



Action

THE MAGAZINE FOR WWF MEMBERS SUMMER 2017

WIN!
AN OUTDOOR JACKET
 WORTH £179.99
 See page 30



MEET THE TIGER PROTECTORS

How you're supporting teams on the front line



FISHERMEN'S FRIENDS

How you're helping Kenya's fishing communities to learn to love marine turtles

THE BEST OF EARTH HOUR

All the ways you helped us make Earth Hour a night to remember – and our Heroes are revealed

OUR SHARED HERITAGE

Thanks to your support, some of the world's most special places are now better protected



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PROTECTING ELEPHANTS

If you're looking for the Africa of TV wildlife documentaries, then Selous (pronounced *seloo*) Game Reserve in southern Tanzania is one of the best places to find it. This vast wilderness area is home to some of the largest remaining populations of elephants, lions, hippos and buffaloes on the continent.

Forty years ago, the reserve was home to nearly 110,000 elephants. But their numbers have been devastated by poachers. By 2014, a census estimated that just over 15,000 remained – almost 90% of Selous' elephants have gone.

Every year, poachers kill around 20,000 African elephants to feed the illegal trade in ivory. That's an average of 55 elephants every day, or one every 25 minutes. We urgently need your help to stop this terrible crime.

We're pushing to strengthen wildlife laws, improve detection, enhance law enforcement and prosecution, and reduce demand for ivory products. Find out how you can support our vital work to help stop the wildlife criminals at www.wwf.org.uk/wildlifetrade

ACHIEVING ZERO POACHING IN SELOUS IS GOING TO TAKE A HUGE EFFORT. BUT WITH THE SUPPORT OF OUR INCREDIBLE MEMBERS, WE CAN MAKE SELOUS A GREAT SUCCESS STORY

FIND OUT MORE ON PAGE 18

MEET THIS ISSUE'S CONTRIBUTORS



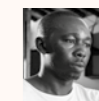
SINGYE WANGMO

is a senior forestry officer and tiger protector in Bhutan. She says: "My job is mentally and physically challenging, but when you live your passion, you feel enormous satisfaction."



PAVEL FOMENKO

is WWF's species programme coordinator in Russia and an expert on Amur tigers. He says: "Tigers are like family to me. They're powerful, intelligent creatures, but they need our help."



MIKE OLENDO

heads up WWF's marine team in Kenya. He says: "Marine turtles are an indicator of ocean health, so it's important we build strong relationships with local communities to protect them."

GET IN TOUCH

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TOGETHER, WE DID IT!

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

1 BHUTAN

BHUTAN'S FIRST NATIONAL SNOW LEOPARD SURVEY

Bhutan has announced that there are around 100 snow leopards roaming the country, following its first nationwide survey, which WWF-Bhutan helped fund. These endangered cats are known to live in Bhutan's highest mountains, but previous surveys did not provide a reliable national population estimate. The census involved staff hiking for months through some of the country's highest, steepest and remotest mountain ranges, surveying tracks and installing camera traps in 221 locations. The cameras captured evidence of previously unknown populations of snow leopards in Jigme Khesar Strict Nature Reserve and Paro Territorial Forest Division, indicating that Bhutan provides critical habitat for the species in the eastern Himalayan region. This is the first time any snow leopard range country has conducted a full national survey of the species. These findings will allow Bhutan to devise a management plan to conserve these big cats, their prey and their habitat.



DID YOU KNOW?
The snow leopard could lose up to 30% of its habitat in the Himalayas due to climate change



"Thanks to your support, the global transition to a low-carbon future is already under way and it's unstoppable. The real issue is how quickly we will get there, not whether we will get there"
LANG BANKS, DIRECTOR OF WWF SCOTLAND



Scotland has fantastic renewable energy potential. Successfully unlocking this will secure our climate goals

6 SCOTLAND

YOU HELPED US CAMPAIGN FOR RENEWABLE ENERGY IN SCOTLAND

We were delighted when the Scottish government announced in January that it would set a new target to generate half of all Scotland's energy needs from renewables by 2030. Thanks to your support for our climate and energy campaigns in Scotland, this new target means Scotland will be reducing climate-damaging emissions from transport, electricity, and the heating of homes and businesses. With well over half of Scotland's electricity already coming from renewables, we know this target is achievable and necessary. We now need to turn our attention to making the same progress in cleaning up the transport and heating sectors, moving away from fossil fuels to a low-carbon economy fit for the future. We'll continue to work on ensuring the Scottish government delivers the policies needed to meet all our climate change targets.

i FIND OUT MORE in our *Energy of Scotland* report: www.org.uk/scotlandenergy

60%
of Europe's animals and plants – and 70% of their natural habitats – are at risk from increasing demands for space, water, energy and food

2 RUSSIA

YOU HELPED SAVE AMUR TIGER HABITAT

Thanks to you, the Korean pine forests in Russia's Far East remain protected from commercial logging. More than 90% of the world's Amur tigers are found in Russia, where they need large, intact forest ecosystems to survive. So when the tigers' main habitat – old-growth Korean pine forests – was threatened, WWF and our partners were quick to respond. In January, a potentially devastating amendment to timber cutting regulations in Russia came into force that stripped 80% of these forests of their protected status. With your support, we worked with other NGOs to appeal the decision. We held an urgent press conference highlighting why these changes would be disastrous for the Amur tiger, which is already suffering from dwindling habitat. Our voices were heard! The ban on logging operations has now been upheld – and the Korean pine forests are safeguarded once more.



3 SPAIN

YOU HELPED PROTECT DOÑANA FROM DREDGING

Every year, six million migratory birds stop off in Doñana National Park, a World Heritage site in Spain, on their way between Africa and Europe, including a million en route to the UK. Last autumn, you helped create a different type of migration. We invited you to send emails to the Spanish prime minister asking him to stop a river dredging project that would have been a catastrophe for Doñana's wetlands and bird life. And you responded brilliantly – more than 141,000 emails were sent. We also asked you to send us origami birds and your colourful paper creations migrated from all corners of the Earth. In November, we displayed them outside the Spanish parliament. Shortly after, the government announced that dredging wouldn't be going ahead!

i FIND OUT MORE about protecting Doñana on page 18.



4 EUROPE

YOU HELPED PROTECT EUROPE'S WONDERFUL NATURE

The European Commission agreed not to review, change or weaken the EU Birds and Habitats Directives, which protect thousands of species and habitats. It declared the laws fit for purpose. This welcome news followed a Europe-wide campaign by WWF and our partners, which helped secure a 500,000-strong petition that many of you signed. It puts an end to almost two years of heated debate over the future of the EU's flagship nature laws.



5 UK

YOU HELPED CONNECT PEOPLE TO THE CELTIC SEAS

Our four-year Celtic Seas Partnership project has now come to an end. It successfully brought together governments, sea-users and scientists to find new ways of managing the Celtic Seas to secure a sustainable future for our valuable marine economy and protect our precious seas. The project was supported by EC LIFE+ and match funded by WWF and valued supporters like you. It's been helped by all the national governments in the area, and engaged more than 1,500 people, empowering them to shape a more sustainable future for everybody – and the Celtic Seas.



SCALING UP PROTECTION

The pangolin is one of the strangest animals you've never seen - and the most heavily trafficked mammal on the planet. We're working with our partners to stamp out the illegal wildlife trade that threatens this species

The world's only scaly mammals, all eight species of pangolin (four in Africa and four in Asia) look like evolutionary escapees from the time of the dinosaurs. But you've probably never seen one because they're solitary, nocturnal and highly secretive. When startled, a pangolin rolls into a ball, presenting a suit of armoured scales towards the threat. Indeed the word pangolin comes from '*penggulung*' - the Malay word for roller.

Also called scaly anteaters, pangolins subsist almost exclusively on ants and termites. Their tongues are very long, highly sensitive to touch and covered in sticky saliva - and they use them to collect thousands of ants every night.

In Asia, pangolins are highly prized by consumers for their meat and scales. Over the past decade, over a million pangolins have been illegally taken from the wild to feed this demand. Their meat is considered a delicacy, while their scales are used in traditional medicine. They're believed to treat a range of ailments from asthma to rheumatism and arthritis.

We're working with TRAFFIC to crack down on wildlife crime and reduce demand for illegal wildlife products in countries along the trade chain from source, transit and destination. We're helping governments to tackle poaching, and lobbying for strong national laws and improved enforcement to ensure wildlife crime doesn't pay. Last year, 182 nations agreed a total ban on international trade in all pangolin species - throwing these unique survivors a much-needed lifeline.

Help us stop wildlife crime at www.wwf.org.uk/wildlifetrade



WWF IN ACTION

Our recent challenges and triumphs for wildlife and the environment



In London, our inaugural Rickshaw Run sent rickshaws dashing across London to thank its great landmarks for switching off

EARTH HOUR 2017 AROUND THE UK

Huge thanks to all our supporters who helped make Earth Hour so special. Here's how you did it...



At the Living Planet Centre, children made Earth Hour lanterns...



You sent hundreds of 'messages in a bottle' for our Welsh art installation...



Scotland celebrated by switching off 165 landmarks



Dancers from The Royal Ballet Company helped spread the message

To see more Earth Hour highlights from around the world, visit: wwf.org.uk/earthhour



In February, we got together to honour our 2017 Earth Hour Heroes – people who have a passion for making a difference

CLIMATE CHANGE

EARTH HOUR HEROES - UNMASKED

THE SUPERHERO world was buzzing in February when it welcomed four new members to its ranks: our Earth Hour Heroes

These everyday heroes have been quietly going about their business of saving the planet. But in the build-up to Earth Hour 2017, we joined forces with People's Postcode Lottery to lead a nationwide search for unsung heroes. And you helped us find them. We invited the shortlisted nominees to an exclusive award ceremony at the Palace of Westminster, so that their phenomenal work could be recognised at an award ceremony hosted by Olympic rowing champion and WWF supporter, Andrew Triggs Hodge.

Our heroes go above and beyond to help protect the planet in many ways, so Earth Hour Heroes has three categories – Workplace Hero, Community Hero and Lifestyle Hero. Thanks to the support of players of People's Postcode Lottery, each winner received £1,000 to further their green efforts.

Our Workplace Hero winners were Tim Whitmore, who helped St Saviours Nursery

and Infant School in Bath move to solar energy, and Fiona Ball, who leads Sky's work to reduce its environmental impact. Runner-up was Tom Hunt who founded the Forgotten Feast, a campaign to revive the UK's cooking heritage and help reduce food waste.

Gloria Esposito was our Community Hero. She works to improve air quality in London and advocates the use of new and renewable energy. Catherine Fookes from the Organic Trade Board was named runner-up for her dedication to promoting organic food in the UK.

Our Lifestyle Hero was the inspirational David Saddington, who has promoted the understanding of climate change locally, nationally and globally for the past 11 years. Runner-up was award-winning blogger Jane Cook, who champions ethical and sustainable lifestyle choices in what we eat and buy, and how we travel.

WWF's Karen Gates said: "Our winners are all amazing people who are really making a difference for our planet. I'm delighted we're able to celebrate their great achievements."

ANOTHER RECORD-BREAKING EARTH HOUR

On Saturday 25 March, WWF's Earth Hour rolled across the world once again in a global show of support for climate action – and it was the BIGGEST yet, all thanks to you!

From Nairobi to New York, Delhi to Dublin, millions of you across an unprecedented 187 countries and territories came together to call for urgent action on climate change. Over 300 landmarks across the UK, including Big Ben, 10 Downing Street, Edinburgh Castle and the Cardiff Millennium Stadium switched off their lights in support of climate action, joining over 3,000 landmarks across all seven continents.

In the UK, we had a brilliant night with a record 306 landmarks switching off their lights. Around 38,000 viewers watched the London Eye turn dark on Facebook Live, and our inaugural Rickshaw Run sent rickshaws dashing across London to thank its great

landmarks for switching off.

Up and down the UK people took part in their own way – from stargazing forest walks to cycle-powered film screenings and candlelit dinners – all switching off the lights for one hour to send a clear global message about the need to protect our amazing planet from the threats of climate change.

Our UK Earth Hour campaign reached over 70 million people on social media alone. Celebrity supporters, including musician Ellie Goulding, Yoko Ono and Olympian Andrew Triggs-Hodge, helped spread the word and called for climate action too, as did hundreds of businesses and organisations including HSBC, Coca-Cola, M&S and Sky, plus Arsenal Football Club, which shared an Earth Hour film with 37 million fans on Facebook.

Singer Ellie Goulding is a long-standing advocate for action on climate change and supported this year's Earth Hour campaign

Thank you to all of you who joined the millions taking part across the UK to send a clear message of support for our brilliant planet.

SEE OUR EARTH HOUR HIGHLIGHTS

Check out our Earth Hour highlights and find out how you can go beyond the hour: wwf.org.uk/earthhour



NEWS IN NUMBERS

3,000 KM



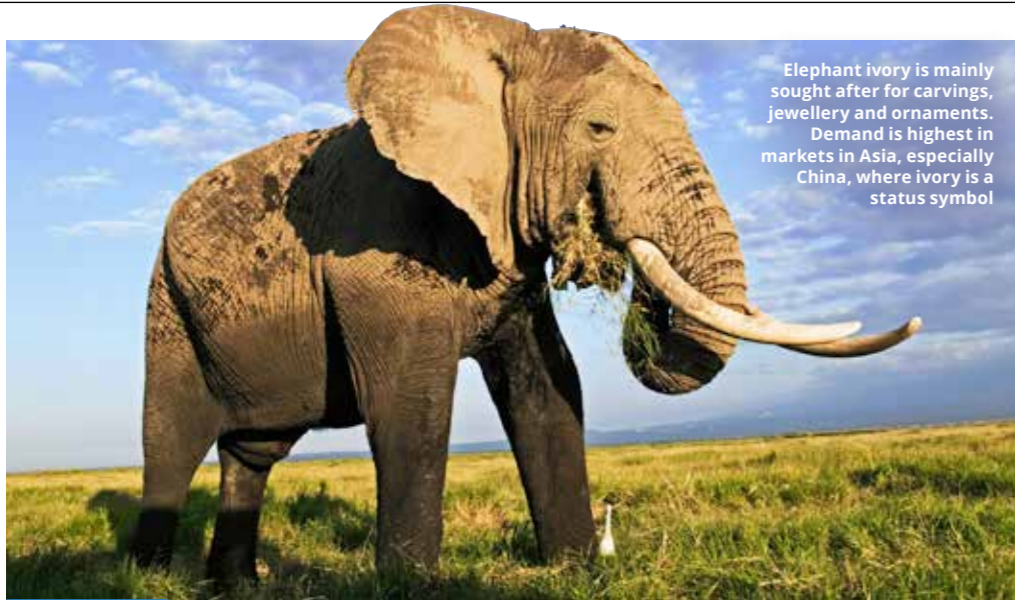
7,380 SQ KM

The distance covered by actor Nicholas Hoult and two pals on India's famous Rickshaw Run in January. Their goal: to raise funds for WWF's one-horned rhino conservation, following a visit to Chitwan National Park to learn about rhino conservation.

The area of forest on the coast of Kenya that we're helping to conserve for people and nature thanks to £40,000 funding secured this year through our partnership with Size of Wales.



© MARTIN HARVEY / WWF



Elephant ivory is mainly sought after for carvings, jewellery and ornaments. Demand is highest in markets in Asia, especially China, where ivory is a status symbol

WILDLIFE CRIME

CHINA TO BAN DOMESTIC IVORY TRADE

WE'RE DELIGHTED that China has announced it will close its legal domestic ivory market by the end of this year

Last December, China promised to close down its domestic ivory trade by 31 December 2017. This signals an end to the world's largest legal ivory market and gives a major boost to international efforts to tackle the elephant poaching crisis. The authorities in Hong Kong also announced that they will phase out the city's domestic ivory trade by 2021.

Lo Sze Ping, CEO of WWF-China, applauded the Chinese government's determination to reduce demand for illegal ivory. He said: "Closing the world's largest legal ivory market will deter people in China and beyond from buying ivory,

and make it harder for ivory traffickers to sell illegal stocks. Now that three of the world's largest domestic ivory markets – China, Hong Kong and the US – are being phased out, we hope other countries will follow suit."

Only 415,000 African elephants remain, and each year about 20,000 are killed illegally for their tusks, primarily to feed demand in Asia, particularly China. While closing key commercial domestic ivory markets will have a major impact, bans alone will not stop the illegal ivory trade if demand persists – stronger law enforcement is also needed.

WWF and TRAFFIC will continue working together to end the illegal ivory trade – and give elephants a safer future.

NEW HOME FOR RHINOS

THANKS TO your support, eight greater one-horned rhinos have been translocated to Shuklaphanta and Bardia National Park, in Nepal, to boost the breeding population there. In early April, five rhinos were sedated in Chitwan National Park, fitted with satellite-GPS collars and transported in a specially designed truck to Shuklaphanta, bolstering the existing population of 10 rhinos. In the same expedition, a further three rhinos were translocated to Bardia. The move is part of an ongoing programme, which started last year and is supported by WWF, to translocate 30 rhinos to the two national parks between 2016 and 2018. The Nepal government is committed to restoring rhino numbers to their historic size of 800, and creating a second viable population of rhinos in the western Terai Arc Landscape.



© WWF/NEPAL / SIMRIKA SHARMA



© GETTY IMAGES

ACTION INTERVIEW

MIRANDA RICHARDSON

Actress and WWF ambassador Miranda Richardson starred in our *Show The Love* film, in the run-up to Earth Hour. We asked her a few questions...

WHY DO YOU SUPPORT WWF?

Because WWF was set up by one of my childhood heroes, Sir Peter Scott, to save species. That's what I am most interested in and is most important in our time.

HOW DID YOU CELEBRATE EARTH HOUR?

I switched off every single electrical item, including taking them off standby, of course. And I indulged in some 'dark gardening' and watched the stars.

WHY ARE YOU CONCERNED ABOUT CLIMATE CHANGE?

Because climate change poses a huge threat to species around the world. I am also concerned that our generation's legacy will be an impoverished world. Poverty increases desperation, which results in environmental degradation.

HOW MIGHT CLIMATE CHANGE AFFECT YOU PERSONALLY?

Our landscapes could become increasingly degraded and our children may well suffer the consequences. I fear that the quality of life for all species will be compromised.

HOW CAN OUR MEMBERS TAKE ACTION ON CLIMATE CHANGE?

Be vigilant, lobby governments, take care not to waste resources, think seriously about how you travel and teach your children to be inspired by the natural world. Be positive whenever you can.

Starring Charles Dance, *Love Song* is a powerful three-minute film that urges everyone to protect the life they love from climate change



© THE CLIMATE COALITION

CLIMATE CHANGE

SHOWING LOVE FOR THE PLANET

IN THE RUN-UP to Valentine's Day, we joined the Climate Coalition for another year of turning red hearts green

More than 400 events took place across the UK in support of climate change action. Thousands of individuals, schools and community groups showed their love for the things they want to protect from climate change by making, wearing and sharing green hearts.

We celebrated the launch of the #ShowTheLove campaign with the great news that Lord's Cricket Ground is going 100% renewable, leading the way towards a clean and secure future. The talented

Ridley Scott Associates created the centrepiece of the campaign, a beautiful and emotive film featuring WWF ambassador Miranda Richardson and British actor Charles Dance. The film was a huge success, with over six million views online in a week. It even took to the big screen, thanks to Picturehouse who showcased it in all 23 of their nationwide cinemas.

We rounded off the campaign with a Twitter debate hosted by Al Gore's Climate Reality Project, focusing on the reasons we should all be hopeful for the future.

Watch the film: wwf.org.uk/lovesong

JOIN THE WEEK OF CLIMATE ACTION

We'll be taking part in the Week of Action again this year. From 1–9 July, thousands of people across the country will be holding events with their MPs in their communities. It's your chance to speak up for the things you love that are affected by climate change.

From group nature walks and street tea parties with your local MP to showcasing community energy projects, why not come along to an event – or host one of your own?

Find out more: wwf.org.uk/weekofaction17



PICTURE STORY

SNOW LEOPARD QUADRUPLETS!

A snow leopard with an incredible litter of four cubs has been caught on a WWF camera trap in Mongolia. The night-vision camera footage shows a mother with four cubs. Snow leopards in this region have previously been seen with two cubs, or occasionally three. But this is the first time quadruplets have been seen. The discovery was made when remote cameras were recovered from the mountain last December. Our snow leopard specialist, Rebecca May, explained: "With only 4,000 to 6,500 snow leopards estimated to be living in the wild, seeing footage of one with four cubs is astonishing! These hardy cats are threatened by poaching, conflict with people and loss of living space. Sadly, hundreds are killed for their beautiful spotted coats each year."

Watch the video here: wwf.org.uk/leopardcam



The footage from Mongolia is the first time a snow leopard has been seen with four cubs. It proves that these cats can give birth to quadruplets

© WWF-MONGOLIA

NEWS IN BRIEF

Silurian is the Hebridean Whale and Dolphin Trust's research yacht



WHALES AND DOLPHINS AHOY!

In your last issue of *Action*, we gave you the chance to win a place on a research expedition and help conduct a survey of Scotland's whales, dolphins and porpoises. Our lucky winners were Adrian Snell from Poole, Melanie Adams from Helston and Shannon Elliot from Taunton. We look forward to hearing about their adventures.

NEW SHARK DISCOVERED IN BELIZE WATERS

A new species of bonnethead shark has been discovered off the coast of Belize. The species, which is yet to be named, does not migrate far and requires clean water and healthy mangroves for its nurseries. Its discovery highlights the need for urgent action by the Belize government to strengthen protection for this marine biodiversity hotspot. The area is also home to the Belize Barrier Reef, a natural World Heritage site that our Shared World Heritage campaign is helping to protect. Find out more on page 18.



EARNING THEIR STRIPES

Meet the tiger protectors – people who dedicate their lives to helping to secure the future of this iconic but endangered species. Find out how, with your support, these brave wildlife warriors overcome the challenges of their daily work

"I'm very happy working here in Royal Manas National Park. I'm living my dream and I love every bit of what I do," says Singye Wangmo. "My team and I share a passion and determination to protect tigers. It's what keeps us going."

© SIMON RAWLES / WWF-UK



“A SHARED PASSION IS WHAT KEEPS THE TEAM GOING. BHUTANESE PEOPLE HAVE A DEEP LOVE AND RESPECT FOR NATURE, SO WE NEED TO BE STRONG AND BRAVE FOR THE ANIMALS”

Anti-poaching patrols and camera traps help Singye and her team to monitor the tigers in Royal Manas National Park in Bhutan and detect illegal activity



SINGYE WANGMO

SENIOR FORESTRY OFFICER, ROYAL MANAS NATIONAL PARK, BHUTAN

“For one fleeting moment I thought I was going to die,” says Singye Wangmo, as she recalls the terrifying occasion in 2015 when she and a few of her colleagues on patrol ran into a large group of poachers. “Thankfully, we scared them off,” she continues. “Gunshots were fired and the poachers ran away.”

Singye, 31, is no stranger to danger. As senior forestry officer in Bhutan’s Royal Manas National Park, she leads a team of 30 rangers, moving constantly around the park to monitor and protect its wildlife. It’s a vast and rugged landscape, and as well as poachers, Singye has to contend with floods and landslides during the summer monsoon. “A shared passion is what keeps the team going,” smiles Singye. “Bhutanese people have a deep love and respect for nature, so

we need to be strong and brave for the animals.”

One of only a handful of women in Bhutan working as a forestry officer, she is undaunted by this challenge: “I take immense pride in being the first female forest officer on the front line in Royal Manas National Park.”

While Singye is grateful for the support she receives from her colleagues in the field and her proud family back home, it’s clear that her fire comes from within. “The reason I came to Manas was because I love studying and saving wildlife,” she explains, revealing that she has dreamed of working with tigers since childhood. “Tigers to me symbolise beauty, power and strength. They are the most beautiful creatures on Earth.”

Royal Manas National Park lies in the

Himalayan foothills, along Bhutan’s border with India. It’s home to a rich diversity of life, boasting over 490 bird species and 65 mammal species including both common and clouded leopards. Spotting tigers in this forested wilderness is close to impossible – indeed, after three years in her post, Singye has still never laid eyes on one. But we’ve provided camera traps that give Singye and her team a unique insight into the tigers’ movements.

“The camera traps have been a breakthrough,” confirms Singye. “Not only in understanding ecology, but also in helping us track all the park’s tigers.” She explains how the infrared cameras, equipped with motion and heat sensors, are fixed 40–60cm up tree trunks beside regular tiger trails to automatically snap images of any tigers that pass. They have revealed that at least 33 tigers now roam Manas – almost double the number recorded in 2011, when surveying began.

Camera trap images also help combat



poaching. “Poachers come up with many stories,” explains Singye, “but the data doesn’t lie.” She recounts how in 2016 the park lost a male tiger, known as TMT018. “With a picture of a seized tiger skin, we were able to identify which individual it was from the database,” she explains. “The offender was fined and imprisoned.”

Despite poacher problems, however, Singye sees a bright future for tigers in Manas. She describes how her team works closely with the local community, which has always held a traditional reverence for wild animals. And by developing strong partnerships with her Indian colleagues who manage the Indian side of the Manas Transboundary Conservation Area, Singye is helping to

ensure both sides can share data that will ultimately benefit tiger conservation. “We have a very good rapport,” she enthuses. “We rely on each other.”

Tourism is now also becoming part of the Manas picture. The park, which was little known outside Bhutan for decades, first opened up to tourists in 2010. Today it harbours five homestay eco-lodges, and plans to launch such activities as birdwatching, mountain biking, fly fishing and river rafting, to help generate vital local revenue. Benefiting people’s livelihoods in this way also creates a more positive attitude towards the park’s natural treasures.

There’s no doubting Singye’s commitment. “Tigers are at the crossroads of extinction,” she declares. “We are the answer. Our future depends on wildlife and forests. If we want to save ourselves, we need to save tigers.” But how will she feel if she ever runs into the big cat face to face? “Seeing a tiger pug mark is very exciting,” she beams. “But to see a live tiger in Royal Manas National Park? That would be an overwhelming feeling. It would be the happiest moment of my life.”

A CULTURAL ICON

Bhutan’s cultural heritage is one of the proudest and best preserved in Asia – due partly to a long-standing policy of cultural and economic isolation that saw foreigners admitted only towards the end of the 20th century. Like Tibet, Bhutan is a Buddhist nation. Its people revere the tantric guru Padmasambhava who, according to legend, brought Himalayan Buddhism to Bhutan in the eighth century on the back of a flying tigress.

As a result, tigers loom large in spiritual art and iconography across the kingdom, from paintings to temples, and the animal is treated with great reverence. Many see it as a deity protecting the forests, and in some regions it’s accorded the respectful term *memey tag*, which is usually reserved for elders. This cultural respect for tigers and other wildlife has proved to be critical to the success of conservation in Bhutan.

“The tiger is like a brother to me,” explains Pavel Fomenko. “And I always protect my family.” Pavel keeps Amur tigers safe by deploying camera traps and tracking them on foot. Sometimes he walks up to 30km a day

“TIGERS ARE RIGHT AT THE TOP OF THE ECOLOGICAL PYRAMID. IF THEY DISAPPEAR, IT UPSETS THE NATURAL BALANCE. THEY ARE AN INDICATOR OF THE HEALTH OF WILD NATURE”

TIGER TRIUMPHS

2016 was a great year for tigers. Here are some of the ways we've been making progress towards the TX2 goal of doubling wild tiger numbers by the year 2022

16 SNIFFER DOG SQUADS

Sixteen sniffer dogs whose training was supported by TRAFFIC, joined the fight against wildlife crime in India. In three months, they have helped crack 15 cases.



POSITIVE ACTION

The Nepal government endorsed the National Tiger Conservation Action Plan (2016–2021). This provides a way forward for the continued recovery of wild tiger populations in Nepal.

3,900

Tiger populations were estimated to have increased to around 3,900, up from as few as 3,200 in 2010. The new figures reflect rising populations in Russia, Nepal and India.

OTHER WAYS TO BECOME A TIGER PROTECTOR

For the first time in conservation history, global wild tiger numbers are increasing, thanks partly to your membership. But we need to step up our work to tackle urgent threats such as poaching and the illegal trade in tiger parts. Please join us in our mission to help double wild tiger numbers by 2022:

- Become a tiger protector wwf.org.uk/tigersupport
- Make a donation wwf.org.uk/tigersx2
- Sign up for a Team Panda event to raise money for tigers: wwf.org.uk/events

© ANTONIO OLIMOS / WWF-UK



PAVEL FOMENKO
WWF'S SPECIES PROGRAMME COORDINATOR, AMUR HEILONG, RUSSIA

“When I'm in the forest I try to live in accordance with its laws,” explains Pavel Fomenko, describing how he survives when patrolling the vast taiga of north-east Russia. “We shouldn't forget that we are also animals – and animals try not to waste their energy. A tiger would never wade through snow if there's a clear path nearby.”

Pavel, or 'Pasha' to his friends, works tirelessly to protect Amur tigers and leopards from threats such as habitat loss and poaching. Once a hunter himself, he knows the forest inside out – and he knows how dangerous it can be. “My job comes with significant risk,” confirms Pavel. He describes how he has fallen under ice, been attacked

by poachers and become so ill in the wilds that he's resorted to eating soil as a natural remedy. “I once spent 40 nights in a row sleeping in the snow,” he recalls. “I used my skis as a bed and my dog as a blanket.”

It was Pavel's first encounter with a wild tiger, however, that affected him the most. “Suddenly my dog started barking,” he recalls. “I turned just in time to see the tiger attack it.” The situation was over in seconds. “I fired my rifle in the air, but it all happened so fast – the dog was already dead.”

Paradoxically, this traumatic incident brought Pavel closer to tigers. “I was very upset about losing my canine friend. But I followed the tiger's trail in order to understand

why it had attacked.” He discovered that the tiger had been watching him for three days. It was a pregnant female and he deduced that she had taken his dog for a wolf and killed it to protect her cub from a potential threat.

Today, Pavel brings this hard-earned knowledge to his work at the Animal Diseases Diagnostics Centre in Ussuriysk, Primorskiy Krai. Here, Pavel and his team conduct forensic tests on tiger carcasses to investigate possible criminal cases. This evidence can be used to help prosecute tiger poachers.

During a recent autopsy on a tigress found dead beneath a timber truck, Pavel discovered marks on the animal's bones that showed how her front paw had been damaged in a poacher's trap. The tigress had not been killed by the truck, as first suspected, but had sought refuge beneath it. The injury had prevented her from hunting and, weak and frostbitten, she had finally starved to death.

“Every expert holds the truth in their hands,” explains Pavel. “Their expertise can



The body of a dead tigress is examined closely to determine the cause of her sad fate

reveal whether a human has been complicit in the killing of an animal or not – and it must be honest, objective and professional, because it will decide the fate of that person.” In the face of such responsibility he knows he must remain rigorously scientific. “It's always hard. I am fully aware that, due to my expertise, a person may get a jail sentence.”

With this unique combination of survival skills, scientific knowledge and technical know-how, Pavel recognises that his may be a hard act to follow. “It's a complicated job,” he concedes. “It requires an arsenal of knowledge and skills.” Meanwhile, he works hard to

inspire Russia's next generation of tiger protectors. “I try to share my experience,” he explains. “I've written books, I teach wilderness survival to border patrol guards, and I give lectures to customs officers on wildlife crime.”

Ultimately, though, it comes down to passion and belief. “Tigers are important for the planet,” insists Pavel. “Our world is not merely confined to the town or country we live in. Tigers are right at the top of the ecological pyramid. If they disappear, it upsets the natural balance. They are an indicator of the health of wild nature.”

SHARED VICTORIES FOR NATURE



Natural World Heritage sites are some of the planet's most extraordinary places – invaluable to people and wildlife. Yet over half of them are threatened by harmful activities. WWF's Colin Butfield explains how, thanks to your incredible support, our campaign is working to protect these natural treasures



Black-winged stilts breed at Doñana and rare Iberian lynx (left) call it home



Fishermen rely on the area's rich waters for their livelihoods

DOÑANA DREDGING PLANS CANCELLED

One of Europe's most important wetlands received a big boost at the end of last year when the Spanish government cancelled the dredging plans that would have affected this World Heritage site. But there's still work to be done

We celebrated a big victory at the end of 2016 when Spain agreed to cancel plans to dredge the Guadalquivir river – after the Spanish prime minister received more than 140,000 emails from WWF supporters like you. Our colleagues in Spain have been warning for years that deepening the river would have spelled disaster for Doñana National Park, the largest wetlands system in the European Union and a World Heritage site.

Helping to save Doñana was one of WWF's first achievements way back in 1963, and we've been working there ever since. It's a vital stop-off for millions of birds migrating between Europe and Africa, and is home to more than 4,000 species of plants and animals – including the Iberian lynx, the world's rarest cat. The wetlands are hugely important for local people too, from small-scale fishers and strawberry farmers to the tourist trade.

While the dredging plans have been cancelled, Doñana still faces threats – including unsustainable water use. More than 1,000 illegally dug wells and illegal farms have led to a severe fall in water levels, with some lagoons drying out completely. With your help, we'll be building on our recent success to help secure Doñana's long-term future.

SEISMIC SHIFT IN BELIZE

You've helped stop the threat of oil spills in Belize's beautiful waters. Now we're going to make sure the world's second-biggest barrier reef is protected for good

Belize is only a little larger than Wales, but its barrier reef is the second largest on Earth, and is one of the wonders of the natural world. It spans underwater corals, tiny sandy islands (or 'cayes'), mangroves and the mesmerising depths of the famous Great Blue Hole.

An oil spill in these waters would be devastating. Not just for marine turtles, manatees and other stunning wildlife, but for the people of Belize too. The tourism and fishing industries support 190,000 people, well over half the country's population.

So when, in October 2016, the Belize government said it would allow seismic exploration for oil within one kilometre of the reef, we raised a massive global outcry. More than 265,000 people all over the world, including WWF supporters, emailed the prime minister of Belize to ask him to protect the reef.

Within three days, the government agreed to suspend seismic tests. And with your help, we'll keep pushing for a permanent ban on oil exploration anywhere near the reef, and make sure this marine jewel is properly protected.



The Great Blue Hole is a giant sinkhole off the coast of Belize. Many of the creatures that live here are found nowhere else

HOLDING THE LINE IN VIRUNGA

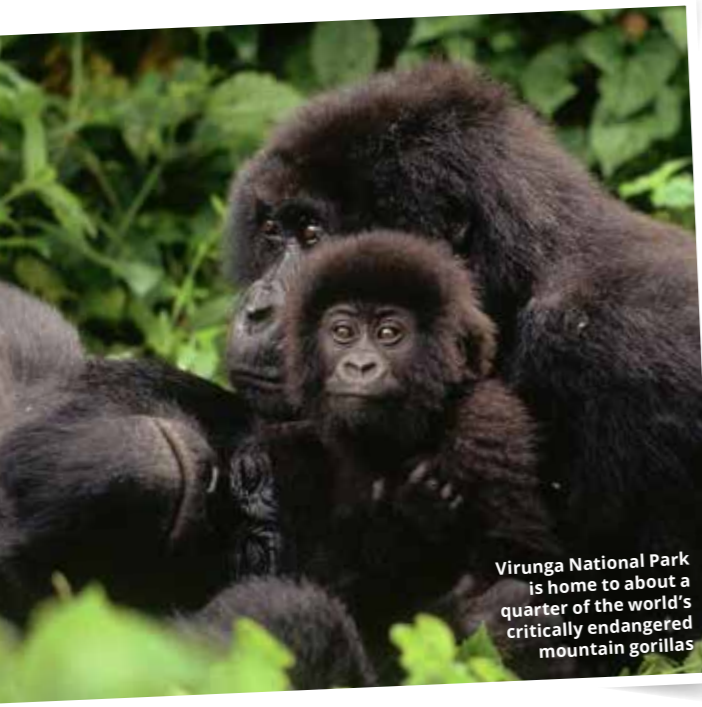
Our victory in Virunga National Park showed what can be achieved when people come together to protect their shared heritage

Back in 2014, more than 750,000 of you signed our petition calling on UK oil company Soco to abandon plans to explore for oil inside this World Heritage site in the Democratic Republic of the Congo (DRC).

And, thanks to your incredible support, not only did Soco agree to pull out of the park, but it also made a pledge not to conduct any operations in any World Heritage site, anywhere. Other companies with commitments to respect World Heritage sites include French oil company Total and many mining organisations, such as the International Council on Mining and Metals (ICMM). Since the Virunga campaign, they've been joined by Tullow Oil and Mexican cement giant Cemex.

Getting others to make the same commitment has been an important part of our current campaign. We've been raising awareness of World Heritage sites under threat from extractive industries, and working with investors to put pressure on the companies that have the biggest impact.

As for Virunga National Park, we're pushing the DRC government to cancel all permits to explore for oil in the area. Meanwhile, we're working with civil society, influential decision makers and other stakeholders to support sustainable development pathways in Virunga National Park.



Virunga National Park is home to about a quarter of the world's critically endangered mountain gorillas

UPPING THE GAME IN SELOUS

The size of Switzerland, Selous Game Reserve in southern Tanzania is one of the largest wilderness areas on the continent. Its woods, forests and grassy plains are home to some of the largest remaining populations of elephants, lions, hippos and buffaloes. These populations were one of the reasons Selous was declared a World Heritage site in 1982.

Forty years ago, nearly 110,000 elephants roamed the reserve, along with around 2,000 black rhinos. But industrial-scale poaching has taken a terrible toll. Almost 90% of the Selous elephants have now disappeared and the numbers of rhinos may already be close to single figures. No one knows for sure. As a result of this rampant poaching – and threats to the reserve from mining, oil and gas, and hydropower developments – UNESCO has placed Selous on its list of World Heritage in Danger.

But the tide may be turning. Last November, after an email campaign you supported (see page 5), Tanzania's president pledged to make poaching history and so protect its elephants. We're working with the government to fit 60 elephants with GPS collars. These will provide game wardens with real-time information on the elephant herds and their movements, so they can be more proactive in protecting them. The collars also alert wardens if elephants stray too close to the crops and homes of people living on the outskirts of Selous to prevent possible conflict.

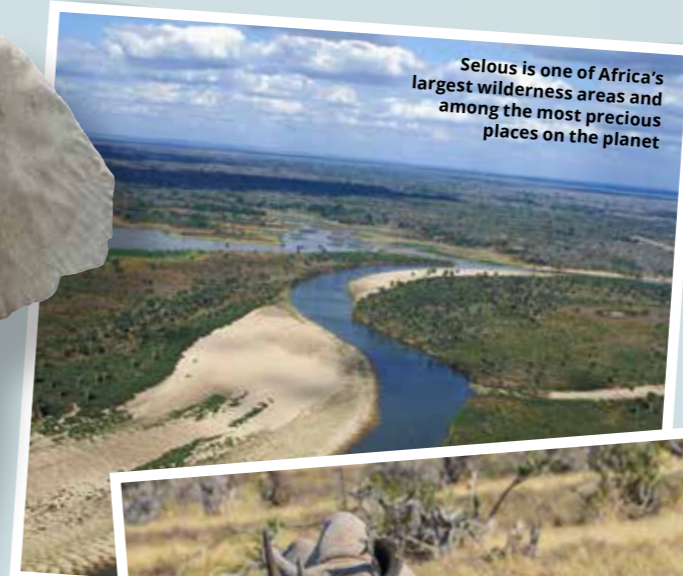
Getting local communities onside is crucial. There's huge potential for the 1.2 million people living in surrounding areas to benefit from Selous' amazing wildlife. The reserve has great untapped ecotourism potential, which could increase quickly.

Achieving zero poaching and getting Selous off the World Heritage in Danger list will take a huge effort. But with your support and that of our other incredible members, we can make Selous an inspirational success story.



We're working with our partners to create a sustainable future for Selous Game Reserve that will provide space for wildlife and livelihoods for people

“WE’RE FITTING 60 ELEPHANTS WITH GPS COLLARS. THESE WILL PROVIDE GAME WARDENS WITH REAL-TIME INFORMATION ON THE HERDS AND THEIR MOVEMENTS, SO THEY CAN PROTECT THEM”



Selous is one of Africa's largest wilderness areas and among the most precious places on the planet



George Athanus, a wildlife ranger in Selous, uses camera traps to monitor black rhinos on the reserve

COUNTING RHINOS

Selous may have lost 99% of its black rhinos over the past four decades. It's crucial to find out all we can about those that are left, if we're to bring them back from the brink.

With your support, we're helping to carry out a census of the black rhinos in Selous. Over the next two years, we'll be using camera traps to find out exactly how many males and females are left – and where they are. This will provide crucial information to develop an effective conservation strategy for this critically endangered species.

Rebuilding rhino populations from small numbers is challenging, but we've done it before. One solution that's proved effective in Kenya and elsewhere is creating rhino sanctuaries that are smaller, fenced areas with suitable habitat and water where rhinos are safer and more likely to encounter each other and breed successfully.

It might also be necessary to bring in rhinos from other areas to help grow the population in Selous – again, that's something we've done successfully in South Africa, Nepal and elsewhere. We'll know more once the cameras start clicking – watch this space...

HELP SAVE THE VAQUITA

By speaking up for World Heritage sites, you've helped remove the immediate threats to these beautiful places. But our campaign isn't stopping there. We need your help to protect the Gulf of California World Heritage site. It's home to Mexico's vaquita porpoises, the world's most endangered marine mammal. Ask the Mexican president to take strong action now: wwf.org.uk/vaquita

In Kenya's Lamu seascape, one of the ways we're helping to forge better relationships between fisherfolk and marine turtles is by giving fishers twine to repair nets damaged by turtles

TURNING THE TIDE

The islands around Lamu seascape in Kenya are important nesting sites for marine turtles – and these seas are rich fishing grounds. It's a challenge ensuring turtles and fishers thrive together. But, as **Mike Olendo** explains, your support is helping him and our Kenya marine team to achieve great results

The best part of my job is meeting community members, fisherfolk and young people, and involving them in conservation. It's vital that we do, because conserving marine turtles is only possible when we work in partnership with the people who rely on the sea. In Lamu seascape, more than 70% of people depend directly on fishing – for the food and income it brings to their households. And for many older people here, fishing and the sea are all they know.

Marine turtles have long held great cultural importance to the community here. People used to seek them out: a single turtle can provide 40kg of meat, and locals would also make soup from their carapaces and bones. Then there's turtle oil, which is another valuable product used to treat respiratory diseases.

It's now illegal to hunt turtles in Kenya, thanks to the Wildlife Conservation and Management Act, which came into effect four years ago. Poaching them carries the same penalty as poaching elephants or rhinos – life in prison. Thanks to your membership, and the support of players of People's Postcode Lottery, we provide training for rangers from Kenya Wildlife Service in prosecuting and convicting wildlife crime offenders.

An important part of my work with local people is raising awareness and understanding of the law, and of why turtles need this protection.

Incidents of poaching have fallen in Lamu seascape. But marine turtles still get caught in fisherfolk's nets – especially if the nets are set along the turtles' migration routes. So we've been working closely with the community

to map where the turtles swim, and encourage the fisherfolk not to set their fishing nets in these areas.

If a turtle does get entangled in a net, the fisherfolk have to let it go. Often the turtle gets really tangled up and then tries to swim to the surface to breathe – this makes a mess of the net so the fisherfolk can't catch anything else. And then they have to cut their net to get the turtle out. So it's a double loss. It's easy to see why the fisherfolk used to feel aggrieved about this.

But now we provide twine to help them mend their nets. We ask them to carefully cut the turtle free and let it go, then come and tell us. As well as ensuring the fisherfolk don't lose out, our approach means they'll report their interactions with turtles, which helps our research and monitoring work.

Over the years, we've built a rapport and an understanding with the fisherfolk, and we now enjoy a friendly relationship. At first, some of them thought we cared more about turtles than about people. Of course, the turtles are a big part of the reason we're there in the first place. But it's led to work with the fishing community on things that directly benefit them – like using more sustainable fishing gear, lobbying the government to give local people more say in how they manage their fisheries, and introducing them to new markets to increase their income.

None of this would have been possible without your continued support. Thanks to you, we've been able to raise awareness about marine turtles in Lamu seascape and help these ancient mariners to coexist peacefully with fisherfolk – which means a better future for everyone. ▶



HUMAN POPULATIONS

are growing rapidly, with an influx of migrants, putting pressure on natural resources. We're supporting people to develop alternative, sustainable livelihoods – from beekeeping to ecotourism.

MANGROVES

protect the coastline, store carbon and provide a haven for many species, including young turtles. The mangroves of Lamu seascape are the most extensive in Kenya, but large swaths have been dying recently – and nobody knows why. We're working to identify the cause, and the best response.

Our work in Lamu seascape

MARINE TURTLES

are at the heart of our work in Lamu seascape. Hawksbill, green and olive ridley turtles all nest here, while leatherbacks and loggerheads pass through. As well as engaging fisherfolk and communities with turtle conservation, we protect and monitor important nesting sites.

CLIMATE CHANGE

poses many threats, which is why it's so central to our work. Rising sea temperatures and ocean acidification are bad news for coral reefs, and coastal communities are vulnerable to rising sea levels and storm surges. Marine turtles are also sensitive to temperature, which can affect whether they breed successfully.

OVERFISHING

and destructive fishing practices are a growing problem – due to demand from local people and from vessels from other parts of Kenya where fish stocks have declined. We're supporting people to switch to more sustainable fishing gear and manage their fisheries, such as lobsters, sustainably.

PLASTIC RUBBISH

gets swept up on beaches in Lamu seascape, where it's a hazard for nesting turtles and their hatchlings. We're working with local people to keep beaches clean.

NEW INFRASTRUCTURE

including a deepwater port, is being built in the area. We're working to influence national and local governments and the private sector to make development plans more sustainable, protect the most biodiverse areas, and minimise any negative impacts on the environment and local people.

YELLOWFIN TUNA

are abundant in Lamu seascape. If stocks are well managed, they could provide a lucrative source of income. We're training people how to catch tuna more sustainably, for example, using a pole and line.

DUGONGS

(or sea cows) migrate through the waters of Lamu seascape. Protecting the region's marine ecosystems – particularly the seagrass meadows where they graze – will benefit this docile, threatened species.

The Lamu archipelago is one of the world's most magnificent seascapes. Here, you'll find beautiful beaches and deserted islands, mangrove forests, coral reefs and seagrass meadows, as well as a vibrant and unique cultural heritage. Its nutrient-rich waters support some of east Africa's most abundant fishing grounds and numerous other marine species, including five of the seven species of marine turtle.

But a growing population, a developing economy and a changing climate are all putting pressure on this amazing ecosystem. With your support, Mike and his team are working to protect the wildlife and the marine resources of Lamu seascape, and secure a better future for the people who depend upon them.

HOW YOU CAN HELP

Your membership already supports our work with local communities in Lamu seascape to monitor turtle movements and protect their habitat. But if you'd like to do more to help, you can adopt a turtle: wwf.org.uk/turtleadopt

It's not just the beaches of Lamu seascape we want to keep clean and healthy. Why not join the UK's biggest beach clean and make a difference to somewhere special near you? Find out about local events or organise your own: wwf.org.uk/beachclean

CHANGING BUSINESS

This year is the 10th anniversary of our partnership with M&S and the company's Plan A sustainability programme. Working together, we've achieved some outstanding successes. Here are just a few of them...

Together, we raised more than

£2.7M

for marine conservation programmes in the UK, Fiji and Tanzania through the Forever Fish carrier bag charge

20,000

We've supported more than 20,000 cotton farmers in India to become certified as 'Better Cotton' farmers, by reducing their use of **WATER AND CHEMICALS**. Find out more on page 30

In Orkney, we've helped protect our seas and

SUPPORTED LOCAL LIVELIHOODS

by working with fishermen to improve the sustainability of brown crab



150

M&S funding restored almost **150 hectares** of forest in Borneo, helping to protect populations of endangered orang-utans

We worked with M&S' food and flower suppliers in Kenya and South Africa to improve the way they use and

MANAGE WATER

SPARKS CARD



Since the launch of the Sparks loyalty card, M&S customers have raised more than

£100,000

for WWF. Thank you for your incredible support! If you haven't already signed up for this exciting members club, there's still time to join. You'll enjoy tailor-made offers, priority access to sales and money-can't-buy experiences. Plus, select WWF as your chosen charity and M&S will donate one penny to us every time you use your card. So pick up a Sparks card in-store today.

74%

of M&S wild-caught seafood is now sourced from certified sustainable fisheries (up from 19% in 2009)

M&S funding is helping protect the lives of both people and elephants through our project

TO REDUCE HUMAN-ELEPHANT CONFLICT IN INDIA



ORKNEY CRAB, CHILLI AND HERB OMELETTE

Pot-caught Orkney brown crab is tasty, sustainable and good for you – perfect for summer



INGREDIENTS

- 100g Orkney crab meat
- One small red chilli, diced
- 1 tbsp chopped coriander
- 1 tbsp chopped dill
- 1 tbsp chopped chives
- 1 tbsp low-fat crème fraîche
- Two eggs
- 1 tsp olive oil
- Herb and leaf salad to serve
- Chilli sauce to serve

METHOD

Mix the crab meat, chilli, herbs and crème fraîche and season well.

Beat the eggs with some seasoning until pale. Heat one teaspoon of oil in a small frying pan and pour in the eggs, making a thin omelette.

When the omelette is just set, tip the crab mixture in, fold in half and warm through for a minute.

Serve with a herby salad and chilli sauce if you like!

COULD YOU EAT BETTER?

What we eat not only affects our own health, but also the environment. Food is at the heart of many environmental issues – it's a significant contributor to climate change and responsible for 60% of global biodiversity loss.

SERVES 1
20 MINUTES
EASY

By following the Livewell principles – eating more whole grains and plant-based foods, considering MSC, free-range and fair trade, and buying less processed food and more locally grown food – you can make a difference.

Look out for another tasty recipe that's good for you and the planet in the next issue of *Action* – and send us your own sustainable cooking tips.

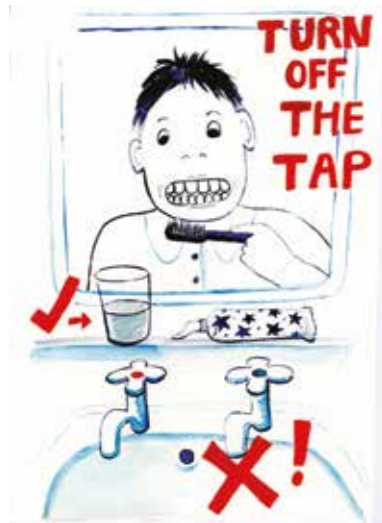
Find out more about the Livewell plate at www.org.uk/livewell

OVER TO YOU!

We know you've done some really great stuff for us since the last issue of *Action*, so why not tell us about it? These are *your* pages – let's celebrate you!



YOUR EARTH HOUR
Thank you for taking part in the biggest Earth Hour ever. We hope you enjoyed it as much as we did. Thanks to everyone who shared photos and stories from the night. Here are some of your highlights...



LET'S SAVE WATER

The article on protecting rivers in the spring edition of *Action* really captured my attention. In particular I was interested in the water-saving tips, which highlighted ways in which we can make a difference. As an artist concerned about environmental issues, I found myself putting pen and brush to paper to make a poster about turning off the tap while brushing your teeth. I hope you like it!
Mary Rouncefield, Bristol

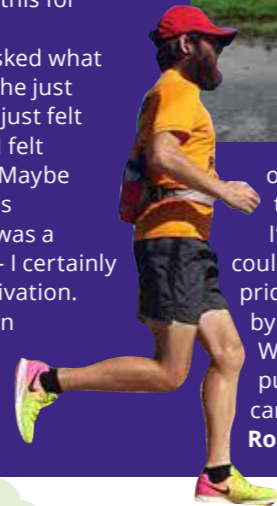
RUNNING TO SAVE THE WORLD

Hello! I'm Robert Pope and I'm currently running across the USA, for the second time, in an attempt to recreate Forrest Gump's route from the 1994 film starring Tom Hanks.

I'm more than 5,000 miles into what could be a 15,248-mile adventure – taking me across the country almost five times. And I'm doing this for WWF and Peace Direct.

In the film, Forrest is asked what he's running for. He says he just felt like running. Maybe I just felt like running, too. Maybe I felt like making a difference. Maybe I wanted to see what I was capable of. Most likely it was a combination of all three – I certainly draw on them all for motivation.

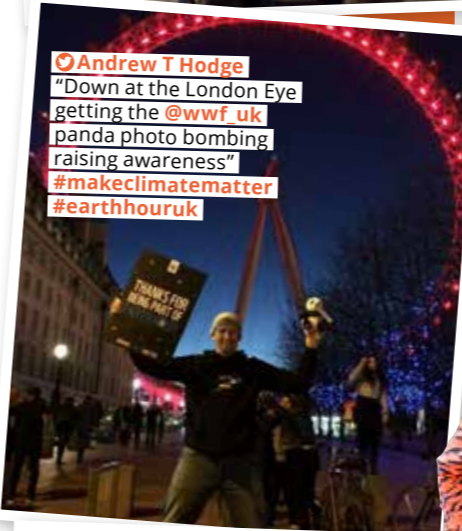
I'm a veterinary surgeon with a passion for conservation, and I get distressed when I think of the direction in which



our world is headed. I've been this way since I was little. I've always wanted to do what I could. This is my bit. It fills me with pride and inspiration to think that, by working to keep the issues WWF fights so hard for in the public eye, I am helping. That I can say #iProtectTigers.
Rob Pope, Merseyside



Tracy Garrad:
"Feels like top of the world Grand Motte"
#passthepanda
#EarthHourUK



Andrew T Hodge
"Down at the London Eye getting the @wwf_uk panda photo bombing raising awareness"
#makeclimatematter
#earthhouruk



Maurice the Pug:
"This is not witchcraft. It's me supporting #ChangeClimateChange Let's celebrate together"
#EarthHour
#mauricethepug



MEET OLLIE, TIGER PROTECTOR

It's not only people working in the field who protect tigers. Everyone can make a difference. Like WWF member Oliver Sidwell. Ollie, tiger lover and committed conservationist, devotes his free time and energy to raising funds and awareness for our work. Ollie first ran for charity in 2013, when he and his fiancée raised £600 for our tiger protection work by running the Edinburgh Rock 'n' Roll half-marathon.

Since then the distances have increased and the money has kept pouring in.

Last year, he covered over 500 miles, including running both the Paris and London marathons, and completing a Richmond Park duathlon. This served as perfect training for the Royal Parks Foundation half-marathon, in which he donned a tiger-print onesie and raised over £350 – enough to purchase one pair of camera traps for our work in Bhutan or Russia (see page 12). "We're not going to lose tigers," says Ollie. "Let's stay positive."

With dedicated teams on the ground, including such fearless individuals as Singye and Pavel, and members like you and Ollie behind them, tigers now have the best possible chance of protection.

INSPIRED BY TIGERS

I noticed that WWF is shining a spotlight on tiger protectors and wanted to share my painting of a tiger, my contribution to protecting these beautiful cats. Maybe other supporters would like to send in their own creations?
Marisa Evetts, Crewe



TECHNOLOGY IS THE FUTURE

For this year's Earth Hour, I reduced my energy consumption by reading at home, using low-energy lighting, rather than travelling to an event. I'd like to see next year's campaign go further by demonstrating how the application of sound science and technology can help reduce the human pressures on the planet's natural resources, wildlife and ecosystems.

One of the greatest threats to our planet is the huge growth in the human population, and its concomitant



demand for living space, food, water and energy. By harnessing modern technology, we can significantly reduce the use of all these resources per capita. Clearly, not every technology has been used wisely all of the time. But if we embrace technology with due consideration, as WWF has done in its Living Planet Centre, we can lead a civilised life with a light footprint on this beautiful planet.

Duncan Froggatt, Totley, Sheffield

JOIN THE ACTION GANG AND TELL US ABOUT YOUR REALLY WILD SUMMER
Summer is the best time to get outdoors, get fit and enjoy doing something great for wildlife – and we love to hear about all the fun you've had. So please email your letters and photos to editor@wwf.org.uk. Though we read every one, we cannot acknowledge them and must reserve the right to edit them.



WIN A £50 M&S VOUCHER

We're celebrating 10 years of partnership with M&S by giving away two £50 M&S vouchers

Cotton is used to make nearly half of the world's clothes and other textile products. But its production can be harmful to people and the planet. It can take up to 2,700 litres of water to produce one conventional cotton T-shirt, which is the same amount an average person might drink over three years!

For the past 10 years, we've been working with M&S to promote cotton farming practices that are more environmentally friendly and better for the health of farmers. For example, we've worked with over 20,000 cotton farmers in south India to help them reduce their use of water, chemical pesticides and fertilisers.

Ashirwadham, a cotton farmer from Telangana, south India, says: "Before being introduced to the Better Cotton Initiative [BCI], we used a lot of pesticides and chemicals. We used to have itchy skin, headaches, stomach aches and dizziness. With the BCI methods, my costs have decreased, the quality of the cotton is better and we are getting a high rate in the market."

It's not just farmers who are benefiting from Better Cotton – we're involved along the entire supply chain, from the farmers to the retailers, encouraging a shift in attitudes and business practices.

Read more about M&S' Plan A sustainability programme and how WWF is involved at: wwf.org.uk/m&s

To enter our competition to win one of two £50 M&S vouchers, simply follow the instructions (below) and mark your entry 'M&S Comp'.



Ashirwadham and his wife assess the day's cotton harvest. Now they are Better Cotton farmers, their prospects are good



© NICOLAS ANEIROD / WWF-UK | © M. BROOK

WIN A WEATHERPROOF JACKET

We've got two Mountain Warehouse jackets, one for him and one for her, to give away



With a durable waterproof outer shell and a warm, lightweight inner jacket, the Bracken Extreme 3-in-1 waterproof jacket in petrol blue* is both stylish and versatile. The outer shell is made of a waterproof and breathable membrane that keeps you dry and allows perspiration out. Its weather protection is so reliable that Mountain Warehouse guarantees it for three years. Both the adjustable hood and the inner jacket detach for maximum all-season versatility. To be in with a chance of winning one of these jackets, worth £179.99 each, just follow the instructions (right), mark your entry 'Jacket Comp' and let us know whether you would like the men's or the women's jacket and in what size (XS-XXXL).

HOW TO ENTER ACTION GIVEAWAYS

Send an email with your name, address and phone number, and your chosen competition – e.g. M&S Comp, Jacket Comp, etc – in the subject line, to competition@wwf.org.uk

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

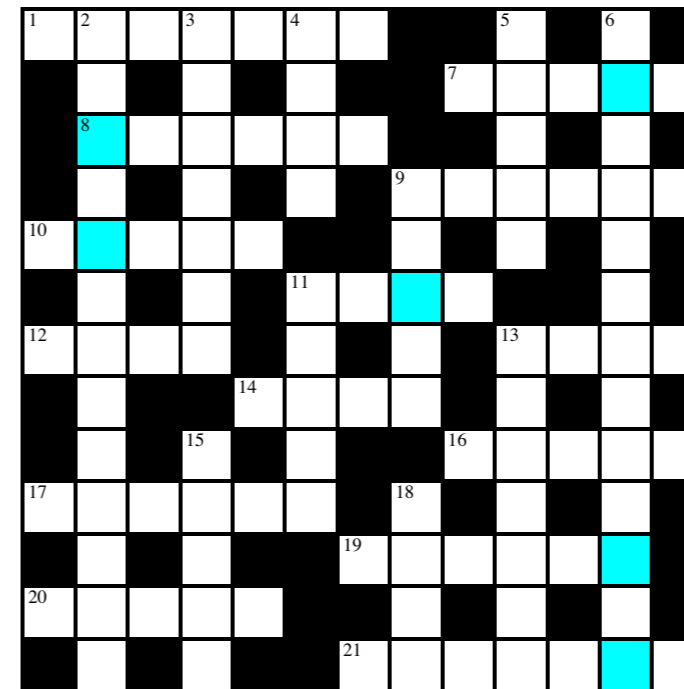
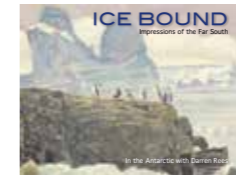
Only one competition per entry please.

The closing date for the competitions is 21 July 2017. For terms and conditions, visit wwf.org.uk/comptems

*Please note, jacket colour may differ to that featured, depending on size availability when competition closes

CROSSWORD

Solve our crossword and you could win a copy of *Ice Bound: Impressions of the Far South*, worth £20 and available on Amazon



WWF Action crossword 36: summer 2017 issue. Compiled by Aleric Linden

After solving the crossword, take each letter from the shaded squares (going from left to right and top to bottom) to spell out the prize word. To be in with a chance to win, just send a postcard with the prize word to the address on page 30 or email it to competition@wwf.org.uk. The closing date is 21 July 2017.

Clues across

- 1 Fauna, as opposed to flora (7)
- 7 Marine organisms such as seaweeds (5)
- 8 Poaching is a major one faced by the world's tigers (6)
- 9 _ transport, a more environmentally-friendly alternative to driving (6)
- 10 Solar _ , form of renewable energy (5)
- 11 The lethal act of a predator (4)
- 12 Dripping ones in our homes can each waste thousands of litres of water each year (4)
- 13 _ of Special Scientific Interest, protected area in the UK often referred to as an SSSI (4)
- 14 _ tiger, endangered subspecies from the Russian Far East (4)
- 16 See 9 down
- 17 South American plains (6)
- 19 The same product but with less packaging (6)
- 20 Tigers are killed and stripped of them as part of the illegal wildlife trade (5)
- 21 The Strait of Dover lies in which 'Channel'? (7)

Clues down

- 2 Designated conservation areas such as Spain's Doñana and the Democratic Republic of the Congo's Virunga (8,5)
- 3 Farmers' _ , retail outlets for fresh, locally-grown foods (7)
- 4 A toxic heavy metal (4)
- 5 The Earth, in a spherical sense (5)
- 6 Aquatic reptiles such as hawksbills, loggerheads and leatherbacks (6,7)
- 9 & 16 across Magnificent Arctic carnivores whose scientific name is *Ursus maritimus* (5,5)
- 11 _ ridley, the most endangered of all marine turtles (5)
- 13 _ Areas of Conservation – SACs, for short (7)
- 15 Madagascar _ thickets, forested ecoregion (5)
- 18 Organisation set up in 1995 focusing on EU forests (4)

SPRING 2017 ANSWERS:
Prize word: FARMERS.
Across 6. Flash 7. Germany 8. Safaris
10. Sperm 11. Tree 12. Rivers
16. Horned 17. Fell 20. Eland
21. Forests 22. Greener 23. Masai
Down 1. Offsets 2. Third 3. Grasses
4. Watersheds 5. Pygmy 7. GPS
9. Fresh water 13. Ice 14. Eroding
15. Plastic 18. Neagh 19. Crime 21. Far

LIVING WITH PENGUINS



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The western Antarctic Peninsula is home to globally important populations of Adélie, chinstrap and gentoo penguins. During the second half of the 20th century, it was one of three areas of the world that warmed most rapidly. This change in climate has been linked to declines in the Adélie and chinstraps, but increases in the number and range of the gentoos.

These three penguin species all love krill, so they breed in sequence to reduce competition and ensure there's enough food for all their chicks. But the timing of breeding is sensitive to the climate, so I'm studying how interactions between the three species are being affected. I spent four months attaching small GPS tags to breeding penguins on Signy Island in the South Orkney Islands. By finding out where chinstraps and Adélie forage at different times during the breeding season, I hope to be able to predict how these penguins could react to future climate change.

ANIMAL ANTICS

As there are only eight people stationed on this small island, we all help with jobs including fixing the generators and cleaning. Every day is different. Some mornings I'm up at 6am to check that elephant seals haven't broken through the fence into the base. The seals remember when they used to lie on the boardwalks, which are much nicer than a muddy, wet beach. Each individual weighs several tonnes, so they only have to lean on the fence to break it.

Once my morning tasks are done, I trek across the island to the penguin colonies at Gourlay Peninsula. The wind chill here can be as cold as -20°C, even in summer, so first I put on plenty of layers. Then I look for the Adélie I've tagged with GPS trackers. I mark their nests with a brick – otherwise it would be impossible to pick them out from the crowd. If any birds have returned from feeding overnight, I catch them and remove their tags so I can download the location data that's been recorded. I only leave the tags on for around 10 days so they don't cause the penguins any discomfort.

It's hard not to be distracted by the Adélie's antics. They never stand still for long – one is always chasing another or stealing its prized nest stones. They're fascinated by humans and even follow me around the colony. I find them hilarious. I hope my work will improve our understanding of how these amazing birds might react to climate change – and how we can help protect them.

Harriet

Harriet Clewlow, PhD researcher with British Antarctic Survey, the University of Exeter and WWF-UK



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