people's trust for endangered species

UK

Water voles Orchard wildlife Bottlenose dolphins State of Britain's hedgehogs

Project saiga

How PTES is helping local people in Central Asia to save the world's weirdest antelope

Risky business

Conservation can be dangerous – we salute our partners who work in parts of the world racked by civil conflict.



Tartan tiger

Scottish wildcats are on the verge of extinction, but a new captive-breeding programme offers hope for the UK's last wild felid.

Counting cats

Turtles of the Caribbear

Scientists have developed new way to assess snow leopard numbers, a vital tool to aid conservation efforts.

Overseas

Golden langurs

Rhino horn trade

Slow lorises of Java

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

Water voles

Water voles suffered a population loss greater than almost any other British mammal during the 20th century, with a decline of more than 90 per cent. Habitat loss and fragmentation, and predation by non-native mink, continued into the 2000s, but the most recent research suggests they're recovering in some areas thanks to successful conservation. PTES runs the National Water Vole Monitoring Programme, through which citizen scientists record the latest information about how the UK's favourite rodent is faring.

WILDLIFE WORLD



Welcome

.....

The patter of tiny wildcat kitten paws offers hope for the species in Scotland where we're helping **Saving Wildcats** carry out reintroductions into the wild. Their numbers have gone down to critically low levels, and without this emergency boost, extinction beckons. Find out more on pages 8-9.

The same fate loomed for northern river terrapins in the Sundarbans wetlands in India. Here another project we're supporting is reintroducing this most endangered of turtles.

Reintroductions are the only option when things have got really bad for a species and assuming the original threats have gone. They can be difficult to do, and aren't always successful, despite everyone's best efforts. It underlines the importance of taking conservation action before the situation becomes too dire.

Understanding how wildlife populations are faring is critical to acting earlier. As the surveying and monitoring season starts again, please take part in our wildlife surveys if you can.

These range from reporting sightings of stag beetles or hedgehogs to walking along waterways searching for signs of water voles, looking out for animal roadkill near roads or surveying hedgerows and old orchards. There's something for everyone at www.ptes.org/surveys.

And while you're taking part, enjoy the fast-unfolding spring.



Jill Nelson is the Chief Executive of People's Trust for Endangered Species.

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Poring over old maps seems an unlikely way to get involved in conservation, but for **Daisy Imogen Buckle** it's important and fascinating work.

first started volunteering for PTES at the end of 2020. I have a range of conservation and voluntary roles with different associations but this role was something I had never done before. I wanted to challenge myself, learn something new and help an organisation I believe in.

My role involves using a Geographic Information System (or GIS). I use versions of old Ordnance Survey maps to identify and then record where orchards used to be and draw around them to document their whereabouts. It's a technique also known as polygonising.

These old records are then compared with current maps and aerial photography to see whether there are any orchards or individual fruit trees left or whether there's a possibility of planting the area up again to create a new orchard.

I like the idea that I am helping to see how land use is changing and how it can be used in the future. I had no idea when I started how interesting it would be. I think if more people did roles like this, or accessed this information, it might make them more considerate about what we are doing to the landscape and how we can have a huge impact, both positive or negative.

Since starting this role, I've learned a lot about the biodiversity found within orchards and the vital role they can play in bringing communities together. Trees have always been really important to me, and in doing this work, I get to find out more about them, their uses for humans and other species, while also helping PTES and, of course, wildife.

Follow Daisy on Instagram @naturalcuriositystudio I like the idea that I am helping to see how land use is changing and how it can be used in the future

"

Risking everything otect the natural world

It's easy to forget that conservation can be a hazardous business, and scientists funded by PTES live and work in some of the most dangerous parts of the world.

'The country's different armed groups

fight over territory in this region in

order to control drug trafficking routes

and illegal gold mining'

n August 2021. Alma Hernández Jaramillo of Neotropical Primate Conservation Colombia was in the coastal town of Tumbaco in the south-west of the country when a violent confrontation between armed groups suddenly kicked off.

'I had to take shelter inside a house, listening to explosions and thousands of shots for almost half an hour less than 20 metres away,' she recalls. It was a terrifying ordeal and made Alma question whether she should carry on working in such a potentially hazardous environment.

It's not the first time Alma has faced danger. Two years earlier, she feared an armed group would take over the village where she was staying the night. Large parts of western Colombia are still

dangerous, despite the peace agreement between the Government and the country's main guerrilla movement, FARC (the Revolutionary Armed Forces of Colombia), in 2016.

'The country's different armed groups fight over territory in this region in order to control drug trafficking routes and illegal gold-mining,' Alma explains.

So why go there? With the help of funding from PTES, Alma is carrying out vital conservation work into black-headed spider monkeys, a rare subspecies of the already rare brown-headed spider monkey which is only found in western Colombia and southern Panama.

These monkeys are elusive

and losing their habitat to illegal logging at an alarming rate, which is why Alma's work is so important. Understanding what drives deforestation and hunting is key to protecting spider monkeys, so much of Alma's time is devoted to gaining the trust and understanding of local communities to devise effective strategies to reduce these threats.

Alma has built up a close relationship with many of these people and, as she points out, they are mostly far more at risk from the violence perpetrated by the armed groups than she is. 'These

communities have always been alone and they don't deserve me turning my back on them as well,' she says.

Conservationists all over the world risk their lives by operating in conflict zones or because their work threatens the activities of people such as illegal loggers and miners. One of PTES' long-term partners, Dr Abdullahi Ali, runs reticulated giraffe, Grevy's zebra and hirola conservation programmes. He works in northern Kenya, close to the border with Somalia where terrorists linked to Al-Shabaab are a frequent presence. He has to check for security updates, in the same way we might get a weather forecast, every time he sends any of his team out on patrol.

In 2020, I interviewed scientists and activists who faced extreme

danger through their work one of them was Tanya Rosen, a leopard researcher who was threatened by a gunman in Tajikistan because of her oppositon to unregulated trophy hunting, and another was Carlos Zorrilla, a cloud forest campaigner in Ecuador who feared being imprisoned on trumped-up charges. He had to flee his house in the dead of night to escape being arrested, fearing he'd be killed had he gone to prison.

All these people share one thing in common - they care deeply about the environment and will go to extraordinary lengths to protect wildlife, ecosystems and precious, threatened habitats

One thing's for sure - the natural world, and by extension all of us, are indebted to people like Alma, Ali, Tanva and Carlos for their willingness to put their lives in danger to protect our natural heritage. When I asked Carlos why he risked so much, he told me that over very many years, he had developed a special bond with the place where he lives.

'When people ask me where I'm from, I'm more likely to say that I'm from the cloud forest than from any country,' he added. 'You become so much a part of it, that you cannot back down.' •



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

CONSERVATION NEWS



It's that time of year when we need your input – volunteers are required for our beetle (both stag and noble chafer) work, and we're on the look-out for anyone with an eye for their local mammals, too.

Standing up, looking out and walking along for stag beetles

There are two aspects to our stag beetle work that you can get involved in this year. Please help if you can.



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If you own or manage a woodland or if you are lucky enough to live near one, we'd like you to keep an eye out for stag beetles and report them to our *Great Stag Hunt*.

We're also looking for people who live within the range of these magnificent insects and regularly see them to help with our stag beetle count. All we ask is for you to take a leisurely stroll along a set route of 500m once a week in warm, dry weather and count stag beetles for us during June and July. What could be better? It could be on your regular dog walk or just on a stroll to the pub!

Find out more www.ptes.org/gsh and www.stagbeetles.ptes.org

Put out your feelers for the noble chafer

These increasingly rare beetles love orchards and wood pastures and you'll see the adults in June and July.



Noble chafers need dead wood within live trees for their larvae to feed on. They are associated with traditional orchards and wood pasture, but they can also be found in hedgerows, gardens and in old, pollarded hawthorn. This year we're encouraging people to look for



noble chafers in their area, but we're particularly interested in any seen in Devon, East Sussex and Buckinghamshire. You can search tree cavities at any time of year to look for the distinctive frass (larval droppings – see photo above), but be aware that other wildlife may be using tree holes and be careful where you are putting your hands!

From mid-June until mid-July you can look out on elder, meadowsweet and hogweed for the stunning adult beetles. They are iridescent green but can look copper, gold and even pink in certain lights. There is more information below about where to look for noble chafer beetles and how to identify them.

Find out more www.ptes.org/noblechafer

Get spotting mammals to help with wildlife conservation

The more information we have about where our mammals are living, the better we can protect them.



9 Menno Schæfer / Shutterstock.com

This Spring we're calling for volunteers to share their encounters with wild mammals with us. If you have access to a garden, allotment, playing field or churchyard, you can help with our *Living with Mammals* survey. We have 20 years-worth of vital mammal spotting data from thousands of volunteers who've taken the trouble to watch and report for us. Our recently revamped survey website makes it easy to take part, whether you're out and about or watching through a window. The wealth of data collected through *Living with Mammals* helps us, for example, to produce our series of *State of Britain's Hedgehogs* reports (see p21) which have been so influential in galvanising conservation support for hedgehogs.

The plight of water voles is perhaps less well known. Loss of habitat and the introduction of American mink in the 1950s has led to a disastrous decline, first documented in the 1990s. To reverse this, and see how recovering populations are faring, we're calling for volunteers to take part in the National Water Vole Monitoring Programme by recording signs and sightings of water voles on local waterways from mid-April to mid-July.

Find out more www.ptes.org/lwm and www.ptes.org/watervoles

Enhanced protection for home of South America's rare bear

Your funding helped to identify Neblina Reserve as vital for wildlife, and now Ecuadorian Government has taken note.



Thanks in part to PTES supporters, there's fantastic news from South America. The Ecuadorian Minister of Environment has signed two 'SNAP' agreements for Neblina Reserve. SNAP is the 'National System of Protected Areas' which gives enhanced protection to important wildlife areas. Neblina Reserve is a global biodiversity hotspot, home to 450 different species of mammal. To put that in perspective, we only have about 60 here in the UK. PTES funding helped identify critical areas of this habitat to receive protected status, giving hope for the future of species such as Andean or spectacled bears.

In this landmark ruling, the courts decided that mining would harm the biodiversity of the forest, which is home to Andean bears, endangered frogs, rare orchids and brown-headed spider monkeys, one of the world's rarest primates and another species being championed by PTES in neighbouring Colombia.

Now mining concessions in the reserve must be cancelled and the rights of nature are enshrined in the country's constitution, which applies to all land, not just protected areas. While the mining companies and the Ministry of Mining are likely to appeal the ruling, this decision sets a strong and meaningful precedent in this region of the world that's home to so many threatened species.

Restoring the health of our hedgerows with a phone

Landowners are using our app to discover how their hedges are faring and how to make them better homes for wildlife.



) Tony Skerl/Shutterstock.com

A the end of our *Close the Gap* hedgerow project, there was great cause for celebration. Our mission, along with our partners (below) was to promote healthy hedgerow management and surveying for wildlife. In just 14 months, hedge-owners and volunteers surveyed an astonishing 223km of hedgerow.

.....

Building on *The Great British Hedgerow Survey*, we developed a simple *Healthy Hedgerows* app for farmers and other owners. On answering six simple questions about your hedge, the app reveals where the hedge is in its lifecycle and how best to manage it for efficient farming and abundant wildlife. At the last count, the app has been used to assess 1,192 hedges.

A hectic promotional campaign comprising nearly 40 training events and talks, extensive traditional and social media coverage, advertising and e-newsletters all contributed to the success. One owner of a large estate was so inspired that he's used the app to assess 40km of hedges. Discovering that many of them were over-trimmed, he's devised a 10-year plan to manage them back to full health. Every event held seemed to open more opportunities for improving hedges.

This project is funded by the government's Green Recovery Challenge Fund. The fund is being delivered by The National Lottery Heritage Fund in partnership with Natural England and the Environment Agency.

Typhoon Rai derails rat conservation in the Philippines

Our partner Jay had to postpone his work on Dinagat Island after it was lashed by 120mph winds.



e were shocked when Typhoon Rai hit large parts of the southeastern islands of the Philippines in December 2021. Coastal areas were ripped to shreds, and hundreds of people were killed, including several on Dinagat Island.

PTES project leader **Jay Fidelino** has been waiting for two years to get to Dinagat Island, to start his research. PTES is funding Jay to help moonrats and hairy-tailed rats survive on the island. These animals are endemic to Dinagat – they're found nowhere else on earth – and they're threatened by mining activities.

Winds of 121mph hit the islands two weeks before Christmas. It was one of the first provinces to be lashed by the ferocious typhoon. Almost 95 per cent of homes lost their roofs, and even the evacuation centres were destroyed. It will take a huge efforts to restore towns and villages and rebuild peoples' lives.

We really hope the communities and wildlife of the region can recover in the coming months. Jay will get to Dinagat when it's possible and assess the damage. We hope to report better news in the near future.

We are sad to report that John K. Fawcett, author of *New Forest Roe Deer*, which was published by PTES and featured in our last issue, died peacefully in March, aged 92. John was passionate about wildlife and a great supporter of PTES. Our thoughts are with his wife, Jeanne, and their wider family.



Fighland tiger to roar again

Loss of their natural forest habitat and persecution led to the eradication of wildcats from England and Wales in the late 19th century, as well as their decline in Scotland. In the second half of the 20th century hybridisation with feral domestic cats exacerbated these losses. Today, the species is on the brink of extinction in Scotland (the only place where they are now found in Britain), which is why we're helping to fund Saving Wildcats, a pioneering conservation initiative headed up by the Royal Zoological Society of Scotland (RZSS).

Wildcat return



The **Saving Wildcats** team is busy monitoring a site in the Cairngorms, and releases could start as early as 2023.

t the heart of Saving Wildcats is a captive-breeding programme that has been established at Highland Wildlife Park in the Cairngorms. This is building on long-established breeding work carried out at 32 zoos and wildlife parks throughout the country, with the aim of having sufficient wildcats so that releases into the wild can start in 2023. About 20 individuals will be released into the site within the Cairngorms National Park in the first year, with further releases planned thereafter.

Caught in a camera-trap

But before any releases can take place, Saving Wildcats must make sure that the habitat is suitable and that interbreeding with feral cats won't be a problem. Since April 2021, four conservation project officers have been monitoring the chosen site using camera-traps to assess numbers of prey such as water voles and rabbits, and of domestic cats, with more surveys set to be carried out in both the north and south of the park.

Local engagement

The good news is that very few feral cats were found, which lowers the risk of hybridisation. The team has also been engaging with landowners and local people, holding three drop-in style community engagement sessions. Saving Wildcats is encouraging pet-owners to have their cats microchipped, neutered and vaccinated, and any feral animals discovered in the release zone will be trapped, neutered (if necessary), vaccinated and returned to their owners.

European extras

All released cats will be fitted with GPS collars that will allow the monitoring team to track their movements and behaviour, and a network of camera-traps will continue to be deployed as well. Because wildcat numbers in Scotland have sunk so low, and the population is now-considered 'non-viable' by the world's wildlife authority, the IUCN, Saving Wildcats is also considering bringing over cats from Europe to boost the gene pool. A 'Sponsor a Wildcat' initiative has been launched this year to stimulate public engagement with the project and raise funds.

Find

Scrapbook

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

A spring clean

Spring has sprung in our Briddlesford woodland on the Isle of Wight. Some of our staff have been preparing the dormouse nest boxes for the beginning of the monitoring season. With several hundred boxes to check, there are repairs to make and cleaning to do as well as maps to update. We're looking forward to our first check of the year in May.



Open orchards

PTES is celebrating an annual celebration of fruit trees, flowers and food that launches this April. Orchards across the nation are opening their gates for Orchard Blossom Day. Enjoy orchard tours and activities with your family, and feed your senses on the beauty of fruit tree blossom. See buzzing pollinators, eat and drink tasty orchard products, and enjoy the fresh spring air. Find your local open orchard on the UK Orchard Network website: www.orchardnetwork.org.uk





We found this sleepy dormouse while cleaning the nestboxes in Briddlesford Woods

Dear PTES,

My name is Miles Hayward and I am 8 years old. I love animals, especially sloths. I decided to make hot cross buns and sell them in our neighbourhood to raise money for charity. I raised $\pounds 200$ and decided to give the money to the People's Trust for Endangered Species to protect all the different kinds of animals on our planet.

I felt proud that I raised all this money. I hope to do it again this year, only this time I am going to make more hot cross buns because our neighbours' said they were yummy.

Best regards

miles

Endangered embroidery

A group of embroiderers, who call themselves the South Devon Stitchers, have sewn up a spectacular project. The sampler features the endangered species of Devon, from Dartmoor down to the sea in Torbay, including pearl-bordered fritillary butterflies, blue ground beetles and cirl buntings. You can view their intricate work at a special exhibition at Torre Abbey, in Torquay, from Saturday 30th April to Sunday 3rd July 2022.

© PTES, Miles Hayward, South Devon Stitchers, iStockphoto / JaysonPhotography, Visit Our Iran, Little Fireface Project

PTES NEWS



Next generation fund-raisers

It's especially inspiring when young people get involved with nature and so we were pleased to learn that two schools chose to support PTES recently as part of their activities. Children from Ashton House Primary School had great fun learning about snow leopards and raised a wonderful £50 to help protect them. And students from a secondary school, Morpeth Academy, organised a non-uniform day and raised an incredible £701. Including the next generation in conservation is so important, and we're really grateful to all the children for their fundraising.



miles and a froggy frier



A day in the office with... Emily Sabin, Water Vole Officer



I joined PTES in February as the Water Vole Officer to coordinate the National Water Vole Monitoring Programme. I recruit and support our lovely volunteers to survey for water voles, as well as improving aspects of the programme such as website functionality. We are currently trialing the use of floating latrine rafts to help surveyors find evidence of water voles more easily. I'm particularly excited to be developing new online and in-person water vole training for volunteers, ecologists, and enthusiasts.

After obtaining my BSc in wildlife conservation in 2017, I worked at the Bumblebee Conservation Trust and a wetland restoration project in West Sussex heavily focused on water voles. I'm now a consultant ecologist alongside my role at PTES. I teach wildlife identification workshops and carry out protected species surveys, with the bulk of my work focusing on bats.

I've also trained my two working dogs to detect water vole droppings. They can search areas that are inaccessible to people and cause less disturbance to a habitat than humans unintentionally trampling vegetation. I train with conservation detection dog specialists, so don't try this at home!

I am loving my new role and I look forward to receiving everyone's water vole survey data later this year. If surveying 500m along a waterway, once a year in early summer, looking for water vole, mink, and otter signs sounds like your cup of tea, then why not give it a go?

In search of Persian leopards

Visit Our Iran has just launched an adventurous wildlife tour. Trips take you to some of Iran's most notable national parks where you accompany rangers on their daily adventures to discover the untouched beauty of the country's

nature and wildlife. Species you are likely to encounter include wild sheep, gazelles and ibex, while your guides will keep their eyes open for any signs of Persian leopards – the species protected by one of our conservation partners (see p17 for more). Please contact Pouyan Saghatoleslami to discuss dates and options via email at pouvan.visitouriran@ gmail.com or visit thewebsite at: www.visitouriran.com



Emily's dogs can detect

water vole dropppings



One of our wonderful supporters is decorating nest boxes and donating any proceeds to us. Thank you Christ



Net benefit

Our Conservation Partner, Anna Nekaris, has shared some fantastic photos from Java. Usually. Anna and her Little Fireface Project team hold an annual festival in Cipaganti village to celebrate their slow loris work by holding a huge football tournament. The pandemic prevented it last year, so Anna was asked to sponsor the village badminton team which she thought was a great idea. We're delighted that the team shirts feature our PTES logo. Don't they look smart!

The population of saigas once numbered in the millions and the species was spread across a vast swathe of South-east Europe and Central Asia and as far east as Mongolia and China, but hunting and disease have caused huge declines over the past 100 years or so. Now some conservationists are trying to work out how to help this strange-looking antelope.

Born, Survivors

Saigas once formed some of the biggest herds of any mammal in the world, but their numbers shrank dramatically during the 20th century. Now PTES is helping to give one small population a sustainable future through a new five-year Conservation Partnership.

f you've ever seen photos of rusty ships marooned on an arid plain far from any obvious body of water, then you've probably been reading something about the Aral Sea. This inland sea of Central Asia, once the world's fourth largest lake, dwindled to less than 10 per cent of its original size during the second half of the 20th century when what was then the Soviet Union diverted the rivers that fed it to grow cotton and other crops.

Generally agreed to have been one of the worst man-made environmental disasters of the last century, it annihilated the region's once vibrant fishing industry, while pesticide-use for agriculture left a legacy of pollution.

One of its less well-known consequences was the opening up of

Resurrection Island (Vozrozhdeniye), which spans both Uzbekistan and Kazakhstan and which became accessible by land for the first time in 400 years as water levels in the Aral Sea receded.

For centuries, the island – as well as being home to a secret Soviet base during the 20th century where biological weapons were developed – had protected a small population of saigas, a species that by consensus is often described as 'the world's weirdest antelope'.

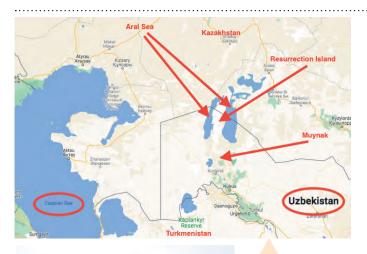
You can see why. That bizarre, bulbous nose looks as if it's evolving into an elephant's trunk while, together with the long, ringed horns, their faces make them resemble extras in one of the *Star Wars* films. Look again and you'll also see a prominent black tear line that stems from the corner of their eye like make-up that has run in the rain, adding to a sense of world-weariness and despair.

Of course, saigas don't actually feel world-weary, but they could be forgiven for doing so, with their numbers fluctuating dramatically throughout the 1900s and into the 21st century (see box, p15). Those on Resurrection Island have become more vulnerable to poaching, while the other population in Uzbekistan (which also migrates from there to Kazakhstan) is found on the Ustyurt Plateau to the west of the Aral Sea and is also facing greater pressure with habitat loss and poaching.

For these reasons, PTES is funding important work by the **Saiga Conservation Alliance (SCA)** in Uzbekistan. SCA founder, **Elena Bykova**, supported by her daughter

OUR WORK WITH SAIGA ANTELOPE

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Olya Esipova, is studying the Resurrection Island population properly for the first time to better understand how many saiga are there, which areas they use and how to best avoid causing negative impacts on them or their environment.

But there are many challenges. The primary monitoring method involves carrying out transect surveys in vehicles and collecting records of where the saiga herds are found, as well as examining droppings and even dead animals. But because the island is composed of unstable clay soils, there are few suitable roads for driving on. Remote camera traps are also used, but these have their drawbacks too.

'Saigas are very shy animals dispersed around a massive land area, and it's only a small population we are monitoring, so it's actually very difficult to collect good photographic records,' Elena explains. An alternative that may become possible in the future is to use satellite imagery which could be used to identify where the animals are.

'Once we know more about the saiga groups on and around Resurrection Island, we will be able to use this data to design a new biosphere reserve in the region,' Elena adds. 'Having a new protected area will make a big difference for the remaining resident saiga group and for other endangered species found there.' **ABOVE:** The shrinking of the Aral Sea has turned Resurrection Island into a peninsula of land, leaving the saiga that live there more vulnerable to poaching.

LEFT: Calves are born over a one-week period in May and can outrun predators at just a few days old.

To make matters worse, saigas are vulnerable to mass die-offs caused by a respiratory, bacterial disease that may be triggered by warmer and more humid conditions. In 2015, some 200,000 animals in Kazakhstan died in just three weeks.

They may look strange, but saigas are – in Elena's words – 'typical inhabitants' of the vast steppes and semi-deserts of Central Asia. They prefer flat landscapes with clay soils where herbaceous vegetation thrives. They feed on a wide variety of plant species, some of which are poisonous to other herbivores, and by feeding on succulent plants (those with fleshy leaves and stems in which they store water), they are able to go without needing to drink water for extended periods.

Elena and Olya believe that the Aral Sea area, and the saigas and other wildlife that live there, have huge tourism potential and could provide a sustainable source of income for local people. Residents of Muynak are in dire need of something – it was once a thriving port on the Aral Sea but is now 150km from what is left of it. But a lot of work must be done before this can become a reality.

The SCA is also working in the Ustyurt Plateau (the region to the west of the Aral Sea). Here, a different group of saigas overwinter after spending the summer across the border in Kazakhstan. And here, too, poaching has taken its toll, with saiga



skulls, horns and bones scattered across the desert as if it were 'a cemetery of dinosaurs', says Elena.

She and her colleagues are working with building relationships with schools, women's groups and former hunters to promote saiga conservation. 'I want to test the theory that women are a powerful voice in households,' Elena says. 'If they see the benefits of saigas as part of their culture, they will tell their sons and husbands not to poach them and not buy saiga meat themselves.' Public engagement, she believes, can make a real difference in saving the saiga.

But Uzkekistan's saigas are not just threatened by poaching. Industrial development is expanding across the region, especially natural gas and mineral extraction. People in the region certainly require something in the way of jobs and economic opportunities.

Conservationists from the Durrell Institute of Conservation and Ecology at the University of Kent are working with the SCA to map what's going to happen and see what impact it may have. In some cases, according to senior lecturer Dr Joseph Bull, they can redesign projects to minimise any negative effects and, in others, they may have to offset for losses by restoring habitat in other places.

One of the issues they are currently working on is how to build roads that

OUR WORK WITH SAIGA ANTELOPE





ABOVE: The bizarre-looking nose of the saiga has evolved to filter out dust from the air they breathe in. It also helps to warm very cold air during the winter and cool warm air down in the summer. The large snozzle also enables males to make a very loud roaring sound which advertises his fitness and good genes during the mating season.

LEFT: Only males have horns, which are highly valued in Traditional Chinese Medicine as a treatment for fever. As a result, poachers tend to take more males than females, and this has led to a gender imbalance in herds, leading to decreases in birth rates and genetic impacts, too.

saigas are happy to cross so they can continue to move around their range. It's thought that saigas are too skittish to use green bridges or underpasses, so the idea is to try and make roads look as invisible as possible, with a very shallow embankment and not much of a dip. If you do that, do you need to put up signs warning drivers to look out for wildlife? 'But will anyone pay attention to that?' asks Bull. 'Alternatively, you could put in different road surfaces or something that encourages you to slow down. It's a bit of an unknown how best to design crossing points for saigas.'

Saiga conservationists face many challenges as they try to find a way to allow these strange, sad-looking beasts to navigate their way through the 21st century. There were many ups and downs during the 1900s that nearly resulted in their extinction, but they are one of nature's great survivors, and if given even a moderate amount of time and plenty of space, populations can quickly recover.

Certainly, PTES will be doing everything in its power to make sure the creatures that seem to come from a galaxy far, far away make it into the 22nd century – and beyond.

Saigas of the steppe: ups and downs

- Saiga antelope were once spread over a vast area of South-east Europe, Central Asia as far east as Mongolia and North-west China, with a total population in the millions.
- ▶ By the early 20th century, over-hunting (for their meat and horns) may have reduced numbers to an estimated 1,000 animals.
- Saiga received legal protection in 1919, and had recovered to an estimated 1.3m in Kazakhstan and 540,000 in Russia by 1960.
- > Commercial hunting was allowed to take place again in the 1950s until 1990.
- The break-up of the Soviet Union, however, led to a weakening of protections for nature, while the opening up of international borders stimulated opportunities for the trade in their horns.

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- By 2003, there were estimated to be only 21,000 saiga in Kazakhstan, and the species was assessed as Critically Endangered.
- Numbers grew again on the back of increased protection to an estimated 300,000, but a mass die-off of 200,000 saigas, caused by a naturally occurring bacterium, took place in 2015.
- As of 2018, the global population was estimated to be some 165,000 in Kazakhstan, 5,000-6,000 in Russia and 5,000 in Mongolia.

Saiga were hunted for their meat and horns



Conservation **Partnerships**

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From the lowland rainforests of Peru to the high mountains of Mongolia, our partners are making a huge difference to the outlook for some of our the world's rarest mammals. PTES Conservation Research Manager Nida Al-Fulaij casts her eve over their latest achievements.

Giant otters, Peru Adi Barocas, **Giant Otter Conservation Project**

ur conservation partner, Adi Barocas, has been busy over the past few months, working with local communities in the Madre de Dios region of Peru while studying the behaviour of giant otters.

Adi's keen to understand what the impacts of artisanal, small-scale goldmining are on oxbow lakes, fish stocks and the giant otters that rely on them.

Gold-mining is one of the most important livelihoods in Madre de Dios, a region in south-east Peru that has some of the largest, untouched areas of rainforest in the country. However the process of extraction - and the use of mercury in the process, especially – is very damaging to the environment.

Once mercury gets into the food chain, it acts as a powerful and deadly neurotoxin. It accumulates in increasing quantities as it goes up the food chain, leading to fish being toxic for human consumption,

especially for pregnant women and children

But many households are dependent on gold-mining for their incomes, so a way in which it can continue without having these negative impacts needs to be found. Adi is investigating which drivers encourage local communities to participate in environmental conservation and which ones stop them.

Adi's team spoke to people from 85 households in six communities in the Madre de Dios 'gold corridor'. Half of them were concerned about the effects of deforestation, loss of fish stocks and declines in wildlife abundance. They were willing to take part in conservation measures to address these issues.

Others were worried that proposed policies around gold-mining were peppered with too many bureaucratic barriers. Adi's survey demonstrates that there's a need to act while communities

remain concerned about wildlife and the environment. but that current policies need to be changed. Active involvement with the communities to put in place plans that will aid conservation efforts and enable them to continue mining sustainably are urgently needed.







Slow lorises, Java Anna Nekaris, Little Fireface Project

nna Nekaris, who works on slow loris conservation in Java, has been making great headway with her wildlife-friendly coffee. Last September, she and her team distributed hoes to farmers who collaborate with them on their Wildlife Friendly[™] Coffee Project in Cipaganti and Pangauban, West Java.

This equipment is essential for the farmers to manage the plants and weeds in their coffee plantations without having to use herbicides that damage the surrounding environment. The distribution was warmly welcomed by each leader of the farmer's group, Pak Ajum and Pak Janjan, who expressed gratitude for being part of the Little Fireface Project's programme on behalf of their farmer group members.

IndoChina and Missing Bean are two specialist companies that have been helping Anna's team to get this wildlifefriendly coffee imported to, and sold in, the UK. The coffee has been graded so highly it has been confirmed as a speciality coffee, and I can attest to that: I drink it every morning and it's delicious.



Lions, Tanzania Amy Dickman, Ruaha Carnivore P<u>roject</u>

my Dickman continues protecting large carnivores and other wildlife in two landscapes in Tanzania. She and her team have run their Community Camera Trapping Programme for some years, with clusters of villages competing to gain the highest number of points by taking photographs of threatened wildlife using their community land.

Building on this, Amy is piloting a Wildlife Conservation Contract. Malinzanga



village stepped up to the challenge, signing a contract last autumn. As well as rewards for footage of wildlife, the contract introduces penalties if snares are found to have been used or a carnivore is killed.

The village successfully completed its first three-month trial and it is keen to sign up to another six months. The whole village attended a celebration to mark the occasion and to share the successes and challenges of the project.

Persian leopards, Iran Mohammad Farhadinia, Future4Leopards

n Tandoureh National Park, **Mohammad Farhadinia** is busy planning the next stages of his work for the leopard population that lives there. His rangers



have recently discovered that the home ranges of some of the leopards lie north of the park boundary, close to the Turkmenistan border, and now the team want to find out more.



LEFT: Camera-trap images of large carnivores such as lions help villages in Ruaha earn money for community projects. RIGHT: Rangers in northern Iran are monitoring the leopard population.



Snow leopards, Mongolia, Bayarjargal (Bayara) Agvaantseren, Snow Leopard Conservation Foundation

now leopards are more elusive than any other big cat, making accurate populations counts extremely hard – up until now.

But we're delighted that an unprecedented study has thrown light on the distribution of snow leopards in Mongolia, led by Mongolian scientists and conservationists, including our conservation partner Bayara Agvaantseren, and supported by several international experts, including the International Snow Leopard Trust.

The estimate is somewhere between 806 and 1,127 individuals, a significant proportion of the global population, usually given as between 4,500 and 7,500.

The study covered nearly 500,000km² and was carried out over five months by 12 teams consisting of more than 210 field personnel. The teams traversed almost 20,000km of transects, of which 6,794km were covered on foot. The team estimated that only 5 per cent of Mongolia's land area has a high probability of being used by snow leopards, with 8 per cent having a moderately high chance of being used and 14 per cent a moderately low chance.

With this new information, the government will now be able to make informed decisions on where to prioritise conservation measures and it will help it understand the impact of infrastructure developments. The Altai Mountain range, in the far west of Mongolia, and the Eastern Soyon Mountain range in the north, have been identified as strongholds, meaning these habitats must be protected at all costs.

Replicable surveys are critical for evidence-based policy decision-making, and this sets a great precedent for future work that will help protect the remaining snow leopards more effectively. Mapping these cats seemed like an impossible goal, but this new study marks one of the first major

achievements of the ambitious initiative, Population Assessment of the World's Snow Leopards.



© Snow Leopard Concerns

Results of a new survey suggest there are between 800 and 1,100 snow leopards in Mongolia

Rare African wildlife hit by rain drain

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Climate change is leading to unpredictable rainfall patterns in northern Kenya and impacting both wild and domestic animals.

severe drought over the past year and a half has taken a severe toll on wildlife and people in northern Kenya.

PTES partner **Dr Abdullahi Ali Hussein**, who runs reticulated giraffe, hirola and zebra conservation programmes, says it's been 'probably the worst drought I have ever witnessed', with mass mortalities of both these, and other species. 'We lost 100 giraffes and 35 hirolas (a rare antelope only found in a small part of north-east Africa) over a period of three months,' Ali tells us. 'The remaining wild animals were in poor body condition, making them susceptible to diseases.'

The direct impacts of the water shortage was compounded by two other consequences – the encroachment of pastoralists into core wildlife areas that



triggered greater human-animal conflict and increased poaching as local people looked for alternative ways of feeding themselves. Ali says that three sets of rains

have failed - those

that usually come October-December in both 2020 and 2021 and the March-May 2021 rains, too. Since October last year, he and his team at the **Hirola Conservation Program** (HCP) have made a number of targeted interventions, including trucking water to water holes in areas for both wildlife and livestock, repairing damaged water holes and constructing new ones.

In addition, they provided food for both grazing animals and wildlife, carried out vaccinations for domestic goats and cattle, and veterinary treatments for wildlife.

Rainfall patterns in the region have become increasingly unpredictable in recent years, which Ali says is down to climate change. To counter this, the HCP is restoring the natural grassland habitat (on which hirolas depend) and helping local people find sources of income that are not wholly dependent on livestock.

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Threatened kings of the wild frontier

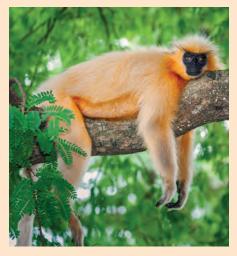
In a small corner of north-east India and southern Bhutan, conservationists are fighting to save the rare golden langur.

www.ith their beautiful wavy coats and luxurious appearance, golden langurs look as if they should be appearing on a fashion show or *Top of the Pops*, but – somehow – they're not well-known and and are consequently below the radar in terms of conservation priorities.

The species is only found in a very small area of northern Assam, in India, and southern Bhutan, with a total range covering 30,000km². But with much of the habitat degraded and fragmented, they survive in less than 4,500m² – about the size of two average English counties.

Indeed, things have got so bad for golden langurs they are now regarded as one of the world's top 25 most endangered primates, with fewer than 10,000 surviving in the wild. To protect them from further decline and possible extinction, PTES is funding **Dr Jihosuo** **Biswas** of the **Primate Research Centre** to protect and restore critical forest habitat.

Golden langurs are highly dependent on trees, living in the upper canopies of tropical deciduous and evergreen forests,



though they can tolerate a wide range of altitudes, being found from near sea level in parts of Assam to above 3,000m in Bhutan.

The key issue is to get better protection for those forest areas where golden langurs are still found. To this end, Biswas is providing government officials with data showing where they are found. This has resulted in the upgrading of Kakoijana Reserve Forest, in Manas Biosphere Reserve, to a Wildlife Sanctuary and the inclusion of Chirrang Reserve into Raimona National Park.

Biswas is also working with local partners to plant trees that will create forested corridors linking fragmented golden langur populations. And they are putting in special canopy bridges that allow langurs to cross busy roads that would otherwise be a potentially fatal hazard.

Caribbean turtles making a comeback



Our partner in the Turks and Caicos Islands has played a significant role in creating a brighter future for their turtles' future.

ew regulations protecting green and hawksbill turtles in the Turks and Caicos (TCI) Islands in the Caribbean appear to be contributing to the recovery of both species.

Fishing of turtles is permitted in TCI, but in 2014 new regulations came into force that brought in a maximum size limit to protect sub-adult and adult turtles and also an eight-month closed season for hawksbills.

The measures were drafted thanks to data collected by the Marine Conservation Society (and with help from funding from PTES), and last year - after a series of covid-related delays - the MCS's Amdeep Sanghera returned to TCI to assess what impact they are having.

Amdeep spoke to local turtle fishermen and found there was an encouragingly high knowledge and acceptance of the new laws. The TCI government's enforcement officer Tommy Phillips told Amdeep, 'Before the new turtle laws came in, fishermen would catch large turtles. But with the new regulations, that doesn't happen any more. People understand you have to protect the breeding animals."



Local fishermen confirmed this, with one saying the new laws 'were good for TCI' and that protecting turtles would help tourism.

Amdeep has also carried out surveys of the uninhabited island of East Caicos and found green turtles nesting on its northern shore, while surveys on other islands have also suggested increased nesting numbers.

Amdeep and the MCS will now work on developing recommendations for further improving the way the turtle fishery is managed and will carry out ongoing awareness-raising to ensure all TCI turtle fishermen know the rules.

'It is this scale of comprehensive, conservation engagement, fisherv management review and better awareness and enforcement that will help secure a brighter future for turtles in the TCI and the Caribbean region,' says Amdeep.

The horns of a dilemma

Why people in Vietnam and China use rhino horn may be baffling to people in the west, but it's vital we understand their motives if we're to save rhinos.

bout 10,000 rhinos - the majority of them white rhinos in Africa - have been taken by poachers over the past decade, fuelling concerns about the long-term survival of all five species.

Stopping determined, well-armed poachers is extremely hard. It's generally agreed that the best way to tackle this issue is by reducing demand for horns from rhinos that have been illegally killed.

But how do you do that? One solution could be to provide people who use rhino horn, usually for its perceived medicinal benefits, with a legal alternative that comes from sustainable sources. In South Africa. many rhinos are 'dehorned', while horns from animals that have died are collected. Some experts say these stockpiles could be sold without any impact on wild rhinos. It's hard to predict what would happen

if a legal supply of rhino horn came onto the

market. That's why PTES funded a study by Vu Hoai Nam Dang from the University of Copenhagen into what the impact might be. He and his colleagues interviewed 345 Vietnamese horn users and asked them whether they would buy legally traded horns.

One of the conclusions of their study is that users wouldn't necessarily change their purchasing habitats - the very richest users,

especially, would prefer their horn to come from truly wild animals as opposed to those that are ranched.

That's because. says one of Nam Dang's co-authors Martin R Nielsen, they perceive the horns from farmed animals to be inferior and to

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have less efficacy. 'Hence, a legal trade would be likely to continue to face competition from a parallel black market,' he adds.

PTES's Nida Al-Fulaij says we need to understand why people buy rhino horn if rhino conservation is to succeed. 'Without addressing demand, poaching will continue, no matter how many armed rangers we send out to protect them,' she says.



Fruits of the orchard

Though only three hectares of land, our Rough Hill reserve provides great habitat for a range of beetles, and we're doing everything we can to ensure they continue to prosper.

Preserved on a steep bank above the River Avon in rural Worcestershire, the PTES-owned Rough Hill reserve is a traditional orchard that's also critical habitat for rare invertebrates.

How critical became even more apparent last year following a survey of the dead-wood-loving – officially known as saproxylic – insects. The research, carried out by our expert **Dr Keith Alexander**, found 56 beetle species, of which 15 had not been identified at Rough Hill before, bringing the total of number of saproxylic beetles in the orchard to 102.

Notable discoveries were a number in the British Red Data Book (which means they are especially rare), including a false click beetle, a hairy fungus beetle and a hide beetle.

The reason why Rough Hill is so good for these types of beetles is that it was established 112 years ago in 1910, meaning that many of the fruit trees planted then are now very old and have features such as cracked bark, splits and hollow trunks. That's great news for beetles whose larvae require rotten wood for the first phase of their life cycle, but for many years – before PTES acquired the site – Rough Hill was neglected and no new trees had been put in for many years.

This is important because an orchard is not just important for its rotting wood. Fruit tree blossom is a valuable source of food for pollinating insects in the spring while the ripe fruit will be eaten by hungry birds and invertebrates in the autumn and winter.

With this in mind, PTES has been working hard over the past decade to make up for some years of neglect. 'We've planted 88 new trees since we bought the reserve, and we're looking to keep all the other trees alive for as long as we can,' says **Conservation Officer, Laura Bower**.

Bramble and hawthorn scrub provides cover for nesting birds, and during the summer, the orchard is home to a pair of turtle doves, once a common species in southern England, now one of its rarest after several decades of steep decline.

Some scrub is OK, but too much would be a problem if it started to impact the fruit

trees, so a small herd of cattle grazes the orchard at various times during the year, usually beginning in the spring.

With the help of our grazier, we try to make sure the cattle are keeping the scrub sufficiently under control without poaching the ground. It's a fine balance.

Find out more www.ptes.org/roughhill

Orchards and biodiversity

- Orchards are areas of trees and shrubs planted for the fruit they produce. Many of our fruit trees were brought over by the Romans, but the development of orchards may date back more than 6,000 years.
- They are associated with many species – one rare insect that's traditionally found in orchards is the noble chafer beetle, whose larvae live in decaying wood within living fruit trees.
- Orchards can also be really important for plants such as mistletoe (a tree parasite) and many species of fungus.





PTES IN ACTION

endangered

Rising up?

New report shows that there are some glimmers of light for the state of hedgehogs in the UK. with numbers stable or even rising in urban areas.

ow are Britain's hedgehogs faring? Certainly considerably less well than they were 20 years ago, with those in rural areas having declined by as much as 75 per cent in that time. If you live in a village, then it will be no surprise if you are seeing far fewer hedgehogs than in the early 2000s.

And while the picture is not totally clear, the State of Britain's Hedgehogs 2022 report explains that we do now have a better idea of what is driving down their numbers - mainly, the impoverished state of their rural environment. Loss of landscape features such as hedgerows has undoubtedly been a factor, but so is declining abundance of invertebrates that they feed on and increasing fragmentation of their habitat.

There is some good news, however. Populations in urban areas appear to have stabilised, or may even be recovering in some parts of Britain, Gardens, amenity grasslands and other green spaces in our towns and even cities are now believed to be vital refuges for hedgehogs, and we now understand how to make sure they are good habitat for them.

In this context, the launch of Hedgehog Street by PTES and the British Hedgehog Preservation Society in 2011 has helped enormously. More than 100,000 people have signed up as Hedgehog Champions and pledged to help lead community action to help animals in their area (see box).

But we desperately need more information about the extent of the population decrease, especially in rural areas, and why it's happening. That's why PTES is helping to fund research at Nottingham Trent University which is investigating the relationship between

hedgehogs and badgers - the two species compete for food such as earthworms and beetle larvae, and while hedgehogs are known to actively avoid areas where badgers are active, they do co-exist.

- Hedgehog Street encourages members of the public to get involved in community-based conservation action.
- The most important step anyone can take is to create access holes in garden fences to allow hedgehogs to roam freely – to create so-called 'hedgehog highways'.
- Other ways to help hedgehogs include eliminating any use of chemicals such as slug pellets, leaving small garden areas to grow wild and getting rid of potential hazards such as discarded netting.

Getting to know our dolphins

PTES has been funding marine biologist Claudia Afeltra to enhance our understanding of the bottlenose dolphins of Cardigan Bay, off the coast of Wales, by updating and improving the population database.



ritain's largest population of bottlenose dolphins, an estimated 200 individuals, is found in Cardigan Bay off the coast of west Wales.

It's important this population is monitored closely to see how it's faring and whether anything is happening to their habitat that might affect their ability to survive and reproduce.

The Sea Watch Foundation – the main conservation NGO working in Cardigan Bay – has been identifying bottlenose dolphins from their fins since the 1980s, and there's now a huge catalogue of more than 400 individuals.

Some of the animals in the database have almost certainly died in the intervening years, while others will be transient dolphins, visiting the area from time to time. But no one knows for sure, and we'd like to.

That's why PTES has been funding marine scientist Claudia Afeltra to go through the catalogue and make it more user-friendly, as well as liaising with other conservation groups to see which dolphins various separate databases have in



common. This should help us to understand more about how dolphins are moving around our coastline.

One of the intriguing discoveries in 2021 was the reappearance of a dolphin known as Tigger, who had been regularly seen in 2019 but then abruptly disappeared the following year.

From the catalogue, scientists know that Tigger is 11 years old and, though they aren't certain, they suspect he is a male. That's because males reach sexual maturity aged 13-15, and around this time they may change their behaviour - which could explain his disappearance.

'When we saw him last, he was alone with another dolphin which could suggest he's found himself a male friend that he's bonding with,' says Claudia. This would be typical male behaviour as they reach breeding age. Welcome back Tigger! •

Wildlife World 21

Thanks to you

As ever, we can't do any of the work you're reading about in this issue of *Wildlife World* without the support of our donors, volunteers, scientists and everyone who supports PTES in whatever capacity. We've achieved a lot in the last six months, so thank you to everyone who helped.

Return of the dormouse

A warm thanks to everyone who donated to our dormouse reintroduction project last June. This one was particularly special because we released our 1,000th dormouse into the wild.

In the months following the reintroduction, our volunteers provided food to help the dormice settle into the woodland and regularly checked the boxes to see how they were getting on. And the great news is that, after initially releasing 30 dormice, volunteers found 50, including eight litters, later in the year. It looks like the dormice have settled into their new home and are raising the next generation in the wild, thanks to PTES donors.

Our Dormouse Officer, Ian, is now planning this year's reintroduction, which will take place in an adjacent woodland.

A big thank you to Warner's

Proceeds from the sale of our commercial partner's delicious gin is proving to be a tonic for wildlife!

Warner's Distillery is about more than just a good gin and tonic, though they've got that one down to a tee; they're about knowing

exactly what goes into each and every sip, and putting as much back into the earth as they've taken from it. Warner's is a 1% for the planet company, and they've specifically partnered

with PTES to support our hedgerow and related work with a portion of the proceeds from their delicious raspberry gin.



Offsetting the drought

Those of you who receive our monthly online newsletter *Wildlife World Bitesize* will have heard about the terrible effects of the drought that plagued eastern Kenya at the end of last year.

We sent emergency funding to **Ali Hussein's** team on the ground, so they could provide food and water to the animals affected. Ali used the emergency funds to provide desperately needed water to wildlife, livestock and households. He and his team also repaired and constructed water troughs, supplied feed, and set up an animal rescue service for animals physically injured due to the drought. He's now working



on clearing the historical watering points at the River Tana that had become blocked by invasive shrubs and farming. It's important work, and we're very grateful to donors who gave over £6,000 to this emergency appeal.

Find out more ptes.org/ways-to-give/emergency-giraffe-appeal

Spending for wildlife

Thank you to everyone who bought something from our shop last year.

Sales from 2021 and our Christmas catalogue raised over £75,000. All profits go directly to help wildlife both in the UK and overseas. We'll be refreshing our virtual shelves and hope you will continue to love shopping with us in 2022.

Left: Mackerel Cork coasters and placemats from £3; right: Blackbird & Bramble Cosmetic bag £20



Edward goes green

We'd like to thank all our wildlife-friendly gardeners for welcoming the many mammals, birds and insects that live all around them.

One gardener, Anita, created a haven for wildlife in her garden by planting trees, growing wildflowers and vegetables, building log piles, putting up a hedgehog house and letting a few areas go wild to allow wildlife to thrive.

Anita is passing on her love of nature to the next generation, and her 9-year-old son, Edward, has already made his mark on their garden. During lockdown, Edward created an insect hotel so that stag beetles and other bugs would have somewhere to shelter. Using old egg boxes, tin cans, leaves, stems and pinecones, he built the perfect home for insects. His creation even won him first prize in the junior category of the Harrow Go Green competition.

Thanks to all of you – you really are making a difference by making a home for wildlife. ${\bullet}$

Charity begins in Egham

Our charity shop in Egham continued to raise funds from pre-loved goods, notwithstanding covid lockdowns and a disastrous sewage leak!



Even in lockdown, some sales continued over eBay and Facebook. Thank you so much to the staff, volunteers and loyal, local customers who helped raise nearly £30,000 by the end of the year.

Pet insurance company is truly the animals' friend!

Everyone who voted for PTES in a special festive charity competition has helped us secure a further £20,000 that will help our conservation work.

We're grateful to Animal Friends Pet Insurance for including us in their Christmas Charity Giveaway. Animal Friends selected five different charities with a corresponding endangered species

stock com Bachkova Natalia / Shutterstock com Warners. Somali Giraffe Project. Martina Nowak / Shutterstock com

for each and allowed supporters to vote for their favourite one.

Thanks to everyone who voted for PTES, giving us the second highest number of votes and a £20,000 donation for snow leopards! ●





Nine-year-old Edward was busy in lockdown creating a bug hotel out of egg boxes, tin cans and pine cones, which won him first prize in the junior category of the Harrow Go Green competition.



Action for hogs

The nation's hedgehogs thank you! We had a wonderful response to our latest hedgehog appeal, raising over £42,000 to help protect our spiny friends.

You might have seen that we released our *State of Britain's Hedgehogs 2022* in February (this issue, p21), with our friends The British Hedgehog Preservation Society. This overview of hedgehog conservation shows

it's become increasingly apparent that more work is needed to protect our rural hedgehogs. All your support will help us do that. We've seen that after years of work, fundraising and community action, the urban hedgehog populations look like they are starting to stabilise. Thanks to everyone who is helping hedgehogs, either practically, or by funding research and conservation work. It's really making the difference.





Comfortably winning the title of 'Sleepiest British Mammal', hazel dormice hibernate for at least five months of the year in nests under the leaflitter on the forest floor or at the base of a tree stump. A woodland species, they feed on flowers in the spring when they first wake up, insects during the summer then fatten up for their winter sleep on autumnal nuts and berries.

Changes to the way our woodlands (and hedges) are managed, as well as fragmentation and loss of these habitats, has resulted in a 50 per cent population decline since 2000. PTES is working hard to help dormice with our national monitoring programme and by providing advice to landowners on how best to manage woodlands for them and other species.

Your support is vital.

Thank you.

