

Wildlife World

SPRING 2015
ISSUE 7

people's
trust for
endangered
species



UK

Bat update

Roadside butterflies

Good news for orchards

Dormouse latest

ISSN 2049-8268

Fighting for Ratty

How tough action on mink is turning the tide in Scotland

Overseas

Rare trees of Cuba

Saving the real Smaug

Asia's pygmy hogs

Amazing midwife toads

Never giving up

A Scotland without wildcats is unthinkable, but can we still save this iconic British species?

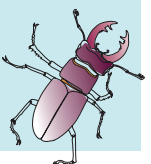


Bats in the city

How two summers of letting the grass grow affected foraging habitat for urban bats

Common ground

Shared green space can be a haven for local wildlife. Are you making the most of yours?





Bringing the wild back to life

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

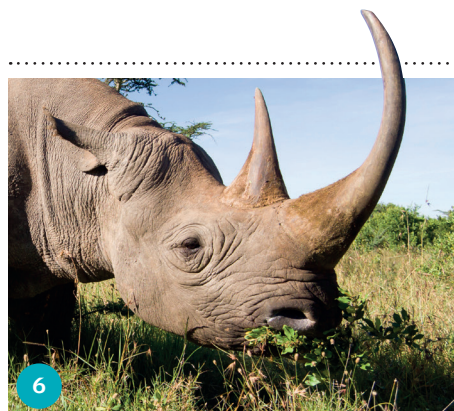
Our wildlife is disappearing. Almost two thirds of species in the UK have declined in the past 50 years. There's nothing natural or inevitable about this. It can be stopped. And everyone can play a part. That's why People's Trust for Endangered Species exists.

Find out more
www.ptes.org

WILD DOG

The African wild dog is one of the world's most charismatic carnivores, but also among the most threatened. The remaining populations are small and scattered. The situation stems almost entirely from conflict with humans.

That's why we are funding the first assessment of the species in Malawi, where there is potential for viable populations to exist.



6

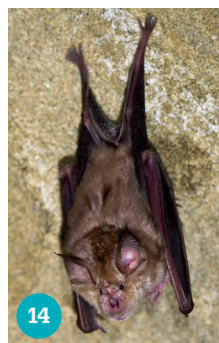
© iStockphoto.com / pientv



21

© Bildagentur Zoomar GmbH / Shutterstock.com

In this edition



14

© Ivan Kuzmin / Shutterstock.com



10

© Ian Schofield / Shutterstock.com



20

© Giraffe Research Conservation Trust



19

© JohanMarais

- 04 PTES people**
Meet Susie Stockton-Link, one of our most enthusiastic volunteer orchard surveyors
- 05 Frontline**
Andrew Kitchener explains why 2015 could be a critical year for Scotland's wildcats
- 06 Conservation news**
A quick roundup of recent news at home and abroad, and the view from Nelson's column
- 08 Scrapbook**
We love hearing from friends of PTES, be they researchers or volunteers, so please, tell us your story
- 10 Scotland's water vole champions**
It's a long time since there's been good news about water voles, but welcome results in Scotland show the tide may be turning
- 14 Species focus**
We are currently supporting no fewer than eight projects to support British bats
- 16 PTES in action**
How we're turning your support into positive action to help threatened species and habitats around the world and at home in the UK
- 22 DIY**
Shared green spaces are easily overlooked habitats – what could you do with your local patch?

Welcome



© Dave Mills

We hear and read so much about connecting with nature, while as a society we do less and less of it. Instead of fixing the problem we invent new terms like 'nature deficit' – as though having a diagnosis will help. We easily forget that the cure can be as simple as turning off, and stepping outside, trusting nature to lift our spirits and reset some kind of psychological balance. Unfortunately for many other species, such self-help is no longer enough. For them, nature deficit means no longer having what they need to survive, let alone enough to feel good about their lives. Habitat loss

and fragmentation, due almost exclusively to human encroachment and exploitation, is robbing them of their most basic needs. In these pages you'll read about the ways PTES projects are helping some of these species, so that they in turn can help us all. Thank you for being part of it. ●

Dr Amy-Jane Beer, Editor

twitter.com/AmyJaneBeer

Editor: Dr Amy-Jane Beer
Editorial team: Jill Nelson, Zoe Roden, Nida Al-Fulaij
Art Director: Phillip Southgate
Art Editor: Zoe Roden
Illustration: Hayley Cove
Print: 4-Print

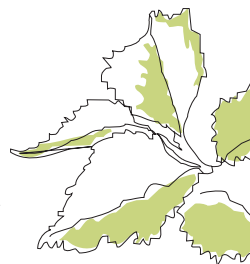
Cover image:
Ben Andrew

The opinions expressed in this magazine are not necessarily those of People's Trust for Endangered Species.

Contact us
PTES Wildlife World Magazine
3 Cloisters House
8 Battersea Park Road
London SW8 4BG

www.ptes.org
wildlifeworld@ptes.org
020 7498 4533

facebook.com/ptes.org
twitter.com/PTES



people's
trust for
endangered
species

PTES
★
PEOPLE

© Louise Arpman

Volunteer orchard surveyor **Susie Stockton-Link** does sterling work for our Orchard Project. But her connections to this most traditional form of British agriculture extend well beyond the unique assemblages of wildlife it supports.

Isaw the PTES request for help in my local wildlife magazine. I'm nature mad and have always been aware of the rich diversity of wildlife associated with unkempt old orchards. They're also the best place to find mistletoe!

Volunteering for the PTES Orchard Project allows me to discover amazing places, in stunning locations, owned by fascinating people. I've a small orchard of my own, but my interest in old fruit trees and even more ancient orchards has a musical and historical basis. I started singing folk songs when I was five and, early on, became aware of apple wassailing: a tradition in which songs and dances are performed each winter, typically from Christmas through to mid-January, with the aim of driving evil spirits away from the trees and persuading them to provide a good harvest in the following year.

Wassailing is once again becoming popular, along with other musical country traditions. I'm also the dragon in the mumming play performed by Foxwhelp Morris group! It's great to know that by singing, dancing and visiting orchards I'm helping to preserve both the natural and cultural heritage of these amazing traditional landscapes. ●

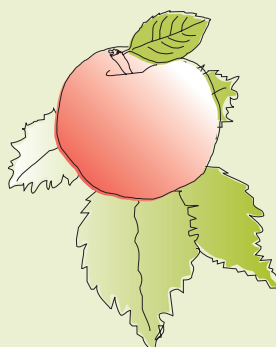


Find out more about becoming a volunteer
www.ptes.org/volunteer

“

**I'm nature mad
and have always
been aware of
its richness in
unkempt old
orchards**

”

PTES
♥
LOVES

HEDGEHOG AND WATER VOLE ALES

www.hopsinabottle.co.uk

£2.90

The Hedgehog Ale has almost sold out until autumn, when another batch will be brewed. If you can't wait that long you can sample the new Water Vole Ale, available from mid-May. 10p from every bottle will be donated to our conservation work.



HOUSE GUESTS, HOUSE PESTS

Richard Jones

£16.99 (hardback)

An absorbing natural history of the animals that share our homes, invited and otherwise, providing the fascinating lowdown on everything from domestic dogs to head lice.



WILD TIMES AHEAD

Project Wild Thing

£FREE

For a gift your favourite little person will love, how about a free *Wild Time* voucher from projectwildthing.com. The website has masses of ideas for ways to spend your allotted time, or you can download the *Wild Time* app.



Saving the unsavable

Some recent assessments appear to suggest that the pure-bred Scottish wildcat might be past saving. But with £1 million of new funding from the Heritage Lottery Fund, this is no time to give up on our rarest native carnivore, says PTES Trustee **Andrew Kitchener**.

Wildcat Action is a new initiative from the Scottish Wildcat Conservation Action Plan (SWCAP), which aims to halt the decline of our last native cat in the next five years. New funding from the Heritage Lottery Fund is great news, but the task ahead is enormous. A recent estimate suggested that as few as 400 wildcats survive in population fragments in northern Scotland, but the situation may actually be much worse. The Scottish wildcat may well be in the 'last chance saloon', so we need to get our conservation actions right.

Wildcats have suffered catastrophic losses of habitat and intense persecution for centuries, forcing them back to northern Britain, then northern Scotland, where they verged on extinction at the beginning of the 20th century. The First World War intervened and the gamekeepers never returned in such numbers, but as wildcats attempted to recolonise their former range they encountered feral domestic cats. These days, most wild-living cats in Scotland are either hybrids or feral domestics. Pure Scottish wildcats now survive only in a few small pockets of habitat from Morvern in the west to Strathbogie in the east, and it's here that Scottish Natural Heritage has identified six areas in which to focus action by an army of volunteers, including continuing camera-trapping, the capture, vaccination and neutering of feral domestics and hybrids, and a drive to encourage responsible domestic cat ownership. The chances for the remaining true wildcats to expand will increase as fewer domestic and hybrid cats move into the wild, and the neutered nuisances die out.



These days, most wild-living cats in Scotland are either hybrids or feral domestics

This may not be enough. As an insurance policy, the Royal Zoological Society of Scotland is establishing a captive breeding programme to provide wildcats for future reintroductions – an approach that has been spectacularly successful for the even more endangered Iberian lynx. If we find that there aren't enough Scottish wildcats to create a strong genetic base for captive breeding and release, it may be necessary to use animals from continental Europe to genetically reinforce the Scottish bloodlines.

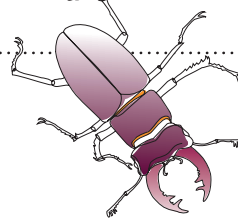
Genetic purity is a vexed issue. Eliminating hybridisation in the wild is near impossible, and some of the cats that the SWCAP aims to conserve may not be pure. It's a difficult judgment call, but camera-trap evidence suggests that very few remaining wildcats have perfect pelage markings, so we have to be pragmatic. It helps to remember that many other species of conservation concern are effectively hybrids. The polar bear genome includes brown bear mitochondrial DNA from an ancient introgression, while Przewalski's wild horse and European bison carry genes more recently transferred from domestic horses and American bison respectively. And yet in their appearance, behaviour and ecology, these species still function as they

should. Thus as long as we focus conservation on animals with the appearance, behaviour and ecology of the Scottish wildcat, we will be able to save the species. It won't be easy, but with political will to succeed, and widespread public support, it is not impossible. The alternative prospect, of Scotland without its wildcat, is too dreadful to contemplate. ●



Andrew Kitchener is Principal Curator of Vertebrates at National Museums Scotland, a member of the IUCN Cat Specialist Group and a PTES Trustee.

© Jamie Campbell



Amy-Jane Beer reviews some of the big recent news stories for PTES and in worldwide conservation. A lot happens in six months, but you can also find the latest at www.ptes.org

Orchard windfall

A further phase to our long-running Traditional Orchard Project will give a new lease of life to these habitats.



© PTES

We're delighted to announce an extension of our orchard work thanks to a substantial new grant from the Esmée Fairbairn Foundation. Over 15 months we'll be inspiring owners to maintain and restore traditional orchards and improve their biodiversity. To support them we'll develop an information hub on our website and offer small grants for materials and tools. We'll also establish regional heritage fruit collections, which will reduce the risk of extinction and serve as a resource for orchard owners looking to maintain or restore their stock. Megan Gimber joined us in April to handle the extra work. ●

Devon beavers

grieved

Their appearance made news in 2013, now the mystery beavers have permission to stay and be studied.



© Alamy Martinus

The beavers whose appearance on the River Otter in Devon sparked a 'should they stay or should they go' debate have

been granted permission to remain in their adopted home as part of a new five-year trial. The announcement came after a legal challenge to an earlier government decision that the animals would have to be removed because of unspecified risks to health and the wider countryside. Devon Wildlife Trust (DWT) made a successful application to turn the mystery into an official reintroduction. Tests confirmed the animals' identity as European (not Canadian) beavers, and showed they were free of tapeworm infection. DWT will now monitor the beavers and deal with any undesirable impacts their presence may cause.

Meanwhile, a decision on the future of the beaver population introduced to Knapdale by the Scottish Beaver Trial is due in May. This will be based on the extensive body of information gathered during the five-year trial, which ended last year. ●

Latest UK mammal grants

Five more projects supporting threatened British mammals will benefit from PTES funding in 2015.



© Mark Bridger / Shutterstock.com

- ▶ Vincent Wildlife Trust: Pine marten recovery in mid Wales – promoting conflict resolution
- ▶ Dr Silviu Petrovan (Froglife): Making light in road tunnels; usage and conservation value of road mitigation tunnels for small and medium-sized UK vertebrates
- ▶ Steven Gardner (Scottish Wildlife Trust): Saving Scotland's red squirrels
- ▶ Emily Howard-Williams (Moulton College): The use of a detection dog for monitoring harvest mice (see page 21)

- ▶ Bat Conservation Trust: Ringing the changes: establishing agreed guidelines and a centralised database for bat ringing in the UK. ●

We love horrid groundweavers!

How the power of social media stepped in and stood up for a long lost species of spider.



© Buglife

The horrid groundweaver is so rare and, at 2.5mm across, so tiny, that it has never been photographed. The species was the subject of a PTES internship project in 2012 and its entire global known range comprises just two limestone quarries near Plymouth, one of which may soon be destroyed by a housing development. In January, our friends at Buglife collected over 2,000 signatures on an internet petition asking the local council to reject the plan, and a crowd-funding campaign has raised money to pay for emergency efforts to once again locate the tiny crevice dweller and establish some details of its mysterious biology. You can donate at www.crowdfunder.co.uk/save-our-spider. ●

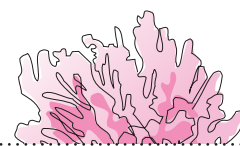
Tiger numbers

Conservationists sound note of caution over figures suggesting India's tiger population is booming.



© iStockphoto.com / arpanmeesa

In January, the National Tiger Conservation Authority of India published figures suggesting that tiger numbers in the country have risen dramatically in recent



years. The newly estimated figure of 2,226 animals is based largely on camera trap footage, in which experts have been able to recognise individual animals. The figures suggest India is now home to around half the world's remaining wild tigers, with the others in Russia, China, Bangladesh, Nepal, Bhutan, Malaysia, Indonesia, Thailand, Laos, Cambodia and Vietnam. The tiger nations have been working on an initiative known as Tx2, which aims to double global tiger numbers by 2020. While the Indian figures are welcome, there is no room for complacency, and headlines about 'tigers roaring back' are almost certainly premature. The threat of poaching is increasing in many parts of the tigers' range and an international anti-poaching symposium was hosted by the Nepalese government in February. Nepal has bucked the trend in recent years, reducing tiger poaching to zero across 2012, 2013 and 2014. The achievement is credited to improved public education and awareness and rigorous enforcement of wildlife laws, aided by modern technology and cross-border collaboration. The Tx2 nations aim to publish a new global tiger population figure in 2016. ●

Grim trade threatens slow lorises

How leaky rural borders are allowing threatened Burmese primates to be traded into China.



© Linda Fiedler/Project

The extent of trade in a threatened species of loris has been highlighted by PTES grant recipient **Anna Nekaris** and colleagues in a paper published in the journal *Primate Conservation*. Repeat visits to the Burmese market town of Mong La, close to the border with China, suggest that more than 1,000 Bengal slow lorises are illegally traded through the market each year. Most arrive alive and are killed for sale, either whole or in parts for use in traditional medicines. Others are sold as pets. ●

Rhinos in crisis

As losses to poaching reach a new high, the end is in sight for Africa's remaining rhinoceros species.



© Shutterstock.com / Johannes Gerhartus Swaneveld

Sadly 2014 was a record year for rhino poaching in South Africa, with 1,215 recorded incidents. One rhino is killed for its horn every eight hours, in this one country. Similar increases are taking place across Africa and Asia, where three of the world's five species of rhino are Critically Endangered. The rocketing street value of rhino horn products in Vietnam and China now means that that money is no object to the criminal syndicates who use high-tech equipment to find and kill the animals, and the people trying to protect them. At current rates, according to rhinoceros conservation charity Save the Rhino, deaths will exceed births within the next two years, leading to extinction in the wild in the very near future.

Meanwhile, the world's most threatened rhino subspecies, the northern white, moved a step closer to extinction last year, with the deaths of a male named Suni at Ol Pejeta Conservancy in Kenya and a female, Anaglif, at San Diego Zoo. Just five other individuals remain in captivity around the world, all of them either elderly or with health problems, and only one female is thought to have any chance of bearing young. ●

DATES FOR YOUR DIARY:

22nd May 2015
Spring water vole and wildlife safari in Gloucestershire

An exclusive photography workshop for all abilities in a fantastic location famous for its water voles and a host of other wildlife.

18th – 20th September 2015
Bentley Wood Fair, East Sussex

Join us at the 20th anniversary Woodfair – a celebration of woodlands, forestry, woodcrafts and of course wildlife.



Find out more
www.ptes.org/get-involved

Nelson's column

Peace in our time

One way or another, conflict sometimes seems part of the human condition. All too often, it's conflict with people that most threatens wild animals. It's time we reinvented ourselves as peacemakers.

In this edition you can read about the community in the Turks and Caicos Islands involved in formulating a fishing policy that protects marine turtles. And our efforts to help wild dogs and snow leopards both hinge on finding solutions to fraught relations with encroaching local communities. Much closer to home, it's a constant battle to remind developers of the benefits of wildlife-friendly housing provision, or to persuade landowners that the landscape they are custodians of is shared with many species vulnerable to haphazard woodland management or careless hedgerow trimming.

But what is heartening is that when conflict is recognised, and addressed with the full involvement of those directly affected, improvements can come fast.

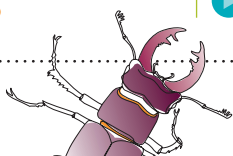
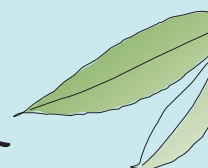
Talking of full involvement, as summer beckons, please help us to protect our native mammals by taking part in our annual *Living with Mammals* and *Mammals on Roads* surveys this year. Every record counts, and you can find details at www.ptes.org/surveys.

Thank you, ●

Jill Nelson



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



Scrapbook



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

PTES gets trap happy

PTES staff enjoyed a day last November discovering the art and science of camera trapping from experts James McConnell and Hannah Henshaw of the recently established social enterprise NatureSpy. Camera traps are now an indispensable wildlife research tool, and having seen the results from many of our projects, we thought it was time we learned how it was done. You can attend a similar course on 18th July at our Briddlesford Wood reserve on the Isle of Wight.

Find out more
www.ptes.org/get-involved



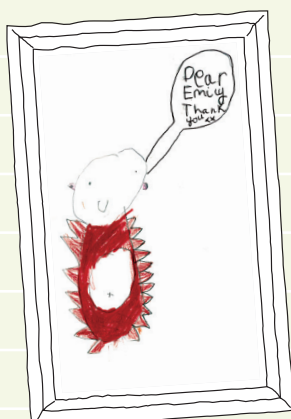
Collared...

Mohammad Farhadinia of the Iranian Cheetah Society (ICS) recently sent an update on ICS's work to establish information on the ecology of Persian leopards in Iran. In an exciting development, two wild male leopards named Borna and Bardia have been fitted with GPS collars in Tandoureh National Park. Both are now transmitting data to Mohammad and his team.

We love our fantastic fundraisers:

Horndean Infant School's Australia Class held a dough baking event and raised a superb £62. Thank you!

Grazia magazine raised a fabulous £336.67 from their weekly Goodie Bag competition. Francis Leon and Karen Millen kindly donated the designer items and chose PTES as their charity – thank you so much!

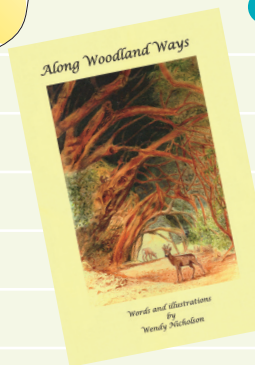


We received this lovely thank you card from Hedgehog Class at Sheringdale Primary School after we gave them a talk all about their favourite animal. They have all promised to become Hedgehog Champions!

In memory

Thank you to friends of our supporter, the late Mr AR Wills, who donated generously to our work in his memory last year so that we can continue to fight for the wildlife he cared for.

For information on making a bequest to PTES see www.ptes.org/ways-to-give/leave-us-gift-will.



'Along Woodland Ways'

Of all the ways PTES supporters find to raise funds and awareness, few are as charming as this illustrated poem by squirrel enthusiast Wendy Nicholson. Wendy has donated £100 from sales of *Along Woodland Ways* to PTES. As a founder member of Northern Red Squirrels, I'm eager to raise funds, even though I now live in Somerset. Thank you Wendy – we love it! *Along Woodland Ways* can be purchased for £3 (p&p incl). Please email southlakesrsgroup@btinternet.com for details.

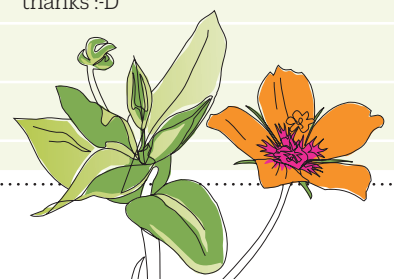
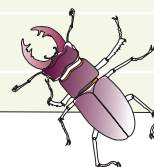


/PTES

Top Tweets

[@hoags_p](#): Another cracking weekend on the Isle of Wight coppicing for #clormice. Great fun and great company. Cheers

[@ShelfsideMike](#): Hedgehog Ale order arrived today! Cracking, thanks :-D





Saiga saga

We've been supporting work on saiga antelope for many years. Last autumn our Grants Manager, **Nida Al-Fulaij**, visited the project in Russia. Saiga numbers have plummeted since the collapse of the Soviet Union, as the opening of borders has permitted large-scale poaching. There's also now huge demand for saiga horn in traditional Chinese medicine. Nida saw for herself how teams from Russia, Uzbekistan and Kazakhstan are working across the species' range, engaging children, teachers and families in saiga conservation. Steppe Wildlife Clubs are boosting enthusiasm for nature, promoting the saiga as a national symbol, and educating potential future poachers about the situation facing this species.

Meet the team

PTES is run by 15 dedicated members of staff, guided by a board of trustees. Ian and Hannah are familiar faces in the office and the field, having been with us 9 and 8 years.

Ian White Dormouse Officer



I joined PTES after making a career change from retail to conservation. My general interest in small mammals had been focused on hazel dormice and after a lot of training and volunteering I was in the right place at the right time when the role of Dormouse Officer was created. I now oversee dormouse monitoring and training at the PTES nature reserve at Briddlesford on the Isle of Wight, manage the dormouse reintroduction programme, contribute to the National Dormouse Monitoring Programme and write regularly for the **Dormouse Monitor**. I even have a T-shirt proclaiming 'Half man, Half dormouse', which might actually be true...

Hannah Stockwell Fundraising Officer



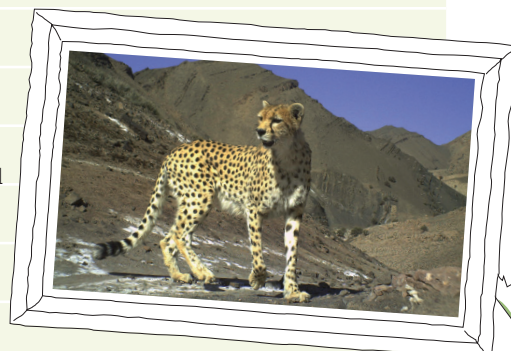
My love for all things nature didn't blossom until I moved to London from Yorkshire 11 years ago and found myself missing the green and pleasant hills I'd always taken for granted. This sparked a career change and I left the private sector to gain a BSc in Wildlife and Conservation. I joined PTES in 2007, initially as Promotions Officer and now I coordinate all our fundraising efforts. I enjoy working for a smaller charity, as the role is very varied and I get to see first-hand how the money raised is helping our native wildlife.



Sue Myers opened a hedgehog highway through her Staffordshire garden – that's what we like to see!

Smile, you're a winner!

A PTES funded project has produced a winning photograph in the BBC Wildlife camera-trap Photo of the Year competition 2014. This magnificent male cheetah, known as Arash, triggered a camera set up in Naybandan Wildlife Refuge, eastern Iran by the Iranian Cheetah Society. The image was voted Overall Research Winner.



f/ptes.org

Facebook Favourites

'Thank you to all who work so hard to capture these precious moments of snow leopards! What a gift to be able to see them!' **Celeste Trave**



'When I got a water butt connected I realised I'd blocked the hole in the corner the hoggies get through so I had to make them a new entrance...' **Vivienne Downes**

Publications

A few recent publications arising from PTES project research

Nekaris, Arnell & Svensson;

Selecting a conservation surrogate species for small fragmented habitats using ecological niche modelling
Animals (2015) 5 27-40; doi:10.3390/ani5010027

O'Mahony, Turner & O'Reilly;

Pine marten (Martes martes) abundance in an insular mountainous region using non-invasive techniques
European Journal of Wildlife Research (2015) 61: 103–110

Fonturbel, Candia & Botto-Mahan;

Nocturnal activity patterns of the monito del monte (Dromiciops gliroides) in native and exotic habitats
Journal of Mammalogy (2014) 95 (6) 1199–1206



Scotland's water vole champions



At last there's reason to be optimistic about the future of Britain's water voles, as conservationists get tough on the causes of decline. **Xavier Lambin**, **Ewan McHenry** and **William Morgan** at the University of Aberdeen are leading the way.



Britain's largest vole, the water vole, experienced a dramatic decline in recent years, disappearing from 95% of sites occupied in the 1970s. The decline was primarily the result of predation by invasive introduced American mink, aggravated locally by habitat loss and degradation resulting from agricultural intensification.

Water voles in Scotland live in small colonies, often comprising a single family group, but with links to other colonies in a neighbourhood. Piecemeal local extinction of these colonies can have a detrimental knock-on effect over a wide area, leading to local populations becoming fragmented. Small, isolated populations are much more susceptible to episodes of bad luck, such as only males being born in one year or a stoat or heron picking off a whole colony.

Water voles came to Britain in two waves as glaciers retreated following the last ice age, leading to two populations that are still genetically distinct today. The first to arrive from continental Europe were the ancestors of today's Scottish voles, while the descendants of those that arrived later now inhabit England and Wales. This once ubiquitous species gained considerable cultural significance when it was immortalised as the handsome and genial "Ratty" in Kenneth Grahame's *The Wind in the Willows*. The real-life Ratty was once a familiar sight, but today generations of children are growing up without ever seeing a water vole or hearing the characteristic 'plop' as one flees into the water.

As well as being very charismatic animals, water voles also play an important ecological role, providing food for many native predators including otters, owls and herons. And like the industrious beaver, water voles also play an important role as ecosystem engineers. Their burrowing activity can influence local hydrology for years even if sites subsequently become unoccupied. In the Highlands of Scotland, water vole burrows are associated with increased plant diversity and improved nutrient cycling. The loss of water voles leads to the ecological depletion of the vegetation along riverbanks.

Water voles will dive into the water to avoid predators or escape into their

RIGHT: A significant proportion of Scottish water voles are chocolate brown or black, unlike their English and Welsh counterparts, which are more uniformly chestnut-coloured. The differences trace back to the ancestors of British water voles, which arrived from different parts of what is now mainland Europe.

burrows, which usually have entrances both above and below the water line. However, they have no defence against mink, which can pursue them under water. Female mink are even slender enough to enter vole burrows, leaving families without any refuge. Mink were originally imported to the UK in the 1920s and farmed for their fur, but subsequent escapes and illegal releases allowed them to become firmly established in the wild. Like other members of the weasel family, mink have a high metabolic rate, meaning that they require large amounts of prey. A female mink with a litter of multiple pups can easily hunt out entire water vole colonies, eliminating water voles from extensive areas. Mink are generalist

In the Highlands of Scotland water vole burrows are associated with increased plant diversity and improved nutrient cycling

predators, not solely dependent on water voles or any other single prey species, and so when prey populations decline they can usually find alternatives. Thus they can remain at high densities and pick off any water voles that attempt to recolonise.



Water voles are surprisingly hardy, and can survive in a wide range of watery habitats, from rivers, streams and ponds to areas of marsh, water meadows and drainage ditches.

Xavier Lambin and his team at the University of Aberdeen have been researching water vole populations in Scotland for 19 years, and have discovered much relevant to the conservation of the species. The Scottish Highlands present very poor habitat for American mink and although water voles occur at far lower density here than in the lowlands, the



Mink are admirable animals in their own right – handsome, devastatingly effective predators about the size of a small cat. Their lustrous fur was what brought them to Britain, where fur-farming was legal until 2000.

OUR WORK WITH WATER VOLES



© Ann Marie McManister

LEFT: The power of the Scottish Mink Initiative lies in its use of volunteer monitors to check mink rafts for signs the unwelcome predators have moved in to an area.

RIGHT: Water voles are strong swimmers and easily distinguished from similar-sized rats in the water by their buoyancy – most of the back floats clear of the water, and they leave an obvious V-shaped wake. Rats float lower in the water and leave less of a wake.

absence of mink allows the area to act as a refuge for them. Here water voles inhabit small patches of suitable habitat where they have access to slow-running water and vegetation for grazing. These stretches of habitat are generally quite short, often only supporting a single family of water voles, which can easily become extinct. Fortunately, juvenile water voles are able to disperse large distances, and if they're lucky enough to meet with a member of the opposite sex on an unoccupied patch, they have a chance to start a colony of their own. The overall population can be sustained as long as the rate of extinction does not surpass the rate of formation of new colonies. This fragile equilibrium has allowed the Highlands to serve as refuge for water voles. But this should be a common and widespread animal across the region – not a species clinging to a marginal existence. There is a vast amount of ideal water vole habitat in the Scottish lowlands. All that stands in the way of the water voles are the mink. If Ratty is to return, they have to go.

Despite the goodwill of many local groups, many earlier attempts to control mink were met with failure. The Scottish Mink Initiative (SMI) is a marked exception, and along with its precursors run from the University of Aberdeen, has largely succeeded in removing mink from an area of over 20,000km², making it the world's largest invasive species removal programme. SMI mink control is carried out in two phases: monitoring for presence, then trapping. Volunteers operate mink detection rafts that the naturally inquisitive mink cannot resist investigating. They pass through tunnels on the rafts, leaving paw prints on a clay plate. Once a mink is detected in a vicinity, a cage trap is set within the tunnel and checked daily. Once caught, the mink is dispatched humanely by a trained expert.

SMI has united a range of stakeholders and citizen conservationists with often conflicting ideologies under the banner of protecting a native species. But now it faces its greatest challenge; expanding the area over which it operates, with diminishing funding. To help accomplish this, PTES is supporting PhD student **Ewan McHenry's** project, 'Doing More with Less', which aims to optimise SMI operations, by using historical and current captures of mink to predict which areas are most attractive to dispersing individuals where control efforts can be focussed.

The success of the SMI has led to water voles spreading into areas surrounding their mountain refugia. However the process has been slow and many suitable areas continue to be unoccupied. Another PhD student, **William Morgan**, is investigating how best to assist recolonisation. Last autumn William and Ewan captured water voles from thriving highland populations for release this spring into key areas where it is hoped they will kick-start the recolonisation. Ewan and William will monitor these and other water vole populations in northeast Scotland to determine the level of mink control required to protect them as they become established. ●



© Laurie Campbell



© Ian Schofield / Shutterstock

NEW FROM PTES

The National Water Vole Monitoring Programme

This year we are excited to launch the first ongoing National Water Vole Monitoring Programme (NWVMP). Vincent Wildlife Trust previously conducted two national water vole surveys, in 1989–90 and 1996–98, which demonstrated a dramatic decline of water voles across Britain. The first survey made clear that the species had disappeared from many of its former haunts, but the second set of results were a real shock. In just seven years, nearly 90% of the remaining population had disappeared. The sites visited during these surveys form the basis of the NWVMP. By regularly resurveying them, we'll be able to detect any changes since the 90s and any trends that take shape in the future.

It's a huge task, and we can't do it without help. Volunteers can sign up online to help us survey at least one of these 1km² sites. Once assigned a patch they'll be asked to visit it once every May to survey a 500m stretch of bank, recording all signs of water vole activity. The results will then be collected in a national database, which we will manage and analyse regularly.

If you're currently monitoring a site as part of a local initiative, you're very welcome to register with the NWVMP so that your data can be incorporated. We'll be encouraging monitors to take on an additional pre-selected site to try and ensure that the data collected are as robust as possible and reflect the national population trend of water voles. ●



© Laurie Campbell

Find out more
www.ptes.org/watervoles
watervoles@ptes.org

Fact File

SPECIES NAME

Arvicola amphibius

COMMON NAME

European water vole

DISTINGUISHING FEATURES

Large vole with blunt nose, round ears and a long tail covered in fur. Most often chestnut brown although black voles are common in Scotland.

HABITS

Water voles construct burrows in the steep banks of slow-flowing rivers and lakes. They require abundant bankside vegetation and consume about 80% of their body weight in plant food daily.

LIFE HISTORY

Young water voles are born in burrows from April to September. Pups spend their first days in a nest of finely shredded grass. Female voles have three or four litters each summer and are capable of breeding in the year they are born.

HABITAT & DISTRIBUTION

Water voles are common in Europe and were once in Britain, although in recent years the species distribution in Britain has declined dramatically. Like other vole species, they are absent from Ireland.

CONSERVATION STATUS

Threatened in the UK and fully protected by the Wildlife and Countryside Act, 1981 (as amended).

My vole story

Ewan McHenry explains why the SMI blend of action and research makes for powerful conservation.

For me, becoming an ecologist was the perfect way to combine my love for nature and desire to do some good in the world. Now thanks to PTES funding, I'm able to realise my dream and take part in a large scale project that has the potential to make a very real difference! I love research and in previous projects I've worked with pine martens, wood ants and small mammal populations, investigating issues with a direct application to conservation. Management of invasive species is a sensitive issue, but in a world where the harm caused by invasives comes second only to habitat destruction, it's something we can't afford to ignore. The great thing about this project is that the goal is very clear – we are protecting a native species from its biggest threat, rather than controlling a nuisance species for the sake of it.



© Ewan McHenry



Action for British bats

Bats make up roughly one third of British native mammal species, and all of them are vulnerable. Recent PTES awards reflect our concern for these wonderful species – we're currently funding eight different bat projects around the country.

The mysterious visitor

Kate Barlow of the Bat Conservation Trust is researching one of Britain's least known bats, *Nathusius's pipistrelle*. Kate and her team are analysing DNA from fur samples to find out where individual bats come from as part of a wider study into the species' mysterious migration patterns and its population status in the UK.

High-tech tracking

At the University of Bristol, **Fiona Matthews** is applying GPS technology to identify the foraging areas and regular commuting routes of greater horseshoe bats. New tags, small enough to be fitted to a bat, promise to overcome problems encountered using more traditional survey methods such as bat detectors and radio tracking.

Surveys go large

Our groundbreaking Norfolk Bat Survey conducted last year gathered over 300,000 bat records. **Stuart Newson** of the British Trust for Ornithology hopes to establish the ways the same approach can be applied to studies of bat ecology all over the UK.

Molecular approaches

Henry Schofield and colleagues at Vincent Wildlife Trust and the Waterford Institute in Ireland are attempting a novel means of monitoring Bechstein's bats using DNA analysis of droppings. The method will enable ecologists to survey the species without seeing a bat, to monitor population sizes and genetic relatedness and even to tell, from the length of a particular section of DNA, how old an individual bat is.

On the up

Gareth Jones and his team at Bristol University are investigating to what extent the increasing numbers of greater horseshoe bats being recorded at maternity roosts are a result of habitat improvements through agri-environment schemes and how much might be due to less welcome climate change.

Trouble with turbines

Micro-generation by small wind turbines is an attractive sustainable energy solution in many situations, and there are now more than 20,000 such units in the UK. Bats tend to avoid the immediate vicinity of turbines, but the possible impact on bat populations on a landscape scale remains unclear. **Kirsty Park** and colleagues at the University of Stirling are investigating how the location of small turbines may affect bat foraging behaviour over a wide area, in order to assist in the development of future planning guidelines.

Bats on our patch

Ian Davidson-Watts is continuing a three-year project on our Briddlesford Woods reserve, aiming to identify maternity roosts of Bechstein's bats, breeding and other roosts of barbastelles, and assess how management of the reserve and surrounding landscape affects resident bats. He's hoping to tag nine Bechstein's and three barbastelles this year so that we can track their movements over several nights.

...and there's more! See also Bats in the city, page 16.

Bats in the city

Bat ecologist **Nancy Irwin** tested a very simple idea. Would letting grassy vegetation grow long in the green spaces of a city create more productive foraging areas for urban bats?



© Hugh Clark/BCT

Wildlife needs consideration if it is to thrive in urban spaces, but the limited green space in most cities has to serve the needs of humans as well as wildlife and management spending for both comes from an ever-decreasing budget.

We set up an experiment on eight public green spaces in the city of York, including a cemetery, amenity land,

commons and a grassy knoll. Instead of being kept mown, these plots were left to grow freely until July. Each site also had a control area where the grass was cut regularly as usual. New bat recording technology was used to automatically monitor each plot all night throughout the summers of 2011 and 2012. We also placed detectors in nine private gardens to see how bat activity and diversity there compared with the public spaces.

Over 1,458 night's worth of monitoring, we amassed roughly a quarter of a million records from 140,298 bat passes, all of which were identified automatically to species. Site surveys revealed that delayed mowing increased plant and arthropod diversity and abundance up to 18-fold in five out of six plots (the other two sites couldn't be surveyed due to flooding). We expected bat activity to increase accordingly, but our results showed a more complicated pattern.

Seven bat species were recorded visiting the public green spaces, dominated by pipistrelles (94%). Bat activity (ascertained as diversity and number of calls) varied between sites and between years with 44 to 4,283 calls recorded per night. In 2011, three sites showed increased activity over taller vegetation but in 2012, six out of eight sites showed more activity over short vegetation. Assessing each species we found no pattern in 2011 but the trend in 2012 was that most were more active over shorter vegetation. Thus while there is clearly an effect of vegetation height on foraging, it seems to vary

Bats are more flexible in their foraging than previous studies indicate

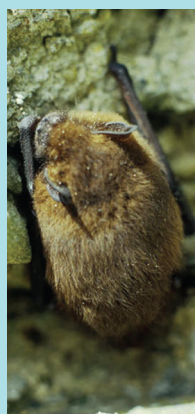
between site and years. In private gardens, 99% of calls were from common pipistrelles, and average numbers of calls varied from 20 to 80 per night. Perhaps surprisingly, gardens appeared less useful for foraging bats than public green spaces.

Our results suggest that the foraging behaviour of bats can be more flexible than previous studies with smaller sample sizes indicate. We conclude that public green spaces in urban landscapes are important to rarer bat species which might not regularly use other green spaces such as gardens or streets, and therefore recommend that the most beneficial management regime in these areas may be a mosaic of short and tall vegetation. This patchwork will ensure that a full range of bats have opportunities to forage even as their requirements change between sites and years.

This work was done in collaboration with Olivier Missa, Natalie Le Brune, Rachael Elliott, Adam Bosworth, Colin Hough, Colin McClain, Calvin Dytham and ecologists from York City Council and Yorkshire Wildlife Trust. ●



© Nancy Irwin



© Dave Brown

ABOVE:

The steep banks of the historic city walls were transformed into wild meadows by suspending the regime of routine mowing.

LEFT:

Common and soprano pipistrelle bats were among the species most frequently recorded over two summers of intense bat monitoring around the city of York.

Wild cat or wildcat?

We're funding practical research to help unravel the enigma of the genetic mixed-bag of cats living wild in Scotland. **Melanie Cannon** reports.



The Scottish wildcat is a mysterious feline, not least because of its scarcity. Of an estimated 3,500 'wild-living' cats in Scotland, it's thought that only about 400 are pure wildcats. The others are feral domestic cats and hybrids of the domestic and wildcat. **Ruairidh (Roo) Campbell** of the Wildlife Conservation Research Unit at Oxford University is studying behaviour and hybridisation in wildcats and wild cats at three sites, in Inverness-shire and Aberdeenshire. He's using a range of techniques, including using catnip and other bait as attractants, Velcro to collect samples of hair, and live-trapping to fit cats with GPS collars. When the GPS data is analysed, it should provide useful information regarding home ranges, activity patterns, habitat use and possible interactions between individual cats living in the same area.

Of an estimated 3,500 'wild-living' cats in Scotland, it's thought that only about 400 are pure wildcats

So far nine wild-living cats have been captured and collared. These ranged from 50 to 79% wildcat, based on 14 criteria for assessing genetic purity. Interestingly, two all-black females tested were at least as pure as the more 'wild-looking' tabbies captured. Roo is expecting cat populations in the study areas to have increased after the mild winter and spring of 2013/14, and this should boost the opportunity for further data to be gathered. ●



LEFT: This wildcat shows the classic tabby markings of a pure-bred animal, but hybrids often look confusingly similar.

BELOW: Camera traps have been deployed at three sites to monitor wild-living cats.



© David Hurn photography / Shutterstock

UK butterfly update

What effect does managing a habitat for one species have on other species? It's a debate among conservationists and one that two PTES-funded studies on UK butterflies are investigating, says **Melanie Cannon**.



Large blue butterflies, which became extinct in the UK in 1979, have been successfully re-introduced to Dartmoor in Devon, and are also now re-established in Somerset and the Cotswolds. A study led by PTES intern **Sarah Meredith** is investigating whether conserving this butterfly will benefit other species – many of which are also endangered. The project involves counts of butterflies, bee-flies and moths, along with surveys for ants and rare and characteristic plant species. Sarah is continuing work carried out by her supervisor Jeremy Thomas in the 1970s, which looked at the wider effects of managing habitats specifically for large blues. The monitoring of the acidic Dartmoor grasslands where large blues were first reintroduced has continued for over 40 years, creating a unique and valuable

dataset, which Sarah's work will enhance with further important information.

Meanwhile, one of our smallest butterflies, the Lulworth skipper is the subject of another PTES funded study, which is looking at the importance of roadside verges as a habitat for this species and others. The aim of intern **Kevin Wood's** project was to understand the butterfly



communities of different roadside verges in an area of Purbeck in Dorset, to discover whether the habitat management could be improved for Lulworth skippers, and whether this kind of management might harm other species. The study revealed that butterflies with specialist habitat needs (including Lulworth skippers) are less likely to occur on verges than those with more generalist requirements. Twenty-four different butterfly species were recorded during the study, and the management of roadside vegetation proved a significant factor. The length to which the grasses are routinely cut, and the frequency and timing of mowing tended to suit butterflies that favour shorter grass than Lulworth skippers require. Unfortunately for the Lulworth skipper this regime is unlikely to change, because it gives drivers good visibility. ●

© Peter Edes

Rare Cuban native trees back where they belong

How an innovative programme is brightening the future of two endemic trees, with the help of the coffee farmers whose plantations displaced them.

Our partners in the montane forests of Cuba are working with coffee farmers to protect two endemic plants. The Cuban magnolia and the little-known Sabina yew only exist at high mountain elevations. Unfortunately it's in this particular area that coffee also grows best, and much of the rainforest has been cut down to make way for plantations. The mix of plants that favour this mountainous area is central to the natural character of the rainforest ecosystem. So it's essential that we protect these species not just for their own sake, but also to preserve what is a unique environment. Since these species now only exist on land that is being cultivated, **Luis Gonzalez Torres** and his

team set out to engage landowners and coffee farmers and train them in the skills required to ensure that these wild plants continue to survive on their farms. So far, 63 farmers from widely dispersed areas have joined the project. Involving them all was no mean feat considering that they each had to be visited individually as they were too busy to leave their farms and travel to a central training event. As well as learning to identify native and invasive plants, the farmers received tool kits and saplings to help them establish nurseries where more magnolias and yew trees could be nurtured. The project has improved the outlook for both rare trees and for many other rainforest species. ●

endangered



Cuban yew tree seedlings being nurtured in plant nurseries

© Luis Gonzalez Torres

A brighter future for Caribbean turtles

A project to develop sustainable fishing has been heralded a great success for sea turtle conservation.

We're delighted to report that the Marine Conservation Society's Turks and Caicos Islands Turtle Project, which we've supported since 2009, looks set to achieve its goal of enabling traditional fishing practices to continue while protecting breeding adult turtles.

Extensive biological and social research, including workshops and interviews with the fishing communities, has culminated in significant changes to fishery management being enshrined in law last year. The new regulations put size restrictions on landed green and hawksbill turtles and proscribe an eight-month closed season for hawksbills

during their nesting period. Capture of all other marine turtle species found in the Caribbean is now banned, as is the export of all turtle products. Live turtles can only be kept on the islands if they are in need of rescue and rehabilitation. All this is to be closely monitored by the relevant government agency.

Through our donations, we funded eight of the 17 satellite transmitters used during the project to track adult hawksbill and green turtle movements to see where and when they forage and breed. This vital information determined where and when fishing should be restricted. One green turtle, with a PTES transmitter on it, performed a complete 'developmental migration', travelling south from a feeding site in the Turks and Caicos Islands and eventually settling to forage on the Colombian coast before transmissions ceased after 496 days. Quite a journey, and now, a much safer one. ●



© iStock/Shutterstock

Hog tag trials and tribulations



How new technology funded by PTES is helping keep track of reintroduced pygmy hogs in India.

There are probably fewer than 300 pygmy hogs left in the wild, restricted to just 500km² of Manas National Park in Assam, India. It's hard to be certain, though, and the clue is in the name – these charismatic wild pigs are small and therefore difficult to find in the tall, wet grasslands where they prefer to live. Fortunately, they respond well to captive breeding and reintroduction. Previously released animals have already bred in the wild and are beginning to disperse into new areas. It's essential that this momentum is maintained, and 65 captive pygmy hogs are now being cared for at two locations in readiness for a further release. Equally

important, however, is a reliable means of monitoring the animals after they have been released into the wild.

With our support, **Goutam Narayan** from Durrell Wildlife Conservation Trust is developing a new monitoring methodology that doesn't rely on field signs such as footprints and nests. Trials in which radio transmitters were attached to collars or (painlessly) stitched onto the neck hairs of released animals proved unsuccessful. But Goutam is having more success with transmitters on ear tags. Field tests have shown that a strong signal can be detected 400m away at ground level and up to 500m from an observation tower. This is exactly



© Goutam Narayan

what's needed, but there are still problems to overcome. Some of the transmitters failed because of what appears to be a hardware problem rather than any difficulty for the animals. It should be possible to correct this by improving the design, and a second round of trials in May will test these modifications. ●

Saving Smaug



Fans of *The Hobbit* know Smaug as a terrible dragon, but the real *Smaug giganteus* and its relatives are actually rather small, and in need of help.

Sungazers are attractive, ground-dwelling lizards from the highland grasslands of South Africa. In the wild they breed every couple of years, giving birth to only one or two live young. In captivity they don't breed well at all, which means that the enthusiasm of some people to keep them as pets relies entirely on illegal capture from the wild. To make matters worse, the grasslands where sungazers and other species thrive are disappearing. Two thirds of the landscape has already been lost to mining and agriculture and very little of what's left is formally protected.

We're helping sungazer expert **Ian Little** of the Endangered Wildlife Trust to protect the remaining fragments of highland grasslands for sungazers and other species. Through a process known as 'conservation stewardship', private landowners are encouraged to legally declare their properties as conservation areas. Land sufficient for a least five viable sungazer populations (about 5,000 hectares) will be protected by the end of the project. Ian is also drawing up practical guidelines to manage the relocation of

doomed sungazer populations from areas now too small to support them. This is important because sungazers are unable to tolerate much disturbance, and don't naturally recolonise.

Meanwhile, public talks, broadcasts and articles are discouraging the keeping of sungazers as pets and border control guards are using specially trained sniffer dogs to tackle the illegal harvest and trade of these beautiful reptiles. ●



© Dennis W. Donohue / Shutterstock.com

The tall and the short

Science has fallen short when it comes to understanding the world's loftiest animal. We're working to improve knowledge and protection.

Despite being a popular, globally recognised animal and an iconic symbol of Africa, giraffes are threatened in the wild. Populations have declined by 40% in the last 15 years, some by as much as 80%, and giraffes are already extinct in eight countries. Despite this potentially dire situation, little is known about how giraffes behave and what they need to thrive. Knowledge is particularly scarce in comparison with other large African mammals.

We are supporting **Zoe Muller** at the Giraffe Research and Conservation Trust to find out more about the three subspecies found in Kenya – Rothschild's, reticulated and Masai giraffes. Her priority is to establish a benchmark population size and distribution for each, and to identify and enumerate the threats. This will help the Kenya Wildlife Service put a strategy in place to protect the remaining giraffes. They will then measure success of their actions and know if more help is needed. ●



Can the comeback toad do it again?

How a toad facing its second brush with extinction may offer hope for threatened amphibians the world over.

The Mallorcan midwife toad was once widespread in Europe, but was considered extinct when it was described from fossil remains in 1977. Then in 1979, a handful of living specimens were discovered in caves on the island of Mallorca. A captive breeding programme helped boost the wild population to between 500 and 1,500 pairs, but at a price. The population has become infected with chytrid disease, caused by the fungus *Batrachochytrium dendrobatidis* (Bd), apparently via captive bred individuals in the UK.

Chytrid disease is often fatal and has caused catastrophic declines in amphibian numbers around the world, but susceptibility to the condition varies, and there is evidence that probiotic bacteria naturally present in the mouths of some frogs may play a part in controlling infections. Bd is not fatal in tadpoles, but if the pathogen is present at metamorphosis it can spread rapidly through the body and quickly kill the young frog. Thus resistant tadpoles are more likely to survive to become breeding adults.

Nadia Jogee, a PTES intern working at the Zoological Society of London, has been investigating the bacterial flora living in the mouths of midwife toad tadpoles. Being large, they make an ideal model organism as their mouths are easy to swab. Nadia's results suggest that different tadpole populations do indeed have different communities of 'friendly' mouth bacteria. Whether these are inherited from their parents (from the mother during spawning or the father as he incubates the eggs) or from the environment in which the tadpoles hatch and develop, is less certain. However, tadpoles with a diverse and abundant mouth flora are likely to be better at resisting disease, and this will be an important consideration in selecting clutches of tadpoles for future reintroductions. And of course, any advances in understanding the infection processes of Bd may benefit not only midwife toads, but also a great many other amphibians. ●





© Claire Pengelly

Stacking odds for dormouse success



As coordinator of the National Dormouse Monitoring Programme, PTES has been at the forefront of dormouse conservation for decades, and our efforts to restore the species to its former range continue.

Discovery of the extinction of hazel dormice from large parts of the English and Welsh countryside 30 years ago galvanised our long term commitment to putting them back where they belong. Since then we have reintroduced dormice to 19 woodlands in 12 counties.

The first of the reintroductions took place in a 132 hectare wood in Cambridgeshire in 1993. Dormice are still there and seem

to be doing well but, even after all this time, there is no evidence that they've started to disperse beyond that woodland.

More recently, dormice were released in 2013 and 2014 in two separate, well-managed woods in Nottinghamshire, both owned by the local Wildlife Trust. Whilst the dormice are left alone to establish themselves in the woods, Nottinghamshire Wildlife Trust and PTES are encouraging

local landowners to improve the hedgerow linkages between the two woodlands. Already the dormice in one of the woods have bred and dispersed across the site to areas of suitable habitat so they should soon be ready to venture down safe and leafy hedgerow corridors to meet their neighbours.

Already the dormice in one of the woods have bred and dispersed across the site

by Natural England. The report suggested that putting at least two populations back in close proximity, with appropriate habitat linkages, is more likely to lead to long term dormouse colonisation than a single isolated one.

Another dormouse reintroduction is planned for Nottinghamshire in June 2015 and we will report further in the next edition of *Wildlife World*. ●

This new approach to reintroduction follows a recommendation from a recent review of the programme

And there's more! We don't have room to tell you about every project, but your donations have also been supporting...

PYGMY THREE-TOED SLOTHS

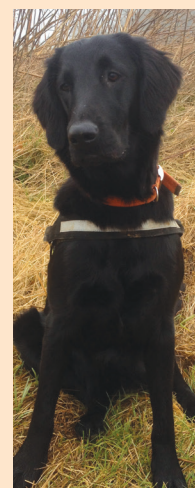


© ZSL

These sloths are endemic to a small island off the coast of Panama. The island doesn't have any people living on it but visitors cut down mangroves, in which the sloths live, for charcoal and timber. We know so little about this species that it's important to carry out an immediate census. We're also supporting an awareness raising programme and working with the visitors to improve management of the island. ●

MOUSE TRACKER DOG

This is Tui. She's a detection dog being trained to track down harvest mice as part of an innovative new project to establish the status of Britain's smallest and most elusive rodent. We're looking forward to hearing how she gets on and will update you on her progress next time! ●



© Emily Howard Williams

WARNING LIGHTS

In Cyprus, Robin Snape is trying to reduce accidental bycatch of threatened green and loggerhead turtles. He is developing lights that can be fitted on nets used to catch a species of rabbitfish known locally as sokan. It's easier said than done, as the lights have to be specially manufactured and the fishermen need careful instruction in their deployment if expensive equipment is not to end up on the seabed. More on Robin's work next time! ●

DIY



Top tips from biologist, natural history writer and Editor of *Wildlife World* Amy-Jane Beer.

Managing shared green space for wildlife

There's bound to be a piece of shared land near you – a village green, common, community garden, recreational area, roof garden, park, or school field. All are potential havens for wildlife, even if that's not their primary function. And within your community will also be resources of people with skills and expertise, influence, energy and elbow grease. The trick is harnessing these resources to make a real difference and turn shared green spaces into refuges for wildlife and places that everyone can enjoy and be inspired by. Land that people care about and actively manage is much safer from development and poor planning decisions than neglected space, even if the latter can also be beneficial for wildlife.

Establish ownership

01 Before making any changes to the management of a piece of land, find out who it belongs to and check they're happy for you to proceed. Landowners are sometimes already under obligations to carry out some conservation management (especially within designated areas such as Sites of Special Scientific Interest, National Parks and Areas of Outstanding Natural Beauty) and may be only too happy if someone offers to help. Tracking down owners can often be done simply by asking around, but if this fails, you can pay for information from the Land Registry, www.gov.uk/government/organisations/land-registry, where fees start at £3 per title.



Three generations of my family helped plant trees at the Woodland Trust's Heartwood Forest near St Albans, followed with a well-earned pub lunch!



Tell me something...

02 One of the most valuable assets in a community project is knowledge, and in the digital age, this is fantastically easy to come by. But there's no substitute for direct experience, and a great place to start is with local environmental organisations,



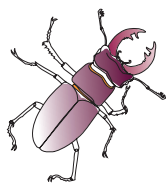
Heave-ho! It's time for a work out in the green gym!



countryside volunteers, wildlife groups and Wildlife Trusts. Local councils also have

conservation officers who will be able to connect you to useful local organisations. For a one-stop shop, you might consider joining The Conservation Volunteers, a charity specialising in linking local groups to a national network offering advice on practical projects, as well as insurance, training opportunities, funding information and enhanced access to grants.





All welcome

03 Practical conservation work is a great social leveller. Brute strength and practical knowhow are fantastically valuable, but so are social and organisational skills, and every project needs tea and cake makers, drivers, and persuaders. If you're dealing in fundraising or grant money, you'll need a treasurer, and how about a photographer or artist to document your efforts? Every individual brings something different to a community project, so try and make sure everyone who offers to contribute is welcomed and given an appropriate and realistic task.

Young hearts are easily won over to nature if they're given the opportunity to just get stuck in. Approach schools and youth groups to get them involved.



© Amy Jane Beier

Funds & freebies

04 Sooner or later, every project will need either money or goods and services in kind. Grants are available for almost any type of conservation project you can think of. For a list of more than 70 UK environmental grant-giving bodies, visit www.greenfunders.org.

It's not only money up for grabs. The Woodland Trust gives away thousands of trees every year, see www.woodlandtrust.org.uk/plant-trees/in-your-community. For wildflower seeds, try www.growwilduk.com now taking orders for 2016. If it's tools you need, try the Tools Shed initiative at www.conservationfoundation.co.uk, in which old tools are refurbished and given away to school and community projects.

Forging a link with a special wild place is immeasurably valuable. Shared green spaces are places to learn and reflect, to exercise and socialise.



© Amy Jane Beier

Health and safety

05 Not everyone's cup of tea, but if you're asking volunteers to work outdoors, wield tools, or do anything they might not routinely do in normal life, it's worth getting some advice on health and safety and risk assessment, and if young or vulnerable people are involved, on Disclosure and Barring Service (DBS) checks. The law generally takes a more common sense view than it is credited for, but it's important to show you've considered the implications of all activities. Local councils can usually provide guidance.



© PTBS

Many hands make light and enjoyable work – as these volunteers building a log pile for wildlife, such as stag beetles and reptiles, know!



Community projects to try:

Flowers for pollinators

Sowing wildflower seed and planting spring bulbs boosts foraging opportunities for nectar-feeding insects.



Bug hotels

Large bug houses can be an eye-catching feature, but small free-draining containers stuffed with hollow stems and dotted about can be just as effective.

Create a pond

Even a tiny water feature can boost wildlife appeal – but make sure it has an escape route for hedgehogs.



Bat monitoring and bat boxes

Public green spaces are vital for bats (see p14). A bat walk with an expert to help you identify different species is great entertainment for young and old.

Tree planting

There's always room for a carefully selected tree to boost the wildlife appeal of a green space. If you have more space, how about an orchard?

Build a log pile

For wildlife, dead wood is as important as living trees, so leave a pile to rot.



Nest box building

A great indoor project for winter – aim to install them in February so they're ready when birds begin househunting in spring.

Join national surveys

Get recording with initiatives such as *Living with Mammals*, *Big Garden Birdwatch*, *Big Butterfly Count* and *BioBlitz*.

Change mowing regimes

If your village green looks like a bowling lawn, why not save some energy and cash by letting some of it grow attractively wild until about July.

© Amy Jane Beier



© Shutterstock Opposite page: Jarred Top right: Viki Chen Above: Nick Left: Oshari, dorewco, lookernat

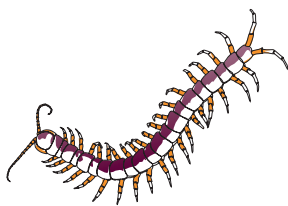


Snow leopards are formidable predators forced to live in ever closer proximity to humans. They are already highly endangered, but when their prey is the food and livelihood of subsistence herdsman they come under extreme threat from retaliatory killings.

In Mongolia we've already set up 19 Community Responsible Areas, where accredited status, physical protection and community training are helping to prevent reprisal killings and make life safer for snow leopards. We need to create more of these areas elsewhere.

Your support is vital.

Thank you.



people's
trust for
endangered
species