

Protecting Wildlife for the Future

WILD TEES

NW.TEESWILDLIFE.ORG

MAGAZINE

Inside this issue:

**Bird song might wake you in the morning,
but what wakes them?**

Fake grass - The backyard battleground

Fungi - A woodland treasure-trove

Our *NEW* project - 'Wild at the Edges'

Issue No. 26



Welcome

www.teeswildlife.org

Welcome to this issue of Wild Tees.

Wilder Tees - Dear Reader,

As the General Election approaches, it is heartening to see that nature is back on the political agenda. The Wildlife Trusts have tried to get politicians to embrace conservation at any number of general elections, with very limited success, so we must be cheered by any commitment to wildlife, even if its current form seems to be an inter-party competition on tree planting.

The conservatives have recently announced that they will plant an incredible 30 million trees during every year they might be in government (significantly more than their previous targets, although it has to be said that those were never met). Meanwhile, the Liberal Democrats have claimed an even more ambitious target of 60 million trees a year (based on the tree numbers needed to combat climate change, they tell us). And, by way of political balance, Labour has yet to set the number of trees they will plant, but has said that when they do, it will be based on science.

In our experience as conservationists and land managers, successive governments' tree planting targets have never been properly costed. They might find enough to cover the price of the tree itself, but barely enough for the labour to plant it, and never anywhere near enough to compensate a farmer for the loss of income from crops or livestock while the trees are growing. The result is that if millions of trees are planted, they may go onto less-productive land already supporting wildflowers or wetlands. This is not a boost for biodiversity.

What we really need is a proper plan for nature's recovery, of which new trees and woodlands can be a vital part. This sounds like a grand concept, and certainly more politically challenging than the sticking plaster of tree planting, but our East Cleveland Barn Owl Nestbox Network is a great example of what it might actually involve and how it can be achieved at a very modest cost. The project has engaged landowners on the simple promise of a nest box along with the possibility that it might one-day house a barn owl. But its success still requires a network of feeding areas for the owls - rough grassland, small wetlands, hedgerows and woodlands, too. Because of this, there has been a truly staggering recovery in barn owl numbers that surpasses all previous records for the area and which bucks population trends for the rest of the country. You can enjoy reading about our barn owl project on page 18.

Perhaps, as well as asking your prospective parliamentary candidate about their tree planting plans, you could also challenge them with the questions on our back cover and help us ensure an Environment Act remains a priority for the next government!

Jeremy Garside, Chief Executive

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LEADING THE FIELD -
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WILD AT THE EDGES -
Introducing our newest
project to improve wildlife
corridors in your area.

Leading the Field

Nature Partnership Manager, **Rachel Murtagh**, has some exciting news about new funding and new ideas for the future of nature in the Tees Valley.

THE TEES VALLEY NATURE PARTNERSHIP (hosted by Tees Valley Wildlife Trust) is one of 47 'Local Nature Partnerships' across England. We are the first partnership of this kind to receive backing from the National Lottery Community Fund to support our work over the next three years. The five Tees Valley local authorities are contributing too, giving a total of **over**

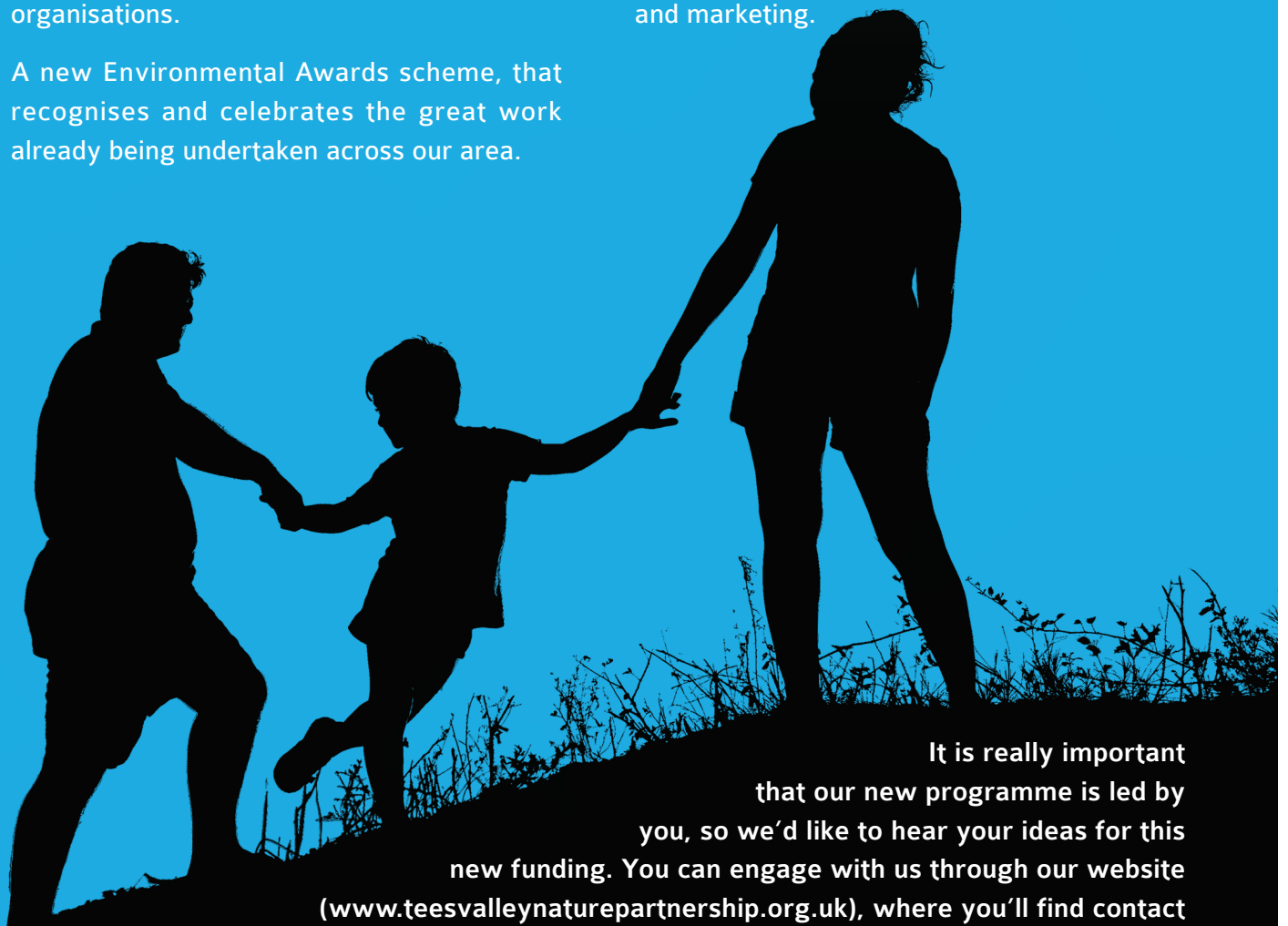
£348,000 to build a more resilient future for nature and the environment in the Tees Valley.

This funding will allow us to harness fresh public awareness of the need for a stable and thriving natural environment, while growing community involvement and extending our influence with the key decision makers in Teesside.

Adding to our existing strategic work, some of the highlights proposed include:

- A new environmental small grants scheme to support local environmental projects.
- Training and events to support our partner organisations.
- A new Environmental Awards scheme, that recognises and celebrates the great work already being undertaken across our area.

- An additional member of staff based at the Tees Valley Wildlife Trust (who we'd like to introduce on the next page) and up to 3 student placements.
- A budget for commissioning specialist pieces of work, from data and mapping to campaigns and marketing.



It is really important that our new programme is led by you, so we'd like to hear your ideas for this new funding. You can engage with us through our website (www.teesvalleynaturepartnership.org.uk), where you'll find contact information as well as links to our new Facebook and Twitter pages.



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INTRODUCING...



Our new Nature Partnership Officer, **Louise Richards**, tells us what it's been like in her first hectic month at Tees Valley Wildlife Trust.

HELLO, MY NAME IS LOUISE RICHARDS and I am lucky enough to be the new Nature Partnership Officer. This is my first month 'on the job', having moved up from Liverpool in early October. It was a bit daunting, but I have already experienced plenty of the famous North East hospitality. Everyone, both in Tees Valley Wildlife Trust and in the partnership organisations I have met with, has been very welcoming.

I was given a week to settle into the area and into the job, learning about the partnership and the engagement work I will be doing, assisting Rachel Murtagh with a talk to university students, filling out forms and finding where the Trust's stapler is kept. I then accompanied Sue Antrobus to a Wild Green Places meeting, which gave me a real insight into green spaces in the Tees Valley. It was very interesting to meet the people who are helping to look after them and hear about all their hard work.

Then in my second week things began to kick into a higher gear - I attended Engagement Group meetings, Review Group meetings, sending out surveys to member groups and travelling to the Sage in Gateshead with Rachel to eat scones and drink tea.... all in the

name of a Guinness World Record attempt for the largest ever cream tea event (I should add)! The attempt was successful and I like to think that I did my bit. You can see more if you search on YouTube for Tea-Tyne at the Sage with Scarlett Moffatt #NationalLottery25. I don't know if I will be part of any more record-breaking attempts, but it was a good way to set high expectations this early on.

At the moment I am sending out our quarterly newsletter and setting up the Nature Partnership's social media pages, so keep an eye out for us on Facebook and Twitter. On my 'To Do' list this week are to join Rachel and head over to MIMA to talk to a group of third year Planning students who have travelled from UCL. Then we will be attending the fully booked VONNE annual conference and AGM, which I am looking forward to being involved in and being a note-taker for.

It's a very busy role, but I am enjoying my first month in the north east. I am excited to be working for the partnership and I am looking forward to helping to drive positive change in the Tees Valley area through my role. Hopefully I'll get a chance to meet some of you soon in the course of my work.





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SO WHAT GETS A BIRD OUT OF BED?

Ecology students, **Maryam Oudir** and **Stuart Brooker**, have tracked one effect of climate change on the morning chorus.



'Song Thrush' (inset source) by Terrence English

SIT THAT THE SONG THRUSH, like the rest of us, finds it easier to get up when those cold winter mornings give way to warmer temperatures, in spring?

That was the question posed by our volunteer, Maryam Oudir, as part of a project for her degree in Biology (Ecology and Environmental Biology), at Newcastle University.

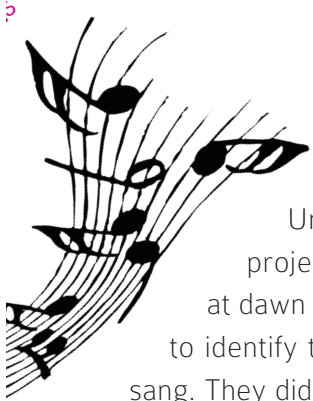




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Maryam has been volunteering for TVWT for two years, alongside her studies. She has been a stalwart of the Coastal and Wading Birds Project, bravely spending hours out on the coast at Redcar and Seaton Carew in wintry weather, carrying out bird disturbance surveys. She helped with school visits to the beach and Coatham Marsh and was also part of our 'Tern Team', helping protect nesting little terns. Maryam has now graduated and is undertaking some research with Teesside University and, we are delighted to say, still volunteering with TVWT. Our congratulations and thanks to Maryam!



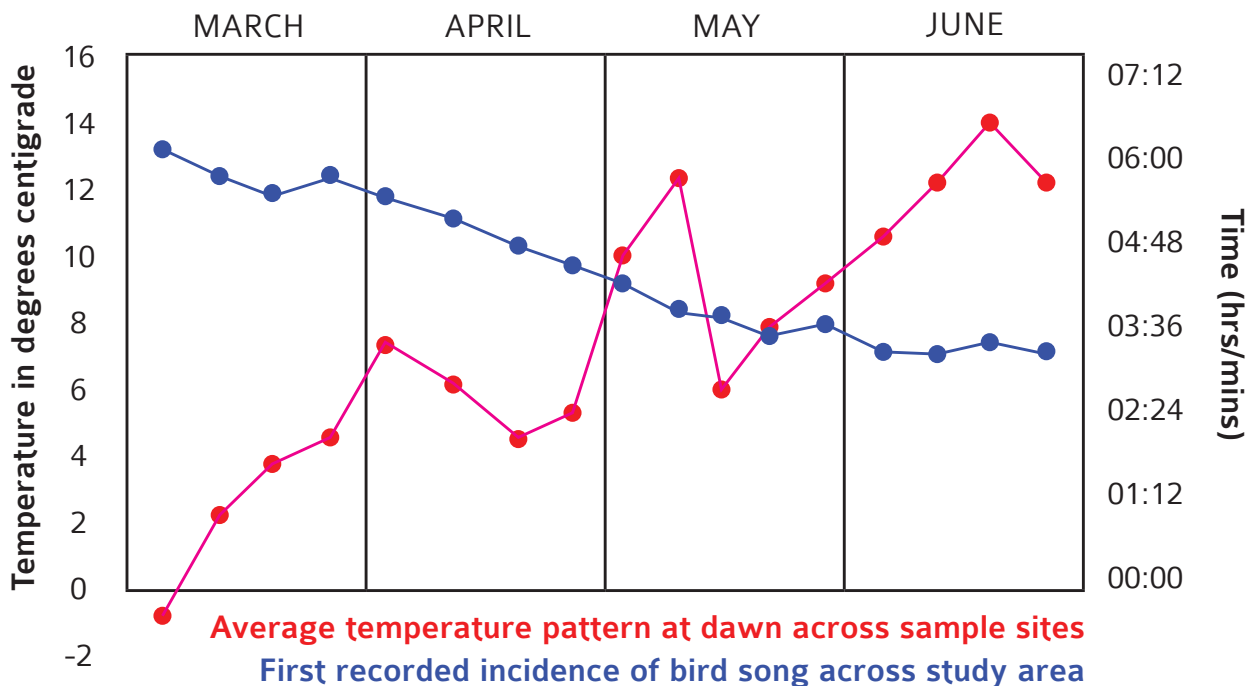
Maryam's work contributed to a PhD research project for Durham University student, Stuart Brooker. The project analysed sound recordings made at dawn from 18 sites around the UK, in order to identify the earliest times that a song thrush sang. They did this throughout the breeding season, from March to June. The singing start times were then mapped against temperatures at dawn.

Maryam says "Doing this project required many hours of close attention, analysing the recordings. I definitely got better at picking out the song thrush in the dawn chorus, as well as identifying other species such as wren, blackbird and robin." Other birds were not the only problem however: the sound of rain and wind in some recordings made it difficult to hear anything else. Maryam also found herself listening to cows, sheep, crows, owls and even dogs!

As the graph below shows, the broad trend across all the months confirmed a relationship between warmer temperatures and earlier singing, with a levelling out of singing start times in June (although there were some anomalies on a few days in April and May).

What does this tell us?

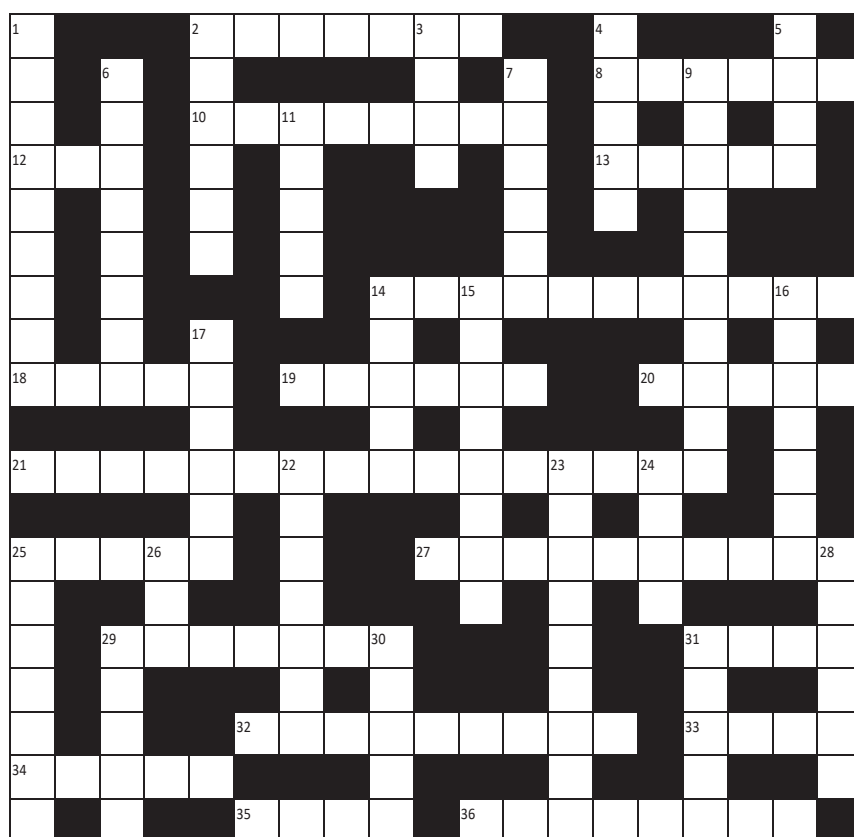
Maryam says, "singing at dawn is important for bird populations as it plays a part in their mating success. Any environmental factor having an effect on dawn song may impact mating success and put bird populations in danger... Climate change is already causing a rise in temperatures and shifts in the weather." She goes on to recommend further study to find out how severe the effect of warming temperatures could be on mating behaviour and the possible cascading effects on food webs and ecosystems.





08

Fun and Games:

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A Wildflower Walk

Quick clues

Across

2. A small European plant of the pea family, with three-lobed leaves. Its seed pods resemble a bird's foot (7)
8. A genus in the orchid family (6)
10. Also called Wild Celery, it has edible stems and roots (but not to be confused with its poisonous relatives) (8)
12. A hair or bristle-like appendage, such as you might find on some grasses (3)
13. The wild version of this garden favourite has a face-like arrangement of petals, giving it names like Cat's face and Three Faces Under a Hood (5)
14. A member of the pea family and often grown as a fodder crop (6,5)
18. The wild progenitor of a perennial and aromatic evergreen herb (5)
19. A hardy species of grass present on every continent except Antarctica (6)
20. A thickening of the basal part of a plant stem used to store nutrients (5)

21. A member of the geranium family and known for its beak-like seed pods (6,10)
25. Roadside plant in the daisy family, used in some potpourri mixtures as an insect repellent (5)
27. This wildflower inhabits damp places near rivers or in damp meadows and has nodding, bell-shaped, flowers. A close family member lives in the woods.
29. Similar in appearance to a knapweed it has serrated leaves which give it its name (7)
31. Latin for 'white' and most commonly associated with a rambling rose (4)
32. Named for its early medicinal use curing ocular disorders (9)
33. That element to which the name of a taxon is permanently attached (4)
34. See 26 down
35. A seed or dry fruit that has hooks or teeth (4)
36. Historical veggie alternative to rennet in cheese-making. May get its name from use in straw mattresses, giving a pleasant smell to the slumberer (8)

Down

1. Related to the buttercup, but preferring fresh water margins (9)
2. Spiky oval heads of this tall plant are particularly important food for finches (6)
3. This plant takes its name from the Greek word for rainbow (4)
4. This plant has edible seeds you might find on a nice bread-bun (5)
5. This species is extremely toxic to cats. Though not strictly native it has naturalised in UK woodlands (4)
6. A low-growing plant of sand dunes, heaths and grassy places. It has small, pink, five-petalled flowers and has historically been used to treat fevers (8)
7. A non-native invasive plant commonly found along riverbanks. Its seed-pods explode as a dispersal method (6)
9. Sometimes referred to as 'barren-strawberry', this species of potentilla usually has dry, inedible fruit and its name refers to its five leaves (10)
11. See 25 down
14. The central strand of a

plant leaf or thallus (5)

15. This low growing, spreading plant, has flowers with five petals and hairy leaves (like a rodent's ear) giving it its name (8)

16. A common sight in woodlands, along roadsides and hedges, this red flowered plant is also known as Adder's Flower and was thought to treat snakebites. Its genus is named after the Greek woodland deity Silenus (7)

17. A member of the dead-nettle family, its bright magenta-pink flowers are commonly found in old country churchyards, where it was planted in the past to ward off unwelcome spirits (6)

22. The root of this plant is most famously used in camp coffee (a coffee substitute), but its leaves are also edible, though bitter (7)

23. Flower mimics female bees, though it is now self-fertile due to the lack of the right bee species (3,6)

24. Usually a flattened green outgrowth from the stem of a vascular plant (4)

25. Probably named after T. Hanson, an American farmer and agriculturalist upon whose recommendation it became a major source of hay and cattle fodder to British farmers in the mid-18th century (7,5)

26. Spiky blue plant of coastal areas. The county flower of Liverpool (3,5)

28. The pollen-producing reproductive organ of a flower (6)

29. This common term describes multiple features in flower anatomy - the part that attaches a leaf to a branch and a flower to the root. However, the former is more correctly called a petiole and the latter a peduncle (5)

30. A much thickened underground part of a stem or rhizome (5)

31. Starts with 26. Also known as Michaelmas daisies due to their late flowering period (5)

Answers and explanations of cryptic crossword clues on page 12



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Cryptic clues

Across

2. This family with bird's feet changed their loftier ideals (7)
8. Apparently Greek testicles brought forth this genus (6)
10. Like an angel Icarus flew - and all to taste this sweet umbellifer (8)
12. Lawns cut short don't have these stiff bristles (3)
13. Love in Idleness gave the French pause for thought (5)
14. Uncouth rambler critically examines Swiss car sticker (6,5)
18. Sounds like Simon & Garfunkel took a moment on their way to the fair (5)
19. Second copper intercepts payment for fodder crop (6)
20. Commissioner of Kirkdale sundial protected by caesium in underground storage (5)
21. Heron-like bird standing in field stretches head skyward (6,10)
25. Nasty relative of feverfew confused antsy plume moth (5)
27. Weaver ants rearranged themselves around this plant by the river (5,5)
29. Distiller watched liquid from mashing process (7)
31. Yorkshire rose was this colour in Roman times (4)
32. Mike Batt's rabbits must have taken this herb once (9)
33. A specimen letter (4)
34. See 26 down
35. Icy reaction to barbed hanger-on (4)
36. A place of rest, as well as what broke the camel's back (8)

Down

1. A Shakespear-worthy plant indeed (9)
2. A prickly customer and a bit of a leg-puller (6)
3. She had the gift of sight (4)
4. A battlefield survivor, lest we forget (5)
5. You can't visit her pad, she doesn't have one (4)
6. Chiron might have added a hundred years with this flower, and he's still in the pink (8)
7. Himalayan invader spread itself about explosively (6)
9. Architect's design puts five lobes in a circle to create a flowery motif (10)
11. See 25 down
14. Making a meal of coffee and ribs (5)
15. Mickey had two of them (8)
16. Margery Allinghm's detective found the following clues: RED SEA WHITE ROSE STARRY BLADDER (7)
17. Trust in unknown plant (6)
22. A plant to make coffee, when there isn't any (7)
23. A bedfordshire beauty (3,6)
24. A reformist turns one over (4)
- 25 + 11 down. Satyrs might tarry with none that give them away (7,5)
- 26 + 34 across. Falstaff called for eringoes, but this plant was made for love in the dunes, especially in the Wirral (3,5)
28. Changing aments for another male appendage (6)
29. Hunting for this flower-bearer (5)
30. To treat this brute, bury him in the ground (5)
31. To see a plant whose good fortunes are in the stars, look to 26 (5)

Wordsearch

L	K	X	R	F	Q	B	L	A	C	K	M	E	D	I	C	K	P
H	H	G	V	C	O	W	S	L	I	P	K	T	P	Y	N	P	W
E	A	S	E	L	F	H	E	A	L	U	C	J	H	D	P	N	D
R	R	F	O	R	G	E	T	M	E	N	O	T	T	T	X	E	R
B	E	U	L	D	I	N	Z	D	B	I	J	Y	J	E	O	T	O
R	B	O	X	L	I	P	W	K	N	A	P	W	E	E	D	T	P
O	E	F	G	I	M	E	A	D	O	W	S	W	E	E	T	L	W
B	L	O	Z	Y	A	W	O	O	D	A	N	E	M	O	N	E	O
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R	T	C	H	I	C	K	W	E	E	D	Y	C	V	N	M	V	T
T	S	N	O	W	D	R	O	P	A	B	U	R	D	O	C	K	Q
T	H	I	S	T	L	E	P	P	F	E	V	E	R	F	E	W	B

How many
can you find?

BLACK MEDIC
BURDOCK
CELANDINE
CHICKWEED
COWSLIP

DROPPORT
FEVERFEW
FORGET ME NOT
HAREBELL
HERB ROBERT

KNAPWEED
MEADOWSWEET
NETTLE
OXLIP
SELFHEAL

SNOWDROP
THISTLE
WOOD ANEMONE





TURFWARS

Appalled by the rise in artificial turf sales, Reserves Manager, **Dan van den Toorn**, asks 'why would you?'.

IT'S ON THE INCREASE. You may even have some yourself(!). But artificial grass is not as green as its colour might suggest. While artificial grass is no longer the preferred surface for football and other sports - players citing higher rates of injury when playing on fake grass - in gardens the industry is now worth over £2 billion globally and rising fast.

Spurred on by periods of hot dry weather turning lawns brown, social pressures to have the perfect lawn and with fewer of us willing to dedicate our compressed free-time to gardening, there must seem like plenty of good reasons to adopt this low-maintenance alternative to the British lawn. But I want to show you that this is not the case and that artificial grass is something we should fight against with the same vehemence as we do against plastic bottles and deforestation.

Don't make it so plastic wildlife
is all that can live in your
garden!



Human beings have made an art of quick-fix solutions to our first-world problems and the plastic revolution is just one of them. This habit is fast catching up with us and, while many of us are now doing what we can to reduce our carbon footprint, reduce our plastic consumption, reduce our food waste, many others are still wilfully keeping us on track to calamity.

Part of the way to defeat this habit is by re-shaping perceptions of what a garden should look like, to be more accepting of wild and unkempt gardens and to learn just enough about what plants would support a stable ecosystem in our own private nature reserves, rather than letting everything go to bramble and nettles (though highly beneficial in their own right).

Artificial grass has been around for decades and manufacturers tell us that it has changed a great deal in that time. Their 'off-the-roll' grass is now more natural looking and feeling, it is more robust to wear and tear, they'll even tell us it's more environmentally sustainable than it's ever been as you'll never need to apply fertilizers or use much water to keep it clean or use dirty petrol mowers to cut it. But in the same way that glossy promotions sold cigarettes to millions (referred to as 'coffin nails' by anti-tobacco promoters as early as 1896), we are still happy to plough billions of pounds into industries that are slowly killing us (while some of us are learning this





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lesson, many are still willing to ignore the facts).

In reality, artificial grass, an almost entirely plastic product produced using chemicals that are now causing scientists to question their link to certain cancers, is almost as bad for the environment as concreting over your garden. It might use recycled plastic, but at the end of its life you'll be lucky if you can find a facility in the UK that can recycle it further - instead they'll more likely go to landfill. A layer of artificial grass will permanently seal the ground on which it is laid and often top-soil is removed and replaced with sand as a stable bedding matrix, all of which means worms can't get access to food and subsequently die, mammals like hedgehogs are starved, burrowing insects are locked out of their homes, pollinators are deprived of yet more opportunities to survive (suffering catastrophic declines globally) and birds are further deprived of the insects that real grass supports in abundance. Our gardens are an incredible force for good in the climate change war and something we need to fight for - against those who would cover them over for profit or ease.

Even the arguments for low maintenance and longevity of artificial grass are somewhat debatable. You still need to sweep up leaves (which would have been free food for worms and a soil improver, helping to hold moisture and reduce the need for watering) or pick up and hose-off after pets and other animals have been to the loo. What's more ridiculous than washing and hoovering your fake lawn?

Nor is the plastic as stable as manufacturers would like to suggest. They are prone to shifting and bulging as the ground beneath them eventually moves and high traffic routes become irreparably worn. Indeed, even though wear-resistance has improved, there is no known material that does not degrade over time and, in the case of artificial turf, even with general wear and tear, you can expect to be releasing more microplastics into the environment which, increasingly, find their way into the water we drink, the food we eat, the air we breathe.

Ok, so plastic grass is bad - but what's the alternative?

To answer this, I'm going to first dispel the myth that there is a no-effort solution - even artificial grass

requires effort to prepare the ground, lay the turf and maintain its appearance. But if this effort is the bare-minimum, then there are actually many opportunities for environmentally sound, low-effort gardens.

If you want a lawn, think about the appropriate seed mix - there are many available to suit various requirements: shade tolerant grasses, robust grasses for high traffic areas, grasses that will stay green through periods of low rainfall, even grass and wildflower mixes that will benefit pollinators and suit occasional cutting, while giving the added splendour of daisies, self-heal, clover and other low-growing wildflower varieties. You can find these on the internet or even your local garden centre or chain of homeware stores.

I think what often stops people making the right decision is lack of knowledge, instead being taken in by clever advertising aimed at offering an 'easy life'. Gardening, particularly if you have no real interest, time or energy, is hard to get your head around. What to plant where and how to look after it can seem daunting when you have to consider every choice. What you can do is ask for help - ask your friends and neighbours if they can offer advice or help with planting, ask your garden centre for advice on the right plant for the space, you could even employ a landscape gardener to get you started (you were going to employ someone to lay the artificial grass, after all!) - and there'll be someone out there for any sized job and budget.





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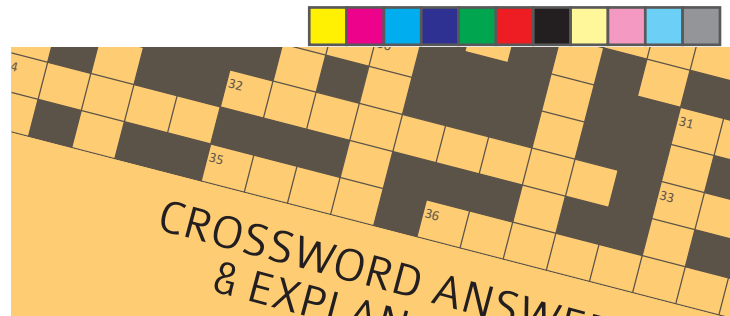
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If your garden is very shaded and damp, there are many suitable planting options and low-maintenance, hardy and evergreen shrubs, providing food for insects, nesting opportunities for birds and many other environmental benefits. You might even consider whether a pond or bog-garden would suit your needs. There are many styles of planting to suit these areas and ferns in particular are a good source of structural beauty requiring little maintenance. Ponds themselves may only need clearing of leaves once or twice a year. Add a few rotting tree-stumps and some rocks and you've created safe areas for amphibians, hidey-holes for hedgehogs and burrows for insects - and how much maintenance does a rock really need?

If you feel you haven't the physicality to wield a lawnmower, pop down to your local garden centre and look at the wide variety of machines available to you - mini robo-mowers are no bigger than carry-on luggage and can be set loose on your lawn with no further investment from you; hover-mowers are light and easy to handle; even self-powered push mowers will make short work of a small area of lawn. You could always let it go wild and see what happens!

And if you just don't want grass, why not think about a gravel or scree garden? These can be spectacular in their own right and still a great benefit to your local wildlife - just look at the gardens designed by Beth Chatto if you want some inspiration. But whatever you do, please think twice before letting the artificial grass grow beneath your feet, please use your powers of gentle persuasion to dissuade anyone else you know from doing it too and please - love your garden!



CROSSWORD ANSWERS & EXPLANATIONS

ACROSS

2 - TREFOIL (anag. LOFTIER), 8 - ORCHIS (lit. Greek for 'Testicles' after the twin tuber shape of some in orchis species), 10 - ANGELICA (ANGEL ICARUS), 12 - AWN (IAWNS), 13 - PANSY (from the French Pensee - 'thought', another name is Love in Idleness), 14 - COMMON VETCH (uncouth/COMMON, rambling habit, VET - critically examine - CH - Swiss bumper sticker), 18 - THYME (a moment + from the song - parsley, sage, rosemary &...), 19 - FESCUE (second Copper - SCU, inside FEE - payment), 20 - CORMS (Caesium - CS with ORM, the commissioner of the Kirkdale sundial, inside - corms, like bulbs, are underground storage for some plants), 21 - MEADOW CRANESBILL (field - MEADOW, heron-like bird pointing bill or beak up - CRANES-BILL), 25 - TANSY (anag. ANTASY, plume moths hibernate in the hollow stems), 27 - WATER AVENS (anag. WEAVER ANTS), 29 - SAW-WORT (to see - SAW, liquid from distillers mash - WORT), 31 - ALBA (Latin for white as in Rosa alba), 32 - EYEBRIGHT (Bright Eyes music from Watership Down film), 33 - TYPE (a specimen of lettering and see quick clue), 34 + 26 down - SEA HOLLY (the county flower of Liverpool, edible root once called eringoe and referred to by Falstaff in Shakespeare's 'Merry Wives of Windsor'), 35 - BURR (Brrrr - hooked seed pod), 36 - BEDSTRAW (BED + STRAW)

DOWN

1 - SPEARWORT (ShakeSPEAR WORTHy), 2 - TEASEL (TEASE + L), 3 - IRIS (she = woman's name, alluding to the Iris in the eye), 4 - POPPY (alluding to the Remembrance Sunday Poppies), 5 - LILY (she = woman's name, alluding to lily pad), 6 - CENTAURY (Chiron the Centaur healed himself with this plant, add A to CENTURY [hundred years], plant has pink flowers), 7 - BALSAM (Himalayan Balsam has explosive seed pods), 9 - CINQUEFOIL (also refers to an architectural motif), 11 + 25 - TIMOTHY GRASS (anag. SATYRS MIGHT + O [none], grass - someone who tells on you), 14 - COSTA (Costa coffee, also a rib-bone - the central strand of a plant leaf), 15 - MOUSE-EAR (Mickey MOUSE has 2 EARS), 16 - CAMPION (book character Albert CAMPION + prefixes of the species RED, WHITE, SEA, etc.), 17 - BETONY (BET ON + Y - an unknown number in mathematics), 22 - CHICORY (was used in wartime to make a coffee substitute called 'Camp Coffee'), 23 - BEE ORCHID (the county flower of Bedfordshire), 24 - LEAF (a reformist turns over a new LEAF), 25 - see 11 down, 26 - see 34 across, 28 - STAMEN (anag. AMENTS, literally: male organ in plant), 29 - STALK (to STALK one's prey, literally: holds up the plant), 30 - TUBER (anag. TUBER, plant part beneath the soil), 31 - ASTER (ASTER meaning 'of the stars', alludes to SEA part of 26 down to make SEA ASTER)

HIDDEN GEMS

Volunteer, **Liz Musgrove**, takes her camera in search of some woodland jewels.

AUTUMN IS MOST DEFINITELY UPON US. With the leaves falling and a drop or two of rain(!) in the air, fungi are emerging in our woodlands and putting on a spectacular display for those willing to look for them. There are so many different shapes, forms and colours; from the microscopic to the gigantic, and yet they are often overlooked. They might not, at first, seem to be the most glamorous of subjects, but amateur photographer, Liz Musgrove, took her camera along to some fungi walks at our Saltburn Gill Nature Reserve and the Saltburn Valley Gardens, to see what images she could capture.

The interesting thing about fungi, is the range of colours - they are not just mushroom greys and pale browns - fungi can be vibrant yellows, reds, purples and even green; with many different textures, patterns and growing habits (from sociable-looking groups to solitary hermits). It's always best to shoot them in-situ, so you show them in the context of their natural environment, but remember, sometimes the most interesting part of a fungus is underneath the cap, so you may have to grovel around a bit to find the perfect angle to photograph their best side!

Really good photos require a lot of time, a tripod and ring flash to properly illuminate the subject. However, modern mobile phones and compact cameras can produce quite good results. Lack of light in woodlands is a challenge and requires holding the camera very still if you are not using a tripod. You can sometimes help yourself by finding a rock or stump to steady the camera or phone on. My best tip is to do a little tidying up before you take the photograph - remove debris, pull back overhanging leaves, branches or grass stems and, where you can, avoid shadows (including your own) falling on to the subject. My photos were taken in less than ideal conditions on a group walk with limited time available to set up the shots, but I very much enjoyed recording some fun afternoons out searching for fungi.

If you want to go out and take your own set of fungi photographs, check out decaying stumps, rotting tree matter, fallen branches and piles of leaves. It's well worth checking the same area over a period of weeks to see if different fungi emerge. So what are you waiting for? Go visit your local nature reserve or green space and see what amazing images you can take and make some happy memories while you're there.



1. Pearly Puffball

2. Bay Polypore

3. Coral Fungus

4. Green Wood-cup

5. Amethyst Deceiver

6. Russet Toughshank

7. Earthball

8. Honey Fungus

9. Scalycaps

An **ALTERNATIVE** guide to modern living...

Other products are available!

SINCE THE END OF THE 1950's, household waste has been on the increase. If you remember when everything came in either a glass bottle, a tin can or a paper bag, you might sometimes wonder how we could have done so much damage in so little time.

We are all resistant to changes that either cost us more money or more time, but that is exactly the price of a sustainable future. If you can make even a single commitment to buy a more sustainable alternative to one of your usual household products, I urge you to do so. To take some of the effort out of the task, I've canvassed our staff and volunteers to see what waste solutions they already have in their households and why they like them.

Here are a few and I hope that there will be something in here to appeal to everyone's need and to everyone's wallet. Give it a try and hopefully it will become a habit for the future. If you have any ideas of your own, why not write in to info@teeswildlife.org or share it with us all on social media?

Several members of staff have transitioned to **bamboo tooth-**



brushes.

Much of a plastic toothbrush is not currently recyclable, but many bamboo ones **can go in your garden waste** - even the bristles can either be recycled or, in some cases are completely **natural**. The feel of them does take a bit of getting used to, but I don't even think about it now.

Instead of a plastic **water bottle**, try a **stainless steel** one. They weigh only slightly more than plastic or aluminium counterparts, but will last much, much longer. They're easy to keep **clean**, you'll ingest none of the potential by-products possible with plastic and lined aluminium bottles and when it is time to throw them out, they can be easily and **completely recycled**. I use the brand Triple Tree because they plant three trees for every bottle, look great and last for ages.



Our Reserves Manager, **Dan van den Toorn**, takes a look at some lifestyle options that can reduce your household waste.

SHOPPING LIST

BIN BAGS

WASHING MACHINE DETERGENT

DISH CLOTH AND SPONGES

FOOD BAGS AND WRAPS

SHAMPOO AND CONDITIONER

BODY WASH

COTTON BUDS

RAZOR BLADES

SHAVING CREAM

WATER BOTTLE

TOOTHBRUSH

PICNIC MUGS

LIGHT BULBS

PLATES

POO BAGS

PLANT POTS

GARDEN TWINE

Plastic **food bags** are generally not recyclable, though there are an increasing number on the market that can be recycled or are compostable. Please be aware that some 'biodegradable' plastics are damaging to the planet when they don't disintegrate completely, instead turning into microplastics which persist in the environment and enter the food chain. For dry goods, why not try **beeswax foodwraps** - a linen fabric soaked in beeswax - they're great for wrapping sandwiches, cheese, biscuits, etc., they can be wiped **clean** and are **reusable**. Our very own Rachel Murtagh makes these if you'd like to know more.



I USE TOUGH PAPER LINERS BOUGHT ON THE INTERNET

HOW ABOUT USING A LOOFA - DISH SAFE SCOURING AND TOTALLY ECO-FRIENDLY

SAFETY OR STRAIGHT RAZORS ARE YOUR ECO-FRIENDLY OPTION HERE, BUT GO EASY! I USE A STRAIGHT RAZOR AND NEARLY CUT MY HEAD OFF THE FIRST TIME I USED IT. I REALLY ENJOY THE RITUAL OF IT NOW AND ACTUALLY HAVEN'T CUT MYSELF IN AGES. ALSO THE SHAVING CREAM COMES IN A BAR, SO NO WASTE THERE!



If you haven't started already, make sure you transition to **LED lighting** as soon as you can. They might not be the perfect solution, but they can **save you 50% or more energy** on halogen and fluorescent options - money in your pocket and better for the environment! They also give off little heat and **last years longer** than their counterparts.

TRY BAMBOO PRODUCTS - THEY SCORE PRETTY HIGHLY ON THE ECO FRONT AND, WHILE THEY COST A BIT MORE, THEY LAST FOR AGES

INCREASINGLY THERE ARE MORE OPTIONS AVAILABLE AT YOUR LOCAL GARDEN CENTRE - BIPLASTICS, COYA POTS, HESSIAN BAGS, BUT THIS IS AN AREA THAT STILL NEEDS SOME DRIVE FROM US, THE CONSUMER. AS FOR GARDEN TWINE - SIMPLY MAKE SURE YOU GET THE NATURAL FIBRE OPTION



You will no doubt have noticed how quickly your recycling boxes fill up with plastic bottles! One of the biggest contributors to this

waste is from the cosmetics industry. It is possible to buy eco-brands that offer a variety of environmental benefits, but why not try **soap and shampoo bars** and do away with the bottle entirely. Most come in **cardboard packaging**, many are made from **natural products** and they **avoid waste** from decanting too much product per-squeeze of a bottled alternative. They are produced in many varieties sensitive to different hair and skin types too! Several members of staff, myself included, use shampoo bars and bodywashes.



One product that has been backed by the experiences of a few members of staff, is the **EcoEgg**. Available online and in a few department stores, the EcoEgg uses mineral pellets

to clean your clothes, **without the use of harsh chemicals**. While the case is plastic, it is BPA free and recyclable (class 5). You need to rinse your washing machine out a few times with vinegar before use to remove any chemical residue, but in our experience it gives a very good wash and we wouldn't go back. While it does not carry a scent, you can add essential oils. It might not be for everyone, but well worth a try.

Dog poo bags! The bugbear of staff and volunteers, having to clear full bags left on the reserves, never mind accidentally strimming one! But if you do bag your dog's waste, and you do dispose of it appropriately - how much thought do you give to the type of bag you use? There are many options out there and some are better than others. Definitely **don't use any plastic ones** - you might as well vacuum seal it and leave it for the grandchildren! Many alternatives might not be much better - be aware that some claiming to be biodegradable, will just disintegrate into millions of bits of micro-plastic. Keep your eye out for those that are made from **vegetable or non-petroleum based 'bio-plastics'**. These should be **fully compostable** and will completely disappear in a matter of weeks. You can even compost them yourself, so long as your heap reaches at least 60 °C to kill off the very harmful bacteria.



There is an environmental cost to everything we consume - this is unavoidable, but the point is to keep making small changes. Let yourself get used to one and then make another. Chances are, you'll also get better informed while you're doing it!

How you can help wildlife this winter

From log and leaf piles to open compost heaps and towers of terracotta pots by the side of the shed, **Kate Bradbury** reveals how we can provide safe habitats for overwintering wildlife in our gardens.

Bird box

Birds may use these to roost communally on very cold nights. Fill them with dry leaves or similar material to make them warmer.

Long and tufty grass

Caterpillars and other insects hunker down in the thatch. Some caterpillars may emerge on mild days to eat the grass, so try to leave it uncut until mid-spring.

Log pile

Insects hide beneath the logs, while amphibians and small mammals, such as these wood mice, shelter in gaps. Fill them with autumn leaves to make them more snug.

Compost heap

A large, open heap will attract insects including bumblebees and amphibians, such as this smooth newt. It may even lure mammals such as hedgehogs. Try to leave it undisturbed until April.

Pond

Frogs (particularly males) overwinter at the bottom of ponds so they can be the first to mate in spring. Float a ball on the surface to stop it freezing over.

Seedheads

Seedheads provide shelter for ladybirds and other insects in winter, and offer a natural source of food for birds, so leave them standing until spring.

ILLUSTRATION: HANNAH BAILEY, PHOTO: SARAH CUTTLE

With the notable exception of birds, most garden wildlife lies dormant over winter, with only a few species, such as hedgehogs, truly hibernating. The rest spend winter in various states of 'torpor' – not fully shutting down their bodies as true hibernating animals do. That's why, on sunny days, you may spot frogs swimming at the bottom of your pond, or bats flying on mild evenings. Even true hibernating animals have a break from all that sleeping – hedgehogs wake up and move nest sites at least once during the cold months.

But on the whole, much of our wildlife isn't seen from around November to March. Where does it go? Insects might crawl into seedheads or wedge themselves beneath bark for winter. A pile of leaf litter might shelter anything from caterpillars, beetles, centipedes and woodlice to larger species, such as amphibians and mammals. Others hide

deep down in the thatch of long or tufty grass, bury themselves in the soil, or shuffle into the still-warm grass clippings and food waste in the compost heap.

Wildlife is very vulnerable at this time. Disturbing mammals can cause them to waste energy that they can't easily replenish, while insects can be exposed to fungal infections if they get damp. Providing winter refuges (called hibernacula) will help wildlife overwinter – but not disturbing these habitats once you've created them is imperative to their survival.

Spare a thought for birds, too, which have to battle it out in winter, instead of hibernating. Growing berrying plants, feeding them and creating cosy roosts can help them in winter, too. 🐦



Gardens of all sizes are an essential part of a Nature Recovery Network. For more tips visit wildlifetrusts.org/gardening



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

Shed

Adult butterflies may sneak into your shed or outhouse to overwinter on the walls, where they resemble leaves. Make sure there's a gap so they can leave in spring.

Bird feeders

Birds need as many calories as they can find during the short winter days to give them the energy they need to survive each night. Provide energy-rich suet products, peanuts and sunflower hearts. You can even buy window-mounted feeders if you don't have a garden.

Garden borders

Lots of insects like to shelter among fallen plant stems, particularly hollow stems. Try not to cut back or tidy the border until spring – leave it to rot down naturally, instead.

Soil

A wide range of species overwinter in the soil, from slow worms to moth pupae and bumblebees. Try to resist digging the soil until mid-spring when they'll be awake.



MAKING HOMES FOR 2019's BARN OWL BABY BOOMERS

East Cleveland Heritage Officer, **Kate Bartram**, sums up the great work that has taken place to raise barn owl numbers in our region.

SEPTEMBER SAW THE END of the first year's monitoring of the East Cleveland Nest Box Network for barn owls. Working with landowners, volunteers and experienced, licenced, barn owl workers, the long term survival of barn owls in this area is being boosted by the simple conservation intervention of using specially designed and built boxes to create new nesting habitat

Over the course of this year, working with Colin Gibson and the late Geoff Myers, the Trust has been supported by over forty two different landowners to create a network of sixty four nesting sites for the barn owl, over an area of 125km². Forty-three new boxes have been erected on trees, poles, barns and other structures, using both custom made external nest boxes, and internal nest boxes adapted from tea chests (donated to the Trust following an appeal earlier this year). A further two natural nesting sites have been identified.



The results have been better than we could ever have hoped for! Twenty six of the boxes have been occupied by breeding barn owls. Another nine boxes were occupied by other birds, including tawny owls, jackdaws and stock doves. Of the barn owl nests, six failed for different reasons: desertion, infertile eggs, squirrel predation and bad weather conditions. Over one hundred and fifteen eggs were laid and sixty seven owlets ringed. Ringing will give a better understanding of owl movements within the study area.

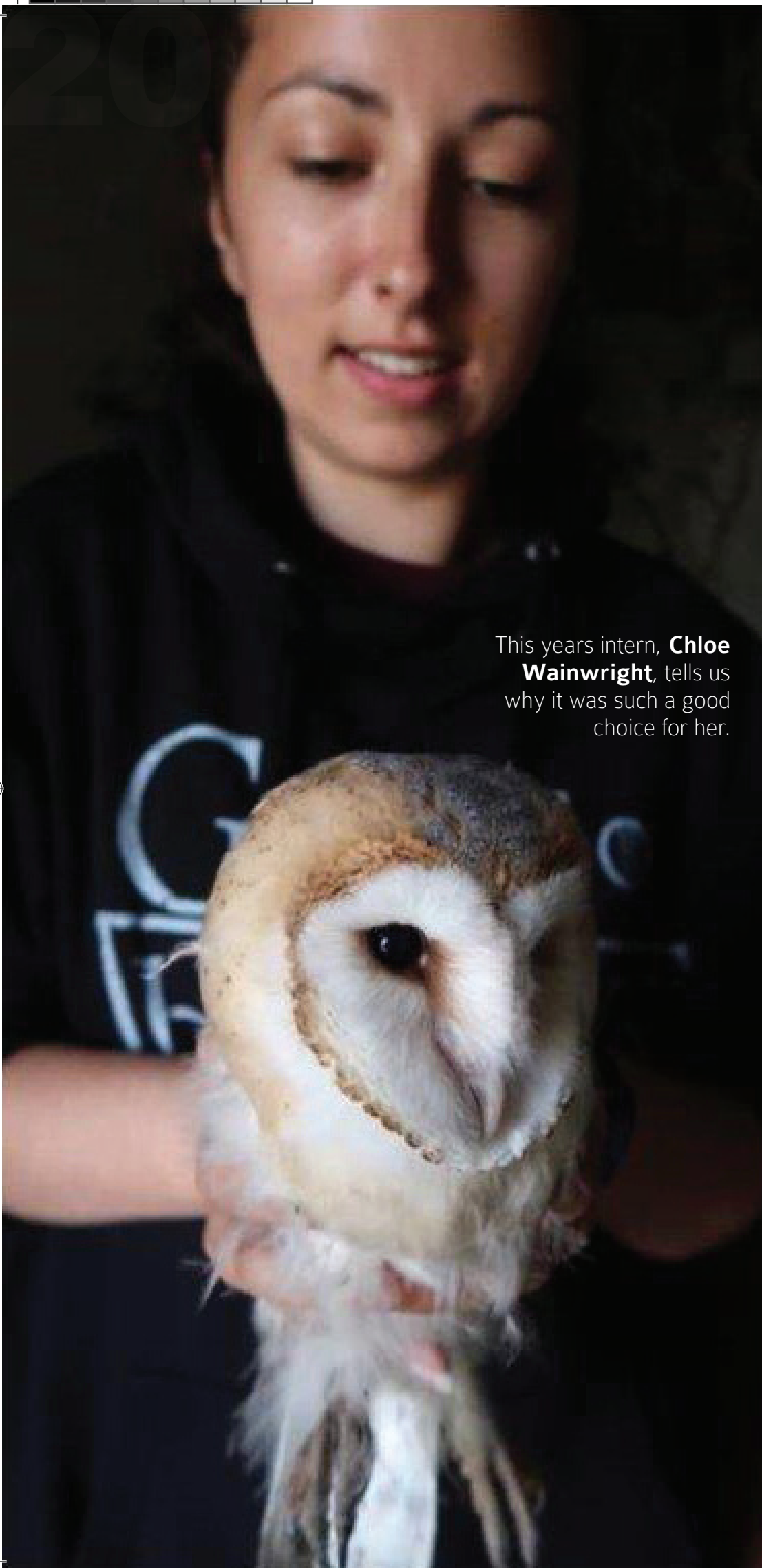


"I am thrilled with the results of this years monitoring", said Colin Gibson. "It just shows how readily barn owls will take to artifical nest boxes. Twenty six breeding pairs in our first year of monitoring has exceeded my expectations by a country mile".

In addition to monitoring the barn owl nest boxes, a team of dedicated volunteers and students (including our summer intern, Chloe Wainwright, whose story you can ready in the following pages) have been looking at the East Cleveland barn owl diet by analysing the skeletal remains found in over a thousand owl pellets (the regurgitated remains of an owls food that could not be digested - mostly bones and fur). Barn owls are evolved to hunt for field voles in long grass and, therefore, as expected, field voles make up the majority of the barn owl diet (61%). Shrews are the next most common element of their food intake (28%), while mice make up only six percent of the diet. The owls have also eaten a small number of birds, beetles, dragonflies, rats and a mole! Further work is underway to see whether there are variations in prey composition across the landscape and to explore what the owl pellets can indicate about the distribution of some of our under recorded species, such as the water shrew, house mouse and harvest mouse.

This first year of the project, funded by National Lottery players through the National Lottery Heritage Fund and Northumbrian Water's Branch Out Fund, and supported by East Cleveland's landowners, has enabled us to get baseline data on barn owls at a landscape-scale for the fist time. Monitoring of the nest boxes over the next few years will give us new insights into the population dynamics of this popular farmland bird. We are really pleased to announce that the Tees Valley Community Foundation is generously supporting the work of our barn owl volunteers for the next three years.





This years intern, **Chloe Wainwright**, tells us why it was such a good choice for her.

MY

THIS SUMMER, Environmental Science student, Chloe Wainwright, joined the Trust as an intern through the Open University Work Placement Programme (funded by Santander Universities). Here Chloe talks about her experience with the Programme.

'Knowing that my partner and I would be relocating several times in the next ten years, I didn't want to be held down in one particular place, so when I heard that The Open University offered remote courses in my subject of interest, I decided to jump on board and have loved it ever since.

The course made it clear that interning in a related organisation would be great for our professional development. We were made aware of various opportunities around the country and how we could apply. I was instantly drawn to the opportunity to work on a regional barn owl project with the Tees Valley Wildlife Trust and crossed my fingers that I'd be chosen – knowing how popular the position would be. The project sounded fascinating and I was eager to learn. Before this, I didn't have much experience in



SUMMER INTERNSHIP

the field and thought that this would be a great opportunity to find out more about what a job in conservation truly entails.

My time at the Trust was spent assisting Kate Bartram with her barn owl project. This has entailed dissecting owl pellets to determine regional eating habits, learning how to identify small mammal skeletal remains using their dentition, data collection and entry into a database to help create a visual presentation of the findings. I also had the chance to go out in the field and assist with the general maintenance of owl boxes with licensed owl worker, Colin Gibson. It was brilliant to see barn owls up close and I was even able to hold one myself - I feel very lucky!

Although I was aware of the Wildlife Trusts before I began my placement, during my time here, I was able to learn a lot more about the work that is done by Tees Valley Wildlife Trust in particular. I have taken the time to speak to as many people on the team as possible, learning about their position, their professional journey and what their day-to-day tasks look like. This has opened my eyes to the many career opportunities available within conservation, along with the need for volunteers with a range of skills and passions.

I am really positive about continuing as a volunteer with the Trust. I have already taken several bags of pellets home with me to continue processing in my free time and plan to visit the main office as often as possible to continue helping as much as I can.

I would definitely recommend a similar placement to any student, as I believe that gaining hands-on experience in the field is extremely valuable to your education and it also helps you to meet more like-minded people in the field.'

To find out more about how you can intern with Tees Valley Wildlife Trust, please get in touch with us at info@teeswildlife.org

It takes a good eye and dedication to sift through 100's of owl pellets, much less work out which bit goes with which mammal. Thanks for all your help Chloe!





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East Cleveland Heritage Officer, **Kate Bartram**, introduces her new project to build a picture of the importance of edge habitats in forming the arteries of our living landscape.

AERIAL VIEWS OF ANY ARABLE RURAL LANDSCAPE show a mosaic of marginal land surrounded by thin borders comprising hedgerows, walls, field margins and road verges. These edges are often the primary wildlife refuges and corridors at a local or landscape scale and sustain plants, invertebrates, small mammals and birds. The Trust's vision for East Cleveland is a landscape rich in wildlife, but to achieve this we need to ensure ecological connectivity right across the area, joining isolated blocks of specific habitat and supporting the movement of wildlife. Edge habitats form the core connecting network within this East Cleveland landscape.

But what constitutes ecologically rich edge habitats? And what management measures are required to create and maintain them?

Our new project, Wild @the Edges, supported with funding from National Lottery players through the National Lottery Heritage Fund and Northumbrian Water's Branch Out Fund, sets out to answer these questions and to create building blocks to achieving our long-term vision.

Edge habitats are crucial for insects and invertebrates, especially now they are undergoing a period of sharp and dramatic decline. One significant issue is the difficulty invertebrates face as they try to move and spread through the landscape. As insects are central to the functioning of our ecosystems and support a wide number of other animals, insect decline will have a devastating, knock-on, effect on our wildlife. If we are to have a biodiverse landscape, then improving the ecological quality of edge habitats will be crucial.





Peppered Moth by Amy Lewis

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In this new project, macro-moths will be used as an indicator of the ecological health of edge habitats. Moths are numerous and widespread with over 2,500 species in Britain, living in a wide range of habitats. They are also easy to study using harmless moth traps. Summer moth surveys, with the support of landowners, of different edge habitats across the East Cleveland landscape, linked to data on key edge habitat criteria, will show differences in the ecological effects of borders and border management on the number and range of species of moth. The surveying will also be used to produce an online photographic catalogue of the moths of East Cleveland.

Edges are also important habitats for small mammals, including the hedgehog. As you may be aware, rural hedgehogs are reported to be in serious decline. In East Cleveland, we have no information on how hedgehogs are using the rural landscape or whether we have separate rural and urban populations living around the various East Cleveland villages. Using GPS tracking

technology and village community surveys, we aim to get a better understanding of foraging and habitat use by hedgehogs and the importance of edge habitats for their movement across the landscape.

The project will also engage East Cleveland communities in learning more about the moths to be found on their doorsteps through 'Meet the Moth Events', which will be held in local green spaces, and sessions and activities with local scout groups. So keep a look out for an event happening near you!

The support of volunteers and landowners will be crucial to the success of the project. We hope to begin survey work in the Spring of 2020 with a series of training workshops in both hedgehog tracking and moth identification. At this stage we are particularly seeking the help of people with moth experience to support survey work during the summer months. If you would be interested in taking part in this unique regional moth project, please get in touch.



“Will you and your party commit to an Environment Act that creates connections for wildlife and tackles nature’s decline head on?”



The upcoming General Election is a crucial moment for wildlife. Demand for leadership and more action, to halt the unprecedented decline of nature, has never been greater.

We hope that the following policies are at the heart of your party’s manifesto for this election. It’s your choice!

- **An ambitious Environment Act, with legally binding targets for nature’s recovery.**
- **An Agricultural Bill that supports land managers and farmers to deliver:**
 - ✓ **NATURAL ABUNDANCE**
 - ✓ **RESILIENT ECOSYSTEMS**
 - ✓ **HEALTHY SOILS**
 - ✓ **CLEAN WATER**
 - ✓ **NATURAL CLIMATE CHANGE MITIGATION**
- **A new Marine Strategy with Highly Protected Marine Areas, to revive our seas.**

2/3 of people agree the environment and the climate emergency is the biggest issue facing humankind

54% of people believe the state of the environment will affect how they vote in the upcoming election

***Statistics from a recent YouGov poll**

We are utterly dependent on nature for our wellbeing and prosperity. By protecting and restoring our natural world we can ensure wildlife populations recover, help soak up carbon to tackle the climate emergency, and increase everyone’s access to nature to improve our mental and physical health.

Corn bunting - Chris Gomersall/2020VISION