to be able to better predict sea ice in order to adapt and plan for change, but that's very hard to do. The atmosphere and ocean have complex effects on sea ice formation and melting, and it's difficult to predict when, where or how much will disappear.

That's why we've been working alongside an international team of

researchers led by The Alan Turing Institute and British Antarctic Survey. Together, we've been developing a new artificial-intelligence tool - IceNet that forecasts sea ice conditions several months into the future.

IceNet represents a significant step forward in our ability to forecast sea ice. Tests show it's almost 95% accurate in predicting the presence of sea ice two months ahead, significantly improving on existing models.

We are just now starting to examine and test how IceNet might be applied to support conservation planning in the Arctic.

Reliably quantifying uncertainty is a crucial element in decision-making, and IceNet is a powerful tool that still has more to offer. The team is working to increase the model's usefulness by making it update its predictions every day and producing the forecasts in real time. Watch this space.



this violet-fronted brilliant hummingbird - in the previously undocumented



100 MILES IN MARCH

Thank you to all of you who joined our 100 Miles in March Facebook fundraiser in 2021

We challenged you to cover 100 miles by walking or running (or however you liked!) during March to raise funds for our conservation work. And you didn't disappoint: thousands of you took part, raising over £355,000.

David Faulkner (pictured) from Colne, Lancashire, took on the challenge after seeing an advert on Facebook. "We were coming to the end of our third national lockdown, I was on furlough and I needed to do something to get physically and mentally prepared for returning to work," he says. "I like walking by myself or with my family and knew I would be able to do the 100 miles."

In fact, after completing 10 miles on the first day, David decided to up his target to 300 miles: "My motivation was a mixture of wanting to achieve the 300 miles and that my friends, family and work colleagues were sponsoring me. I raised £220, exceeding my fundraising target of £50."

WWF's online support group provided further encouragement to David and others, along with tips and resources for fundraising posts, and highlighted how the funds raised would support our crucial conservation efforts.



"Our kids really enjoy getting out in nature, and the green spaces surrounding our town helped us get through the lockdowns," says David. "A few minutes from my house I can walk by the river, through the fields and trees, and listen to the sounds of nature. We need to protect these wild places so our children and their children can benefit from the nature on their doorstep." If David's story has inspired you, the good news is that 100 Miles in March is back this year, and it's bigger and better than before! Sign up today at wwf.org.uk/100milesinmarch

FOR YOUR WORLD

REVEALING THE RICHES OF LOS PICACHOS

Colombia is one of the world's 'megadiverse' nations, hosting nearly 10% of the planet's biodiversity. But for more than 50 years, armed conflict meant that large areas of the country were off-limits to science, and its natural riches remained largely undocumented

Everything changed in 2016 with the signing of the historic Peace Accord. This was a turning point for the people of Colombia and its wildlife, as research became possible again.

WWF recently backed a scientific expedition to the Cordillera de los Picachos National Natural Park, an area of well-preserved rainforest where the Andes, Amazon and Orinoco regions meet.

A team of 23 scientists and locals carried out the first ever biological survey of Los Picachos, and recorded some amazing findings. These included some 248 species of plants, 275 species of birds, 376 species of butterflies, 26 species of amphibians, 10 species of reptiles, 30 species of medium and large mammals, and 36 species of bats.

These astonishing natural riches mean ecotourism could offer vital income for local communities. By raising awareness of the importance of conservation, our expedition hints at a brighter future.



TOUGHING IT OUT

Brown hares eke out a living in the Yorkshire Dales, surviving in one of the most exposed, challenging environments in England. Hardy as they are, they still need places to shelter during severe weather. Given time, the trees planted as part of the Wild Ingleborough project will provide just that. And hares much prefer feeding in areas grazed by cattle, since cows don't nibble down the grass too much, so the switch of livestock from sheep to cattle will be a bonus. In winter, grasses will make up around 90% of a hare's diet, though they're able to feed on shrubs if the ground is covered in snow. WILD INGLEBOROUGH

A WILD FUTURE

From windswept peak to valley floor, a beacon of hope for people and nature is emerging in the heart of the Yorkshire Dales. We've embarked on a visionary project to restore this iconic landscape and fight climate change

: DEREK NIEMANN | IMAGES © ANDREW PARKINSON / WWF-UK

any people won't remember Ingleborough mountain as anything but a flat-topped landmark of the Yorkshire Dales – its secondhighest peak, characterised by huge, broken slabs of limestone pavement. At first glance, this is a bleak, almost barren, landscape where you might think you feel wildness in your bones. But the oldest farmers, who know the land, remember something different: a vibrant, colourful paradise.

Now, thanks to a visionary landscape-scale restoration project known as Wild Ingleborough, we're hoping to return this iconic area to its former glory and create a better future for the UK's uplands.

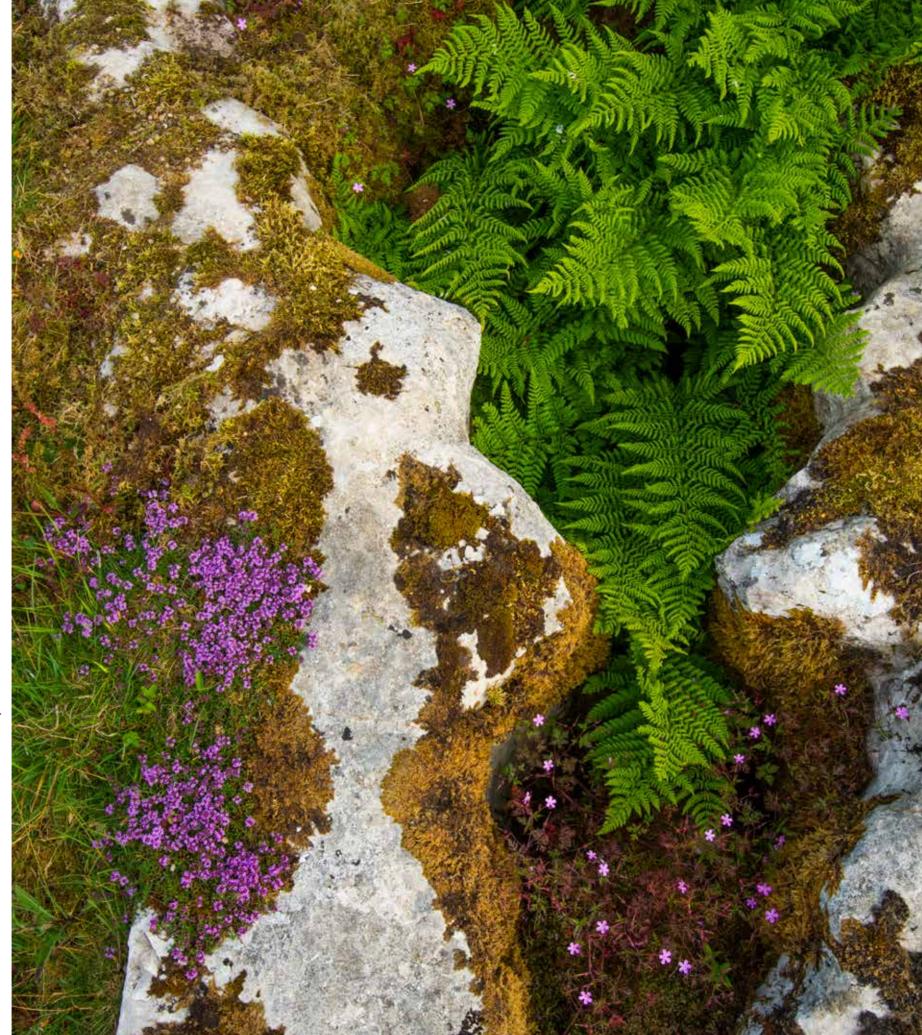
REVIVING THE WILD

"The Yorkshire Dales is one of the UK's most nature-deprived national parks," says Lizzie Knight, WWF's project manager for Wild Ingleborough. "It has the lowest amount of woodland cover of any of our national parks." Around Ingleborough, most of the woodland had been cleared long before the publication of the 1851 Ordnance Survey map. But what didn't register on the map was the lattice of dwarf woodland that grew between the cracks in the limestone pavement. Nor did the map show the fields of wildflowers or the exuberant birdsong of spring.

At the start of the Second World War, farmers were still harvesting timber from the limestone woodland and raising cattle in these uplands. But increasing pressures on food production saw farmers respond to UK government demand, so cows were replaced with sheep – grazers that are more productive and easier to manage. The upland bogs, which had locked up vast amounts of carbon, were drained to grow more grass to feed the sheep.

In just a few decades, the sheep had bitten into Ingleborough's natural assets, the heather eaten out of the upper reaches, and with it the **>**





WILD INGLEBOROUGH

BLOOMING MARVELLOUS

A riot of colour and a profusion of growth - the result of 30 years without sheep grazing on an area of limestone pavement within the Wild Ingleborough project site. In an early example of rewilding, Natural England fenced sheep out of Scar Close around 1990, and the results have been extraordinary. Nine different species of fern sprout from the deep fissures (known as grikes), while alpine mosses and the vivid pink of wild thyme carpet the rock. In heavily grazed areas outside this exclosure, the pavement is practically bare of vegetation. These limestone rocks were formed from sediments laid down in a shallow tropical sea more than 300 million years ago.



CRITICAL CURLEWS

They were once so common around Ingleborough that nobody bothered much about counting curlews, but changes in farming have drastically reduced their numbers. The parlous condition nationwide is reflected here, with only a handful of pairs nesting in recent years. Elsewhere, a shift towards growing grass for silage has meant that the birds don't have enough time to raise a brood before the grass crop is harvested. By changing habitat management, we can encourage curlews to nest among longer vegetation on the mountain itself in years to come.

▲ A WATCHFUL EYE

Yorkshire-born Jonathan Leadley has been visiting Ingleborough all his life. It's been more than a decade since his interest in the site became professional, when he began working for the Yorkshire Wildlife Trust. Jonathan is helping to oversee the restoration and is managing the project team on the ground. He emphasises the collaborative nature of the scheme, as each member of the partnership – as well as supportive organisations, individuals and local communities - lends their own experience and knowledge to the whole team effort: "That's one of the joys of the conservation community – we share in each other's successes and failures and learn from them."

JOSEPH GRAY / WWF-UK | © ANDREW PARKINSON / WWF-UK



iconic black grouse. The chorus of curlews, cuckoos and others grew much, much quieter.

Fortunately, there were still pockets of diverse habitat, primarily in nature reserves owned by Natural England and Yorkshire Wildlife Trust. The Trust's north regional manager, Jonathan Leadley, explains how the mountain's remarkable geology gives the area a special botanical character: "The limestone bedrock produces a richness of grasses and flowers, such as early purple orchids, bird'seye primroses and cuckooflowers."

GROWING BACK BETTER

Through the Wild Ingleborough project, we've partnered with these two organisations – as well as The Woodland Trust, the United Bank of Carbon, The University of Leeds and local communities – to help make Ingleborough a haven for nature and people. An area of 1,200 hectares, from the River Ribble up towards Ingleborough's summit, will see the re-establishment of the natural tree line, from broadleaf woodland to dwarf shrub, heather moorland and lichen heathlands.

The restoration of peatlands and the expansion of native woodland and scrub will store carbon and therefore help tackle the climate emergency. The project will also connect existing nature reserves in the area, creating a bigger area for wildlife to thrive. "By making Wild Ingleborough a blueprint for restoration, we'll demonstrate how UK nature can help fight climate change," says Lizzie.

Jonathan is helping lead the move to grow back better on the initial target area. Sheep numbers have come down and, in places, they have been replaced with cattle

"WE WILL SHOW How uk nature Can Help Fight Climate Change"

- less destructive grazers here. "We must be agriculturally productive, but at the same time allow wildlife to flourish," he explains, highlighting the project's twin objectives to implement more sustainable farming.

Woodland that's currently confined largely to streamsides is starting to spread to the slopes, thanks in part to thousands of trees donated by The Woodland Trust.

■ TWO LANDSCAPES

Looking south towards the top of Ingleborough mountain reveals two radically different landscapes. In the foreground, gaps in the limestone pavement are billowing up with green, as the grikes are colonised by bushes. In time, the pavement will develop into an open dwarf woodland. Since rewilding efforts began in this area, the vegetation is growing back at an extraordinary rate, given the climatic conditions. Further back, closer to the mountain's flat top, intensive sheep grazing has created a lunar landscape. The pavement here is devoid of flowers and there's little vegetation other than grass.

PLANTING UP

Natural England's Frank Morgan is part of the team responsible for the Wild Ingleborough landscape. He helped with efforts to plant 30,000+ trees that began last winter, a mix of native species including hazel, hawthorn and rowan that can thrive even in harsh conditions. The trees will support other wildlife and act as a carbon store. Frank also helps manage the cattle on the National Nature Reserve, supervising drystone wall repair, looking after volunteers and monitoring wildlife.



WILD INGLEBOROUGH





BLACK GROUSE

The decline in black grouse numbers probably began centuries ago when Ingleborough was stripped of much of its woodland. But they fell even more when the limestone pavement lost its trees and bushes after the Second World War. The black grouse is one of the UK's fastest declining species. Today's population on Ingleborough - largely reliant on the thin threads of woodland alongside streams – totals around 10 breeding males. As the new woodland grows, it will provide habitat for these special birds.

EVER GREEN

Despite their appearance, the blue 'berries' of juniper are actually the fused scales of female seed cones. This short conifer, one of the rarest of our native trees, had all but disappeared from a large part of Ingleborough. Sheep nibbled down much of the growth and then a fungus-like tree disease - accidentally introduced into the UK - destroyed nearly three quarters of the remaining juniper forest. However, planting along the ghylls (mountain streams in narrow gullies) in unaffected areas allows the juniper to recover there.



The ancient ash woodland at Colt Park has been almost untouched for generations, ever since farmers put up a wall to keep their livestock from straying inside. The wood has never been grazed because the grikes (cracks) are so deep that it would be dangerous to allow animals in. Colt Park gives us a real indication of what the whole area could look like. Trees and flowers are abundant and the rocks are almost completely covered in plants, lichen and moss.

LITTLE OWL

The little owl needs woodland with big hedgerows and old trees in order to nest, and rich grasslands where it can find abundant earthworms, beetles and other insects.





"We planted 30,000 trees over the last year with the help of local volunteers and schoolchildren," says Lizzie, "with potential for more." The trees will cover an area roughly the size of 25 football pitches, and natural regeneration will create 25 more.

This project is only possible with the wisdom and support of local people. We're working with landowners, farmers and communities to share knowledge and skills to help overcome barriers created by more than 80 years of intensive grazing. Heather and other upland plants that struggle to gain a roothold in thick, choking

mats of grass will be given a leafy start in a new montane

◄ YORKSHIRE PRIDE This gorgeous little mauve flower has the official name of bird's-eye primrose, but in its northern England heartland it's affectionately known as the Yorkshire primrose. A nationally scarce plant, it has become a jaw-dropping sight in May and June on the hillside at Sulber Nick, an area of Ingleborough, where its flowers carpet the whole slope. These moisture-loving plants have blossomed since the meadow was grazed by cattle, not sheep.

nursery. Blocking drains will make the blanket bog wet again, allowing peat to reform, moss to grow and carbon reserves to build. And tumbledown drystone walls will rise again to keep livestock in - or out of - sensitive areas. When the children of the young volunteers who planted seedlings walk up the mountain decades from now, they will see a natural treeline from the valley towards the summit. They will ascend beside wooded streams, climb slopes clad in dwarf scrub, on through heather moorland echoing to the cries of black grouse, and over heaths of colourful lichens to the windy, exposed peak. And there they will stand, gazing at a world transformed below, and see what wildness is really all about.

WILD INGLEBOROUGH

TOP CALLER

In spring, the most famous sound in nature echoes around the mountain. Cuckoos are widespread on Ingleborough. The female birds that fly here every summer most likely lay their eggs in the nests of meadow pipits, which are plentiful in the uplands. Cuckoos perch in cover on a high vantage point such as a tree or boulder, spying on the pipits to see where they land to nest on the ground. Wild Ingleborough is bound to benefit the cuckoos, as they rely on a supply of hairy caterpillars for food. More vegetation will mean more food.

HELP US CREATE A WILDER Future for ingleborough

You're already supporting our work to tackle nature loss in some of the world's most precious places. But will you help us restore an iconic landscape and develop a flagship example for future UK conservation? Here's how an extra gift could help:

- **£10** could help us restore 10 square metres of native scrub and woodland through natural regeneration
- **£20** could help us grow, plant and protect one native tree in our specialist montane nursery
- **£50** could help repair one metre of drystone wall, helping to control livestock and preserve this important element of the landscape
- **£100** could help us monitor how recovery of vegetation is benefiting wildlife and allowing the landscape to store more carbon and reduce flooding

Donate today at wwf.org.uk/reviving-the-wild

DEFENDERS OF THE FOREST

As the Amazon burns, Indigenous peoples take to the streets of Brazil's capital to defend their rights, the forest and their way of life

Last autumn, more than 5,000 Indigenous women marched through Brasília to protest against controversial attempts by the government to strip back indigenous rights to ancestral lands and open up their territories to exploitation. Clutching banners and wearing brightly coloured headdresses, female representatives of more than 185 of Brazil's 300+ Indigenous groups gathered to oppose a legal challenge to indigenous land rights that was being considered by the supreme court.

The landmark case was to decide if Indigenous peoples have the right to claim ancestral lands they have traditionally occupied. If successful, the decision could nullify all Indigenous peoples' claims to land they were not physically occupying when Brazil's constitution was enacted on 5 October 1988. This would be catastrophic, not just for communities but for the world, enabling Indigenous peoples' territories to be potentially sold and used for mining and agribusiness. Though currently paused, the ruling can be resumed at any time.

With your support, we're working to ensure Indigenous voices are heard in important decisions like this, which affect their lives and the future of our planet. We're also advocating for stronger action against deforestation by countries such as Brazil and the UK.

THE BIG PICTURE

EDGE OF EXISTENCE

Emperor penguins are particularly vulnerable to climate change, as they depend on sea ice for their survival. With your help, we're using satellite imagery to understand more about these Antarctic icons to support vital conservation efforts

he emperor penguin lives life on the edge. The largest of the world's 18 penguin species inhabits the very margins of Antarctica, where the frozen boundary dividing land from icv sea shifts between the long, dark winter and all-too-brief summer. It's an already extreme existence that looks more challenging in the face of global climate change. So we're tapping into satellite technology to increase our knowledge about this majestic bird and inform conservation efforts to give it the best chance of surviving into the 22nd century.

Here's what we do know about the emperor penguin. Reaching up to 120cm tall and 40kg in weight, this flightless, semi-aquatic species has evolved several characteristics that enable it to endure the bitter Antarctic cold. Insulated with ample fat reserves and two dense layers of feathers, it has small flippers, feathered legs and clawed feet that contain special fats. Along with regulating blood flow, these fats prevent the penguin's feet from freezing when temperatures plummet as low as -50°C. It can dive deeper than 500m to hunt silverfish, squid and krill,

staying underwater for over 20 minutes. With its smart black tux, white chest and yellow collar, it's strikingly dapper.

Emperor penguins are the only penguins that breed during the Antarctic winter. They don't build nests, but instead balance their single egg on their feet.

"EMPEROR PENGUINS ARE **CE FOR BREE**

Each female produces one egg between May to June, early in the austral winter, so that her chick will be developed enough to venture to the sea in December to January, where they will stay the rest of the summer, feeding independently. The entire

EMPEROR PENGUINS

breeding and rearing process takes place in huge colonies, or rookeries. These can comprise thousands of birds on fast ice sea ice that covers the ocean but is firmly attached to land.

BALANCING ACT

"Emperor penguins are the only birds that breed on sea ice," explains Rod Downie, our chief adviser for the polar regions. "For about nine months of the year they rely on the stable platform provided by fast ice: they mate on it, incubate their eggs on it, raise their chicks on it, and moult on it." 'Goldilocks' sea ice conditions are, therefore, essential for breeding success: not too little, but also not too much – extensive unbroken sea ice forces adults to travel further and expend more energy accessing open water to hunt while incubating and rearing chicks. And conditions look set to deteriorate.

"Most predictions anticipate a significant loss in Antarctic sea ice caused by global climate change," says Rod. "Some models suggest that, if global greenhouse gas emissions aren't curbed now, over 80% of emperor penguin populations

> ut their numbers have decl up to 50% in some places. On onv off the Antarctic Peninsu

HOW SATELLITES SURVEY POLAR **SPECIES**

PENGUINS

Scientists use aerial and satellite images to locate penguin colonies and spot population trends for chinstraps, Adélies and gentoos. Some breeding sites are identified from the colour of the penguins' poo.

WHALES

British Antarctic Survey has pioneered the use of very high-resolution (VHR) satellite imagery for identifying and counting species including humpback, sei, fin, grey, blue and southern right whales.



SEALS

VHR satellite images are used to study Weddell and crabeater seals. New methods combining these images with artificial intelligence, thermal imaging and spectral analysis will help to detect and count seals.

ALBATROSSES

Surveying the breeding sites of great albatross species - all threatened with extinction – on remote islands is difficult, so BAS has developed systems for counting the birds using VHR satellite imagery.

WALRUSES

loin the five-year Walrus from Space project to conduct a

census of Atlantic and Laptev walrus populations using satellite imagery, and help scientists better understand the impacts of climate change. Sign up at wwf.org.uk/walrus-from-space

could be lost by 2060 and the species will be virtually extinct by the end of the century. There's a clear link between climate change and emperor penguin populations."

ALT KTOMM MALLY

Already we've seen one of the world's largest emperor penguin colonies at Halley Bay almost disappear after three consecutive years of breeding failure, largely because sea ice broke up earlier than usual.

One challenge conservationists faced until recently is that we knew relatively little about emperor penguin populations, colony locations and feeding areas. This is a consequence of the challenges of researching in such an extreme environment, where remote sites are difficult and expensive to reach and monitor. Satellite technology plays an important role in this. For example, we're working with British Antarctic Survey (BAS), using satellite imagery to fill in gaps in our knowledge about the location, size and trends in emperor penguin colonies.

Satellite tagging of various bird species reveals migratory movements and locations of breeding, feeding and wintering grounds. Recording such data enables scientists and conservationists to identify changes in behaviour and locations.

In addition, satellite images of the Earth's surface reveal significant habitat and land-use changes - notably, in light of the climate emergency, reductions in forest cover and seasonal extents of land and sea ice. Increasingly, high-quality satellite imagery is being used to survey wildlife populations, too, identifying groups and, in some cases, even individual animals.

"Satellite technology has advanced tremendously in recent years," says Rod. "We now have access to commercial satellite imagery that's highly detailed. We can identify the locations of emperor penguin colonies from the stains produced by their guano, which are visible on the satellite images - the clue's in the poo!"

WWF has worked with BAS for a number of years on projects using satellite imagery to detect and monitor emperor penguin colonies, comparing their sizes with estimates in previous years. In 2020 BAS reported the results of a multi-year

satellite imagery study that identified 11 previously unidentified colonies, bringing the known total to 61 and increasing global population estimates to 266,500-278,500 breeding pairs. Some of the newly discovered colonies exist in offshore habitats or on ice shelves, something not previously reported for emperor penguins, leaving them particularly vulnerable to climate change.

EYE IN THE SKY

With your support, we're contributing to a larger project to buy and study satellite images to build an Antarctic-wide view of emperor penguin colonies over an extended period. This will allow us to create a baseline that will help us understand how the locations and sizes of the colonies change from year to year. Specifically, we're funding analysis of a large quadrant that hosts 16 known colonies.

"The results of this study will contribute to three objectives," explains Rod. "First, it will help us better understand emperor penguin population trends. Second, it may inform where marine protected areas

EMPEROR PENGUINS

PENGUIN PROSPEC

This map shows the location of all known emperor penguin colonies in Antarctica, and the estimated number of breeding pairs, including the newly discovered colonies.

> (Note that of the 65 breeding locations only 61 are currently occupied.)

Previously known 🔵 Newly discovered

Estimated breeding pairs

- 0-2,500
- 2,501-10,000

10,001-20,000

20,001-25,904

should be established around the Southern Ocean, to safeguard foraging grounds. And third, it will help us to develop a dedicated action plan, potentially including specially protected designation, for the emperor penguin."

Thanks to your support, we're developing a clearer picture of the emperor penguin's status, and of what the future might hold. In addition, all of us can play a part in tackling the biggest problem facing this species and other vulnerable wildlife: climate change. "The wider issue is that only human action can secure the fate of this iconic species," Rod concludes. "It comes down to global climate policy to safeguard the future of the emperor penguin."

BE A PENGUIN PAL

Help support projects to monitor and protect Antarctic wildlife from the effects of climate change by adopting a penguin: wwf.org.uk/penguinadopt

"To run a marathon, you need to be strong - both mentally and physically. To restore a forest, it's the same - we need to have the planting of trees in our hearts as well as our minds. It's what's in our hearts that makes people plant trees"

Long-distance runner and marathon world-record holder Eliud Kipchoge talks about his passion for Kenya's forests and why he's supporting our ambitious project to help protect them

Tell us about WWF's Greening Kaptagat project and how you're supporting it The Eliud Kipchoge Foundation is working with WWF to restore the Kaptagat landscape in Kenya and improve livelihoods for at least 1,000 people. Working with partners including the UK government, we aim to restore at least 1,000 hectares of deforested lands, train the local community in climate-smart agricultural practices and support women and young people. The project will help alleviate poverty, tackle climate change and reduce pressure on forests.

Why is it vital we protect Kaptagat forest?

Kaptagat forest lies within a landscape that includes important forest and water catchment areas. Its rivers and springs are the main source of water for people in the area. Despite this, the forest is under pressure from deforestation and degradation, driven by illegal logging, unsustainable subsistence agriculture and a growing human population.

Why is Kaptagat forest special to you?

I can't speak about my personal journey in athletics without talking about Kaptagat forest. In 17 years, I've never trained anywhere else. My dreams came true because of the forest. But over time, I've seen a forest that was intact and rich with indigenous trees become degraded, most of the trees cut down.

What makes it a good place to train?

It's 2,450m above sea level! A winning mentality is the first step towards success, but that alone is not enough. You also need the environment: fresh air, rich soil, clean water. Winning is about teamwork and determination - and that's what we need to restore our forest. If Kaptagat forest disappears, our crops, our livestock and our water will disappear too. My generation of athletes will run the marathon to save this forest and to empower our people.

How are sport and nature related?

Sport and nature go hand in hand and move hip by hip. In sport, you need to train in a healthy environment where you can breathe fresh air. Without trees, the air isn't clean. Without taking care of the environment, you can't train well.

INTERVIEW

We need to restore and preserve the forest for the next generation. By 2030, I want to plant indigenous trees and create paths through the forest to make training easier. I've adopted 50 hectares of degraded forest so I can restore this crucial resource.

What inspired you to launch the Eliud *Kipchoge Foundation in 2021?*

I launched the Foundation to conserve the forest, because if we remain silent it will continue to be depleted. I was lucky to have access to books and knowledge from a young age, but lots of children don't have an education due to a lack of resources. I hope to not only fund forest restoration but also enhance education in Kaptagat and beyond. I've helped establish a library in Kapsisiywa, the village where I grew up, to educate future generations about protecting our environment.

What's your advice for young people who want to take action for the environment?

Just like in a marathon, restoring our forests will have a flat course, a hilly course and sometimes the unexpected can happen. Don't engage reverse gear. In athletics, the difference between a world record can be just a second. In forest restoration, every second counts. Globally, we're losing an area of forest the size of a football field every second. We must change this - and it is possible.

What's your message for world leaders?

It's time for world leaders to fulfil the promises they made to help people and nature bounce back. When it comes to the fight against climate change and nature loss, a promise without action is an expensive debt. We need to invest in nature right now, and not just make empty promises.

What are your dreams for the future?

To bring together Kenyans and the world to conserve the environment, the same way people of different cultures, nationalities and languages are brought together by athletics. I believe running marathons and planting trees are the same. If we can break a world record in a marathon, we can also create a world record in tree planting. I want to help make Kenya and the whole world green.



ABOVE: With the support of tiger protectors around the world, wild tigers are beginning to make a comeback in China

BELOW: Bishnu has earned respect as Nepal's finest tiger tracker. He considers tigers to be an inseparable part of his life. He was just 16 when he started working to conserve the species

We meet some of the heroic people who are playing a crucial role in helping to double wild tiger numbers

his is the lunar year of the tiger. And it marks 12 years since all 13 countries where wild tigers live committed to double their numbers by the end of 2022, known as TX2. Thanks to you, we've made great progress, and wild tiger numbers are now up in five countries, including China and Nepal. Let's meet some of the tiger heroes you've helped.

NEPAL'S TIGER TRACKERS

"There's nothing like the scent of the jungle in the morning," says Bishnu Prasad Thapaliya, breathing in deeply. He's worked to conserve Nepal's wildlife for 17 years, and now he's leading a tiger-tracking team. After an early brunch of rice, lentils and vegetables, Bishnu and his team seek the blessings of the Forest Goddess.

"We don't know what we'll encounter," he explains. "We ask the Forest Goddess to guide us through our days and nights in the forest safely." Red vermilion, rice grains and flowers are sprinkled on a stone under a tree, while oil lamps and incense sticks scent the air. Each team member daubs red vermilion - the colour of life - on their forehead, then it's time to prepare for the day's work.

The team packs the equipment and scrutinises a map divided into five grids of four square kilometres to plot the route they'll take. After an hour-long hike through the forest they arrive at Nakkali Khola. There's a stream here and Bishnu has spotted tiger tracks; maybe the cats follow this trail to the river to drink. It's the perfect site to set up a pair of camera traps.

Once the cameras are installed, Bishnu does the 'tiger walk' (prowling on all fours) to check their direction - the placement is perfect. "Once a tiger is



photographed," he explains, "it can be identified by its unique stripe pattern. This enables scientists to estimate populations."

Bishnu's team also records signs of tigers and their prey in order to map their distribution and abundance. So now they walk along the riverbed, eves cast down. They are thrilled to come across tiger tracks. They take photos and notes about pugmarks for later analysis.

Next, two of the team walk 1.5km along the river in a straight line to record signs of prev. They spot a herd of hog deer. "For a forest to support a healthy population of tigers, it must offer good habitat and an abundance of prey," explains Bishnu.

The data his team have gathered today will help to focus conservation actions. But now it's nearly sundown. Time to head back to camp, to share stories around the campfire.

CHINA'S TEAM TIGRESS

Deep in the mountains of north-east China, tigers roam. And in Heilongjiang Province, these rare cats are protected by a unique ranger team - the only all-female patrol in the country.

Patrol leader Qui Shi is proud of the crucial role her team plays in helping to safeguard tigers and their forest home. "We live beside the forest, regarding it as a companion," she says. "Our fathers and grandfathers walked these forests before us. Today, I encourage my family to pay attention to the harmonious coexistence of humans and nature, and to care consciously about wildlife."

At first light, the six rangers set out on patrol, their breath fogging in freezing air. They will often trek for hours across the freezing and unforgiving terrain, where temperatures can fall as low as -40°C. The women walk quietly in the snow, studying the ground, scanning for footprints and other signs of the big cats' presence.

When they spot tracks, the team measures them to see if they belong to a tiger or a leopard, takes photos and logs the coordinates. "These moments are the highlight of our days," says



Shi. "Every trace of a wild animal is a thrill. The landscape is unforgiving, but when we see roe deer walking among the trees, it feels like a fairvtale." Climbing the steep and snowy mountainsides, the women change the batteries and replace the data capture video footage of any big cats passing by in

cards in the infrared camera traps that are used to the night. The rangers also remove snares - metal wire traps set to catch wildlife. These traps are

GENERATION OF

accident is unavoidable."

YEAR OF THE TIGER: PART 1

- **"WE ARE THE NEW FORESTRY PEOPLE PROTECTING WILDLIFE"**
- often concealed, hard to spot and indiscriminate - one even caught the foot of one of Shi's team. Fortunately, she was unharmed. "Over the years poachers have grown more cunning," sighs Shi. "We are continually learning too, but sometimes an
- The team also works closely with local communities to understand their concerns about living with predators such as tigers, to communicate the importance of protecting local wildlife from poaching and to offer support developing sustainable livelihoods. "We are the new generation of forestry people protecting wildlife," explains Shi. "For us, this is purpose with deep meaning."

- ▲ TOP RIGHT: Qui Shi and her team work to protect China's northernmost region of Heilongjian. She says: "As a keystone species, tigers prove to me that my work is meaningful'
- ▲ TOP LEFT: It's important to check the placement and angle of the camera traps. To do this, Bishnu and his team in Nepal perform the 'tiger walk', imitating a big cat walking past



SEE MORE

Go on patrol with our tiger trackers on the My Action website. Our photo galleries show the teams at work protecting wild tigers and helping to achieve the

TX2 target. Take a look at



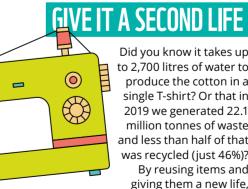
SHAKE UP YOUR MEALS

Around 75% of the world's food comes from just 12 plants and five animal species. This places unnecessary demand on our food system, making it more vulnerable to disease, pests and the effects of climate change. By eating a more varied diet, you can help relieve the pressure on our ecosystems. You might even discover a new favourite meal. If you've got kids, why not let them choose to try a recipe they fancy?

RECIPE BOOK



Avoiding synthetic materials in favour of natural fibres such as cotton will help you have a more sustainable wardrobe. Many manmade fabrics are infused with chemicals. They also have a short lifespan. Even better, organic cotton certification doesn't allow the use of toxic chemicals or genetically modified organisms. Energy demand for organic cotton is also 62% lower than that of regular cotton. Buying organic cotton tells manufacturers that you want them to make better choices.



you're not just saving money but helping the planet too. So turn that T-shirt into a tote bag, or a wine crate into a footstool. There are thousands of creative ideas for 'upcycling' online. What will you make?

WASH COLDER

Lowering the temperature of your wash is a vital part of reducing the environmental impact of your laundry. Up to 60% of laundry's carbon footprint comes from heating water. Even slightly cooler water can save a lot of energy, and choosing a quick wash cycle will maximise your energy saving. Make the pledge to wash colder at washcoldchallenge.co.uk and track your progress on the My Footprint app.

FIGHT FOOD WASTE

An incredible 33% of food

is wasted. In the UK, that's

4.8m tonnes every year.

Discarded food is one of

as it rots in landfill. And

the biggest sources of the

greenhouse gas methane,

when we waste food, we're

wasting the energy used to

it. So see how empty your

fridge can be before buying

more food. Planning meals

and maximise your budget.

will minimise food waste

grow, transport and package



FILTER OUT MICROFIBRES

Lots of our clothes are made of plastics such as polyester and nylon. Each time we wash them, these materials shed microfibres - tiny bits of plastic, thinner than a strand of hair. They're so small they can pass through wastewater treatment plants into the sea. Not enough is known about the longterm impacts of microplastics on marine ecosystems - or on human health. Putting your clothes in a microfibre bag before you wash them can help reduce the amount of microplastics reaching the ocean.

SWITCH TO ECO MODE

Less than 1% of the world's fresh water is available for people to use. And it's not just hot countries that struggle - water scarcity is an increasing problem in the UK. Using less water reduces pressure on our rivers and lakes, and leaves more water to support wildlife. Running your dishwasher on its eco setting is a great step towards cutting water consumption. Make a bigger impact by ensuring it's full before you run it, and don't rinse your plates first.

CHANGE. DIFFERENCE

e've all seen the devastating impact human activity can have on the natural world, but it doesn't have to be this way. We can build a better world by making small changes to our everyday lives.

MY FOOTPRINT

DOWNLOAD

AND TRACK

YOUR

PROGRESS

TODAY

Using our My Footprint app is one easy step you can take to help our planet and keep yourself motivated to make a change. You can calculate your carbon footprint within the app, and then get practical advice on how you can introduce positive changes to your life through a variety of challenges, from cutting down your plastic consumption to eating more plant-based meals.

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STE LESS, WANT NOT

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Z

N

packaging being recycled, the amount we send to landfill in the UK has gone up by 446,000 tonnes (15%) since 2013. Zerowaste shops are essential to the government's plan to eliminate all avoidable plastic waste by 2042, with new stores launching each month. Less packaging also means lower costs, adding up to significant savings on your shopping. Search online for 'zero waste' or 'waste-free near me'.



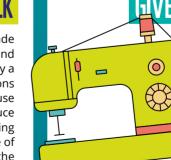
ZER

Despite more of our

CUT OUT COW'S MILK

ABTE

Plant-based milks made from soy, oats, rice, almond and coconut create only a third of the CO₂ emissions of cow's milk. They also use less land, and don't produce harmful methane gas. Using plant-based milk in place of cow's milk, some or all of the time, will reduce your carbon footprint and you might find a new favourite. Why not try the full range of plant-based milk substitutes and see which one you prefer?



100%

ORGANIC COTTON

SUSTAINABLE LIVING

Did you know it takes up to 2,700 litres of water to produce the cotton in a single T-shirt? Or that in 2019 we generated 22.1 million tonnes of waste and less than half of that was recycled (just 46%)? By reusing items and giving them a new life,

TAKE THE WASH COLD **CHALLENGE**

WWF supports vital research into how climate change is affecting the environment, and what we can do to tackle it. That's why we're working with Ariel to help alert everyone to the environmental impact of our laundry and the simple changes we can all make to reduce our CO₂ footprint.

Ariel is inviting UK households to pledge to take part in its #WashColdChallenge. Once it's hit one million pledges, Ariel will donate £100,000 to WWF to support our conservation work. Take the pledge by using the hashtag #WashColdChallenge on social media or visit the website washcoldchallenge.co.uk.

Ariel will also make a donation to WWF for every pack of Ariel PODS Cold Wash sold in the next year.

You can win a year's supply of Ariel PODS Cold Wash, formulated to work at low temperatures. Turn to page 30 to find out how to enter.

COMPETITIONS





WINNING FOR WILD TIGERS

Win an exclusive Tiger Protector gift

An exclusive The Tiger Who Came to Tea collection, featuring Judith Kerr's beloved characters, has been created to support our efforts to help double the number of tigers in the wild by the end of 2022.

edition of The Tiger Who Came to Tea book, a plush toy, an enamel badge and a tiger adoption welcome pack. It also includes a year's worth of exciting tiger updates, so you can discover all the ways you're supporting our vital work to protect the cats and their habitats.

We have one exclusive Tiger Protector gift box, worth £49.99, to give away. To be in with a chance of winning, follow the instructions (right) and mark your entry 'Tiger competition'. Please indicate on your entry if you would like a standard pack or a pack for under-12s that includes special The Tiger Who Came to Tea activities.

ARCTIC STYLE

We're giving away three walrus cushion covers designed by Barry Tranter

Let wonderful walruses into your world with these modern, minimal designs by illustrator Barry Tranter. Another exclusive to the WWF range, their simple graphic style gives these cushion covers plenty of personality. With designs in either pink or grey, they're great for sofas, chairs, bedrooms or your home office, and will be a hit with adults and kids alike.

The covers are 40x40cm with zip closures, and are printed and handmade to order in the UK, using AZO-free dyes and 100% GOTS* organic cotton.

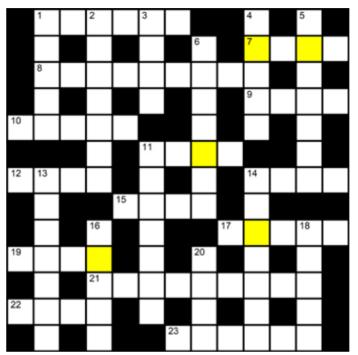
For your chance to win, follow the instructions (below) and mark your entry 'Walrus competition'.

FUN WALRUS CUSHION COVER WORTH £29.99

rnsswird

Solve our crossword and you could win a copy of Into The Wild by Gemma Padley (Laurence King, RRP £40)





WWF ACTION CROSSWORD 50: Spring 2022 issue. Compiled by Aleric Linder

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 25 March 2022.

Clues across

- 1 Sustainable _, more careful use of environmental resources (6)
- 7 Chicken enclosure (4)
- 8 _ Dales. Ribblesdale and Wensleydale form part of this UK nature area (9)
- 9 Land measure just over 4,000 square metres (4 10 Green growth that many animals
- graze on (5) **11** Wind _, renewable energy site (4)
- 12 Buzzing pollinators with a key role in ecosystems (4)
- 14 Plant cultivated to make eco-friendly products such as rope, clothing and naper (4)
- 15 Killer whale (4)
- 17 Wetland habitat (5)
- 19 Blubbery animal that polar bears feed on (4)
- 21 A nasty chemical such as DDT (9)
- 22 Scotland's Leven or Lomond (4) 23 Most of this tiger population
- lives in India (6)

Clues down

1 Ozone_, absorber of ultraviolet radiation (5)

- 2 Infectious types that cause diseases such as Ebola and Covid-19(7)
- 3 Birds lay their eggs in it (4) 4 'Southern' body of water
- surrounding Antarctica (5) 5 Travel industry sector which can
- (in some cases) be sustainable (7) 6 Wintry Russian region where Amur tigers once lived (7)
- 11 World region that includes China and Japan (3,4)
- 13 Largest of all the penguin species (7) 14 Effective home insulation helps reduce these winter bills (7)

16 _ male or female, leader of the pack (5) **18** A turtle's protective covering (5) 20 Natural hazard that causes forests to literally go up in smoke (4)

Autumn 2021 answers

Prize word: COASTAL Across 7. Climate change 8. Leopard 9. Hippo 11. Near 12. Leased 15. Tanker 17. Gobi 20. Thick 21. Glasgow 22. Environmental Down 1. Iceland 2. Kilowatt 3. Javan 4. Herd 5. Marine 6. Egypt 10. Hair 12. Lake 13. Droughts 14. Oil well 16. Arctic 18. Rhino 19. Waves 21. Guns

PAWSOME PHOTOGRAPHY

We've got four copies of Remembering African Wild Dogs to give away

The latest book in the groundbreaking Remembering series aims to raise awareness of one of Africa's most elusive and misunderstood animals - the African wild dog. There are only about 6,600 African wild dogs, and 660 breeding pairs, in the wild. They're threatened by loss of habitat, conflict with

people, disease and snaring. This stunning collection of images brings together the world's leading photographers to raise awareness of the wild dog's plight and support its recovery. All profits from the sale of the book will support projects that protect wild dogs. To win your copy, follow the instructions (below) and mark your entry 'Wild dog competition'.

My Action

You can see more beautiful images from the book on the My Action website: myaction.wwf.org.uk/ wilddogs

HOW TO ENTER ACTION GIVEAWAYS

Send an email with your name, address and phone number, along with 'Walrus competition', 'Tiger competition', 'Wild dog competition' or 'Ariel competition' in the subject line, to competition@wwf.org.uk

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

Only one competition per entry. Closing date: Friday 25 March 2022. For terms and conditions, visit: wwf.org.uk/compterms

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The limited-edition Tiger Protector gift box comprises a special

NOTES EROM THE FIELD

tree nursery helps restore degraded fores and supports livelihoods

REGENERATING FORES

Smearing tree seedlings in fish paste to deter baboons probably isn't one of the techniques you learn in forestry school. But local knowledge and local support are crucial if you want to restore a forest - as our work in Tanzania's Uchungwa Forest has shown.

The forest is home to an incredibly rare tree, Eruthrina schliebenii. In old times, erythrina was a lifesaver for local people who used its spiny bark to cure children of fever. But by 2008 it had been declared extinct - until our surveys found 50 surviving specimens. In 2016, we started working with villagers to collect the trees' seeds and grow them in a new nursery.

That was when the baboons became curious about what we were doing, and quickly took a liking to the erythrina tubers. We had to set up patrols to chase them off. The breakthrough came when villagers suggested smearing the seedlings in sifa, a stinky, oily substance made from fish carcasses, traditionally used to seal boats. After that, the baboons left the trees alone.

Since then, we've returned almost 30,000 erythrina saplings to the forest, bringing the species back from the brink of extinction. And we've replanted thousands of other native trees from the village nursery into the community-managed forest reserve. The nursery also grows fruit trees to enrich the village farmlands, and teak to restock abandoned timber plots, effectively providing a long-term savings account that will pay a handsome return when the wood is harvested.

WORKING TOGETHER

After five short years, the transformation of the forest is palpable. Forest reinvigorates quickly here: on every visit now, we find buffalo dung and elephant tracks, where before there were none. Our camera traps are alive with leopards and porcupines, as wildlife returns in numbers.

Thanks to your support, and the Trillion Trees joint venture, we've developed similar models in nearly 50 villages in Tanzania, enabling us to protect and regenerate 5,200 sq km of forest. We're now working with the Tanzanian government to develop a nationwide forest restoration strategy. Tanzania has pledged to restore 52,000 sq km of forest by 2030 - and we'll ensure this happens in a way that benefits people, wildlife and the climate.

Azaría Kílímba

WWF-Tanzania forest programme officer



MAKE A WILL FOR FREE

If you're thinking of writing your will, and want to do it from the comfort and privacy of your own home, contact our partner Bequeathed who'll support you every step of the way

With Bequeathed, you can write a standard will for free. Simply follow the steps online and get advice from a legal professional with a 30-minute appointment.

There's no obligation to remember WWF in your will – but we hope you'll consider it.

For a future where people and nature thrive | wwf.org.uk
© 1986 panda symbol and ® "WWF" Registered Trademark of WWF. WWF-UK registered charity (1081247) and in Scotland (SC039593). A company limited by guarantee (4016725)

If you have any questions about making a will, please contact Ella in our gifts in wills team on **01483 412153** or email **ella@wwf.org.uk**



Scan the QR code to get started or visit bequeathed. org/wwf



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