



WWF

MAGAZINE

SPRING

2016

# Action

THE EXCLUSIVE MAGAZINE FOR WWF MEMBERS #32

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See page 30

## HOPE FOR THE RED APE

Discover how you're helping to restore forests for Borneo's orang-utans

### PROTECT LIVING OCEANS

Help us to keep the world's seas healthy and full of life, from blue whales to secretive seahorses

### CELEBRATE EARTH HOUR

Brilliant ways to enjoy this special hour with us and support our vital work around the world

### EXPLORE THE ARCTIC

How we're monitoring the impacts of climate change in the Arctic, with your support



## INSIDE THIS ISSUE...

# OCEANS IN CRISIS

This issue focuses on protecting the oceans, both at home and abroad, and all the incredible animals that call them home. On our beautiful blue planet, the sea covers more than 70% of the surface. Far more species live in the oceans than on land, and the marine environment provides food for hundreds of millions of people. But the world's oceans are in deep trouble. Our *Living Blue Planet Report* revealed that populations of marine vertebrates have plummeted by nearly 50% over the past 40 years, primarily due to increasing pollution, unsustainable fishing, habitat destruction and the impacts of climate change. But, with your help, we're tackling the threats to our seas and helping to restore our ocean systems to health. Find out more on pages 12 and 16, and by visiting: [wwf.org.uk/oceans](http://wwf.org.uk/oceans)

Healthy seas support all life, from starfish to seabirds. Off Shetland, gannets circle over fishing boats waiting for discarded mackerel to be tossed back into the water. As soon as one bird dives, others follow at breakneck speed. Beneath the surface, there's a brief but fierce fight for food

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## MEET THIS ISSUE'S CONTRIBUTORS



### Rod Downie

Rod leads our polar programmes to protect critical habitats in the Arctic and Antarctic for future generations. Previously, he lived and worked on the ice with the British Antarctic Survey.



### Louise Heaps

Louise is our marine chief adviser and helps coastal communities to protect their seas. She says: "Well managed oceans protect marine life and safeguard livelihoods and food supplies."



### Mike Olendo

Mike leads WWF-Kenya's work to protect marine turtles and other sealife along the Kenyan coast. He says: "The sea is my passion and turtles are symbols of its health. They are irreplaceable."

## GET IN TOUCH

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☎ 01483 426333

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## JOIN OUR READER PANEL

Thank you to everyone who has already signed up to become an 'Action adviser' – welcome to the team! We can't wait to hear your thoughts about *Action*. There's still time to join our advisers and give us feedback on this issue. It will only take you five minutes. Find out more and register at [wwf.org.uk/actionadvisers](http://wwf.org.uk/actionadvisers)

# Together, we did it!

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

## 1 BHUTAN

### You helped count tigers in Bhutan

Last year, with your support, we helped Bhutan to conduct its first-ever national tiger survey. On Global Tiger Day, the results were revealed – and it was good news! The country is home to about 100 wild tigers, an increase on the previous estimate of 75. Bhutan is the latest tiger range country – following Nepal, India, Russia and Bangladesh – to carry out a national survey, another step in our goal to double wild tiger numbers by 2022. The information will help us to identify where to target our conservation efforts and to determine whether we’re succeeding in boosting tiger numbers. We hope all countries that are home to wild tigers will survey them so a new global population estimate can be released this year.

**FIND OUT** how you’re protecting wild tigers at [wwf.org.uk/tigers](http://wwf.org.uk/tigers)



TIGER © ISTOCK

## 2 EUROPE

### You helped keep Europe’s nature alive

Last year, more than 520,000 of you spoke up to preserve the EU laws that protect Europe’s amazing wildlife. The European Commission had begun considering weakening these vital laws, undoing years of progress and putting at least 60% of animals and plants of European importance and 77% of their homes at risk. But in the public consultation, the biggest number of people ever recorded in an EU consultation fought to save them! You sent a clear message to European decision-makers: EU nature laws should not be changed.

**READ MORE AT** [wwf.org.uk/keepnaturealive](http://wwf.org.uk/keepnaturealive)



KINGFISHER © ISTOCK

## 3 THAILAND

### You helped tackle the illegal trade in ivory

You helped to apply global pressure urging the Thai government to shut down its national ivory market. Last August, the country’s illegal ivory stockpile was destroyed. Prayers were said for the hundreds of thousands of elephants slaughtered for their ivory as more than two tonnes of tusks, carved ivory and trinkets were crushed. The ceremony in Bangkok followed the passing of several vital laws to crack down on the illegal ivory trade in Thailand. WWF’s Janpai Ongsiriwittaya, who audited the stockpile, said: “For too long Thailand has been exploited by wildlife criminals as both a gateway and marketplace for ivory from elephants poached in Africa and Asia.” In the future, we’ll continue to support Thailand to implement effective regulations, clamp down on illegal trade and reduce demand.



WWF-THAILAND

“With your support we can keep pushing for strong global action on climate change, which will also help the seas to sustain life far into the future.”

Louise Heaps, WWF-UK’s chief marine adviser



# 480-540

The number of wild Amur tigers estimated during Russia’s latest tiger survey, up from 423-502 in 2005



Russia was the first country to grant the endangered Amur tiger full protection

## 4 RUSSIAN FAR EAST

### You helped Sikhote-Alin win its tiger certificate

Thanks to you, Sikhote-Alin Nature Reserve in the far east of Russia has become the second site in the world to receive the Conservation Assured | Tiger Standards (CA|TS) accreditation. With your support, we helped to develop CA|TS with our partners to recognise excellence in protecting tigers. It consists of 17 standards for effectively managing protected areas in a way that promotes tiger conservation. It’s the highest accolade a protected area can be given.

### WATCH THE FILM

See a tiger family in Sikhote-Alin at [wwf.org.uk/sikhote](http://wwf.org.uk/sikhote)



WWF



© WWF-INDIA

## 6 INDIA

### You helped provide sanctuary to rhinos

Manas National Park in Assam is experiencing a baby boom. Thanks to your support for our rhino and elephant conservation efforts, in the past three years, 13 greater one-horned rhino calves have been born here. The youngsters are the result of the translocation of 18 adult rhinos to Manas from other reserves in India. The most recent calf in the park was born in August 2015 to a rehabilitated rhino cow named Mainao. Another cow, named Ganga, had her calf in June 2015 (above). Both of these females gave birth to two calves within about two years, which is quite rare and incredibly heartening. It shows that, despite the ever-present threat of poaching and under the right conditions, rhino populations can still increase, providing a ray of hope for the future of this species.

**DID YOU KNOW?**  
By 1999 no rhinos remained in Manas due to social unrest. By 2009 there were five. Today the park is home to 32 rhinos

## 5 KENYA

### You helped protect land for people and wildlife

Thanks to you, 12,000 hectares in the Maasai Mara ecosystem have been protected for wildlife. Last July, we launched the Mara-Siana Conservancy, a community-run project that helps people to co-exist with wildlife. In the past, communities bordering the reserve have benefited little from wildlife tourism. Elephants destroy crops and can kill people, so there was little incentive to protect them. By setting up the conservancy, we’ve helped to safeguard the area, creating an important corridor for elephants, rhinos and lions. We’ve also supported 3,500 families to generate a sustainable income from ecotourism.



ELEPHANT © ISTOCK



## IVORY WARS

In recent years we've seen an unprecedented spike in illegal wildlife trade around the world. This threatens to overturn decades of conservation work, especially for species such as elephants

Photojournalist Brent Stirton set out to focus international attention on the people at the heart of the war over ivory. His photo story was the winner of the 'Wildlife Photojournalist Award: Story' in the Natural History Museum's 2015 Wildlife Photographer of the Year competition.

In Brent's story, we meet Michael (*pictured*). As a nine-year-old boy Michael was abducted by an armed group and told to poach elephants in Garamba National Park in the Democratic Republic of the Congo. Their ivory was destined for trade with the Sudanese army in exchange for supplies and weapons. Seventeen years later, he defected and led the Ugandan army to a hoard of ivory, of which these tusks were a part. His story is testimony that poaching helps to finance armed groups in Uganda, and beyond.

The illegal wildlife trade is big business, worth an estimated \$19 billion per year globally. Each year, as many as 30,000 elephants are estimated to be killed for their ivory, which is often trafficked by international organised networks. The illegal wildlife trade is one of the greatest threats to some of the world's most vulnerable species – and that's why it's a priority for us. You're already supporting our efforts to combat it, but you can help us do even more.

### HELP US STAMP OUT WILDLIFE CRIME

Read the full story behind Brent's amazing photos: [wwf.org.uk/brentstirton](http://wwf.org.uk/brentstirton) then find out more about our vital and urgent work: [wwf.org.uk/illegalwildlifetrade](http://wwf.org.uk/illegalwildlifetrade)

© BRENT STIRTON

# WWF IN ACTION

Our recent challenges and triumphs for wildlife and the environment



All around the world people celebrate WWF's Earth Hour in style. This year, we'd like you to hold a special fundraising candlelit dinner

## EARTH HOUR 2016

### Join a starlit, candlelit Earth Hour

We'd love you to join our global celebration on Saturday 19 March at 8.30pm, so we've got some brilliant ways you can enjoy WWF's Earth Hour

Every year millions of people around the world switch off their lights, at the same time, on the same day, to show they care about the future of our planet. And every year, it just gets bigger and better. It's amazing how this special hour focuses the world's attention on the threat of climate change and inspires millions to live more sustainably.

Last year was a fantastic year for Earth Hour across the UK. More than 10 million people took part, either by attending an event or switching their lights off at home. Amazing supporters like you helped us spread the word far

and wide, with #EarthHourUK trending on twitter timelines.

This year, we need your help to make it a lights-out display with an even bigger message – we want to protect the future of our planet. And we've got some sparkling ideas to get you started.

Why not hold a candlelit dinner and raise funds to tackle climate change, or sample sustainable and seasonal food in one of the hundreds of restaurants participating in Earth Hour? As we've teamed up with the Sustainable Restaurant Association's Food Made Good movement this year, you'll be able to celebrate Earth Hour in style at a wide range of restaurants including Brasserie Blanc, the OXO Tower Restaurant, the Savoy and River Cottage.

Or you could enjoy a celestial

Earth Hour in the great outdoors with friends and family. We've teamed up with our friends at the Forestry Commission to offer guided stargazing strolls and twilight trails. To find out more about Earth Hour activities taking place in a forest or wood near you, visit our website.

We'll be announcing other exciting Earth Hour events nearer the night itself, including details of your chance to celebrate the hour at the Eden Project in Cornwall. It's certainly going to be a wonderful night!

We hope you can join us in celebrating Earth Hour this year for one hour at 8.30pm on Saturday 19 March. For ideas, inspiration and all the latest news search #EarthHourUK or sign up at [wwf.org.uk/earthhour16](http://wwf.org.uk/earthhour16)

## TIMELINE

### THE EARTH HOUR STORY

You help make it bigger and better every year

#### 2009

Hundreds of millions of people in 88 countries switch off their lights for one hour for our planet.

#### 2010

128 countries take part in Earth Hour. Iconic buildings and landmarks from Asia-Pacific to Europe and Africa to the Americas turn off their lights.

#### 2011

In London, in one of the largest human-powered projections ever attempted, a team of 60 cyclists lights up the Royal Albert Hall with images of animals.

#### 2012

Earth Hour is celebrated by 7.6 million people in the UK, including 3,500 schools and more than 1,200 organisations. We launch Hidden Heroes.

#### 2013

People in 157 countries switch off their lights and landmarks turn dark, including the Eiffel Tower and Buckingham Palace.

#### 2014

162 countries take part, from the UK to Australia; Uruguay to Russia.

#### 2015

Our biggest Earth Hour yet. In the UK, over 10 million people join a record 172 countries and territories across the world to celebrate and show they care.

### YOU CAN HELP THIS YEAR

Make a difference by holding a special fundraising candlelit dinner for Earth Hour to help us tackle climate change. Find out more at [wwf.org.uk/earthhour16](http://wwf.org.uk/earthhour16)

© DANIEL MIHAILESCU / AFP / GETTY



Last November, over 50,000 people, including hundreds of WWF supporters, joined us in London for the biggest climate march ever. Your support helped us secure a historic agreement in Paris

## CAMPAIGN

### Clear climate deal agreed in Paris

Last December, all eyes were on world leaders at the climate conference in Paris. We're delighted that a groundbreaking global climate change agreement was adopted in a positive step toward a cleaner, renewable future

It's encouraging that over 190 countries signed the Paris climate change deal and agreed to limit global warming to well below 2°C. WWF-UK's chief executive David Nussbaum says: "Crucially, countries will review their existing commitments before they come into force in 2020. The Paris deal is not just about reducing

emissions, but also about protecting vulnerable places and people."

We want to thank you for supporting our campaign asking for a fair and ambitious climate deal. You were with us at the Climate Coalition lobby last June, and in November over 785,000 of you took to the streets worldwide in the biggest climate mobilisation ever. Despite the pouring rain all over the UK, you joined us in Edinburgh, Cardiff and London, where the crowds were over 50,000 strong.

It's inspiring to see such support for action on climate change, but we need to keep

the pressure up. The most important thing is that countries start acting on their commitments now, not in five years' time when the Paris agreement comes into force. Here in the UK, we need to make sure that the government works hard to reduce emissions and move to renewable energy.

### YOU CAN HELP

Keep showing the love for our climate campaign. Find out how you can help, then watch and share our beautiful film written by Michael Morpurgo at: [wwf.org.uk/showthelove](http://wwf.org.uk/showthelove)



© TRISTAN FEWINGS / GETTY IMAGES / WWF-UK. © MARTIN BUREAU / GETTY IMAGES

### WE WON! SAY GOODBYE TO COAL POWER

Thanks to over 60,000 of you who joined our campaign with Oxfam, Greenpeace and Christian Aid, coal power is to be phased out in the UK over the next decade. Last November, it was announced that the UK will phase out coal power by 2025, with limited operating hours for coal plants from 2023. The UK is the first major economy to make such a commitment and it will make a massive contribution to cutting our carbon emissions. You helped us show that there was public support for this move – thank you.

## NEWS IN NUMBERS

300 

The number of Iberian lynx, one of the world's most endangered cats, in the wild today. In 2002, there were fewer than 100 left, but we've been working to help conserve the lynx's habitat, restore the rabbit population – its main source of food – and release captive-bred cats to help boost the wild population.

2,300

The number of climate marches that took place around the world before the climate summit in Paris last December. In the UK, over 56,000 people marched to ask world leaders to act on climate change. Thanks to everyone who joined us.

35,000 

The size of the mega-herd of walrus seen resting on a beach at Point Lay, Alaska, last summer. Walrus normally haul-out on summer sea ice while feeding, but declining sea ice in the region has driven them ashore, putting smaller individuals at risk of being crushed.



Will Young's unique version of *What the World Needs Now Is Love* highlights the beauty of our planet and the urgent need to protect it

IN PARTNERSHIP

## Showing the planet some love at Christmas

**WE WERE** thrilled to team up with singer Will Young to release a special Christmas single

Putting his own unique spin on the Burt Bacharach classic *What The World Needs Now Is Love*, Will highlighted the decline of nearly half of global wildlife populations since the song was first released in 1965.

"It's shocking to think that in my lifetime we've already lost nearly half of the world's wildlife population, and our forests and oceans remain at risk," he said.

The awe-inspiring video

accompanying Will's single showcased some of the world's most beautiful wild places and incredible animals. Watch it here: [wwf.org.uk/willyoung](http://wwf.org.uk/willyoung)

We wanted this song to be a wake-up call for everyone to take action and show the world some love now, before it's too late. The loss of wildlife is a barometer of what we're doing to our planet. Our decisions and our actions (and inactions) will determine its future.

Our innovative campaign, in association with Universal Globe, uses the power of music

to inspire people everywhere and raise vital funds to support our work protecting the natural world around the globe. From every sale of the single, WWF receives 20p, so please support us and download it today.

### THE WORLD NEEDS YOU

- Donate now at [wwf.org.uk/worldneedslove](http://wwf.org.uk/worldneedslove)
- Download the single today on iTunes
- Share what you'd like to protect [#WorldNeedsLove](https://twitter.com/WorldNeedsLove)



© BRENT STIRTON

ACTION INTERVIEW

## BRENT STIRTON

Action spoke to award-winning photojournalist Brent Stirton, who's been working alongside WWF for 10 years, about his work to highlight the impacts of elephant poaching in Africa

### What motivates you to focus on the illegal ivory trade?

We're losing elephants so quickly, I fear extinction is inevitable unless dramatic action is taken. I illustrate the connection between ivory and terror organisations because I want people to appreciate the seriousness of this situation. I also want to pay tribute to the people on the front line of conservation. It's important to keep thinking about new ways to talk about issues affecting the natural world. You have to look deeper and communicate new views or people will get tired of listening.

### Why do you tell the stories of people affected by poaching?

These are incredible people who risk their lives daily in difficult jobs with little reward. Most of these brave men and women feel strongly about wildlife, and deserve more appreciation from those of us living privileged lives elsewhere. We entrust the world's wildlife heritage to them, but often fail to fully support their efforts. This is just not acceptable.

### What gives you hope the illegal ivory trade can be stopped?

Seeing the success they've had in halting elephant poaching in Zakouma National Park, Chad. It shows what's possible when you enlist the support of local communities in intelligence gathering. My inspiration in general comes from the people on the ground whose mission it is to protect wildlife. They are remarkable, and I feel that I must support them through my work.

Turn to page 6 to see one of Brent's incredible images, documenting the fight against poaching. Discover more about his work on our site: [wwf.org.uk/brentstirton](http://wwf.org.uk/brentstirton)

PICTURE STORY

## Hope for Javan rhinos

RARE FOOTAGE of critically endangered Javan rhinos provides hope for the future – in the form of three calves. The youngsters, one female and two males, were spotted on a camera trap last summer, bringing the total number of Javan rhinos to 60. The species clings to survival in one protected area in Indonesia's Ujung Kulon National Park. The fact that the last remaining population is found in only one place is the greatest threat to this rhino's survival – as it is vulnerable to poaching, disease and natural disasters. With your support, we're monitoring the population, supporting anti-poaching efforts, improving rhino habitat and helping to secure the political will to establish a second population.

WATCH THE VIDEO [wwf.org.uk/javan](http://wwf.org.uk/javan)



Hope for the critically endangered Javan rhino has arrived in the form of three new calves

© UJUNGKULON NATIONAL PARK



Game players in the RuneScape world could adopt one of four cute cat cubs

IN PARTNERSHIP

## RuneScape gamers raise over £95,000 for big cats

LAST JULY, players in the RuneScape world – an online role-playing game – helped to raise £95,033 to support our vital work with endangered big cats

As well as the usual trolls and 'vampyres', gamers encountered a conservationist and four big cat cubs, created by RuneScape publisher, Jagex, and WWF to mark World Tiger Day.

As part of a series of gaming activities lasting for one month,

players were able to adopt a companion cub based on four of the cat species we work with and take part in a big cat quiz. They could also donate to WWF using the RuneScape bonds currency, which was then converted into real money by Jagex.

David Osborne, lead designer of RuneScape, says: "It's the highest amount we've ever raised for one charity in a single campaign. Our players loved it."

WWF's Ed Partridge explains:

"It was a great opportunity for us to reach out to RuneScape gamers and raise awareness of the threats facing some of the world's most endangered big cats in a fun and entertaining way. Thank you to all the RuneScape players who supported this initiative for your support."

WATCH THE VIDEO

Find out more about the RuneScape campaign [wwf.org.uk/runescape](http://wwf.org.uk/runescape)

£1,140

The highest donation to WWF by one player was equivalent to 400 bonds

10,000

The number of RuneScape gamers who took part and helped to raise £95,033 for WWF

6,000

Money raised will help us double wild tiger numbers to 6,000 by 2022



NEWS IN BRIEF



© JOCHEN MANZ FOTOGRAFIE

### ANTS RALLY FOR THE AMAZON

Last August, as German chancellor Angela Merkel was due to meet the president of Brazil, WWF-Germany organised a most unusual rally. More than half a million leafcutter ants living in Cologne Zoo were given leaf signs laser-etched with slogans asking the chancellor to help protect their native home in the Amazon rainforest.

### SUSTAINABILITY IS BEST

Thanks to your support, last September 193 governments from around the world came together to agree 17 Sustainable Development Goals (SDGs). It took us three years of negotiation to secure agreement, but these goals will now guide the way governments shape their policies with the aim of eradicating poverty and achieving global sustainable development. Find out more at [wwf.org.uk/sustainabilitygoals](http://wwf.org.uk/sustainabilitygoals)

### THE YEAR IN REVIEW

We're celebrating all that you've helped us to achieve over the past 12 months in our annual review. It's packed with great successes, from restoring wildlife to reducing carbon emissions, your highlights of the year and a summary of the essential funds you helped us to raise. Find out more at [wwf.org.uk/annualreview](http://wwf.org.uk/annualreview) Or read our annual report: [wwf.org.uk/annualreport](http://wwf.org.uk/annualreport)

# HEART OF THE OCEAN

The oceans are our planet's life support system, providing oxygen, regulating the climate and feeding billions of people. Far more species live in the sea than on land, including the magnificent blue whale. As part of our work to protect the world's oceans, WWF-Chile is tracking this giant's mysterious migrations

One of the largest animals ever to have lived, the blue whale can grow to more than 30m long. It raises its tail fluke before it dives to forage for krill and can hold its breath for 10–20 minutes at a time

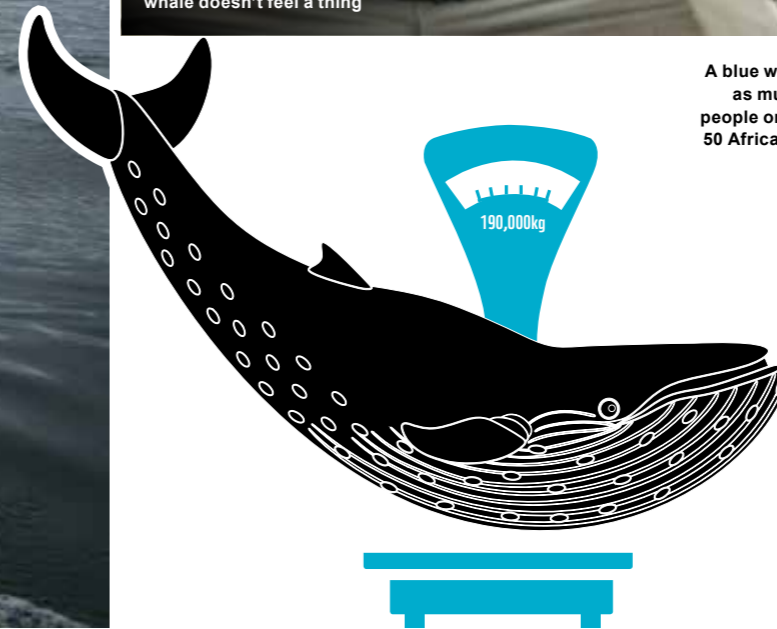
© CHRISTOPHER SWANN / BIOSPHOTO



Good weather was essential to help Francisco and the WWF team spot the tell-tale blow of a blue whale across the expanse of the Gulf of Corcovado



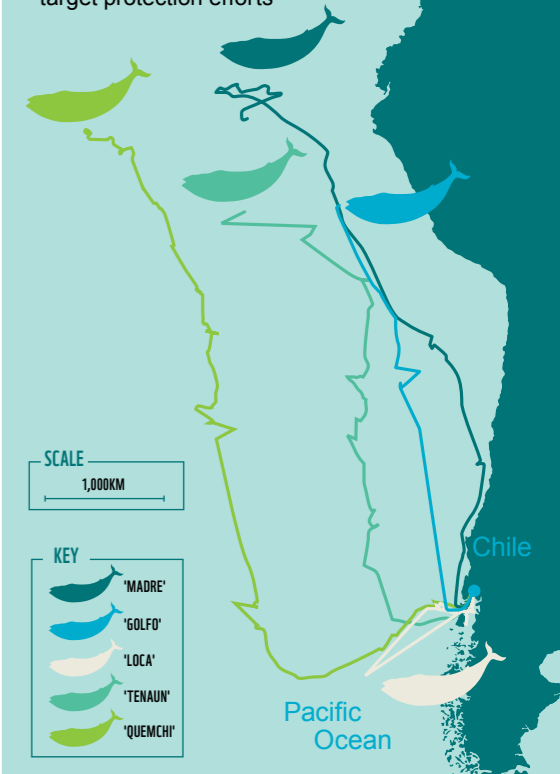
The satellite tags are housed in stainless steel cylinders connected to an anchoring tip which holds the tag within the whale's blubber layer. The whale doesn't feel a thing



A blue whale weighs as much as 2,600 people or 135 cars or 50 African elephants

TACTICAL TAGGING

Satellite tags on five blue whales in the Gulf of Corcovado reveal the migration routes and feeding areas the whales are using most, and help us to target protection efforts



**M**anoeuvring a tiny boat close to the world's largest living animal and attaching a satellite tracking tag to its back is about as dangerous and exhilarating as conservation gets. But it's all in a day's work for Francisco Viddi, WWF's marine programme adviser in Chile. "A blue whale is the most impressive thing you can see in the ocean," he says. "You hear the blow from afar, then when its 200-tonne body surfaces close by, you realise how small and insignificant you are. It gives me hope."

Last spring, as part of our Heart of the Ocean project in partnership with Chile's Blue Whale Centre, the *Centro Ballena Azul*, Francisco and whale biologist Rodrigo Hucke-Gaete fitted tags to seven blue whales in the Gulf of Corcovado on the north-west Patagonian coast. The deep, sheltered and productive waters of the Gulf support breathtaking biological diversity, including corals, whales, sea lions, seals and dolphins.

This saltwater wonderland is an important feeding and nursing ground for blue whales, but it's also an area threatened by the fishing and aquaculture industry and needs careful protection. "Never in human history has the Earth been altering so fast," says Francisco.

"We still don't know how some of the changes we're causing affect marine life."

But it's not too late to find out. We need to safeguard life in our oceans in a number of ways, and whales have much to teach us. Studying these enigmatic leviathans and their complex ecology will help us to pinpoint marine areas in need of protection.

MYSTERY WHALE

In the vastness of an ocean, even a blue whale is tiny. Combine this with the scarcity resulting from decades of intensive hunting, and the chances of being in the right place at the right time to record a blue whale as it surfaces become remote.

Much of what we know about the species has been handed down from the heyday of the whaling industry, when information was gathered mainly to make hunting easier. In the half century since commercial whaling was banned in 1966, new data has been hard to come by. At that time, the species was close to biological extinction, with the Southern Ocean population reduced by 97%.

Today, the IUCN Red List categorises the blue whale as endangered, with some populations critically so. In 2008 – the most

recent figures – the IUCN estimated the total global population to be between 10,000 and 25,000, and increasing at around 8% a year.

But many other fundamental questions about the species' ecology remain unanswered. We don't know where most blue whales go to feed, mate or give birth, let alone how global warming or other modern threats might be affecting their distribution, home range or behaviour.

The threats facing blue whales include widespread habitat degradation, pollution, the impact of climate change on food stocks (especially krill), entanglement in fishing gear, plus noise from sonar, drilling and shipping, which can interfere with the whales' own communications and navigation. In the past, blue whales relied on their sheer size to avoid predation. As a result, they lack evasive instincts, and the most immediate threat to individual blues is a fatal collision with a ship.

The Heart of the Ocean tagging project serves a dual purpose – it will illuminate the mysterious lives of our biggest living organisms and offer insights into the condition of the seas on which these whales and a host of other marine life depend.

Chris Johnson, who manages WWF's

Antarctic and Southern Ocean initiative, explains: "By tagging blue whales, we hope to identify consistent patterns of migration that will help us to identify priority areas for protection. That way, these giants can travel, calve and forage in safety."

SATELLITE SPIES

Francisco and his colleagues attach a tag in the thick blubber next to each blue whale's dorsal fin, which transmits a signal whenever the whale surfaces. When these signals are relayed via an orbiting satellite, they can be used to pinpoint the whale's precise location.

Though a couple of the tags failed due to technical problems, data from the other five is flooding in (see map, above). It hasn't been fully analysed yet, but we're already building up a picture. We expect it to yield unprecedented insights into the movements of blue whales in the eastern Pacific.

A blue whale can consume up to four tonnes of krill a day. This mind-boggling statistic has led some to question whether our oceans can sustain a resurgent population of such gargantuan appetites. But this, says Chris, is to underestimate the self-regulating resilience of life in our

oceans. Rather than placing a burden on ocean ecosystems, a healthy population of blue whales will increase productivity. And it's all thanks to something as basic as where they poo.

"Whales feed in the depths, but defecate at the surface, fertilising the water with nutrients essential for the growth of phytoplankton. Not only does whale poo support the basis of the marine food chain, but the resulting phytoplankton blooms also help absorb atmospheric carbon dioxide. So, despite their vast consumption, blue whales are carbon neutral."

It's Francisco's passionate wish that the species he loves will never face extinction again. More than that, our efforts to understand blue whales will tell us much more about how our oceans function, and conserving them will help to mend the intricately woven fabric of our marine ecosystems. Conservation goals don't get much bigger than that.

JOIN THE WHALE QUEST

Watch our film of Francisco's expedition to tag a blue whale: [wwf.org.uk/bluewhale](http://wwf.org.uk/bluewhale)

BACK IN HOME WATERS

Blue whales have been virtually absent from UK waters for so long that they have never been photographed here. So when a team from the National Oceanographic Centre glimpsed a tell-tale blow from a research vessel in the northern area of the Bay of Biscay last August, they knew it was an important sighting. Even so, it took a while for Professor Russell Wynn to realise that the pictures he'd managed to capture were the first of their kind. WWF's species expert Sarah Goddard says: "It's exciting to see a blue whale in UK waters, and we hope this shows their numbers are growing. But they still face threats from human activities and we need to manage our seas better to help protect them."



© WWF-CHILE, © WWF/ROBERT GUENTHER, © MARTIN CAMM (WWF)/NATUREPL.COM



## HOW YOU'RE PROTECTING CETACEANS

Thanks to your support, we're working to combat threats to Arctic whales and dolphins by helping to increase ocean protection and tackling climate change



### BOWHEAD WHALE

These huge, sociable and long-lived whales spend their entire lives in the Arctic where they smash breathing holes in the ice. They face threats from climate change, increased shipping, and oil and gas exploration. A new project planned by WWF will use drone cameras to identify bowheads in Cumberland Sound on Canada's Baffin Island.



### ORCA

The world's largest dolphins are at risk from the chemical contamination of our seas, overfishing of their prey and noise pollution from shipping. So we're pushing for better protection of whales and dolphins and their habitats. We're contributing to the monitoring and regulation of fisheries and investigating ways to reduce shipping noise in busy waters used by orcas.



### NARWHAL

We support several projects that aim to reveal the secrets of this elusive whale. We're tracking tagged individuals to discover their migration routes and find out how they're responding to changing sea ice conditions. We're collecting tissue samples for DNA profiling and studying the structure and function of the male's tusk.

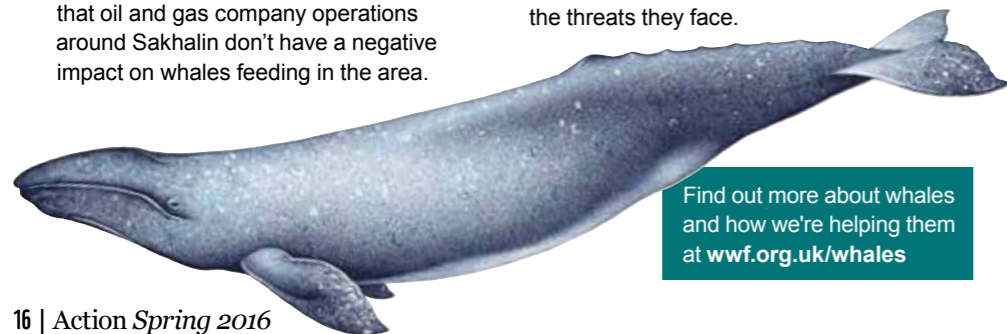


### BELUGA WHALE

Like other Arctic specialists, the beluga is already facing the consequences of climate change. Warming conditions and reduced ice cover have profound implications for food webs and have opened up previously icebound waters to shipping and other wildlife, including the beluga's main predator, orcas. In Canada, WWF is using GPS tagging to find out how belugas migrate and use their habitat, and to assess the threats they face.

### GRAY WHALE

The critically-endangered western gray whale covers thousands of miles during its annual migration from its feeding areas around Russia's Sakhalin Island to breeding grounds in the South China Sea and back. We're working to ensure that oil and gas company operations around Sakhalin don't have a negative impact on whales feeding in the area.



Find out more about whales and how we're helping them at [wwf.org.uk/whales](http://wwf.org.uk/whales)

CETACEAN ILLUSTRATIONS NOT TO SCALE © MARTIN CHAM (WAO)/NATUREPL.COM



We're working to nurture more resilient coral reefs around the world for all the life they support, including reef fish and marine turtles

# TURNING THE TIDE

## THE REPORT IN NUMBERS

**3.4** The percentage of the ocean that's currently protected; only part of this is managed effectively

**49%** The amount by which the average size of marine vertebrate populations has declined since 1970

**1 in 4** The proportion of species of sharks, rays and skates now threatened with extinction, due primarily to overfishing

If temperatures keep rising at the current rate, the ocean will become too warm for coral reefs by **2050**

**Our Living Blue Planet Report assessed the health of our oceans – and last autumn its conclusions made some pretty bleak headlines. But there is hope. WWF's marine expert Louise Heaps explains how we're striving to save our seas**

Last year, in response to the alarming statistics highlighted by our *Living Planet Report 2014*, we worked with the Zoological Society of London (ZSL) to produce a special marine report. ZSL gathered and analysed data, and tracked 5,829 populations of 1,234 species – from seabirds and sharks to leatherback turtles – to see how marine biodiversity is being affected by human activities.

The results paint a truly troubling picture: a 49% decline in the average size of marine vertebrate populations between 1970 and 2012. But it doesn't

have to be this way. We know that if people act quickly, there are choices and changes we can make to substantially improve things. This includes proactively protecting our seas. The UN Convention on Biological Diversity has agreed that at least 10% of our oceans should be designated as Marine Protected Areas by 2020. We're determined to ensure that the right areas are protected and well managed.

### PROTECTING MARINE ECOSYSTEMS

We're showing how the outlook can be improved for vulnerable coral reefs and mangroves too. These provide vital habitats for important fish stocks and support local livelihoods. They also protect low-lying land from storm surges, which are becoming more severe because of factors related to climate change (such as increasing sea temperatures and rising sea levels). Reefs and mangroves in some areas are heavily exploited, but we've

shown that they can recover if appropriate management measures are put in place. It's a win-win situation for people and for nature.

We're also monitoring how species are being affected by the overuse and poor management of our oceans. Working closely with communities and policy-makers in our priority regions, such as east Africa, we're supporting them to monitor and manage their oceans and marine resources sustainably. This is ensuring a brighter future for species, habitats and people.

You're already supporting our work in the Southern and Arctic oceans and our efforts to safeguard some of the world's most threatened tropical coastal ecosystems. But our oceans still need your help. By choosing Marine Stewardship Council (MSC) certified fish, you can help to create demand for sustainable seafood and support oceans that are full of life.

## NOW READ THE REPORT

Dive into our *Living Blue Planet Report*, discover the state of our oceans and read all about our oceans recovery plan at: [wwf.org.uk/livingblue](http://wwf.org.uk/livingblue)

## ADOPT A DOLPHIN

Why not help us to protect cetaceans here in the UK? By sponsoring a bottlenose dolphin in the Scottish Hebrides, from just £3 a month, you'll help boost our work to increase marine protection around the globe. Find out more at: [wwf.org.uk/dolphinadopt](http://wwf.org.uk/dolphinadopt)



© ANDREY NERASOV/WWF

# Saving our seas

Just off the coast of the British Isles, the Celtic Seas support a huge diversity of life – from delicate corals to giant whales. But these magical waters and their rich sealife are under threat and we need your help to protect them

## ORCA

Groups of orcas can be seen around the Shetland and Orkney Islands. Orcas eat a lot of the fish species caught for human consumption, so choosing responsibly sourced seafood can help to preserve their food source



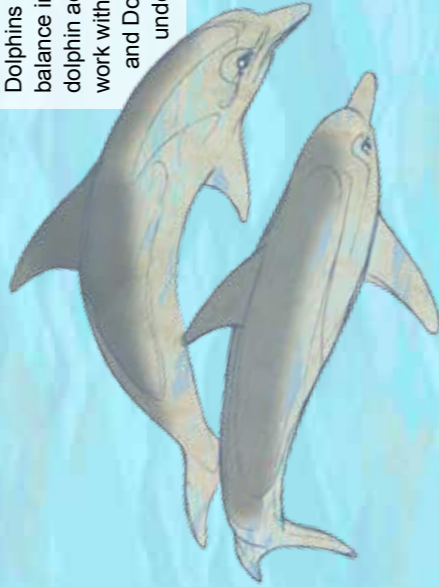
## MACKEREL

The wide range of marine habitats that makes up the Celtic Seas supports many of the migratory fish species we depend on for food, including Atlantic mackerel, blue whiting and sea bass



## BOTTLENOSE DOLPHIN

Dolphins help maintain a healthy balance in the Celtic Seas. WWF dolphin adopters are helping our work with the Hebridean Whale and Dolphin Trust in Scotland to understand how to protect them



## PUFFIN

These popular seabirds are seen all along the coasts of the Celtic Seas, but breed at only a few special sites. Changes in the distribution and numbers of their fish prey have caused worrying population declines in recent years



## JEWEL ANEMONE

One of the most colourful creatures in the Celtic Seas, the jewel anemone forms large groups on rocks. We're pushing for proper protection for its most important sites



## The Celtic Seas

## OCEAN SUNFISH

The world's largest bony fish, sunfish can be up to 3m long. As climate change warms our seas, they're seen more regularly in UK waters where they feast on jellyfish



## PINK SEA FAN

A soft coral living 10m deep, the pink sea fan is most common off the south-west coast. It's easily damaged by fishing and boats so we're working to keep its rocky reef habitat safe from disturbance



## BLUE SHARK

Blue sharks arrive in the Celtic Seas in summer during their trans-Atlantic migrations. They're at risk of becoming entangled in fishing gear so we're working on practices that reduce bycatch

## SEAGRASS

Seagrass provides important habitat for species from tiny worms to fish, including the commercially important bass, and even seahorses



## WWF'S MARINE MISSION

Thomas, the marine robot, will be gathering data and images off the Isles of Scilly, a hotspot for marine mammals. Find out how this innovative technology, and your support, is helping to protect our precious seas: [wwf.org.uk/thomas](http://wwf.org.uk/thomas)

## BASKING SHARK

Basking sharks are often glimpsed along the west coast, wherever there's plankton to feed on. We're working to ensure developments and activities at sea have minimal impact on these giant fish



## HELP US TO PROTECT OUR BLUE PLANET

Pressures on the Celtic Seas are growing, so we're leading a pioneering project bringing people together to help protect this precious place. It's all part of our wider mission to create healthier seas for people and wildlife: [wwf.org.uk/celtic](http://wwf.org.uk/celtic)

Last September, a blue whale was spotted in the furthest reaches of British waters, many miles south-west of Cornwall (see page 15)

# 10 THINGS TO DO THIS YEAR

If you do only one thing in 2016, make it joining one of our great events or supporting our work

## 1 IN MARCH: ENJOY YOURSELF IN THE DARK



This year we're hoping you'll celebrate WWF's Earth Hour and help raise some money for our vital conservation work at the same time. You can enjoy a candlelit dinner (at home or at one of the restaurants participating in Earth Hour), stargaze, camp outside, play board games, hold a concert or show a film – the possibilities are endless. It's all happening between 8.30pm and 9.30pm on Saturday 19 March. Sign up and find out how to fundraise here: [wwf.org.uk/earthhour16](http://wwf.org.uk/earthhour16)

## IN FIVE MINUTES: CALCULATE YOUR CARBON FOOTPRINT

Have you ever wondered about your impact on the environment? This year, why not find out? The food we eat, the way we travel, the energy we use – our lifestyle choices, and the decisions made by the government, make up our carbon footprint. Take our easy five-minute quiz to calculate your footprint, and then start reducing your impact with our handy tips. Who knows? You might end up changing the way you live. Take the footprint quiz: [wwf.org.uk/footprint](http://wwf.org.uk/footprint)




## 6 ON YOUR DAY OFF: COME AND SAY HELLO



We love meeting our members and supporters at events and shows across the country, so watch out for the Panda wherever you go. And if we can't come to you, we'd love it if you came to visit us. This year, we're organising a range of activities at our Living Planet Centre in Woking so everyone can get involved and find out more about our work. We also offer behind-the-scenes tours of our super eco building. Come and say hello: [wwf.org.uk/visitus](http://wwf.org.uk/visitus)

## AT SCHOOL: GO GREEN

Encourage a new generation of sustainability champions by registering your primary school for our Green Ambassadors scheme. The scheme provides everything you need to set up a green team, so pupils can take ownership of sustainability in your school and build key skills, such as communication. Once you've got some great environmental projects going, why not enter our Green Ambassador Awards? There's still time to nominate your unsung green team heroes, from passionate teachers to dedicated pupils who go that extra mile. Go green: [wwf.org.uk/greenambassadors](http://wwf.org.uk/greenambassadors)



## IN MAY: DRESS TO EXPRESS YOUR WILD SIDE

Roar into the office wearing leopard prints or turn your classroom into a jungle full of animals for Wear it Wild on Friday 27 May, and have loads of fun. Last year, schools, businesses and communities across the country broke out in spots and stripes as people everywhere showed their wild side for the planet. But this year, it's going to be even fiercer. Sign up to Wear it Wild today and get your free pack. Go as wild as you dare here: [wwf.org.uk/wearitwild](http://wwf.org.uk/wearitwild)



## ON A SPECIAL OCCASION: HELP PROTECT AN ANIMAL

An animal adoption from WWF makes a unique gift for you, a friend or loved one. It's a great way to make a long-term contribution to the survival of the species you care most about, be it a snow leopard, polar bear or tiger. Our beautifully presented adoption packs include a certificate, fact book and irresistible cuddly toy. Every penny helps us to protect wild animals and their habitats around the world. We've got 14 amazing adoptions to choose from at: [wwf.org.uk/adopt](http://wwf.org.uk/adopt)




## 8 EVERY DAY: TURN OVER A NEW LEAF

Through our #SaveForests campaign we've been busy encouraging high-street businesses to support healthy forests by sourcing all their wood-based products legally and sustainably by 2020. Now it's your turn. Make sure you're buying wood and paper from thriving forests by looking for the FSC or recycled logos. It's the best way to be sure you're buying a product that's been harvested legally and sustainably, with respect for forests, people and wildlife. Start saving forests here: [wwf.org.uk/actionforests](http://wwf.org.uk/actionforests)



## 4 ALL SUMMER LONG: GET FIT, JOIN TEAM PANDA

It can be tough to choose which charity to run, walk or cycle for. So why should you choose Team Panda? Well, we have a fantastic team community: you'll receive panda goodies and amazing support, including specialist training. Most importantly, you'll have a great time and help to save our beautiful planet. So what's stopping you? Team Panda needs your support:



<b>17 APRIL</b> <b>Brighton Marathon</b> Take part and enjoy the sea air and atmosphere as Team Panda cheers you on.	<b>28-29 MAY</b> <b>London2Brighton Challenge</b> A great endurance event with sea views: walk, jog or run 100km from capital to coast.	<b>31 JULY</b> <b>Prudential RideLondon-Surrey 100</b> Join us for the UK's biggest and most spectacular cycling event.
<b>11 SEPTEMBER</b> <b>Great North Run</b> Don't miss your chance to take part in this fantastic half-marathon. Snap up one of our limited places today.	<b>9 OCTOBER</b> <b>Royal Parks Foundation Half-Marathon</b> Enjoy the scenery on one of the UK's most beautiful half-marathons.	Join Team Panda here: <a href="http://wwf.org.uk/events">wwf.org.uk/events</a>



## IN YOUR SPARE TIME: PUT THE FUN IN FUNDRAISING

As members, you're already helping us to build a future where people live in harmony with nature. But this takes time, hard work and money to achieve. We can only get there with the help of fantastic individuals like you. Every penny you raise helps us address growing threats to the natural world. We want you to have fun helping us so we've lovingly created the *Wonderful World of Fundraising* – a book that's bursting with brilliant ideas and bags of helpful tips so everything you do goes without a hitch. Your adventure starts here: [wwf.org.uk/wonderfulworld](http://wwf.org.uk/wonderfulworld)



## IN YOUR WILL: HELP SAVE WHAT YOU LOVE

Imagine having to go to a museum to see a tiger, or your grandchildren asking, "What was a rainforest?" If we don't protect our wild world now, all that we have today will exist only in dusty glass cases and history lessons in the future. But you can help us to protect our natural wonders by remembering WWF in your will. Gifts in wills are really important to us, as they account for around 20% of our income. Every legacy helps us to safeguard the natural world, and any gift – large or small – makes a difference. Find out more about leaving us a gift in your will: [wwf.org.uk/gifts](http://wwf.org.uk/gifts)



Our forest restoration efforts in Borneo are working! Surveys show that orang-utans are spreading out from their core refuge into restored areas due to increasing tree cover



# GARDENERS OF THE FOREST



The orang-utan's forest home in Borneo is rapidly disappearing, putting their future in peril. WWF's **Nicola Loweth** travelled to Borneo to see how you're helping them to regain lost ground

I'm in a small helicopter buzzing over the island of Borneo. It's noisy, bumpy and a bit scary. We're flying around 70m above the trees, trying to spot nests. Not nests made by birds, but by a close relative of humankind: the orang-utan.

The nests are a sign that these intelligent apes are living in the area. And their presence will tell us whether an ambitious forest restoration project you've helped support has been successful.

Orang-utan means 'man of the forest' in the Malay language. It's an apt name: their lives are intimately connected with their forest home. They sleep in nests in the trees, move around by swinging through the treetops, and feed on fruit. In doing so, they help disperse undigested seeds – that's why they're sometimes called the gardeners of the forest.

## RED ALERT

But the orang-utan's forest home is in danger. Asia's only great ape used to range widely across South-east Asia, but is now confined to just two islands:

Borneo and Sumatra. In only a few decades, more than half the islands' forests have been lost and as a result orang-utan numbers have fallen by more than 50%, to around 54,000 in Borneo and just 6,600 in Sumatra.

I'm trying to spot nests in Sabah, the Malaysian state in the north-east of Borneo where our conservation efforts are focused. Almost all the land here was once covered in dense rainforest, but from the air the scale of the changes that have taken place in recent decades are all too obvious.

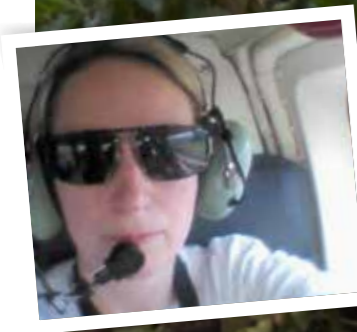
We fly over a sea of oil palm plantations that stretches for miles before arriving at our destination – Ulu Segama-Malua Forest Reserve. Here, parts of the forests have been badly degraded. From the air, they look very green – but appearances are deceptive. They're a mass of creepers, with very few trees, and make poor habitat for orang-utans.

## FRAGILE FORESTS

What's happened is that, over the years, loggers have removed all the tallest trees, fundamentally changing the natural ecosystem. With the large trees gone, the forest is drier, more sunlight reaches the forest floor, and the vegetation doesn't regenerate as it should in a naturally shady, humid rainforest. These degraded areas are at greater risk from forest fires and are more likely to be converted to oil palm.

Though areas of protected forest habitat remain, they have become fragmented. Populations of orang-utans and other wildlife are confined to small, isolated pockets of forest. There's also less high-quality food available. This is a problem for

**“IT’S AMAZING TO SEE SUCH TANGIBLE EVIDENCE OF THE DIFFERENCE YOUR SUPPORT HAS MADE”**

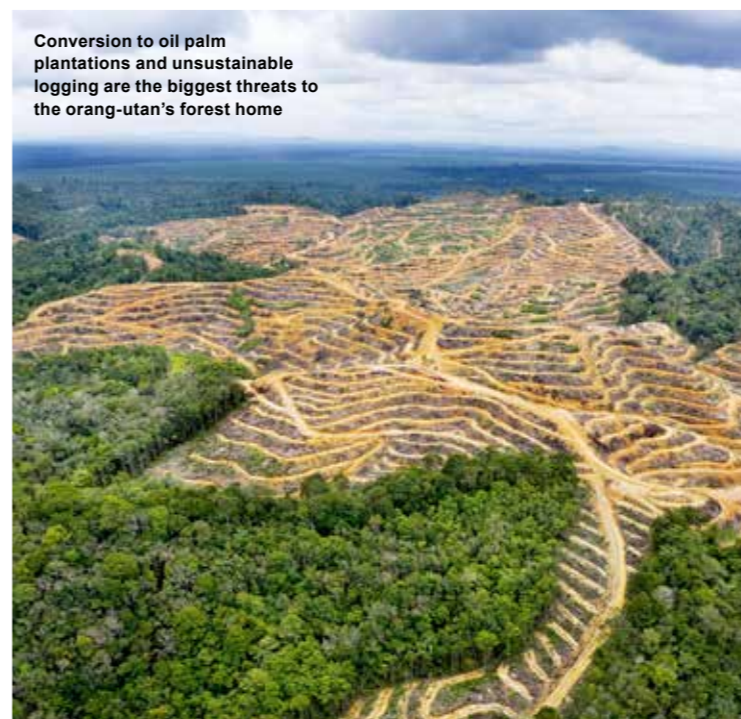


Nicola flew over the forest in a helicopter to see how successful our regeneration project has been by counting orang-utan nests

A mother and her young snooze in a day nest. Orang-utans can only live in healthy forest with abundant fruit and suitable trees for nests



We're working to protect and expand orang-utan habitat in Sabah by restoring degraded forest



Conversion to oil palm plantations and unsustainable logging are the biggest threats to the orang-utan's forest home

orang-utans, which need a variety of wild fruits in their diet.

To help protect the gardeners of the forest, we've been doing some gardening of our own. Since 2007, we've been working with the Sabah Forestry Department and other partners to restore a severely degraded forest in order to increase the available habitat for orang-utans and other wildlife.

Members like you, along with our orang-utan adopters and one of our partners Marks & Spencer, have helped to fund the restoration of 171 hectares (ha) – contributing to our target of 2,400ha. So far, we've restored 2,099ha in Bukit Piton, the northern part of Ulu Segama-Malua.

**BRIDGING THE GAP**

With your help, we've focused on supporting a small population of orang-utans that were in a very vulnerable position, with limited food and shelter. Bukit Piton Forest Reserve is totally isolated, surrounded by oil palm plantations to the north and east, and cut off from the bigger forested area of Ulu Segama-Malua by the Segama River. The orang-utans living here are therefore stranded, unable to move to safer areas of forest with more fruit.

Our restoration project involves planting

fast-growing pioneer species in open areas, and wild fruit trees and shade-tolerant species in places where there's still some tree cover, to get the natural forest conditions and processes functioning again. It's been a massive undertaking – it takes between five and 20 years for tree seedlings to mature – but now our efforts are finally beginning to pay off.

From the helicopter, I'm inspired to see the huge difference between the restored area and the degraded lands. It's starting to look like a forest again. In fact, it's been so successful that the Sabah government has upgraded it from a commercial forest to the highest category of protection, renaming it the Bukit Piton Forest Reserve. This means the land can't be converted to any other use, and no trees can be felled for timber.

But are the orang-utans moving into this restored home? Well, that's what I'm hoping to find out. By recording where their nests are, we can tell whether the apes are starting to move into the rehabilitated forest areas.

As we fly over our project site I scan the trees, hoping to see my first orang-utan nest. It's harder than I imagined. But in no time

at all my colleague Bob, an experienced nest spotter, has found what we're looking for: a dark brown shape in the canopy. The nest is old and unused now, hence its brown colour. I lean over to take a look, but in an instant we've zoomed past.

I quickly realise that spotting nests from the sky requires a lot of skill, particularly when they're still fresh and green. But soon we see a second nest and then a third. The helicopter flies back and forth along a set of parallel transects one kilometre apart, and we log the nests into a GPS device to build up a picture of where the orang-utans are living.

**NEW HORIZONS**

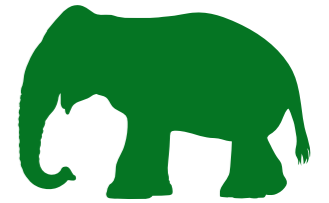
The results are everything we hoped for. Over the past few years, both ground and aerial surveys have shown that orang-utans are increasingly spreading into the forest areas we have helped to restore. It's amazing to see such tangible evidence of the difference your support has made.

But there's still more to do. Now that we've got a successful model of forest restoration in Borneo, and evidence that it works for orang-utans, we're advocating for more areas

**DID YOU KNOW?**  
About 22 million hectares of Bornean forest could be lost between 2010 and 2030

**FIVE OTHER FOREST-LOVING ANIMALS**

It's not just orang-utans that depend on Borneo's forests. Other species will benefit from our forest restoration work



**PYGMY ELEPHANT**

The world's smallest elephants are unique to Borneo, where around 1,500 of them live



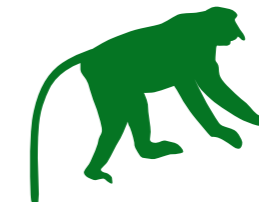
**CLOUDED LEOPARD**

Borneo's clouded leopards are a separate species from those found in mainland Asia



**SUN BEAR**

The smallest and one of the rarest species of bear, known for its love of honey



**PROBOSCIS MONKEY**

Unique to Borneo, the males use their enormous noses to attract mates



**HAIRY-NOSED OTTER**

Once thought to be extinct, Asia's rarest otter has been rediscovered in Borneo

**HELP US PROTECT FORESTS FOR ORANG-UTANS**

You're already helping us to protect the world's forests, but if you want to do even more to preserve orang-utan habitat, you can:

- Adopt an orang-utan: [wwf.org.uk/adopt](http://wwf.org.uk/adopt)
- Share our video of orang-utans in Bukit Piton Forest Reserve: [wwf.org.uk/orangutanfilm](http://wwf.org.uk/orangutanfilm)
- Only buy products with the RSPO logo, which shows they contain sustainable palm oil that doesn't contribute to deforestation: [wwf.org.uk/RSPO](http://wwf.org.uk/RSPO)
- Continue to support our #saveforests campaign: [wwf.org.uk/forestcampaign](http://wwf.org.uk/forestcampaign)
- Read our blog and find out whether you should buy or boycott palm oil: [wwf.org.uk/palmblog](http://wwf.org.uk/palmblog)



On Greenland's west coast, Ilulissat Icefjord is home to one of the most active glaciers in the world. Studied for more than 250 years, it has advanced our understanding of climate change



# INTO THE ARCTIC

The Arctic is one of the fastest-warming places in the world and the melting of the Greenland ice sheet is accelerating. Our polar expert **Rod Downie** accompanied young online film-makers Jack and Finn from JacksGap on a scientific mission to Greenland to see what's happening and spread the word



It worries me that the melting of the Greenland ice sheet is currently contributing 1mm a year to global sea level rise. This may sound like an inconsequential amount, but if carbon emissions continue unabated, all the ice in Greenland would melt and sea levels would rise by about seven metres. That would change the face of our planet, and put many of the world's major cities such as London, New York, Tokyo and Rio de Janeiro underwater.

Maybe that sounds like a far-fetched Hollywood disaster movie, but climate change is already having a huge impact on the Arctic, which is warming twice as fast as the global average. If we're to face up to the threats this poses, then we need to understand what's going on – and we need to spread the word.

### Telling the story

That's what this expedition is about. I'm here with Professor Alun Hubbard, a scientist who's been at the forefront of research on the Greenland ice sheet for the past decade. We're joined by award-winning cameraman Tim Kellner and Jack and Finn Harries, the twin brothers behind JacksGap, a hugely popular blog and YouTube channel.

Jack and Finn are great storytellers, and passionate about raising awareness of the causes they care about. They have a devoted young following and have clocked up more than 185 million views on their YouTube channel. They're the ideal people to highlight the threat of climate change to a younger audience and inspire them to take action.

MAIN IMAGE © ISTOCK; INSET © ROD DOWNIE / WWF-UK; POLAR BEAR © ISTOCK

### 1 Russell Glacier

A helicopter takes us onto Russell Glacier, then we journey 100km inland from the edge of the Greenland ice sheet. Underneath us, rumpled folds of crevassed glacier give way to smoother, gently sloping ice sheet. Somewhere in this vast whiteness there is a line of six GPS stations, which have been tracking the rate of ice flow over the past decade of record warming. We've come here to dig them out, service them and download the data.

We're overwhelmed by the sheer scale and stark beauty of the landscape. At 1.7 million sq km, the ice sheet is about seven times the size of the UK. And in places, the ice below us is 3km deep. There's more fresh water frozen here than in all the world's lakes and rivers combined.

It looks deceptively static yet it's creaking and groaning as it advances imperceptibly towards the sea. When the glaciers reach the coast, icebergs break off (or 'calve') and eventually melt in the water. This – and meltwater run-off – is already contributing about 1mm a year to global sea level rise.

We're not in Hollywood movie territory yet. But the fear is that, if carbon emissions continue unabated, the melting could accelerate at a dangerous rate.



### 2 Jakobshavn Isbrae

The next phase of our mission takes us up the Ilulissat Icefjord, a UNESCO World Heritage Site, to Jakobshavn Isbrae. This is the biggest glacier in the northern hemisphere and one of the fastest-flowing in the world. It's receded by more than 10km since the start of the millennium.

In Greenland, the short summer season is over and we're on the cusp of winter,

but it's been mild – relatively speaking. The temperature hovers just below zero as we set up camp. Three years ago, when Alun was last here, this was ice. Now it's a barren 'nunatak' – an island of rock in the vast expanse of ice.

The iceberg that sank the *Titanic* more than a century ago reputedly calved off from where we're standing. Today the ice front below is like a war zone, a chaotic turmoil of bergs in all shapes and sizes. We download images from two time-lapse cameras that have been recording the glacier for the past few years. They reveal more dramatic images of the changing glacier front, including a massive 12.4 sq km section that broke off a few weeks ago.

### 3 The future is now

The data we've collected is expected to confirm what we've seen with our own eyes – that climate change isn't some future phenomenon. It's happening right now. It's vital to investigate and monitor what's happening in the Arctic, and we also need to bring the reality alive for millions of people, and inspire them to take action. That's where Jack and Finn's storytelling flair and the stunning footage Tim and Jack captured can really help.

I'm glad we brought them along on this trip. The changes taking place in the Arctic are alarming – but I've felt inspired and invigorated by their youthful inquisitiveness, optimism and tenacity. They believe they're the first generation to grow up with climate change – and the last that can do anything about it. Working with them over the past 10 days has given me renewed hope that, with your help, we can all tackle climate change together.



### ACT ON CLIMATE CHANGE

You're already helping our climate work across the globe. If you want to help even more, please:

- Watch and share the incredible film JacksGap made: [wwf.org.uk/jacksgap](http://wwf.org.uk/jacksgap)
- Adopt a polar bear: [wwf.org.uk/adopt](http://wwf.org.uk/adopt)
- Make some noise about climate change: [wwf.org.uk/climate](http://wwf.org.uk/climate)

# 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!



## RUN LIKE A CHEETAH Be your best

Have fun and make your mark



We put together an HSBC team to take on London's Run to the Beat 10k race to music for Team Panda. Wembley was buzzing with runners, spectators and organisers. We were blessed with perfect running weather and soon the music was pumping and we were off! The route took us through Wembley, where people lined the streets offering encouragement. There were also regular intervals of loud music where DJs shouted supportive messages at us during the uphill sections (which weren't mentioned beforehand!).

We all finished in respectable times and, bar a few blisters, were pleased with our efforts. We had a fantastic weekend and smashed our fundraising target of £300, raising nearly £600. We're now planning what we can do next for Team Panda! Caroline Morgan, Rachel Miller, Natalie McGrath and Geraint Pickavance, Swansea

© HOLLY CURLESS



NEVER GIVE UP  
Live your dreams

STAR LETTER

## REDISCOVER YOURSELF

On 8 August 2015, I climbed 5,895m to the top of Kilimanjaro, raising £1,635 for Team Panda. To spend a week in the world above the clouds on the planet's highest free-standing mountain was a luxury, despite the obvious challenges. As with life, it was the journey up the mountain that counted rather than the brief time at the summit. After walking all day there was great peace and tranquillity to be found sitting on the edge of the mountain. Every night we watched shooting stars fly. I felt a sense of

deep connection to the Earth. Sharing the experience with others and Team Panda made it so special. I'm so glad I could help WWF to continue your great work to protect our wild places. Holly Curless, Edinburgh

### WIN A RUCKSACK

The star letter wins a Sativa foldable rucksack from the WWF shop, made of environmentally-friendly hemp and organic cotton, and worth £37.99. For details visit: [wwf.org.uk/shop](http://wwf.org.uk/shop)



## Three great things you've been doing for WWF...

### 1 HELPING TO PROTECT CATS

Tiger adopter Tegan wrote: "I'm glad that my money has helped to pay for cameras to take pictures of Kamrita!" We love hearing from our animal adopters. [wwf.org.uk/adopt](http://wwf.org.uk/adopt)



© ISTOCK

### 2 GOING REALLY WILD

Thank you for promising to strut your stuff and channel your best animal for this year's Wear it Wild to raise vital funds for us on Friday 27 May! [wwf.org.uk/wearitwild](http://wwf.org.uk/wearitwild)



© GETTY IMAGES

### 3 STAYING IN TOUCH ONLINE

Many of you are joining our online community to keep up to date with our work through Twitter, Facebook, YouTube and our blog. Don't miss a single thing: [wwf.org.uk](http://wwf.org.uk)



© ISTOCK



## JOIN THE PRIDE AND ROAR YOUR NEWS

We'd really love to hear from you, so please email your letters and photos to [editor@wwf.org.uk](mailto:editor@wwf.org.uk). Because space is tight, please keep your letters to 150 words. Though we read every one, we cannot acknowledge them and must reserve the right to edit them for publication.

"The atmosphere here is terrific. I'm hopeful. We all need to mobilise to make sure our leaders realise they're not representing us, or a future that's going to deliver for us."

Tom Washington Fletcher, who joined WWF at the People's Climate March in London, November 2015

### BE MORE SQUIRREL Love a tree

Forests of inspiration



I'm so pleased you're shining the spotlight on forests. I've always had a great love of trees. When I was younger I enjoyed walking in woodlands; they are so calming. When I saw an old oak, standing there so majestically, I couldn't resist giving it a hug. Painting watercolours of trees was once my great joy. Sadly I am 92 now and can't paint any more, but I still enjoy watching natural history programmes on TV and doing what I can to support WWF and other wildlife charities. Please accept my thanks for all you're doing. Mrs I Biggs, Burnham-on-Sea, Somerset

### BE MORE MEERKAT Work together for WWF

Take a group challenge

The head office team at Greensleeves Lawn Care decided to take on a challenge that would bring us together as a team. We chose to tackle the Great North Run in support of WWF, because your values and goals align closely with our own. After months of training and fundraising, the big day arrived. We're proud to say that on a hot September day the whole team, experienced runners and novices alike,



© GREENSLEEVES

completed the challenge, raising more than £6,000 for WWF. Go Team Panda! Sally Kelly, Sarah Judge, Rachael Battersby, Shahrzad Dashti, David Truby, Jonny Birbeck and Ashley Pamment

### BE AN EVERYDAY ACTION HERO



© UDAYAN RAO PAWAR

Hero: Udayan Rao Pawar  
Super power: Donating the fee for publishing his award-winning gharial photo in the October 2015 issue of *Action* to WWF to support gharial conservation  
Motivation: "I am happy to learn that [my picture] is being used to promote the conservation of this endangered species. So I would humbly request you to accept my payment as a small contribution towards WWF's conservation work."

About his winning picture: "As the dawn broke, a beautiful scene unfolded before me. The mist, the stench of rotting eggshells, the guttural call of the hatchlings, the indistinct forms of adult gharials swimming in the distance, it all made me feel as if I was living in prehistoric times."



## SHARE THE BUZZ!

Your best bits from social media



© ANJUSKY/NATIONAL PARK

### Facebook Caption competition: Tiger selfie!

This curious male Amur tiger got up close to one of our camera traps in Russia. During the survey, which took place last year, 12 adult tigers and six cubs were registered in the national park where this image was captured. What caption would you give it?

#### ANSWERS

**Paolo Panzarino**  
Hey Marty, I've found the camera! Come and have a selfie with me!

**Pauline Huggins**  
Does my nose look big in this?!

**Helen Whybrow**  
Do ya wanna build a snowman? Do ya?

**Marie Bell**  
Eyeliner, mascara, lippy, yeah all good. Now where are my keys?

### PLUS...

**Steve Backshall:**  
"I'm celebrating international snow leopard day with @wwf\_uk Help answer the #snowleopardSOS

camera trap footage of these purrrfect big cats in Mongolia. [wwf.org.uk/snow](http://wwf.org.uk/snow)

**Detlef\_schrempf:**  
Love getting updates on my [adopted] tiger and her cubs.



**Tardis\_psych:**  
Four-year-old Jude [is] loving the latest news about his adopted four-year-old gorilla lhoho! #WWFadoption

**Stradbroke Primary:**  
[Wearing mismatched shoes] A great way to raise money for a great cause @wwf\_uk #supportiveandcaring

**Big Cats:** It's snow leopard day! To celebrate take a look at rare

**@LangBanks:** World leaders must cut climate emissions to protect people & nature #COP21



## WIN! A PAIR OF SWAROVSKI OPTIK BINOCULARS WORTH £850

We've got a pair of CL Companion 8x30 binoculars to give away to one lucky person

Whether you enjoy a gentle stroll along the British coast looking for migrant birds or a safari in Africa spotting shy leopards, these compact, lightweight binoculars are perfect for all your wildlife-watching needs.

Slipping easily into the pocket of an outdoor coat, they combine the razor-sharp precision and optical quality for which Swarovski Optik is renowned with

a rugged, dustproof and watertight design. So whatever the British winter weather throws at you, you can carry on watching wildlife. Even after dusk, in low light conditions, these binoculars continue to give bright and brilliant views.

To be in with a chance of winning these binoculars, which are worth £850, just follow the instructions (*below, right*) and mark your entry 'Swarovski Comp'.

## WIN! LIGHT AND DUST BY FEDERICO VERONESI

We've got three copies of this breathtaking African wildlife photography book to give away



When the rising African sun spills its tentative rays into veils of morning mist or sinks in blazing glory into the furious dust of the savannah, these are the secret times of day when magic happens... and photographers prowl. In Kenya's Maasai Mara, Federico Veronesi has spent 12 years waking up before sunrise and searching long into the night to produce this jaw-dropping photography book. While its pages contain all the familiar characters you might expect – lions, elephants, leopards, cheetahs and wildebeest – these African icons are captured in rare moments of timeless beauty, private intimacy or raw survival. Through Federico's gift of blending invisibly with his surroundings we can spy on the ancient cycles of life and death normally seen by only a privileged few. These are animals and places that Federico loves – and his passion shines from every page. We have three copies of *Light and Dust* to give away. Just follow the instructions (*right*) and mark your entry 'Africa Comp'.



## WIN! A SET OF FOUR SUE TIMNEY MUGS

Two lucky people can win a set of four exclusive Sue Timney mugs each

To celebrate our exciting partnership with iconic British designer Sue Timney, we're giving away two sets of four exclusive mug designs. These delightful mugs are part of our new eco-homeware and stationery range, designed by Sue and inspired by our conservation work.

The collection includes mugs, tea towels, coasters, cushions, notebooks and cards in striking designs ranging from leaping fish to our iconic panda logo re-imagined in Sue's signature black and white style.

"Nature is often the inspiration for beautiful design, but the process of bringing those designs to life can cost our environment dearly," says Sue. We think this new range shows it's possible to create and produce aesthetically pleasing and design-led products without it costing the Earth.

The full collection won't be available until later this year. For your chance to enter the competition and own one first, follow the instructions (*below*) and mark your entry 'Sue Timney Comp'.

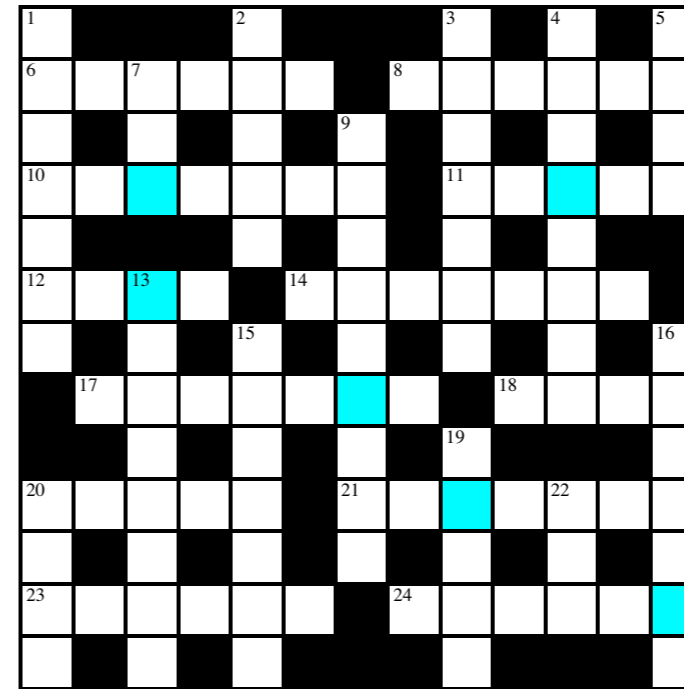
## HOW TO ENTER OUR GIVEAWAYS

To enter, please send your name, address and phone number on a postcard clearly addressed to the competition you wish to enter – eg Swarovski Comp, Sue Timney Comp etc – to *Action Mag*, WWF-UK, Living Planet Centre, Rufford House, Brewery Road, Woking, Surrey GU21 4LL.

Only one competition per entry please. Or send an email with your chosen competition in the subject line to [competition@wwf.org.uk](mailto:competition@wwf.org.uk). The closing date for the competitions is: 18 March 2016. For full terms and conditions, visit [wwf.org.uk/compterm](http://wwf.org.uk/compterm)

## CROSSWORD

Test your knowledge and be in with a chance to win this timeless wooden chess set, worth £19.99, from our shop



WWF Action Crossword 32: Spring 2016 issue. Compiled by Aleric Linden

After solving the crossword, take each letter from the shaded squares (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 18 March 2016

### Clues across

- 6 Third-largest ocean after the Pacific and Atlantic (6)
- 8 Reef constituents that can be affected by bleaching (6)
- 10 Furry honey-lover found in South-east Asia's forests (3,4)
- 11 Agreement granted to oil companies for drilling rights (5)
- 12 Fishing equipment that unfortunately catches many unwitting non-target species such as dolphins (4)
- 14 San \_ , California fault line, synonymous with earthquakes (7)
- 17 \_ porpoise, species of marine mammal (7)
- 18 Marine creatures such as cod and shark (4)
- 20 & 2 down Renewable energy module often mounted on roofs (5,5)
- 21 \_ wild dog, endangered mammal (7)
- 23 \_ Sea, a body of water south of the Adriatic (6)
- 24 Arctic \_ , one of the Earth's major lines of latitude (6)

### Clues down

- 1 Catlike creature of the civet family whose species include 'banded' and 'spotted' (7)
- 2 See 20 across
- 3 Providers of hot water in our homes (7)
- 4 \_ Desert, it covers a major part of Botswana (8)
- 5 Part of an archipelago (4)
- 7 Refuge built by many animals including bears (3)
- 9 Asia's only great ape (9)
- 13 An often indiscriminate and destructive form of commercial fishing (8)
- 15 \_ lynx, endangered cat which has been brought back from the brink of extinction (7)
- 16 English \_ , one of the world's busiest shipping lanes (7)
- 19 It constitutes a major percentage of an orang-utan's diet (5)
- 20 Large open waste container (4)
- 22 Chlorofluorocarbon, for short (3)

**AUTUMN 2015 ANSWERS:** Prize word: GREEN. Across 5. Deforestation 7. Gorilla 8. Ocean 10. Eden 11. Bears 14. Pines 15. Zero 18. Terns 19. Trading 20. Sumatran tiger Down 1. Krill 2. Asia 3. Stocks 4. Polar 5. Degree 6. Farmed 9. Dams 11. Bony 12. Bering 13. Logger 14. Pandas 16. Lemur 17. Cacti 19. Toad

## Notes from the field A BIG surprise on turtle patrol



GREEN TURTLE © GETTY



On a marine turtle night-patrol in Lamu – on the east coast of Kenya – anything can happen. Even on the quietest night, surprises lie in store. One evening, the team and I were patrolling the beach when we came across huge tracks running from the ocean up the beach towards dry land. We followed them on our hands and knees, hoping to find their owner, when something loomed ahead – a female green turtle.

She was massive – her shell more than a metre wide – and in the middle of her nesting ritual, thrusting her flippers powerfully back and forth digging a deep pit in the sand. We moved away to avoid disturbing her and watched in awe as she settled down in the nest-hole and began calmly laying her eggs.

An hour later, the female was digging her way out of the pit, flipping a blanket of sand behind her to hide the fragile brood. As she lumbered off to the ocean we deftly attached a tag to her rear flipper – the unique ID number will help identify her in future. Then we watched as she swam off through the waves.

### NESTING FRENZY

Twelve days later, the female showed up again to lay another clutch. Green turtles return to the same beach up to eight times each season, laying clutches of up to 150 eggs every 12 to 15 days. Then they migrate back to their feeding grounds until it's time to nest again, two to three years later.

This might sound like a lot of eggs, but marine turtles face so many dangers that, even if they hatch in healthy and undisturbed habitat, only about one in every 1,000 makes it to adulthood. And females sometimes dig their nests in places where they become flooded at high tide. This can be disastrous.

Last year, we rescued some eggs from a nest located below the high water mark on a remote beach on Rubu Island. The team carefully moved the clutch to a safe place where it could be monitored. Nest relocation, and our other work to protect marine turtles, wouldn't be possible without your support.

Mike Olendo

WWF-Kenya

### DOWN ON THE BEACH

Read more field reports from Mike: [wwf.org.uk/mikeolendo](http://wwf.org.uk/mikeolendo)



JOIN THE GLOBAL CELEBRATION

# EARTH HOUR

**SATURDAY 19 MARCH, 8.30PM**

Hold a special candlelit dinner and donate to help us tackle climate change

Find out more at [wwf.org.uk/earthhour16](http://wwf.org.uk/earthhour16)

## IN YOUR NEXT ISSUE

**COLLARING ELEPHANTS + CONSERVATION HEROES + STUDYING DOLPHINS**



**Why we are here**

To stop the degradation of the planet's natural environment and to build a future in which humans live in harmony with nature.

[wwf.org.uk](http://wwf.org.uk)

