



# Action

THE MAGAZINE FOR WWF MEMBERS

SPRING 2019



## WILDLIFE DEFENDERS

How you're helping to give rangers on the front line better lives



### DISCOVER WILDEST BRAZIL

From maned wolves to giant anteaters, the Cerrado savannah is home to the world's most extraordinary wildlife

### WATCH OUT FOR WHALES

How our pioneering research is making a Mediterranean sanctuary a safer place for whales and dolphins



# “HALF OF THE CERRADO HAS ALREADY BEEN LOST. IT HAS OVERTAKEN THE AMAZON AS THE BIGGEST DEFORESTATION FRONT IN SOUTH AMERICA”



## FOOD FOR THE FUTURE

Demand for food poses one of the biggest dangers to the planet. Tropical forests are being cleared to rear livestock, to grow crops such as soy, and for palm oil. This is having a devastating impact on some of our most precious wildlife. In Brazil, unsustainable soy production is decimating the Cerrado, a vast savannah that's home to maned wolves and giant anteaters (see page 18).

Did you know the UK food supply alone is linked to the extinction of an estimated 33 species at home and abroad? It's one of the many reasons we're taking action. In November, we launched a game-changing partnership with Tesco with the ambition to reduce the environmental impact of the average shopping basket. But this partnership is just one solution – we still need your help to fix our destructive food system in the UK. Will you join the fight to end deforestation and help us to restore nature? Find out how you can make a difference today at [wwf.org.uk/save-forests](http://wwf.org.uk/save-forests)

The Cerrado in Brazil may not be as famous as the Amazon, but it's equally important in terms of biodiversity. Its grasslands and forests are home to 5% of the world's animals and plants, such as these spectacular *Paepalanthus* flowers. Sadly, the savannah is being converted to agriculture, particularly soy production – half has already been lost. If we don't act now, we'll lose the Cerrado and all its irreplaceable wildlife

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## MEET THIS ISSUE'S CONTRIBUTORS



**KARINA BERG** is part of WWF's Latin American

team. She's always had a passion for South America and lived there for 11 years. She says: "I want people to know how special the Cerrado is – and that we must act now to protect it."



**DENIS ODY** is one of WWF's ocean experts in

France. For several weeks every year, he surveys whales. He says: "At times I think the whales are actually cooperating with us – the gentleness and knowingness of these creatures is astounding."



**AMI VITALE** After more than a decade photographing

conflict, Ami has shifted her focus to today's most compelling human and wildlife stories, including rhinos and elephants. She says: "You can't talk about humanity without talking about nature."

## 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 THE ARCTIC

### YOU HELPED PROTECT POLAR BEARS

Thanks to your support, we've been testing new technology that could increase the safety of people living in the Arctic with polar bears. As Arctic sea ice thins and retreats, bears are spending more time on land. In your last issue of *Action*, we revealed that this can result in the bears being attracted to town rubbish dumps, where their scavenging behaviour brings them into increased risk of contact with humans. In the Arctic, hundreds of 'problem' polar bears have been killed over the past two decades. We wanted to find solutions, so thanks to you, we've been testing an innovative new early warning system in Ittoqqortoormiit. It uses a combination of traditional infrared sensors and thermic sensors to detect and distinguish between species. Once it's put into operation, if it identifies an approaching polar bear, it will be able to send a real-time alert to the local polar bear patrol, so they can scare off the intruders and help keep both communities and bears safe.



## 3 EAST AFRICA

### YOU CREATED NEW HOPE FOR MOUNTAIN GORILLAS

Conservation efforts you've supported have resulted in mountain gorillas being reclassified as endangered rather than critically endangered. This positive update to the IUCN's Red List comes after an increase in the great apes' numbers to an estimated 1,004. It shows that crucial work to tackle the threats they face is working, but we can't be complacent.

With your help, we'll keep on protecting mountain gorilla habitats and reducing risks such as the apes being accidentally caught in snares, or catching human diseases their immune systems can't cope with. Together we can help give mountain gorillas a safer, more certain future.



**"WHAT HAPPENS IN THE ARCTIC DOESN'T STAY IN THE ARCTIC, IT AFFECTS US ALL. WE MUST ALL TAKE ACTION TO AVERT CLIMATE CHANGE AND PROTECT THE POLAR REGIONS"**

ROD DOWNIE, WWF'S CHIEF POLAR ADVISER

15%

Asian elephants are restricted to just 15% of their original range



50%

Numbers of Asian elephants have declined by at least 50% over the past 60–75 years

## 4 BHUTAN

### YOU HELPED UNDERSTAND ELEPHANTS BETTER

We're celebrating the news that Bhutan recorded about 678 wild Asian elephants during its second national elephant survey, an increase from 513 reported in 2011. The rise was attributed to Bhutan's well-protected forests, improved law enforcement and better survey methods. The results will help Bhutan to better understand the abundance, distribution, habitat use and migration patterns of its elephants, and develop a photographic database of individuals. The results will also inform solutions to enable people to live peacefully alongside elephants in Bhutan.



## 6 KENYA & TANZANIA

### YOU'RE HELPING CONNECT WILDLIFE HABITATS

With your help, we're launching an ambitious project to connect and protect vital wildlife habitat in one of Africa's most important conservation landscapes. Stretching from Lake Victoria to the Indian Ocean, the transboundary area between southern Kenya and northern Tanzania encompasses 190,000 sq km. It is internationally renowned for its scenery and iconic wildlife, which includes the spectacular wildebeest migration. We'll be working with the governments of both countries, experts and local communities to safeguard a connected set of wildlife corridors running through southern Kenya and northern Tanzania. This 10-year programme aims to connect all critical wildlife areas in both countries with wildlife corridors, restoring essential migration and dispersal routes – and to improve ecosystem health by 2028. It also aims to improve collaboration between authorities, reduce conflict with wildlife in identified hotspots, support community-based wildlife-compatible livelihoods, and eliminate poaching of black rhinos, elephants and lions in protected areas by 2028.

## 5 NEPAL

### YOU HELPED SURVEY SNOW LEOPARDS

Thanks to our snow leopard adopters, we've gained valuable insights into these beautiful cats in north-west Nepal. Last year, an intrepid team set out to estimate snow leopard numbers in Shey Phoksundo National Park, which stretches across the mountainous districts of Dolpa and Muga. Reaching the survey area was tough due to the steep, rocky mountains. But thanks to you, our team had the gear and the training to succeed. In 45 days, they installed camera traps in 22 different locations – and their hard work paid off. We captured an incredible 241 photos of 14 individual snow leopards, including two females with twin cubs, proving the cats here are breeding. We'll use this information to help identify any changes that could be due to habitat loss or conflict with local people. Watch some of the footage at [www.wwf.org.uk/shey](http://www.wwf.org.uk/shey)



With your help, we'll connect and protect wildlife habitat to support the recovery of species including black rhinos, elephants and lions

**DID YOU KNOW?**

The transboundary area we aim to protect is larger than England and Wales combined

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# WWF IN ACTION

How we've been fighting for wildlife and our world



## EVERY TIGER COUNTS – FOR NEPAL AND THE WORLD

Thanks to your support, Nepal has nearly doubled its wild tiger population, raising hope for the global recovery of these endangered big cats

Nepal has taken great strides towards saving tigers from extinction by nearly doubling its population of the big cats in the space of nine years. Last September, officials announced that the Asian nation sandwiched between India and China now has an estimated 235 wild tigers, up from 121 estimated in 2009 and 198 estimated in 2013.

If these trends continue, Nepal could become the first country to double its national tiger population since the ambitious TX2 goal – to double the world's wild tiger population in 12 years – was set in 2010.

“Every tiger counts – for Nepal and for the world,” says WWF’s Dr Ghana Gurung. “While Nepal is but a few tigers away from

our goal to double tiger numbers by 2022, this success also underscores the need to continue protecting, improving and connecting habitats for the long-term survival of the species.”

WWF teams in Nepal provided training and support for the national tiger survey between November 2017 and April 2018 in the Terai Arc Landscape – a vast area of diverse ecosystems it shares with India. The survey used camera traps to estimate the abundance of tigers, and line-transect surveys to assess the amount of suitable prey.

“This increase in Nepal’s tiger population is proof that when we work together, we can save the planet’s wildlife – even species facing extinction,” says Leonardo DiCaprio, who is one of WWF’s board of directors in the US, and founder of the Leonardo DiCaprio Foundation, which has funded tiger conservation in Nepal’s Bardia National Park

and elsewhere since 2010.

Nepal’s success has been attributed to the country’s political commitment and the adoption of innovative tools and approaches to tiger conservation. It was the first country to achieve global standards in managing tiger conservation areas. With three more years to go, the TX2 goal of doubling tiger numbers globally can only be achieved if all the tiger range countries step up and commit to a similar level of excellence.

With your support, we’ll continue to work with government, enforcement agencies, conservation partners and local communities in tiger range countries to ensure tiger conservation remains a top priority.

### JOIN THE TIGER PROTECTORS

Find out more about our work, and how you can help, at [www.org.uk/tigers](http://www.org.uk/tigers)

## TIGER RECOVERY PLAN

Thanks to your support, Nepal was able to conduct a crucially important tiger survey

**2022**  
At the St Petersburg Tiger Summit in 2010, we helped set an ambitious conservation goal: to try to double the number of wild tigers by 2022

**5**  
Nepal's national tiger survey took almost five months and covered protected areas, adjoining forests and wildlife corridors

**4,387**  
Camera traps captured an impressive 4,387 images. Using the photos, researchers can identify individual tigers from their stripes

**235**  
The WWF supported survey revealed an estimated 235 wild tigers in Nepal, an increase from an estimated 121 in 2009

**87**  
As well as 87 tigers estimated in Bardia National Park, 93 were estimated in Chitwan, 21 in Banke, 18 tigers in Parsa, and 16 in Shuklaphanta

### NEWS IN BRIEF



#### SURVEY COUNTS 26 AMUR TIGERS

Twenty-six tigers have been identified through a camera trap survey in Russia's Bikin National Park. The monitoring was carried out last winter using over 80 cameras provided by the Amur Tiger Centre and WWF, thanks to your support. The tigers living in the 2,000 sq km area surveyed (around 25% of the total tiger habitat in the park) include 10 adult males and 10 adult females. One of the tigresses has four cubs! Home to about 10% of the world's Amur tiger population, Bikin is a vital stronghold and this survey will help inform important protection measures.

### NEWS IN NUMBERS

# 2018



Our latest annual report covers an amazing year of breakthroughs for nature – from commitment for a strong UK ivory ban, to vital protection for the Belize barrier reef. As well as our latest achievements, it contains a full financial review of the year ending 30 June 2018. Read it at [www.org.uk/annualreport](http://www.org.uk/annualreport)

**11** Eleven renowned artists, including Gary Hume, Rose Wylie and Anish Kapoor, have helped us raise awareness about tiger conservation, as part of our Tomorrow's Tigers project. Each artist designed a limited-edition tiger rug inspired by 19th-century Tibetan rugs, few of which survive today. The rugs were exhibited at Sotheby's earlier this year.

NEWS IN BRIEF

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REPORT SHOWS NATURE NEEDS LIFE SUPPORT

Nature is disappearing at an alarming rate – and our future depends on turning this around, urgently. That’s the message of WWF’s *Living Planet Report 2018*. We all depend on nature, but our report found that wildlife population sizes globally have fallen by 60% since 1970. In Latin America and freshwater ecosystems, wildlife has suffered catastrophic declines. So we’re calling for a new global deal to halt and reverse biodiversity loss – and the next two years will provide a crucial window of opportunity. Read the report at [wwf.org.uk/lpr2018](http://wwf.org.uk/lpr2018)



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GREEN AMBASSADORS ARE TOP CLASS

Our Green Ambassador Awards shine a light on the incredible primary schools that put the environment and sustainability at the heart of their teaching. Last year, with the help of WWF supporter and actor Cel Spellman, and with the support of players of People’s Postcode Lottery, we once more searched out the greenest teachers and greatest green teams in each of the UK countries. Congratulations to all of our amazing winners, who inspire us with their commitment to a greener future. Find out more about our scheme and the winners at [wwf.org.uk/greenambassadors](http://wwf.org.uk/greenambassadors)

WWF PARTNERS WITH NETFLIX

‘OUR PLANET’ IS COMING

Netflix has teamed up with WWF to create *Our Planet*, a spectacular new natural history series voiced by Sir David Attenborough

This exciting, original, eight-part Netflix original documentary series has been created by Silverback Films – the team behind *Planet Earth* – in collaboration with WWF. It will premiere on 5 April. *Our Planet* took 600 film-makers more than 3,500 days over four years to produce – the largest project of its kind ever attempted. This groundbreaking series will showcase the planet’s most precious species and fragile habitats, from the remote Arctic and the rich jungles of South America to the deepest oceans. Using the latest in 4k camera technology, it will reveal amazing sights on Earth in ways they’ve never been seen before.

Speaking at WWF’s State of the Planet Address event in London, Sir David Attenborough said: “*Our Planet* will take viewers on a spectacular journey of discovery, showcasing the beauty and fragility of our natural world. Today we have become the greatest threat to the health of our home, but there’s still time for us to address the challenges we’ve created, if we act now.

“We need the world to pay attention.

*Our Planet* brings together some of the world’s best film-makers and conservationists, and I’m delighted to help bring this important story to millions of people worldwide.”

Through partnership with WWF, *Our Planet* will inspire millions of people in more than 190 countries worldwide to understand the one home we all share, the threats it faces and our shared responsibility for its future. From a wealth of online resources to educational programmes for schools, the project will not just showcase the wonders of our planet, it will reveal what we must do now to ensure people and nature can thrive.

Colin Butfield, WWF’s executive director and executive producer of *Our Planet*, said: “We’re the first generation to realise the full impact of what we’re doing to our planet, and the last that has a chance to do anything about it. We’re living in a defining moment in our planet’s history and its future is in our hands. *Our Planet* will start one of the most important conversations of our time – at the crucial moment when we need urgent global action to protect it.”

DISCOVER MORE about this groundbreaking series at [ourplanet.com](http://ourplanet.com)



*Our Planet*, a landmark partnership between WWF and Netflix, will shed new light on the wonders of the natural world

© STEVE BENJAMIN/ SILVERBACK FILMS



We support the British Wildlife Photography Awards to showcase the UK’s incredible wildlife, such as this red squirrel by Neil McIntyre, which was the winner of the British seasons category. See more at [wwf.org.uk/bwpa2018](http://wwf.org.uk/bwpa2018)

ILLEGAL WILDLIFE TRADE

TACKLING A TERRIBLE TRADE IN WILDLIFE

You joined our fight to end illegal wildlife trade and demanded urgent action from global leaders at a crucial conference in London

Hosted by the UK Government in London, the fourth international conference on illegal wildlife trade was the biggest so far, attended by about 1,300 delegates from over 70 countries.

Linked to one of our policy priorities, ahead of the conference we released a survey of wildlife rangers’ working conditions, which revealed that their efforts to protect iconic species are being undermined by a range of challenges, including a lack of access to clean drinking water and basic equipment, and by preventable diseases (see p13).

We also released a life-size elephant hologram onto the streets of London to raise awareness and build support for our priority asks from global leaders. These included tackling corruption, closing ivory markets, and pushing for better insurance, training and equipment for rangers. We also wanted to see commitments to reduce demand for illegal wildlife products. Thanks



© RINPEP/ WWF-UK

to you, our petition calling for urgent action to end this horrific trade received an incredible 124,664 signatures. We presented it to the UK environment secretary, Michael Gove.

The conference emphasised the need to tackle illegal wildlife trade as a serious international organised crime, work with new partners, and redouble efforts to reduce demand. The role of local communities was also recognised.

As the conference closed, over 50 countries had adopted the London 2018 declaration committing to take action on illegal wildlife trade. With your support, we’ll work to ensure governments turn these commitments into concrete action.

PICTURE STORY

JOIN THE FIGHT FOR UK NATURE

Wildlife species found in the UK are collapsing. But we have the chance to help nature recover

Since 1970, 56% of UK species have declined and more than one in seven native species face extinction. Numbers of much-loved species from hedgehogs to house sparrows, butterflies to bees have plummeted. Today, the UK is one of the most nature-depleted countries in the world.

We must act now. So we’re seizing a once-in-a-generation opportunity to create world-leading legislation that will restore our environment for generations to come. And we need your help.

We want you to back a Westminster Environment Act that will set ambitious, legally binding targets to restore a healthy and resilient environment, tackle climate change and help native wildlife to recover. By demonstrating leadership on the environment, the UK can drive international talks in 2020 that will determine the future of our world.

JOIN THE FIGHT FOR NATURE

Please call on your MP to champion a strong Environment Act that restores UK nature at [wwf.org.uk/fightfornature](http://wwf.org.uk/fightfornature)

© NEIL MCINTYRE/ BWPA 2018

### A RANGER'S STORY

"I work hard every day to protect wildlife and support local people," explains Musa Moloi, describing the demands of his work. Musa is senior community ranger at Elangata Enderit village in Loita forest, which borders Kenya's Maasai Mara. Musa lives at the heart of the very community in which he himself was raised, with his wife Teresia and three-year-old son Ryan. "Make the life of a ranger better," says Musa, "and you'll get the best conservation."

# ONLY THE BRAVE

Rangers face challenging and dangerous situations almost every day, yet many lack the most basic means to do their job. With your support, we're working hard to support these unsung heroes around the world – nowhere more so than in Kenya



**RANGERS ON PATROL**

It's a case of 'three's company' for Musa and his colleagues Daniel and Solomon, as they set out on patrol. Their work takes them to all corners of the community, liaising with farmers over wildlife conflict issues, investigating any poaching incidents and helping the villagers live sustainably alongside the wildlife whose land they share. Like rangers all over the world, the team work in tough conditions and cover a wide area with only limited resources. But their commitment is unwavering. "We try and achieve the best coexistence between the wildlife, the forest and the local pastoralist communities," Musa explains.



**HOW YOU'RE SUPPORTING RANGERS IN THE MARA**

In Kenya, you've helped develop Mara Siana and Oloisukut community conservancies, both located in the buffer area around the Maasai Mara National Reserve. These were formed when the communities jointly set aside land for conservation, tourism and livestock pasture.

With your help, habitat degradation has been arrested, and poaching – once heavy here – has fallen steeply, resulting in increases in threatened wildlife populations, such as lions.

Local livelihoods have also improved. The communities now benefit from increased employment, better grazing management and improved cattle quality. Fees from leasing their land bring in extra revenue, while beekeeping and alternative crops such as chilli peppers offer new sources of income.

Critical to this success has been our work with rangers. This varies from constructing new accommodation with clean water to supporting insurance costs. With your help, we provide daily rations for rangers on patrol, procure new uniforms, purchase radio equipment and smartphones, and subsidise vehicle maintenance and fuel costs. You've also helped to fund training in data collection, wildlife ecology and even law enforcement.

**▲ THE WISDOM OF ELDERS**

Musa's father still lives in the village where he grew up. He's proud of what his son has achieved, and has taught him much about the local wildlife. "The area where my father was a young man was once the best place for rhinos," Musa explains. "It's sad for him that we've lost so many animals, especially the rhinos." For rangers such as Musa, having family ties within the community they serve helps foster trust and respect. And village elders, such as Musa's father, remain an invaluable source of wisdom.

**▶ JUST LIKE A FAMILY**

After a tough morning's training, a simple cup of tea brewed over an open fire offers a welcome break for the rangers at Ololaimutia ranger post on the border of Mara Siana. "A ranger's life is not easy," says Peter Lokitela, who trains the men thanks to support from WWF. "But because of their passion, these rangers have the endurance and perseverance it takes." Peter describes how hard life can be for his team, who cope with basic living conditions and meagre resources to do their work, but explains that their camaraderie pulls them through. "We must all hold hands with these rangers so that they can keep going."



ALL IMAGES © AMI VITALE / WWF-UK



◀ **DRILL PRACTICE**

Peter Lokitela conducts early morning drill for the rangers that he works with at Mara Siana Conservancy. An experienced frontline ranger, who has confronted both armed poachers and dangerous wild animals, he knows that discipline is essential for his team to succeed. He also knows how difficult life can be for rangers. “We are constantly faced by challenges and a lack of resources, and are always at risk,” Peter says. Thanks to you, Peter is helping the team to eradicate such problems as poaching and logging within the Loita forest, while ensuring they do not lose the trust of local people. “We do our best to work with the community, while making sure there are no illegal activities,” he explains. “But we are just a few men, and the area is very large.”

**LIVING WITH PREDATORS**

Nolkidotu Nkuito, a herdsman from Naitiroki village, explains to Musa and his team the problems he faces with local wildlife. Nolkidotu has lost more than 40 goats to leopards and hyenas, and his prized cow was recently taken by a lion. Having grown up in this community himself, Musa can understand the farmers’ fears and frustrations – and these daily consultations enable him to win over hearts and minds. The rangers work tirelessly to find solutions, from innovations in animal husbandry to compensation schemes for lost livestock. “Despite all the challenges we encounter,” Musa explains, “the community remains the best tool for protecting wildlife.”



**RANGERS SPEAK OUT**

In October, we published the results of our survey into the welfare of rangers around the world. Some 4,686 rangers from 17 countries responded, 94% of them male. We wanted to learn more about the challenges they face, and to demonstrate the need for better resources and more political will to support them in their amazing work.

**82%**

of rangers think their job is dangerous due to the risk of encountering poachers

**38%**

of rangers feel that the training they received when they started their job was inadequate

Only **33%**

of rangers have regular access to mosquito nets at their outpost

**58%**

of rangers don't have regular access to clean drinking water while on patrol

At least **107**

rangers were killed in the line of duty from July 2017 to July 2018, according to the International Ranger Federation and Thin Green Line Foundation



**TRAINING FOR SUCCESS**

Peter Lokitela, project officer for WWF-Kenya, says: “When I grew up, I was passionate about conservation. I will always protect our natural heritage for future generations.” With 15 years’ experience in the Kenya Wildlife Service, Peter is helping to train community rangers in order to increase ranger capacity in the Mara region. “I can’t just sit back with all this knowledge and watch other people who need it,” he insists. “Through capacity-building, I’m able to share my experience and skills so that others can succeed.”

**HELP A RANGER TODAY**

You’re already supporting rangers such as Musa to do their jobs safely and successfully. Thanks to your membership, we’ve been able to upgrade their living quarters, provide vital resources from boots to radio equipment, and improve their training. Now we need your continued generosity to build on these successes. Working with governments and other partners, we aim to ensure that all rangers worldwide receive the equipment,

- protection and recognition they need for the invaluable work they do.
  - £15** could help pay for new uniforms and boots for rangers in the field
  - £30** could pay for a week’s food for a ranger in the field
  - £180** could pay for a new GPS unit used by rangers on patrol
  - £700** could pay for training in new technology for conservancy community rangers
- To donate today, visit [www.org.uk/rangers](http://www.org.uk/rangers)



## BED OF SEALS

Technology is giving us views of our changing planet as we've never seen it before...

The end of summer in the Antarctic, and sea ice is in increasingly short supply. This ice floe provides barely enough room for a group of crabeater seals to rest – and cracks are appearing.

Crabeater seals are widespread in Antarctica and possibly the most abundant seals anywhere. But they need sea ice – for resting, breeding, avoiding predators such as leopard seals, and accessing feeding areas. Despite their name, crabeaters feed almost exclusively on Antarctic krill, sieving it from the water using their interlocking teeth. You can see the evidence in the reddish krill-coloured seal excrement that spatters the near pristine ice.

The krill itself also relies on the sea ice, which provides it with winter shelter and algal food. Any decline in sea ice will have knock-on effects on the krill and its predators, which include baleen whales, penguins, squid and fish.

Sitting in a rubber dinghy near the ice floe, photographer Cristobal Serrano flew a drone carrying his camera high over the sleeping seals, using quiet propellers to avoid disturbing them. His image was the winner of the Animals in their Environment category of the Natural History Museum's 2018 Wildlife Photographer of the Year competition.

With your help, we'll keep pressing for action to protect Antarctica's incredible marine life and safeguard polar regions from the worst effects of climate change. Find out more at [wwf.org.uk/polar](http://wwf.org.uk/polar)

To see more stunning images from the competition, visit [wildlifephotographeroftheyear.com](http://wildlifephotographeroftheyear.com)



A giant anteater wanders slowly across the Cerrado, sniffing out ants. Females have a single offspring once a year, which they carry on their backs. Here, the young anteater is well camouflaged, thanks to special stripes, which blend with those of its mother. The youngster may continue to ride on its mother's back until it's nine months old

# EXPLORE THE CERRADO

A vast, forested savannah stretches across Brazil, little-known yet rich in wildlife. Discover the Cerrado, one of the most important – yet most threatened – habitats in the world

It's late September, and the central Brazilian plateau is waiting for rain. Tall, yellowed grass rustles in the breeze, a hoarse whisper betraying its desiccated state. In between the tussocks and gnarled shrubs, rust-hued soil is pocked with charred-looking, black rocks. Everything is thirsty.

October brings sudden relief. When it arrives, rain comes in force – and life erupts in a vivid explosion. “One of my favourite moments is the blossoming of the plant called *chuveirinho*, a name that literally means ‘showerhead,’” says WWF’s Karina Berg, who leads our Cerrado conservation programme in Brazil. “It’s a magical sight: fields and fields of waist-high green shoots topped with creamy-white flowerheads, like fireworks or starbursts, that glint in the sunlight. It’s truly stunning!”

This is the Cerrado – the wildest place you’ve (probably) never heard of. It’s the second most extensive area of vegetation in South America, spanning more than two million square kilometres. That’s nearly a quarter of Brazil’s land area, or about the size of England, France, Germany, Italy and Spain combined. Yet it’s a decidedly underrated habitat, without the widespread fame of its neighbour to the north-west, the Amazon.

Perhaps that’s partly because it’s tricky to capture the unique character of the Cerrado (pronounced, roughly, ‘seh-hah-doh’). “It’s best defined as a savannah,” says Karina. “Though that word is misleading because it conjures up images of relatively featureless African plains – whereas the Brazilian Cerrado is the opposite. This is the most wildlife-rich savannah in the world.”

The Cerrado hosts a wealth of flora and fauna: some 11,000 plant species, 837 types of bird, around 90,000 insects and 150 amphibians – and about 40% of them are endemic to the region. There are jaguars and tapir, rheas and hyacinth macaws, giant armadillos, the curiously long-legged and frugivorous maned wolf, and – Karina’s favourite – the giant anteater.



The Cerrado may not be a household name, but this ecosystem is vital to the health of our planet. It's home to an incredible range of wildlife, as well as supporting food and water production for millions of people, and it plays a critical role in fighting climate change

“A female anteater roaming the Cerrado with its baby clinging to the thick fur on its back is an amazing sight,” says Karina. “They’re so graceful. These huge creatures – almost the size of a great dane dog – seem to glide across the landscape, sniffing for ants with their long snouts, ready to tear open termite mounds with their long, vicious-looking claws.”

The Cerrado has hidden depths. “Everyone is familiar with the Amazon, which has huge forest canopies with small root systems,” says Karina. “The Cerrado is the other way round: it has small trees and bushes with enormous root systems – it’s an upside-down forest. Its resilient plant species have adapted to endure fire and months of drought during the long dry season from April to September, with long roots to access water deep in the earth.”

Such a vast biome isn’t uniform, of course. “There are many distinct types of habitat,” says Karina. “Some areas are flat and grassy, but there are stretches of lush woodland with waterfalls and rivers, and twisted, knobby mini-forests that look like overgrown bonsai.”

“Among the most wonderful sights here are the clusters of bright pink *cajuzinho* (‘little cashew’),” smiles Karina. “The fruits have a lovely sweet taste. But my favourite flavour in the Cerrado is the baru nut – I always seek out the delicious baru biscuits made by the locals.”

Dozens of indigenous and traditional communities rely on the Cerrado. Many have adapted to life here, from small-scale livestock farmers to those who sustainably harvest the nuts and fruits of the Cerrado for food, oil and medicinal purposes. But the importance of this biome goes beyond its biodiversity or value to humans.

This landscape is the source of water for eight of the 12 watersheds in Brazil, feeding

## THE CERRADO IS THE MOST WILDLIFE-RICH SAVANNAH IN THE WORLD

the Amazon and the Pantanal – the world’s largest tropical wetland – as well as major cities. The country’s capital, Brasilia, sits in the middle of the Cerrado, and is just one of the cities that depend on the region for its water, which also generates (via hydroelectric plants) electricity used by nine out of 10 Brazilians. The volume of the Cerrado’s trees and other plants, with their vast root systems, means it’s also vital for combating climate

change, storing an estimated 13.7 million tonnes of carbon.

Yet it’s under threat. The Cerrado is a hugely important region for agricultural production in Brazil, particularly cattle farming and soybean production. Global demand for soybeans is driven by our food supply chain. More than 70% of the soy produced globally is fed to animals to produce the chicken, pork, milk, cheese and eggs we consume. Huge volumes of soybeans are exported from Brazil, primarily to Europe and China, and the demand is increasing. As Brazil is one of the world’s biggest producers of soy, the pressure on the Cerrado is intensifying.

The statistics are alarming: 50% of the historical area of the Cerrado has already been lost. An astonishing 18,962 sq km were converted to agricultural use between 2013 and 2015 alone – that’s an area the size of Greater London every two months. In recent years, the Cerrado has even overtaken the Amazon as the biggest deforestation front in South America.

**The last strongholds of the hyacinth macaw – the largest parrot in the world – are in Brazil. Populations are declining, mainly due to habitat destruction and the illegal pet trade**



Some areas of the Cerrado are affected disproportionately, largely those that are easiest to clear for agriculture and those that provide quickest access for transporting produce. One example is the region in the north-east of the Cerrado collectively known as Matopiba (an acronym derived from the names of the four states it spans: Maranhão, Tocantins, Piauí and Bahia). Here, soy production grew by 253% between 2000 and 2014. This increase has relied on the conversion of natural habitat and deforestation to make way for the crop. Between 2000 and 2014, 20,800 sq km have been lost to make way for soy, and rates here are double the average across the Cerrado.

Deforestation has significant local and regional impacts, as well as global ones. Crucial water sources in the Cerrado are replenished by rain, but removing trees reduces the amount of rainwater filtering through the soil to reach underground aquifers. It also increases the amount of silt in the water and introduces pesticides from agricultural run-off, affecting the quality and flow of the water. This has a serious impact on freshwater habitats such as the Pantanal wetlands, and all the wildlife they support.

Surprisingly, given its amazing biodiversity, less than 3% of the Cerrado is strictly

protected, preventing any land conversion. Public protected areas cover only 7.5% of the biome, compared with 46% of the Amazon. And landowners in the Cerrado are legally required to conserve only 20% of their land – a quarter of that required in the Amazon.

What’s the answer? Karina and her colleagues are at the front line of our work encouraging the repurposing of previously cleared areas in the Cerrado. They aim to eliminate the conversion of precious native habitats such as forest and grassland for soy and beef production. We need to act quickly: if the destruction of habitat continues at recent rates, some 480 plant and animal species could become extinct by 2050.

This is a biome of rare, varied beauty and it is critically important for fresh water, food and climate. The effects of losing it are far-reaching. It would also be a tragedy if the *chuveirinho* flowers and the maned wolves, jaguars and anteaters that roam the precious Cerrado were lost.

## SAVE THE CERRADO

Find out more about the threats to the Cerrado and how you’re helping us to tackle them in your next issue of *Action* and at [www.wwf.org.uk/save-forests](http://www.wwf.org.uk/save-forests)

## WILDLIFE OF THE CERRADO



### MANED WOLF

With fox-like markings and long, spindly legs, South America’s largest canid hunts small mammals, but also enjoys fruit – specifically the small, tomato-like *lobeira*.



### JAGUAR

This magnificent cat prowls the Cerrado, albeit in limited numbers. Perhaps 320 of these gorgeous rosette-spangled predators survive across the region’s best-preserved habitat.



### GIANT ANTEATER

This large, furry insectivore glides across the Cerrado, using its long, sensitive nose to locate ant nests and termite mounds. It tears them open with its sharp claws to reach its tiny prey.



### GIANT ARMADILLO

The world’s largest armadillo is also its rarest. Growing up to 1.5m long, it shelters during the day in underground burrows, so it’s an uncommon but treasured sight in the Cerrado.



### LOWLAND TAPIR

Another behemoth, growing to over 250kg, the lowland tapir inhabits the Cerrado’s woodlands and rivers, using its long, flexible proboscis (nose) to browse leaves and fruit at night.

© GETTY / © ALAMY

# EAT FOR YOUR WORLD



Enjoying more plants can help reduce our environmental impact. We spoke to chef Derek Sarno, creator of Tesco's Wicked Kitchen vegan range, about planet-friendly food choices

## Why should we all try to eat a wider variety of plants in our diet?

The health benefits of eating a more plant-based diet are phenomenal, not to mention the positive effects it has on the environment and animal welfare.

## How are you changing perceptions of plant-based food?

One of the biggest myths is that you can only get the protein you need by eating meat. Protein comes from plants, not animals. Animals are just the middlemen. The single biggest thing we can all do to protect our world is to eat a plant-based diet. Plus it's a myth that food associated with a vegan diet is bland and boring. The Wicked Kitchen range puts veg in the centre of your plate and creates dishes that are full of flavour and crave-ability!

## You're the head of plant-based innovation at Tesco. What do you do?

I'm helping to expand Tesco's plant-based plans and develop new recipes to motivate and empower people to make the best food choices. Many people in the UK are open to embracing new ways of preparing and enjoying food these days, and we want to help them.

## Has the way people consume food changed?

Yes. In the past few years, more of us have started choosing to eat less meat – we're 'flexitarians' or 'reducetarians'.

## Can you tempt us with some great new recipes?

Wicked Kitchen is always exploring exciting and innovative ways to prepare what people see as 'ordinary' foods.

We've got some delicious meal ideas to replace traditional favourites, such as a roasted butternut tenderloin, sweet

and savoury glazed celeriac instead of ham, and cluster brown oyster mushroom steaks.

## What could our members try eating this spring?

There are so many delicious, exciting vegetables around in spring! Artichokes have many health benefits and are sensational to cook with. It's also a good time for celeriac, a less well-known root veg, and lots of fresh greens!

## How can people change the way they eat to benefit the planet?

We can lessen our impact on the planet by reducing our consumption of animal products. These days there are lots of new and exciting plant-based alternatives to consider.

## What promise for the planet would you like everyone to make this WWF Earth Hour?

I'd love people to give vegan a try. Make one day a week meat-free and begin your journey to a plant-based diet. There are a million excuses for not doing anything, but time is running out. Find one good reason to make the change today. Our choices today really do affect our future.

To get started, why not try this delicious cauliflower spare ribs meal? It's full of flavour, combining an appetising grilled texture with a delicious mix of enticing sauces, including tamari and sriracha.

## WORKING TOGETHER

Tesco has joined us in the fight for our world. We've come together in a new partnership to address one of the biggest causes of wildlife loss: the global food system. Over the next four years, we're going to make it easier for everyone to enjoy food that's affordable, healthy and sustainable. Find out more at [wwf.org.uk/tesco](http://wwf.org.uk/tesco)



## CAULIFLOWER SPARE RIBS

### INGREDIENTS

#### CAULIFLOWER SPARE RIBS

- 1 whole cauliflower
- 1 jar hot pepper jelly, mango or tamarind chutney
- ¼ cup Ninja Tamari Glaze (see recipe)
- ½ teaspoon sea salt
- 1 tablespoon sesame seeds, preferably a black and white combo, for garnish
- ¼ cup fresh coriander or parsley leaves, for garnish

#### NINJA TAMARI GLAZE

- 2 cups water
- 1 cup tamari soy sauce
- ½ cup demerara sugar or light brown sugar
- ½ cup sriracha chilli sauce
- 1 tablespoon rough chopped ginger
- 1 tablespoon rough chopped garlic
- 1 bay leaf
- 1 teaspoon arrowroot or cornstarch
- 2 tablespoons cold water



### INSTRUCTIONS

Break down the cauliflower head by first cutting in half, leaving the stem attached. We're looking for full stem and floret pieces to mimic the size of a spare rib. Try to make sure the pieces are big enough to stay together during the saucing and grilling process.

Place cauliflower ribs in a large bowl, then add the chutney. Coat all pieces thoroughly and grill on hot grill for around three to five minutes on each side. Aim for good grill marks and a golden brown colour with burnt edges.

Remove from grill and sprinkle with fresh coriander or parsley, salt and sesame seeds to taste. Eat these with your fingers. It adds to the experience!

### NINJA TAMARI GLAZE

Combine the water, tamari, sugar, sriracha, ginger, garlic and bay leaf in a medium saucepan. Bring to a simmer over medium heat for about five minutes.

Whisk the arrowroot with the two tablespoons of cold water and add to the pan. Simmer for five to eight minutes, then let it sit for five minutes. Strain the mixture into a container, let it cool and keep in the fridge. Use this glaze like liquid flavour. And mix it up, adding fresh herbs, spices, or some fresh lemon or lime juice!

SERVES  
2-4

# SEEKING SANCTUARY

Home to a dozen species of whales and dolphins, the Pelagos sanctuary is the largest protected area in the Mediterranean Sea. But for marine mammals it's also one of the most dangerous. So we're taking action to tackle the threats...

**A** giant diamond extending south from the Côte d'Azur, the Pelagos sanctuary is one of the jewels of the Mediterranean. Its waters are home to an incredible variety of life, including a dozen species of cetaceans (whales, dolphins and porpoises). Thousands of bottlenose, striped, Risso's and common dolphins live here, along with sperm whales, pilot whales and fin whales – the second largest animal in the world after the blue whale.

But there's a problem. While the Pelagos sanctuary was set up to provide a haven for cetaceans, it also happens to be in the middle of one of the busiest and most polluted stretches of sea anywhere. A quarter of the world's maritime traffic uses the Mediterranean, and a sizeable proportion of it passes through the Pelagos sanctuary,

including ferries crossing to Corsica and Sardinia, commercial liners passing between Italy and Spain, superyachts heading for Monaco, tourist boats, as well as military vessels and container ships bound for Marseille, one of the largest ports in Europe.

"The risk of a whale being struck by a ship is 3.25 times higher inside the Pelagos sanctuary than outside," explains Denis Ody, who heads up WWF's marine work in France. "Collisions with ships are the main cause of non-natural mortality for large species such as fin and sperm whales. Between eight and 40 fin whales are killed through collisions with boats every year in the Pelagos. With a population of only around 1,400 to 1,800 fin whales in the western Mediterranean, that's a significant and very worrying number."

Sperm whales inhabit deep waters, so they remain something of a mystery. However, social groups of females with calves have been seen in the Mediterranean all year round. Sperm whales dive deep to hunt squid and are prone to mistaking floating plastics for their usual prey

# “TO COME UP WITH THE BEST SOLUTIONS, WE NEED TO UNDERSTAND WHY COLLISIONS HAPPEN”



“It’s hard to find adequate words to describe the sight of a sperm whale gliding through an azure expanse of crystal clear water,” says Denis. “It’s a vision that goes straight to your heart”

Established in 1999 by the governments of France, Italy and Monaco (thanks in no small part to WWF’s efforts), the Pelagos sanctuary covers an area of 87,500 sq km – larger than Scotland. It’s far and away the biggest marine protected area in the Mediterranean; in fact, it makes up nearly half the total area under protection. But while there’s a ban on harmful fishing gear and restrictions on some leisure activities, the Pelagos isn’t as well managed as it could be. As a result, the whales and dolphins for which it was set up are suffering.

“It’s a big place, but not as strongly protected as some marine protected areas,” says Denis. “If the Pelagos is truly to provide a sanctuary for whales and other cetaceans, more needs to be done to prevent collisions with ships and reduce other threats.”

## WORKING TOGETHER

This is something we’re focusing on as part of our partnership with Sky Ocean Rescue, which aims to protect and restore healthy oceans. Together, we’re working to improve the management of the Pelagos sanctuary, as well as other marine protected areas off the coasts of the UK, Germany, Italy and Spain.

Thanks to your support and funding from Sky Ocean Rescue, Denis and his team are stepping up their research into the whales that frequent the Pelagos. Last summer,

they began fitting fin whales with electronic tracking devices – the first time this has been done in the Mediterranean. Equipped with GPS and multiple sensors, the tags will enable us to develop an unprecedented 3D picture of the whales’ movements and behaviour.

“The tagging will provide a scientific rationale for designing effective traffic management measures to reduce collisions between whales and ships,” says Denis. “One solution could be to create shipping lanes to concentrate traffic, leaving more empty space for whales. But it’s possible this could create highways that split populations and that cetaceans can’t cross, which could make things worse. So perhaps other solutions, such as decreasing speeds, could be better. To come up with the best solutions, we need to understand how the whales behave around ships. Why do collisions happen? Fin whales are fantastic swimmers that can reach speeds of 30 to 40 kilometres per hour, so why are they getting hit?”

Tagging whales isn’t an easy task. “You have to get very close, but fin whales are fast!” says Denis. With the aid of a six-metre-long pole, the tags are attached using suction cups, which are totally painless for the whales, but also prone to fall off their slippery skin. Over around 10 days at sea last summer, the team managed to successfully attach a device four

times. The tag records data for up to one day. When it falls off, an Argos satellite transmitter means it can be easily located and collected.

“The tag enables us to build a valuable profile of the whales’ movements and response when a ship approaches, so we can see if they dive for longer, change their route to avoid the vessel or reduce their speed. One tagged whale dived down to a depth of 147 metres,” says Denis. “We can even equip the tag with a camera to secure underwater images. As a result we captured incredible film from the back of the whale, showing it eating and encountering others. We can learn a lot from these insights – it’s part of an ongoing process to become more familiar with these whales and their behaviour.”

Denis is confident that future expeditions will be even more successful. “Practice makes perfect. Over the next two years, we will spend another three to six weeks at sea collecting data.” The data will be used to inform and influence governments, shipping companies and the International Maritime Organisation, the UN agency that regulates shipping. Since last year, thanks to our work, large French ships crossing the Pelagos have had to install anti-collision software that allows their crews to share information about whale sightings. It’s a good start, but we’d like to see this extended to all vessels in the Pelagos.



For over 18 years, we’ve studied the whales and dolphins of the Mediterranean. Through photo ID and biopsies, we monitor their health and numbers so we can protect them and their home

As well as tagging the whales, Denis and his team take blubber samples to monitor their health. For several years, we’ve been recording the presence of various contaminants in whale blubber, and in the past couple of years our research has expanded to include one of the biggest ocean issues of the moment: plastic pollution.

## TACKLING PLASTIC POLLUTION

The impact of plastic on whales made headlines in 2013 when a sperm whale was found washed up on the south coast of Spain with 17kg of plastic waste in its stomach. Less visible but no less dangerous are the tiny particles known as microplastics. Our recent report showed that concentrations in the Mediterranean are among the highest on the planet.

“These tiny plastic particles are contaminating every level of the food chain, from the smallest krill right up to the largest whale,” says Denis. “They also affect human health because, like

cetaceans, we’re at the top of the food chain.”

When absorbed into the body, plastic contaminants such as phthalates can seriously damage health, reproduction and the way the body functions. Denis and his team found significant quantities of these contaminants in the whales they sampled. Fin whales in the Pelagos had significant concentrations of phthalates in their tissues. Sperm whales and pilot whales, which are hunters rather than filter feeders, were seriously affected too.

Denis stresses that more research is needed to confirm these findings, but they highlight the urgent need to tackle plastic pollution in the Mediterranean – particularly around cetacean hotspots like the Pelagos sanctuary.

“We need to do everything we can to give these fantastic animals the best chance of survival,” he says. “I hope our children and grandchildren will have the chance to cross paths with a fin whale in the Mediterranean.”



In the lab, we analyse skin and fat samples from the whales to assess levels of contamination by pollutants

From sunrise to sunset, WWF’s Denis Ody and his team track fin, pilot and sperm whales from a 15m catamaran



## PROTECT OUR SEAS

Without our precious seas, life on Earth couldn’t exist. So with your support, we’re safeguarding the ocean’s incredible wildlife, supporting livelihoods that depend on it, and reducing unsustainable and damaging activities. We’re also helping to improve the management of the Pelagos sanctuary to minimise threats and increase cetacean populations. Watch our film about this amazing marine area and our work to tackle plastic pollution at [www.org.uk/pelagos](http://www.org.uk/pelagos)

© DENIS ODY / WWF. © FREDERIC CASSAMANOUSSE / WWF

# PLANT YOUR OWN WILDLIFE-FRIENDLY VEGETABLES

Growing your own food is an easy way to do your bit for our world. Wildlife gardener **Kate Bradbury** reveals how you can encourage wildlife and enjoy delicious, fresh food straight from your garden – whatever its size

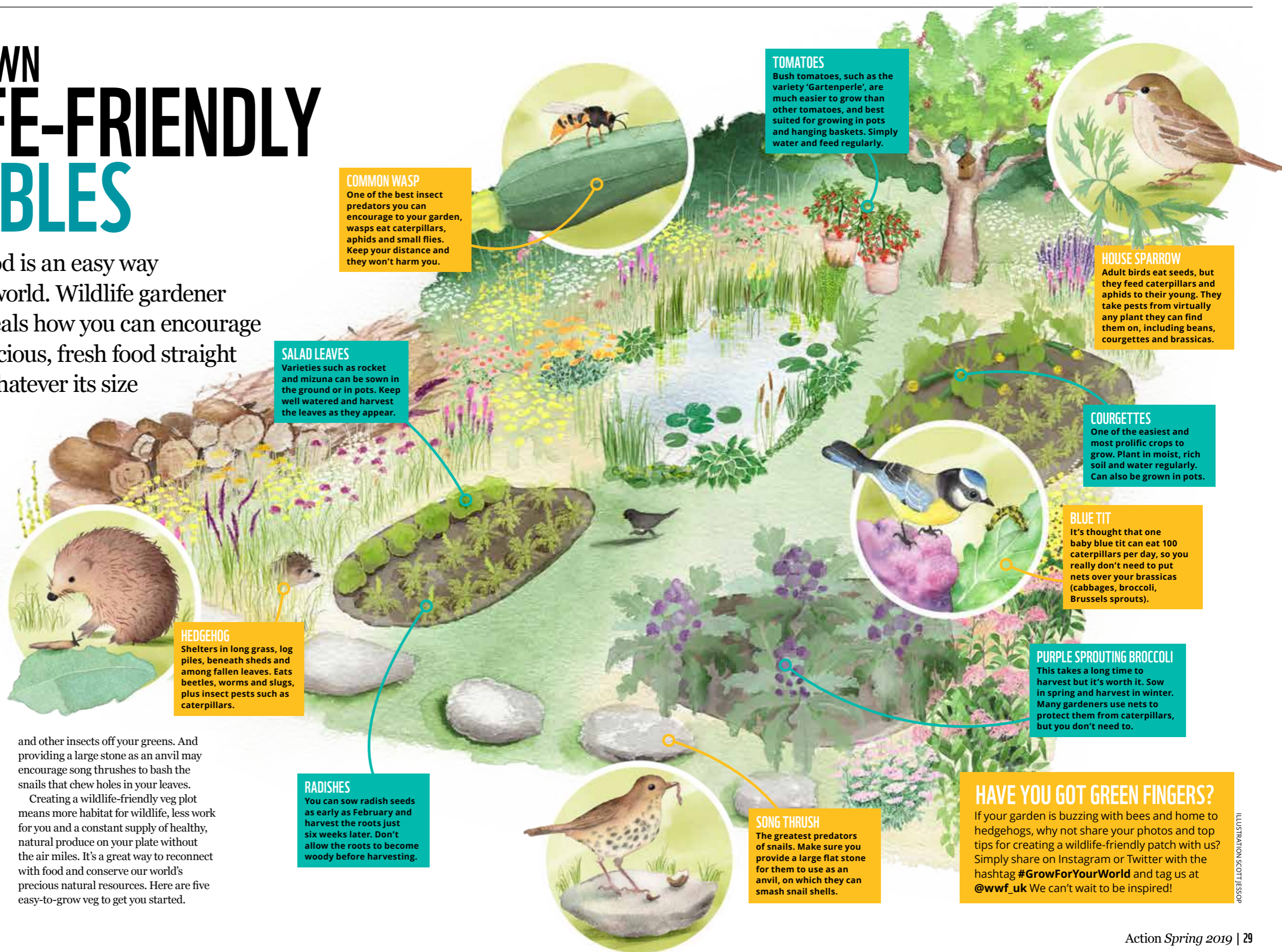
Recently, there has been a surge of interest in edible gardening. And rightly so. It saves money, protects the planet and is incredibly satisfying. As an added bonus, you can grow veggies no matter what size garden you have – from a few pots on a patio to an allotment. But if you've not done it before, the prospect can be daunting – which veg to grow; how to prepare the soil, weed and feed; and what should you do about bugs and slugs?

Traditionally, wildlife has been viewed as the enemy of the fruit and vegetable grower, with some species even labelled as pests. But it's possible – and even beneficial – to welcome wildlife into your veggie patch. Creating wild habitats will not only help threatened species, it also helps you. Leaving areas of long grass, wild flowers and a few nettles around the edge or nearby will provide shelter and food for beneficial insects, such as ladybirds, hoverflies and wasps. Common wasps are true gardener's friends and eat a wide range of veggie-chomping invertebrates, including caterpillars, aphids and ants.

Creating a pond to attract frogs and toads, or a log pile for hedgehogs, will encourage them to eat the slugs and other grubs that might plague your young plants. Fruit- or berry-bearing trees and shrubs provide food and shelter for blue tits and house sparrows, which will pay you back by pecking the caterpillars, aphids

and other insects off your greens. And providing a large stone as an anvil may encourage song thrushes to bash the snails that chew holes in your leaves.

Creating a wildlife-friendly veg plot means more habitat for wildlife, less work for you and a constant supply of healthy, natural produce on your plate without the air miles. It's a great way to reconnect with food and conserve our world's precious natural resources. Here are five easy-to-grow veg to get you started.



**COMMON WASP**  
One of the best insect predators you can encourage to your garden, wasps eat caterpillars, aphids and small flies. Keep your distance and they won't harm you.

**TOMATOES**  
Bush tomatoes, such as the variety 'Gartenperle', are much easier to grow than other tomatoes, and best suited for growing in pots and hanging baskets. Simply water and feed regularly.



**HOUSE SPARROW**  
Adult birds eat seeds, but they feed caterpillars and aphids to their young. They take pests from virtually any plant they can find them on, including beans, courgettes and brassicas.

**SALAD LEAVES**  
Varieties such as rocket and mizuna can be sown in the ground or in pots. Keep well watered and harvest the leaves as they appear.

**COURGETTES**  
One of the easiest and most prolific crops to grow. Plant in moist, rich soil and water regularly. Can also be grown in pots.



**BLUE TIT**  
It's thought that one baby blue tit can eat 100 caterpillars per day, so you really don't need to put nets over your brassicas (cabbages, broccoli, Brussels sprouts).



**HEDGEHOG**  
Shelters in long grass, log piles, beneath sheds and among fallen leaves. Eats beetles, worms and slugs, plus insect pests such as caterpillars.

**PURPLE SPROUTING BROCCOLI**  
This takes a long time to harvest but it's worth it. Sow in spring and harvest in winter. Many gardeners use nets to protect them from caterpillars, but you don't need to.

**RADISHES**  
You can sow radish seeds as early as February and harvest the roots just six weeks later. Don't allow the roots to become woody before harvesting.



**SONG THRUSH**  
The greatest predators of snails. Make sure you provide a large flat stone for them to use as an anvil, on which they can smash snail shells.

**HAVE YOU GOT GREEN FINGERS?**  
If your garden is buzzing with bees and home to hedgehogs, why not share your photos and top tips for creating a wildlife-friendly patch with us? Simply share on Instagram or Twitter with the hashtag **#GrowForYourWorld** and tag us at **@wwf\_uk** We can't wait to be inspired!

ILLUSTRATION SCOTT JESSOP



© KIM COLLINS / WWF-UK

## WILD AND FREE

We're giving away a prize bundle, including a mug, tote bag and T-shirt from our new Wild and Free range by Ollie Terry

We're delighted to have teamed up with printmaker Ollie Terry to create an exciting and powerful new range for our shop. "Nature is my work," says Ollie. "I find so much artistic inspiration in blooming flowers, and the fluid patterns of leaves and trees." But it's tigers that are that greatest source of inspiration to Ollie. "From the felines themselves to their elegant stripes, tigers are magnificent. And they need our help."

In Ollie's exciting new motif for WWF, a tiger tail is surrounded with flourishing flora and the words 'All good things are wild and free'. Ollie explains, "I hope everyone who likes my work will remember that it's based on incredible real creatures that, one day, may not be around. I want people to fight for them while they can; so that future generations don't just have a print as a record of what used to be."

We're thrilled to be able to give away a Wild and Free mug, tote bag and cotton T-shirt made from organic fibres and printed in the UK using water-based screen printing. To be in with a chance of winning, simply follow the instructions below and mark your entry 'Wild and Free Competition'.



**WIN!**  
OLLIE TERRY-  
DESIGNED TIGER  
GOODIES

Don't miss your chance to win our cool new **Ollie Terry-designed goodies** including a mug, cotton tote bag and cotton T-shirt, **worth over £60**. To be in with a chance of winning this super prize, just follow the instructions (below) and mark your entry 'Wild and Free Competition'.



## ICE° BOTTLE

We're giving away two ICE° Bottles to help you stay beautifully hydrated and fight for our world every time you use one

We're delighted to introduce to our shop an exclusive collection of six beautiful, limited-edition wildlife water bottles, created by ICE° Bottle and featuring original threatened-species designs by artist Elizabeth Grant.

We're all more aware of the pollution caused by single-use plastic bottles, and making a small lifestyle change can have a huge impact. So the stainless steel 500ml ICE° Bottle has been designed for superior strength and durability, to survive the knocks and bumps of a busy life on the go. It will also keep your liquids colder or hotter for far longer than many other products.

Each ICE° Bottle features iconic wildlife, ranging from a snow leopard to an elephant. By downloading Link Reader from the App Store to your phone, you can enjoy all our latest content, just by holding it over the image on your water bottle. We have two WWF ICE° Bottles to give away. To enter, just follow the instructions (right) and mark your entry 'ICE° Bottle Competition'.

## HOW TO ENTER ACTION GIVEAWAYS

Send an email with your name, address and phone number, along with Wild and Free Competition or ICE° Bottle Competition (with your preferred design) in the subject line, to [competition@wwf.org.uk](mailto: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.

Closing date: Friday 22 March 2019. For terms and conditions, visit [wwf.org.uk/compterm](http://wwf.org.uk/compterm)



Alec and the team caught two healthy gopher rockfish in just 10 seconds, then released them - proof of a thriving marine reserve!

## PROTECTING WILD OCEANS

It's September and the sound of my alarm jolts me awake at 5am. I'm in California, near the old whaling and cannery town of Monterey, and I need to be on a boat leaving at 5.30am. My mission: to join a fish survey in one of California's ocean jewels, Point Lobos State Marine Reserve, thanks to a generous fellowship from the Winston Churchill Memorial Trust.

Point Lobos is a magically wild place, comprising a mix of rocky tide pools, bays and coves. Here, giant kelp forests provide an anchor for sleeping sea otters, a shelter for myriad fish and a playground for barking California sea lions. Importantly, the marine reserve has been fully protected since the 1960s. If you take anything out or dump anything in it, you're breaking the law.

The fish surveys of California's marine reserves are incredible, because local fishermen are encouraged to take part and see for themselves the difference that a well-managed marine reserve can make to fish populations. Our first survey site was inside the reserve - and the results were astonishing. In just 15 minutes, nine of us caught, recorded and released 409 fish! Outside the reserve, we caught only about 80 fish, and they were smaller and younger than the fish inside the reserve. It's one thing to know that the benefits of marine reserves have been scientifically proven; it's another thing to see them in person. And it's even better when local fishermen can see them too.

### BACK IN THE UK

My time in California showed me that well-managed marine reserves can make a huge difference to both people and nature. Yet back in the UK, we have a lot of work to do to match up. Our seas are wild and wonderful, and we have lots of protected areas on paper, but little effective management and very few marine reserves (Richmond Park in London is larger than all our marine reserves put together). I'm working to change that. Thanks to you, and support from Sky Ocean Rescue, we aim to improve the way marine protected areas (MPAs) covering more than three times the size of Wales are managed. If my trip taught me anything, it's that MPAs need strong regulation, long-term leadership, community support, funding and passionate staff on the ground. We also want at least a third of UK seas to be properly protected by law by 2030. With your support, we can make this happen!

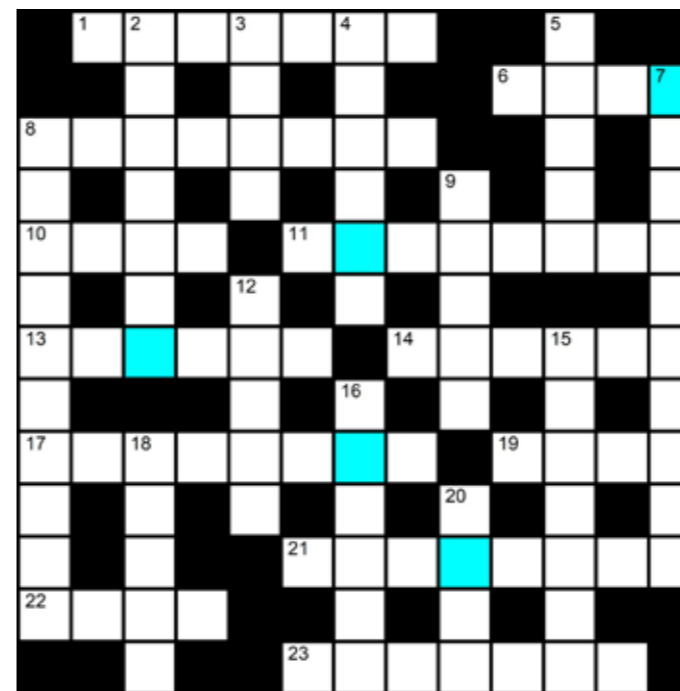
Alec

Alec Taylor, WWF marine expert

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## CROSSWORD

Solve our crossword and you could win a copy of WWF's 12 Small Acts to Save Our World, available from our shop for £12.99



WWF Action crossword 39: spring 2019 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](mailto:competition@wwf.org.uk). The closing date is Friday 22 March.

### Clues Across

- 1 Vulnerable mahogany species and victim of illegal logging (3-4)
- 6 Disappear, as glaciers succumb to climate change (4)
- 8 Frozen floating mass on a lake (5,3)
- 10 An escape of oil or gas on the pipeline (4)
- 11 & 12 down A wrongdoing against nature - poaching is a serious one (8,5)
- 13 The UK's heaviest ducks (6)
- 14 An area of low precipitation - Antarctica is classified as one (6)
- 17 Widely smuggled African food product - the result of poaching and slaughter (8)
- 19 Slash and \_, destructive method of agriculture (4)
- 21 How our oceans are being tainted by things like dumped plastics (8)
- 22 Edible brown seaweed (4)
- 23 The bowl-shaped openings of volcanoes (7)

### Clues Down

- 2 European whaling nation (7)
- 3 Revoke or rescind a ban (4)

- 4 Home to the polar bear (6)
- 5 Any one of the tabletop mountains of the Guiana Highlands (5)
- 7 Like species at risk of becoming endangered (10)
- 8 Dominant male among a group of mountain gorillas (10)
- 9 Britain's only venomous snake (5)
- 12 See 11 across
- 15 Dividing line between the Earth's Northern and Southern Hemispheres (7)
- 16 Water \_, prevalent greenhouse gas (6)
- 18 Blubbery creatures preyed on by polar bears (5)
- 20 Level, like a typical plateau (4)

### AUTUMN 2018 ANSWERS

Prize Word: HEATING  
**Across** 6. Hydroelectric 8. Rangers 9. Fires 11. Acts 12. Drone 15. Tidal 16. High 19. Taiga 20. Station 21. Greenhouse gas  
**Down** 1. Thermal 2. Power 3. Alps 4. Stripe 5. Tiger 7. Donate 10. Coal 12. Dodo 13. Living 14. Chinese 15. Tagged 17. Hairy 18. Marsh 20. Smog





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