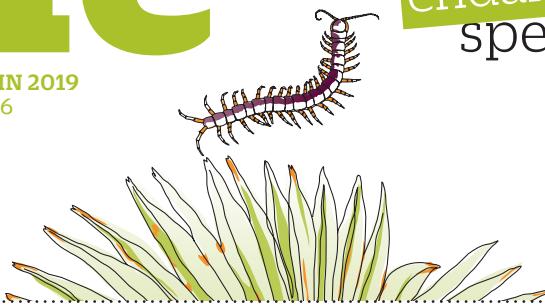


wildlife World

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people's
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Overseas

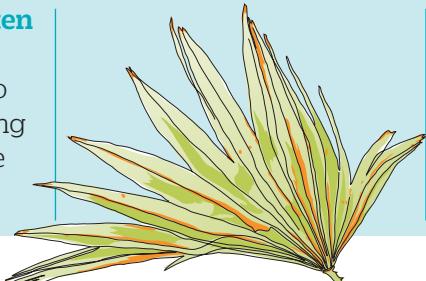
- China's snow leopards
- Freshwater terrapins
- Rare lemurs of Madagascar
- Giant anteaters

Gentle giants

Why the world's tallest animal needs our help like never before

Return of the pine marten

Conservationists are restoring pine martens to mid-Wales and discovering more about this secretive carnivore in the process.



Wild at heart?

Rewilding is heralded as the way to reverse biodiversity declines, but it isn't the solution to saving some of our rarest species.

Hedgehog hero

How one man is inspiring other people in his community to work together to save their local hedgehogs.



Bringing the wild back to life

Wildlife World is published by People's Trust for Endangered Species

Our wildlife is disappearing. Almost two thirds of species in the UK have declined in the past 50 years. There's nothing natural or inevitable about this. It can be stopped. And everyone can play a part. That's why People's Trust for Endangered Species exists.

 Find out more
www.ptes.org

BADGERS

Icons of the British countryside, badgers are caught in the middle of the fight against bovine TB (bTB), an incurable disease with disastrous consequences for both livestock and farmers. Dealing with bTB has already cost the UK over £500 million in the past decade, so PTES is helping to fund the trial of a vaccine for badgers with farmers and landowners in Cornwall. If successful, this could be a more sustainable, humane and cost effective alternative to culling.





Welcome

I don't recall when I first heard about People's Trust for Endangered Species, but I've been writing about wildlife conservation for the past 20 years, so the organisation has been on my radar for most of that time.

If you'd asked me a year ago to say what PTES did, however, I'd have mentioned its work with a handful of UK species such as dormice, water voles, red squirrels and hedgehogs.

Of course, these British icons are central to its *raison d'être*, but since I've taken over as editor of *Wildlife World*, I'm finding out there is barely a region of the world where PTES is not involved.

This issue, we've got pieces on Kenya's reticulated giraffes and China's snow leopards – just two of the brilliant and innovative projects it funds. And then there's India's northern river terrapins, Brazil's giant anteaters and Madagascar's woolly lemurs. The list seems almost endless.

None of this could be done without your support, and some of you – like hedgehog champion Brian Hutchings – go even further and become active conservationists. That's fantastic, and for those who give money, rest assured that PTES makes even a little go a long way. ●



James Fair is a journalist specialising in wildlife conservation stories and editor of *Wildlife World Magazine*.

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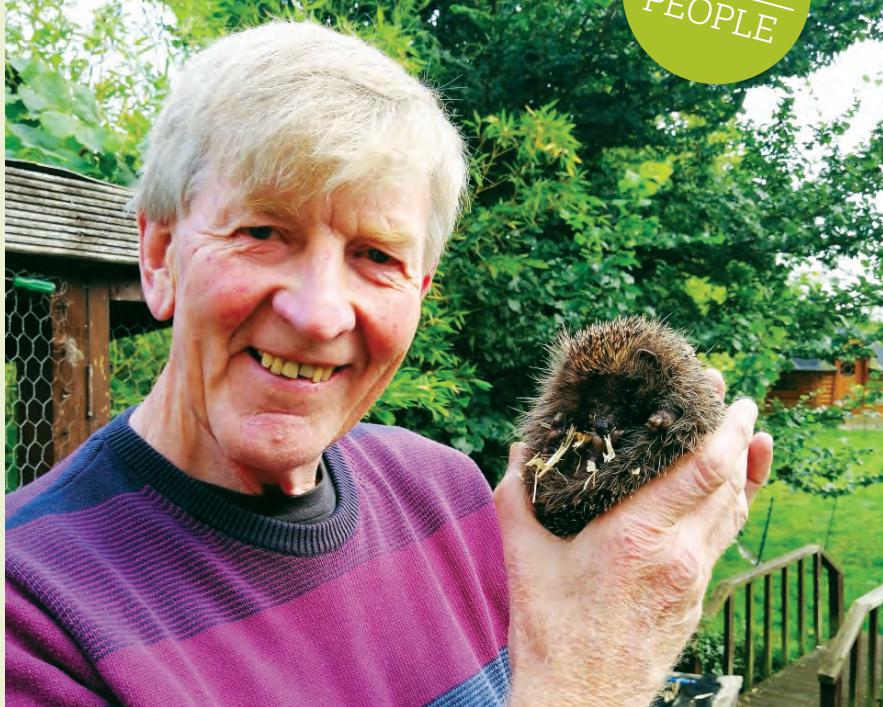
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people's
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In this edition

- 04** Brian Hutchings explains how he's encouraging people in his village to put holes in their fences to create hedgehog highways.
- 05** Rewilding is being touted as a way to restore Britain's wildlife, but it has its cons as well as pros for some of our rarer species.
- 06** How conservationists are building bridges for dormice, and why a new red triangle road sign is good news for hedgehogs.
- 08** Our Species Focus this issue is on pine martens – find out how a PTES-funded project is bringing this native carnivore back to Wales.
- 10** Find out how sales of gin can help our hedgerow wildlife, and news of some very successful butterfly and moth PTES-guided walks on the Isle of Wight.
- 12** Giraffes are undergoing what some people have termed a 'silent extinction', so now PTES is working with partners in Kenya to reduce illegal killing and exploitation as bushmeat.
- 16** More news on our Conservation Partnerships which help protect snow leopards in China, slow lorises in Indonesia and giant otters in Brazil. Plus how a thermal-imaging camera is transforming our knowledge of mountain hares in the Peak District.
- 22** Thanks to your support, we have 60,000 hedgehog champions, and nearly 1,000 dormice have been reintroduced to 12 counties.



PTES
★
PEOPLE

Brian Hutchings got in touch with PTES to tell us about the fantastic job he's doing to inspire other people in his village to protect their hedgehogs.

I first decided to do a hedgehog survey in our Oxfordshire village in 2016 when I saw new houses being built with solid fencing around all the gardens. I'd heard that hedgehog numbers were low, and I was worried this would make things worse.

I wrote an article for our local community magazine, asking residents to help by letting me know of any sightings. I raised awareness about the dangers hedgehogs face and what everyone could do to make their gardens safer for them.

My advice was to keep some rough overgrown areas and to create log piles and nest sites. I also said people might like to think about putting in a feeding station to help hedgehogs – especially younger, smaller ones – put on weight in preparation for their winter hibernation.

I'm really keen for as many people as possible to help to create 'Hedgehog Highways' – which involves creating gaps and holes in fences to allow the animals to move between gardens – and I've had a good response, which I'm very pleased about.

About a third of the village reported a hedgehog sighting to me, and I logged each one and then produced a map with all of them on it, and published it in the magazine. In the years since then, the number of sightings has definitely declined, but I'm determined we won't lose hedgehogs from our village, and I can only hope that everything we are doing will help them survive. ●

I'm determined we won't lose hedgehogs from our village, and I can only hope that everything we are doing will help them survive.

Visit [Hedgehog Street](#), our joint campaign with the British Hedgehog Preservation Society, to find out more www.hedgehogstreet.org



Can rewilding restore our battered wildlife?

Remove human intervention and let land manage itself for spectacular results, say rewilders, but at what cost to our ability to produce food and the survival of some rare species, asks James Fair?

If it hasn't quite reached a state of being part of a fevered national conversation, the inclusion of rewilding as a storyline in *The Archers* does at least suggest it's making inroads into mainstream thinking. And the segment in which characters Phoebe and Rex try to persuade farming scion Pip Archer to participate in a rewilding proposal they're putting together was a pretty good introduction to its pros and cons.

In brief, the argument goes like this: it's potentially great for biodiversity and as a way of locking up carbon to offset the impacts of climate change, but what does it mean for farming and food production? Can we rewild and still feed the country – or even the world?

If I'm being critical, I'd say there wasn't much about the importance of natural processes driving ecological restoration, or the need for it to take place over a large, landscape-scale. This is where rewilding diverges from conventional conservation – you're not managing land to help a target species, but letting the land manage itself to see what happens. It's about the path not the destination.

How rewilding can dovetail with our need to grow food is a crucial issue, and the source of much of the opposition. But as Phoebe's character says, "This isn't about stopping farming – it's about making room for nature to recover on land that's no longer productive."

It's a good point – as a result of our exit from the EU, farmers will lose the subsidies that allow them to keep livestock or grow crops on poor quality land. Instead, the Government will pay for so-called ecosystem services such as carbon sequestration or flood risk management, which ought to encourage rewilding.

Still, like Pip in *The Archers*, many farmers are not convinced. It hasn't helped that rewilding became synonymous with the idea of bringing back once-native British predators such as lynx, which hasn't gone down well with many sheep farmers. Indeed, a lot of

conservationists don't feel we are ready as a society for these species. Notions of recreating rewilding success stories, such as Yellowstone National Park where wolves are helping to restore riparian woodlands by preying on deer, in the UK are fanciful.

Better, instead, to talk about rewilding in the context of, for example, the pine marten reintroduction with which PTES is involved in mid-Wales (see p8-9). Research suggests that pine martens have a disproportionately greater impact on grey (as opposed to red) squirrels, thereby benefiting a native species at the expense of an invasive one.

Beavers are another species closely associated with rewilding.

They dam streams and coppice woodland, resulting in improved water quality, reduced flooding downstream and the creation of high-quality habitat for other species. All we have to do is let them loose – the beavers do the rest. That's rewilding.

Dormice, on the other hand, will only hang on in this country where we manage woodlands in quite specific ways. It's true of many butterflies, too. Rewilding is not the answer to all our problems, and some supporters may be guilty of suggesting it is the complete panacea to the environmental crisis we find ourselves in – it's not.

The best example of rewilding I've seen is a large estate called Knepp in West Sussex, where they are using domesticated versions of wild cattle, wild horses and wild boar to drive ecological change. The results have been spectacular – booming numbers of nightingales, turtle doves and purple emperor butterflies. None of this was planned – it just happened.

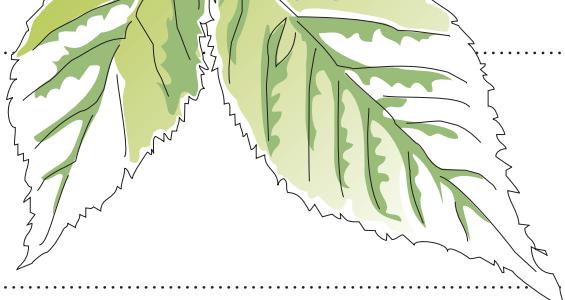
There's little doubt that landowners around the country will be increasingly looking at rewilding as one of the suite of options available to them over the coming years, and it could – if done properly – play some part in helping to restore our battered if not wholly broken wildlife populations. ●



Can we rewild and still feed the country? Or even the world?



James Fair is a journalist specialising in wildlife conservation stories and editor of *Wildlife World Magazine*.



From the latest on our water vole monitoring work to a new study aiming to uncover the secrets of a rare beetle, here's how PTES is putting your generous donations to good use.

Health-check for hedges

Give wildlife a boost by making sure your local hedges are in mint condition – all the advice you need is online thanks to our new conservation tool.



© Alan Bryatt / Shutterstock

PTES launched its new health-checker for hedgerows on the BBC's *Countryfile* programme at the end of August. By feeding in basic information about your hedgerow, you receive instant feedback and tailored advice on how to keep it healthy.

The hedgerows that criss-cross Britain's countryside are vital homes and safe corridors for many native animals, including hedgehogs, bats, dormice and birds such as song thrushes. But dwindling, gappy hedgerows leave the landscape fragmented, which is a serious problem for wildlife.

We only have half the hedgerows we had 75 years ago. And those we do have need more dynamic management or they will disappear, too. If you have a hedgerow near you, give it a health check to help wildlife, with this innovative new tool. You'll find all the details you need at hedgerowsurvey.ptes.org. ●

Not a bridge too far

PTES is helping to develop new structures to allow dormice to cross roads safely.



© Angyalosi Beata / Shutterstock

There are three challenges for dormice in the UK – our changing climate, woodland management and habitat fragmentation.



© Animex

On a local level, we can't do much about climate change, but we can control how some woodlands are managed and how we connect the areas where dormice live.

PTES, along with our partner Animex, an environmental consultancy, has designed and tested a small prototype arboreal bridge that was installed in our woodland on the Isle of Wight to cross a railway line. All the evidence is that dormice like it – one was recorded on the bridge within nine hours of its installation, and 10 times more dormice used it rather than crossing at ground level.

The first commercially available version of the bridge has been put in place to allow dormice to safely cross a road in South Wales. As the vegetation grows up and matures, it will link to the bridge, allowing dormice access to the structure.

Soon we should therefore know the answer to the question, why did the dormouse cross the road? Because it can! ●

Rare beetle found in more counties thanks to new chemical lure

New way of counting noble chafer, developed with the help of PTES, adds to our knowledge of the species.



© Laura Bower

A new method of surveying noble chafer beetles has revealed their presence in seven counties in England, including two – Devon and Sussex – where they've not previously been recorded.

With PTES support and the help of 250 amazing volunteers, survey leader Deborah Harvey was testing a pheromone lure she developed at Royal Holloway, University of London.

The harmless chemicals mimic the natural pheromones produced by the beetles. Lures were placed in orchards, gardens, parkland and woodland edges, and each was checked once a day over a two-week period. The initial survey findings provide hope that noble chafer may be hanging on more widely than anticipated, though traditional orchards – their preferred habitat – are still being lost or not managed properly. ●

Government intervenes to help struggling hedgehogs

Ministers move to make hedgehogs safer on our roads and where new housing developments are being built.



© iStockphoto / Alamy

Thanks to previous transport secretary Chris Grayling, the Government is introducing a new traffic sign – featuring a hedgehog – to warn road users of the hazards of small mammals on our roads. Grayling is also the Species Champion at Westminster for hedgehogs and has been very supportive of our Hedgehog Street campaign with the British Hedgehog Preservation Society.

PTES now plans to mobilise the membership of the AA and RAC to take part in our *Mammals on Roads* survey to increase our records of mammals – both dead and alive – seen around the road network. The information will help inform local authorities to decide where best to position these signs as warnings to motorists.

And in July, following a petition launched by hedgehog expert Hugh Warwick, which mustered more than half a million signatures, former communities secretary James Brokenshire formally recommended that hedgehog highways, of the type we've been promoting through the Hedgehog Street campaign, should be installed in all new housing estates. The recommendation is now included in new guidance added to the planning rulebook introduced last year. Two pieces of positive news for the nation's favourite mammal! ●

Saving anteaters in Brazil

The fires burning in the Amazon also threaten the main habitat of giant anteaters. We're funding a project to protect this extraordinary species.



© Jason Wooller

You may have read recently about the crisis in Brazil's Amazon, where fires are burning at the highest rate since 2013. Policies implemented by President Bolsonaro are blamed.

Now news reaches us from the giant anteater project that PTES supports in Brazil's Cerrado, a vast savannah area south of the

Amazon, where Dr Arnaud Desbiez and his team are trying to reduce the number of anteaters killed in collisions with vehicles.

'The fires are also happening in the Cerrado, in the Pantanal and in neighbouring Bolivia and Paraguay,' Desbiez says. 'The worst part is these fires are just one consequence of the dismantling of environmental policy and funding. We are living *The Chronicle of a Death Foretold* – it is really hard to remain optimistic.'

Despite these problems, Arnaud continues to work to protect the anteaters. The Anteaters & Highways project is monitoring breeding females, and Arnaud reports that, as of early September, seven females are carrying pups on their backs – the characteristic way in which they care for their young.

Arnaud also works on giant armadillo conservation, and says he is making headway with a project to reduce persecution of the species by beekeepers. They come into conflict with beekeepers because they destroy beehives to consume the larvae. 'Thank you so much for supporting us and believing in our work,' Arnaud says. 'We appreciate it more than you know in these difficult times.' ●

Setting free the snakes

PTES-supported project has destroyed more than 100 traps meant for Albany adders in recent months.



© Endangered Wildlife Trust

Unfortunately Albany adders, one of the most endangered snakes in Africa, are also prized pets. Poachers construct traps they call 'salts'. These are stacks of scrubby bush, weighed down with a large white limestone slab which act as markers to the poachers to remind them where they've set their traps. The scrubby bush provides attractive habitat for the snakes. As part of a project supported by us, Dr Jeanne Tarrant and her team from the Endangered Wildlife Trust have dismantled over 100 of these traps in the last few months. ●

DATES FOR YOUR DIARY:

16th November 2019

National Dormouse Conference, Reading, Tickets from £40
Our 2019 conference is a must for all dormouse-monitoring volunteers and those keen to learn more about dormouse conservation.

29th November and 12th December 2019

Starling Murmuration and Somerset Wildlife Spectacular, £60 for supporters, £65 non-supporters

A day on the Somerset Levels culminating in photographing the incredible one million-strong starling roost spectacular. Suitable for those with an interest in wildlife and photography at any level.

 [Find out more](http://www.ptes.org/get-involved)
www.ptes.org/get-involved



Pine martens back on track

Once one of the most common carnivores in the British Isles, by the early 20th century pine martens only survived in the north-west Highlands of Scotland and parts of Ireland. Everywhere else, they'd all but disappeared through a combination of habitat loss, predator control by gamekeepers and hunting for their fur. Since gaining full legal protection in Britain in 1988, they've thrived and expanded their ranges in Scotland and Ireland, but not England or Wales where there were no source populations. Now that tide is turning, and these native mammals are returning to, most notably, the forests of mid-Wales thanks to a ground-breaking project, managed by Vincent Wildlife Trust, in which we are a key partner.

Return to Wales



Pine marten conservation involves more than simply releasing animals into the wild – working with local communities is vital too.

The recovery of pine martens in Wales is mainly down to on-the-ground work carried out by Vincent Wildlife Trust (VWT) with support and funding from PTES. It began in 2015, when VWT carried out a two-year feasibility study into bringing animals down from Scotland to repopulate an area of mid-Wales where they were still found, but in very low numbers. One vital aspect of this early phase was to get local communities on board, in particular people involved in rearing gamebirds or poultry farmers, who might have reason to be concerned by this return to their area.

Radio-tracking

Between 2016 and 2018, PTES provided additional funding towards the translocation and radio-tracking phase of the project. Fifty one animals were relocated to Wales over three years. They were all radio-tracked to record their patterns of movement and territorial behaviour. Once the radio collars were removed, tracking continued using remote cameras and regular surveys for scats (droppings), helped by a band of enthusiastic local volunteers.

DNA study

More recently, we awarded a research grant for a genetics study led by Dr Ciara Powell, based at Waterford Institute of Technology in Ireland. Ciara is using DNA

extracted from both scats and hairs, collected via baited tubes containing sticky pads. The resulting DNA ‘fingerprint’ reveals which of the original released martens are still present at each site, and also detects any offspring that may have been born. We know of 26 so far, though the true figure is higher. The tests can even show which martens have bred and where. This supplements information gathered from camera-trap footage and den-box monitoring.



© Vincent Wildlife Trust

Range expansion

Monitoring work by VWT and dedicated volunteers continues to identify the movements and territories of the translocated martens. Currently, many of the animals have remained in the core mid-Wales release area, but some have ventured as far as Clocnacog in North Wales and others south to the edge of the Brecon Beacons National Park. Hopefully this slow but steady expansion will continue, enhancing the resilience of the Welsh marten population into the future. ●

As pine martens were reintroduced to Wales, they dispersed away from their release locations. Now VWT is engaging volunteers to look for signs of the animals so we know where they've got to.



© Colin Smith

Scrapbook

We love hearing from PTES people, whether supporters or project leaders. Pictures, reports, emails, web posts and letters give a great sense of your passion for wildlife, so please keep them coming!

© Warner's



Gin's a tonic

PTES is delighted to be partnering with Warner's Distillery. We receive a donation to support our work on hedgerows for every sale of Warner's new raspberry gin made with fresh hedgerow fruits. Some of our staff were delighted to visit Warner's beautiful, silver-gilt medal-winning garden at the Chelsea Flower Show in May, just across the river from our offices. Cheers!

Moth pursuits

Despite having to rearrange the date last minute due to heavy rain, our moth expert, Iain Outlaw, and visitors to our Briddlesford Woods reserve, managed to see 350 moths of 73 species, including the nationally scarce mocha. Several other interesting invertebrates were seen too, including hornets and a tube web spider. It was the first ever record of this spider from the Isle of Wight.



Vestal



Poplar lutestring

Dear PTES supporters,

We would like to acknowledge the long-term support you've provided towards our effort to save the world's most endangered antelope, by supporting community-based conservation in rural Kenya. We'd like to present you with this certificate for your continued support.

Many thanks,

All

P. S. You can read about my work with graffes on pages 12-15.

Hedge of reason

We launched our Great British Hedgerow Survey on BBC Countryfile in August, helping our online health-check tool reach an audience of millions. Hedgerow owners can now get instant, bespoke advice on how to keep these vital habitats healthy for wildlife.



PTES' Jill Nelson (right) and Nida Al-Fulaij with Vrinicus Alberca Roberto, a PhD student from Brazil. Vrinicus is analysing data to determine how to stop giant anteaters being killed on roads.



A BBC Countryfile crew film a dormouse, a species that relies on hedgerows for food and for getting around

Presenter Helen Skelton with Ian White and Megan Gimber, our dormouse and hedgerow experts

Butterfly hunt

Jim Baldwin, butterfly expert and regional representative at the British Trust for Ornithology, hosted a guided walk around our reserve on the Isle of Wight this summer. The weather was wonderful, and the group even managed to spot an elusive purple hairstreak butterfly. ‘Totally brilliant! Jim is an inspiration,’ said Charlotte, one of our supporters who attended the event. Look out for more wildlife events on our website: www.ptes.org/events.



A day in the office with...

Izzy Wyatt,
Website and outreach officer



As Website and Outreach Officer, it's my job to tell you what we're up to here at PTES and how you can get involved. I spend most of my day managing our website. I make sure it's up-to-date with news from all our projects around the world, from the Isle of Wight to Indonesia.

I also manage our social media, where I get to interact with our fantastic followers, look for stories to share and promote our latest appeals. I love being right at the forefront of our work and seeing all your amazing responses to our projects first-hand.

I work with our fundraising team on the wildlife appeals, send out e-newsletters and fundraising emails to tell you the latest news and why we need your support. I even get to meet some of you at public events, where we aim to inspire as many people as possible to help us protect threatened wildlife.

The nature of my role means I work with everyone making the charity tick – from my colleagues in the office, to our PR team, and to answering your questions on our social networks.

And when I'm not in the office or at an event, I visit our nature reserves to see and help the species that I spend all day telling you about.



Ben's wildlife garden

Meet Ben, one of our youngest wildlife champions. For his 9th birthday, he asked for a wildlife pond, to go with his compost bin, wildlife tunnel, bug hotel and log pile.

For his birthday party, he and his friends went to a nature reserve for pond dipping activities and to play wild plant and tree games. Thanks to the great work Ben's doing in his own garden, he's giving wildlife a fighting chance. A very inspirational young man – keep up the great work, Ben!



Licence to chill

We thought you'd like to see this great photo of baby dormice. It was snapped on a training course we ran at Haseley Manor, on the Isle of Wight. Being a protected species, you need a special licence to handle dormice. These dormice are about to be weighed and measured, which is why the nest box is temporarily in a large plastic bag. They're always safely returned to the wild afterwards.



Tall stories

They are one of the most recognisable mammals on the planet, but giraffes have slipped off the conservation radar. PTES is helping to reverse the decline of these gentle giants, reports James Fair.



Many years ago, while on an early morning drive during a magazine assignment in Zambia's South Luangwa Valley National Park, I was on the look-out for everything from leopards and lions to elephants, wildebeest and wild dogs – anything that moved, if truth be told. It was my first time in sub-Saharan Africa, and I was almost giddy with excitement at the wildlife possibilities presented by this classic African landscape.

Then, as if from nowhere, a herd of giraffes hoved into view, no more than 20 or 30 metres away. But actually, I realised, they'd been there all along, and the presence of a few small shrubs and trees could not explain why I hadn't seen them until then. How on Earth had I missed them? Never had the phrase, 'hiding in plain sight' seemed more apt.

It could be a metaphor for giraffes as a whole. With their improbably long necks and legs and the unique, instantly recognisable, coat pattern of dark brown, irregular tiles separated by creamy-white lines, they are the world's tallest terrestrial animal species, and one of its most distinctive, and yet most people would struggle to say anything meaningful about them, I suspect. The remarkable fact that their necks – despite being more than 2m long – have the same number of vertebrae that ours do (and indeed a wood mouse's does!) might be one of them, but I wouldn't swear to it.

Arguably, even giraffe scientists have been asleep at the wheel. Until 2016, it was assumed there was only one giraffe – *Giraffa camelopardalis* – and indeed this is the position held by the International Union for the Conservation of Nature (IUCN).

But three years ago, a genetic study concluded there were in fact four species of giraffe. What had previously been classified as separate subspecies hadn't interbred for between 1 and 2 million years, and one zoologist was quoted as saying that classing them as one single animal would be like giving the same scientific name to brown and polar bears.

And like many large African mammals, their numbers are plummeting – the population is estimated to have shrunk by up to 40 per cent over a 30-year period, with the total number now thought to be less than 100,000. Somehow, despite its size and extraordinary appearance, we've managed to completely neglect giraffes.

This is why Dr Abdullahi Ali, with PTES funding, is turning his attention to the reticulated giraffes (see box for new names and ranges of the four giraffe species) that live in the north-east of Kenya, where the country borders Somalia. He has already dedicated the past 15 years to saving hirolas, the world's most endangered antelope, in this region. Here giraffes are under pressure from poaching for bushmeat – both for trade and local consumption – and from retaliatory killing because of conflict with livestock and fruit farmers. Now identified as a species in their own right, reticulated giraffes have suffered one of the most precipitous declines of all – nearly 80 per cent, according to the IUCN.

The giraffe population is estimated to have shrunk by 40 per cent over a 30-year period. Somehow, despite its size and appearance, we have managed to completely neglect giraffes.

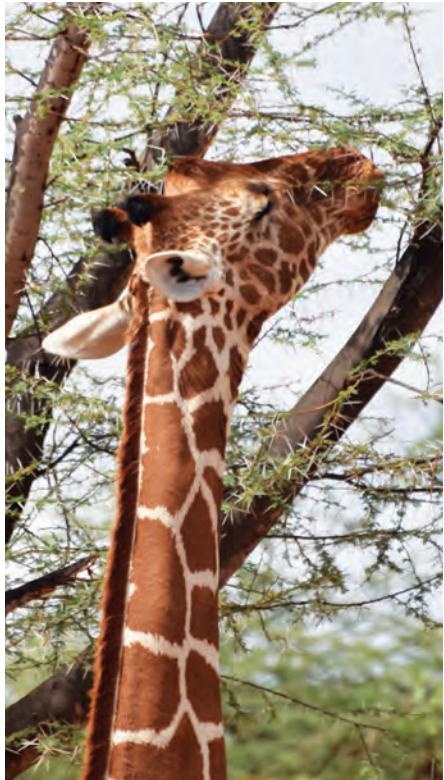
Ali's task is made immediately more difficult, dangerous and complicated because the Kenya-Somali border is largely a no-go area. This is particularly true for scientists, conservationists and tourists, thanks to the presence of militants linked to the terrorist group Al Shabaab.

Information on giraffes – and indeed any wildlife – is hard to collect and consequently almost non-existent.

'We know that giraffes are targeted as a source of meat', says Ali, though just how much takes place is unclear. 'Giraffes are, by far, the herbivore most targeted by poachers', he explains. 'Giraffe meat is minced and canned and is commonly known as 'Nyirinyiri'. It is presented as a wedding gift or sold as a commercial product on the Kenya-Somalia border.'

The problem is compounded by competition from herders of livestock, notably camels, goats and cows, and also from mango farmers. 'It's said giraffes will die to consume mango flowers', reports Ali, 'but mango fruits are the most profitable crop for farmers in the area, and so they

OUR WORK WITH GIRAFFES



ABOVE: The first World Giraffe Day was celebrated this year in Garissa County, with officials from the Ministry of Environment, members of the Bour-Algi Giraffe Sanctuary and giraffe scouts all committing to ensuring a future for them in Kenya and Somalia.

LEFT: Giraffes survive on a diet of leaves, seeds, buds, fruits and even branches – one of their favourite trees is acacia, but they feed on 100 different species.

RIGHT: The large orange-brown patches separated by clear white lines, identify this as a reticulated giraffe, a species confined to Kenya, Somalia and Ethiopia.

put out snares to kill giraffes. They also create pitfall traps, and since Ali began the project, they've had to treat eight giraffes with life-threatening injuries, in collaboration with vets from the Kenya Wildlife Service (KWS).

Livestock grazing also degrades the environment for wildlife, while colonisation of the area by non-native, invasive trees is displacing one of the giraffes' most important food sources, the umbrella thorn acacia. A long-term drought adds to the considerable problems faced by the giraffes, with access to water often limited or completely eliminated by farmers putting in boreholes which they cannot drink from. 'They end up dying around boreholes, particularly during the dry season', Ali says.

Ali's plan is to work with local communities along the Kenya-Somalia border to promote the concept of giraffe conservation and then establish four new protected areas for the species. He's also setting up a community-based anti-poaching unit that includes local people as scouts as well as KWS rangers, with at least 30 people trained to carry out anti-poaching patrols.

He wants to work with herders, local school and college teachers and an estimated 6,000 school children to raise awareness about giraffes and giraffe conservation. Proposed activities include a

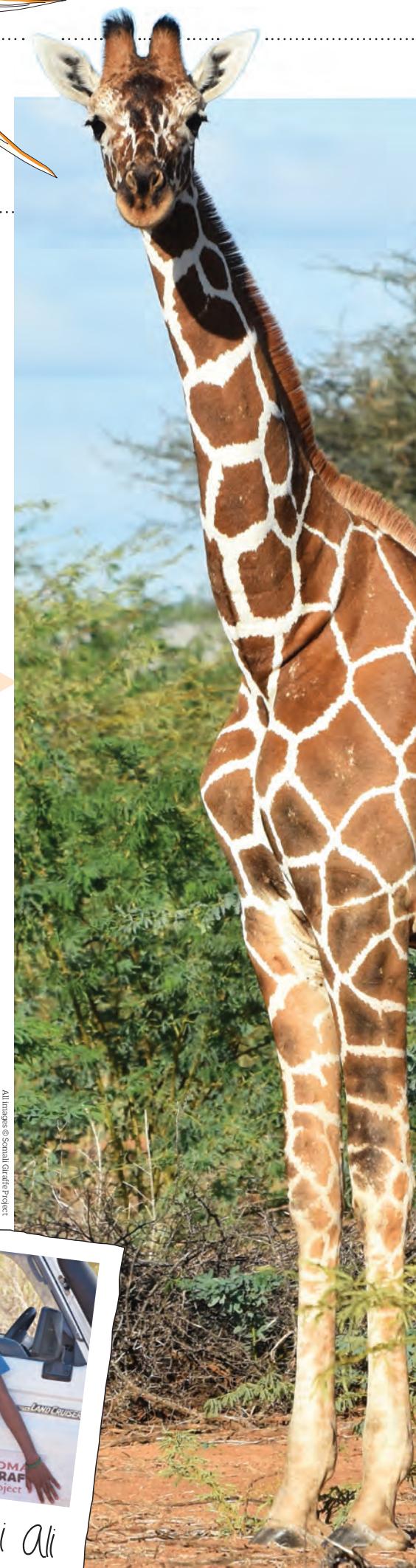
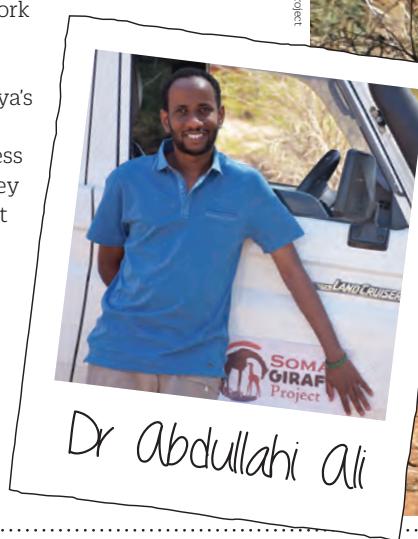
World Giraffe Day, de-snaring exercises and wildlife cinema shows.

It's important Ali and his team get an idea of just how many giraffes there are in the area. Every giraffe encountered will be photographed, and all the images fed into a central database. Giraffes can be individually identified from their coat patterns so, over time, individual animals will be recorded and scientific modelling will produce estimates for how many there are in the region.

Ali and his team will also fit up to 30 giraffes with GPS collars, gathering vital new information on where they go, what they eat and how individuals within herds interact with each other.

This vital work will help turn around the fortunes of Kenya's giraffes and, by raising awareness of the plight they face throughout the continent, allow Africa's gentle giant to step out of the shadows once and for all. ●

All Images © SomaGiraffe Project





Giraffe species

Though they're not yet officially recognised by the IUCN, scientists now believe there are four distinct giraffe species.

NAME: Masai giraffe *Giraffa tippelskirchi*

RANGE: Central and Southern Kenya, Tanzania and South Luangwa Valley, Zambia

APPEARANCE: Dark brown, vine leaf-shaped patches surrounded by creamy-brown lines

POPULATION: Estimated 35,000 – half what it was 30 years ago



**Masai
giraffe**

DID YOU KNOW? A small population has been translocated to Akagera National Park in Rwanda, outside its natural range



NAME: Northern giraffe *Giraffa camelopardalis*

RANGE: Eastern and Central Africa – from a small population in Niger as far east as Ethiopia; small numbers in war-torn countries such as the Democratic Republic of the Congo (DRC)

APPEARANCE: Mainly pale and irregular patches, no markings on the lower legs

POPULATION: Estimated 5,600

DID YOU KNOW? The western subspecies, once down to just 49 individuals, now has a population of 600 thanks to strict protection by the government of Niger

NAME: Reticulated giraffe *Giraffa reticulata*

RANGE: Mainly northern Kenya, but small populations found in southern Somalia and southern Ethiopia

APPEARANCE: Orange-brown patches clearly defined by networks of striking white lines, and the pattern continues down its legs

POPULATION: Just over 15,000 – a greater than 50 per cent decline in 30 years



**Reticulated
giraffe**

DID YOU KNOW? Reticulated giraffes are one of the most common species found in zoos, along with the subspecies of northern giraffe known as Rothschild's giraffe



NAME: Southern giraffe *Giraffa giraffa*

RANGE: Mainly northern South Africa, Botswana and Namibia, with small populations in Angola, Mozambique, Zimbabwe and Zambia

APPEARANCE: Pale brown, irregular patches, though the two subspecies vary somewhat – those in arid parts of Namibia can be almost colourless

POPULATION: The most numerous of all giraffe species, with an estimated 55,000 individuals accounting for more than half the total population

DID YOU KNOW? Numbers of the South African subspecies have increased by 150 per cent over the past 30 years

Conservation Partnerships

Using our extensive knowledge of where effective conservation work is taking place, we've selected five partners to receive £100,000 each over a five-year period, to help them ensure a future for some of our most endangered species. PTES grants manager Nida Al-Fulaij reports on how your money is making a big difference.

Snow leopards, Mongolia

Bayara Agvaantseren

Snow Leopard Conservation Foundation



In our last issue, we reported the fantastic news that Tost, where our conservation partner Bayara Agvaantseren works, has been given protected status. That milestone came about after years of dedicated work by Bayara, her team and countless others.

But it has been a real fight to get there. At one point, the Cabinet refused to even put Bayara's proposal to protect Tost forward for a vote in Parliament. Instead of giving up, she and her team tried a different approach, and looked for like-minded lawmakers to take up the issue and bring it to Parliament directly. Two female politicians agreed to champion the cause, and they finally got the proposal approved by more than 80 per cent of the vote. Two local governors gave their whole-hearted support, as did a local lawyer. Stories in the press helped raise the profile of the issue nationally.

Involving local people was also critical, with the community showing a real desire to protect their land and wildlife – camera-trapping has found evidence of some 40 snow leopards using the area, with a stable population of 14 adults.

The community played a particularly important role in lobbying and campaigning, often traveling from where they live in the Gobi all the way to Ulaanbaatar to attend press conferences and meet with Members of Parliament. No small feat, considering it's a 1,000km journey that takes a good 13 hours each way!

Now the conservation team and the community face new challenges. According to the Protected Area law of Mongolia, nature reserves such as Tost are solely the responsibility of local government and people – no state funding is allocated to their management.

As previously reported, Bayara's team has already been successful in securing funds from the provincial government to pay for rangers. This is great news, not just in terms of the money but also because it shows that the provincial government is truly supportive.

Being solely responsible for the reserve is also an opportunity because it's possible for the interests of local people and other stakeholders, such as conservation groups, to be properly represented in the way it is managed. There's still much to do but the

groundwork is already in place, and the achievements to date are a really positive sign for the future of snow leopards in Tost National Park.

We're also delighted to report that in spring this year Bayara was honoured in the USA with a Goldman Environmental Prize for her critical role bringing protection to the Tost region of Mongolia. Well done, Bayara. ●



ABOVE: Bayara Agvaantseren – second from the left, with the orange cup – discusses planning issues with community representatives. Local people from the area were closely involved in the campaign to have Tost designated as a National Park.

RIGHT: Some 40 snow leopards are estimated to use the newly designated Tost National Park, with a stable population of 14 individuals.



Persian leopards, Iran

Mohammad Farhadinia

Future4Leopards

Tandoureh National Park is considered one of the best areas for wildlife in Iran. But to ensure that it remains a place where Persian leopards are able to thrive, there has to be a good population of prey species.

This year, Mohammad's team worked hard to put good infrastructure in place. They've built 13 water holes throughout the park, giving animals easier access to water. To supply them, they've had to run several kilometres of pipes from the high elevations down to lower areas, not an easy task in such a rugged environment.

They've also constructed new access trails for the rangers. Poaching is an issue, and rangers need to be able to patrol remote regions and access areas quickly. The work has opened up an area of the park which was previously

inaccessible. Now the rangers (below) can use motorbikes and horses to get around the park much more quickly and easily.

Annual counts are made of various wildlife species in the park, particularly urial sheep and ibex. Mohammad was hopeful his team's work to increase urial and ibex would be reflected in the most recent census results and it seems that numbers have in fact increased. The local government authority was so pleased it responded by donating a car for the rangers to help build further success. We're delighted how well Mohammad's project is progressing. ●



Slow lorises,

Java

Anna Nekaris

Little Fireface Project

Slow loris champion, Anna Nekaris, continues fighting their cause on all fronts. She's working with local farmers to install rubber bridges between trees on their land.

The bridges are simple structures made of rubber tubing, but they're sufficient to enable lorises to safely move between patches of forests on cleared farmland. Not only that, the tubing carries water for the farmers to water their crops – a win win situation for everyone.

Lions, Tanzania

Amy Dickman, Ruaha

Large Carnivore Project



In Tanzania, Amy Dickman continues her work helping people and large carnivores in Ruaha, Tanzania. With a team of 70 people, Amy has made some impressive achievements over the past few months. In particular, the Lion Defenders group she set up has prevented almost 20 lion hunts by convincing locals not to attempt retaliatory killings. She also persuaded herders to allow them to improve their livestock bomas and thus protected more than 3,000 animals in the last year. Amy is also trialling a novel payment scheme whereby villages benefit financially from the wildlife in their area. ●



Giant otters, Peru

Adi Barocas,

Giant Otter Conservation Project



Meanwhile, on the other side of the world, Adi Barocas continues his work on giant otters in Peru where gold mining is threatening their habitat and the fish stocks they feed on. Adi and his team are carefully documenting the destruction of the lakes that giant otters inhabit and the effect of the decrease in fish supplies, the latter a consequence of the mercury used in the gold mining. The team is also working at schools within gold mining communities to promote environmental education. ●





The next generation

The PTES internship programme has been running since 2001. In that time we've funded some 90 graduates to work on a practical conservation or research project. Each intern receives up to £5,000 and can work on species as varied as hedgehogs, pine martens, bats, adders and bottlenose dolphins. Here are three of our current interns.



Aaron Bhambra

is placed at an RSPB reserve, Sandwell Valley, studying the distribution and conservation status of solitary bees and wasps in the West Midlands, surveying public green spaces and nature reserves. 'It has allowed us to create species lists for sites that have not been previously studied, uncovering the presence of scarce and rare bees and wasps which have been nesting in urban areas,' Aaron says. 'The experience I've gained from this internship has led to me being employed full time with the Wildlife Trust for Birmingham and the Black Country as a conservation and community engagement trainee.' ●

Hannah Bond

at Nottinghamshire Wildlife Trust is assessing the possibility of an adder reintroduction in the county, where Britain's only venomous snake is probably now extinct. 'There's a lot of behind-the-scenes research to be done before a recovery programme can even begin,' Hannah says, 'and it's well documented that the more planning and research that is done, the higher the success rate post-reintroduction. By working with experts and making vital connections, I believe that this internship will boost my level of employability and give me the confidence and knowledge to succeed in conservation.' ●



Rachel Cates

is working on ZSL's London HogWatch project which is improving our knowledge of London's hedgehog population by surveying green spaces and parks using remote digital cameras. 'The ultimate goal is to use the information gained to develop a programme to help conserve the remaining hedgehog populations in London, working with other conservation organisations,' Rachel says. Working on HogWatch is allowing Rachel to develop her management skills. She adds. 'I will be responsible for a large part of running the camera-trap surveys, coordinating volunteers and assisting with the supervision of student projects.' ●



Dormice in the Dales

Replanting hedges – and managing them better – should help a population of dormice reintroduced to the Yorkshire Dales survive and thrive.

Conservationists are planting nearly a kilometre of new hedgerow in the Yorkshire Dales over the next year as part of the Wensleydale Dormouse Project supported by PTES.

It will add to new hedges planted in the past year to create a total of 1.6km of prime dormouse highway, linking a reintroduced population with existing ones elsewhere.



© Robert Walton

Two more kilometres of hedgerow are also being newly managed, making sure any gaps are filled in so that these linear features benefit dormice as much as possible.

Part of the challenge is to persuade farmers to permit new hedges to be planted on their land, or for their existing hedges to receive the right sort of management. This is about not cutting the hedge every year and, when they are cut, only doing it during the winter months.

'Dormice are arboreal creatures moving from branch to branch and they do best in a shrub environment,' says Phill

Hibbs, the Trees and Woodlands Officer for the Yorkshire Dales National Park Authority. 'They need hawthorn, blackthorn, spindle, hazel, cherry and dog rose.'

Hazel dormice were previously extinct in Yorkshire, but reintroduced at two small sites in Wensleydale – Aysgarth Falls and Haw Banks – in 2008 and 2016 – by PTES.

PTES Dormouse Officer Ian White says the project to restore the species to Wensleydale has been a great success. 'Hedge planting and better woodland management should help to ensure they can remain in this area of Yorkshire for at least the next 100 years,' he says. ●



- Dormice need well-managed woodlands connected by hedgerows which they use to move between sites.
- Coppicing (cutting back) of hazel trees is vital because it increases the supply of hazelnuts.
- What's good for dormouse is also good for birds, bats and butterflies.

[Find out more](http://www.ptes.org/dormice)
www.ptes.org/dormice

Peak practice



England's only mountain hares face a changing climate and environment – a high-tech camera is helping one scientist find out how they are coping.

A thermal-imaging camera – paid for by PTES – is transforming our understanding of mountain hares in the Peak District.

PhD researcher Carlos Bedson is using the camera to count the Peak's isolated population of hares, and says it allows him to watch them undisturbed.

'When I go out at daytime, I might see one to four hares per kilometre that I walk,' Bedson says. 'However with the thermal-imager I can see many more – sometimes four times as many.'

The thermal-imaging camera works by detecting heat radiation and turning that into an image that resembles a negative photograph, with white representing heat and therefore something living – like a mountain hare.

The camera, Bedson says, can detect hares up to a kilometre away and, from a single vantage point, he can often count between 10 and 20 hares, though these may be widely distributed. In some places, he's seen them congregating in small groups, feeding together to provide extra vigilance against predators.

It also allows him to get close to animals that bolt away during day time. 'At night, mountain hares believe they cannot be seen,' he says. 'They display little or no evasive behaviour. I've stood watching them with the thermal-imager from as close as 30 metres away, and they feed, frolic or amble around me, feeling confident and safe.'

'This is tremendously helpful,' he adds. 'I get a much more ecologically authentic impression of where the hares are, how many occur in groups and how far apart they are from each other.'

Beating the cold

- ▶ Going out on the moors at night has its downside – temperatures can plummet as low as -10°C.
- ▶ The camera needs to be well wrapped up – it won't operate in extreme cold. Carlos wraps it in a sock and straps a handwarmer to the battery casing.
- ▶ The mountain hares apparently aren't bothered by the cold. 'Their fur coats are absolutely amazing,' he says.

Though mountain hares died out in England (but survived in Scotland) during the last Ice Age, they were reintroduced to the Peak District in the 1800s for sporting purposes. Other reintroductions (to Wales, the Lake District and Northumberland) failed, but the Peak hares have clung on.

Now they face threats such as changing land uses and the impacts of climate change, and Bedson's work is vital if we're to understand how these threats are affecting England's only remaining mountain hares. ●



Carlos keeps his toes toasty with hand-warmers in his boots



Big cat boost

Snow leopard conservation is taking off in China, making experts more optimistic about the species' future.

Surveys carried out by teams trained and equipped with our funding have revealed that snow leopards are living in areas of China previously regarded as unimportant for the species,

Focusing on 10 unprotected sites spread over an area of 1.2 million km² – 60 times the size of Wales – the teams from local communities and Forest and Grassland Administrations (FGAs) used camera traps to check for snow leopard presence.

Altogether, the teams captured 45 images of snow leopards from 565 days of camera-trapping, as well as finding other signs such as scrapes, footprints and scats.

Sites surveyed ranged over a vast area, from Altay, close to China's northern border with Kazakhstan, Russia and Mongolia, to Taxkurgan in the west near the Tajikistan frontier and Hengduan near Myanmar.

'Through this project in collaboration, with Beijing Forestry University (BFU), we're getting a more complete picture of the range and needs of snow leopards in Xinjiang,' says Shi Jun, Director of the Xinjiang FGA.

Indeed, snow leopard conservation has made more progress in China in the past five years than ever before, according to Dr Wang Weisheng of the state FGA. Weisheng made his remarks in his address to an international snow leopard conference held in Shenzhen last year.

His optimism is echoed by Dr Philip Riordan, Director of Wildlife Without Borders UK and Visiting Professor at BFU. Riordan has been

RIGHT: One unusual camera-trap record was a snow leopard in a forest.

BELOW: Snow leopards are classified as big cats like lions and tigers.

researching snow leopards in China since 2006, and struggled to find even five people working on the species for a conference in 2008.

'Ten years on, at last year's meeting in Shenzhen, more than 350 Chinese conservationists were dedicated to the species,' he says. 'That increase is testament to the hard work and determination of my team, highlighting the urgent needs of this species and demonstrating that it's not beyond our help.'



► Snow leopards have a range of an incredible 2 million km² in the mountains of Central Asia, including the Himalayas.

► Despite this, there are just an estimated 4,000 to 6,400 snow leopards left in the wild.

► Some snow leopards have a territory covering 1,000km². Their main prey are ibex, argali (a species of wild sheep) and blue sheep.

► Though part of the *Panthera* genus – and therefore classed as a big cat along with tigers, lions, leopards and jaguars – unlike their relatives, snow leopards can't roar.



Asian turtle rescue



In the Sunderbans, where man-eating tigers are a daily threat, experts are working to save northern river terrapins from going extinct.

Snix of one of the world's rarest freshwater turtles will be released into the Sunderbans on the Bangladesh-India border later this year in the next phase of a project to save them from extinction.

PTES is funding the Turtle Survival Alliance (TSA), which has been working on northern river terrapins since 2011. There are thought to be fewer than 100 individuals left in the wild, and the species is therefore classified as Critically Endangered by the IUCN.



© Turtle Survival Alliance

The newly released terrapins will be fitted with satellite tags so the TSA can learn more about the survival rates and dispersal behaviour of captive-bred animals.

'I believe these terrapins use beaches by the sea for nesting and freshwater and saline areas for foraging and other purposes, but we don't know for sure, and it's really important for us to understand its conservation requirements in the long run,' says TSA Director Dr Shailendra Singh.

Northern river terrapins once ranged

from the state of Orissa on India's east coast in a wide arc north through Bangladesh, Myanmar and as far south as Thailand. They are now thought to be extinct everywhere except the Sunderbans.

This delta of mangrove swamps poses a unique set of problems. The TSA was unable to track any of 10 terrapins released with radio telemetry tags in 2016 – with so many river meanders and secondary and tertiary channels, the terrapins were simply out of range of their hydrophones, explains Singh.

'You couldn't take the larger boats into these narrower, shallower channels,' adds Singh, 'and using canoes or inflatables left field workers open to the risk of attacks from tigers, which are renowned as man-eaters in this part of the world.'

However, these surveys led us to a wild individual, which was rescued and incorporated into our breeding programme in 2018, and also to a couple of good release sites within the park,' says Singh. The use of satellite tags should provide guaranteed data for the TSA project. ●

Female northern river terrapins are larger than males, growing to a length of up to 60cm and a weight of 18kg

Characteristic upward-pointed snout and dome-shaped carapace

Longevity of 60-70 years

Hunted for food, and also taken as bycatch; habitat degradation is also a factor in their decline.

Conservation corridors

One of Madagascar's rarest lemurs is threatened by habitat loss, but reconnecting isolated forest areas can help ensure its survival.

PTES is supporting vital work protecting three rare lemur species in the south-east of Madagascar. The Sainte Luce Littoral Forest is home to the southern woolly lemurs (right) – listed as Endangered on the IUCN Red List – and Thomas' dwarf lemurs and Anosy mouse lemurs, but the extent of available habitat has halved in the past 50 years.

Project Ala, carried out by our partners SEED Madagascar, is planting four corridors to reconnect five areas of forest that have been fragmented by slash-and-burn agriculture. A large-scale mining project threatens to reduce forest cover still further.

The work will both increase the area of habitat for the lemurs and allow them to move between the fragments – they won't cross open land between forest patches.

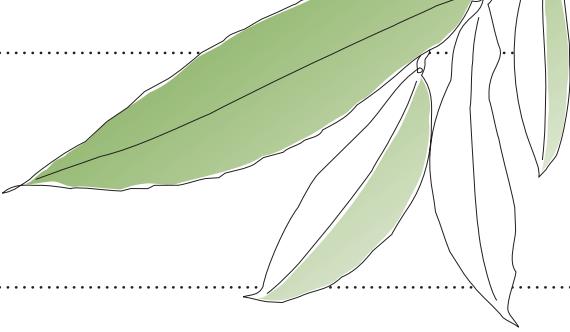


© SEED Madagascar

As well as helping the lemurs, this also helps the forest. Lemurs are seed dispersers – if the lemurs disappeared, it's likely that the habitat loss and degradation would accelerate more quickly.

Southern woolly lemurs are completely confined to the coastal forests of Madagascar's south-east. They are medium-sized, nocturnal lemurs weighing on average just over 1kg.

SEED Madagascar is also monitoring the lemurs' movements so they can evaluate how effective the new corridors are as a conservation strategy. Involving the local community is crucial to the project so that it leads to long-term sustainable management of the forest – and the continued survival of the rare lemurs. ●



Thanks to you

Thank you everyone for supporting us. Without you, we wouldn't be able to do any of the work you've read about in this magazine. We're constantly grateful for all your passion, loyalty and support for People's Trust for Endangered Species and the natural world. Here's just a bit of what your support has achieved recently.

Saiga, saiga

Do you remember in 2015, with the support of PTES donors, we investigated a mass die-off of 200,000 saiga antelopes in Kazakhstan?



We discovered the cause of the die-off was bacteria that had probably been living harmlessly in the saigas' tonsils. The bacteria were triggered to move into their bloodstreams by increased humidity and air temperatures, leading to septicaemia (blood poisoning). Previously an occasional, natural occurrence, saiga die-offs are now occurring more frequently, making the species more vulnerable to extinction, so we're really pleased that the recent saiga census by the Association for the Conservation of Biodiversity of Kazakhstan showed that their population has recovered by 55 per cent. What an amazing recovery, offering hope for this critically endangered animal. Thanks to all of you who donated to this appeal. ●

Mulch ado about something!

A big welcome to all our wildlife friendly gardeners

Over the summer, we ran our first ever Wildlife Friendly Garden campaign, and the response was amazing. Hundreds of you showed your support and made small changes in your garden to make a BIG difference for wildlife. From making a mulch pile to creating a wildlife pond, you're giving the wildlife on your doorstep a fighting chance. We've been so impressed by all the photos you've sent in of your new wildlife friendly garden creations. Keep up the good work! ●

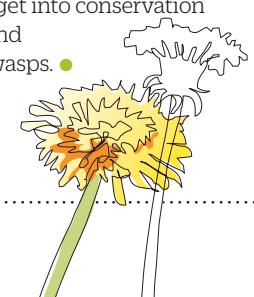
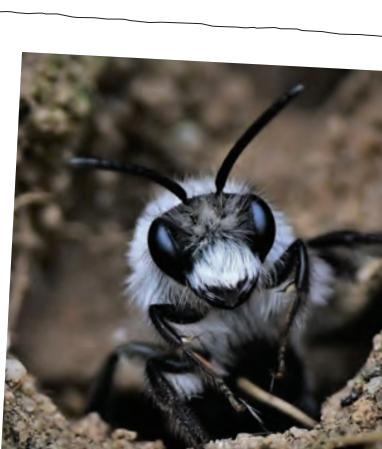


Private gardens in Britain cover
2,700 km²,
an area the size of Dorset

Reasons to bee happy

Thanks to all of you who donated to our bee appeal earlier this year.

We funded intern Aaron Bhambra to investigate nesting structures for solitary, ground-nesting bees and wasps in urban environments. He found that those made of gravel and sand, with sunny, sloping faces, proved most popular. He recently found some bee species that haven't been recorded in the West Midlands for several years, and a rare bee that is currently being examined by more experienced taxonomists. Excitingly, Aaron has just got a job at the Wildlife Trusts as a conservation trainee, which is great news. We created the internships so we could help young scientists get into conservation and are grateful to everyone who helped us fund Aaron's internship and his study on bees and wasps. ●



The vole story

We had a great response to our water vole appeal earlier this year, which focused on an eDNA technique we're testing to see if it could be effective in determining the presence of water voles in rivers.

The testing is still underway, and plenty of other water vole work too. We've distributed a free guide for farmers and landowners (*Helping water voles on your land*) which offers advice on simple improvements to land management practices that can enhance the suitability of habitat for water voles, helping to connect colonies across the countryside. There's guidance on livestock management beside watercourses, the use of buffer strips, sympathetic watercourse and ditch management and restoring, recreating and managing wetland habitats. Landowners are particularly well-placed to help water voles, so this should really help our water vole conservation. Thank you everyone for your support. ●



Bridge boost

Did you help us build bridges for slow lorises?

Slow lorises find it hard to move about the farms that have replaced many areas of forest in Java, but installing bridges means they can get about more safely. The farmers are happy to have these bridges on their land because they double up as irrigation lines.

Our partner Anna Nekaris, who has dedicated her life to lorises, said the bridges are hugely important. 'During the dry season, the bridges help people water crops. But for slow lorises, the bridges connect habitats and trees that previously could only be reached by crossing dangerous ground,' she told us. 'We're hugely grateful to all those who have donated to help us to continue this project that brings together the lorises and people responsible for protecting them.' ●



© Brian Baker

© Little Frontiers Project

EACH BRIDGE
COSTS

£300

If you'd like to contribute visit
www.ptes.org/slowlorisbridge



We're so grateful to Neeraj and Georgia, who kindly raised over £3,000 for us by asking guests at their wedding to donate to PTES in lieu of giving gifts! What an incredibly thoughtful thing to do. And from all of us at PTES - congratulations!



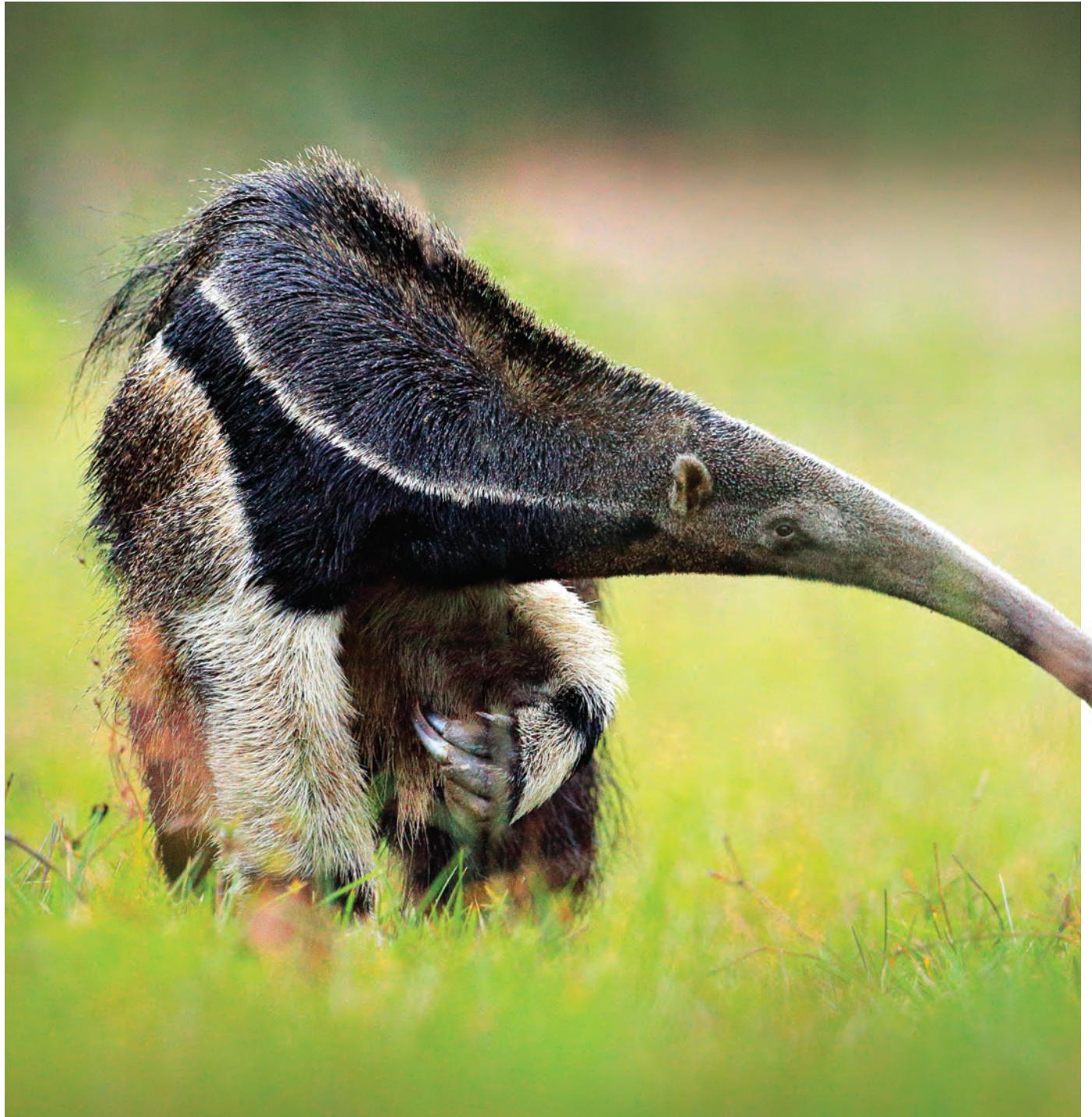
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Giant anteaters are one of the most vulnerable animals in South America. Deforestation and habitat loss are occurring faster in Brazil's Cerrado, the savannah habitat where they're found, than in the Amazon. Anteaters are also regularly hit by trucks on the main highways in the area, a problem that could worsen as traffic increases.

With PTES support, Dr Arnaud Desbiez is examining where and when most fatalities occur, and why some drivers hit anteaters intentionally. It's hoped new road safety guidelines will persuade the road authorities, the truck driver's cooperative, freight companies and local community groups, to do all they can to reduce collisions with these charismatic mammals.

Your support is vital.

Thank you.

people's
trust for
endangered
species

