

Wildlife

Issue 97 • SUMMER 2013



Avon



State of Nature

**Nature Partnership
launch**

**Damselflies
a spotter's guide**

**Family events
go wild!**



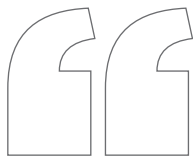
*Includes
UK news &
stories*

Protecting **Wildlife** for the Future

Welcome



Dr Bevis Watts
Chief Executive,
Avon Wildlife Trust



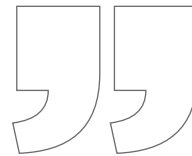
Inspiring work, but we all need to do more

Amidst a glorious summer, 25 conservation organisations joined together to publish a report outlining a dramatic decline in the UK's wildlife – the *State of Nature* report. The Trust's President Simon King, helped us to promote the report at a high profile Question Time event in Bristol. The report shows us all that despite some successes, we are losing the battle to protect our wildlife and need to increase our efforts in restoring wildlife habitats and creating new homes for nature (pages 9 to 11).

The Trust is already doing a lot of inspiring work towards this and you will read in this issue about an award for our partnership project with Bristol Water, Trout and About, a celebration of Feed Bristol's first year and a Coronation Meadow, an increase in our grasslands restoration work and lots more besides! I hope as members who are crucial to supporting all of this that you will be proud of all of the good work you will read about in this issue.

However, this great work alone is not enough. We profile Tony Juniper's new book *What has Nature Ever Done for Us?* (page 34) which makes the case for our decision-makers in economic development, spatial planning and healthcare to recognise the value of nature differently and ensure that its importance and the need to invest in protecting and enhancing that value is considered in policy and public spending decisions. That is the approach we are trying to foster in the West of England region (former county of Avon) where the Trust has played a major role in launching the West of England Nature Partnership and in attempting to bring the need to invest in our natural environment to the attention of the key decision-makers in our region (page 4).

One of the key challenges for habitat restoration and creation in our region, the fastest growing city region in the UK, is how to support wildlife better in urban environments and that will be the focus of our Annual General Meeting this year with presentations from a leading expert in this field and Bath resident, Professor Chris Baines, and the man who led Bristol to secure the status of European Green Capital 2015, Darren Hall (page 4). Please join us and engage in the debate on how we get more of the 1.3m residents of our region caring for wildlife! You will also see the Trust being more active in organising family and other events to get the message out there so please get involved, continue to support us and encourage others to help make a real difference (page 11)!



STEVENHOLLIS



Green veined orchid at Walborough

Your magazine

Avon Wildlife Trust is your local wildlife charity working to secure a strong future for the natural environment and to inspire people. With the support of 16,000 members, the Trust cares for 35 nature reserves, it runs educational and community programmes, advises landowners, and campaigns on issues that threaten wildlife habitats.

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Follow us on Facebook and Twitter for the latest news and competitions. Please share your wildlife pictures and experiences! Teachers can check out the blog at wildschools.org.uk and follow @wildschools



[Twitter.com/avonwt](https://twitter.com/avonwt)
[Facebook.com/avonwt](https://facebook.com/avonwt)

*The earth was green, the sky was blue;
 I saw and heard one sunny morn
 A skylark hang between the two,
 A singing speck above the corn;
 And as I paused to hear his song*

*While swift the sunny moments slid,
 Perhaps his mate sat listening long,
 And listened longer than I did.*



Christina Rossetti, extracts from A Green Cornfield. Quoted in *State of Nature*



Nature Partnership launch

The West of England Nature Partnership (WENP) celebrated its official launch during Bristol's Big Green Week in June.

As a nationally designated Local Nature Partnership its role is to develop and advocate an investment strategy for the region's natural environment to support economic development and public health.

Trust Chief Executive Dr Bevis Watts commented: "Nature provides us with a range of critical services such as carbon sequestration, flood defences, crop pollination and water quality as well as supporting human health and wellbeing. Nature also has a value beyond value."

"We need an investment strategy that effectively manages our natural resources and ensures they are healthy enough to provide critical services into the future, continuing to ensure that the West of England is an area where nature thrives and in which people will want to live, work and spend time."

WENP's interim board members are Dr Bevis Watts (Chair), Paul Wilson Chief Executive of the West of England Local Enterprise Partnership, Savita Custead Chief Executive of Bristol Natural History Consortium, Brian Glasson Head of Strategic Planning for South Gloucestershire Council, Dr Janet Maxwell Strategic Director of Public Health for Bristol City Council, and Mark Jones Area Manager for Natural England.

The launch was supported by Wessex Water. Go to wenp.org.uk for more details.

Professor Chris Baines at AGM

One of the UK's leading environmentalists Professor Chris Baines is the key note speaker at our Annual General Meeting (AGM) on 26 September. The theme for the evening will be the opportunities for increasing urban wildlife.

Professor Baines, is Vice President of the Royal Society of Wildlife Trusts, and is best known for his work championing urban wildlife and wildlife gardening. A regular broadcaster on BBC Radio 4, he writes for BBC *Wildlife Magazine* and *Country Living*. In the 1980s and 1990s Professor Baines, who is also a Bath resident, co-presented television programmes including *Countryfile* and *Pebble Mill at One* and *Charlie's Wildlife Gardens*.

He is also joined by Darren Hall, Green Capital Partnership Manager, who is due to talk about what winning European

Green Capital of the Year 2015 might mean for wildlife, for Bristol and surrounding area.

It is being held at Bristol's MShed museum, with stunning views of the floating harbour and the city beyond including urban wildlife habitats.

The event opens with drinks at 5pm, with key note speeches at 6pm, and the AGM at 7.15pm, and ends at 8pm.

Please contact Membership Officer Angela Davies on angeladavies@avonwildlifetrust.org.uk or 0117 917 7270 to book your place.



Prof. Chris Baines

Family fun events



Following on from the success of our Portbury Wharf Go Wild Fete and presence at the Bristol Festival of Nature, we are increasing the number of family-friendly events.

These are in addition to the wide range of walks and talks organised by volunteers from our local groups, and hands-on conservation with the Wildlife Action Group.

Expect more things to do for families including:

- A harvest and wildlife celebration;
- An apple day;
- Owl prowls and bat walks.

There will also be guest appearances from Poco Drom, the fun wildlife musicians who proved such a hit amongst the under-eights!

Also back by popular demand are guided walks with naturalists Ed Drewitt and Chris Sperring.

Please see centre pages for events or go to avonwildlifetrust.org.uk and Facebook. Don't miss out on event alerts! Sign up for e-shots on our website homepage!



Poco Drom



A guided walk with Chris Sperring

BARBARA EVRIPOU

Feed Bristol keeps growing

Our innovative community growing project, Feed Bristol, celebrated its first anniversary with a delicious carrot cake and an award nomination from Big Lottery Fund's Local Food programme.

Project staff and volunteers, who encourage people to grow vegetables in a wildlife-friendly way, find out in November whether they have won the Community Food Growing category in the Local Food Recognition Awards 2013.

Feed Bristol, led by Project Officer Matt Cracknell with support from grower Susan Rogers, is marking a year of success.

The former market garden in Stapleton boasts:

- Poly tunnels packed with wildlife-friendly plants;
- Access-for-all paths, flanked by wildflowers for pollinators;
- A sunburst garden, showing how to set out allotments;
- Mini-plots managed by Feed Bristol's regular groups;
- Habitats including woodland, a wildflower meadow and a pond.

And thanks to the support of volunteers, who clocked up almost 19,000 hours, Feed Bristol has welcomed 70 different

organisations and almost 8,000 people, including 585 schoolchildren.

Food grown on site is distributed to volunteers, through 'grow it' tokens, and any surplus supports community kitchens including homes for the elderly.

Mark Wheddon, Big Lottery Fund's Local Food Programme Manager, said: "The Local Food Recognition Awards seek to celebrate the most outstanding community projects delivered with the help of Local Food funding. All our projects have made a positive and lasting impact in the communities in which they are based."

Additional support has come from Bristol City Council and the Bristol Green Capital Challenge Fund, which featured Feed Bristol in the successful bid application.



Bristol Lord Mayor Cllr Faruk Choudhury pictured with Chief Executive Dr Bevis Watts and Project Officer Matt Cracknell

BARBARA EVRIPOU

Chew Grasslands Restoration Team

The Living Landscape team is delighted to announce funding from SITA Trust to establish a second volunteer Grasslands Restoration Team.

Our current team has been helping landowners to restore their wildflower meadows in the Cotswolds and Chew Valley, for the past two years. They have carried out 426 volunteer days on 23 farms, contributing to the restoration of 93 hectares of grasslands.

Tasks vary with the seasons and cover activities that are hard for farmers to do in their daily work including pulling weeds from a meadow, cutting back scrub or taking a hay cut from small fields where it is difficult to use farm machinery.

The team has been so well received by volunteers and landowners that we wanted to increase our reach. SITA Trust funding means we can buy equipment for a new team, dedicated to farms in the Chew Valley. The new team will meet on Thursdays and for the first year will work on 11 farms to help restore 45 hectares of wildflower meadows.

We are recruiting volunteers, so get involved!

For information on volunteering for the team please contact Richie on richiesmith@avonwildlifetrust.org.uk or 0117 917 7279.



Project Officer Richie Smith (left)

LORNA WILCOX



Trout & About award catch

An education project, called Trout & About and jointly run with Bristol Water, has received a bronze award.

The International CSR Excellence Awards recognise companies that make a positive impact on their customers and the wider community.

Learning Development Officer Julie Doherty attended the ceremony at HMS Belfast in London, with Bristol Water's Environment Manager Patric Bulmer and Assistant Fisheries Manager Tony Donnelly.

Trout & About engaged schoolchildren with the natural world in an innovative and memorable way. They investigated freshwater habitats, reared the trout from eggs and released the fish into Chew Valley Lake.

The project is automatically entered into the Green Apple Awards, one of only a few schemes that meet the exacting criteria of the Brussels-led European Business Awards for the Environment.

Save money to save meadows!

Supporters are helping to raise money for the Trust's work for meadows by opening a savings account with Triodos Bank.

The ethical bank is donating £40 to the Trust for every savings account opened. The money raised could help us:

- Buy wildflower seed and hand tools for volunteers;
- Make farm visits to advise and support landowners;
- Run workshops for schoolchildren.

Triodos Bank, which has offices in Bristol, only lends savers' money to organisations working to benefit people or the environment.

The initiative covers a range of products including saving ethically online, placing funds into a bond or moving to an ethical ISA.



MARK SMITH/AVAG

Open an account with Triodos Bank, deposit £100 or more and they'll donate

£40
to us*

*The donation can only be paid if applicants complete an online application form having visited this website by either clicking on a link supplied by the Avon Wildlife Trust, or by typing the URLs www.triodos.co.uk/avonwildlife in their browser address bar. The donation will be paid after the balance of the account reaches £100. One donation made per customer (one donation made in the event of joint account opening). Triodos reserves the right to decline any application. This offer may be changed or withdrawn without notice at any time. Thank you for your support.

Coronation Meadows

HRH The Prince of Wales launched a nationwide project in June to create a meadow in every county to mark the anniversary of The Queen's Coronation.

The first 60 flagship meadows were announced at Highgrove House, The Prince's home in Gloucestershire. One of these 'Coronation Meadows' is Nectott's Meadow, near Nailsea.

Wildlife found on the meadow include bee, early-purple, southern marsh and common spotted orchids; dragonflies, including the hairy dragonfly, and damselflies; 12 butterfly species including the orange tip and green-veined white; and birds such as green woodpeckers, tawny owls and redpolls.

Coronation Meadows are outstanding examples of flower-rich grasslands, which will be used as 'donor sites' to restore or create 60 new meadows.

His Royal Highness The Prince of Wales commented: "We are celebrating my mother's coronation so surely there is no better moment to end this destruction and to stimulate a new mood to protect our remaining meadows and to use them as springboards for the restoration of other sites and the creation of new meadows right across the UK."



Reserves Manager Joe Middleton with HRH The Prince of Wales

PAUL BURNS

Planning and policy

One of our priorities is policy and spatial planning issues, and planning applications where there is potential for significant effects on wildlife. These may be negative, but there may also be potential for building in benefits for nature.

The Trust is monitoring the production of core strategies for South Gloucestershire and Bath and North East Somerset councils. These strategies include development planned for North Bristol, particularly in Cribbs Causeway and Patchway, and Bath and North East Somerset. The latter will go to Public Enquiry.

There are an increasing number of planning applications for renewable energy schemes such as solar farms and wind turbines. We believe that climate change represents a serious long-term threat to global biodiversity and measures to reduce its causes are to be encouraged. The UK's future energy policy must focus on the urgent reduction in emissions of greenhouse gases, and we strongly support moves to increase energy efficiency and to supply more of our energy needs from renewable energy sources.

However, we believe that development of any form of energy, renewable or otherwise, should not compromise long-term nature conservation objectives, i.e. that they should be planned, sited, designed, installed, managed and decommissioned in such a way that they do not harm habitats or species protected at the international, national, regional or local level.

National Grid published its preferred route corridor for its Hinkley Point C Connection in December. Since then we have taken part in discussions, regarding its impact on our reserves and other priority habitats. National Grid is publishing its

final preferred option on 2 September, for a six-week public consultation period. We will scrutinise this document and feed back our comments.

We are examining the South Bristol Link Road application which we objected to in principle in 2012 due to insufficient information and potential impacts on designated sites and habitats (see travelwest.info for route details). We have also been involved in assessing the potential impact of a housing development on the Northern Slopes Site of Nature Conservation Interest.

Please see the planning section of the website for latest information, including advice.



Portbury Wharf

BARBARA EMPIROU

Surveys, management plans and a translocation

AWT Ecological Consultancy is having a busy season covering surveys, management plans, training and a translocation.

The team led by Principal Ecologist Sarah Dale, with support from Senior Ecologist Mary Wood, has undertaken an extensive great crested newt survey programme for a large development. The team was out late into the night for several weeks using torches to study the contents of ponds and ditches.

It was rewarding to find two new sites for great crested newts, but they had to learn to manage 'wildlife' of a different kind while fending off the interest of very boisterous bullocks!

Discovery of more new records has come with bat work, standing out late at night or extremely early in the morning with bat detectors listening to and observing these idiosyncratic creatures.



Mary Woods and Sarah Dale

The team is writing management plans for nature reserves and providing habitat enhancement and creation advice for clients, including conservation groups.

The Consultancy has carried out full ecological surveys and assessments of potential ecological impacts for several proposed solar farms. Recommendations have included ways to avoid or minimise negative impacts on protected or priority features for example bats, reptiles, species-rich grassland, and veteran trees. In addition, there have been opportunities to enhance sites for wildlife including appropriate management to maximise grassland diversity around and between the solar panels, planting pollen and nectar-rich species mixes around site margins and management of hedgerows, ponds and ditches to improve ecological networks.

The consultancy trained conservation group members and South Gloucestershire council officers, so more people will be licensed and can ensure great crested newts thrive.

A reptile on-site translocation project has also been successfully completed for Bristol City Council, and the team is delivering reptile surveys.

All records go to Bristol Regional Environmental Records Centre, adding to the biodiversity database which is used by many people, from researchers to developers.

If you have any land that needs a survey prior to a planning application or advice about how to manage it better for wildlife, please contact AWT Ecological Consultancy. The consultancy is a wholly-owned subsidiary of Avon Wildlife Trust and profits contribute to our reserve and education work.



Surveying for newts

AWT Ecological Consultancy covers:

Ecological impact assessments and mitigation; Protected species and habitat surveys; Biodiversity Action Plans and site management plans; Phase 1 habitat survey; Habitat creation and restoration; BREEAM and code for Sustainability Homes ecology assessments.

Contact:

enquiries@awtecologicalconsultancy.org.uk
 avonwildlifetrust.org.uk/consultancy
 Sarah Dale, Principal Ecologist 0117 917 7273



Great crested newt

DAVID KILBEY



'Distribution mapping reveals overall range extent, habitat associations and hotspots'

The report, launched by Sir David Attenborough

Our nature is in trouble – that is the conclusion of a groundbreaking report launched in May by a coalition of leading conservation and research organisations.

Scientists working side-by-side from wildlife organisations across the UK, including The Wildlife Trusts, RSPB, Buglife and Butterfly Conservation, have compiled a stock-take of our native species.

The *State of Nature* report is the first of its kind in the UK, and reveals that 60% of the species studied have declined over recent decades. More than one in ten of all the species assessed are under threat of disappearing across the UK.

The picture in Avon

Farmland, woodland, grassland, fresh water and wetland, coastal and urban habitats and species are under threat across Bristol, Bath and North East Somerset, South Gloucestershire and North Somerset.

In our area a total of 94 species of woodland moths have halved in number. Of the 1,256 woodland species studied, 60% have decreased and 34% have decreased strongly and 30 woodland vascular plants are on the national Red List.

Other species that are declining in our area include the common toad and swift, the goat moth and the garden dart moth. Breeding lapwing in the Gordano Valley in North Somerset declined by 88% between 1987 and 1998, compared to a 49% decline in England and Wales.

However, the report also identifies areas of hope, where conservation effort has resulted in species recovery and habitat restoration.

We have played a significant role in this, and our local success stories include:

- Habitat creation at Portbury Wharf nature reserve near Portishead, helping the recovery of birds such as lapwings, dunlin and redshank, as well as water voles.
- Staff and volunteers restoring more than 60 hectares of wildflower grasslands on 28 farms in the last year.
- Brown's Folly nature reserve, near Bath, is home to 11 of the UK's 17 bat species including the greater horseshoe bat (see page 20), and our work ensures that their future is safeguarded.



Sir David Attenborough



Water vole

TOM MARSHALL

- Our Living Landscape Species Officer is working in partnership with Buglife, the Environment Agency and other organisations to create 'ark sites' for the threatened white-clawed crayfish.

Sir David Attenborough commented: "This groundbreaking report is a stark warning – but it is also a sign of hope. "Our islands have a rich diversity of habitats which support some truly amazing plants and animals. We should all be proud of the beauty we find on our own doorstep; from bluebells carpeting woodland floors and delicately patterned fritillary butterflies, to the graceful basking shark.

"This report shows that our species are in trouble, with many declining at a worrying rate. However, we have in this country a network of passionate conservation groups supported by millions of people who love wildlife."

The report's launch to the media, was followed by a *State of Nature Question Time* in Bristol (page 10), and open letter to the Prime Minister calling on his government to take action for nature.



Lapwing

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Question Time

Naturalist and broadcaster Simon King challenged people to 'open their eyes and their mouths' and stand up for nature at the State of Nature Question Time event in June.

The Wildlife Trusts' President was one of the panellists facing questions at a public debate at City Hall in Bristol. The event was organised by Wildlife Trusts and RSPB in the south west and was webcast live.

Simon King, who is also Avon Wildlife Trust's President, called on the audience and the UK's 60 million voices to join forces and say that nature matters.

It followed the launch of the *State of Nature* report, by Sir David Attenborough in May, and which showed wildlife is in decline (see page 9). The event was part of Bristol's Big Green Week and followed the announcement of Bristol as the European Green Capital of the Year 2015.

More than 400 members of the general public, which included children from Colston's Girls' School and Ashley Down Primary School, attended the *State of Nature Question Time*.

Questions covered diverse subjects ranging from how schools could do more for wildlife; why farmers use pesticides that harm the environment; marine conservation zones; population growth; Bristol becoming European Green Capital of the Year 2015; and badgers and Bovine TB.

The children were urged by Simon King, who spent his childhood in Bristol, to 'harass' their schools, their teachers and their parents to take them out into nature.

Panellists also included Director of Wiltshire Wildlife Trust Dr Gary Mantle, RSPB's Director of Conservation Martin Harper and Senior Policy Officer in the south west Mark Robbins, Dr Clare Embling of Exeter University's Centre for



Children from Colston's Girls' School

Ecology and Conservation, and South Devon farmer Rebecca Hosking. Television producer, author and naturalist, Stephen Moss chaired the debate.

Simon King argued children were 'hermetically sealed' from the natural world and that teachers' hands were tied by health and safety concerns. He commented: "Preventing children access to nature is a crime." Urging children to go outdoors and discover nature, he added: "Get muddy, scrape your knees, but most importantly don't blame anyone."

One teacher told panellists of a recent teaching experience, where only one out of a group of nine children had ever planted a seed, adding that children were our future.

Speaking before the event Stephen Moss, naturalist, author, and TV producer, said: "Wildlife and natural habitats really don't need to go down the tubes, and this sold-out event shows that the people of Bristol care passionately about the living part of this beautiful planet."

Chief Executive of Avon Wildlife Trust Dr Bevis Watts, who welcomed the audience, commented: "Restoring our natural environment is vital to sustain our economy, as well as our health and wellbeing. We have to work differently with a more joined-up approach, investing in our natural capital alongside public health and economic development."

The *State of Nature Question Time* event was supported by Wessex Water.



Bristol Mayor George Ferguson

Go to www.nextstep4nature.public-i.tv/core/portal/webcast_interactive/107169 to see the *State of Nature Question Time*.

Ten ways to make a difference

The *State of Nature* report and *Question Time* panellists called on people to make a stand for nature. Suggestions included growing more diverse crops, and changing people's eating habits; replacing Gross Domestic Product with Gross National Happiness; and persuading the United Nations to make ecocide the fifth crime against peace.

Chief Executive Dr Bevis Watts, commented: "The *State of Nature* report is a wake up call for us all to take action for nature." Here are our 'top ten' ways to make a difference:

1 Volunteer your support

Opportunities include surveying wildlife, scrub-bashing, growing food at Feed Bristol and helping at events (see pages 6, 14, 16 and 32).

2 Join as a member

A strong membership means we can generate funds for conservation and education projects and it gives us a stronger voice and greater influence.

3 Making space in your garden for wildlife

Build a wildlife pond, grow pollinator-friendly plants, and make gaps in garden fences for hedgehogs.

4 Support wildlife campaigns

Add your name to petitions, supporting Marine Conservation Zones, and fighting the badger cull and planning applications that threaten wildlife (see page 26).

5 Get your children and grandchildren into nature

Enjoying nature is key to protecting wildlife for the future. Come to our Trust events, explore reserves and wild places including rock pools (see pages 5, 20, 31 and listings).

6 Make the most of our 'Wild Schools'

Tell your local school about our courses at Folly Farm Centre, educational opportunities at Feed Bristol, and our free film challenge (see pages 12 and 13).

7 Challenge your MP and councillors to pledge their support

Ask politicians what they are doing to protect wildlife in their gardens, in their communities and in Parliament, and ask them to stand up for nature.

8 Use your spending power

Buy goods that are sustainably sourced, and support us by taking out a Triodos account, holding an event at Folly Farm or using AWT Ecological Consultancy (pages 6, 8 and 25).

9 Become a wildlife champion

Speak up for wildlife, enthuse people about its importance and invite them to explore our nature reserves, support our campaigns, and follow us on Twitter and Facebook.

10 Make a donation, or support wildlife through a gift in your Will

Every gift, large or small, makes a difference to what we can do to protect wildlife for the future and to inspire people (see page 35).

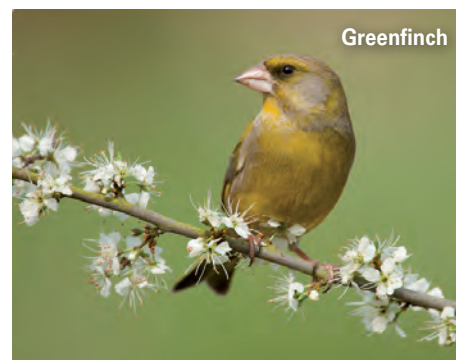


BARBARA EVRIPIDOU



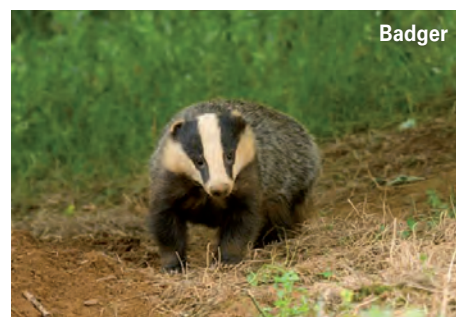
Peacock butterfly

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Greenfinch

SMARTIMAGES.CO.UK



Badger

DARIN SMITH



Thank you for all your support to date!

BARBARA EVRIPIDOU



BARBARA EVRIPIDOU

What a difference the sun makes

I've thoroughly enjoyed sunny bee hunts, pond dipping and exploring the wildlife in rich wildflower meadows with students.

The Callington Road nature reserve project, part of Bristol City Council's Wild City programme, has been a huge success. Each season pupils from Ilminster Avenue E-ACT Academy school in Knowle West have walked to the nature reserve, exploring the woodland, meadows and pond.



Julie

Children used our nature journals to discover species, learnt to recognise different bird song, identified freshwater invertebrates, dissected owl pellets, made woodland clay creatures and played wildlife games.

Many had never been to the nature reserve, which is just one mile from their school, and at the end of the project every child said they would visit the reserve again.

All said that they had learnt something new, for example that owls 'cough up the bones and fur of the animals they eat' and that 'queen bees hibernate underground'. My favourite came from a Year 4 boy, who commented 'there's more to do than going on the computer, and going outside can be fun'. A result indeed!

Teachers also valued the project and one commented: "You can see the impact that the 'long-termness' of the project has had. The children have built a relationship with the place and get so much out of it. It's so different from what we do in school. It's brilliant."

I really do hope that these nine and ten-year-old schoolchildren remember their experiences – their joy of discovering a tadpole in the pond, or identifying a species of bumblebee for the first time, and recognising a great tit singing merrily in the trees, and playing 'camouflage' in the long meadows. I hope those memories stay with the children forever and inspire them into their adult life.



Launching the pollinator project

WESTERN POWER DISTRIBUTION



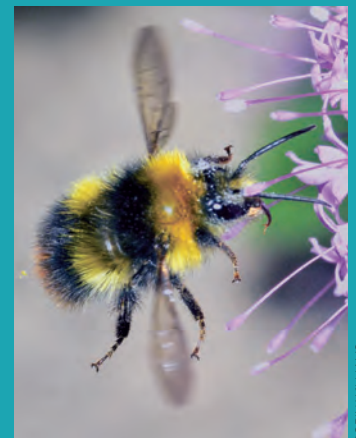
Pond dipping

Busy bees create buzz

More than 800 schoolchildren benefited from our 'Wild Schools' pollinator project – thanks to support from Western Power Distribution and Bristol University.

The schoolchildren went on a 'bee hunt', 'met' a live bee colony of one queen with 40 workers, and learnt about:

- The value of bees as pollinators through hands-on activities;
- The six most common bumblebees and the bumblebee's lifecycle;
- How they can make a difference to bees by planting flowers, and not using chemicals.



Early bumblebee

ROBIN WILLIAMS

We worked alongside the University's Urban Pollinator Project, exploring the importance of urban sites to pollinating insects and raising awareness of their importance for crops and food for people.

Bees across the UK have been hit hard by poor weather, disease and habitat loss.



'We need to inspire the next generation of conservationists to tackle the ongoing problems faced by nature.'

Awe and wonder on Folly residentials

When I think back to school, one of my fondest memories is of our Year 6 residential and just how much we valued the adventures we had as a class.

As the Trust's Learning Development Manager I understand just how much was packed in and what a fantastic opportunity it was for personal development and lifelong memories. It gives me so much joy to see the smiling faces, usually somewhat muddy and slightly exhausted, heading back to school full of understanding and stories after their residential at Folly Farm Centre.

All of our programmes support and build on classroom learning, but also offer valuable personal development and the excitement of learning outdoors. This summer more than 300 primary and secondary students have stayed at our Folly Farm Centre.

Research from OFSTED (Office for Standards in Education) states: "Learning outside the classroom is highly motivating and residential experiences all stimulate interest, curiosity and passion for 'doing'. These activities broaden young people's horizons, enable them to develop new skills and build relationships. They make young people more engaged with learning and therefore more likely to do well."

We also recognise how much valuable time is available to learning; when normally the school bell would have rung, we are still deep in the woodlands studying habitats, or sitting out in the evening watching the badgers, bats and owls, learning about the adaptations of nocturnal wildlife.



Jo



Filming wildlife

Recently we welcomed Coxley Primary School from Wells on their first residential. Their three-day Wildlife Presenters residential saw students exploring the surrounding 250-acre nature reserve, studying the habitats and wildlife. They then turned all of their knowledge into a three-minute film that they storyboarded and edited before presenting to the rest of their class. The final day saw them learn the traditional skills of fire lighting and living off the land, with the addition of a few marshmallows!

The class teacher, Mr Russell, said: "I have been on 16 residential visits in my career to various centres around the country and this was honestly the best in just about every way. The staff were excellent, the tuition effective and enjoyable and the location, accommodation and catering superb."

[Check out Coxley's and other schools' wildlife films on youtube.com/avonwildlifetrust.](http://www.avonwildlifetrust.com)



Script writing under a tree

Folly Farm Centre has a range of two to five-day residential programmes, throughout the year and priced from £65 per student. For more details, including learning opportunities at Feed Bristol, please go to wildschools.org.uk or contact the learning team by emailing schools@avonwildlifetrust.org.uk or calling 0117 980 0391.

Do you want to try wildlife filmmaking in your school grounds?

Our Wild Schools Film Challenge kit boxes have all the equipment your students need to create their own films. Boxes are free to borrow to schools throughout the Avon area. Go to wildschools.org.uk for more details and to book your kit box.

Communities And Nature

The Trust's Communities And Nature project is supported by the Big Lottery Fund's Reaching Communities programme, and focuses on giving people living in six key areas opportunities to engage with nature. These areas are Twerton and Whiteway in Bath; Hartcliffe and Withywood, Southmead, Barton Hill and Easton and Bedminster in Bristol; and South Ward in Weston-super-Mare.



It has been a busy spring and summer for the Communities And Nature team, engaging with more than 3,400 people through family-fun events and practical volunteering.

We have been working with Tomorrow's People, an organisation that supports disadvantaged young people back into work or training. They explored Folly Farm nature reserve in the Chew Valley and Dundry Slopes, near Bristol, and learnt about the sites' history, flora and fauna, as well as cooking and bushcraft, reducing environmental impact, and health and safety. The group also received a John Muir Award, which encourages people to connect with, enjoy and care for wild places.

In Weston-super-Mare, we have been working with the Friends of Jubilee Park, North Somerset Council and Brandon Trust, an organisation that supports adults with learning difficulties. Activities have included wildflower seed sowing, maintaining hedgerows, litter picking and more recently planting wildflowers to enhance the meadow area. The Brandon Trust group benefits from being outside in the fresh air, finding out about nature, engaging with other local people and learning new skills. One of the group commented: "I like looking at the wildlife and meeting people and doing something good."

The Great Rhyne Community Allotment site has provided a platform for a cohesive community-led project, within Weston-super-Mare. The recycled plastic bottle greenhouse has brought lots of people together, including children from Bournville School and their parents, allotment holders, local residents and Shaw Trust, which helps disadvantaged people or those with disabilities to find and sustain employment or enjoy more independent living. On Mondays you can see a dedicated group at work in the allotment, growing food for the local cafe. We regularly meet with local community members, who already



Tomorrow's People

have a strong sense of ownership, to agree on how best to develop the project.

In Bath we organised four guided walks at Bath City Farm, with the Bath Natural History Society. Families 'walked on the wild side', exploring the area to see what wildlife lived alongside the farm animals. We want to develop more projects in Twerton and Whiteway, so please contact us on 0117 980 0393 or people@avonwildlifetrust.org.uk if you want to get involved.

None of this would be possible without the support of the Big Lottery Fund, our partners and volunteers.



'Contact with nature has many proven physical and mental benefits.'



Wild at art



Neighbours' Day

Late summer wonders

GATHEHOUSE STUDIO

Teasels

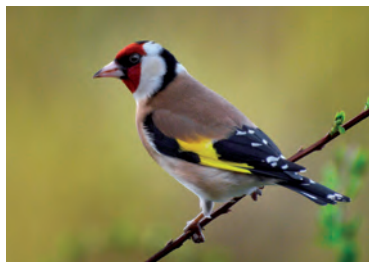
Teasels are a common plant found on building sites, untidy corners of farmyards and rough pastures. Often overlooked, it's worth stopping and examining next time you see the unmistakable tall spiky stalks. The word 'teasel' comes from the same root as the word 'thirst', probably because of the plant's ability to store water in its leaf stems where they meet the stalk. This feature also allows them to catch insects in the water, putting them into the category of carnivorous plants.



GATHEHOUSE STUDIO

Goldfinches

These glorious finches flock together in communal groups in autumn feeding on teasel and other small seeds. They are as likely to be seen in urban gardens as in country hedgerows and the combination of black, red and white facial markings, warm brown wings and black and gold flashes make it a delight to encounter. Listen out for the goldfinches in flight, and their distinctive tinkling call.



GATHEHOUSE STUDIO

Southern hawker

September and October are often a great time to see dragonflies and damselflies (see p22) and one of our most spectacular local species is the southern hawker. These large bright green and azure blue dragonflies are just as likely to be found hunting in woodland glades and along public footpaths as they are resting on vegetation near ponds and waterways.



MIKE DIMERY

Trees

The vivid hues of ruby red, yellow, gold and brown start late September and are well into their change by late October. The temperature has a big hand in turning the colours as the trees go into their resting phase over the winter. Colourful woodland displays can be spectacular.



Death caps

Autumn rainfall brings out much of the early fungi and perhaps one of the most enigmatic is the death cap. This glossy green masterpiece is most common in woodlands and can be found in large numbers. It's extremely toxic and should be avoided, although it's safe to photograph!



Hedgehogs

Mammals that hibernate use the autumn glut to fatten themselves up for winter. Hedgehogs can be found foraging after rain storms and under shady shrubs. You'll need to look for these nocturnal creatures at twilight or by a full moon.




'Many species such as hedgehogs rely on wildlife corridors.'



Around the reserves

Dexter cattle at Purn Hill

After last year's seemingly endless rain, this summer has seen high temperatures and plenty of sunshine. Plants and flowers are in full bloom across the reserves, and at time of writing the scorched grass looks more like the Savannas of Africa. Butterflies and insects are still abundant, and the swifts, swallows and house martins are feasting in our skies, and by night bats are swirling around our gardens and hedges.

We have created a wonderful wildflower meadow at **Weston Moor** with the help of the farmer, and it's already teeming with poppies, knapweeds and ox-eye daisies. The ground was cleared, ploughed, tilled and seeded with a wildflower seed mix over the winter, and will be regularly cut this summer to suppress the grasses. Next year should see the meadow blooming in all its glory.

Netcott's Meadow has also been selected by HRH Prince Charles as Avon's Coronation Meadow and will be used as a donor site to help create another wildflower meadow in the county. Reserves Manager Joe Middleton recently met Prince Charles and visited his meadows at Highgrove at the launch of the project (see page 7).

At **Brown's Folly**, our volunteers have worked hard on the dry stone walls and the Wiltshire horn sheep have cleared the scrub from the slopes overlooking Bath. The reserve's rare limestone grassland habitat is looking fantastic this



Four of the reserves team



summer. And at **Bathampton Meadow** we have been clearing troublesome weeds like ragwort and the invasive Himalayan balsam from the banks of the Oxbow Lake. Himalayan balsam has spread throughout the country and is out-competing native species and causing our river banks to erode (see page 18 for more on invasive species).

Ragwort however is poisonous to some animals, like cattle, sheep and horses, especially when it's cut in silage or hay. But it's also important for many insects as a food source including burnet moths and the cinnabar moth, bright red and black day-flying moths. We only pull it when absolutely necessary after consultation with our graziers and neighbours.

At **Dolebury Warren**, **Purn Hill** and **Tickenham Hill** we have spent much of spring and summer dry stone walling. On the top of the Mendip Hills at Dolebury the old field boundary walls that date back to medieval times have been repaired and rebuilt by our dedicated volunteers from the Wildlife Action



Barn owl chicks

Group – the same volunteers who have also been restoring Tickenham’s old wall for the last few years. The Weston-super-Mare Group volunteers have also worked hard dry stone walling at Purn Hill, overlooking the Somerset Levels.

At **Portbury Wharf** nature reserve the sand martin bank in the South Pools field has been completed and is ready for the birds to move in. The new island has already received visits from lapwings and we have increased numbers of snipe, tufted ducks and curlews. We were delighted when a long eared owl was photographed in an area where we had been maintaining a ride next to the tower hide. Volunteers have also worked



Volunteers



The report described the volunteers who survey and record our wildlife as the ‘unsung heroes of conservation.’

alongside reserves staff to remove scrub in the Sanctuary, clear rides for butterflies, as well as undertaking hedgerow maintenance, reed control, pond management and fencing.

Infrastructure repairs across the reserves have included replacing broken steps and interpretation boards, fixing old fences and repairing paths. In the damp moss and fern-filled valley at **Goblin Combe** we replaced the steps that lead up to the grasslands overlooking the Combe, and at **Prior’s Wood** volunteers and staff were fortunate to be working on paths and steps in the woodland when the bluebells were in their finest display of colour.

At **Folly Farm** our volunteers have been bounding around in their new motorised barrow carrying out fencing, step and path repairs in all four corners of the nature reserve overlooking the Chew Valley Lake. At Willsbridge Valley volunteers have been busy on a host of conservation tasks and have regularly surveyed the ponds to build up a picture of the biodiversity that the site supports.

Our grazier’s herd of roaming Dexter cattle have visited **Purn Hill, Blake’s Pools** and **Tickenham Hill**. This small breed of cattle have a surprising love of bramble, nettles and reeds as well as grass, and seem to be enjoying restoring the rough grasslands.

Hands-on conservation has also included working with Chris Sperring to ring four barn owl chicks on one of our reserves.

We manage 35 nature reserves in Avon, and we couldn’t do it without the hard work of so many dedicated volunteers, as well as staff, and also the support of our members and supporters.

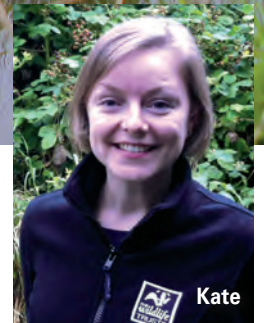


Volunteers and staff at work



Non-native invasive species

Living Landscape Senior Project Officer, Dr Kate Pressland, gives an insight into defending our watercourses from delightfully-named but devastating species such as parrot's feather and water primrose.



LORNA WILCOX

State of our wetlands

The *State of Nature* report identified 57% of freshwater species in decline, 29% strongly so, due to the complex pressures facing wetland habitats, including: pollution, extraction, excessive draining, development, inappropriate habitat management, climate change and invasive species. Our North Somerset Wetland Programme has been surveying the intricate network of drainage channels across the Levels and Moors to better understand the biodiversity of our local watercourses and what threatens them. In particular, we have identified a need for increased vigilance in one problem area, namely aquatic invasive non-native plants.

Why are invasive non-native plants a problem?

They grow rapidly, spread easily, out-compete native flora, and are difficult to remove long-term from watercourses. They can quickly dominate the water column and cover the surface, obstructing access for air-breathing animals, and reduce light, plant growth, oxygen and water temperature. Invasive non-native species are not just a problem for biodiversity, but can reduce access for recreation and fishing, and cause flooding by clogging drainage pipes and channels reducing the water carrying capacity. We all have a vested interest to ensure they do not persist in our valuable wetlands.

What can we do about it?

In the past, many of these invasive plants have been sold through nurseries and planted in garden ponds, but have

escaped into the wild either unintentionally or through dumping. Their eradication costs the UK millions of pounds annually and the Rt. Hon. Richard Benyon MP, the Parliamentary Under Secretary of State for Natural Environment, Water and Rural Affairs, announced a ban of sale this year. Coming into force in 2014, it will ban the five most destructive species: water fern (*Azolla filiculoides*), parrot's feather (*Myriophyllum aquaticum*), floating pennywort (*Hydrocotyle ranunculoides*), Australian swamp stone-crop (*Crassula helmsii*, also known as New Zealand pigmyweed), and water primrose (*Ludwigia peploides*). They are already listed in Schedule 9 of the Wildlife and Countryside Act 1981 as being an offence to release into the wild (see page 24 for Trustee Martin Brasher's input).



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Protecting wetland landscapes

SMARTIMAGES.CO.UK

Currently, North Somerset has infrequent occurrences of aquatic invasive plant species, however the threat is increasing as these plants spread across the UK (see our website for further information on the distribution of non-native invasive species). The chances of successfully eradicating invasive species are increased if we tackle the establishment early. This requires us to be well prepared and ready to take action before they become too dominant and colonise further.

To address this, we ran a workshop in collaboration with the Environment Agency for landowners, contractors and the Internal Drainage Board, which is responsible for maintaining larger watercourses. The workshop included:

- Discussion about non-native invasive plants;
- Learning how to identify them;
- And developing a unified rapid-response protocol for North Somerset.

This pro-active approach of working together will help us control future invasions promptly and enable us to better protect our aquatic ecosystems in the long-term.

How can you help?

We all have a role to play in stopping the spread of these damaging plants. If you spot one of these species (please see images) whilst out walking on the beautiful Levels and Moors please send us a photo and the location. Alternatively, record your sightings using the PlantTracker mobile app created by Bristol University, the Centre for Ecology & Hydrology, and the Environment Agency. This excellent app has images and species guides on all our problem plants, as well as a photo and GPS location upload to send in your records. Please go to planttracker.naturelocator.org to download the app.

The North Somerset Wetland Programme is a three-year Living Landscape project (2011-2014), funded by the Esmée Fairbairn Foundation.



'Freshwater habitats are often isolated and so are vulnerable to the impacts of invasive non-native species. Establishing early warning and rapid response systems to deal with newly-established introduced species is critical to protect these habitats in the future.'

Watch out for...



Australian swamp stone-crop

Australian swamp stone-crop

Introduced in 1911 from Tasmania and sold as an 'oxygenating plant' in 1927. It spread from discarded plants bought from nurseries and grows all year, 20 hours of the day. It can grow vegetatively from fragments as small as 5mm. Smothering watercourses, it grows from the margins outward creating a dense mat.



Floating pennywort

Floating pennywort

Native to North America and first established in the wild in 1990, from discarded garden pond plants. Can grow 20cm a day in dense mats, and costs the British economy £23.5 million per year. Similar to native marsh pennywort but has lobed leaves.



Parrot's feather

Parrot's feather

Native to South America and grown in water gardens in the UK since 1878, it was first seen in the wild in 1960. It clogs water channels and causes flooding. Spreading vegetatively, stems break easily, facilitating dispersal. It has emergent and submerged forms, and its name comes from its feather-like leaves that are arranged around the stem in whorls of four to six. The plant is similar to native milfoil and hornwort species.

PHOTOS © CROWN/COPYRIGHT 2009 - GENISS

Seasonal stroll
Brown's Folly

'Brown's Folly is a beautiful site. The view, the history and the wildlife are all incredible. It has so much to offer so many people.' Joe Middleton, Reserves Manager



Pyramidal orchid



Sheep



Inspiring



The Folly

for bat caves and Bath asparagus



GOOGLE EARTH™ MAPPING SERVICE

OS grid ref: ST797 664

Walk details

duration: 1.5 hrs

grade: easy

Key to map

walk

point of interest

reserve boundary

car park

scale

100m

Look out for...



Bath asparagus



Greater horseshoe bat

Wild thyme



GREATER HORSESHOE - GARETH EDWARDS

A Site of Special Scientific Interest (SSSI), Brown's Folly is a unique site for wildlife and geology, just on the edge of Bathford and Monkton Farleigh, near Bath. The reserve is home to 11 of Britain's 17 bat species including the greater horseshoe.

Take the path from the car park, following the track north (1) along a route built in the 1860s to cart stone from the mines to the river. Along the track, you'll see plenty of coppice (2) which is good for woodland plants including the rare Bath asparagus.

The ride, or pathway, has been widened (3) to encourage birds, including spotted flycatchers, and bats. This time of year bats build up their fat reserves, before mating and hibernating in late autumn. Look to your left (4), behind the trees, there is a large rock exposure, the oolitic limestone known locally as Bath stone and used to build many homes in and around Bath and also Buckingham Palace. The disused quarries became an ammunition store in World War 2 and today they are used by roosting bats.

At the end of the ride, take the left-hand path up on to the grassland (5) which is full of common spotted orchids, salad-burnet and wild thyme in the summer. Take in the stunning views of Bath (6) including the three main transport routes for the reserves mined stone – the river, the Kennet and Avon Canal and the Great Western Railway. Also a great place for a picnic, but please take any rubbish home with you.

High on the ridge is the folly, built by Colonel Wade Browne during the agricultural depression of 1848 to keep his tenants in employment and now owned by the Folly Fellowship. Take the path back out of the grassland through a metal kissing gate and into the woodland, passing several grilled off caves. Autumn brings an explosion of reds, browns and yellows with fallen leaves, nuts, berries and fungi, including King Alfred's cakes which were used in pre-historic times as firelighters.

Please take care when exploring the reserve, as paths can be muddy; keep away from rock faces; and do not enter the mines.

Email naturejournal@avonwildlifetrust.org.uk to order your copy of *Brown's Folly Nature Reserve, A unique place to explore*. Supported by the Medlock Charitable Trust, it is packed with fascinating facts, spotter guides, and ideas for things to do. It is especially good for families.

How to find the reserve

Public transport: go to traveline.org.uk

Bike: go to sustrans.org.uk

Car: from the A363 turn into Bathford Hill. Take the steep right-hand turn into Prospect Place. The car park is near the brow of the hill

Why don't you... look for fossil coral in the Bath stone exposures?



The report stated that the greater horseshoe bat had benefited across the country from Natural England's project to encourage more sensitive land management and reduced insecticide use near maternity roosts.

Dragonflies and damselflies

John Martin works for Natural England as a vascular plant specialist, and has contributed to the latest Wildlife Of The Bristol Region series, *Dragonflies and Damselflies*.

Dragonflies and damselflies are amongst our largest, showiest and most conspicuous insects. They can be found around all kinds of water bodies from our largest reservoirs to tiny garden ponds as well as in rivers, streams and ditches.

The adults are also often seen hunting smaller insects well away from water. Most can be accurately identified using close focusing binoculars and they make excellent subjects for photography.

Our area has a good range of species including a number of local specialities. The River Avon is a particularly good

site with typical riverine species such as banded demoiselle and white-legged damselfly, plus an expanding population of scarce chasers.

The best quality rhynes and ditches of the North Somerset Levels have the localised variable damselfly and hairy dragonfly. Even ephemeral pools in areas under development around Bristol may produce transitory populations of nomadic scarce blue-tailed damselflies or migrants from the south such as red-veined darters. Anyone thinking of turning their attention to the study of the insects should give 'dragons and damsels' serious consideration!



Azure damselfly (*Coenagrion puella*) One of several similar blue damselflies, this species is often abundant around ponds and other wetlands.



Banded demoiselle (*Calopteryx splendens*) This and the beautiful demoiselle are our largest damselflies. Males have large black spots on the wing, whereas the beautiful demoiselle's are solidly shiny black.



Beautiful demoiselle (*Calopteryx virgo*) This large showy damselfly forms a species pair with banded demoiselle, both found by flowing water. These require faster flowing and more oxygenated water.



Blue-tailed damselfly (*Ischnura elegans*) This very common damselfly always shows the blue 'tail light' segment near the tip of the abdomen but the thorax colour is very variable (this is the form 'rufescens').

PHOTOS BEAUTIFUL DEMOSELLE, SCARCE CHASER - J. ALDRIDGE, AZURE DAMSELFLY, SMALL RED-EYED DAMSELFLY, SOUTHERN HAWKER - J. MARTIN, BEAUTIFUL DEMOSELLE, BLUE-TAILED DAMSELFLY, EMERALD DAMSELFLY - M. DIMERY, GOLDEN-RINGED DRAGONFLY - RICHARD ANDREWS



Emerald damselfly (*Lestes sponsa*) This species is easily distinguished from other damselflies in our area by its resting posture, with the wings held partially spread.



Small red-eyed damselfly (*Erythromma viridulum*) This is a very new colonist of Britain. It often sits on floating plants and with its tomato-red eyes, it can be confused with the resident red-eyed damselfly.



Golden-ringed dragonfly (*Cordulegaster boltonii*) This distinctive large dragonfly breeds in acidic streams and pools. In our area it can be seen most reliably on the edge of the Mendip Hills.



Scarce chaser (*Libellula fulva*) This nationally scarce species was once confined locally to the River Avon, but has recently spread to other rivers as well as the North Somerset Levels and Moors.



Southern hawker (*Aeshna cyanea*) In late summer this large species is widespread and sometimes common. It is famed for its curiosity, often flying close to an observer's head as if checking them out!

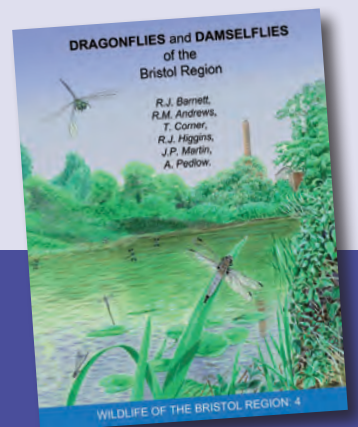
Dragonflies and Damselflies of the Bristol Region

Reviewed by Trustee Steve Nicholls

This book is the fourth in the series on wildlife of the Bristol region (the others being on plants, butterflies and moths) and it continues this series' tradition of excellence in both content and quality of production. This beautifully presented book brings together all the distribution records of dragonflies and damselflies for our region collected to date, but it is far more than just a distribution atlas. The opening chapters give a fascinating introduction to the natural history of our wetlands and some useful hints on where to find dragonflies, as well as introducing us

to some of the spectacular fossil dragonflies (some four times as large as today's) that have been found locally. The bulk of the book is composed of accounts of individual species, with associated distribution maps, but also includes multiple high quality photographs, more than enough to turn the book into a useful field guide to local dragonflies. The write-up on each species gives a very readable summary of their status as well as some insights into their ecology. For anyone in the Avon area with an interest in dragonflies, this book should be on your shelf.

Information is taken from *Dragonflies and Damselflies of the Bristol Region*, which is available to buy at Bristol Regional Environmental Records Centre and at Bristol Museum and Art Gallery and M Shed shops. Authors are Ray Barnett, Richard Andrews, Tim Corner, Rupert Higgins, John Martin and Abigail Pedlow, with a foreword by broadcaster Philippa Forrester. For further details please go to brerc.org.uk. Cost: £19.50. For a chance to win a copy please go to our Facebook page.



Our guest member

Martin Brasher



LORNA WILCOX

Avon Wildlife Trust member and Trustee, Martin Brasher has championed wildlife in work and now in retirement, and once chomped on a spitting cobra...

“ My background is in Latin and Archaeology, so you wouldn't really expect me to be a conservationist, but events have pushed me fairly firmly in this direction.

Looking back, I think it all started when I was about six and when out walking with my parents in Kent we came across what must have been a grass snake on the edge of a field. I can still see it in my mind's eye. It was magnificent, and curiously unafraid.

Much later, I taught in a government school in Northern Nigeria in the 1970s, near Kano where the open-air cinema famously cleared in seconds once when a lion appeared near the screen. And we had some excellent wildlife experiences there – particularly watching baboons and hyrax in the nearby hills in the evenings. My housemate Pete famously shot and killed a spitting cobra there too, and our steward cooked it for supper that night, proving in the process that Ogden Nash was right when he wrote:

*A gourmet challenged me to eat
A tiny piece of rattlesnake meat
Saying 'Don't be horror-stricken
You'll find it tastes a lot like chicken'
It did. Now chicken I find I cannot eat
Because it tastes like rattlesnake meat*

Back in England I became Private Secretary to the Environment Minister for three years, which involved sitting through every moment of the Wildlife and Countryside Bill as it went through Parliament in 1981. The role wasn't always glamorous – it often involved making sure that the Minister's car was in the right place to take him home when proceedings finished, often at four in the morning – but the Act which

emerged has of course been a landmark in conservation terms. Happy chance led me to Bristol and eventually to head Defra's Biodiversity Divisions here – first the international team where we did our best to broker global agreement on issues such as ivory poaching and the trade in tiger skins, and then as Chair of the England Biodiversity Group which brought together Government Departments, local authorities, the voluntary sector, business and other interests to promote greater awareness of biodiversity and encourage measures to conserve it. This included supporting the recommendations in Sir John Lawton's *Making Space for Nature* report, which is a wonderful blueprint for the future.

Meanwhile, away from work, I've been a keen runner all my life and one of the joys of being out running in North Somerset over the last 20-plus years has been the increase, yes the increase, in the wildlife that I have seen while out in the countryside – otters, buzzards, deer, and much else. And all within ten miles or so of a city of nearly half a million people.

I retired from Defra last year – genuinely keen to play golf, and also to run more before the joints finally give out. But I was also keen to keep in touch with conservation work so I'm now a Trustee of various organisations including Avon Wildlife Trust, and Mondays find me flexing my muscles to help out at the Backwell Environment Trust's reserve.

The recent *State of Nature* report was hardly uplifting but I'm actually quite positive about the prospects for our wildlife. There are good building blocks in place – the England Biodiversity Strategy and Lawton; there are armies of volunteers carrying out much excellent work; and of course there is now Bristol's great success in being designated European Green Capital. That can be a real rallying call to move conservation up the agenda. And still whenever I'm out running, and I see previously rare species increasing in numbers, my heart leaps just as much as ever..”

Folly Farm Centre

A place to escape

Imagine waking up to the peace and quiet of a beautiful nature reserve, far away from the pressures of modern-day living. Opening the curtains you can see the countryside stretch out below to the picture-perfect Chew Valley Lake.

Folly Farm Centre at Stowey is best known for its educational courses, its conferences and weddings. However, it is also available during much of the year to families, large or small, couples and individuals.

It is set at the heart of the 250-acre Folly Farm nature reserve lovingly managed by Avon Wildlife Trust. Folly Farm is the ideal place to stay and watch badgers at play, to go on your own owl prowls, or to rise early for the dawn chorus. There are a number of walks on the reserve, including an Access for All trail for pushchairs and wheelchair users. And it is all in easy driving distance of both Bristol and Bath, as well as good restaurants including The Pony and Trap, which holds a Michelin star.

The reserve itself boasts ancient woodlands, meadows and a stream, all rich in wildlife; and its history as an ornamental farm is fascinating.

The converted cowsheds can be booked by individuals, couples or families as a base to explore the surrounding countryside. They are popular amongst professional and



Folly Farm Centre Director Andrew Lund-Yates

amateur photographers, who don't need to make quite so much an effort to capture those stunning dawns and dusks on camera.

Accommodation is flexible and ideal for family reunions or groups of friends, where children can share dormitory-style rooms in the main farm house, and allowing most of the adults to escape to converted farm outbuildings with their own bathroom and kitchenette facilities.

The centre offers plenty of space for socialising in the evenings and there is use of the kitchens too – alternatively speak to the Folly Farm Centre team about the delicious and locally-sourced food that can be cooked for larger groups.

And for those who might find escape from the outside world a little too daunting, there is Wifi access.

Folly Farm Centre is good for the conscience too, as it is highly sustainable and all profits go to Avon Wildlife Trust's conservation and education work.

Please call us now on 01275 331590 to secure your booking, or to find out more about the education and conference centre, and wedding venue.

folly farm
conference centre

a place for business

Located in the heart of a 250-acre nature reserve, our award-winning conference centre is an inspiring and unique venue for conferences.



- Four stunning conference rooms, largest room can seat up to 120 delegates
- Accommodation for 45 delegates
- Unique and engaging team-building activities
- Excellent customer service

- Delicious, seasonal and low food-mile menus
- A sustainable venue, working for the environment
- All profits go to Avon Wildlife Trust
- Only 10 miles from both Bath and Bristol city centres



We are a popular wedding and group accommodation venue - so call us today on

01275 331590



For updates on the badger cull: wildlifetrusts.org/news

Trusts call for tighter control on marine pollution

Seabird deaths caused by chemicals at sea

The Wildlife Trusts, RSPB and RSPCA have asked the International Maritime Organisation to review the classification of a hazardous chemical after two pollution incidents resulted in more than 4,000 dead and dying seabirds being washed up along the coast of southwest England. The birds, including razorbills, puffins, gannets and guillemots, were coated in a sticky substance which interferes with plumage, preventing diving and feeding.

The substance was identified as polyisobutene (PIB), a chemical used in the manufacture of lubricants, chewing gum and other products. Under certain circumstances it is legal for ships to discharge PIB into the sea when washing out their tanks.

“Dead and dying seabirds may be the most visible victims of our mismanagement. But impacts on other parts of marine life support systems may be just as widespread, and more serious,” said Joan Edwards, Head of Living Seas for The Wildlife Trusts. “Firm controls must be implemented to minimise the risk of future disasters.”



This guillemot survived. But rescuers are concerned that the visible deaths are only the tip of the iceberg



EMMA BRADSHAW

A wood once owned by the author is now a nature reserve

Laurie Lee wood saved

A landscape that inspired Laurie Lee’s book *Cider with Rosie* has been safeguarded for future generations.

Gloucestershire Wildlife Trust bought the ancient woodland (which was once owned by the author and adjoins the Trust’s existing Swift’s Hill reserve) after almost 1,000 people contributed to a local appeal.

“We knew that this was a special place and that there would be amazing support to secure it from our members. But we have been truly overwhelmed. It’s great to know that in the middle of a recession people still value this county’s stunning countryside,” said Chief Executive, Roger Mortlock. To donate to other appeals to save places: wildlifetrusts.org.uk/appeals

AROUND THE WILDLIFE TRUSTS

ALDERNEY

A new webcam project, *Living Islands: Live*, is enabling primary school children across Alderney and SE England to watch life inside a breeding puffin colony. wtru.st/livingislandslive

BCN WT

A Trust member has discovered a species of lichen new to Bedfordshire. Returning lichens can indicate improving air quality, as many are highly sensitive to sulphur dioxide pollution. wtru.st/bedslichen

B’HAM & BC

The Trust is challenging proposals by the City Council to develop green belt land in Birmingham. The Council says 80,000 new homes will be needed in the city by 2031. wtru.st/birmplanning

CORNWALL

The Trust and South West Water are collaborating to work with farmers to deliver cleaner drinking water. The *Wild Penwith* project provides advice on good soil and water management. wtru.st/WildPenwith

DORSET WT

The county’s largest seafood wholesaler now has a labelling scheme to support the Trust’s *Great Dorset Seafood* campaign, showing provenance and traceability. wtru.st/DorsetSamways

GWENT WT

The Trust welcomed a Welsh Government announcement that the planned M4 extension across the Gwent Levels needs more consultation. The Trust is campaigning against the development. wtru.st/GwentRoad



Alderney WT's The Odeon, a WW2 bunker now home to nesting swallows. You can spin 360 degrees on this spot, and explore different habitats

Living Landscapes on your phone and PC

Thanks to an astonishing one-man project, you can now visit 92 of The Wildlife Trusts' Living Landscape schemes online – and explore them as 360-degree interactive panoramas.

And the man who took the pictures – all 12,000 of them – visited every Living Landscape on a folding bicycle, towing his camera and camping gear on a trailer. In fact, Mike McFarlane cycled 5,903 miles to capture the sights and sounds of landscape-scale conservation.

Paul Wilkinson, Head of Living Landscape, said: "We have been focusing our efforts on landscape-scale conservation schemes in partnership with others for several years. Mike's panoramic views and virtual tours will help people to visualise the places where we are working and the scale and scope of Living Landscape schemes."

Mike's trip was funded by Tubney Charitable Trust and Aggregate Industries. Explore the panoramas at wildlifetrusts.org/360

Care for nature dropped from school curriculum

The Wildlife Trusts have asked the Government to reverse proposed changes to the English national curriculum which could see children not being taught about protecting the natural environment.

The current draft quietly drops any reference to English school children being taught 'to care for the environment' or 'ways in which living things and the environment need protection'.

The Wildlife Trusts believe this would hinder young people learning about their dependence on nature. It could also affect society's future ability to function in harmony with the natural

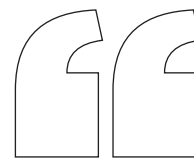
environment, on which it ultimately depends.

President of The Wildlife Trusts, Simon King OBE, called for education secretary, Michael Gove, to increase environmental education in schools. "A younger generation equipped to understand and tackle the massive environmental problems we have left them is our only hope for the future," he said. The Wildlife Trusts are part of Wild Network which aims to reconnect children with nature. More at projectwildthing.com



More than 162,000 pupils from 4,400 schools in England visited Wildlife Trust reserves last year

DAN RANSON/CORNWALL WT



The value of nature



Just like a good doctor, an intelligent society should try to identify root causes rather than simply treat symptoms. And the root cause of numerous societal and economic

problems is the decline in wildlife and in people's access to it.

To reverse this trend, The Wildlife Trusts are showing that we can both revive our natural environment and re-connect people to it. Thurrock Thameside, a new nature park created by Essex Wildlife Trust is a case in point. Tees Valley Wildlife Trust is measuring the benefits of such engagement for people's lives.

Many species were only able to re-colonise the Essex site because the places around it had enjoyed European protection. This makes it clear that any further erosion of our depleted natural capital must be avoided at all costs. And this will only happen if decision-makers and people everywhere put a higher value on nature. That includes those deciding on what should be taught in schools. The next generation will need an excellent understanding of nature's worth and complexity if it is to lead nature's recovery, and create a brighter future for society and its economy.

Opening Thurrock Thameside Nature Park Sir David Attenborough brought tears to the eyes of local people as he heralded the "miracle" of the site's transformation from vast landfill site to 800-acre wildlife haven and education centre. He said it could be "a turning point".

We are certainly gathering momentum for such change – but only because you value nature, and because you are expressing this by supporting your Trust.

Stephanie Hilborne OBE
Chief Executive of The Wildlife Trusts

There are 47 Wildlife Trusts. With more than 800,000 members, we are the largest UK voluntary organisation dedicated to conserving all the UK's habitats and species. Contact us on enquiry@wildlifetrusts.org or 01636 677711. To join your Wildlife Trust, visit wildlifetrusts.org/joinus

Natural World, The Kiln, Waterside, Mather Road, Newark, Notts NG24 1WT. Editor Rupert Paul **Communications manager** Adam Cormack. **Layout editor** Phil Long
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facebook.com/wildlifetrusts

LONDON WT

The University of Roehampton has entered into a partnership with the Trust, becoming the first to join its campus (54 acres including lakes, parkland and woodland) to a Living Landscape in London. wtru.st/BevBrook

SHROPS WT

The Trust has started an e-petition calling on the Government to strengthen hedgerow protection. A farmer had just withdrawn an application to remove seven miles of hedge near Chirbury. wtru.st/HedgePetition

ULSTER

Work is underway to tackle non-native floating pennywort at Bangor's Balloo Woodland reserve. The soon-to-be-banned aquatic plant quickly forms dense mats and chokes waterways. wtru.st/BalooWeeds

WORCS WT

SITA has awarded more than £118,000 to the Trust's *Restore Worcestershire's Grasslands* project, which aims to reverse the decline of 115ha of formerly wildlife-rich grassland at 21 Local Wildlife Sites. wtru.st/WorcsGrass

Skylark ascending

Seven years ago this place was a landfill site. Today, Thurrock Thameside Nature Park is Essex Wildlife Trust's biggest project. Gemma Hall went to find out about the transformation

Five redshanks, their backs to an old oil refinery on the banks of the Thames, poke the silky brown riverbed for food, oblivious to the passing ships and alarm calls of oystercatchers. They work their way up shore with the incoming tide until the glistening mud is fully submerged and the small motor boats moored in the creek bob on the rippling water.

Watched from a bird hide overlooking the saltmarsh, a whitethroat flits from

one bush to another, singing from the highest branches while bees forage for nectar and red admiral butterflies dance about the blackthorn flowerheads.

Apart from the warbler's notes, the lapping water, and the song of skylarks high above there are no other sounds. No distant hum of traffic, no clanking of industrial machinery, no sirens. Visually, there's no escaping the setting, though. A single glance takes in wind turbines, a scattering of old factories, the

forementioned oil refinery and one of the biggest shipping ports in the world. But they can't mask the summer meadow scene conjured by the droning of the bees and trilling of the skylarks.

Landfill site to wildlife haven

Thirty years ago the roar and clatter of lorries, diggers and cranes, and the cries of thousands of gulls drowned out the skylark's song, but that was before one

MATTHEW ROBERTS



Thurrock wildlife by Lisa Smart, Reserves Manager, Essex WT



ALAN WILLIAMS

SKYLARK The site has matured to provide very good numbers of invertebrates, essential for a breeding skylark population. Disturbance from people and dogs is minimal.



PAUL HOBSON

WATER VOLE It's likely the voles expanded from the Trust's nearby Stanford Warren reserve. The lakes at Thurrock have developed reedbed, willow and good bankside features.



ALAN WILLIAMS

AVOCET Numbers of this distinctive wader are on the increase nationally, and the Park's extensive mudflats are an ideal place for them to find aquatic insects, crustaceans and worms.

of the largest landfill sites in Western Europe became a nature reserve.

"It was just a landfill back then," recall local residents, Carol and Colin Munro, who volunteer in the visitor centre and out on the reserve. In the 1950s, Carol's father used to work on the Thames pulling barges loaded with waste from the outskirts of London to the landfill site. The rubbish filled up holes in the ground left by gravel extraction for construction projects. Colin once spent a memorable morning helping his father-in-law tow the barges in a tug boat. "It took six hours to travel 25 miles with eight barges full of rubbish," he remembers. "The bitter wind was tearing the tops off the waves and hitting me like ice. We tied the barges up at the wharf and then these bucket grabs lowered from cranes picked up the rubbish and dropped it onto waiting

lorries." By the time the dumping of London's waste ceased a few decades ago, the land was 20m high with rubbish, albeit covered with grass.

In 2006, Essex Wildlife Trust, in partnership with the land owners, Cory Environmental Ltd, began in earnest to transform this mountain of waste into a healthy environment for wildlife – and recreation site for people. "It was a tremendous opportunity from a conservation point of view," says John Hall, the Chief Executive of Essex WT. "We've recreated habitats which are typical of the area including dry, elevated grasslands and chalky meadows. Locals are amazed when they come here because they've had a landfill site at their back door for as long as they can remember". Carol agrees: "It's hard to remember it now as a landfill site," she

says. "I can lose myself here. It's so quiet you feel like you're out in the country."

To date, 120 acres of grassland habitat have been restored. The lengthy process involves sealing the landfill with a membrane and then covering it with a metre-thick 'cap' of earth. Over time, the land will slowly reduce in height as the rubbish below compresses.

Sourcing enough soil to cover the site is not straightforward, however. It must come from large-scale underground construction sites such as tunnels. It's then loaded onto boats and transported down the Thames in the same way as the rubbish was delivered in the 20th century. Methane (a product of decomposing organic waste) is extracted from below the membrane and fed into power stations. When complete in seven or eight years' time, the reserve will

The award-winning visitor centre pulls in the families. The wildlife and landscape do the rest



JACK PERKINS



SLOW WORM The oldest areas on the site are now a mosaic of grassland and small scrub. This has allowed slow worms to move in and start breeding as conditions become optimal.

COLIN VARNDELL



LITTLE OWL Much of the site remains undisturbed by people, and has plenty of the small mammals and insects which this diminutive owl needs to flourish and breed.

PAUL HOBSON



BROWN HARE Moved in from neighbouring farmland as the site matured. Good security at the site has prevented illegal hare coursing, allowing numbers to build up substantially.

LIVING LANDSCAPES

Short-eared owls are the most spectacular Thurrock arrivals so far



THE WILDLIFE TRUSTS

encompass 845 acres of grasslands, woods and lakes and there will be 12 miles of paths for walkers, cyclists and horse riders to enjoy.

Giving the land back to nature and people

Owls, skylarks, hares, orchids, adders and invertebrates such as the shrill carder bee are well established on the open grasslands, and a new lake is attracting dragonflies, newts, warblers and wildfowl. Trees cannot be planted in case their roots break the membrane below, but established woodland frames the western edge of the site where, on



Sir David Attenborough and Essex Wildlife Trust CEO John Hall at Thurrock Thameside. Sir David opened the Nature Park on 11 May

“I haven’t heard a cuckoo in London in years. There are cuckoos here – what a joy!”

spring evenings, nightingales sing.

Even though only a seventh of the nature park is currently open, Thurrock Thameside is now one of Essex WT’s most visited nature reserves. “We’re

SIR DAVID ATTENBOROUGH giving people access to the Thames again,” says Steve Beary, Sales Manager at Essex Wildlife Trust. Dog walkers, birdwatchers, families out for a cycle ride and community groups all enjoy the

nature park. Some are attracted by the wildlife, others come to get some exercise, but nearly all of them enjoy a cup of tea in the new visitor centre overlooking the Thames Estuary. The cylindrical tower appears to be set into the hill, and its external wooden frame, which will weather over time to a silvery hue, fits the post-industrial setting. A spiral walkway leads to the roof where visitors can see down the river to Southend. Children love running up onto the roof of course, but the building has sparked interests that Essex WT weren’t expecting. The centre is now well known to local astronomy and shipping enthusiasts, among others. “People visit for remarkable reasons,” says Colin. “I met a couple who said they had come to see the sky. I’d never thought of that one! We do get the most incredible skies.”

Sir David Attenborough opened the Nature Park in May. “Where I live in west London I haven’t heard a cuckoo in years,” he said. “There are cuckoos here, and skylarks – what a joy. What an achievement the Essex Wildlife Trust has brought about.” You can watch him give his opening speech at wildlifetrusts.org/Thurrock

Securing the reserve in a changing landscape

For the next 90-odd years, the nature park is safely under the guardianship of Essex Wildlife Trust, says John, but there are potential threats, this being a heavily populated corner of southeast England with many development projects nearby. “Boris Johnson is keen to build an airport in the area which would damage the whole of the Thames Estuary, not just our nature park.”

Back at the visitor centre, Steve is scanning the Thames with his binoculars. He seems fixated on two huge container ships manoeuvring into the port beyond the mud flats and saltmarshes, but then it becomes apparent that he’s focusing on something rather more unexpected. “Porpoises,” he utters casually. “There’s a pod of them that often feed in the channel over there.” He points to an area of the river half a mile away. “You’d never believe it, would you?” a visitor remarks.

No you wouldn’t, but then who would have thought a 20m high landfill site could be transformed into a nature park in under a decade?

For more examples from around the UK: wtru.st/naturesback

Ten great places for Exploring rockpools

No summer is complete without getting to know a seaside rockpool. And the UK has tens of thousands to choose from

1 Longis Bay Alderney WT

Longis Bay never seems to get crowded and offers safe bathing and a great variety of environments to explore. Trust-run events throughout the summer include kayaking and rockpool snorkelling (equipment provided). More on alderneywildlife.org
Where is it? On the SE coast of the island. Accessed by main road E from St Annes.

2 Polzeath Cornwall WT

A wealth of invertebrate life clings to the rocks and hides amongst the crevices. The beach is part of a Voluntary Marine Conservation Area, and there are regular rockpool wildlife surveys and easy access rockpool rambles. More at cornwallwildlifetrust.org.uk
Where is it? On the N coast, 6 miles N of Wadebridge. Grid: SW 937 788.

3 Kimmeridge Bay Dorset WT

The Trust's Fine Foundation Marine Centre is open through the summer for interactive displays, aquaria and rockpool rambles. You can also hire Seashore Explorer backpacks. More on dorsetwildlifetrust.org.uk
Where is it? A351 Wareham to Corfe Castle. R to Creech, R to Kimmeridge. Grid: SY 909789.

4 West Runton Beach Norfolk WT

The Trust runs rockpool rummaging events on the beach throughout the summer. Shore crabs, beadlet anemones and squat lobsters are commonly encountered species. More at norfolkwildlifetrust.org.uk
Where is it? Off the A148 5 miles W of Cromer. X5 bus from Norwich. Grid: TG 183 432.

5 Porth y Pwll North Wales WT

One of many bays offering fantastic rockpooling, Porth y Pwll has large, seaweedy pools with blue-rayed limpets, cushion stars and far more besides. More on northwaleswildlifetrust.org.uk
Where is it? Head from Trearddur Bay along Lon Isallt towards Holyhead. Grid: SH 244 793.

6 Cresswell Foreshore Northumberland WT

A Trust nature reserve with a large, wave-cut platform. There are five species of crab, plus butterfish and shanny. The Trust holds rockpooling events here every Marine Week in August. More at nwt.org.uk
Where is it? 1 mile N of Cresswell village. Grid: NZ 283 944.

7 Roome Bay Scottish WT

A south facing sandy cove in the beautiful fishing village of Crail with great rockpools to explore. The Trust's nearby Fife Ness Muir and Kilminning Coast reserves are both great for coastal wildlife and migrant birds. More at scottishwildlifetrust.org.uk
Where is it? In East Neuk of Fife, 10min walk from Crail centre. Post code: KY10 3TT.

8 South Landing, Flamborough Headland Yorkshire WT

Stroll from the Trust's Living Seas Centre to the beach. The white chalk boulders create a rock pooling paradise, with a kelp forest at low tide. There are Seashore Safaris for all ages and Shoresearch if you want to develop your ID skills. More at ywt.org.uk/living-seas-centre
Where is it? From Bridlington, B1255 to Flamborough. Post code: YO15 1AE.

9 St Bees Beach Cumbria WT

The northern end has rockpools beneath cliffs with England's only breeding colony of black guillemots. The southern point has large honeycomb worm reefs. More on cumbriawildlifetrust.org.uk
Where is it? 5 miles SW of Whitehaven. Grid: NX 960 118 (north), NX 969 107 (south).

10 Seven Sisters Sussex WT

Next to the 'Beachy Head West' recommended Marine Conservation Zone. The Trust runs rockpooling days, and marine wildlife surveys. Details at sussexwildlifetrust.org.uk
Where is it? A mile's walk from the car park near Seaford. Grid: TV 518 977.



ALEX MUSTARD/2020VISION



You can often tempt common blennies out with a morsel of food

DAVID CHAPMAN



An exciting find: a broad-clawed porcelain crab

DAVID CHAPMAN



Stranded jellyfish: lovely, but don't touch!

DAVID CHAPMAN



Eggs of a Cornish sucker fish

DAVID CHAPMAN



The other-worldly tentacles of a snakelocks anemone

DAVID CHAPMAN

FIND MORE SITES LIKE THESE AT WILDLIFETRUSTS.ORG/ROCKPOOLS

Proof at last: this is

In fact, volunteering on a nature reserve turns out to be amazingly good for you, according to new research

The sound of cheerful banter blows across Coatham Marsh on Teesside as a group of volunteers digs out turf and piles it against a structure they've spent three weeks completing. Soon they'll be finished and, with luck, sand martins and bats will move in.

These are no ordinary volunteers. They're the central players in a study by Tees Valley Wildlife Trust that proves the mental health benefits of volunteering outdoors. It could have a big impact on funding across The Wildlife Trusts.

Watching the group – a mix of retired gents, students and those with mental health issues – working up a sweat in the bright spring sunshine, it's easy to see how this would make anyone feel better. Besides the outdoor physical activity, there's the satisfaction of completing a project and the feeling of well-being that comes from giving your time to something worthwhile.

The tricky part, according to Tees Valley Wildlife Trust Chief Executive Jeremy Garside, has been quantifying just how much better people feel. "Initially the

programme was developed with support from the Big Lottery Fund. But when we applied to other charitable trusts to extend the work they asked questions we couldn't answer. Is it better to get more people through for shorter periods? Or to work with the same people for five years? We didn't know."

Jeremy got Jenny Hagan involved. She's on her way to a PhD in volunteer management, and an expert in research. And so, using three scales to assess mental well-being, and structured interviews with participants, carers and

TIM KEETON



Volunteers build a sand martin nest bank at Coatham Marsh. The research suggests such activity is a better way to improve mental health than traditional interventions

good for you

by Tees Valley Wildlife Trust. John Westlake reports

health professionals, Jenny set about measuring the benefits of volunteering for the Wildlife Trust – both for those with and without mental health issues.

The results were remarkable. Participants' scores for their feelings of usefulness, relaxation and independence of thought were remarkably high and, in cases where participants were referred, their increase in confidence was clearly noted by carers. The participants themselves revealed other benefits: the feeling of comradeship with their fellow volunteers, and a level of self-

determination not possible on a ward.

Back on Coatham Marsh these findings are backed up by the turf diggers. Kelvin Scase, who volunteers three days a week, says: "I've been doing it four or five years. I love it. My favourite job is petrol strimming, I'm good at that. But we do all sorts – planting trees, cutting wood. And I like animals – there are two swans nesting just over there."

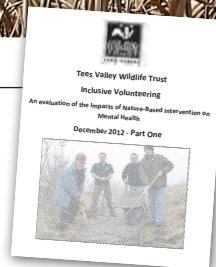
Steven Etwell is the longest serving member. "I've been volunteering one day a week since 2000. I like the fresh air and the achievement. It feels I'm in a team."

This is confirmed by one of the self-referred volunteers: "I love it, absolutely love it. When we build things, Dan (van den Toorn, the Reserves Officer in charge on site who has coordinated volunteers on the project for five years) does the design but he doesn't tell me to knock a nail in there or saw there; he just tells me the sort of thing he wants. It's bloody great. There's such a sense of achievement from building something like this. I go home at night absolutely pooped, thinking I've done a great job."



What's next?

The research has made the link between volunteering in nature and improving mental health. The next stage is to measure before-and-after impact. Jenny Hagan explains: "We're developing partnerships with local GPs to access more people in need through social prescription referrals. This could tackle the over-reliance on prescribing medication for depression, and allow further research. We're also looking at measuring blood pressure and muscle stress, which are directly connected to mental health."



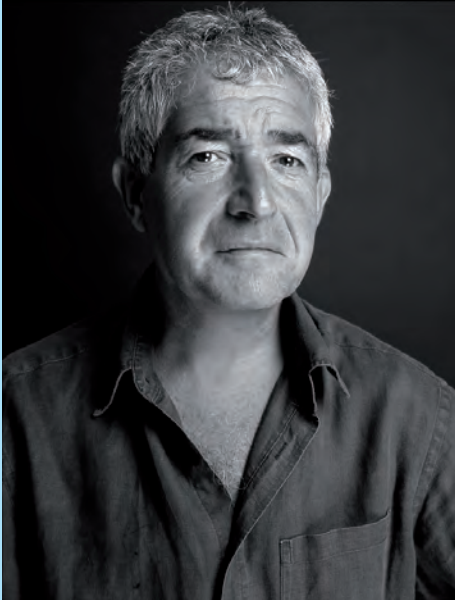
Jeremy Garside believes it makes an economic case to fund more volunteering programmes: "If we can make this work and find a way of sustaining mental health volunteering in Tees Valley, that's something I want to help other Trusts replicate."

The research was funded by a Dame Mary Smieton Research Grant. Other funders are the Northern Rock Foundation, Department of Health and Big Lottery.

■ Read the research at teeswildlife.org/new/volunteering

So nature's optional. Really?

Our Chancellor has claimed that environmental protection should be sacrificed for growth. Tony Juniper thinks this view is a dangerous illusion. And he's written a book to say why



idea that nature and economy are somehow alternatives, that one (nature) must be sacrificed for the other (growth) is to me one of the most dangerous misconceptions of modern times. And that, in a nutshell, is why I decided to write *What has nature ever done for us?*

The truth is that 100 per cent of our economic wellbeing depends on nature. Natural diversity is a vast repository of design solutions conceived through billions of years of biological evolution. Ecosystems store carbon, soils recycle the nutrients that underpin farming, predators control pests, pollinating animals enable ecosystems and farms to function, wetlands purify water and help reduce flood risk while plants on land and in the sea help to make it rain and recycle oxygen. And the Earth's life-sustaining systems are integrated,

year. The amenity value of inland wetlands added a further £1.3 billion.

While the idea that protecting nature is somehow an alternative to good economics, or worse still a drag on 'growth', is patently daft, it seems to me that winning this argument once and for all is a vital job for conservationists. The good news is that now it is not just a few academics who appreciate this economic reality, but also some governments and some leading companies. Several conservation groups are also adapting their work to make it more obvious how looking after nature is good for people too.

The work of The Wildlife Trusts, including the Living Landscapes and Living Seas programmes, is a case in point. By promoting nature, including large-scale habitat restoration, as a

For more than a century conservationists have sought to reconcile the demands of people with maintaining our diversity of wildlife, and there have been some notable successes. There are helpful laws to protect species, different kinds of air and water pollution have been reduced and the best areas for wildlife have been identified and at least partially protected.

Despite the achievements the battle is far from won, however. Development pressure is intense, farming practices exclude wildlife from many agricultural landscapes while nutrient enrichment disrupts the ecology in many important systems. On top of this the remaining natural areas are fragmented, many lack effective management and climate changes will cause profound additional pressures.

Part of the reason why our natural environment is still at threat is because mainstream opinion tends to see nature as a 'nice to have', an optional extra that we can afford in the good times, but not so much when economic growth is weak. Recent political statements highlighting the alleged need to cut environmental regulation so as to permit economic growth are cases in point. The

“The idea that ‘nature’ and ‘growth’ are somehow alternatives is to me a dangerous misconception”

working together to maintain the conditions for life.

This incredible set of loops, systems, cycles and relationships is more than a series of 'natural resources'. It is also a set of services, and they have fundamental economic value. Recently ecologists and economists have assigned some numbers.

One study undertaken by Robert Costanza (the ecological economist) and his colleagues and published in 1997 estimated that nature was each year providing services with a financial value equivalent to at least double global GDP. Closer to home, the 2011 National Ecosystem Assessment looked at the state and value of the UK's natural environment. This ground-breaking piece of work for example valued the carbon taken up by UK woodlands at about £690 million per year. The benefits derived from improved river water quality were found to be about £1.1 billion per annum. The value of coastal protection provided by wetlands was estimated to be about £1.5 billion each

means to deliver social benefit, through for example reduced flood risk and improved human wellbeing, the narrative that underpins conservation action is beginning to shift.

If we are going to hang on to what nature does for us, we need to shift our collective consciousness, to see nature for what it actually is: the source of every aspect of our welfare, including economically. If we did that, then it would be far easier to break out of the trap of seeing ecology and economy as conflicting choices.

▶▶ *What has nature ever done for us?* by Tony Juniper is published by Profile Books.

Wildlife Trust members can get a signed copy for £9 (10% off RRP) plus free P&P. Just call 020 7841 6300 to order and quote 'TWT offer'.

Watch Tony discussing his book with Stephanie Hilborne (CEO of The Wildlife Trusts) and John Everitt (CEO of Notts Wildlife Trust) at wtru.st/doneforus



Who's who at the Trust

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Mark Carwardine
Mike Dilger
Philippa Forrester

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Vice President
Vice President
Vice President

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Roz Kidman Cox
Tony Elgood
Cecile Gillard
Anthony Brown
Andy Bord
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Keith Taylor
Alan Dorn
Lesley Freed
Prof. Jane Memmott
Dr Steve Nicholls

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Deputy Chair and Treasurer
Secretary

Staff

Dr Bevis Watts

Chief Executive

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Janice Gardiner
Richie Smith
Eleanor Higginson
Dr Kate Pressland
Lydia Robbins
Chris Giles
Tim Curley
Joe Middleton
Bernie D'Arcy
Joe McSorley
Anne Halpin
Siân Parry

Director of Conservation Programmes
Living Landscape Programme Manager*
Living Landscape Project Officer*
Living Landscape Project Officer
Living Landscape Senior Project Officer
Living Landscape Species Officer
Head of Land Management
Senior Reserves Manager*
Reserves Manager
Reserves Manager
Reserves Officer
Monitoring Officer*
Planning and Policy Officer*

Consultancy team

Sarah Dale
Mary Wood

Principal Ecologist
Senior Ecologist

Community team

Harriet Wilkins

Interim Director of Community Programmes*
Learning Development Manager
Community Groups and Partnerships Manager
Communities And Nature Senior Project Officer
Communities And Nature Project Officer
Portbury Wharf Community Officer*
Feed Bristol Project Officer
Feed Bristol Seasonal Grower*

Jo Morris
Julie Doherty

Kelly Bray

Matt Harcourt

Neil Hutton
Matt Cracknell
Susan Rogers

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Jane Davis
Pat Sandy
Sam Pullinger

Director of Finance
Finance Officer
Grant Development Officer*

Communications and Development teams

Dagmar Smeed

Director of Communications and Membership
Office Manager
Membership Officer*
Office Administrator*
Site Assistant - Trust Office*

Gill Hambleton
Angela Davies
Rachel Mepsted
Roy Catford

Folly Farm Centre

Andrew Lund-Yates
Hannah Read
Kerrie Page
Daniel Dacer
Gabriela Stepkowska

Folly Farm Centre Director (FF)
Duty Manager (FF)
Office Administrator (FF)*
General Assistant (FF)
Housekeeper (FF)

(FF) based at Folly Farm *part-time position

Gifts in wills and in memoriam

Charities such as ours rely on the generosity of supporters through membership, donations and volunteering, and also through gifts in Wills and in memoriam.

We are deeply grateful to all who have made the Trust's work possible over the last 33 years since it was established.

Today we care for 35 nature reserves and run educational and community programmes including Wild Schools and Feed Bristol, and we campaign for wildlife when it is threatened.

Gifts in Wills can be especially important as they can enable a step change in the charity's work and its influence. Our neighbouring Wildlife Trusts, such as Gloucestershire, Somerset and Devon, have been able to increase their effectiveness and long-term impact as a direct result of legacies and the kindness of supporters.

As a charity we are fortunate to have the support of 16,000 members, many of whom have been with the Trust since it was established. Some of these have been so kind as to remember the Trust in their Wills or have left instructions for a gift in lieu of flowers.

We would like to take this opportunity to give thanks for the lives of Barry Paine, Irene Hull, Barbara Ellis, Simon Roberts and Mary Blandford, who all have left a bequest to the Trust in the last financial year. Their generosity is giving the Trust a better future, enabling us to do more to protect wildlife and to inspire people.



Ox-eye daisies

STEVEN NICHOLLS

Their names are added to our Book of Remembrance, which is held on display at the Trust's Folly Farm Centre.

Please contact Dagmar Smeed on 0117 917 7278 or email dagmarsmeed@avonwildlifetrust.org.uk. Thank you.

Postscript



Champion the little creatures that run the world

Says Trust Chair Roz Kidman Cox

The last time I saw one was in a pub, flapping around the light. I was regarded as very brave catching the big, furry thing.

Some thought it was a death's-head – as seen in *The Silence of the Lambs* – and were terrified. Death's-heads are rare immigrants. This was a common resident, a privet hawk-moth, probably home-grown on the privet hedge outside. But because moths are night-time creatures, few people are aware of how many live alongside us – at least 1,500 different kinds in the Bristol region alone. That's a shame, but the tragedy is the revelation that two thirds are probably declining.

Moths were among the indicator species used for the *State of Nature* report, and the extent of the recorded decline is shocking. Thinking about it, I haven't seen any hawk-moths this year and have noticed fewer moths of any kind at the windows or lights – some ghosts, garden carpets and underwings, but certainly no tigers, though they used to be in the garden. I've also noticed far fewer insects squashed on car windscreens.



If moths are disappearing, then so too are many of those other little creatures that run the world – pollinating, recycling, feeding the bigger creatures. But not all is lost. For a top-up of positive thinking, visit Folly Farm in summer or autumn, and you'll find insects on your windscreen and many moth wonders – feathered gothic, July belle, lobster, peach blossom or green silver-lines perhaps, and of course the day-flying burnet moths.

Most of the Trust reserves are moth reservoirs, though perhaps not with the numbers of the past, but then so are gardens. The more plant variety you allow, wild as well as cultivated, the more moths you will feed and shelter. And we can all help by speaking out and voting against environmental loss and by encouraging others to marvel and champion the little creatures that run the world.