

BIODIVERSITY

NEWS

2016



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SPRING EDITION

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From *the* Editor

Welcome to the 72nd edition of Biodiversity News,

A massive thank you to everyone who has contributed to this edition. We have a great range of stories from across the UK, including the launch of the Polli:Nation project and the results from the Great British Beach Clean event in Scotland. There is also a range of updates from several Wildlife Trusts, including the expansion of some key nature reserves - excellent news!

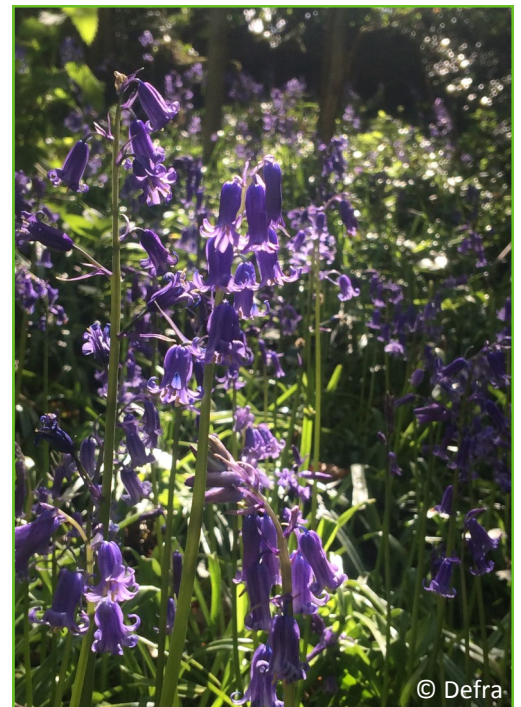
We also had an brilliant response to our #BNcover competition on twitter. I am glad to announce @ReySincJackie as the winner for their lovely shot of a hawthorn in bloom. If you turn to page 34, you will find a collage of all the images we have received both through the twitter competition and through email.

Please go ahead and share this newsletter with anyone you feel may be enjoy it. You can also follow us on twitter [@DefraNature](https://twitter.com/DefraNature), to keep up to date on similar stories and news on UK biodiversity.

To submit stories or photos for the summer edition, or if you would like to receive this newsletter via email, please don't hesitate to contact me at biodiversitynews@defra.gsi.gov.uk.

Best wishes,

Emily Broadwell



75,000 children across the UK join forces to protect precious pollinators

205 schools begin plans to transform their grounds to create insect homes

205 schools located across all counties within the UK, are celebrating the news that they have been selected to participate in the UK wide 'Polli:Nation' project – an initiative which supports schools to provide food and shelter for Britain's pollinating insects.

The 205 selected schools have been handpicked, following an application process that required them to demonstrate how they would like to transform their grounds to support the dwindling population of Britain's pollinators.

Following the interactive website launch, the programme has also been made available for all schools to participate. Access to the website will enable all schools and communities in Britain to independently get involved by using the vast array of free resources available at: www.polli-nation.co.uk

The Polli:Nation project, developed by the charity Learning through Landscapes (LTL), is the result of a collaboration between various wildlife and education organisations. The programme runs over a period of three years and allows selected primary and secondary schools to join forces in clusters of four. Pupils will have direct hands-on experiences; from creating vertical green walls and night-blooming flower beds, to lobbying to change school maintenance regimes and debating pesticide use.

Schools from all corners of the UK -from Penzance to John O'Groats, and from every nation in the UK - will contribute by developing a variety of projects. Some will aim to protect the UK's rarest pollinator, the Great Yellow Bumblebee, whilst others will develop orchards, wildflower meadows and spaces for brambles and nettles - which make excellent winter shelter for pollinators.

The Polli:Nation project- funded by the Heritage Lottery Fund (HLF)- will eventually provide a total of 260 chosen schools with curriculum linked resources, training opportunities for teachers, funds for physical developments as well as ongoing support and guidance from one of LTL's trained experts. A combined roll of 75,000 children will learn about the different pollinators we depend on and how to identify and survey them, whilst they collect and contribute essential data, which will be used in a UK-wide pollinator survey. A further 55 schools will also be named as participants in the coming weeks.

Organisers LTL, are now encouraging any school that also wishes to get involved, to visit the website at www.polli-nation.co.uk to utilise the free guidance, inspiration, facts, lesson and activity ideas, information sheets, and much more.



© Malcolm Cochrane Photography

David Hodd, Learning through Landscapes' Project Manager, explains, "The selected schools have proposed some fantastic projects -and we are really looking forward to supporting them in transforming their environments. It will be an incredible accomplishment for 260 schools to make space for our pollinators, whilst increasing numbers and sightings of these insects in the UK. We also hope many more schools join us, by utilising the website for inspiration, guidance, project ideas, teaching plans and much more."

Stuart Hopley, Head of Heritage Lottery Fund London, said: "This wonderful project enables children to learn about natural heritage and how vital it is for society. Thanks to National Lottery players we have been able to support this work. Having suffered a huge decline in numbers in recent decades, pollinating insects need a helping hand from us, and Polli:Nation is getting a lot of little hands helping- all across the UK."

The Polli:Nation project has been developed by Learning through Landscapes in collaboration with other sector partners including The Field Studies Council, Buglife, Butterfly Conservation, OPAL Imperial College London, Stirling University, Bumblebee Conservation Trust and The Conservation Volunteers.

The Hive comes to Kew Gardens

Journey of the British bee comes to life this summer in a celebration of UK innovation and design

Reconnect with nature and venture into the world of pollinators this summer at the Royal Botanic Gardens, Kew as you experience the world of the honeybee come alive within Wolfgang Buttress' award winning installation, The Hive. Conceived as the centrepiece of the UK Pavilion at the 2015 Milan Expo and designed in collaboration with BDP and Simmonds Studio, The Hive is the first ever British Pavilion to be reused, and will be unveiled within the stunning landscape of Kew Gardens in June 2016.

Towering 17 metres high, this magnificent, ever changing space will stand as a visual symbol of the pollinators' role in feeding humanity and the challenges facing bees today. Illuminating talks, tours, activities and films will bring the Gardens to life, showing visitors how they can make a difference.



Visitors will be drawn into The Hive via a lush and vibrant wildflower meadow as though they are bees returning to the hive. Once inside, thousands of flickering LED lights will bring this 40 tonne lattice structure to life, while an orchestral arrangement sets the mood. After discovering that bees hum in the key of C, a beautiful, complementary symphony of vocals and cello was composed and recorded, to create a calming, meditative soundscape within The Hive inspired by the deep visceral hum of bees. Triggered by real-time activity within a living beehive located nearby in the Gardens, the sound and light intensity within the space will change as the energy levels in the real hive fluctuate, giving visitors an experiential insight into the life of a bee colony. As dusk falls, the hypnotic pulse of the delicately glowing lights will make the planned series of 'Hive Lates' a must see from late summer through to autumn.

The story of pollination will continue to come alive for visitors throughout Kew, from seeing the seasonal array of sumptuous fruit and veg in Kew's Kitchen Garden, to basking in the British summer on a Pollination Trail across the Gardens, revealing Kew's extraordinary



collections in horticulture, science, art and archives. Individual beehives, housing honeybees, bumblebees and solitary bees will take up home in the Gardens, enabling visitors to understand the inner workings of a hive, while the summer holidays will be filled with hands on activities for all ages.

Richard Deverell, Director of the Royal Botanic Gardens, Kew said: "We are truly delighted to welcome The Hive to Kew, both for its incredible beauty and for the resonance it has with our work – I can think of no better home for this remarkable marriage of architecture and science."

"The Hive creates a powerful, immersive space for us to explore the urgent issues we face in relation to pollinators, their intimate relationships with plants and their vital role in helping us feed a rapidly growing population."

Wolfgang Buttress, designer of The Hive said: "It's fantastic to watch The Hive coming back to life at Kew. The Gardens offers the perfect environment to host this multi-sensory experience that integrates architecture, science and landscape. I look forward to The Hive opening for the public to come and experience."

Visitors to The Hive will find themselves absorbed in nature, taken on an immersive journey through a constantly changing space triggered by signals from living bees. A true celebration of British innovation and design, The Hive will sit perfectly within the beautiful topography of the Gardens bringing together architecture, science, sound and landscape. This summer, venture into the world of pollination on an experiential journey within a unique space inspired by the journey of the honeybee.

Hive Lates

Experience a summer's evening in Kew Gardens as you amble through a wildflower meadow and enjoy the delicate flickering lights of Wolfgang Buttress' magnificent Hive at dusk, honey infused cocktail in hand.

Enjoy talks from experts before finding the perfect grassy spot to relax and admire the beauty of The Hive while music floats across the Gardens. Reconnect with nature and immerse yourself in the plight of the honeybee with this multi-sensory, award winning installation within the beauty of Kew Gardens.

© Mark Hadden



Biodiversity on Campus: An EAUC Practical Guide

The Environmental Association for Universities and Colleges (EAUC) has recently updated its [biodiversity on campus guide](#). This practical guide encourages universities and colleges in the tertiary education sector to take a fresh look at how biodiversity fits into their sustainability management agenda.



It looks at how to mobilize your institution to take action on biodiversity alongside practical biodiversity management guidance. The guide has been created to help institutions incorporate biodiversity into sustainability management and create new opportunities for wildlife. It focuses on finding ways of managing campuses in the best way for biodiversity. This guide is supported by the [United Nations Environment Programme \(UNEP\)](#) and the [Global Universities Partnership on Environment and Sustainability \(GUPES\)](#).

There is practical advice throughout on habitat creation and management, guidance for successful long-term biodiversity initiatives, strategy and policy. Education sector case studies from around the world are featured to inspire and encourage you, and there are signposts to further information, resources and useful organizations. It contains information for grounds maintenance staff through to environmental and senior estates managers. It will also be useful to any student and member of staff at universities or colleges involved in biodiversity initiatives.



The Michael Smith Building Quad, University of Manchester
© Amanda Bamford

For more information, visit the guide here: www.sustainabilityexchange.ac.uk/eauc_biodiversity_guide.



Fruit Routes, Loughborough University





Great British Beach Clean Results 2015



Thank you to all beach cleaners - we did it!

Our 2015 Great British Beach Clean event has been yet another record breaker! When 5,349 volunteers took part in 2014 we were thrilled – but that record was smashed in September 2015 when 6,035 of you headed to the beach – the most in our 22 year history of running clean-ups.

In Scotland we had a total of 45,815 litter items collected from a record breaking 75 beaches (70% increase on last year), as well as over a 100% increase in volunteers participating from 663 in 2014 to 1421 in 2015. **Thanks to each and everyone of you who came out to organise or volunteer at a beach clean in Scotland – we couldn't have done it with out you!**

We had 13 beach cleans throughout Tayside involving over 90 volunteers during the weekend of the 18th-21st September which is absolutely fantastic! For anyone who hasn't heard, Beachwatch is the Marine Conservation Society's national beach cleaning and litter surveying programme - helping people all around the UK to care for their coastline with the Great British Beach Clean being the flagship event.



Volunteers at Cramond beach helping turn the tide on marine litter! © Marine Conservation Society

Last year there was a 43% increase in the amount of plastic bottles we found during our Great British Beach Clean! In Scotland we found almost 80 bottles per kilometre which is a 21% increase on last year. Together with APRS and others we are supporting the 'Have You Got The Bottle Campaign' which is pushing for a Deposit Return System (DRS) which would put in place a financial incentive to return your drinks container.

Please help show your support through Facebook and twitter on [@mcsuk](#) and [@yougotthebottle](#) or through our website. After such a successful 2015 we are ready to start making plans for 2016. This years Great British Beach Clean will run from the 16th-19th September and it would be fantastic to see you all on a beach then!

Whether you want to become a Beachwatch Organizer for your local beach or just come along to one of our registered events we can help you make it the most educational and fun day out at the beach in your calendar! For more information and to sign up please go to www.mcsuk.org/beachwatch

Features

Picture perfect: Stunning image rewards photographer's patience

Prize winning photo of moorland bird took four years to capture

With piercing yellow eyes, the short-eared owl alights for the briefest of moments on a fencepost as golden evening sunlight bathes the moorland.



© Malcolm Mee/Moors for the Future Partnership

Malcolm Mee's winning photograph was pitted against a high volume of entries showing 'moorland and wildlife' scenes, and impressed the judges enough to take first prize in the Moors for the Future Partnership's first photography competition.

The winning image was chosen by wildlife photographer [Paul Hobson](#) and BBC Springwatch regular contributor [Wildlife Kate](#) (Kate MacRae) who said "Golden light falling on this stunning short-eared owl was what made this shot stand out. The moor in the distance puts this awesome hunter in context with its landscape. A cracking shot!"



Malcolm explained how he achieved his winning image: "I have been visiting the same location for four years trying to get shots of this daytime hunter - I stay in my car as it makes a perfect hide. Finally the owl landed briefly on a post on the other side of the road giving me just enough time to get the portrait that I was looking for".

The five runners up chosen by the judges were: a beautifully atmospheric image of a red deer stag in the mist taken by Brent Hardy; a Peak District mountain hare camouflaged on a snowy moor taken by Paul Gibbs; a family of mandarin ducks lined up on a river bank taken by Steve Green; a brown hare hiding amongst ox-eye daisies and a water vole feeding - both taken by Mary Wilde.

The competition is part of the Heritage Lottery Funded Community Science project run by Moors for the Future Partnership. Since 2003 the Partnership has been working to protect the most degraded moorland landscape in Europe, and the competition is focused on raising awareness of how vital it is to conserve the internationally important Blanket Bog habitat of the South Pennine Moors Special Area of Conservation.



© Mary Wilde/Moors for the Future Partnership

Project manager Sarah Proctor said: "It's wonderful to see all the inspiring moments people living in and around the moorlands have captured and shared with us. It is great to see so many potential Community Scientists engaging with the landscape".

The winning and shortlisted photos can be seen online via the Moors for the Future Partnership website, and will be on display in the Peak District National Park and beyond during the coming months:

Gallery Oldham: May 9 – June 2

Heptonstall Museum: June 3 – 27 (weekends)

More dates will be added throughout the year. Please check the Moors for the Future Partnership website for up-to-date listings: <http://www.moorsforthefuture.org.uk/community-science/competition>.

Features

Solent science invents phone app to count the birds

A unique citizen science project on thousands of migrating birds that visit the Solent is looking for more volunteers to take part in counting these iconic birds and with the click of a novel smart phone app, recording this vital data could not be easier and is great fun.

The Solent has an internationally important bird population comprising as many as 54,000 migrating and wintering birds. In the breeding season the population includes nesting colonies of terns, gulls and other shorebirds. It also provides feeding and roosting sites for migrating and over-wintering wading birds and wildfowls and is a magnet for naturalists.

However, development, coastal defence, climate change and rising sea levels could adversely affect the activities of these birds in their roosting and feeding sites in the future.

To gain further understanding, the Eastern Solent Coastal Partnership set up 'SolentBirds', an inspiring not-for-profit project sponsored by the Environment Agency and supported by a range of other organisations, including Natural England, RSPB, Wildlife Trust, District Councils, Hampshire Ornithological Society, Harbour Boards and the Solent Recreation & Mitigation Partnership.



Counting birds with a novel mobile phone app such as ringed plover, is great fun. Solent birds is inviting volunteers to count these important birds this winter and summer. Visit: www.solentbirds.org.uk to get involved © Natural England, Allan Drewitt



The three-year SolentBirds initiative has two important scientific elements and aims to identify the importance of the network of high tide roosting sites for waders, wildfowl and geese as well as inland feeding areas around the Solent.

The results will be crucial in helping the researchers understand the conservation needs of these internationally important bird species across the whole of the Solent, extending from Selsey in West Sussex to the River Avon on the Hampshire Boundary.

Mark Larter, Land Manager Advisor with Natural England, one of the project partners said, "An exciting innovation within the project is the SolentBirds smartphone app for recording sightings of protected species around the Solent. It is a brilliant piece of kit that is easy to use. It is also a great learning tool as it has a built in bird identification guide with full text descriptions, photographs and call recordings to help get the identification right."

To date, more than 50 different species have been identified with more than 6,500 records provided so far by the army of volunteers. Mark Larter explains, "Our target is to get 10,000 bird records by the end of the 2015/16 winter season. It is really impressive how much volunteer time is being devoted to the project. We hope that other similar projects across the country will find this free app useful for their studies too."

Current knowledge on the degree to which overwintering waders and wildfowl move around the Solent between feeding and roosting sites is limited.

Mark said, "It is really critical that we understand more about the conservation needs of these birds and how best to maintain and enhance these sites. The information collected through the volunteers will therefore help fill this knowledge gap and ultimately help researchers understand how the loss or change in use of a site will adversely affect the network of sites that the birds rely on. This should lead to improved decision making about future development, coastal flood and erosion management and help to ensure that the right balance of sites is maintained for the benefit of these protected bird species in the future."

To get involved in this inspiring project, volunteers can simply download the free SolentBirds app from Google play or the App Store or visit: www.solentbirds.org.uk.

Features

Farm swales to prevent pesticide runoff from arable fields and increase biodiversity

WWT Consulting and Amec Foster Wheeler are working in partnership with Thames Water to investigate whether swales (ditches which intercept and slow down runoff from fields) can be used to increase the interaction of pesticides with the soil, allowing them to break down and reduce the amount of pesticides reaching watercourses. The pesticides that are being studied are carbetamide, propyzamide, and in particular metaldehyde.



© WWT Consulting

Metaldehyde is the active ingredient in many slug pellets, which are widely used in agriculture to protect crops, particularly winter cereals and oilseed rape. Metaldehyde is of particular concern to Thames Water as it is frequently detected in river waters at concentrations greater than the drinking water standard of 0.1µg/l. Although metaldehyde at such low concentrations is not harmful to the environment or human health, this standard is a legal requirement that water companies have to meet. Unfortunately metaldehyde is not easily removed using existing water treatment processes; therefore Thames Water is researching whether catchment based solutions can provide an effective, economical and environmentally sustainable way to reduce the amount of pesticides at their abstraction points. We have been working with farmers across the River Kennet, River Beane and Cranleigh Waters catchments to select and design potential swale sites to ultimately test the effectiveness of swale designs.

The selection process for the sites includes GIS analysis of physical attributes to identify areas most at risk from surface runoff. This includes factors such as soil type, slope direction and angle and the distance from the nearest watercourse. With input from Natural England Catchment Sensitive Farming officers and the Farming and Wildlife Advisory Group (FWAG) South East a short list of land-owners and farms were identified and approached to introduce the project and carry out further investigations. Following agreement, physical and ecological surveys were carried out at a number of sites to help identify the best locations for installation of swales. This included extended Phase 1 habitat surveys to identify habitats and species that may be impacted by construction, soil surveys to ground truth the findings of the GIS analysis, hydrological surveys to identify the main inputs, outputs and any connection with the river or ditch network and topographical survey to help confirm levels and for use in later design stages.



Following identification of the best swale sites in each catchment, detailed construction drawings were produced with designs incorporating in-ditch features such as check dams to help slow the flow of any surface water, allowing it to slowly drain to ground or evaporate. The designs have included specification of a wet grassland plant mix that will help to create varied wetland habitats which will support invertebrates, amphibians, birds and mammals as well as providing treatment for the surface water. Plant mixes were made by choosing common wetland plants from the National Vegetation Community (NVC) likely to occur in the swale and suitable plants which occurred naturally in the area, as identified by extended Phase 1 habitat surveys.

For example, one swale had plants chosen from NVC community MG1b *Arrhenatherum elatius* grassland *Urtica dioica* sub community, as this was the prevalent grassland community on the field edges. For the damper element, common plants from the MG10 *Holcus lanatus* - *Juncus effusus* rush-pasture have been used, excluding *J. effusus* as this is likely to colonise quickly anyway.

Plants specified included Creeping Bent *Agrostis stolonifera*, Red Fescue *Festuca rubra*, Meadow Foxtail *Alopecurus pratensis*, Fleabane *Pulicaria dysenterica*, Hairy Sedge *Carex hirta*, Silverweed *Potentilla anserina* and Water Mint *Mentha aquatica*.

Construction of the swales will be carried out in spring 2016. Ongoing monitoring will be carried out at the swale sites until winter 2017.



Local & Regional

It's a Wild Life

Christopher Williams, head of conservation in Bucks for the Berks, Bucks and Oxon Wildlife Trust introduces four special nature reserves.

At the end of last year the Berks, Bucks and Oxon Wildlife Trust (BBOWT) took on the management of four of the best places for wildlife in the county on behalf of Buckinghamshire County Council.

Our management will ensure that four nature reserves: Grangelands and the Rifle Range, Bacombe Hill, Pavis Woods, and Hog and Hollowhill Wood will continue to be protected for generations to come. Together these new nature reserves add more than 100 hectares to the land we manage in Buckinghamshire.

While each of the reserves already has significant wildlife interest we will continue to invest in looking after the special habitats, which is good news for wildlife as well as visitors. The reserves management team led by Mark Vallance is excited by the prospect of taking on these new additions. Local volunteer groups will soon be working with the team to keep these four sites as special places for people to enjoy.



Afternoon sunshine casts a warm glow over Grangelands nature reserve © Rob Lewis

Let me introduce you to these special wildlife havens:

Grangelands is in fact an old friend. BBOWT used to manage the fabulous Grangelands and the old Rifle Range near Princes Risborough some years ago. Try to visit on a warm, calm day in early summer. Find time to linger and bring your camera, as there is plenty to see and capture. Look out for chalk fragrant and pyramidal orchids, and hosts of butterflies including silver-spotted skipper, and marbled white among many other delights.

Stunning views across the Vale of Aylesbury can be enjoyed from Bacombe Hill near Wendover. On this chalk downland you will find beautiful pyramidal orchids and a variety of insects including juniper shield bug as well as butterflies such as the chalkhill blue.



The reserve is a precious fragment of chalk grassland, scrub and woodland, which more than 100 years ago was identified by Sir Charles Rothschild as a site to be protected. It became one of the original 284 Rothschild Reserves under the guardianship of the Society for the Promotion of Nature Conservation, the forerunner to The Wildlife Trusts of today.

Bacombe Hill is a fine example of how chalk grassland can be restored and its value to wildlife revived. Over time much of the chalk grassland in the Chilterns has become dominated by hawthorn scrub. By grazing, removing scrub and coppicing the grassland is being restored and wildlife is returning.

The transfer from Buckinghamshire County Council of Pavis, Northill and Black Woods brings a magnificent addition to Dancersend nature reserve. The Ridgeway National Trail runs through these woods making them an ideal place to visit as part of a longer walk through Bacombe Hill and Grangelands as well. The whole Dancersend reserve hosts a wide range of woodland and downland wildlife, making it a 'must-visit all-year round' site, whether your interest is flora, fauna, fungi or even plant galls!



Hog and Hollowhill Woods, near Marlow, are within the Chiltern Beechwoods Special Area of Conservation. These woods support an amazing array of fungi – more than 150 species have been recorded – and is close to Berks, Bucks and Oxon Wildlife Trust's Homefield Wood, so why not make time to visit both nature reserves?

Christopher Williams with Bucks County Councillor Warren Whyte and BBOWT chief executive Estelle Bailey at the old Rifle Range © Wendy Tobitt

Come and get involved!

The four nature reserves need new volunteers. If you would like to get involved, now is the perfect time to get in touch. Contact Kate Sheard for details:

katesheard@bbowt.org.uk



Roman snail at Grangelands © Rob Lewis

Look out for walks and talks during 2016. For details visit: www.bbowt.org.uk/whats-on

Local & Regional

Much ado about otters

Mere Sands Wood is an oasis for wildlife in West Lancashire, a favourite place for thousands of nature lovers. Now a new visitor has discovered the reserve and is causing much excitement according to Reserve Manager Lindsay Beaton...

First there was an unconfirmed sighting, then a long-distance photograph, then real confirmation from our Cyril Gibbons Hide. Mere Sands Wood has its first otter in decades!

The first sighting was in January, when visitor Ian Robinson came into the centre, understandably very excited. Ian was convinced it wasn't a mink (easily confused with otters) because he had never seen a mink in the wild, but he had seen otters. He was convinced it was an otter.

Then we received that first photo, in February. It was a long distance shot taken by another regular visitor Neil Dearnley-Davidson, known here as Muckshifter. The picture showed the distinctive head shape of blunt, cat-like nose and small ears and confirmed the presence of an otter on site.



© Neil Dearnley-Davidson



© Phil Boardman

Later that month volunteer Phil Boardman took closer range shots from Cyril Gibbons hide. The otter was actually swimming under the hide. Phil phoned the visitor centre to tell us what he could see. Reserve officer Ian Wright described the conversation as like talking to someone giving a Springwatch commentary. Phil was whispering: "I can hear it swimming about and knocking into the underside of the hide."

Since then we have had regular sightings by visitors from Marshall, Rufford, Redwing and Cyril Gibbons hides. Then in April a picture of a pair of otters appeared on the Facebook page of Alison Willow. Will this mean baby otters later in the year?

The last record we had of an otter at Mere Sands Wood was in 1935. We also know they have been at the Nuck's Wood fishing lake about 2.5km away and there have been sightings on the nearby River Douglas. Given that otters can range up to 20km, it should be expected that they eventually found Mere Sands Wood.



So why is it so exciting that otters have arrived at Mere Sands Wood? They are an iconic UK mammal species fighting back following a collapse in population numbers with the increased use of organophosphate pesticides, river pollution and loss of habitat. We also have a population of water voles on site and in boundary ditches but they are prey for American mink. The arrival of the otters will displace the mink and so protect the water voles, a species under serious threat.



© Alison Willow

Many people of a certain age will remember will remember Gavin Maxwell's book "Ring of Bright Water" and the film, and will come along to the reserve if there is an opportunity to see otters. Otter numbers plummeted throughout Britain and Europe in the late 1950s and early 1960s, probably due to the effects of pollution and habitat destruction, especially the drainage of wet areas.

Otters need a varied supply of food in clean rivers and plenty of bankside vegetation as cover for their holts. Riversides often lack the cover for otters to lie up during the day. These areas can be made more attractive to otters by establishing "otter havens", where plants are introduced to river banks and kept free from human disturbance. Marshes are an important habitat for raising young and as a source of frogs.

Mere Sands Wood is a great place for otters to live. They need space to lie up during the day; the undisturbed lake edges provide this opportunity. It is a haven from intensive agriculture and mowing of river banks nearby. Our lakes also have a good supply of fish and frogs in the wet areas, so the otters will not have to forage far to keep themselves fed.

They may stay but they have large territories and ranges but our reserve has a lot to offer for them to make it the centre of their range. And we are making them feel welcome. The Lancashire Wildlife Trust staff and volunteers are working to encourage the otters to make Mere Sands Wood their home by building dens or "holts" for them to use.

Other mammals at Mere Sands Wood

Mammals are not as frequently and easily seen as the many bird species, with many being nocturnal, but the reserve provides a habitat to feed and breed for many species of mammal:

- As well as endangered water voles, we also host another endangered species, i.e. red squirrels. Also hedgehogs, which are in decline.
- Eight species of bat.
- Roe deer breed on site. Does and their young are frequently seen. They are not very shy, obviously feeling safe in this haven for wildlife.
- Field voles, bank voles, wood mice, shrews, water shrews, moles, rabbits all breed on the reserve; brown hares lie up in the woods by day and graze the surrounding fields by night.
- Families of foxes can sometimes be seen with cubs, stoats have been seen stalking rabbits.

Local & Regional

Yoesden nature reserve just got bigger!

Yoesden nature reserve in the Chiltern Hills near Radnage has grown by almost a third, thanks to a successful public appeal to buy three plots next to the Berks, Bucks & Oxon Wildlife Trust's land. From 6th April, the Wildlife Trust is now managing a larger Yoesden nature reserve which will benefit butterflies, rare chalk grassland plants and woodland wildlife, thanks to the overwhelming generosity of our members and supporters who helped to buy three plots of land adjacent to the reserve.

Money raised through the public appeal combined with generous grants from Biffa Award and The Banister Charitable Trust, means that we have increased the size of the reserve, providing enormous long-term benefits for local wildlife.

Our fantastic team of volunteers and staff can now begin work to help encourage the specialist flora, and the wildlife it supports, helping to boost its biodiversity and encouraging the wild flowers and butterflies to extend their ranges across the area of restored grassland.

In the coming months BBOWT will:

- Carry out butterfly surveys on the new land. Some of the butterflies we hope to record later this spring include uncommon species such as grizzled and dingy skipper.
- Begin restoring the field by introducing wild flower seed collected by hand from the existing chalk bank. Our aim is that the field will eventually be covered in violets, fairy flax and bird's-foot-trefoil, and the butterflies that feed on these plants.
- This autumn our volunteer group will be clearing scrub and contractors will start re-fencing the southern chalk bank ready for cattle to graze there.
- There will be a new map of the reserve on the interpretation boards.



© Colin Williams



© John Morris



The three plots of land that extend the original nature reserve are:

- A chalk bank, which is so steep that it has never been cultivated, and for this reason it has huge potential for wildlife.
- A small wooded area of 1.5 acres which includes beech and ash trees for which this part of the Chilterns is renowned.
- A three acre field of pasture criss-crossed with public footpaths. The paddock was grazed so hard that only a few chalk grassland plants and flowers have survived. This is a perfect site for wild flower restoration.



© Colin Williams



© John Morris



One of the plots of land that has been bought, BBOWT aim to restore the field in the background to wildlife rich chalk grassland using seed harvested from the chalk bank in the foreground. © John Morris

Local & Regional

Water voles thriving in Fenland drains

A water vole survey carried out at five-year intervals over the last 10 years in two Drainage Districts in the Middle Level of the Fens has shown that water voles are continuing to thrive and maintain good populations despite national declines.

The Wildlife Trust for Bedfordshire, Cambridgeshire and Northamptonshire has found water voles in very encouraging numbers in the Middle Level of the Fens. In 2015, Wildlife Trust staff and volunteers repeated a detailed survey of two Drainage Districts (Curf Fen and Ransonmoor) between Chatteris and March in the Middle Level catchment. These districts had first been surveyed by the Trust in 2005 and then by a student from UEA in 2010. The 2015 results found water voles at least as widespread as in previous years, which is very impressive against a background of national decline.

A report has just been published by the Wildlife Trust of the 2015 survey results and draws on information gathered in the 2010 and 2005 surveys. It shows that ditch maintenance by internal drainage boards is critical for water voles as it provides an extensive and stable habitat for them. Several conclusions resulted from the study:

- The surveys of Curf Fen and Ransonmoor suggest that these drainage districts (collectively with many others in the Middle Level, which have similar habitat and maintenance regimes) are important as a regional, and possibly national, stronghold for water vole.
- Water vole populations in these two drainage districts appear to be stable with no noticeable declines over the last 10 years.
- Water voles appear to prefer the Drainage Board maintained ditches, probably because these have more diverse vegetation and deeper water.
- Ditch maintenance does not have a significant effect on water vole populations, and in fact the best ditches were cleansed within the past 4 years.
- Water voles were present in the majority of ditches with suitable habitat.
- Better ditch connectivity in Ransonmoor District makes it better for water voles, and is probably a key reason for the very high and consistent occupancy there.
- Water voles at Curf Fen appear to move around, potentially following optimal habitat.



Water voles live in social groups where females hold breeding territories © Cliff Carson



- At Ransonmoor there is a core area with consistent occupation, although the “best” water vole ditches change within this.
- Re-profiling ditches (removing soil to reshape a bank that has become too steep) does have a negative effect. However re-profiling one bank only and shorter sections can mitigate this, and in general water voles return after 2 – 5 years.

The results also showed that construction of new wind farms has had no apparent effect on water vole populations. Wildlife Trust staff and volunteers surveyed 307 ditch sections, covering over 80km of ditch on foot or by boat, in collaboration with Cliff Carson, the Environmental Officer for the Middle Level Commissioners.

Ruth Hawksley of the Wildlife Trust, who led the survey, said “Surveying for water vole signs can be very enjoyable but also very demanding along Fenland drains. Our survey only covered two of the 36 districts in the Middle Level catchment, but it revealed that IDB drains can provide a large connected area of good water vole habitat. Our results support the Wildlife Trust’s belief that the Cambridgeshire fens are a regionally, and possibly nationally, important stronghold for water voles.”



Cliff Carson said ‘It is good to have confirmation that regular maintenance carried out by Drainage Boards in the Middle Level catchment not only does not harm water voles but is actually a positive action. It maintains the water plants, structure and cover at drain margins that water voles need to breed successfully and retain a stronghold in the Fens’.

The full report is available at the Wildlife Trust web site [here](#):

Surveying from a canoe is one of the most efficient methods of locating water vole field signs

© Cliff Carson

www.wildlifebcn.org/sites/default/files/report2015_final.pdf

and also at the Middle Level Commissioners web site here www.middlelevel.gov.uk

Local & Regional

Vital homes for wildlife and people rise from derelict World War II hospital

Work is about to start on a major conservation and homebuilding project at St Leonards near Ferndown which will help protect precious heathland habitats and wildlife in Dorset, while providing 210 homes for local people.

A derelict former World War II military hospital at St Leonards near Bournemouth is to make way for a range of affordable housing and care facilities but the less obvious beneficiaries of this new scheme are the new habitats that will be created for the threatened wildlife that were once common on this now neglected land.

The site, owned by the Homes and Communities Agency (HCA) is set to be transformed in a joint project by developers Spectrum Housing Group, the HCA and Natural England together with the Dorset Wildlife Trust, architects and ecological consultants who have been offering advice during and after the planning process on the best way of re-establishing what was once an important heathland habitat.

Species such as smooth snakes, sand lizards, acid grassland, green winged orchids, nightjars and even a "maternity unit" for bats will be given priority within the development over the coming years.

Built in the 1940s, the hospital was once used for military staff and then civilian patients but in recent years has been replaced and the original single story wards have either become derelict or have been demolished. As the Government's land, housing and regeneration agency, the HCA acquired the site in order to make it available for much needed housing.

The total area of the site covers 25.9ha of which 7.74ha will make way for 210 new 1-4 bed homes (including 84 affordable homes) as well as an 80-bed care home. However, the bulk of land (18.4ha) will be devoted to a Site of Nature Conservation Interest (SNCI). This means that, when restored, the site will have a valuable nature reserve, a landscaped recreational area for residents as well as an important heathland habitat.

Lowland heathland is one of the most threatened habitats in Europe and the UK has a significant proportion - 20% of the world total. In addition, important acid grassland is being translocated by expert local contractors to a more suitable location on the site and a substantial number of bat boxes will be provided.

Spectrum Housing Group has secured around £500,000 to maintain the conservation of the area over the next 50 years, with ownership of the SNCI handed over to the Dorset Wildlife Trust to manage in the future.



On adjacent land the Forestry Commission will provide residents access to a 24 ha Suitable Alternative Natural Greenspace (SANG) in Hurn forest.

Paul Read, Director of Development at Spectrum said: "We are delighted to be providing much needed affordable homes for local people and are thrilled that we can also provide essential habitats for threatened wildlife and open space for the community to enjoy."

Bruce Voss, Senior Area Manager at the HCA said: "The HCA's aim is to release surplus public land and get it ready for house building. Part of this process is working with partners to ensure we protect the local environment. That's why it's fantastic to see this brownfield site being transformed not only for much needed homes, but in a way that will bring precious wildlife back to the area."

Nick Squirrell, Natural England Advisor for the site said, "Natural England is delighted with the outcome of this development as it secures a substantial biodiversity gain in an area that has seen significant declines over recent years. The potential for substantial restoration is fantastic and 18 ha of priority habitat will be restored to a high standard over a seven year period. It is a considerable win for precious heathland habitat and everyone is delighted that important habitats and species will be able to make an encouraging resurgence in an area that has suffered considerable neglect."



Sand Lizards are one of the UK's rarest reptiles. They favour sandy heathland habitats and sand dunes and can be spotted basking on bare patches of sand. They also lay their eggs in the sand. Sand Lizards are confined to a few sites as destruction of their habitat has reduced their range
© Natural England/Michael Hammett

Local & Regional



London's last green secret?

By John Bark, The Conservation Volunteers

Environmental riches may not be the first thing that springs to mind at the mention of Croydon. Sleek trams glide along its busy streets, past towering office blocks, thriving shopping centres, bars, restaurants, theatres and night clubs. Croydon is home to the BRIT school, gave birth to dubstep, and has been the quintessential setting for suburban comedies from *Terry and June* to *Peep Show*. Yet over one third of London's most populous borough is green space.

This fact may surprise outsiders – and some residents, according to [Public Health England](#) - but not the enthusiastic local people working with the community volunteering charity The Conservation Volunteers (TCV).

For over 20 years TCV has inspired local people to join in and feel good, supplementing the work of council employees and 'friends' groups through regular environmental projects right across the borough.



Central Croydon © Peter Trimming

For example, just a few tram stops from the town centre, TCV work parties regularly work on Addington Hills. Together with Croham Hurst and Shirley Heath, Addington Hills is one of the few surviving lowland heaths in the whole of London and the volunteers' work is vital to maintain this rare habitat for the plants and creatures that live there.

Similarly, minutes from the busy A23 at Old Coulsdon, the volunteers coppice hazel to create habitat for dormice in Happy Valley Park, a Site of Special Scientific Interest. Further south, TCV volunteers work on Kenley Common, clearing invasive scrub to help preserve the historic World War II fighter pens.

In the north of Croydon, TCV works to improve local parks and the TCV volunteers regularly visit South Norwood Country Park, a former industrial site that has now been turned into a 47 hectare Local Nature Reserve.



TCV on Farthing Downs © Croydon TCV



Wandle Park in central Croydon © Croydon TCV

TCV also supports the work of local 'friends' groups. The charity helps co-ordinate the borough's new Parks, Woodlands and Greenspaces Forum, which aims to draw in all the borough's voluntary groups to improve the amount and quality of local green spaces. The Forum will also act as an exchange for expertise and best practice and look into alternative sources of funding to keep on improving the area.

It's not just local residents. TCV organises volunteer days for teams from local businesses to come out and work to improve Croydon's green spaces. This provides an opportunity for employees to contribute to the local area, improve their team-working skills, and have a fun day out of the office.

All of this volunteer work is helping to increase local people's appreciation of the fantastic green spaces right on their doorstep - spreading the word about Croydon's magnificent wealth of parks, woodlands, ponds and wildflower meadows. The secret is out!

For more information about TCV in Croydon or the Parks, Woodlands and Greenspaces Forum contact p.underwood@tcv.org.uk.



A team from Just Retirement in Coombe Wood © Croydon TCV

Lancashire Wildlife Trust helps save Willow tits



Lancashire,
Manchester &
N Merseyside

One of Britain's most endangered birds has suffered another dramatic plunge in numbers according to a new report. The Rare Breeding Birds Panel has just announced that willow tits are now down to just 2,000 breeding pairs in the United Kingdom.

But work by The Lancashire Wildlife Trust aims to halt the decline using creation and restoration of habitats and raising awareness of the bird in the North West. Much of the willow tits' decline is down to loss of habitat with developers seeing no merit in the willow scrub which these beautiful birds inhabit. But volunteers working with The Wildlife Trust are working to restore habitat, create nesting areas and provide vital information about tit populations.

The Wildlife Trust's Wigan Reserves Manager Mark Champion said: "The situation is critical and we need to ensure the willow tit is protected both locally and nationally. Last year we were reporting that there were 5,000 birds in the UK, this new report says we are now down to 4,000. This is not good news."

The main work is being carried out in Wigan, which is at the centre of a regional population accounting for a large percentage of the UK's total. Thanks to funding from the Lancashire Environmental Fund and Biffa Award, work on the willow tit's habitat by The Lancashire Wildlife Trust will continue well into 2017.

The Wildlife Trust recently put out a call for volunteers to help with habitat improvement and recording work and more than 50 people turned up to sessions in Wigan and Preston. Mark said: "This proved that there is interest in supporting this bird, which is becoming an iconic species in Wigan. People around here are keen to support our work for a bird that is in real danger of extinction in the UK." More than 10 per cent of the UK's willow tits live in the area around Wigan, St Helens, Warrington and Chorley. Nationally the UK population has fallen by 90 per cent in the past 30 years placing it on the red list of species of conservation concern.

The RBBP report does not offer any better news with the decline seemingly increasing again. The main population centre in the region is Wigan and stretches down to Woolston Eyes, adjacent to the Manchester Ship Canal in Cheshire and Yarrow Valley and Hic Bibi in Chorley. You could actually say it is based on Rugby League territories around Wigan, St Helens and Warrington and, strangely, another 10 per cent of our national willow tits are also around Leeds and Bradford.

Mark said: "Without the central population grouping in the Wigan Wetlands willow tits would be extinct in the North West. A lot depends on Wigan, because the birds' area does depend on links outward from this central point. Without it they would struggle. Numbers have fallen as woods have been cleared and tidied and land has been dried out by agriculture and poor management. Even good management of land has not helped the birds in a country where tree planting and scrub clearance is seen as best practice when dealing with wildlife."



The willow tit's plight is not helped by its large territories, often stretching up to an acre (the size of a football pitch) in areas of elder, alder, birch and willow scrubland, dominated by grey willow shrubs at Wigan Flashes nature reserve.

"We really need to remember the willow tit when we are improving habitats in woodland. Of course we want to create areas for the other birds but not at the expense of a unique sub-species of bird which you will not find anywhere else in the world."



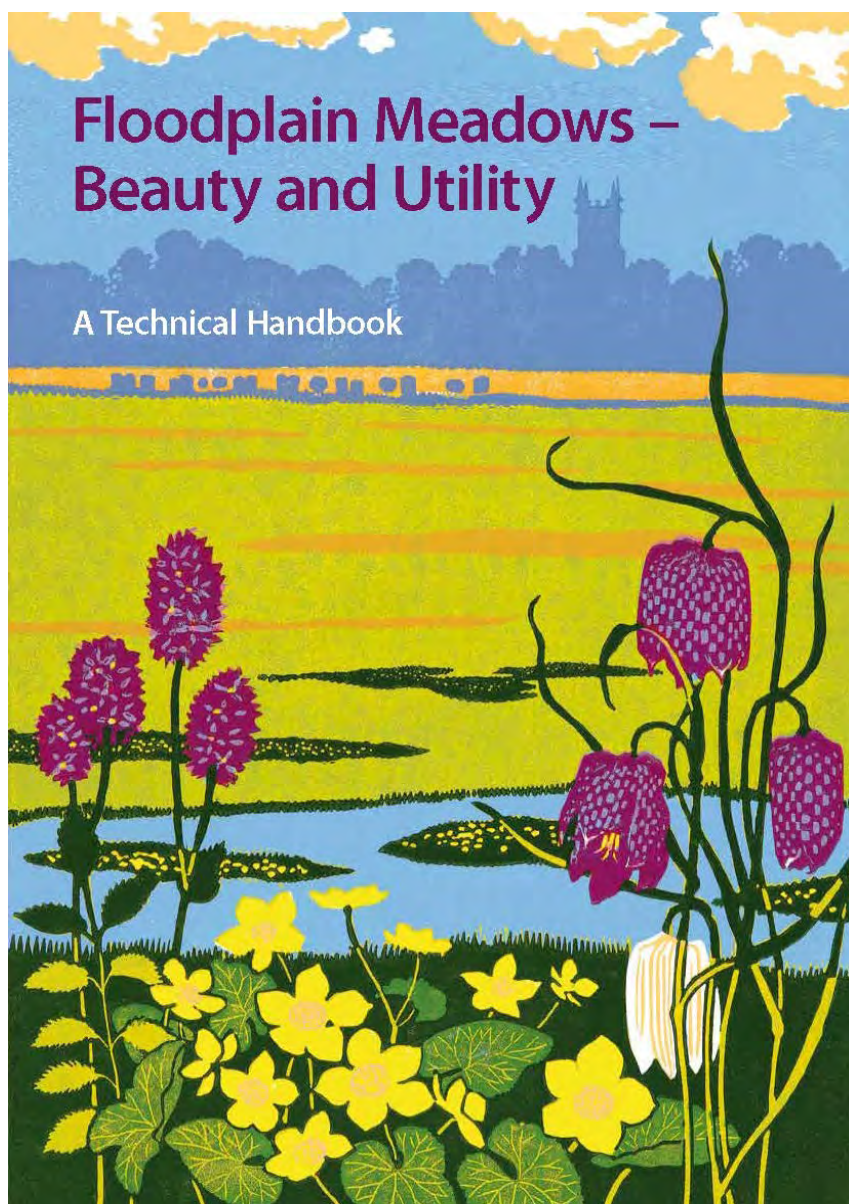
© Peter Smith/NW Wild Images

Floodplain Meadows – Beauty and Utility. A Technical Handbook

A brand new handbook on species-rich floodplain meadows. Comprehensive and beautifully illustrated, the handbook covers everything you need to know about the history, management, restoration and creation of this vitally important, yet threatened, habitat.

Once very widespread, these iconic sites now occupy less than 1,500 ha in the UK. Floodplain meadows are both part of our heritage and inspirational wildlife habitats. They support a diversity of plant species rarely seen elsewhere, offering a home for a wealth of wildlife including birds, bees, butterflies and other pollinating insects. They are the product of a long agricultural tradition of managing floodplains to produce a valuable crop, and thereby provide a rich seam of rural history to explore.

Floodplain meadows require no artificial fertilisers yet remain productive during droughts and recover rapidly after floods. In addition, they supply many additional benefits to society for free, including storage and cleansing of floodwaters, sequestration of carbon and a very aesthetic contribution to the landscape. Mindful of the frequency of extreme flood events that have affected Britain in the period 2000–2015, encouraging resilient agricultural systems that can accommodate flood storage, yet bounce back to provide a crop that delivers both biodiversity and an economic return, is becoming an increasingly important priority.



This book is aimed at anyone managing, restoring, or re-creating floodplain meadows, and those with a general interest in rural history and how it has influenced the floodplain wildlife we have today.



The Floodplain Meadows Partnership was established in 2007 to help protect and restore this stunning and diverse habitat through collection, analysis and sharing of scientifically collected data from floodplain meadows across the UK. The Partnership is hosted and directed by the Open University and steered by the Environment Agency, Natural England, the Centre for Ecology and Hydrology, the RSPB, The Wildlife Trusts, the Field Studies Council, People Need Nature and the National Trust.

Available as a free download from the Floodplain Meadows Partnership website:

<http://www.floodplainmeadows.org.uk/floodplain-meadow-technical-handbook>

and in hard copy at £12.50 from Nature Bureau:

<http://www.naturebureau.co.uk/bookshop/floodplain-meadows-detail>

Citation

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A boundary stone indicating the ownership of John Boot (JB), North Meadow. It is one of the stones designated as a 'building of special architectural or historic interest'

© Emma Rothero



Fritillaria meleagris © Mike Dodd



Flood at North Meadow, Crickdale © Mike Dodd

Providing and protecting habitat for wild birds guidance

Defra and the Welsh Government have now published joint guidance, 'Providing and protecting habitat for wild birds'. This guidance provides information for public bodies on implementing the duty in Regulation 9A of the Conservation of Habitats and Species Regulations 2010, which relates to providing sufficient diversity and area of habitat for wild birds in England and Wales. A brief summary of the legislative background and developing approach to the management of our natural resources in Wales will also be available on the Welsh Government webpages.

Gov.uk link: <https://www.gov.uk/guidance/providing-and-protecting-habitat-for-wild-birds>

Welsh Government links:

<http://gov.wales/topics/environmentcountryside/consmanagement/conservationbiodiversity/habitatdirective/wild-bird-habitat/?lang=en>;

<http://gov.wales/topics/environmentcountryside/consmanagement/conservationbiodiversity/habitatdirective/wild-bird-habitat/?lang=cy>

Catchment scale natural flood risk management

As part of its response to the Pitt Review, Defra invested £1.7m in three catchment scale flood risk management demonstration projects. The purpose of the projects was to show how integrated land management change, working with natural processes and in partnership, can help manage local flood risk while producing wider benefits for the environment and communities. The projects, which have recently reported, were: [Slowing the Flow, Pickering](#); [Making Space for Water, Derbyshire](#); [From Source to Sea, Somerset](#). Moors for the Future who carried out the project in Derbyshire, was asked by the Environment Agency to assess the projects and to produce a short summary of the key findings. Extrapolation of the measured local effects of a variety of the natural flood management techniques deployed showed that flood peak heights may be reduced by 4% or more on a 9 km² catchment scale in the Derbyshire project, by 4% on a 69 km² scale in the North Yorkshire project and by 25% on an 18 km² scale in the Somerset project. These estimated effects applied to significant sized flood peaks in the order of 1 in 25 annual chance of occurring.

A copy of the short summary report can be obtained from: duncan.huggett@environment-agency.gov.uk.

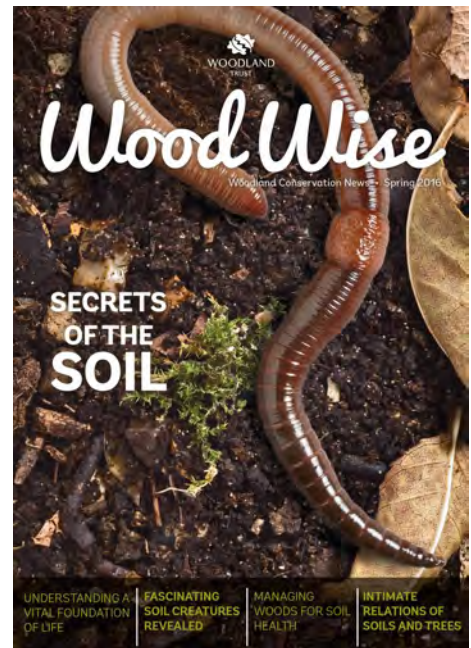


Wood wise - secrets of the soil

This issue delves into the deep, dark depths of the soil world, which is the foundation for much of life on Earth...

It explores the beauty and function of soil, the fascinating creatures that call it home, the threats to its health, and ways to manage it sustainably for future generations of flora and fauna (including humans).

If you would like to subscribe to future Wood Wise issues, please email: conservation@woodlandtrust.org.uk.



Events



Garden Bioblitz is a nationwide garden survey run by volunteers. It's undertaken over 24hrs on a specific weekend (this year it's 4-5th June). Anyone can take part (we have an easy tick sheet for beginners to recording) either using their own garden, or just a favourite local patch (or even a balcony/window box!). See www.gardenbioblitz.org for more info.



@redyona



@MvPdressage



@Glenn766854331



@ReySincJackie



@MvPdressage



© Jo Butler (note: this bee is absolutely fine and flew off after the picture was taken)



@MvPdressage

A huge thank you to everyone who tagged their photos with #BNcover to enter our "spring" themed competition on Twitter.

We hope to run further photo competitions in the future so make sure you follow [@DefraNature](https://twitter.com/DefraNature) to find out more.

You can also enter by emailing your photos to biodiversitynews@defra.gsi.gov.uk.

