The member magazine for Northumberland Wildlife Trust

Spring 2020 | 150

Roebuck

THE SECRET LIVES OF SWIFTS

They are masters of the air, but need our help

NATURE'S SOLUTIONS

How restoring natural habitats can help tackle the climate crisis

NATURE RECOVERY NETWORK

How to attract butterflies

Our top tips will encourage butterflies and moths to your patch, whatever its size



Welcome

Water, water everywhere



With flooding so much in the news of late and soil erosion adding concern to the already declining state of nature, our minds fall to nature-based solutions to prevent such catastrophic effects on the environment and human lives. Having

been flooded in the past myself, I know how hard it is to

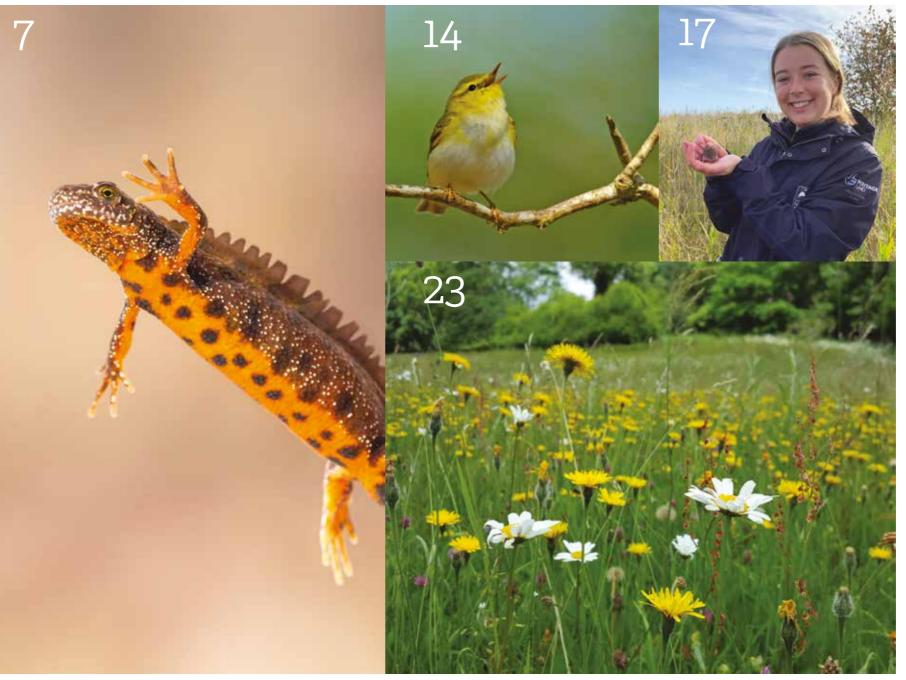
The landscapes we inhabit are not resilient and don't have enough woodland, wetland and grasslands to just hold carbon and help climate, or even hold back the waters. The ambition to create a 'Great Northumberland Forest', if done correctly, could boost wildlife habitats, connecting a range of wildlife-filled corridors. We will be working with all involved to ensure nature is the ultimate beneficiary of such 'multi-purpose' developments.

We are seeing the reintroduction of beavers in Cumbria and Yorkshire by Forestry England and others, which is good news from all these perspectives; beavers are natural wood and water engineers... habitat creators for a myriad of species.

Even Kent and Devon have beavers back and are trailblazing wilder ways. Surely, in Northumberland, we have every opportunity to be bold with beavers as part of bigger approaches to make nature richer and connected? We want to work with everyone locally to ensure we maximise our wild potential 'up north', so another busy year is on the horizon for the Trust and we wouldn't want it any other way.



Chief Executive of Northumberland Wildlife Trust Follow me on twitter @Mike Pratt NWT



MIKE PRATT: JACKY SEERY, GREAT CRESTED NEWT: SHUTTERSTOCK, WOOD WARBLER: ANDY ROUSE/2020VISION, SOPHIE AND FIELD VOLE: CATH MY DRIFT, MEADOW: GEOFF DOBBINS

Contents

4 Your wild spring

The best of the season's wildlife and where to enjoy it on your local patch

10 Wild reserves

Why spring is the best time of year to visit these Wildlife Trust reserves

13 Wild thoughts

Nature writer Melissa Harrison on discovering your secret garden

16 Wild news

The latest regional and national news from The Wildlife Trusts

23 Focus on: Action for Insects

Keep Northumberland buzzing with our **Action for Insects Appeal**

24 The secret lives of swifts

Fewer of these miraculous birds return to our skies each year

28 Natural carbon solutions

Over half of all carbon emissions are re-absorbed by the Earth's natural systems

30 More trees please

Trustee Graham Gill talks about the need for more trees

32 Redesdale's Archaeological Heritage

Northumberland is great for wildlife, but did you know it is also fantastic for archaeology?

34 Gardening for wildlife Moths and butterflies.

Northumberland Wildlife Trust Get in touch

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twitter.com/northwildlife instagram.com/northwildlife Northumberland Wildlife Trust is a member of the UK's largest voluntary organisation concerned with all aspects of wildlife protection - The Wildlife Trusts.

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6 ways to get involved with Northumberland Wildlife Trust

Membership Help us protect the wildlife and countryside you love... and discover the incredible natural world, on your doorstep nwt.org.uk/membership

Donate to an appeal From

purchasing land to protecting species, exciting projects near you need your support. nwt.org.uk/donate

Volunteer Could you donate your skills and time to look after wildlife? A wide range of indoor and outdoor tasks need doing nwt.org.uk/volunteer

Campaigning You can play a vital role in raising awareness, and lobbying, on local and national issues. nwt.org.uk/campaigns

Local groups Join one of our network of local groups and enjoy learning

nwt.org.uk/local-groups

Leave a legacy If you've had a lifetime's pleasure from nature, help ensure its future by leaving us a legacy in your will. nwt.org.uk/legacy

Roebuck | Spring 2020 Roebuck | Spring 2020

Thank you to all the volunteers who have supported Osprey Watch since it began in 2009. In 2019, 34 volunteers welcomed 4,792 visitors between April and August. nwt.org.uk/kielder-ospreys

SPRING SPECTACLE

Outstanding ospreys

Ospreys are spectacular, moderately large fish-eating birds of prey with a wingspan of over five feet. This wonderfull bird is listed as a Schedule 1 species in The Wildlife and Countryside Act 1981.

It became extinct as a breeding bird in England and Scotland by 1916, but started re-colonising in the UK in 1954.

For many years, they passed through Kielder en route to more long-standing nesting sites in Scotland. As more of the best nesting spots were taken, Forestry England installed a number of platforms around Kielder Forest to encourage them to settle and, in 2009, efforts paid off as ospreys nested in Northumberland following an absence of almost 200 years.

Since 2009, between March and September, breeding pairs of ospreys have nested in Kielder, with activity on the nest tending to be mainly throughout July and August as the chicks hatch, are fed, and then learn to fly and hunt. It's a fantastic conservation story.

Each year the Trust co-ordinates Osprey Watch, a team of volunteers who share their expertise with visitors to the area.

SEE THEM THIS SPRING

➤ **Kielder** The viewing area behind the Boat Inn at Northumbrian Water's Landal Kielder Waterside.

Fishing Osprey (pandion haliaetus)

Your wild spring

The best of the season's wildlife and where to enjoy it





URBAN FIELDCRAFT

Urban gardening

Across the UK, urban gardeners are doing their bit for the environment, planting flowers, vegetables and herbs in their gardens and in patios, courtyards, windowsills, yards, or balconies, using a variety of containers from hanging baskets and window boxes to zinc buckets and Belfast sinks.

People find solace in having plants in their outdoor spaces as they increase their general emotional and social well-being while reducing stress levels.

Almost any vegetable, herb, shrub, small tree or flowers

including busy lizzies, cosmos, fuchsias and hostas, can grow successfully in a container, so why not try it?

While it is recently making a resurgence, urban gardening is not a new concept and has been used as a response to food shortages in Great Britain. The Dig for Victory campaign during World War II saw 75% of the country's food being produced in Britain by 1945, whereas before the war, 75% was imported.



SEE THIS

Keep any eye open for hedgehogs emerging from hibernation. They've been asleep all winter so will be hungry.

DO THIS

Build a bird bath and bring all the birds to your yard. It keeps them cool, removes dust and gives them something to drink.

SPECIES SPOTLIGHT

Great crested newts

Newts are often dismissed as slimy, mini lizards, but these elusive amphibians are well worth shouting about.



What are they doing at this time of year?

Spring is the time for amphibians - at least it's the time we think about them.

Northumberland only has five native species of amphibian with the common frog and toad being the most familiar.

Great crested newts are our largest newt species. Almost dinosaur-like, they head to ponds in the spring with the sole purpose of breeding/laying eggs. Like all amphibians, they are nocturnal, spending most of their lives living out of the water but preferring damp conditions. In winter, they need dark, damp, frost-free places to hide away from the world.

Great crested newts are highly protected due to their decline in numbers over recent decades: they are so protected that you need a licence just to look for them. They are so secretive that many people, even those living near their ponds, will never have seen one. Most people coming across one for the first time are surprised by how big they are. Tail to head they are about as long as an adult hand; our smaller palmate and smooth newts are about as long as a palm.

In the spring, males have a distinct, jagged crest and a white flash on the tail but the crest is only visible when they are in water, flopping flat when out. Males and females are very dark grey with a fiery orange belly. The spot pattern on the belly is, like a fingerprint, unique to each newt.

Why are they important?

Newts perform functions that benefit humans - cycling nutrients from water to land and back again, which contributes to soil fertility - vital for future food production.

Secondly, they eat small biting insects such as midges, which aside from being irritating to humans, are also responsible for transmitting diseases such as bluetongue which affects animal welfare. Predicted rises in UK temperatures associated with climate change, mean that we are likely to see more of these insects in future and more insectborne diseases.

To find out more please visit our website nwt.org.uk/wildlife-explorer

Top tips 3 SPECIES TO SPOT

Great crested newts

Breeding on a number of reserves with ponds this spring and foraging the rest of the year.



Palmate newts

Common on our upland sites and scattered elsewhere, the male has no crest.



Smooth newts

More of a lowland species on many trust reserves, the males have a crest in spring.



HEAR THIS

Head outdoors early between late April and early June and listen to the Dawn Chorus. Two garden birds heard singing the most are blackbirds and robins.

FORAGE FOR THIS

Wild garlic. You can smell it before you see it. The leaves can be eaten raw or cooked. It looks similar to lily of the valley, which is poisonous, so check before you eat.



NOT JUST FOR KIDS

Seven wild activities for spring

Reignite your love of nature with these really wild things to do



1 LOOK AFTER YOUR MENTAL HEALTH

Head to the Trust's Hauxley Wildlife Discovery Centre this May and July and enjoy a day of mindfulness and meditation, led by Michael Atkinson from the North East based School of Mindfulness. To secure a place, visit schoolofmindfulness.co.uk.



CARRY ON CRUISING Test your sea legs with a North Sea pelagic cruise this summer between 19th June and 31st July. If you prefer something less choppy, join our fantastic Kielder osprey cruises with Calvert Kielder, running from 23rd May to 23rd August. For booking and more info visit nwt.org.uk/ events.



3 MAKE YOUR GARDEN INTO A BIRD CAFÉ

Kick off by making your own bird cake and don't forget to provide water in a shallow container for drinking and bathing. Then enjoy their antics.

CIVE A BIRD A HOME

Natural nesting sites are being destroyed as more people tidy their gardens and repair old buildings. Setting up a bird box in your garden is simple, will help the bird population and can add a touch of style and colour to your outdoor space. Visit: nwt.org.uk/actions for a few ideas.





Nature

Craft

.

MAKE NETTLE SOUP Get your gloves on to forage for nettles, once cooked they taste a bit like spinach. Mmm!

You will need

- > Rubber gloves
- > 400g stinging nettles
- ➤ 1 tbsp olive oil, plus extra for drizzling
- ▶ 1 onion, chopped
- > 1 carrot, diced
- ▶ 1 leek, finely sliced
- ➤ 1 large floury potato, thinly sliced
- ➤ 1 litre vegetable stock
- > 50g butter, diced
- > 50ml double cream
- ➤ Large pan
- > Wooden spoon
- Blender

How to make

- ➤ Wearing rubber gloves, wash the nettles, then pick the leaves off the stalks.
- ➤ Heat the oil in a large saucepan over a medium heat. Add the onion, carrot, leek and potato, and cook for 10 minutes until the vegtables start to soften.
- ➤ Add the stock and cook for a further 10-15 minutes until the potato is soft.
- > Add the nettle leaves, simmer for one minute to wilt, then blend the soup.
- > Season to taste, then stir in the butter and cream. Serve the soup drizzled with extra oil.

8 upcoming events

Take your pick from this selection of some of the best seasonal activities and events close to you

th.11th & 13th April 2020

19th April 2020

At the time of going to print the UK wasn't on COVID-19 lockdown.

All events have now been cancelled for the foreseeable future.

Please visit nwt.org.uk for updates.

th & 19th April 2020

19th & 20th May 2020

Discover more on these and all forthcoming events, visit our website nwt.org.uk/events





It is now one year since the generosity of our members and supporters enabled us to purchase Benshaw Moor – 258ha of amazing wildlife habitat! **THANK YOU!**

Since then we have held public consultations, met local people and discussed their stories of and ambitions for our new reserve. There were some amazing stories about birds in the area, including a sighting of a family of shorteared owls sitting on a fence – which naturally were no longer there on returning with a camera! Concerns over foul play when a buzzard was seen over Benshaw Moor with a 'rope' dangling from its legs were put to rest when it was discovered that this was instead an exciting, but uncommon, sighting of a buzzard predating an adder!

Local people were keen for access to be available to the new reserve and how best to achieve this is something we have been exploring. There is currently no formal parking at the reserve, but we are intending to create a parking area on some of the less sensitive habitat. Careful design and planning permission are needed for

this. In the meantime, there is limited roadside parking along the Winter's Gibbet Road and some parking in Elsdon Village which is within walking distance.

We have started to add to our knowledge of the reserve through surveys. The good news is that every time we look more new species are being discovered! Without grazing, some plants flowered for the first

Small pearl-bordered fritillary



time in years with banks by the small stream dotted with colour from species such as betony and early marsh orchid. Rock rose was also seen in flower for the first time

A butterfly survey has shown that on the Mires, large heath butterflies were numerous; a specialist of bogs, this butterfly has declined through loss and fragmentation of habitats. In other areas, small pearl-bordered fritillaries are thriving; a dark-green fritillary was also spotted and ringlets were so numerous we couldn't keep an accurate count.

In practical terms, we continue to remove small self-seeded Sitka spruce and further investigation has revealed a few small drainage ditches affecting the bogs, which will be blocked in the near future to help re-wet this habitat.

With over four miles of fencing around the perimeter of Benshaw Moor, we have only started on repairs to prevent neighbouring livestock getting onto the site; a more systematic replacement is needed. To help finance these essential works and the ongoing care of the mosaic of habitats, we are looking at options for bringing in some additional funding.

This year our focus is on expanding our knowledge of wildlife at Benshaw Moor through a series of surveying days for both experts and non-specialists. Keep an eye on our website for upcoming events (nwt. org.uk/events) or if you have specialist survey skills and would like to help please get in touch (data@northwt.org.uk).

DID YOU KNOW If you spot any wildlife on Benshaw Moor, or elsewhere across the region, you can record it via **ERIC North East** - our local environmental records centre at **ericnortheast.org.uk**. All you need to know is what you saw, where you saw it and when!

NOW YOU DO IT

Visit Benshaw Moor

KNOW BEFORE YOU GO

Location: Between the A696 and the Winter's Gibbet road, Northumberland, NE19 1BP. OS Map Reference: NY 946 912. How to get there: There is limited roadside parking along the Winter's Gibbet Road and some parking in Elsdon Village which is within walking distance.

Opening times: All day, everyday.

Access: The main entrance to the site is from the Winter's Gibbet road, through the gates of the old sheep pens. There are no paths on site. The reserve is remote and wild, and the weather can change quickly. Much of the ground is very uneven and/or boggy. Wellingtons or good walking boots should be worn and great care is advised when walking on site.

TOP WILDLIFE TO SPOT

Keep dogs on a lead as this site is a favourite for ground nesting birds. Look out for skylark, meadow pipits and waders such as curlew and golden plover. Watch for adders and common lizards and revel in the weird and wonderful flora of the peat bogs – such as carnivorous butterworts and sundews, colourful cranberries and the range of sphagnum mosses that form the peat itself.



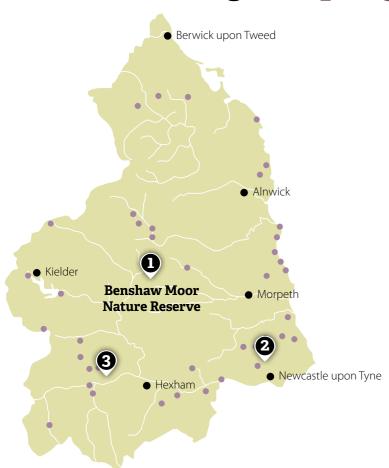
THINGS TO DO

➤ Join one of our 2020 wildlife recording events or if you have specialist wildlife identification skills why not volunteer to help us record (data@northwt.org.uk).

➤ Record wildlife sightings on our recording form, downloadable at: nwt.org. uk/nature-reserves/benshaw-moor.

OUR BEST SPRING RESERVES WILD THOUGHTS

More Northumberland Wildlife Trust nature reserves for a great spring day out



Fencerhill Wood Nature Reserve

Why now?

Spring is a great time to visit this small, attractive urban reserve, which features a mix of woodland and wetland habitats which are home to a range of wildlife including woodland and wetland birds.

Know before you go

Location: Whitebridge Park Estate, Gosforth, NE3 5LZ.



Open: All day, every day.

Wildlife to spot: Foxes, badgers, roe deer, and a wide range of woodland and wetland birds nest in the reserve. Common garden birds such as blackbird, robin, great tit and blue tit nest in the wood with the summer visiting chiffchaff and blackcap also present.

The lowdown

The woodland reserve, situated next to a small tributary of the Ouse Burn, contains a mix of trees including oak, ash and willow.

The wetland area contains Reed-canary grass, bulrushes and areas of Himalayan balsam, a non-native plant, which shades out native species and causes riverbank erosion. Control of this plant is undertaken in the summer months.

The main boardwalk has a wide viewing platform overlooking a pond.



Tony's Patch Nature Reserve

Why now?

The reserve is a small, species-rich haven of ancient, semi natural woodland along the line of the Honeycrook Burn. Each spring the woodland floor becomes a carpet of bluebells.

Know before you go

Location: 2km north-west of Haydon Bridge, Northumberland, NE47 6HN. Open: All day, every day.

Wildlife to spot: Ash and oak are present along with smaller trees such as willow, hazel, bird cherry and guelder rose. Tawny and barn owls are regulars while redstart and pied flycatcher breed here during the summer. Red squirrels and roe deer have been recorded.



The lowdown

This small reserve lies downstream from an old lead mine and supports a good variety of woodland species including a number of uncommon invertebrates.

There is a rich ground flora including wood cranesbill, opposite-leaved golden saxifrage, wild garlic, dog's mercury, wild arum, early purple orchid, wood sanicle and sweet woodruff. Of particular note are toothwort, yellow star-of-bethlehem and herb-paris. Several species of locally uncommon beetle have been recorded on

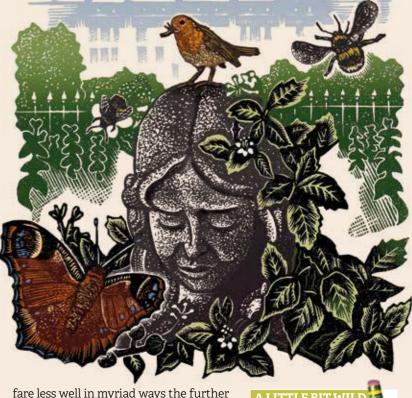
Plan your next great day out from all our nature reserves at: nwt.org.uk/nature-reserves



Discover your secret garden

When I lived in central London I had my very own Secret Garden: a tiny pocket park a couple of streets away. That's even what I called it, as its real name was long and humdrum and totally failed to capture how magical the place felt to me. An overgrown and largely overlooked halfacre created from the abandoned grounds of a long-gone Victorian villa, there was a pond, a single redwood, an old statue and winding paths lost under ivy, brambles and bindweed. I found frog spawn in spring, and sometimes a heron visited. Long-tailed tits chirruped in the branches overhead and when it snowed neat lines of fox prints led to a den deep beneath the brambles. For years my Secret Garden was a refuge from the city and a source of inspiration, even becoming a key location in my first novel, Clay.

For the two decades I spent in the capital I relied on contact with nature to help make urban life not just survivable, but enjoyable. Finding special places like my Secret Garden proved transformative, keeping me connected to weather, wildlife and the ancient cycle of the seasons - all things modern life can ameliorate or sometimes erase. Even in my twenties I instinctively knew I needed nature, and now the science is bearing it out: spending time in wild places eases stress, regulates our emotions, boosts our immune systems and improves both physical and mental health. None of that should come as a surprise, given that we evolved in nature, rather than separately from it. We



removed we allow ourselves to get.

Creating a life that's connected to nature doesn't have to mean moving to deep countryside, going on long hikes in technical clothing, getting in the car and driving to a national park or learning long lists of Latin names for birds (though you can do all those things if you like!). Nor is connecting to nature something we should experience as a duty – one more thing to fit into an already busy life.

All it requires is a little curiosity about the wilder world around you – whether that's your garden, park, local beauty spot or nearest Wildlife Trust reserve - as well as an ongoing interest in what's living there, and a willingness to find out what it looks, sounds, feels and smells like during all four seasons of the year.

To connect with a special place in this way taps into age-old instincts, answering deep, subconscious, but often unmet needs. Over time, your attention will be repaid tenfold, it deepens and enriches your daily life, filling it with wonder.

The Wildlife Trusts are looking forward to the release of *The Secret Garden* in cinemas this spring. Search for your own secret space at your nearest Wildlife Trust nature reserve. Visit wildlifetrusts.org/nature-reserves

Find your connection

Create an ongoing relationship with your special place in a way that works for you drawing, meditating, writing or even going for a run. Be inspired by our 30 Days Wild Challenge! wildlifetrusts.org/ 30DaysWild

Melissa

a nature writer and novelist, and editor of the anthologies Spring, Summer, Autumn and Winter, produced in support of The Wildlife Trusts.

Harrison is

Roebuck | Spring 2020 Roebuck | Spring 2020

6 places to hear

Spring singers

pring is a time of change. For our feathered friends, thoughts turn from survival to more amorous pursuits. As birds across the UK search for a mate, the landscape fills with song, the chorus growing as summer visitors arrive from farther south. Almost any garden, park or nature reserve can offer a seasonal symphony, perhaps with the warble of blackcaps, the melodic voice of the blackbird and the flourishing finale of chaffinches. But to hear some of our most celebrated singers, you may have to venture slightly farther afield. This spring, why not seek out the incomparable song of the nightingale, the cascading chorus of a wood warbler or the simple but splendid call of the cuckoo.





Ayr Gorge, Scottish Wildlife Trust

In spring this wooded ravine comes alive with bird song, including warblers like chiffchaff and blackcap. Listen for the strange song of the dipper along the river.

Where: Failford, KA5 5TF

2 Gilfach, Radnorshire Wildlife Trust

In late spring the oak woodland echoes with the beautiful song of the wood warbler, an accelerating cascade often likened to the sound of a spinning coin.

Where: Rhayader, Powys LD6 5LF

3 Catcott Complex, Somerset Wildlife Trust
Ditches and reedbeds resound with the chattering of reed
and sedge warblers and the explosive bursts of Cetti's
warbler song. You might also hear the insect-like reel of a
grasshopper warbler.

Where: Near Burtle, TA7 8NQ

4 The Roaches, Staffordshire Wildlife Trust

The woodland at Back Forest is a great place to hear the soft song of the redstart and the distinctive call of the cuckoo, as well as warblers including wood warbler.

Where: Roach End, ST13 8TA

5 Grafham Water, Wildlife Trust for Beds, Cambs & Northants

Follow the Nightingale Trail for your chance to hear the iconic song of this secretive summer visitor.

Where: Grafham, PE28 0BH

6 Woods Mill, Sussex Wildlife Trust

Listen for the beautiful song of the nightingale. There's also the rare chance to hear the soft purr of the turtle dove, which sadly is the UK's fastest declining bird.

Where: Near Henfield, BN5 9SD

A chorus close to home

Wildlife Trusts across the UK run guided walks and events to experience the joys of birdsong. Search for your nearest at wildlifetrusts.org/events

WILD **NEWS**

All the latest regional and national news from The Wildlife Trusts

REGIONAL

Celebrating a decade of EcoNorth

In 2019, EcoNorth, Northumberland Wildlife Trust's ecological consultancy, completed 10 years of trading with the EcoNorth brand. In 2020, we enter our second decade of trading with lots of interesting challenges and projects to look forward to.

Northumberland Wildlife Trust has had its own consultancy for many years, though the decision to rebrand and invest in developing the consultancy happened in 2009.

Since then, following the appointment of a designated manager, the business has grown to a position where it now employs 13 staff in two countries. The Cork office in Ireland opened in 2016.

EcoNorth's growth has been possible due to the skill and dedication of its team of ecologists and management, coupled with support from the Trust. Since 2009, the consultancy has grown from delivering small-scale, localised bat surveys to a position where it now offers a full range of ecological services to projects of all sizes, ranging from single loft conversions to complex works within internationally important sites around the ports and harbours of North East England, to surveys and assessment work on nationally significant infrastructure projects, including some of the largest scale projects in both the UK and Ireland.

Throughout the course of all its ecological survey, assessment, mitigation and enhancement work, EcoNorth has worked hard to deliver comprehensive and robust results, enabling direct support to the Trust through gift aid contributions and since 2013 has donated over £160,000 towards the Trust's conservation work throughout the region.



Going forward, EcoNorth and the Trust are now working together as a Delivery Partner for Natural England to create habitat for great crested newts under proposals for Natural England's new district licensing schemes. Staff are joining the Trust on ongoing practical conservation tasks - ensuring they are kept fully up to speed with its work and sharing relevant knowledge and experience in support of advice provided to clients.

slipped into a

Site of Special

Scientific Interest

We look forward to the next 10 years delivering further robust ecological assessment, mitigation and enhancement work throughout Northumberland, the rest of the UK and Ireland alongside associates from other Wildlife Trust consultancies.

It will certainly be an interesting time to be an ecology practice with the potential implications of Brexit and the reality of Biodiversity Net Gain becoming a requirement for all planning applications.



John Thompson
BSc MSc MCIEEM
is Executive Director for
EcoNorth Limited

HIGHLIGHTS ACROSS THE LAST DECADE INCLUDE:

£700.90

Donated by The First & Last

Brewery from sales of Ratty

beer during 2019. A full list

of stockists can be found at

- Supporting the design, ecological assessment and implementation of ecological mitigation and enhancements for the Crag End road repairs in Northumberland, where the B6344 slipped into a Site of Special Scientific Interest.
- Implementing and monitoring the ecological and environmental requirements for construction of the Morpeth Northern Bypass.
- Supporting Centre Parcs with the construction of their new facility in Longford, Ireland.
- Undertaking ecological assessments and implementing protected species mitigation on a distillery on the Isle of Islay.
- Preparing ecological management plans for a range of sites including golf courses, parts of Lindisfarne and large scale residential/mixed use development projects.



Find out more about EcoNorth's work at **econorth.co.uk**.



REGIONAL

The results are in for East Chevington

The Trust's Catch My Drift project at East Chevington enjoyed a successful

Working to improve the land and habitat for people and wildlife at our East Chevington reserve on Druridge Bay, the project is supported by players of the National Lottery via a grant from The National Lottery Heritage Fund

In less than one year, Catch My Drift volunteers and project assistant Sophie Webster attended 31 talks and events, held coffee mornings for the local community and guided walks around the reserve, and welcomed students from Northumbria University planning to base part of their final module work on potential habitat management of the

site. In total, Sophie engaged with 683 people.

The volunteers clocked up 1,004 hours participating in 62 survey events on the 185-hectare reserve, recording 387 species and 276 new species including common lizards, black elfin and saddle mushrooms, chicory, pepper saxifrage, hedgehogs and pale pinion moths.

Perhaps the greatest excitement was caused by the discovery of a harvest mouse nest, proof that they are still around, 16 years after 205 were introduced onto the reserve and one year after they were last recorded at the North East Environmental Records Information Centre.

REGIONAL

Mail order mutton

Have you noticed that mutton has disappeared from supermarket shelves over recent years? That is, until now.

Conservation grazed mutton is available, together with prices, by mail order from the Flexigraze website **flexigraze.org.uk**.

Flexigraze

This unique product, from sheep that have been grazing and maintaining flower meadows and semi natural grasslands around the region, is expertly prepared by Hammond Charcuterie in Berwick.

Legacies

Together we're stronger with legacy support

The Trust is delighted to have been named as a beneficiary in the following legacies:

June Tindle - £10,000 Norman Thompson - £1,000

This selfless generosity is hugely appreciated and, it goes without saying that the money will be used carefully to continue our valuable conservation

If you are inspired by the wildlife and landscapes in our region, please consider leaving us a legacy to safeguard them for future generations.

As we approach a new financial year, it is worth taking a little time to have a think about your own finances. By leaving a gift in your will to a charity your donation will be taken off the value of your estate before Inheritance Tax is calculated or could reduce your Inheritance Tax percentage rate if 10% or more of your estate is left to charity

If you would like to find out more about legacies, visit our website nwt.org.uk/legacy or contact Dan Venner, Director of Finance & Business Development at the Trust on (0191) 284 6884.

Celebrate a special person or event with a leaf on our Hauxley Giving Tree

Launched in 2017, the specially designed tree in our Hauxley Wildlife Discovery Centre commemorates a special person or event. The leaves are inscribed with an individual message and remain on the tree as a lasting memento.

To find out more about the three levels of donation: bronze, silver, gold, visit nwt.org.uk/qiving-tree.

UK NEWS



Together, the Wildlife Trusts form the UK's largest marine conservation organisation. Our Living Seas teams are the eyes and ears of the UK's coast. Throughout 2019, with the help of over 5,000 volunteers, they did wonderful things for the wildlife in our seas.

Careful monitoring revealed some fantastic good news stories around our shores, from bumper breeding seasons to amazing discoveries.

A new citizen science project logged 320 sightings of cetaceans off Yorkshire's east coast, including minke whales, bottlenose dolphins and harbor porpoises. There was good news for seals too, with Cumbria Wildlife Trust counting a site record of 483 grey seals at South Walney, including seven pups. Elsewhere, an individual seal, nicknamed Tulip Belle, was discovered commuting between the Isle of Man and Cornwall.

Lara Howe, Manx Wildlife Trust's marine officer, says: "It shows that seals will swim great distances for food and a place to pup, highlighting the importance of a network of Marine Protected Areas around the UK, so that wherever marine wildlife goes there are healthy seas to support them."

Our fight to secure this network saw a huge victory last summer, with the designation of 41 new Marine Conservation Zones.

2019 also saw a welcome boost for some of our struggling seabirds. On Handa Island, Scottish Wildlife Trust counted 8,207 razorbills, the highest number since 2006, though the population is sadly still in trouble. In North Wales, Sandwich terns had a bumper year, with 800 chicks fledging compared to just 180 in 2018.

Sadly, it wasn't all good news. Several Wildlife Trusts reported an increase in disturbance. Jet skis, kayakers, boats and drones have all been recorded causing distress to marine wildlife like dolphins, seals and seabirds.

Plastics, ocean litter and discarded fishing gear also continue to devastate marine wildlife, though Wildlife Trusts around our shores cleared up huge amounts of litter, including 2.5 tonnes picked up by the Isles of Scilly Wildlife Trust.

All of this was made possible by the fantastic support of all our volunteers and members. For more amazing stories head to wildlifetrusts.org/marine-review-19

2019 IN NUMBERS

- Over **5.000 volunteers** supported coastal Wildlife Trusts with beach cleans, surveys and shore-based events.
- More than **200 sharks**, **skates** and rays were tagged as part of Ulster Wildlife's SeaDeep project, helping us monitor these vulnerable animals.
- Two giant gobies were among 1,310 species recorded in just **24 hours** as Devon Wildlife Trust's Wembury Marine Centre celebrated its 25th anniversary.
- **27 tonnes** of litter and fishing gear collected by fisherman for Yorkshire Wildlife Trust's Fishing 4 Litter.

Get involved

We need to put nature into recovery on land and at sea. Join us on our campaign for a wilder future: wildlifetrusts.org/wilder-future

UK UPDATE

100 miles wilder

Space for nature should be at the heart of our planning and farming systems. This is the only way we can create a Nature Recovery Network, enabling wildlife to thrive across the landscape and bringing nature into our daily lives.

But current proposals for developing the land between Oxford and Cambridge do not have nature at their heart. Without proper assessment, government cannot know whether the area

could support the current proposals for housing, road and rail and stay within environmental limits for nature, carbon and water.

Special habitats are under threat, including ancient woodland and grazing marsh, which supports rare and declining wading birds like curlew and redshank.

The Wildlife Trusts have created an alternative vision for this land: 100 miles of wilder landscape in which people can live, work and enjoy nature. By protecting and connecting the wildest places, we can introduce a new way of planning that has nature and people's wellbeing at the centre. Find out more wildlifetrusts.org/100-miles-wilder

UK HIGHLIGHTS

Discover how The Wildlife Trusts are helping wildlife across the UK



Inspirational youth

Over the last year, over 2,800 young people aged 11-25 rolled up their sleeves to help nature thrive in their local area. The Grassroots Challenge project, led by Ulster Wildlife, gave young people the opportunity to unleash their passion, creativity and potential to make a real difference to their environment and community. ulsterwildlife.org/news/inspirational-

Attenborough appeal

Nottinghamshire Wildlife Trust launched an appeal to raise £1 million to safeguard Attenborough Nature Reserve, a wild oasis at the edge of Nottingham that's home to large numbers of wildfowl. The appeal was supported by Sir David Attenborough and raised over £900,000 in the first month.

nottinghamshirewildlife.org/ lifelineappeal

New leader for The Wildlife Trusts

The Wildlife Trusts are delighted to welcome Craig Bennett as their new Chief Executive Officer.

One of the UK's leading environmental campaigners, Craig joins The Wildlife Trusts from Friends of the Earth, where he was Chief Executive.

In a conservation career spanning over 20 years, Craig has led a movement to end peat cutting on important moorlands, helped secured better wildlife legislation through The Countryside and Rights of Way Act 2000 and, more recently, led successful campaigns to highlight climate change and to protect and restore

bee populations.

Craig Bennett says: "The Wildlife Trusts are an extraordinary grassroots movement that is uniquely placed to work with local communities to make this happen and ensure a wilder future, and I could not be more pleased to have been asked to lead them at this incredibly important moment." wildlifetrusts.org/new-leader

Spooky sighting A ghost slug was discovered in

the gardens of Devon Wildlife Trust's Cricklepit Mill. The origins of this mysterious species are uncertain, but it's thought to be a native of Ukraine. Since ghost slugs were first discovered in the UK in 2007, there have been a scattering of sightings, mainly from South Wales. It's a predator of earthworms and may cause problems for our native worms if it becomes established.

devonwildlifetrust.org/news/ghost



An insect apocalypse A new report, Insect Declines and Why They

Matter, commissioned by an alliance of Wildlife Trusts in the south west, concluded that drastic declines in insect numbers look set to have far-reaching consequences for both wildlife and people. The report concludes: "if insect declines are not halted, terrestrial and freshwater ecosystems will collapse, with profound consequences for human wellbeing."

wildlifetrusts.org/urgent-action-insects



Roebuck | Spring 2020



REGIONAL

Coastal conservationists busier than ever

'Coast Care', the coastal initiative, started 2020 with a massive spring in its step and is on course to be busier than ever.

The initiative's area is the coastal landscape from Amble in the south, to Berwick in the north, stretching west as far as Lowick, Belford and Alnwick. Volunteers look after the sweeping sandy beaches, rolling dunes, historic buildings, village greens and community spaces, farmlands and grasslands that make up the region's stunning coastal environment.

Since the project began recruiting volunteers in September 2017, over 1,450 people have volunteered and contributed more than a staggering 25,500 hours across a wide range conservation roles and tasks.

There have been 348 group activities to date, from practical conservation such as habitat management, removing invasive species, beach cleans and improving accessibility, to wildlife surveying and monthly Coast Care coffee mornings at the Coast Care Volunteer Centre in

Seahouses, where like-minded people can share their experiences and interests.

How it all adds up:

- 600 people have attended Coast Care training sessions
- 408 hours spent at Beadnell Dunes removing sea buckthorn to restablish the dunes and removing the non-native invasive plant pirri pirri
- 191 people from businesses, large and small, volunteered 561 hours across a number of locations in the Coast Care area on various conservation activities
- 200+ species were found during Bioblitz events at two sites
- 9 volunteers spent over 120 hours surveying and photographing Heritage at Risk buildings
- 408 hours were clocked up by two graduates who volunteered as Events Rangers undertaking practical conservation and management at Embleton Quarry Nature Reserve,

providing invaluable support and assistance to Coast Care staff

- 15 volunteers received film training from Alan Fentiman, a professional film-maker, enabling them to create a Coast Care film
- 9 volunteers surveyed Heritage at Risk buildings within the AONB, spending over 120 hours surveying and photographing
- 8 volunteers attended training to identify the non native invasive plant species pirri pirri and using an App they mapped presence along the proposed new England Coast Path
- 58 beach cleans with 804 people taking part.

Coast Care is funded by players of the National Lottery via a grant from the National Lottery Heritage Fund.



Find out more about Coast Care at coast-care.co.uk.



As campaigners for the conservation of natural heritage, the Trust is delighted to welcome Historic Property Restoration Ltd (HPR), a company specializing in the conservation and repair of Scheduled Ancient Monuments, as its latest Silver Category corporate supporter.

Established in 1993, the company operates from a Head Office in Sandgate Hall, North Shields.

The company is passionate about conserving buildings, with craftsmen skilled in the field of property restoration who are regularly called upon to rescue and repair castles, abbeys, priories, industrial monuments, churches, parks and historic landscapes and many other listed structures throughout the UK.

Many of the buildings HPR restores are excellent homes for wildlife, from bats to barn owls and veteran trees.

Recent projects have taken the company to Rivington Terraced Gardens near Bolton; Trafalgar Square in Sunderland; The Cathedral Church of St Nicholas in Newcastle; Seaton Delaval Hall in Northumberland, which is home to five species of bats; Alnwick Castle; Lindisfarne Castle on Holy Island; The Museum of Edinburgh and Syon House in London.

In addition, the HPR team has worked on several World Heritage Sites - Hadrian's Wall, Durham Cathedral and Castle, and the ruins of Fountains Abbey within Studley Royal Park.

Alnwick Castle



Corporate

Membership

We offer three levels of corporate membership which are designed to enhance your Corporate Social Responsibility commitments, provide year-round benefits to your business and support your staff development, PR and marketing strategies. You choose the level that you feel reflects your company's commitment to the local environment.

To find out more about becoming a corporate member contact our Marketing Office on (0191) 284 6884 or via email to elizabeth.lovatt@northwt.org.uk.

GOLD

Aaron Optometrists
Northumbrian Water Ltd
Ringtons
Tarmac
Thermofisher Scientific

SILVER

Harlow Printing Ltd Historic Property Restoration Ltd Karpet Mills Potts Printers Ltd Riverside Leisure The First and Last Brewery

BRONZE

Albion Outdoors
Bell Ingram
Blyth Harbour Commission
Cottages in Northumberland
Gustharts
Holidaycottages.co.uk
Howick Hall Gardens
Northern Experience Wildlife Tours
Northumberland County Council
Northumberland Estates
Ord House Country Park
Poltross Enterprises
Shepherds Retreats
Verdant Leisure

REGIONAL

Northumberland Estates supports the Trust

A traditional estate and major landowner,
Northumberland Estates is already involved in a wide range of conservation and biodiversity projects designed to improve wildlife habitats. With the spotlight so firmly on climate change, plans to accelerate such initiatives are already in place. Working with organisations such as the Trust is seen as a major part of this moving forward.



We bet you didn't know...

When running from danger, hares can reach speeds up to 43mph. Their hind legs are very powerful and can propel them on leaps of more than 10 feet. Unfortunately, they have little legal protection.



The four stop motion figures from The Wildlife Trusts' Wind in the Willows Wildler Future campaign film trailer made a surprise visit to Newcastle's Tyne Theatre & Opera House to meet their human counterparts.

The Trust was invited to fundraise for our 'Restoring Ratty' project during the weeklong performances of The Wind in the Willows musical, written by Julian Fellowes (Downton Abbey), staged by Starlight Theatre Productions and featuring the larger than life Mr Toad, his three friends and the sinister Wild Wooders.

So far, the globetrotting characters have visited Devon, Tees Valley, Herts & Middlesex, Cheshire, Suffolk, Essex and S&W Wales Wildlife Trusts and been to BBC Question Time and Apple Day.

If you know of an opportunity where our fundraising team could go along with collection boxes, please let us know at mail@northwt.org.uk.

REGIONAL

Park and enjoy at Hauxley

Car parking charges were introduced last year at Hauxley Wildlife Discovery Centre to contribute to the running of the Centre and Druridge Bay nature reserves. It costs just £2 per car for all day parking and £5 for mini-buses/ coaches. Charges also apply to blue badge holders.

If you are a frequent visitor, we have an annual car parking permit which costs just £25 to cover 1st April to 31st March available:

- Online at nwt.org.uk/parking
- At the Hauxley Wildlife Discovery Centre
- By calling (0191) 284 6884





Event donations

Thank you to Morrisons Killingworth and ASDA Cramlington for their kind donations to our Christmas tombolas. Thanks also to pupils of Newcastle Bridges School for donating handcrafted snowmen stocking holders, which proved to be very popular.

£5,700

Raised thanks to our 16 runners who ran the 13.1 miles Great North Run for wildlife.

£273.79

Raised by students of Stobo House, at Longridge Towers School who chose Coast Care as their charity of the year.

£346.72

From customers of Sainsbury's (Alnwick) who, in five months, dropped their spare change into donation buckets at the tills and to the store for the donation of coffee morning raffle prizes.

£336

Donated by holiday hire customers of Wooler based Riverside Leisure Park and Heather View Leisure Parks (part of the Verdant Leisure group) who make a voluntary donation of £1 each time they book up.

£75

A percentage of a larger donation to The Wildlife Trusts from wildlifetravel.co.uk from travellers in our region booking their holidays with the company in the past year.

FOCUS ON...

Action for Insects Appeal



For your support.
Help us reach our target of £30,000



Climate change has at last brought the reality of biodiversity loss to people's attention; many species that were once common 50 years ago are now scarce. But we still seem to be sleepwalking into trouble with a catastrophic decline in one group of animals which seems to have largely gone unnoticed... insects.

If we were talking tigers, snow leopards or elephants we'd all be up in arms about the terrifying statistics - a decline of 50% since 1970; 41% of insect species threatened with extinction. But perhaps because they are small, relatively numerous and sometimes associated with annoying traits, like bites or stings, we dismiss their importance. Ecologists definitely haven't done a very good job about explaining to the general public about the vital role insects play in our lives.

Why are bugs important?

Insects make up the majority of our wildlife and are closely connected in all terrestrial and freshwater food webs.

They are a 'cross-cutting theme' if ever there was one because without them, a multitude of birds, bats, fish, reptiles,

amphibians and small mammals would disappear as they'd have nothing to eat! This is why we have selected insects as our Appeal for 2020 as we can all make room for them on nature reserves, farmland, gardens and community spaces. We need people to love bugs!

Pollination worth billions

Of course there's a hefty economic argument too. Three quarters of our crops require pollination by insects, a service estimated to be worth between \$235 and \$577 billion per year worldwide. We humans just can't feed ourselves without pollinators.

In addition to pollination, insects such as ladybirds, hoverflies and ground beetles are used to control other insect pests. Wood-boring beetles and wasps help to recycle nutrients from decaying timber, whilst another army, from silverfish to woodlice, help break down fallen leaves. Ants and burrowers help to aerate the soil whilst other beetles and maggots speed up the process of decaying organic matter. They truly are our clean-up crews.

Responsibility and change

And finally, there's the point about where we stand about our responsibility towards all the other creatures that share the planet with us.

The key reasons for insect decline are human-inspired - loss of habitat from urban development and intensive farming; use of pesticides, far worse than the DDT of the 1970s, which is wiping out pollinators; and climate change. Do we really want a future where we lose a myriad of wonderful creatures that are both beautiful and useful? Square that one with the children/grandkids. You know what they say, 'Variety is the spice of life'!

Discover how you can help visit nwt.org.uk/actionforinsects

- Above anything, please donate to our Action for Insects Appeal.
- Go pesticide free and plant some bugfriendly plants or flowers
- Map your own garden as a 'butterfly hotspot' at wildaboutgardens.org.uk

Swifts epitomise British summertime with their screaming flight. But as fewer of these miraculous birds return to our skies each year, **Sarah Gibson** reveals how we can help them

The secret lives of •



Sarah Gibson works for Shropshire Wildlife Trust. She's met swift experts across Europe, raises local awareness of the birds' plight and revels these awesome birds.

wifts are not the quietest birds. Nor are they given to skulking in the undergrowth. They live scything past on crescent wings, often making piercing screeches. Yet, like many

There had been swallows nesting in a barn near my old home in the Welsh borders. I'd see them swooping over the stable door, beaks stuffed with insects for their chicks. Later, I'd watch the fledglings practise flying in the safety of the barn. When I moved to a nearby market town, I missed that closeness... until I discovered swifts.

There was a pair nesting in the eaves of the house next door. They would storm down the narrow gap between the buildings with a rush of wings, and perform a handbrake turn to enter their nest hole. Blink and you'd miss them. Sitting in the garden on fine, still evenings, I watched them gliding through the air, snapping up insects, until the light drained from the sky and the first bats emerged.

Life on the wing

Swifts are incredibly aerial birds, living entirely on the wing for years at a time, rarely touching ground for even a moment. They catch all their food in the air: aphids, flies, spiders, beetles, moths; even dragonflies, whirled into the sky, carried on the wind. Swifts drink and bathe, sleep and even mate on the wing. They fly closer to the sun than any other bird, feeding and resting at altitude.

Swifts spend most of their lives in Africa, but they journey thousands of miles to breed in a vast swathe across the world, from the westernmost fringes of Europe, eastward to China. Around the globe there are estimated to be somewhere between 95 million and 165 million of them sailing across the skies, justifying their English name of 'common swift'

You may wonder why these well-

travelled birds come to the UK when so many of our summer days are rain-soaked, making it difficult, you might think, to catch the insects they need to feed their young. The answer must be that, apart from the occasional particularly bad year, it works for them – and has done for millions of years. In fact, our northern summers have a great advantage for swifts – long daylight hours, which allow them to forage for 16 hours a day at the

Swifts have several unusual adaptations that enable them to cope with our bad weather. The eggs and chicks of most small birds are vulnerable to chilling, so

extended feeding forays by the parent birds during incubation and brooding can cause the nest to fail. Swift embryos, by contrast, are resistant to cooling, except at the start of incubation. Chicks can become torpid (a energy, enabling the parent birds to feed elsewhere, until the weather improves. Once they are a few weeks old and have fat reserves, swift chicks can survive several days without nourishment, greatly enhancing their chances of fledging in variable weather conditions.

Swifts make their nests in crevices

in walls, under roof eaves or inside pantiles (S-shaped roof tiles). Gathering materials takes time – all the feathers, wisps of grass, tree seeds and flower sepals must be found on the wing, blowing about in the air. Inevitably, scraps of plastic are now often found woven into the nest, a shallow dish glued together with saliva.

Finding a nest hole is the most crucial thing a swift has to do. Most individuals do not breed until their fourth year, but the young birds still make the migration journey and start looking for a safe, dark hole. Once they have found one, the young birds pair up and start to bring in feathers and other nest materials.

their entire lives in the open air, people, I never used to notice them.

Swifts migrate between the UK and their wintering grounds south of the



How to distinguish swifts

Swifts are not hirundines (the family of birds that includes swallows and martins), but they have a similar appearance and lifestyle, so are often confused with them





House martin Delichon urbicum Glossy blue-black Black tail short and upperparts clearly forked Bright white Underparts white rump



The apparent joie de vivre of young swifts is breathtaking. You hear them before you see them, screeching over the rooftops in gangs of seven or eight, racing circuits around buildings. As the poet Ted Hughes put it:

Their lunatic, limber scramming frenzy And their whirling blades

Sparkle out into blue

Swifts like high, deep

crevices to nest, but as

many old buildings have

been lost and roof spaces

Hughes also wrote the much-quoted lines about the swifts' return:

They've made it again,

Which means the globe's still working, the Creation's

Still waking refreshed, our summer's Still all to come

This anxiety about whether or not 'our' swifts will return each May is something most swift-watchers can relate to, but concerns have escalated since Ted Hughes's poem was published over 40 years ago, with a massive and alarming 57% decline in numbers in the UK recorded between 1995 and 2017.

For thousands of years, swifts have lived alongside us,

As traditional nest sites become scarce, you can help by fitting a wooden nest box to your home

because the homes and other buildings we constructed for ourselves have also suited them. Today though, we make it much harder for these birds to survive. Fewer insects is likely to be a factor many other insectivorous birds are also in decline – but swifts are also up against a catastrophic loss of nesting cavities. Renovation of old buildings almost

Renovation of old buildings almost always results in access to swift nest holes being blocked



always results in access to their holes being blocked, while new housing tends to be sealed completely against nature. Modern building materials, such as plastic soffits (part of the eaves), offer little potential for future weathering and gaps opening up. We need to accommodate nesting swifts - and urgently.

Meet the swift champions

Thankfully, an inspirational movement of swift champions is coming to the rescue across the UK. Around 90 small groups are taking action locally. They run surveys to find swift breeding sites, work to prevent nesting holes from being blocked, install nestboxes, share information and help raise awareness through walks and talks all with the support of their communities.

Several of these groups work with their regional Wildlife Trusts, which are perfectly positioned to assist grassroots action, such as nestbox schemes in church belfries and public buildings. The Wildlife Trusts also advocate the use of swift nest bricks (a brick with a hole behind which a nest box is fixed) and nature-friendly green spaces in new housing developments. Several Trusts are campaigning directly with

local authorities and working with planners to get the installation of swift nesting bricks written into local planning policy and building conditions.

North Wales Wildlife Trust is particularly active on behalf of swifts. Ben Stammers, the Trust's people and wildlife officer, is passionate about the birds and, since 2014, has raised funds to install more than 300 nestboxes on schools, houses, university buildings, a community pub, a doctor's surgery, a theatre and a chapel in the area. More than 60 people have been trained as surveyors and, so far, 500 swift records have been submitted to their database. Dozens of talks, walks and other events have engaged more than 1,000 local people.

Ben sums up what it means to him: "Seeing joy in people's faces when they watch swifts on their own patch is so uplifting. I hope swifts can become an inspiration for how we can share our living space with wildlife, to the benefit of us all. If we can't find ways to help a species as fascinating and charismatic as the swift – and one so dependent on us - what hope is there?" I feel sure that's a sentiment we can all agree with. •

GET INVOLVED

Five ways to help swifts

- Ensure nesting holes are kept open when carrying out roof renovations or insulation
- Put up a swift box on your house. Make sure it's at least five metres high
- Stop using garden chemicals to support a healthy insect population
- Keep records of swifts entering holes in buildings and tell your local record centre
- Find out more about swifts and how you can help protect them at wildlifetrusts.org/swifts



Swifts & Us: The life of the bird that sleeps in the sky by Shropshire Wildlife Trust's Sarah Gibson will be published by William Collins this spring.

Natural Carbon SOLUTIONS

BY JOANNA RICHARDS

We face a climate emergency. Extreme weather events are on the increase and the impacts of a warming climate are becoming evident on our beloved wildlife, with some UK species being pushed to the furthest limits of their natural ranges. To tackle a crisis of this scale, it is imperative every tool in the box is used, and this includes the natural solutions offered by our planet. Over half of all carbon emissions released into the atmosphere by humans are re-absorbed by the Earth's natural systems. And yet, many of these systems are broken, the habitats providing them damaged and degraded. Restoring these systems would allow even more carbon to be absorbed – and The Wildlife Trusts are playing a leading role in helping this happen.

At sea, the Trusts fought for the Marine Act 2009: properly implemented it restores our most important carbon absorber and the wildlife that lives within it, including kelp and phytoplankton. On land, 9% of the UK's surface is a huge carbon store with carbon locked up in wet peat. Carbon is also stored in organic rich soils, especially those under grasslands and woodlands. For decades, The Wildlife Trusts have pioneered peatland restoration and sustainably managed woodlands and grassland

meadows. This work continues, thanks to our supporters, helping in the fight against climate change.

Saltmarsh

Like peatlands and grasslands, intertidal saltmarsh provides an important carbon store in its soils.

Saltmarshes also act as a buffer against coastal erosion – although this and rising sea levels is leading to the loss of this habitat, with only 15% of its historic range remaining.

Peatland

Peatlands cover just 3% of the earth's surface, but store more carbon than any other habitat on land (more than twice the carbon of all the world's forests put together). But when damaged, as in the UK, they release carbon, contributing to climate change – so restoration is essential.

Woodland

As they grow, trees absorb carbon from the atmosphere, storing it in their trunk, boughs and roots and as organic matter in woodland soils. So, new woodland creation – through natural regeneration for example – helps to combat climate change.

Seagrass meadows

These aquatic flowering plants are responsible for around 10% of all carbon buried in the ocean, despite covering less than 0.2% of the ocean floor. They store carbon 35 times faster that rainforests, but estimates suggest that globally we are losing an area of seagrass the size of two football pitches every hour.

Urban

Urban greenspaces help make cities better in a world that's getting hotter.
Young street trees take up carbon dioxide and urban woodlands help control the local climate by providing shade and reducing the street temperature.
Pleasant greenspaces can also encourage people to walk and cycle rather than jump in a car!

Grassland

Healthy grassland soaks up and stores carbon in its roots and the soil. Grasslands that are undisturbed by arable agriculture and protected from soil erosion through sustainable management are important stores. Yet in the UK, we've lost 97% of our semi-natural grassland and they continue to be at risk.

Seaweed and kelp forests

Kelp grows incredibly quickly, sucking up carbon as it does. These underwater forests provide critical short-term carbon stores. When they die, bits of kelp sink into the deep sea, where they remain for a long time.

Marine sediments

Phytoplankton – miniscule marine algae – absorb carbon as they grow. When they die, some of the carbon they've taken up sinks to the ocean floor, where it can remain for thousands of years.

More trees please

Some 12,000 years ago, the Last Glacial Period was ending and, as the ice retreated, the land re-vegetated. Britain was joined to the continent at that time, allowing vegetation including trees to spread northwards.

First came the pioneer species such as birch, rowan, willows, alder and Scots pine, followed by slower colonisers such as oak, ash, elm and hazel. This was the Boreal period when climatic conditions were favourable to tree growth and almost the whole of the UK became covered by natural forest.

Sea levels were rising and with the inundation of Doggerland and the formation of the English Channel, the land bridge was severed preventing further colonisation. Species such as Norway spruce, larch, fir, sycamore and chestnut never arrived (without later human assistance), leaving Britain with a complement of 29 broadleaf and 3 conifer native tree species, relatively impoverished compared to mainland Europe.

Climate and clearance

As the Boreal period gave way to the Atlantic period some 6,000 years ago, the climate became warmer and wetter.

On the higher ground in the north, peat bogs began to form, preventing the forest from regenerating. Humans, changing from hunter-gathering to agriculture, began clearing the forest to make space for growing crops and grazing livestock. Slowly, the natural forest was pushed back, and by the time of the Romans, forest cover had been reduced to around 20%.

Over the next two millennia, forest clearance continued for agriculture, grazing and general living space. Interestingly, where forests had a practical use, such as the New Forest for hunting, or the Forest of Dean for ship building, forests were more likely to survive. But most forest was cleared, and by 1900 the forest area of the UK was reduced to 4%.

War creates timber demand

The lack of forests in the UK didn't really matter: Britain was a great trading nation and could import all the timber it required

 until WW1. The U-boat blockade meant that it wasn't just oranges that were in short supply, timber was a much needed and scarce resource.

After the war, the government was determined to create a strategic reserve of timber and, in 1919, the Forestry Commission (now called Forestry England) was tasked with that express purpose. It set about its task with great energy and determination, acquiring land that was of less value for agriculture and planting fast growing trees to create a reserve of timber as quickly as possible.

The creation of Kielder Forest was typical, but on a much larger scale, of upland forestation. The first trees were planted in 1926, and planting continued at an increasing rate until the mid-1970s when Kielder reached its current size of 600 km² (230 square miles). Sitka spruce, a tree native to North West America, proved to be well suited to the harsh upland conditions, growing twice as fast as its nearest rival, and was used extensively. Such was the determination of the Forestry Commission to create new forests that, perhaps inevitably, some sites were planted which would have been better left alone. These include the Border mires and many ancient

The result, after 100 years of the Forestry Commission, is that the forest area of the UK has increased from 4% to 13%, still low by European standards but a substantial increase. This resource has given rise to a modern and highly efficient timber industry in the UK, and a significant source of employment in rural areas.

Multi-pupose forests

Forests today are expected to provide much more than timber. We want forests that enhance the landscape, are exciting and peaceful places to visit, are rich in wildlife, improve water quality and reduce flooding, sequester carbon and are resilient to climate change, yet still produce timber to make them self-financing.

Sitka spruce in Kielder Forest takes 40 to 50 years to mature, so the end of the first rotation has provided the opportunity to redesign the forest to better meet current

expectations: to diversify age structure and species, to soften harsh lines and create shapes which blend with the land form, to introduce more broadleaves and open spaces generally to make the forest more appealing to people and wildlife. Kielder has become a magnet for both.

If the UK is to meet its zero carbon aspiration by 2050, we need more trees! Trees absorb CO_2 from the atmosphere, and lock up the carbon in their timber and forest soils.

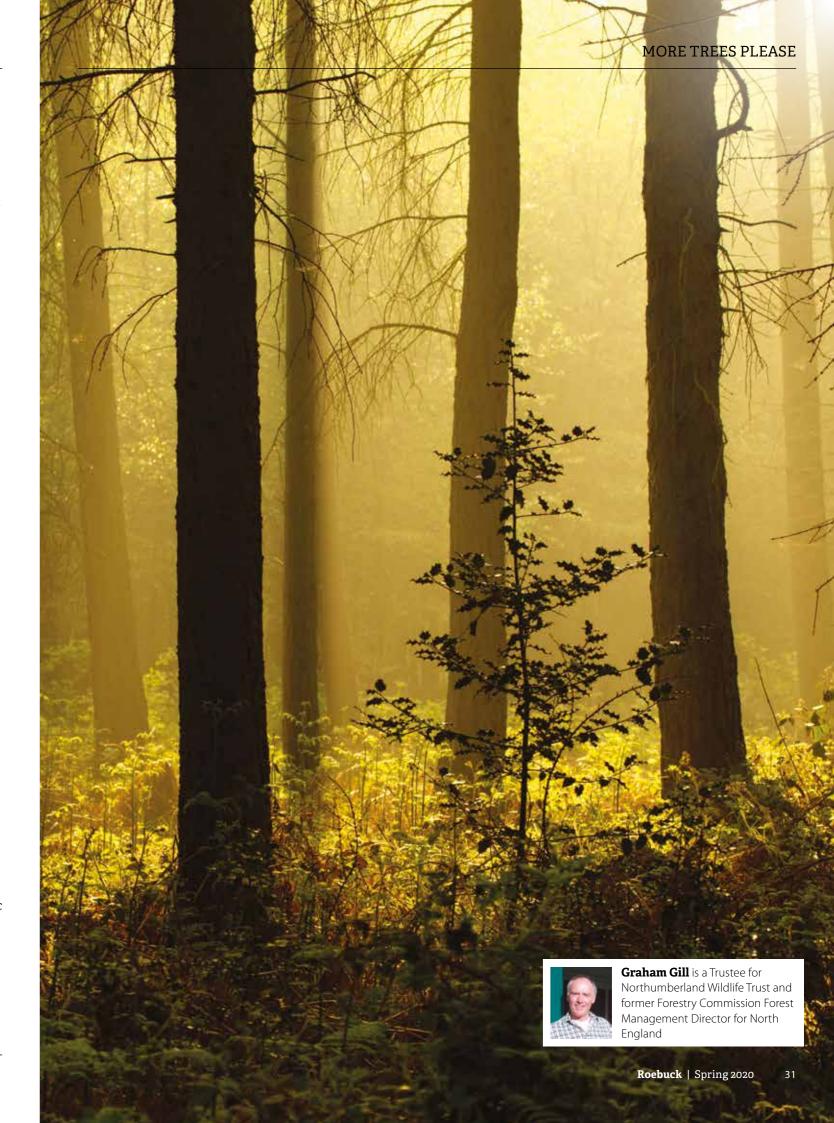
Planted forests lock up carbon quickly with their rapid growth, and while some carbon is released at felling, much carbon is stored for a long time in wood products. Native woodlands grow more slowly but build up greater carbon stocks, eventually reaching equilibrium between sequestration and decomposition. Forests managed on a continuous cover regime achieve some of the best of both, with high levels of carbon stored on site and in wood products.

So where to plant more trees?

Northumberland has 18% forest cover, well above England's 10%. However, excluding Kielder Forest, the rest of Northumberland has only 8%, less forest cover than Cumbria, Cornwall or County Durham. So there should be room for more trees. The government certainly thinks so, and has proposed a new Great Northumberland Forest, starting with a commitment to plant 500 hectares on public land.

The first 100 hectares are already being planted, at Rushy Knowe in Kielder Forest. These new forests will be subject to environmental impact assessment to ensure they truly are "the right trees in the right places", and will need to comply with the UK Forestry Standard, which sets the design parameters for sustainable multipurpose forests, delivering a range of public benefits.

A Northumberland Forestry Partnership has been established to advance the concept, and Northumberland Wildlife Trust is represented on the steering group. The Trust will be making sure that these forests deliver for wildlife, as well as the other ecosystem services they provide.



You might know that Northumberland is a fantastic place for wildlife, but did you know it is also a fantastic place for archaeology?

Redesdale is a remote upland area in the wild heart of Northumberland, stretching from where the river rises at Carter Bar on the English-Scottish border to its confluence with the North Tyne at Redesmouth.

This land was once a lawless frontier where families on both sides of the border. the infamous Border Reivers, raided each other's lands, stealing, destroying property and perpetuating violent blood-feuds for generations. Today this area is one of the most peaceful parts of England where wildlife thrives; the remoteness and tranquillity of this upland valley providing homes for species such as freshwater pearl mussels, red squirrels, otters, adders and barn owls. But these uplands were once home to lots of people too, and the very remoteness that provides sanctuary for wildlife also means that the remains of past people lie largely undisturbed in the landscape.

Alongside restoring habitats, recording

wildlife and providing opportunities for people to learn about the area's natural history, Revitalising Redesdale Landscape Partnership's projects are also restoring scheduled monuments, surveying and recording archaeological sites and providing opportunities for people to learn about the rich cultural heritage of Redesdale. To date, partners have conserved two scheduled monuments and over 80 volunteers have taken part in various archaeological investigations across Redesdale.

Archaeological Surveys

Revitalising Redesdale's aerial archaeology survey using LiDAR (light detecting and ranging) data has involved over 30 volunteers in looking at 200 square kilometres of LiDAR images, searching for and recording archaeological features across the area.

So far the volunteers have identified over two thousand new features, which will be made publicly available through the county's Historic Environment Record (HER). Among these newly discovered features are some potentially very exciting

sites indeed, including Roman marching camps, Iron Age settlements and hill forts, Bronze Age cairns and deserted medieval villages.

In addition to the LiDAR Landscapes project, volunteers have been investigating human history and prehistory across the valley through archaeological survey and excavation of sites. They have carried out field surveys of previously unrecorded sites, including a probable medieval farmstead, an Iron Age enclosed settlement and an entire farm with archaeology from prehistoric to post-medieval times.

The surveys done so far have highlighted the vast quantity of archaeological remains that there are within Redesdale, many of them unrecorded and unexplored.

Discoveries at Rattenraw

Particularly significant discoveries have been made at an enclosed Iron Age settlement at Rattenraw, near Otterburn. Volunteers surveyed the site in October 2018, which resulted in the first accurate site plan and included a detailed description of visible surface features of the site (see picture above).

The Archaeological Practice led an excavation at the site in July and August 2019, with 54 volunteers aged from six to eighty, all picking up a trowel and digging in. They uncovered structural and artefactual evidence leading to the conclusion that the site is of late Iron Age origin (approx. 100BC to 42 AD).

Finds included fragments of Iron Age pottery, a whet stone for tool sharpening, part of a quern stone for grinding grain, ironworking slag and 58 glass beads of various colours and sizes, which would probably have formed part of a necklace. The glass beads are particularly unusual, both in the number found and the variety of colours and sizes and further research is being done to determine where they came from and how they were made.

The type of artefacts found are typically associated with the late Iron Age and Romano-British period and are approximately 2,000 years old. These finds show that the site was domestic and that flour-milling, pottery-making, cooking activities and animal husbandry would all have been going on here during the Iron Age.

The excavation also revealed areas of extensive stone paving, consisting of large flag stones, positioned on top of an earlier cobbled stone floor, suggesting the settlement was lived in by successive generations and was altered and updated over time.

Chris Jones, Historic Environment
Officer for Northumberland National Park,
said, "The work of all those involved in the
survey and excavation on Rattenraw Farm
has added considerably to our knowledge
of past human activity in the area. This
excavation has provided us with an insight
into what life might have been like for the
people who lived here over 2,000 years ago.
It shows what can be achieved through
the hard work of local people and other
volunteers from further afield and how
this might inspire a love of the rich and
fascinating archaeology we have in the
National Park."

Get involved

The investigations carried out at
Rattenraw and other sites across
Redesdale have already made a significant
contribution to our understanding of
archaeology in the area and the Lost
Redesdale project continues to advance











this research, with more surveys and excavations planned for 2020 and beyond, including a return visit to Rattenraw.

As well as providing an opportunity for the local community to get involved in researching the area's fascinating heritage, taking part in field archaeology provides a great way to get active outdoors, working together as a team with like-minded people, whilst gaining new knowledge and skills.

If you would like to find out more or take part yourself in forthcoming archaeological investigations, please get in touch with Karen Collins, Revitalising Redesdale Heritage and Engagement Officer, on 07741 194 309, karen.collins@nnpa.org.uk.

Find out more on the Revitalising Redesdale website **revitalisingredesdale.org.uk**

Gardening for moths and butterflies

Grow nectar-rich flowers

Make sure something is in flower from March through to November, starting with primroses, bluebells and forget-me-not in spring, then alliums, lavender and scabious in late summer, and late-flowering Verbena bonariensis, sedums and rudbeckias in autumn.

By day and by night, gardens large and small can provide a haven for Britain's beleaquered butterflies and moths. Kate Bradbury suggests nine ways to support all the stages of their life cycles

lf you don't have a garden

or your space is small,

grow nectar-rich flowers

in pots, window boxes or

hanging baskets. Choose

and lavender for pots, and

nasturtiums for baskets.

low-growing primrose

Plant some climbers

Bare fences and walls are a wasted opportunity to help butterflies. Cover them with plants and provide nectar-rich flowers and shelter for species, such as brimstones, to hibernate. If you grow hops, comma butterflies may lay their eggs on its leaves.

these declines. We tend to feel more fondly about butterflies than moths, which can be viewed with ambivalence as they fly at night and a few species eat our clothes. But not all moths fly at night – the six-spot burnet and hummingbird hawkmoth can be spotted during the day – and many of them are just as beautiful as their day-flying cousins. Only about five of our 2,500 species eat clothes and moth caterpillars

hedgehogs and amphibians. So by gardening for moths, we can also help other wildlife.

As adults, most butterflies and moths drink nectar, but their caterpillars eat leaves and other plant material. To make them truly welcome in our gardens, we need to support all stages of their life cycle by growing nectar-rich flowers for the adults and foodplants for the caterpillars. We also need to accommodate the stage in between caterpillar and adult – the chrysalis (butterfly) or cocoon (moth). Many species spend the winter in this vulnerable stage so leave a little patch to grow a bit wild for them. Making space for butterflies and moths to feed, breed and hibernate in our gardens will make all the difference to these struggling pollinators. ♥

Discover more ways to welcome moths and butterflies into your garden on our website: wildlifetrusts.org/butterflygarden



Kate Bradbury

is passionate about wildlife-friendly gardening and the author of Wildlife Gardening for Everyone and *Everything* in association with The Wildlife Trusts.

Avoid cutting down plants in autumn

Butterflies and moths have suffered huge declines in

agricultural pesticides and climate change have made

recent years. This is largely due to habitat loss, but

"life even more challenging for many species. Happily,

there's plenty we can do to help them on our own

patch, no matter its size. The UK's gardens take up

so if we all gardened with butterflies and moths in

mind, we could help slow, or even reverse, some of

are an important source of food for nesting birds,

more space than all of its nature reserves put together,

Some butterflies, such as orange-tips, overwinter as chrysalises, which makes them vulnerable to tidying. Leave plants intact over winter and clear them in spring instead. Always check for chrysalises just in case!

Plant a mixed native hedge

If you have space, plant a native tree or two. Many moths lay their eggs on the leaves of willow, dog rose, birch and hawthorn. Grow a climber, such as honeysuckle, through the hedge to make it even more moth-friendly.

Grow night-scented plants

Plant groups of common jasmine, evening primrose, honeysuckle and night-scented stock together, so that moths can find them more easily.

Provide caterpillar foodplants

Butterflies need the right plants to lay eggs in your Add a window box

garden. Grow cuckooflower for caterpillars of the orangetip butterfly, nettles for peacocks, small tortoiseshells and red admirals, and holly and ivy for the holly blue.

Leave some weeds

Many moths lay their eggs on the leaves of nettles, brambles, dock and dandelions. Even leaving weeds at the back of borders, where you can't see them, will make a difference.

Don't be too tidy

While some moths breed in long grass, many caterpillars and pupae spend winter hibernating in grass or among leaf litter and other plant debris. Leave things where they are in autumn and winter, and

tidy up in spring instead.

Thank you to players of

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