

WILDLIFE

World

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Number 2

people's trust for endangered species |

The BIG idea

Large carnivores as flagships
for conservation

UK

British beavers – the latest
Horrid ground-weaver spiders
Recognising pure Scottish wildcats
Bats and streetlights

OVERSEAS

The last Ethiopian wolves
Rockhopper penguins
Sun bears in Sumatra
Madagascan carnivores

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overseas

A LASTING DIFFERENCE

How legacies to PTES are
used to offer new hope for
troubled species



BUILD A BUG HOTEL

DIY invertebrate
houses for
your garden





Hello, and welcome to the second edition of *Wildlife World*. Firstly, I need to thank all of you who have contacted PTES with feedback on our first issue. It's been heartening to receive your overwhelmingly positive comments, and very helpful to read one or two constructive criticisms, which we've been pleased to take on board. In particular some of you found large blocks of text overlying faint background images slightly tricky to read, so you have my word – that won't happen again!

In this edition, you'll be able to enjoy a four-page feature on our work with big cats. That's where you'll find an update on the snow leopard work we're funding in Mongolia and Nepal. Everyone in the PTES office was blown away by this spectacular image of one of these incomparable cats, caught mid-leap by one of the remote cameras paid for with your support. It is a glimpse of perfection. I could write at length about this exceptional animal, but a photograph like this says more than words ever could.

From closer to home, you'll find news of UK bat projects, exciting developments regarding the future of beavers in Britain and ways to help our precious invertebrates weather the coming winter in your garden if you have one or, if not, on the walls of your home. Why not give yourself a warm glow as the cold sets in by offering refuge to these tiny but vital members of our fauna?

For a feel good factor that lasts ever longer, take a look at our legacy item on p15. Jill Nelson explains how the thoughtfulness of some wonderful people no longer with us has transformed the provision PTES can make for species we all love.

I hope you enjoy the issue, it comes with all our best wishes for the festive season and the coming year.



Emmanuelle Keller



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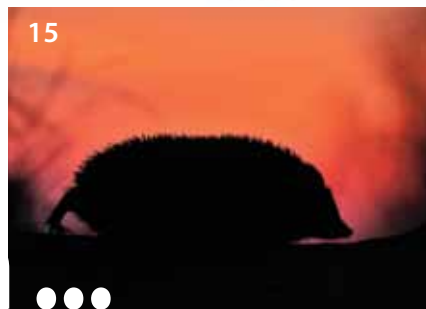
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Make this magazine work harder...

When you've finished with this copy of *Wildlife World*, please pass it on to someone else or donate it to a waiting room collection – you might find us a new supporter!

If you've picked up this magazine and enjoyed reading about the projects PTES funds, you can support us for just £3 a month and receive two issues of *Wildlife World* every year. Please contact us at the addresses below for details.

people's trust for
endangered species

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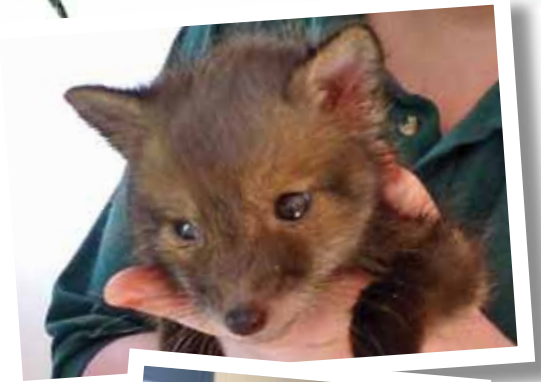
A passion for foxes

Since our cities began to expand over rural territories, foxes have developed a complex and often ambiguous relationship with humans. Welcomed by many householders, foxes are feared and misunderstood by others. Most are indifferent and simply see foxes as harmless neighbours. And that's a logical position to take. Foxes aren't going away. Nothing can do – or has ever done – makes much difference to this self-regulating wild species. So we should enjoy them, but with an educated eye. It's good to know one's neighbours.



TREVOR WILLIAMS
Director, The Fox Project

Foxes weigh the same as an adult domestic cat, but lack the feline's aggressiveness. They are opportunist feeders that benefit from our wasteful ways and help to control the rodent populations that our waste encourages. They are intelligent, resourceful and beautiful. In fact, they should be the UK's national symbol rather than the inbred and unhealthy British bulldog or the categorically non-British lion. Seeing a fox up close is a magical experience. My fascination for the species began with the mystical flash of orange fire that erupted from beneath a tree when, as a child on a Herefordshire farm, I disturbed a dozing fox. Thousands of foxes later, I'm still enthralled.



Walking with wolves

23rd January, 17th April, 13th May and 17th June 2013

The UK Wolf Conservation Trust provides a unique experience of walking with their socialised wolves through beautiful woodland. The wolves are handled by an experienced team and will interact with you as you walk. £30/35

Fox Rescue

14th April and 12th May 2013

Join Trevor Williams for a tour of the The Fox Project, an organisation dedicated to the protection, rescue and advocacy of foxes in Britain. See rescued, injured and abandoned foxes undergoing rehabilitation. At this time of year there may be cubs in the unit. £20 /£24

The lower prices shown are for supporters of PTES. For further details and booking, please call Zoe on 020 7498 4533, visit www.ptes.org/ events or scan this code to go direct to our Wildlife Encounters web page.



Citizen scientists, British wildlife needs you! Join a PTES volunteer survey and make a difference.

LIVING WITH MAMMALS...

Record the mammals you see close to home

MAMMALS ON ROADS...

Use our smartphone app or online form to record sightings as you travel

HEDGEHOG STREET...

Become a champion for the hedgehogs that visit your neighbourhood



To join in, please visit www.ptes.org/ or scan this code to go direct to our surveys page.





New from PTES...

Urban Mammals: a concise guide
David Wembridge



£9.99

We'll admit to being biased, but we highly recommend our new guide to the mammals seen in and around the cities and towns of the UK. It's the perfect reference for anyone planning to participate in our Living with Mammals survey. Available direct from PTES.

PTES 2013 carnivore calendar



£5.99

IDEAL CHRISTMAS GIFT

We're proud to be championing carnivore conservation. These specialised species at the top of the food chain are often a source of human-wildlife conflict. Help us support carnivore conservation by buying our 2013 calendar, featuring 12 stunning carnivore photographs, with information on each species and how we are helping them. Size A4 with room to write in each date.

...and if you're doing a spot of Christmas shopping, don't forget the PTES shop for wildlife-themed gifts and cards that make a difference. www.ptes.org/shop



£2.50

Frontline

THERE ARE ANY NUMBER OF WAYS TO SUPPORT WILDLIFE CAUSES. SO WHAT MADE MILD-MANNERED HEDGEHOG ENTHUSIAST **HUGH WARWICK** ADVERTISE HIS ALLEGIANCE WITH A HEDGEHOG TATTOO?

I WAS NEVER PLANNING on having a tattoo. Not that I have anything against tattoos, it was just the permanence and the pain that put me off. But then I was contacted by *ExtInked*, a project being put together by Manchester art collective, the Ultimate Holding Company. They had chosen one hundred species from the UK's Biodiversity Action Plan (a list of organisms of conservation concern) for lead artist Jai Redman to draw, and they wanted information to accompany the images. So far, so ordinary, but the element of this project that made it stand out was that for the opening weekend, the gallery was going to be set up as a temporary tattoo parlour. And the purpose of *ExtInked* was to find one hundred volunteers to become permanently tattooed species ambassadors.

I offered up the depressing news we have about the state of Britain's hedgehogs and ways in which we can help (for the detail, please see the PTES/BHPS report available on the PTES website or scan the QR code below). I then noted that PTES was one of the partner organisations for *ExtInked* and began to find myself thinking odd thoughts. These centred around the idea that if I was to have a midlife crisis, now seemed appropriate and what better way of celebrating than getting my first (and last) tattoo?

That is how I found myself on a small stage in front of a crowd of gallery-goers experiencing the strange sensation of a needle entering my flesh over 100 times a second as the outline of a hedgehog appeared above my left ankle.

The team at *ExtInked* had worried that they might not be able to recruit one hundred volunteers, but were thrilled to find themselves massively oversubscribed. From all over the country people came for everything from the predictably charismatic raptors to the rarer fungi. I watched as Green Party London Mayoral candidate Jenny Jones had a shrill-carder bee etched on her shoulder. A friend of mine has a sand lizard on her back and has been raising money for herpetological research. And I would have loved to meet the ambassador for the boring millipede – that really is its name – what a fantastic conversation starter!



Scan the code to read the PTES/BHPS report 'The State of Britain's Hedgehogs 2011.'



Because there will surely be conversations. *ExtInked* did not stop with the needle. In fact that was only the beginning, as we formally adopted our species with the statement, 'I hereby commit myself to supporting and promoting awareness of my species and playing my part in reversing its decline in the UK.'

I've taken my experience with *ExtInked* out on the road with me; it features in the talks I give and I re-joined the team for events in Manchester, Edinburgh, and Rugby.

Perhaps the most surprising result (other than the look on the faces of Women's Institute members when I go to take off my trousers after each request to see the tattoo in the flesh) was getting my second (and most definitely last) tattoo. I had been planning my new book, *The Beauty in the Beast*, for some time. I wanted to meet other animal obsessives and see if anyone could challenge my assertion that the hedgehog was the most important creature on the planet (something I still stand by, read *A Prickly Affair* and you'll see I'm right!). And it just seemed a good thing to do, to commit to taking on board the animal with which I was most charmed. But you will have to read the book to find out which one it is.

Hugh Warwick is an ecologist, writer and broadcaster. In his second book, *The Beauty in the Beast* (published by Simon and Schuster) he meets



enthusiasts whose passion for other species matches his own for hedgehogs. On the way he discovers things you'd never suspect about sparrows, moths, foxes, bees and toads, among others. Hugh's entertaining, informative and moving look at British wildlife is hard to beat as a fireside read this winter.



Hugh Warwick inset: iStockphoto.com/UroshPetrovic



BEAVERS



Scottish Beaver Trial

Reintroductions gather momentum

THERE WAS GOOD NEWS in August from the Scottish Beaver Trial (SBT) with the announcement of a bumper litter of three babies born on Loch Dubh, Argyll as part of the reintroduction supported by PTES. Field Operations Manager Roisin Campbell-Palmer said: 'All three kits are part of the same family, which has bred every year since release, but previously only giving birth to one kit each year. Unfortunately last year's kit didn't survive, so seeing three newly emerged kits is a boost.' Video footage and still images of the kits can be seen on the SBT website, www.scottishbeavers.org.uk.

By late summer the beaver count was at a new high of 15, including six born on site. SBT coordinators realised that the expanding family was getting complex, so they published a family tree to help visitors to both Knapdale and the website keep track of who's who.

Sadly another kit, born on Loch Linne

did not survive. Its scavenged remains were discovered in September, with early indications being that it was killed by a large predator such as a dog, fox or badger. Such losses are sad, but very much part of life in the wild, and naive youngsters are always more at risk.

Meanwhile, in Wales, the conclusions of a five-year investigation led by the six Welsh Wildlife Trusts and co-funded by PTES, have been published. The Welsh Beaver Project (WBP) report *An investigation into the feasibility of reintroducing European beaver to Wales* puts forward a strong case for a managed reintroduction and heralds the start of further consultation and investigation to identify suitable release sites.

Apart from the considerable benefit beavers bring in terms of biodiversity, a reintroduction into Wales is considered appropriate because of the important role beavers can perform in managing

Two of this year's native-born beavers begin to explore Loch Dubh in Knapdale. The population will be monitored until 2014 when an assessment will be made regarding its future. The Scottish Beaver Trial is a partnership between the Scottish Wildlife Trust, the Royal Zoological Society of Scotland and host partners, Forestry Commission Scotland.

wetland habitats and helping to clean and control water resources. As in Scotland, it is thought that there would also be a boost to local economies through wildlife tourism. The report finds that suitable habitat is widely available in Wales.

Speaking about the plans, Welsh Minister for Environment and Sustainable Development, John Griffiths, said: 'I support the ongoing work of the WBP. Research and experience from mainland Europe and elsewhere shows that the reintroduction of beavers to Wales could offer a range of prospective benefits for Wales. I welcome the intention to consult widely on this issue and on potential sites, so that views of all parties can be considered.'

See for yourself: SBT staff will be leading a Wildlife Encounter next season. Please check our website or call 020 7498 4533 for latest information.



Scottish Wildlife Trust

Species notes

Common name: European beaver

Scientific name: *Castor fiber*

Size: Head and body 75-90cm long, tail about 30cm

Habitat: Rivers, lakes and floodplains in wooded landscapes

Lifestyle: Lives in family groups in burrow or lodge constructed from timber and mud; eats wide range of plant material; fells small trees for food and building materials; engineers water levels by constructing dams; active night and day



iStockphoto.com/DavidBukach

Advances for dormice in 2012



REINTRODUCTIONS

PIES

A KEY PART of our long-term conservation strategy for dormice is to return the species to areas of their former range in which they had become extinct, but where sympathetic habitat management and restoration are now being undertaken. On 20th June 2012, 41 captive-bred dormice were released into a private woodland in Warwickshire. The semi-natural, ancient woodland contains a mixture of tree and shrub species including hazel, oak, hawthorn, bramble, ash, elder, silver birch, field maple and wild service tree. These will provide a varied food supply throughout the seasons and hopefully plenty of nesting sites

The road access at Scotney Castle traverses the only bridge in Britain designed to carry wildlife as well as vehicular traffic. Habitat strips either side of the road act as corridors for land animals and plants.

too. However 200 wooden nest boxes have also been sited throughout the woodland so that we can check on the animals in the coming years and, hopefully, record the success of the project as they breed and the population expands and establishes itself throughout the site.



BRIDGE SUCCESS

There's exciting dormouse news from further south too. In Kent, volunteers have recorded evidence of dormice breeding on Britain's first wildlife bridge. The green bridge, which was completed in 2005 and built to keep historical access to the National Trust's Scotney Castle, crosses the busy A21. Shrubs and vegetation have become dense enough on the bridge to support a host of wildlife. Hopefully now that we have the evidence that the investment really is worthwhile, more green bridges will follow, and some of our fragmented wildlife habitats can be reconnected.

BATS

Disease worry for Britain's bats

BAT BIOLOGISTS remain on high alert for signs of a fungal disease known as white nose syndrome (WNS), which has killed an estimated 6–7 million bats in North America since 2005. The epidemic is becoming one of America's most pressing wildlife concerns, and the loss of so many bats is destabilising whole ecosystems.

The fungus that causes WNS, *Geomyces destructans*, is endemic in European bat populations. Indeed, researchers now think that the American strain arrived from Europe very recently,

perhaps on the clothing of a visiting tourist or the fur of an imported animal.

Bats suffering WNS become coated in white fungus, especially on the face, but also on the wings and tail. The condition causes them to wake from hibernation three times as often as usual. This extra activity wrecks the bats' tight energy budgets and they starve before spring. Exactly why the fungus affects American bats so badly, while European bats are unaffected is not understood, but there is no room for complacency.

A consortium of bat



Al Hicks

organisations from Europe and the US, including the Bat Conservation Trust (BCT), has drafted a Eurobats resolution recommending that steps be taken in four key areas: preventing the North American strain from reaching European bat hibernacula; monitoring European hibernacula for the presence of the fungus; referring suspect fungus for investigation and then, if bat

deaths occur, limiting the spread of the fungus.

BCT is aiming to raise awareness of WNS among bat workers and other cave users and asks that anything suspicious be reported immediately via the Bat Helpline on 0845 1300 228. Even licensed bat handlers are warned not to touch suspect bats. Guidelines for bat handlers and carers are available on the BCT website.



LWRP

LESULA



Hope for Kenyan elephants

PTES IS DELIGHTED to have helped fund the development of a new ten-year conservation and management strategy for elephants in Kenya.

There are now an estimated 35 000 elephants in Kenya and the species continues to return to areas where it hasn't been seen for nearly 30 years. But over the same period the human population has grown dramatically and the challenges for elephant conservation are significant. Human settlement and cultivation, human-elephant conflict and fragmentation of habitat conspire to make things difficult. Reports also suggest an upsurge in poaching, driven by demand for ivory in Asia.

This timely and important strategy is appropriately bold, ambitious and forward-thinking. It targets wide-ranging areas of Kenya's infrastructure and takes account of climate change, local livelihoods and the sensitive balance that is needed in an emerging economy.



iStockphoto.com/oversnap

New primate 'already vulnerable'

A NEW SPECIES of African guenon discovered in the Lomami River region of the Democratic Republic of Congo (DRC) is probably already at risk, say conservationists. The new species, *Cercopithecus lomamiensis*, known locally as a lesula, was described in the online journal *Public Library of Science*.

The animal came to the attention of a research team from DRC's Lukuru Wildlife Research Foundation when a local primary school teacher showed them one he kept in a cage. On further investigation the team found several other captive individuals and eventually saw the species for themselves in the wild. Speaking to the BBC, project leader Dr John Hart

said 'We knew the landscape was essentially unexplored but we did not expect to find a new species, especially in a group as well known as the African guenons.'

The lesula is thought to have a relatively small range of about 17 000 km² and its discovery highlights the need for large-scale habitat protection in this region.

'The challenge is to intervene before losses become definitive,' said Dr Hart. 'Species with small ranges like the lesula can move from vulnerable to seriously endangered over the course of just a few years.' Happily the Lomami River region is soon to be declared a National Park.

ASIATIC CHEETAHS

Three good things

The Iranian Cheetah Society, whose work is part-funded by PTES, recently reported a rare case of Asiatic cheetah triplets being born in the wild. The family, already

well grown, was captured on camera in Miandasht Wildlife Refuge in northeastern Iran. The female is a familiar animal to ICS researchers, who are delighted with the discovery.

'This is the best news for our cheetahs in 2012' said ICS co-founder Mohammad Farhadinia 'I cannot hide my excitement. ICS has been working with cheetahs in

the area for almost ten years, but this is the first record of a cheetah and three cubs. It's a big reason for optimism.'

Iranian Cheetah Society



What shall we save today?



People often ask me how we decide which species to help when so many are endangered. It's a very good question. Pick one or two and you're neglecting all the rest, try and tackle them all and you risk achieving little.

We regularly review our priorities to get the biggest 'bang for our buck', and manage to reach pretty widely both across the world and across species. We try to select projects with far-reaching outcomes. We often pick a top-of-the-food-chain carnivore, such as the leopard or wild dog, as a cheerleader, but we aim to cascade benefits to species lower in the hierarchy. Watch out for the launch of our carnivore recovery campaign *Waning Big Cats and Wild Dogs* in the New Year (and see p14).

Closer to home, in 2012 we refocused our British mammal grants by encouraging applicants to address the conservation of our priority species. For some species we need better methods for estimating distribution and abundance and more sensitive ways of assessing population change. For others we must do more to assess the ability of landscapes to support dormice, bats, wildcats and so on. We want to understand the effects of changing climates and of habitat losses, of non-native species introductions and of diseases, toxic chemicals and pollution. Answers to these questions will make our conservation effort more efficient, effective and sustained. By identifying the pivotal things we need to know, and compiling the evidence, we really can make a lasting difference.

Thank you for supporting us and happy 2013.

Jill Nelson, Chief Executive PTES

Tracking dholes in danger zone

ASIAN WILD DOGS

DHOLES are persecuted throughout their range even though they rarely take domestic livestock or harm humans – only one attack on a person has ever been reported. There are thought to be fewer than 2500 dholes remaining in the wild and they are officially endangered.

Dholes are remarkable, pack-hunting members of the dog family, widely distributed across Asia at low densities, withstanding climates from freezing cold to tropical heat. In Nepal they are severely threatened by ever patchier habitat, declines in their prey, diseases from feral and domestic

dogs and a lack of understanding of their general needs.

The high altitude protected area of Kangchenjunga Conservation Area provides a wildlife corridor across to Sikkim and Tibet. PTES has asked Ambika Khatiwada to look at how dholes are surviving in this remote area and at finding ways to stop local people intent upon eliminating them altogether. Information garnered through camera trapping, interviews, surveys, digital mapping and community workshops will provide the proper basis for a conservation plan for the future of the species in the area.



Ambika Khatiwada

SEAHORSES

Action for the West African seahorse

Seahorses are exploited globally for traditional medicines, aquarium display and curiosities. West Africa only recently began exporting seahorses, as supplies from southeast Asia began to decline in the late 1990s. Somewhere around a million seahorses are exported annually from Senegal, Guinea and Togo. Most end up in Hong Kong, China and Taiwan. Such a burgeoning trade creates an urgent need for increased understanding of this particular seahorse species and of the associated trade so as to anticipate shifts in supply and demand.

PTES is helping experts at Project Seahorse, who have successfully secured trade controls on seahorses elsewhere, to find out exactly what is going on with the West African seahorse and its exploitation. A great deal of information is required to convince the authorities to act and then to police trade bans but Project Seahorse has all the right contacts to do the job and put a stop to this destructive practice.



Project Seahorse

SCRAPBook

Whether you're a supporter of PTES, a volunteer, or one of our funding recipients, we love to hear from you. Keep us posted on your experiences and projects, and don't forget to send pictures!

Gilbert sails forth:
PTES recently granted further funding to the Turks and Caicos Islands Turtle Project. Project coordinator Peter Richardson sent this update.

Marine Conservation Society
TCI Turtle Project
Turks and Caicos Islands
West Indies

We tagged three sub-adult green turtles last year, hoping to track their little-known migration from sub-adult foraging site to adult foraging site. Gilbert (named after the turtle fisherman who helped catch him) made our wish come true. In May and June he migrated north from the TCI, then entered an oceanic eddy and took a sharp left towards the continental shelf. Time and the satellite tag will tell us where he is heading next. You can follow Gilbert's journey as it happens at http://www.mcsuk.org/conservation_in_action/Marine%20turtles/Tracking%20turtles/Gilbert

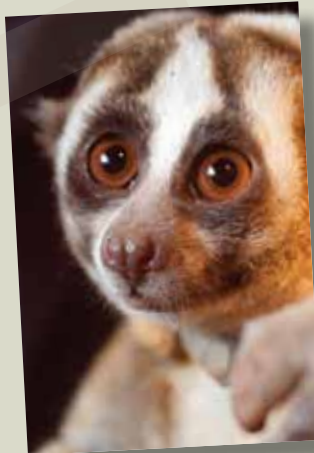
Project officer Amdeep Sanghera is promoting Gilbert's journey amongst islanders, and Gilbert is showing us all that local fishermen have a regional role to play, managing turtles wisely in order to sustain this shared and precious resource.



Schoolboys show off their awesome stag beetle wristbands, made at the PTES stand at Bristol Festival of Nature.

Not so fast, Mo...

Meet Mo the slow loris. PTES supporters were offered the chance to name a radio-collared slow loris in Indonesia by conservationist Anna Nekaris, whose scientific work on the species we are supporting. Mo (in honour of London 2012 hero Mo Farah) was one of five names put to the vote on our Facebook page.



Lucky flowers for PTES

Jean Davies, Lynn Anderson and Cheryl Wilde (above), with Jackie Holton, raised £200 for PTES with their lucky flower game at Maidenhead Duck Derby. Customers paid £1 to choose from 100 hand-made blooms, with prizes for all. The ladies are part of 4 Legged Friends, a group set up by Cheryl and Ginny Williams to fundraise for animal charities. Thank you ladies!



We're delighted to announce the marriage of our Dormouse and Reserves Officer, Ian White, to Diane Nicolle, Farmland Bird Advisor at the RSPB. A [conservation] match made in heaven, and we wish them every happiness.

Meet the team....

PTES is run by 13 dedicated members of staff, guided by a board of five trustees. This time, meet David, one of our longest-serving members of staff, and Emma, one of our newest.

Emma-Jane Sadler Orchard Mapping Officer


After completing an MSc in biodiversity survey at Sussex University, Emma-Jane joined PTES as a volunteer, dealing with noble chafer and dormouse data. In January she became a full-time member of the team, working on the Welsh Orchard project. Emma liaises with volunteers, handles data and identifies orchard sites on aerial photos – a task she really enjoys, as she often spots intriguing landscape features. In her spare time, Emma-Jane enjoys a bit of botanising and looking after her two barmy goldfish.



David Wembridge Mammal Surveys Coordinator

After graduating in biology from King's College London, David took a career detour, gaining a MSc in molecular genetics at Imperial College London and working for some years in biomedical research. Returning to his first loves of ecology and conservation, he joined PTES in 2003, managing our two annual volunteer surveys of wildlife, *Mammals on Roads* and *Living with Mammals*. He particularly enjoys the collaborative nature of his role, working alongside supporters, academics, government agencies and other NGOs.



 **Julie Hatcher:**
'Had a great day taking the children to Walk with Wolves today – what an experience – stroking a wolf!'

 **Chryssa Brown:**
'I heard about PTES via the internet; and have been receiving updates on Facebook. I wish to thank the team for providing such beneficial and fascinating articles everyday; I know that many people, including myself, very much appreciate it'

FRANKIE'S PRICKLY PARTY

Frankie Phillips, aged 9, was inspired by the joint PTES/BHPS campaign, *Hedgehog Street*. With help from sister Sadie, aged 7, Frankie spent three months planning a hedgehog fair in her garden, in Maidenbower, West Sussex. The entertainment included a 'Lucky Spines' game (pictured) with chocolate prizes. Frankie raised £250, a sum matched by law firm Clifford Chance, where Frankie's Mum Maz works. Thank you all very much!



We were delighted recently to meet **Amanda Vincent**, Director of Project Seahorse and coordinator of the PTES-funded project to curb international trade in seahorses from Thailand. After many years of working with both international authorities and local communities of fishermen

who accidentally or otherwise extract seahorses from the oceans, Amanda is uniquely placed to influence the Thai government to enact the ban on seahorse trade.



Onwards & upwards Peter

It was nice to hear from Peter King, one of our 2011 mammal interns. He told us,

'Having completed my otter project, I was offered a post as project consultant for the Ouse and Adur Rivers Trust, working with the Environment Agency. Over eight months I was involved with 13 river restoration projects on the Sussex Ouse and recently begun a project on the Sussex Adur.'

Thanks in part to the kudos and experience gained during his internship, Peter was recently voted Chair of Sussex Reptile and Amphibian Group and asked to sit on the Sussex Mammal Group committee. His progress shows how valuable these placements can be in launching aspiring conservationists on the career ladder. Good luck Peter.



Excitement at PTES' Briddlesford Woods on the Isle of Wight earlier this year with a visit from TV presenter, survival & bushcraft expert, Ray Mears. Ray joined us for a dormouse box check & recorded footage for his ITV series *Wild Britain* with Ray Mears, to be broadcast this Autumn.

PUBLICATIONS

Andrew Kittle of the Wilderness & Wildlife Conservation Trust, Sri Lanka, has published his work funded by PTES on Sri Lankan **leopards** in *CATnews*, the IUCN Cat Specialist Group's peer-reviewed journal. See *CATnews* **56** Spring 2012

PTES fundee Dr Declan O'Mahony's work mapping the distribution of **pine martens in Ireland** is about to be published. See *Mammalian Biology* **77** (5), September 2012 pp351-357



Thinking

BIG for CATS



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THE LONG COEXISTENCE OF HUMANS WITH BIG CATS HAS BEEN FAR FROM HARMONIOUS, AND MANY ICONIC SPECIES ARE NOW IN SERIOUS TROUBLE. AMY DICKMAN EXPLAINS HOW A PTES-FUNDED PROJECT IN TANZANIA IS TACKLING THE PROBLEM.

BIG CATS ARE among the most fascinating and evocative animal species, admired throughout history for their power, beauty and sheer wildness. An admiration for big cats has echoed down the ages – they were the playthings of early kings, and feature significantly in heraldry, literature and mythology. The 16th-century Indian mogul Akbar the Great kept over 39 000 cheetahs during his reign – more than three times the entire global population of today. But despite our fascination, big cats have always made uncomfortable neighbours. Partly it is

their daunting size and ferocity – tigers can weigh over 300kg, while leopards can pierce a human skull with a single bite. Their singular dependence upon meat means that big cats frequently prey on livestock, imposing huge costs on local people, especially in pastoralist communities where cattle have high cultural value in addition to their economic worth. Some species occasionally also prey upon humans – a single tiger in India reportedly killed over 400 people, while lion attacks occur with increasing regularity in southern Tanzania.

Unsurprisingly, people often kill big cats to prevent or retaliate against attacks on people or livestock, and this, along with habitat loss, has been a major driver of worldwide declines. Lions have dwindled from over a million animals to perhaps 25 000 today; tigers have crashed to fewer than 5 000 individuals, and many other big cats also show severe declines. Conflict with humans and habitat loss are not the only reasons – spotted cats were avidly hunted for their skins, while tigers have long been threatened by hunting



for body parts used in traditional medicines. Meanwhile, increasing human populations degrade habitats and deplete prey, making for a gloomy outlook.

However, this is not a hopeless situation, and there is a global interest in maintaining wild populations of big cats. Ultimately, the majority of big cat killings occur because of costs imposed on local people and the perception that they are worth more dead than alive. Maintaining habitat for big cats is seen as less profitable than other land uses. Protected areas where key 'source' populations can persist are a vital part of the long-term solution. But, for many big cats, much of their range falls outside reserve boundaries, so we also need to develop effective conservation strategies for human-dominated land. This is difficult, time-consuming work, and it requires true partnership with local people, as they are the ones who will decide whether big cat conservation is worth the risk.

Ruaha Carnivore Project

Tanzania's Ruaha landscape holds around 10% of the world's remaining lions, one of only four large cheetah populations left in East Africa, and globally important leopard populations. However, village land abuts the Ruaha National Park, and large carnivores impose significant costs on local people, while providing very few tangible benefits. As a result, big cats are frequently speared, snared or poisoned, while young warriors often hunt lions to gain cultural prestige. To help reduce this conflict, the Ruaha Carnivore Project (RCP) was established in 2009, and has received annual funding from

PTES to help improve the outlook for carnivores in this globally important landscape.

RCP's first priority is reducing the costs that big cats impose on local people, which in turn reduces retaliatory and preventative killings. The project helps villagers construct predator-proof enclosures to prevent attacks at night, and is working with the Cheetah Conservation Fund in Namibia to place guard dogs to reduce daytime attacks.

It is not enough just to reduce attacks though. Communities need to see that big cats bring benefits. RCP asked villagers to vote on which benefits they would most appreciate from big cat presence, and they chose healthcare, school equipment and veterinary medicines. The project has helped equip a healthcare clinic and is twinning village schools with developed-world 'sister' schools, which help provide equipment and books. It has also initiated a 'Simba Scholarship' programme, enabling children from poor pastoralist families to obtain secondary education, and is providing subsidised veterinary medicines. In addition, the project uses community meetings, DVD nights and Park visits to help teach people about carnivore ecology, conservation and the role of protected areas, and to allow them to watch carnivores in a non-threatening situation. Perhaps most importantly, RCP is working with Panthera and Lion Guardians to engage young warriors in lion



Living alongside big cats, even rare ones, is far from easy. The RCP is helping to smooth the relationship between local people and wildlife.

Andrew Harrington

tracking and monitoring, changing them from lion killers to paid conservationists and spreading a powerful conservation message within their communities.

All of RCP's work is extremely locally-driven, and is proving successful – livestock attacks and carnivore killings have declined, while peoples' attitudes towards carnivores, the Park and the project have improved. The project currently operates in a relatively small area, but has plans to eventually work in all 21 villages around Ruaha National Park. With help from PTES, RCP hopes to continue and extend its work, with significant benefits for both people and predators in one of the world's most important big cat hotspots.

Amy Dickman of the Wildlife Conservation Research Unit at Oxford University is coordinator of the RCP.



Andrew Harrington



Scan the QR code to visit the RCP website www.ruahacarnivoreproject.com



WE ASKED PTES-FUNDED BIG CAT RESEARCHERS FOR SOME PERSONAL THOUGHTS ON THEIR PROJECTS AND ON THE PREDATORS WHOSE SURVIVAL HANGS IN THE BALANCE

Name: Arezoo Sanei



Position: Executive Director
Organisation: ALSS
(Asian Leopard Specialist Society)
Location: Tehran, Iran

What makes Persian leopards special?

'Leopards have a long history in our culture. The importance of saving them goes beyond the ecological reasoning of scientific papers and research proposals. Simply, they are the kings of our mountains and their habitats are empty without them.'

How has PTES funding been spent?

'ALSS conducts research and

conservation projects in collaboration with local authorities and experts. North Khorasan province is located in northeastern Iran, a neighbour to Turkmenistan. We developed a one year project in the province to assess leopard distribution in relation to human pressures and prey resources, to identify conflict hotspots and to make recommendations for mitigating human-leopard conflicts and developing an area-specific conservation strategy. We have also conducted camera trapping surveys in the region to estimate the number of leopards inhabiting the main conflict hotspots.

We plan to continue our efforts in

North-Khorasan in order to address the priorities identified through the PTES-funded project.'

What is your favourite aspect of your work?

'Fieldwork is my favourite. Any sign of a wild leopard is extremely encouraging for all the research team members. It's wonderful to see that leopards are there and feel that our efforts could help them survive in their natural habitats.'

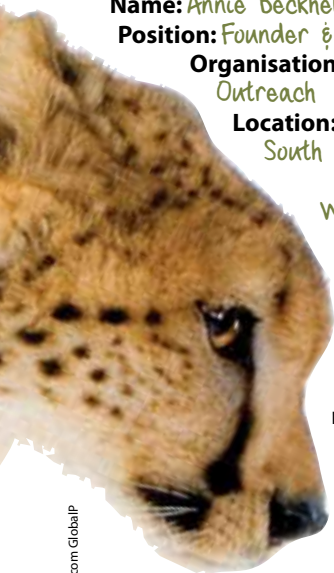


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Name: Annie Beckhelling

Position: Founder & Trustee
Organisation: Cheetah Outreach

Location: Stellenbosch, South Africa



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What is Cheetah Outreach?

'A not-for-profit conservation organisation dedicated to the protection of free-ranging cheetahs. Our work focuses on environmental education and the reduction of wildlife-human conflict.'

Why do cheetahs need our help?

'With a total known population of approximately 7 500 adult animals, this flagship African predator is classified as Vulnerable by the IUCN. In 1975 there were an estimated 15 000 cheetahs in Africa, indicating a decline in the ensuing 35 years, due to habitat loss, population fragmentation, and persecution of suspected livestock predators.'

What is an Anatolian Shepherd dog?

'Anatolian Shepherd dogs originated in Turkey where they have been used for five millennia to guard livestock against wild predators. Studies in Namibia showed Anatolian Shepherds were effective in mitigating conflict between farmers and free-ranging cheetahs, reducing the perceived need for persecution.'

What have you been able to achieve with PTES funding?

'PTES funding is pivotal to our work developing highly effective working dogs. Studies with the Durrell Institute of Conservation and Ecology and the University of Kent showed that following dog placement, predation events were eliminated on 91% of farms, and there was an average reduction in predation of 98%, compared with previous years. Our placement of Anatolian Shepherds has been shown to alter farmers' attitudes to predators on their land, leading to increased acceptance. These findings were published as an MSc thesis (Rust, 2011) and a scientific article is being considered for publication in the *Journal of Wildlife Management*.'



Name: Bayarjargal Agvaantseren

Position: Founder

Organisation: Snow Leopard Enterprises (SLE)

Location: Khovd, Mongolia

Why do you work with snow leopards?

'Growing up in northern Mongolia, where there are no snow leopards, I did not foresee this career. In fact I was a language teacher. Then in 1996, I worked as a translator for Dr Tom McCarthy, who was conducting a study in the Gobi Altai Mountains, exploring attitudes to snow leopards among herder families. The depth of conflict between people and the predator moved me to help, and in 1998 we created the SLE programme to benefit both people and snow leopards.'

Why are snow leopards threatened?

'Habitat loss to farming is one reason. Life is hard for the people who share mountains with snow leopards too. They are challenged by poverty and may kill predators in retaliation for attacks on livestock. In addition, the profits of poaching are a constant temptation.'

How is PTES funding spent?

'In 2009 we undertook a mapping project aimed at defining the regions managed by herders and involving 26 herder communities in a conservation programme. In 2012 we took the next step, to improve communities' capacity to protect snow leopards in their area. Another project aims to understand the impact of livestock grazing on the abundance and population dynamics of

important snow leopard prey species. In time we hope to begin monitoring and stabilizing the population in one of the world's most important snow leopard habitats.'

What do you hope to see in the future for snow leopards?

'I would like to see snow leopards no longer threatened and existing in harmony with local people in their natural habitat.'



istockphoto.com Andyworks



Saving cats & dogs:

THE PTES CARNIVORE CAMPAIGN



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PTES DEVOTES A LOT OF RESOURCE TO CONSERVING BIG CATS AND WILD DOGS AROUND THE WORLD. OVER THE COMING YEAR WE'LL BE HIGHLIGHTING THIS FASCINATING GROUP, AIMING TO BUILD ON WHAT HAS ALREADY BEEN ACHIEVED.

You might think that our enthusiasm for big cats and wild dogs has something to do with their charismatic good looks or appealing character. In fact, it's because of the important role they play at, or near, the top of the food chain. If these species are in trouble, the chances are that the species they prey on and live alongside are also threatened in one way or another. The plight of many top predators highlights the struggle for living space faced by so many species on our crowded planet, and they often become embroiled in difficult human-wildlife conflict.

Not all big cats and wild dogs are classified at risk or endangered, but many are, which is one reason why they appear regularly in the list of species that we are actively working on. One thing they do all have in common is that they are

carnivores and, as such, they play a very important role in nature's hierarchy

The word 'carnivore' tends to conjure up cats, big or otherwise, dogs, wild or not, and maybe dinosaurs. The term 'carnivore' simply means meat-eater, derived from the Latin *carne* for 'flesh' and *vorare* for 'to devour'. It describes a living thing adapted to derive energy and nutriment from a diet consisting mainly or exclusively of animal tissue, either by predation or scavenging. Some animal carnivores depend solely on animal flesh, others consume non-animal material too. Carnivorous plants capture and digest insects and carnivorous fungi capture microscopic animals.

In mammal classification we also use the term carnivore to mean members of the order Carnivora. This includes not only cats and dogs but also bears,

weasels, racoons, hyenas, mongooses, civets and sometimes the seals and sealions.

There are seven widely distributed species (and of course more sub-species) of 'big cat'. These are lions, tigers, leopards, jaguars, snow leopards, clouded leopards and cheetahs. More than 30 species are referred to as 'small cats' including our own wildcats, which are still hanging on in Scotland.

Meanwhile in the dog camp there are 35 species: wolves (grey, red, maned and Ethiopian), coyotes, dingos, jackals (3), foxes (22 including our own native variety), African wild dogs, dholes, racoons and bush dogs.

In January you will be able join our efforts to help these flagship species, watch out for details on our website and other communications.

More carnivore projects we're funding...

Lions and wild dogs, Tanzania

Bernard Kissui (African Wildlife Foundation) is recruiting and training herdsmen to guard livestock on the Maasai Steppe. This will benefit the lions and wild dogs that are suffering from loss of living space, persecution and retaliations to livestock kills and unsustainable levels of trophy hunting.



Wild dogs, leopards & lions, Malawi

Emma Stone (University of Bristol) is working with Malawian National Parks and others to assess the wild dogs, leopards and lions in Kasungu National Park, which links populations between Malawi and Zimbabwe. The team is also working to relieve human-wildlife conflict in this key habitat corridor.



Wild dogs in northern Kenya

Rabies and canine distemper virus (CDV), are ravaging the remaining wild dogs of West Africa. Tests of rabies vaccine are encouraging, but a vaccine for CDV is being tested by Rosie Woodruffe (Zoological Society of London) on 18 dogs over two years to see if it will be safe and effective in the field.



Dholes in Nepal

In Nepal, dholes face a fragmented habitat, shrinking prey base, persecution and disease spread by feral dogs. Ambika Khatiwada (Alumni Association for Conservation and Development) is working in Kangchanjung National Park, involving local villagers in protecting the dholes' prey base.



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Dholes in eastern Cambodia

Dholes require large areas of habitat and the Cambodian landscape is highly fragmented. In a GPS tracking study of four packs, Jan Kamler (WildCRU) is calculating the minimum size of reserve required to support a dhole pack and the optimum number of prey that will be required within each reserve.



Ethiopian wolves in the northern highlands

Jorgelina Marino (WildCRU) has used satellite images to track changes in land use and the habitat degradation that threaten Ethiopian wolves. After interviewing local people, Jorgelina has ranked the threatened areas and highlighted damaging activities in the hope that solutions can be found.



More on p19



Laurie Campbell

The enduring effects of a

LEGACY CONTRIBUTIONS ARE A LIFELINE TO PTES, AND WE CAN OFTEN MULTIPLY THEIR VALUE FURTHER. PTES CHIEF EXECUTIVE **JILL NELSON** TELLS THE STORY OF ONE GENEROUS GIFT AND ITS FAR-REACHING EFFECTS.

PTES IS FORTUNATE to have very many loyal and generous supporters. But times are tough and since the start of the economic downturn we have been seeing much greater variance in our donation income than we did before, making it harder to plan ahead with confidence. It's at these times that we appreciate more than ever the enormous importance of income from legacies.

Dilys Breese, reknowned television and radio producer, was best known for her work at the BBC Natural History Unit. Her personal enthusiasm for natural history inevitably drew her to wildlife programme making. She made many delightful films and perhaps most memorably, was executive producer of the famous and award-winning *Meerkats United* (1987) and *The Great Hedgehog Mystery* (1982) which attracted an extraordinary audience of over 12 million viewers when it was first broadcast.

Following Dilys' death in 2007 we were contacted by the executor of her will. Dilys' fondness for hedgehogs gave her a strong desire to make a lasting difference for the species. She made provision in her will to this effect and both PTES and the British Hedgehog Preservation Society (BHPS) were grateful beneficiaries.

PTES quickly established a partnership with BHPS, pooling our resources to boost the value and effectiveness of the money we had received. PTES had initially received the larger sum, but BHPS swiftly agreed to match our amount from their own resources so almost immediately we had almost doubled the size of the fund available to spend on hedgehogs.

The generous gift arrived just when our concern for hedgehogs was mounting and we set to work immediately. Together with BHPS we consulted various experts, notably Dr Pat Morris, a biologist formerly at Royal Holloway University of London and an expert on hedgehogs, to work out what we could do most effectively. It was clear we needed action on several fronts. The legacy led directly to our extensive campaign to help hedgehogs, which is now the biggest-ever coordinated effort to help hedgehogs in this country.

The multiplier effect was applied again when the campaign funds were swelled still further by our successful application to the BBC Wildlife Fund (fittingly) for more

money to help launch our hugely successful *Hedgehog Street* campaign. This has already prompted over 23 000 people to request our practical ideas pack on how to make your neighbourhood hedgehog-friendly.

A carefully crafted programme of public engagement, scientific research and training for land managers is making a real impact for hedgehogs. And there is more to come. The second phase of the campaign will be launched in the New Year with further funds committed by both PTES and BHPS.

Dilys Breese began her career as a BBC trainee studio manager in the mid 1950s. She went on to become an award-winning producer of wildlife documentaries for the Natural History Unit.



Paul Reddish



A brighter future for hedgehogs and dormice

EVERY POUND WE RECEIVE FOR WILDLIFE IS APPRECIATED BUT, NOW AND THEN, PTES RECEIVES AN EXCEPTIONALLY GENEROUS GIFT THAT ALLOWS US TO REALLY FORGE AHEAD.

PTES IS VERY PROUD to report a most generous gift of £50,000 donated by supporter Mr Jonathan Choat.

When we asked Jonathan what had inspired this marvellous decision he told us that it lay in his '...admiration for the efficient and practical way PTES goes about measuring and then pragmatically supporting endangered species in the wild – particularly raising notice of the issue when, as has happened with hedgehogs, disaster suddenly threatens the delicate balance of wildlife, living in a sometimes grotesquely unbalanced, human needs dominated world.'

PTES is immensely grateful to Jonathan for his faith in our work. The funds will be divided between our hedgehog campaign and work to help harvest mice and will help our efforts significantly.

'When someone who is a UK tax payer makes a donation to charity, there are certain tax advantages both to the charity and the individual and these are worth noting,' explained Shakunt Shah, Tax Partner at KLSA LLP London. 'Taking the £50k donation above, PTES is able to claim Gift Aid from the Inland Revenue which, at 25p for every £1 donated, will increase this gift to £62,500, which is very exciting.'

So long as the donor confirms their status as a UK tax payer, all PTES has to do is complete a claim form and keep a note of the donor confirmation on the files – all very simple and certainly worth it. And the donation is free of tax to the donor – so it's a win-win all round!'



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a legacy

Dilys Breese's thoughtful act of kindness towards hedgehogs has led to an entire campaign of action, instigated a fantastically productive and cost-effective partnership between two wildlife charities, and helped lever further funding from other sources. It's a prime example of how a legacy has made something good and important happen that otherwise would not have been possible. Her legacy will undoubtedly be a lasting one and we remain very grateful.

Legacies of all sizes help to increase our impact and strengthen our resolve to conserve endangered wildlife. If the natural world has given you great pleasure over your lifetime, please consider leaving us a legacy to make a lasting difference to wildlife. There is further information on our website at www.ptes.org/legacies or see our *Leave a world worth living in* leaflet, circulated with this edition of *Wildlife World* or available on request by phoning 020 7498 4533. It is never easy to make a real difference to the world, but wonderful when you do.



A special thank-you

During the year we have been sad to say goodbye to a number of our loyal supporters, some of whom remembered PTES in their will. We would like to acknowledge the people who during the last year have been so generous in leaving us funds for vital conservation work.

Mr Geoffrey Arnold
Miss Hester Mary Atkinson
Mrs Rosetta Violet Boshier
Mrs Eileen Ethel Bray
Dr Allan J M Campbell
Mr Richard Lawrence Dalton
Mrs Mildred Maude Davies
Mrs Y P Fearnie
Mrs Jean Florence Felgate
Mrs Gladys Fullbrook
Miss Hildred Maude Grey
Miss Catherine Gertrude Marion Hingston

Mr Ray Kirkwood Kinross
Mrs Ruth Anne Kite
Mr Richard Martin Lee
Mrs Barbara Jessy Meny-Gibert
Miss Audrey Elizabeth Standing Mills
Mrs Betty Muriel Nuttall
Miss Barbara Picard
Mrs Mary T Piper
Patricia Sinclair
Dr Arthur Henry Stamp
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Mrs Diana Mary Thomson
Mr Barry Reginald Wybrow

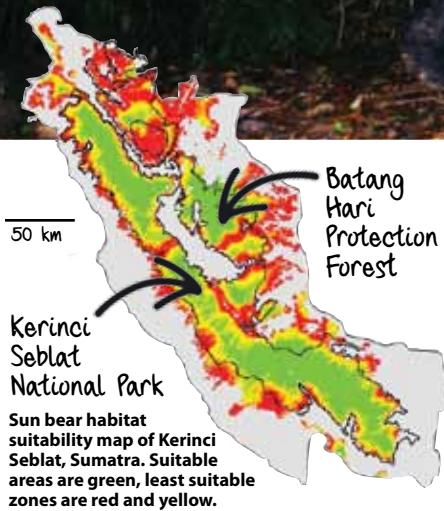
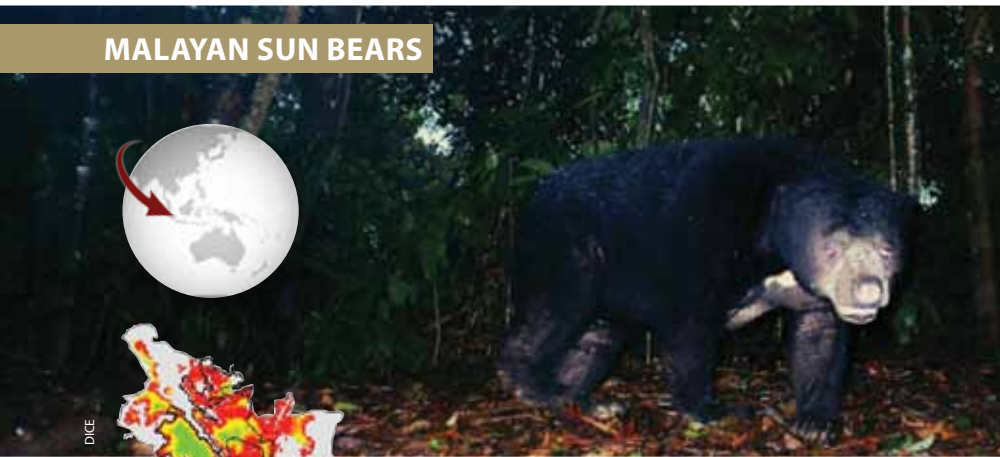
MALAYAN SUN BEARS

Seeking bear necessities in Sumatra

SUN BEARS ARE PROTECTED IN INDONESIA, BUT REMAIN AT RISK FROM HABITAT LOSS AND HUMAN ENCROACHMENT.

remain widely distributed in the area, but they avoid or are absent from deforested areas and places close to roads or human disturbance. The data was used to produce a habitat suitability map, which showed clearly that the best areas for sun bears are well within protected areas. Unfortunately, however, even these are at risk from illegal logging and agricultural encroachment. Significantly, the study site with the greatest rate of recent deforestation also showed the biggest decrease in sun bear occupation, a worrying 9% per year.

Local farmers reported frequent damage to crops and property by sun bears, but most knew the species is legally protected and, encouragingly, over 87% thought that this protection was deserved. Wai-Ming hopes to build on this tolerant attitude to target protection where it will be most effective.



SUMATRA'S VAST Kerinci Seblat National Park incorporates swathes of forest – some of it protected, the rest dominated by logging concessions, palm oil plantations and smaller scale farming. The region should be a haven for large wildlife, but poaching is a problem in the more accessible areas, and the whole of Sumatra faces a deforestation crisis.

The Malayan sun bear is a useful indicator species. As a large-bodied mammal it requires plenty of good quality habitat. Land that suits sun bears probably also suits other threatened large mammals, such as tigers and tapirs.

A team led by Wai-Ming Wong of the Durrell Institute for Conservation and Ecology carried out a camera trap survey of the area and questioned local farmers to ascertain levels of conflict with sun bears. The camera survey showed that the bears



ROCKHOPPER PENGUINS

Where have you been?

SARAH CROFTS OF FALKLANDS CONSERVATION HAS BEEN TRACKING AN INCREDIBLE JOURNEY.

SOUTHERN ROCKHOPPER penguins breed on the Falkland Islands between October and March and spend the whole winter (April–September) at sea. Our two-year Rockhopper Penguin Project used state-of-the-art satellite trackers to follow the journeys of penguins from breeding colonies at Steeple Jason and Beauchêne Islands. The trackers are glued to the bird's feathers and drop off during the next moult.

The map shows the journey of eight tracked penguins. The individual shown in red set off in April and travelled directly to the coast of South America, where it foraged until the end of May. It then headed north, following currents along the Patagonian Shelf. By mid-July it was 1 340km from home – further than any of the others. The bird began to travel back towards the Falklands in July and August. By the time the batteries in its tracker gave up, this penguin had clocked up 4 500km in four months and utilised more than 500 000km² of ocean. The next phase of the project will be to analyse summer and winter data from all our tracked penguins, including details of their diet.



SCOTTISH WILDCATS

Saving the Highland tiger: a molecular approach



The 'tigers' that prowl the forests, hills and moors of the Scottish Highlands are arguably even more threatened than those remaining in Asia. The Scottish wildcat is the only feline native to our shores; our only wild cat. The lives of these feisty predators are shrouded in folklore, but PTES-funded scientists are using genetic techniques to cut through some of the mystery and answer the tricky question of what exactly is a Scottish wildcat.

The tiger of the Highlands dates back millions of years before man. But persecution, habitat loss and now hybridization with feral domestic cats have brought it dangerously close to extinction. It's currently almost impossible to know how many pure wildcats remain, and shockingly little is being done to save the species because of the difficulty in distinguishing pure wildcats from hybrids.

Dr Paul O'Donoghue of the University of Chester is conducting research he believes is vital to the species' conservation. The aim of the project, which is due to report back in February 2013, is to develop a genetic marker system to accurately identify pure wildcats.

The marker system will be central to the success of a planned campaign to trap, neuter and re-release mixed-blood wildcats, and the outcome will also influence captive breeding projects.

Dr O'Donoghue hopes the fight to save the wildcat will promote wider conservation of the Highlands: 'As Britain's only wild felid, Scottish wildcats are high profile and charismatic, making them an ideal flagship species, which can promote the conservation of the regions they inhabit.' We wish him every success.

MELANIE CLAYTON



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HORRID GROUND-WEAVER

Seeking a hairy rarity

THE NAME MIGHT NOT BE APPEALING, BUT THE HORRID GROUND-WEAVER SPIDER IS A HOLY GRAIL FOR INVERTEBRATE INTERN DUNCAN ALLEN, AS MELANIE CLAYTON FOUND OUT.

YOU'D BE VERY lucky to have a horrid ground-weaver spider cross your palm. Not only would this relation of the money spider be an omen of riches, but you'd be holding what may be the world's rarest spider. The only places the species has ever been seen (most recently in 1995), are two old limestone quarries in Plymouth.



The evocatively-named horrid ground-weaver ('horrid' comes from the Latin *horridus*, meaning 'bristly') would be difficult to spot even if it weren't so uncommon. Its body is just 2.5mm long and it buries itself in rock crevices, coming out after dark.

Project officer intern Duncan Allen rose to the challenge of surveying two sites, with the aim of shedding light on this UK priority species. The project was partly funded by PTES and was a partnership between Buglife – The Invertebrate Conservation Trust and Plymouth University.

Of the two sites where the spider has been recorded, one has since been built on. Duncan and volunteers surveyed the remaining site, Radford Quarry, and another, at Plymstock Royal Mail depot.

Unfortunately, the team have yet to spot a horrid ground-weaver. But all is not lost. Since there have been no

ACTUAL SIZE!



recent changes to the quarry, there's no reason to believe the species is extinct. The survey also confirmed the presence of another rare spider, *Episinus maculipes*, which had never been recorded on the site.

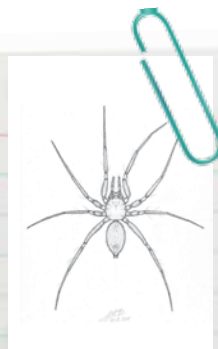
Duncan plans to use the efficient surveying methods he has developed to assess the sites again. The experience has also been very positive for his professional development:

'This internship has helped me develop a range of skills that I would not have had the chance to gain by volunteering alone,' he says. 'It's really helped me feel confident in working in the conservation sector and has directly led to me working on another project, *Plymouth's Buzzing!*'

Species notes

Common name: Horrid ground-weaver
Scientific name: *Nothopantes horridus*
Size: 2.5mm long
Habitat: Limestone crevices

Lifestyle: Secretive, nocturnal, preys on even tinier invertebrates



ETHIOPIAN WOLVES

Facing extinction in the roof of Africa

PTES-FUNDED WORK IN THE ETHIOPIAN HIGHLANDS AIMS TO IMPROVE PROSPECTS FOR THE WORLD'S RAREST SPECIES OF DOG.

IN THE ETHIOPIAN highlands, wolves persist in fragmented 'island' populations at the mercy of human communities needing land for their crops. The threat of climate change is likely to increase pressure on habitat further, as agriculture is pushed higher up the mountains.

A mere 200 wolves remain in five small, isolated populations; two other populations have recently gone extinct. WildCRU's Jorgelina Marino is working with the Ethiopian Wolf Conservation Programme to establish current and projected rates of habitat loss, predict extinction risks for remaining populations and devise a rescue plan that also ensures sustainable livelihoods for local people.

The team has measured changes in land use from satellite images and amassed data about local human and livestock populations, traditional management systems, and the extent of conflict and retaliatory killings of wolves.

It appears that the best areas for wolves are above 3000m, with mild and relatively wet climates. Only half of the most suitable land is above the level used for agriculture, so much has been converted to cropland, including important habitat corridors between wolf populations. Jorgelina has used this knowledge to identify the best places to reconnect habitat fragments, giving wolves a chance to recolonize lost areas and interbreed.



M. Harvey

BATS AND STREETLIGHTS

Dark night returns

WILDLIFE ACTION HERO **ANDY WAKEFIELD** REPORTS ON HIS PTES MISSION TO MONITOR BATS IN DARKEST CORNWALL.

A SUMMER CAMPING in Cornwall sounded fantastic. Combine that with the chance to work with bats, supervised by University of Bristol experts and I was excited to embark on a mammal internship funded by PTES.

Back in 2010 I began investigating the impact of streetlights on bat activity in Cornwall. In particular my study compared existing low pressure sodium lights (those with a familiar dull, orange glow) and the new energy-efficient, white light type.

Why? Well Cornwall County Council had recently implemented their *Invest to Save* project whereby existing sodium street lights are being replaced with new energy-

efficient technology. But relatively little is known about the impacts of this new 'green' technology on local biodiversity and ecosystem functions. 'To the batmobile! I hear you cry...

I recorded bat activity around existing sodium lights and then again after new white lights had been installed. Using bat detectors in custom-made housings fitted to carefully chosen lamp posts meant that instead of staying up counting bats as they whizzed past the lights each night, I was free to fight crime dressed in black spandex. Or just to get some sleep.

Each of the high frequency bat calls recorded on my detectors was uploaded to my computer and translated into pixels on scatter graphs. I was able to count the number of bat passes each night, and since each species of bat echolocates

at a slightly different frequency and in a slightly different way, I could also identify them. After a year and 70 000 graphs I have become pretty fluent in the nuances of the Cornish common pipistrelle accent.

The statistical analysis of my data is still ongoing, but I'm confident the results will show an encouraging level of bat activity in urban areas of Cornwall. I have learnt a huge amount during the course of my internship and I hope that results from my study will influence future decisions with

respect to bats and lighting.

BIFF! ZAP! KA-POW!! Thank you PTES.

Andy Wakefield is leading a *Wildlife Encounter* on 2nd May 2013. See our website or call 020 7498 4533 for details.



Andy Wakefield

MADAGASCAN CARNIVORES



Wildlife Conservation Society

A hotspot within a hotspot



THE MASOALA-MAKIRA landscape is at the epicentre of Madagascar's biodiversity. It is one of two protected areas capable of supporting sustainable populations of the island's largest carnivore, the fossa, and several other species such as the striped Malagasy civet, the mongoose-like falanouc (above), the ring-tailed mongoose and the Indian civet.

Despite its importance, the region faces serious threats from slash-and-burn agriculture, poaching and illegal logging, fragmenting the forest and severely diminishing the quality of the forest habitat, restricting the movement of animals and causing greater in-breeding.

With PTES support, the Wildlife Conservation Society has been investigating the effects of fragmentation, human encroachment and poaching in Madagascar and calculating the first population and home range estimates of these unique carnivores in their rainforest habitat – a vital first step towards ensuring their future.

Remote cameras have collected over 25 000 photographs and the characteristics of each landscape were GIS mapped to work out what influences the densities of each type of animal. The team has captured glimpses of Madagascar's most enigmatic animals including the first evidence of brown-tailed mongooses in the region, a rare photo (below) of the silky sifaka, one of the world's top 25 most endangered primates, and almost certainly the first photo of an infant fossa in the wild.



Our latest grants:

MAMMAL INTERNSHIPS

- The conservation management of pine marten in fragmented landscapes, **Tara Curry, University of Stirling**
- Are eels a declining food source for otters in Scotland? **Heather Beaton, Edinburgh Napier University**

INVERTEBRATE INTERNSHIPS

- Towards the conservation of European eel and management of Chinese mitten crab populations: testing new types of net on the Thames, **Stefanoudis Paris-Vasileios, Natural History Museum**
- Conserving the streaked bombardier beetle, **Ellie Passingham, Buglife**
- The impact of peatland restoration on specialised invertebrate assemblages at Forsinard Nature Reserve and implications for conservation, **Lisa Becker, The James Hutton Institute**
- Status and conservation of the bog hoverfly on Dartmoor, **Tarryn Castle, Buglife**

SMALL WORLDWIDE GRANTS

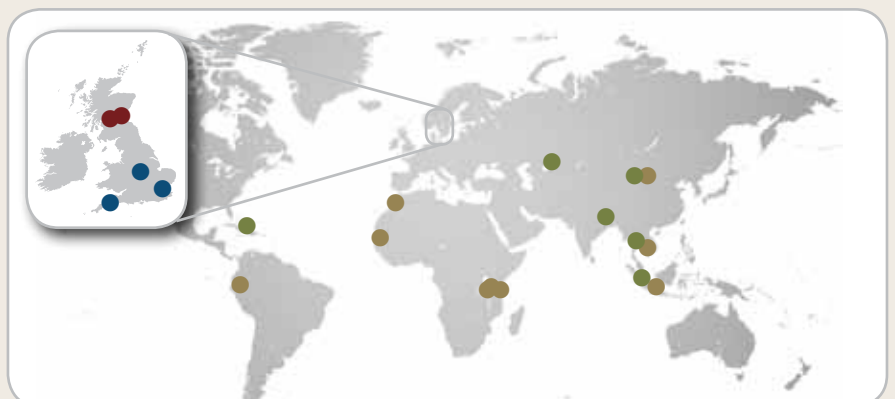
- A toolkit to conserve endangered African wild dogs threatened by viral pathogens, Kenya, **Rosie Woodroffe, ZSL**
- Assessing the status of African wild dogs in Malawi – building a long-term conservation strategy, **Emma Stone, University of Bristol**
- Carnivore ecology, demography and conservation: human-carnivore conflict mitigation on the Massai Steppe, Tanzania, **Bernard Kissui, African Wildlife Foundation, Tanzania**
- Conservation of the Barbary macaque through a community-based ecotourism project in the High Ourika Valley, west central Morocco, **Mohammed Znari, Cadi Ayyad University**
- Conserving the endangered dhole in Cambodia: minimum reserve size and prey numbers, **Jan Kamler, WildCRU**
- Hungry herds? Understanding the

impact of livestock grazing on prey abundance of snow leopards, Mongolia and Nepal, **Bayarjargal Agvaantseren, Snow Leopard Conservation Foundation**

- Proactive conservation actions to save from extinction the direct development mode of reproduction of marsupial frogs in the Ecuadorian Andes, **Luis Coloma, Centro Jambatu de Investigacion y Conservacion de Anfibios**
- Project Fireface: saving the Javan slow loris through ecology, education and empowerment, **Anna Nekaris, Oxford Brookes University**
- Understanding seahorse ecology and extraction in West Africa: critical contributions to a global trade, **Amanda Vincent & Kate West, Project Seahorse**

WORLDWIDE CONTINUATION GRANTS

- Addressing human-orangutan conflict in agricultural landscapes in Northern Sumatra, **Panut Hadisiswoyo, Orangutan Information Centre**
- Empowering communities towards sustainable land management through Community Responsible Areas, **Bayarjargal Agvaantseren, Snow Leopard Conservation Foundation, Mongolia**
- Making CITES work for seahorses: increasing in-country capacity in Thailand for seahorse monitoring, management and conservation, **Amanda Vincent, Project Seahorse**
- One-horned rhinoceros conservation in gap areas of Manas Biosphere Reserve, **Pranjal Bezbarua, Grasshopper, India**
- Supporting ongoing public engagement as a foundation for the conservation of steppe wildlife in Kazakhstan, Russia and Uzbekistan, **E.J. Milner-Gulland, Saiga Conservation Alliance**
- Turks and Caicos Islands Turtle Project, **Peter Richardson, Marine Conservation Society**



Do it **YOURSELF...**

BUG HOTELS...

with Buglife expert Vanessa Amaral-Rogers

Vanessa Amaral-Rogers is Conservation Assistant for Buglife – The Invertebrate Conservation Trust.
www.buglife.org



PROVIDE REFUGES FOR A HOST OF OVERWINTERING INVERTEBRATES IN YOUR GARDEN THIS YEAR BY CREATING ONE OF THESE EASY BUG HOUSES.

WE HELP TAKE CARE of the birds and other animals such as hedgehogs in our gardens during the winter by putting out food, or supplying places for them to hibernate, so why not look after the bugs they depend on for food as well? Invertebrates are important for a healthy garden: many of them pollinate our flowers or prey on common garden pests. Other wildlife is likely to be attracted to a bug-filled garden too.

As the days get colder, many beneficial invertebrates are trying to find a safe, warm place to overwinter. Having a hibernaculum (a place to shelter in the cold weather) will give your bugs a greater chance of surviving the winter and they'll be ready to start work immediately in the spring. There are many ready-made bug homes for sale but Buglife can show you how cheap and easy it is to make your own.



Freya Knapp

Starter homes...

Basic bug houses like the two shown here are fun to build and make the perfect place for solitary bees and spiders to hibernate. Start by nailing together a surround made from four similar-sized pieces of untreated timber. Leave the back empty but make sure the top piece is slanted slightly to create an overhang that deflects rainwater. Next, drill holes of various sizes (between 2mm and 1cm) into blocks of wood or small logs and fix them firmly into the surround. When you've finished, place it a few feet off the ground, on a south-facing wall where it will be warmed by the sun.



Vanessa Amaral-Rogers, Buglife

...to the last word in bug luxury!

If you have plenty of space, why not go all out and build a bug mansion? This one was created from old pallets and will provide refuge for many creatures. Stacking the pallets upside down leaves open holes at the base, great for hibernating hedgehogs, frogs and toads. Build on a flat surface, not so high that the tower becomes unstable, and fill the gaps with varied materials to entice all manner of beasties. Dead wood low down will attract earwigs, centipedes and wood-boring beetles. Leaves at the base are ideal for hedgehogs, while stones and tiles will create cool conditions perfect for frogs and toads. Encourage hibernating ladybirds and lacewings by bundling dry sticks such as willow or rolling a piece of corrugated cardboard into a plastic soft drink bottle and wedging that in. Add other materials such as old pine cones, bits of broken terracotta pot, old bricks, straw and stones. Cover the top with plastic sheeting or an old bit of roofing felt and you have a waterproof mansion, ready for a host of guests!

Jamie Robins, Buglife



London Permaculture Flickr

You don't have to stick to a template. Be creative with your own design. Bug homes come in all shapes and sizes, and can fit into the design of any kind of garden.



DIY...

...Reuse and recycle

Be imaginative and incorporate bits and pieces of household and garden waste into your bug house.

Fantastic plastic

Old plastic pots, bottles and drinking straws can all be put to good use for bug houses.

Go potty

Fill old flower pots with straw and hang them upside down on garden canes to give earwigs a snug home, or use broken fragments of pot in bug hotels to create myriad nooks and crannies.

Garden clippings

Heap cut branches and clippings in a sheltered corner of the garden. Brush piles are great hibernating spots for invertebrates, and a snake or slow worm may move in too.

Compost

The warm, humid, nutrient-rich conditions of a compost heap are perfect for earthworms, which help dispose of green waste and create free fertilizer at the same time!

To make bug nesting tubes, cut hollow plant stems from shrubs or fairly tough herbs into 10-20cm sections. Bamboo canes have sealed nodes which can be cut so that the hollow sections are exposed. Bramble and rose stems have pith into which tiny bees make their own burrows. Bundle the tubes with garden twine or wire or wedge a bunch of them into a plastic plant pot.



Magne Flåten

Plant a living bug house

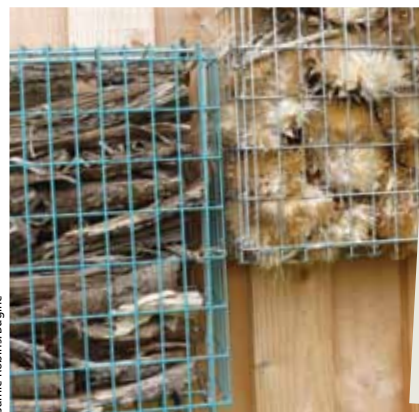
The winter months are the best time to start tree planting. Try to choose native species, which are beneficial for invertebrates, rather than introduced trees. Species such as hawthorn, beech and gorse are all great to plant as part of a hedgerow and many bugs are dependent on these. If you have the space, oak trees support a vast number of invertebrate species. Both pedunculate and sessile oaks have been found to have more than 400 species living on them, whereas willow, which does well in moist soils, can attract up to 450 different invertebrates!



Masonry bees often nest in old walls and ensure pollination of your garden plants. Avoid re-pointing or repairs to walls until spring when the bees have woken from hibernation.



Kevin Robinson



Jamie Robins. Buglife

You'll find different materials attract different insects so play around! I love these ones made from simple wire cages filled with wool, bark and even dried thistle heads. Perfect for a bug in need of a cosy winter home.



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If you build it, they will come ...

Woodlouse

These land-dwelling crustaceans are important recyclers of organic material.



Ruby tailed wasp

Parasites that lay eggs in the nest holes of solitary bees, the larvae of these jewel-like wasps feed on the bee grubs before flying away.



Centipedes

Voracious predators of slugs and snails, most centipedes have fewer than 100 legs - the common centipede has 30.



Lacewings

Dainty insects that devour garden pests, lacewings are themselves important food for birds and bats.



Millipedes

Distinguished from centipedes by two pairs of legs per segment, instead of one, millipedes eat decaying organic matter.

Ladybird

Adult and larval ladybirds eat up to 5000 aphids each in a year.



Stag beetle

Our largest native beetle has a seven-year life cycle. Eggs are laid in dead wood, which the larvae then eat.



Ground beetle

These nocturnal predators like logs and stones to hide amongst during the day. Both adults and larvae eat slugs and snails.

Spiders

Spiders should be welcome in your garden. Keep them happy with dark crevices in your bug house.



Earwigs

These nocturnal beetles guard their young in damp crevices until they are grown.



Bees

There are many species of solitary and bumble bee, which need safe places to lay eggs and hibernate.



Parting shot



Richard Austin

Badgers are instantly recognisable staples of the British countryside but sadly find themselves in the eye of a storm at present. They aren't endangered in the UK but are legally protected because of persecution historically. Research that PTES helped to fund suggests that culling badgers will not reduce the spread of bovine TB and could even exacerbate it. We support other means of controlling this awful disease and the havoc it wreaks among livestock, wildlife and human livelihoods. We continue our urgent work to understand better the social behaviour of our badgers which is more complex and differs from that of their continental cousins.

Your support is vital.

Thank you.

