

# New Nature

ONE YEAR ANNIVERSARY EDITION

## Hugh Warwick

Alex Pearce talks to the affectionately nicknamed 'Hedgehog Hugh', the writer and ecologist  
Page 28

Portuguese Man o' War  
Sarah Gaunt tells us of their dangerous beauty and the reason behind their recent arrival on our beaches  
Page 22

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Dr Euan Dunn MBE  
Alice Johnson talks to the RSPB's Principal Marine Policy Officer about his career  
Page 36

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A Greener Garden  
Green Fingered George gives us his tops tips in making a difference in your garden  
Page 10

**AFON: Who we are, what we do, and what we plan to do...**

Find out more on page 32

# Contents

Welcome: Find out how to get in touch 4

Reader's Photos: Your January submissions 5

What to Watch For: Elliot Dowding gives us the low down on the species to look out for this month 6

Underrated Species: Elliot Dowding presents the dunnock 8

New Nature Writing Competition: All the information you need to enter 44

Contributors: check out our brilliant contributors 45

Meet the Team: meet the volunteers behind New Nature 47

Contact us: send us your submissions and follow us! 49



19



Wildlife

14



Conservation

22



Interview

28



42



Youth Nature

32



10



Careers

36



8



26



Miscellaneous

40

A Greener Garden: Green Fingered George gives us his tops tips in making a difference in your garden 10

A Wintery World: Alice Johnson takes us on a journey through the beauty of winter 12

Pearls in the Hedgerow: Elliot Dowding goes hunting for brown hairstreak eggs 14

New to Birding: Chloe Brooks shares her experiences 16

The Problem with Animal Selfies: Ciara Stafford tells us of the problems behind this seemingly innocent act 19

Species Focus: Sarah Gaunt presents the Portuguese Man o' War 22

A Plastic Ocean: Ele Johnstone examines the problem with plastics and what can be done 26

Hugh Warwick: Alex Pearce talks to the affectionately nicknamed 'Hedgehog Hugh', the writer and ecologist 28

AFON: AFON's new associate director, Isla Hodgson, explains the ethos of the organisation, it's future, and what you can gain by being a member 32

Dr Euan Dunn MBE: Alice Johnson talks to the RSPB's Principal Marine Policy Officer about his career and what advice he has for young naturalists 36

The Importance of Bird Clubs: Jack Bucknall explains their relevance to young people and wildlife 40

Warm, Wet and Wild: Sophie Brooks on the winners and losers of winter 42

Images: Sloths, Ciara Stafford; Butterfly, Charles J Sharp; Portuguese Man o' War, Irene Mendez Cruz

Images: Green Fingered George; Plastic, Ele Johnstone; Beach, Emma Smith; Puffin, Harriet Gardiner; Bird, Jack Bucknall

WELCOME TO

# New Nature

The Glory of a New Year

Welcome to our one year anniversary edition of New Nature!

The United Kingdom is full of incredible wildlife to discover, and over the past year contributors to New Nature magazine have shared with us their adventures and conservation concerns. It has been a huge privilege for the team, as well as inspiring, to read such wonderful contributions by young wildlife lovers.

We have included some truly memorable pieces so far and this anniversary edition is no different. Despite the cold weather, giving many people a reluctance to go outside, this issue will be the boost you need to don your wellies and explore, with Elliot Dowding telling us what to watch for this month (p6), Chloe Brookes encouraging you to get out there even if you are new to birding (p16) and I ponder upon what makes winter special (p12).

We have featured interviews with various inspirational figures in past magazines and cannot thank them enough for their support. We continue in this issue with valuable advice for our readers, as Alex Pearce talks to Hugh Warwick, the author and ecologist, about his admiration for hedgehogs. I talk to Dr Euan Dunn, the RSPB's Principal Marine Policy Officer, about his fascinating career and advice he has for others. Green Fingered George, RHS Young Ambassador, also shares with us his tips for gardening for wildlife (p10).

We are excited to announce that we are launching our first writing competition (p44) based on the topic 'The embodiment of spring', with judge Robert Macfarlane! In this issue, we also learn more about the youth nature group A Focus on Nature (p32), discover conservation concerns about wildlife selfies from Ciara Stafford (p19) and plastics in the ocean from Ele Johnstone (p26). As well as this we find out about the fascinating Portuguese man o' war from Sarah Gaunt (p22) and the importance of bird clubs from Jack Bucknall (p40).

We would like to thank everyone for their continued support, with a special thank you to our contributors, and hope that everyone enjoys reading the 13<sup>th</sup> edition of *New Nature*.

Alice Johnson  
Features Editor

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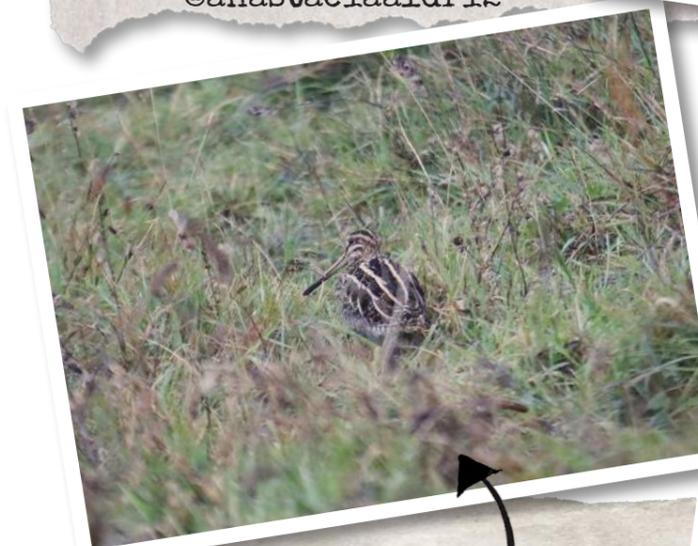
| READERS PHOTOGRAPHS |



This colourful sunset is from @\_lilliebutterfly\_



What an incredibly lucky shot of a Sparrowhawk by Anastacia Aldrich @anastaciaaldri2



What a gorgeous shot of a snipe from Michael Heron and this amazing frosty close up by Alex @appletonwildlife

## Readers' Photographs



This is an wonderful shot of a Snow bunting Stu Thompson @StStu2112



Appleton Wildlife Diary

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What to Watch for in

# JANUARY



Words by Elliot Dowding

Although the winter solstice falls within December, January is the colder month on average and is more likely to herald heavy frosts and snow. So, this is the month to go searching for wintering geese as harsh conditions push them further south and west. Check your local marshes, lakes, estuaries and coastal farmland for flocks of white-fronted geese (both European and Greenland subspecies) and keep an eye out for the much scarcer tundra and taiga bean geese amongst flocks of commoner geese such as greylags.

If there is a day of sunshine or mild weather this month then don't be too surprised if you see a butterfly flying around, especially in urban areas. Red admirals, peacocks, small tortoiseshells, commas and brimstones are all species that hibernate through the winter as adults and are often woken from their slumber by unseasonal spells of warmth. This is more likely in towns and cities where temperatures are generally higher than in the countryside. In our warming climate you may even get to see a butterfly fluttering about on New Year's Day.

This is also the month when our parks and woodlands are decorated with the hardy white flowers of the snowdrop. These beautiful blooms brave the cold to avoid shade from leaves and competition with other plants, providing a source of food for early emerging insects. However, a walk in the country this month may also surprise you with other flowering plants that are usually associated with spring or summer;

daisies, dandelions, red campion, dead-nettles, groundsel and herb Robert to name a few. These confused plants may be left-overs from the previous season or very early ones for the coming spring that have managed to survive, often due to mild weather.

If you fancy a challenge this January then why not head to East Anglia and search for the elusive Chinese water deer; our rarest species which became established in the wild just over a hundred years ago. These diminutive deer love marshes and reedbeds but their shy habits and the tall vegetation makes them very tricky to spot. If you do get a good look you will see that they have thick winter coats, large rounded ears, a high rump and a teddy-bear face – the males also sport downward-pointing tusks. The best spots to find water deer are Woburn Park in Bedfordshire, the Cambridgeshire fens near Woodwalton and the Norfolk Broads.

One of the most uplifting conservation success stories of recent years has been the revival of the British breeding population of bitterns – up to 167 booming males last year. However, winter is still the best time of year to see this stunning member of the heron family as our resident birds are joined by wintering continental ones, with around 600 bitterns spread across the country each winter. Most are to be found in the south of Britain, and in prolonged spells of freezing weather they can turn up on almost any lake or patch of reedbed and the ice may force them into the open if you're lucky.

# DUNNOCK

*Prunella modularis*

Words by Elliot Dowding

It is not easy to defend the dunnock from a purely visual standpoint; it has a truly unexceptional outward appearance which is reflected in both the genus name, *Prunella*, which means 'small and brown' and the common name, dunnock, which means 'small dun bird'. Dunnocks are often misidentified as sparrows, and with their streaky brown plumage that is understandable, even though their lead-grey heads, orange-pink legs and thin, pointed bills mark them out as different. Even amongst their own family, the accentors, the humble hedge sparrow easily has the duller plumage, even their habitat of lowland scrub is quite pedestrian compared to the mountain crags that other accentors live on.

of course, it's not all about looks and when it comes to behaviour and breeding the dunnock is by far one of the most interesting British birds you could study. For starters, male dunnocks are one of the handful of British residents that sing year-round. So, their cheery little tinkling melody (the specific name *modularis* is Latin for 'melody') can brighten up both warm spring days and drab winter ones in gardens across the country.

When the breeding season arrives, dunnocks are surprisingly unorthodox in their relationships, exhibiting multiple mating systems depending on the ratios of males to females and territories available. Most commonly, dunnocks are polyandrous – whereby a single female will mate with several

But

males, so that her young have a diverse genetic make-up. Usually, this is when two or even three males share the same territory, and thereby the female, and they will all help raise the brood as they all have a stake in it.

If circumstances are different however, dunnocks will also exhibit polygyny – when a male monopolises several females, or monogamy in some cases, or even polygynandry where both males and females have multiple partners.

All these sexual shenanigans have resulted in an interesting courtship

ritual, during which the male will raise his wings above his body to get the female's attention, she will then raise her tail and quiver her wings to show that she is willing to mate – after which there is a bit of a chase to see how serious the male is. Eventually, if the female hasn't snuck off to mate with another male, the male will repeatedly peck her cloaca to try and get her to eject any sperm from previous mates. All being well, he will then mate with her very quickly (one tenth of a second to be precise) and she will go on to lay one or two broods of bright turquoise eggs.

The dunnock is also interesting for being one of the favourite hosts of the cuckoo. Uniquely though, female cuckoos that lay in dunnock nests do not have eggs that mimic the blue dunnock eggs – they are speckled instead. This is because dunnocks do not reject eggs that look different from their own, unlike reed warblers that throw out cuckoo eggs as soon as they spot them. Why dunnocks should not have this simple defence against cuckoos is unknown.

So, dunnocks may be small and brown and streaky, they may shuffle about under bushes in gardens and parks, but that's all just a front to disguise their remarkableness. Let's not shrug off dunnocks, let's not say they're dull, let's instead marvel at the secret lives going on right under our noses.

Underrated  
Species

# A Greener Garden

Words by Green Fingered George

I'm often asked how I became interested in gardening and I always say this, gardening gets me outside and brings me closer to nature; so that's how it started – I'm absolutely obsessed, I'm a nature nerd, a gardening geek!

I'm really passionate about the natural world, so it was great to represent the RHS Campaign for School Gardening at a science lecture, called 'Gardening in a Changing Climate'. Presented by Professor David Wolfe, the lecture started with some facts about CO2 and how since Earth began, levels have steadily gone up and down. But in the past 100 years, around the start of the industrial revolution, levels have

gone up rapidly. Coincidentally, in the news that week it was announced that CO2 had started to rise again, after being steady for the last few years. The living world is affected by this – sea levels are rising, there are more extreme weather events, the earth is warming up, glaciers are melting and some wildlife species are losing their habitat. Professor Wolfe said that, "climate change will forever alter the fabric of our gardens, farms and natural landscapes with implications for our ecosystems".

My personal gardening example of this was in spring 2017, it was quite nice for a few weeks, and then we had really cold, strong winds, which burnt the leaves on the *Acer*, *Mahonia* and *Buddleia*. They all recovered in the end, but the problem for fruit trees for example, we have four, if bad weather destroys the early blossom, there will be no harvest. Certain species react uniquely to climate change, too. Some plants are pollinated by certain insects, at specific flowering times, so a change in weather makes the ecosystem go out of sync.

However, we can all take action in the garden; small steps can make a huge difference:

-  Plant trees and other perennials (native and non-native, although avoid invasive species) in the garden as they lock up carbon from the atmosphere and attract a wide range of insects and are a haven for wildlife in general.
-  Grow, eat and buy local, seasonal foods – the more food you can grow yourself, the less miles it has to travel, which in turn reduces your carbon footprint. Whilst we currently grow onions, courgettes, leeks, sweetcorn, peas, shallots and beetroot in three raised beds, we have just built a greenhouse and hope to grow some fruit and veg that we haven't had much success with in the past, such as tomatoes.
-  Capture and store rainwater water in containers. We have nearly finished installing a new water butt at home that collects rainwater from the gutters.
-  Compost green and brown waste – compost provides nutrients for the garden and reduces landfill and production of methane. We have just built a compost bin in a new area of the garden, as the last one fell apart! Compost areas are a haven for different insects; they do some wonderful things to your compost and provide food for birds and bats.
-  Plant lots of pollinator friendly flowers – we have Michaelmas daisy and *Sedum* flowers in our garden, they provide nectar and pollen from late summer into autumn, when many other flowers aren't around. Ivy is brilliant as it flowers in the autumn too, whilst also providing shelter for birds and insects.
-  Follow the simple messages of reducing and reusing in your garden – we are really resourceful with building materials and reuse all our garden stone and brick.
-  Recycling – garden waste, plastic, glass and metals – we have used old wellies to grow strawberries, we start peas off in toilet roll holders and grow herbs in a large colander.
-  Reduce the use of fertilisers and never use pesticides, herbicides or peat compost, as peat bogs store considerable amounts of carbon and support wildlife habitats. We practice organic gardening, which allows insects to thrive, it's one of the most beneficial ways to encourage insects and natural predators into your garden.
-  I raise awareness on social media, share information at school and write blogs. My voluntary work with my local community group, Operation Farm, really helps, too!

I really enjoyed learning more about climate change at the lecture; I represent the generation who climate change will most affect and I see it as my job to spread the word.

Taking note of the natural surroundings around you, for me is a part of everyday life. It is impossible to comprehend how others do not value its importance or how survival is conceivable if excluded from the spellbinding world of glory and evolution that is nature.

The windswept winter days are frowned upon with an unappreciative notion of loathing and dislike by many. The sun is gone. The days are dark. The weather is cold. Yet when the morning comes and my eyes awake, I peer into the gloom of the house. Some would say it feels lonely and desolate without the exuberant spring chorus heralding the morning; the absence of the seasonal orchestra of birds leaving a lonely gap. But if you wait with the patience of a nocturnal creature who longs for darkness, through the confines of the house you can hear the robin take centre stage – let his thin wistful solo infiltrate the physical barriers of manmade structures and enter your mind. He or she, as both sexes of this bird will take their moment in the spotlight, stands statuesque on a twiggy throne or urban streetlight, a pretence of daylight that is protruded into the night time world, and gives all the voice this species possesses to the coming day. The winter morning concert is not as extraordinary as the spring prom but it gives you a chance to commit this gentle song to memory. Come spring you will hear this winter friend amongst the blue tit soprano, blackbird base and thrush duet, appreciating it all the more, remembering the joy it brings you in the quietest months.

The mornings are my favourite time, as to be awake to witness this transitioning period, a time when night lingers and day has not yet broken free, is a true privilege. In the man-made, built-up world, a fox's characteristic tail vanishes down a driveway and although you dash to catch a glimpse of this highly adaptable mammal, it turns to look at you quickly then performs a vanishing act once more. Too swift for you to catch its eye, but more than enough time for it to know of your presence. Inside the house, before you have switched the artificial lights into life, the darkness makes it seem as if you are eternally stuck in night time moments, but don't be fooled. Enter the outside world before the sun has risen and announced the day's arrival – these moments are there for you to discover. Without the full light your vision has an unfocused property to it, as if your eyes are the windscreen of a car complete with raindrops that the mechanical wipers have not yet taken away. The gloom does not matter for the glorious whiteness of a barn owl floating in the fields is all the light you need. Its figure is not quite as it would be in daylight, but somewhat like the presumed light at the end of the tunnel you cannot reach, as your eyes will not fully focus on its glory in this changing time. Watching this heaven-like angel on earth is a beautiful experience, and as the minutes continue to go by it floats across the fields that it surveys for mammalian prey, you can take note of its golden upper plumage as the night is shunned by the arising sun – yet all the time there is silence as its wings make no sound.

The colder months of the year are a wonderful time full of wildlife to discover. I found myself standing by a field one fine morning, waiting at dawn. The day was already claiming victory over the night in this reoccurring battle, but still I waited. Then I could hear them, a distant muffling, yet the sounds that drifted across the sky towards my ear instilled in me an excitement for the day that could not be found in the manmade world. Soon they came but were at first just specks in the expanse, dots on the horizon, like a fountain pen that had splattered drops of ink on the paper. From a distance, a minor view but from close up unmanageable to ignore. They came in groups on steady wingbeats, their 'wink-wink' impossible to put aside, filling the mind and soul – sounds that can only be associated with the colder months of the year. What were once only specks were soon powerful entrancing birds. The pink-footed geese flew over my head and onwards, the moon watched them go as the sun took note of their arrival. The wildlife takes advantage of these moments when the night has lost its hold and the day has not quite yet begun. A hare dashed across the field in front of me with the apparent speed in this habitat of a cheetah on the African savanna. The breath-taking figure of a red kite in the early morning meant its orange-brown-red colouring was illuminated in the coming sun, this creature too was perhaps injected with the thrill of a new day as it made a fruitless chase at a pink-footed goose as it flew by, an irritation to its awakening. The distance saw a line of deer trot across the vista, taking the role of gazelles in the African comparison. They became smaller in size as the horizon swallowed their

Image: Harriet Gardiner

figures, somewhat like a comedian walking down non-existent stairs, the fine antlers of the male being the last view I saw of them.

I do not always find myself in the country, like many I lead a predominately urban life – nonetheless I always appreciate the wildlife that finds a way in. When the day is fully established I am swallowed by the urban world. Traffic. Noise. Buildings. The chattering of sparrows often captures my attention, I do not see them but can hear their friendly presence, summing up the morning news – I wish I knew what they were saying. 'Chis-wik', a pied wagtail alights on the dreary buildings with its tuxedo like plumage, bobbing a happy dance when it lands, its splendid tail a key indicator of this species. I wait as a reversing monster lorry blocks my path, while tinkling notes like rays of sunshine drop delicately from heaven and touch my ears – a charm of goldfinches are near. I have also seen long-tailed tits in their winter gang frequent a lonely tree just once, they arrived like acrobats in a circus, so quickly and unexpected, taking the attention, as they twirled about on the branches before one after the other taking their leave.

Despite the loathing many have of the autumn and winter months, it holds countless wildlife spectacles that will fill your heart with joy, from crowded geese extravaganzas to old redbreast friends. To be able to see and listen to wildlife is the greatest gift on earth. Nature is always there, I could never imagine a world without it, which is why the one we call home is so special.

# A Wintery World

Words by Alice Johnson

## Hunting for brown hairstreak eggs

Words by Elliot Dowding

In the freezing, damp, grey depths of midwinter the very idea of a butterfly can seem preposterous – so far away are we from the sight of an adult butterfly skipping through the sunlight. Yet, just as it is possible to see the developing buds of next spring's growth on the twig of a tree in autumn, it is also possible to find next summer's butterfly broods in the middle of January.

If you live in the south of Britain then why not take a walk in the countryside one day? Maybe find a hedgerow with prickly bushes of blackthorn growing in it, and perhaps if you take a very close look at the young outer twigs of the blackthorn you might just spot the white speck of a winter pearl. If you do then you have found treasure, not of the kind that is gold and shiny, but of the kind that actually means something in the real world. These tiny dots of white, secreted between the spines of a blackthorn twig, are the eggs of the brown hairstreak butterfly, which later this summer will become beautiful flying adults.

The largest of its family, the brown hairstreak is an attractive butterfly with wings of brown and orange, it is also one of the latest butterflies to emerge in Britain – only appearing in mid-August – and is on the wing until the beginning of October. The males and females congregate around a 'master tree', usually an ash, where they will pair up and mate before the plump females disperse to lay their eggs on the branches of nearby blackthorn bushes. These eggs are little more than a few millimetres across and when seen through a hand-lens they have a complex outer shell of ridges and spikes so that they look quite a lot like miniature sea-urchins.

It may sound like these eggs are very difficult to find, but once you've got your eye in and know what

you're looking for and where, it is surprisingly easy to spot these dots of white against the dark bark of blackthorn branches, and it is quite rewarding to hunt for them. Brown hairstreaks have a patchy distribution in Britain; being confined largely to the south, with hot-spots in the west country and the south-east and they are also limited by geology as their foodplant, blackthorn, doesn't grow well on free-draining or acidic soils such as sandstone or chalk. The females prefer to lay their eggs on young twigs or saplings of only a few years growth, especially on south or east-facing sides of a bush or hedge where the eggs will get more sunlight and in spots sheltered from the wind.

Unfortunately, this habit of brown hairstreaks of laying their eggs on the outer twigs of blackthorn, or on saplings, has made populations vulnerable to winter hedge-flaying which rips the outer branches off, along with any butterfly eggs they hold. The continuing loss of many hedgerows and woodlands across the UK as field sizes increase and developments are

built is also likely to damage colonies and restrict dispersal. There is some hope however, as populations of this butterfly have increased and ranges have expanded in recent years.

So, if you fancy an egg hunt and a bit of a challenge this winter, and also want to contribute to conservation at the same time, then grab a hand-lens and get scouring your local blackthorn patches and see how many tiny pearls you can find. Don't forget to submit your findings to iRecord so that county recorders can use this valuable data.

Also check out the National Brown Hairstreak Blog at [www.betulae.blogspot.co.uk](http://www.betulae.blogspot.co.uk)



Images: Brown Hairstreak, Charles J Sharp; Eggs, Elliot Dowding

# New to Birding



Words and Images by Chloe Brookes

I started keeping track of the birds I saw and became addicted. I first became interested in bird watching as a hobby during an internship with The Nature's Valley Trust in South Africa. A lot of the other interns I was working with kept bird lists and would take their bird guides and binoculars everywhere with them.

When people ask me why I go birding, which they often do, I usually say it's like collecting Pokémon. I get a sense of satisfaction when I can add a new bird to my list and even if I just see the same birds each time I go, I know it's reinforcing my identification skills.

In my first year of bird-listing I identified 112 species. Which, in comparison to many, isn't that impressive, but it was my first list and I had set myself a target of over a hundred so I was satisfied. For 2018 I have set myself a target of 120. I have also started counting the number of birds I see each time I go birding to see what the highest number of birds I can see in one day is.

Birding isn't just for fun; you can also take part in citizen science. If you take photographs of the birds you identify you can enter them into wildlife recording websites, such as iRecord. This data could be important for research studies.

## Things I learnt from my first yearly list include:

- ↙↘ Not to be too disappointed if you go to a specific site to see a specific species and you don't see it. Not only will this result in you being disappointed a lot of the time, but they tend to crop up when least expected anyway.
- ↙↘ Know your bird calls; many birds are easier heard than seen, especially when you're looking the wrong way, if you can identify a call it may help you know where to look.
- ↙↘ Go at your own pace and don't be intimidated by others, everyone has to start somewhere.
- ↙↘ Look up your local bird talks, walks and groups. What you can learn from other birders in the field is invaluable.
- ↙↘ Use social media. Sites like Facebook are full of nature watching groups, where photographs and questions are posted regularly that can give you inspiration and knowledge of where to go and just help with general identification skills.

## Highlights of my birding year include:

- ↙↘ Finding reserves local to me that I never even knew existed.
- ↙↘ Happening upon a ringed plover nest and then later seeing a chick fledge from that nest.
- ↙↘ Meeting like-minded people and watching inspirational talks.
- ↙↘ Visiting The Farne Islands and being overwhelmed by the amount of birds and bird watchers.
- ↙↘ Witnessing a starling murmuration.
- ↙↘ Not seeing a kingfisher or a water rail after a year of searching, only to see both twice in the space of one month.
- ↙↘ Seeing four juvenile ospreys leave the nest.
- ↙↘ Learning new things about species I had never even heard of.

## How to get started

All you need is a pair of binoculars and a bird identification guide. There are lots to choose from, ranging in budget and performance. I went to a second-hand optics shop, traded in my camera and got a pair of Opticron Countrymans. I would recommend searching the internet for reviews then trying some out for yourself in a shop before committing to a pair.

I've used both the Collins Bird Guide and the RSPB Handbook of British Birds. I personally think people have a preference for guides only because they are laid out in a way they are used to. I wouldn't recommend either over the other but I would recommend a pocket-sized guide for longer birding excursions, as they can be quite heavy.

People keep bird lists in different ways; some write the species name in notebooks or keep lists on their

phones, whilst others have tick sheets. I write the date and location in my bird guide, on the relevant page.

Some people only count birds they have seen, others count bird calls, some only count birds when they can identify the bird without aid from a guide or help from others. You can do it however you want, unless you're entering an official competition, in which case they will have certain rules.

Look up your local bird watching group, they might have regular visits to places you have never been and they will most likely be full of people you can learn from and share experiences with. The New Year is the perfect time to start your list. Birding is becoming such an important and enjoyable part of my life, I only wish I had started sooner.



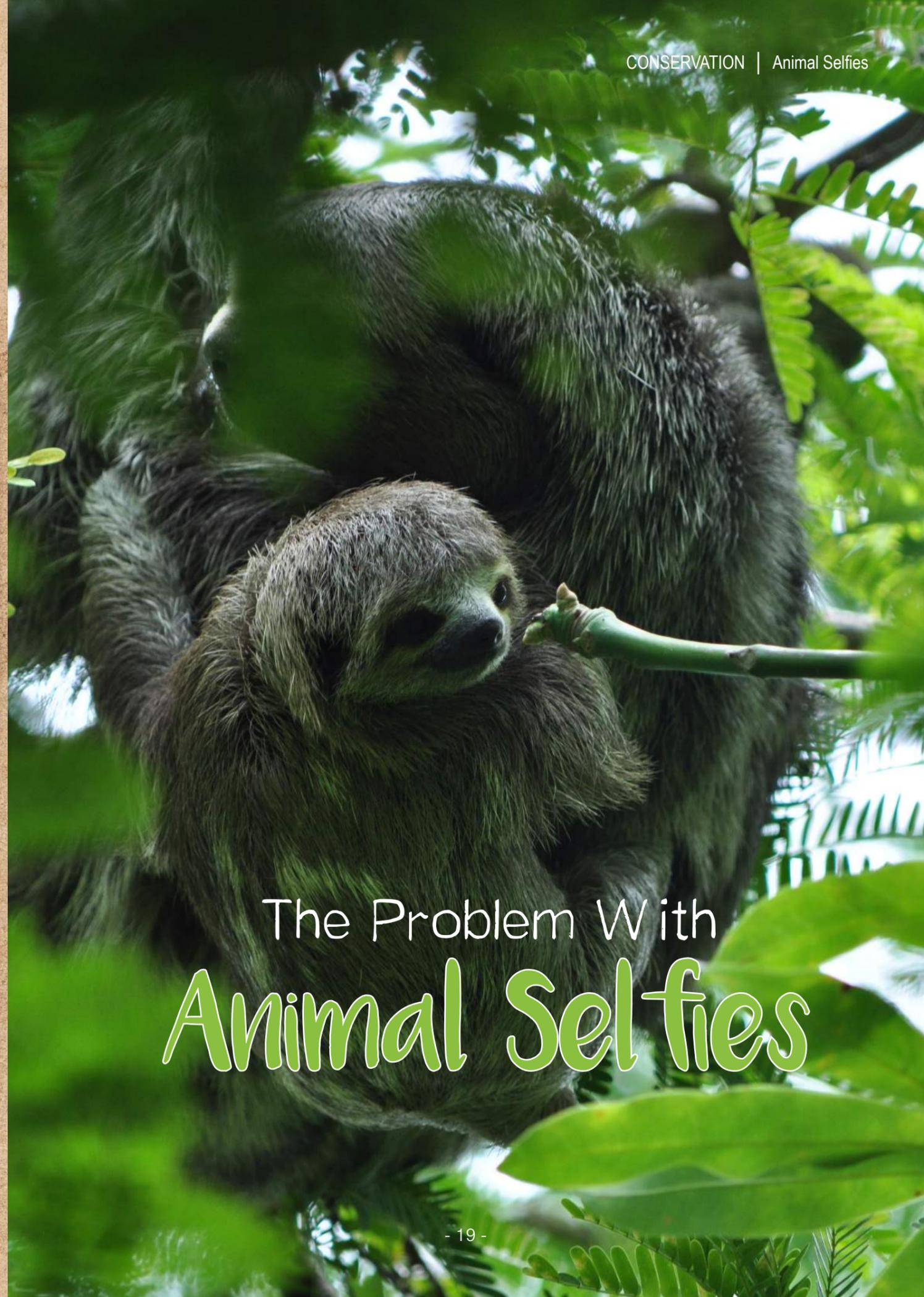
Starlings at Staveley Nature Reserve



Tern in flight on the Farne Islands



Heron at Edinburgh Botanical Gardens



# The Problem With Animal Selfies

## Ciara Stafford tells us of the problems behind this seemingly innocent act

Last summer, while at a conference in Cartagena, Colombia, I discovered a small park by the conference centre. Its smattering of trees was visited by parrots and grackles and even caracaras in the early morning, but most exciting for me, it was also home to a small group of sloths that lived among its tamarind trees. I took to spending my breaks there, watching them go about their lives in slow motion and gasping in delight when I discovered that one of them had a tiny baby clinging to her back. That was until one day, when something happened that made me wish that no-one knew the sloths were there at all. One of them was on the ground, which wasn't unusual as the trees were thin and they often couldn't use the canopy to travel around. Someone headed towards it – presumably, I thought, to make sure it got to the next tree safely. Instead they put their hands under the sloth's armpits, picked it up,

and started to take selfies with it. A crowd materialised when people realised what was going on, and I watched, horrified, as the sloth was reduced to a photo prop. Passed from tourist to tourist to tourist, with little thought or care for the stress being caused to it, it made it into at least 20 photographs until someone intervened and asked for it to be returned to the trees. I'd just witnessed the popularity of the wildlife selfie – a phenomenon that has not only been associated with worryingly low levels of animal welfare, but is starting to become a major threat to a range of species in the wild.

Having your picture taken with a wild animal isn't a new concept, but in the age of social media, the practice has exploded. Any casual Instagram search for #slothselfie and the like will come up with thousands of hits, which is not surprising as 2014 to 2017 saw a 292% increase in the number

of wildlife selfies posted on the platform. The most viral ones reach a mind-boggling number of people. Rihanna's now infamous selfie with a slow loris, for example, was liked over 239,000 times; whereas James Rodriguez's with an orang-utan gathered 639,786 likes and could theoretically have reached 33.8m followers. Both remain on Instagram, despite the high likelihood that they feature illegally trafficked animals.

Not all wildlife selfies are inherently bad – those with no contact and taken from a respectful distance aren't particularly problematic, and, in my opinion, are an important part of celebrating the world's awesome species and wild places. The problem is with the other iterations of the wildlife selfie – those where an animal has been manhandled or approached in a way that causes it distress, or where the animal has been plucked out of

the wild entirely and is made to live a life as a photo prop. Whereas my sloth story probably fits into the former, they're sadly also a popular animal for the latter, alongside snakes, caimans, and primates such as slow lorises. Studies of animals in the photo prop industry are rife with instances of neglect and abuse – primates with their canines torn out under zero anaesthesia, mothers separated from their young, barren cages, poor diets. They're a conservation issue too – although we initially assumed them to have a low impact on the numbers of these species in the wild, the sheer popularity of the photo prop industry has meant it now has the potential to make a real impact on populations. Slow lorises are the prime example, with trade for the illegal pet and photo prop markets posing a significant threat to all eight species. Individuals are now turning up as far away as holiday resorts in Turkey.

So, what do we do? A lot of the popularity of 'bad' wildlife selfies is driven by ignorance, though, as with all irresponsible wildlife photography, I suspect there must be a degree of selfishness and one-upmanship there, too. I also worry that, as a conservationist who

sometimes gets the opportunity to handle species and has photos of me holding them, I'm contributing to an environment that says that handling wild animals is automatically ok.

The thing is, the fact that these things are shared through social media puts each and every one of us in an unusual position of power. We can police our own behaviour, and we can call out people who add to the problem. World Animal Protection has just released a short, simple guide to making sure your animal selfie doesn't contribute to cruel practices and has a positive impact on conservation. Maybe draw your friends' attention to it, who may not be aware of the issue.

And maybe we should all think twice about posting that picture of us holding an animal on the most public social media platforms, without explicitly explaining why.

There's always hope. This month, under sustained pressure from charities and petitions, Instagram launched a 'content advisory page', a message that will warn users searching for things like #slothselfie and #koalaselfie that the hashtag is associated with posts that encourage harmful behaviour to animals or the environment. We can all play a part in developing a culture that says that causing wild animals harm for the satisfaction of a few likes is unacceptable. But only if we spread the word.

Images: Ciara Stafford



# Portuguese Man o' War

Sarah Gaunt tells us of their dangerous beauty and the reason behind their recent arrival on our beaches



Images by Irene Mendez Cruz



Sarah Gaunt

As the air pressure drops and the autumnal wind begins to pick up, flotillas of neoprene-clad surfers head out into the swell, revelling in the sea's end-of-summer warmth. But this year, surfers aren't the only ones visiting the beaches of South West England. Swept across the Atlantic by the warm winds of Hurricane Ophelia and stranded by the tide, came a swarm of mysterious creatures. Lying like jewels against the golden sands of Bantham beach, the creatures were met with cries of "Look! Jellyfish!". However, the Portuguese Man o' War is anything but.

The bizarre-looking animals are instantly recognisable for their bright colouring - almost unnaturally vivid blues, pinks and purples - and for their distinctive shape. An air bladder floats above the surface of the water, catching the wind like a sail and propelling them across oceans in search of food. Below the waterline stretch hundreds of deadly tentacles, trailing up to 50 metres behind them.

While there is some family resemblance, the Portuguese Man o' War is not a jellyfish at all. It isn't even a single organism. Each individual is instead a colony of tiny organisms called polyps, all banding together to make one super-effective ocean predator known as a Siphonophore.

Each group of polyps, or 'zooids', that make up the Man o' War serves a different function. The uppermost polyp forms the sail-like pneumatophore that gives the creature its name. Filled with atmospheric gases, the air bladder

balloons out like a warship in full sail. When threatened with attack from above, the Man o' War can deflate its sail, bobbing below the surface until the danger has passed.

Underneath the water, the 'gastrozooids' are tasked with feeding, 'gonozooids' take care of the reproduction, and the Man o' War's famous defence mechanism is all down to a group called the 'dactylozooids'. Dactylozooids form venomous tentacles that trail through the water, continuously 'fishing' for prey. Beading the tentacles are explosive cells known as nematocysts. These are coiled, thread-like structures that, when triggered, fire toxin-filled barbs into prey and deliver the deadly sting.

Known as the 'floating terror', the Man o' War hunts by paralysing its prey, trapping it in its net of tentacles. With their victims ensnared, the defensive polyps contract, drawing the captured fish, shrimp or plankton towards its many mouths. Once close enough, the gastrozooids move in, secreting digestive enzymes to dissolve and devour their dinner.

Terrifying as they may sound, these silent hunters are far from invincible. Found mostly in warm, tropical waters, the Man o' War makes a tasty, if tingly, snack for loggerhead turtles. The skin covering the turtles' mouths, tongues and throats is too tough for the barbed nematocysts to puncture, protecting them from stings.

Another opportunistic predator is much smaller, though no less ingenious. The 'blue dragon' sea

slug, *Glaucus atlanticus*, feeds off the Man o' War's tentacles, digesting the smaller ones with ease. When it comes to the larger nematocysts, the sea slug cleverly steals them, storing the stinging cells in its pointed, finger-like tendrils to ward off predators of its own.

Once feeding and fighting have been taken care of, the task of the final group of zooids is, of course reproduction. Perhaps the least glamorous of the organisms making up the Man o' War, these zooids are little more than floating sacs containing ovaries or testes.

Ever the mysterious creatures, little is known for sure about the mechanics of Man o' War sex; but we do know they use both sexual and asexual reproduction. In the autumn, great clouds of the siphonophores gather together in their thousands. Scientists suggest that the massing creatures release a chemical signal that triggers the release of eggs and sperm into the ocean. Fertilised eggs grow into their own little gonozooid, from which the other specialist polyps slowly bud. The colony grows, each specialised polyp looking out for the next, until the next breeding cycle begins.

A combination of warm winds blowing in from the Atlantic and the Man o' War's prime breeding time means they have been frequent visitors to the South coast this autumn. While they may look harmless enough on the sand, the tentacles can remain venomous long after the creatures have died. If you come across any, take care to stay out of reach of the tentacles and report any sightings to the Marine Conservation Society.



# A Plastic Ocean

Words and Image by Ele Johnstone

What do you see when you picture the ocean? For me it is wild waves, clear, unspoilt waters and habitats bursting with life. The wonders of the ocean are often portrayed in the media, but do we ever really see the raw, unedited version of the natural world? I recently went to a screening of 'A Plastic Ocean' a documentary created by individuals with a goal to expose the devastation they witnessed as they travelled the world's oceans. The idea began when journalist, Craig Leeson, and his team set off in pursuit of the elusive pigmy blue whale, 30 miles off the southern coast of Sri Lanka. What they didn't expect to find was the whale surrounded by a mass of plastic debris. If this was the scene that awaited them in this supposedly pristine environment, what would the situation be like elsewhere?

The production of plastics has increased so rapidly that in the last decade, more plastic has been produced than in the entire century before. Around eight million

tonnes of waste enters the ocean each year, flowing from rivers and coastlines and being circulated by five major currents, or gyres. Plastic is designed to be strong and versatile, virtually indestructible, so how can over half of all plastics produced be considered disposable?

One of the early scenes of the film shows the agonising, dying breaths of a Bryde's whale. It's digestive system had shut down; blocked by six square metres of plastic sheeting. Countless more examples of animals entangled, distressed and fatally injured are shown throughout the film. Seabirds are particularly affected; a staggering 90% are estimated to have ingested plastic at some point in their lives. To watch these birds travel countless miles for food, only to return to feed their offspring indigestible plastic pieces was utterly heartbreaking. But these aren't isolated events. Such examples are only a fraction of the difficulties facing marine life in the continuous onslaught of plastic pollution.

Marine life is also under threat from an army of minute plastic fragments. Larger pieces of plastic are broken up into smaller microplastics by ultraviolet light, salt and water. Not only are these more readily ingested, but with their rough surfaces, microplastics act as vectors enabling harmful chemicals, leached into the water from industry and agriculture, to hitchhike into the ocean. These minute, toxic fragments accumulate in the tissues of organisms, building up to lethal concentrations at the top of the food chain. The ocean and coastlines are also filled with other microplastics, known as nurdles. These are tiny, spherical pre-production pellets, used in the manufacture of plastic products. Unfortunately, nurdles also look a lot like eggs and are readily consumed by marine animals.

The number of species discovered with plastic in their system is astounding. But this becomes less surprising when you consider that, in some regions, the volume of plastic exceeds the amount of plankton. As someone who cares deeply about the natural world, I found this fact extremely disturbing, knowing that we have altered another organism's environment so extensively that every mouthful of food they swallow could be lethal. The problem even extends a mile and a half below the sea's surface. Using a remotely operated vehicle, the documentary reveals a mass graveyard of plastic bottles, tyres and fishing

line on the seafloor. This led me to question whether there are any parts of the planet that plastic waste has not reached.

Since the release of the film, in 2016, a lot of things have already changed. Some companies now offer plastic-free alternatives or incentives to reduce and recycle waste. Critically, some single-use plastics have been banned or taxed, such as microbeads and plastic bags. More recently, people have even started to question the use of glitter. Changing the outcome is something we can all play a vital role in. Carrying on as we are will not be enough to save the ocean.

To really stop the problem, plastics should be prevented from reaching the ocean in the first place. For a start, by reducing the amount of single-use plastics you use can really make a difference. Think to yourself – is it really necessary to drink through a plastic straw? There are now so many plastic-free alternatives available. If we refuse single-use plastics, companies will be forced to change.

If you haven't seen 'A Plastic Ocean', then I urge you to see it, to gain an understanding of the issue, to let it make you think twice about your actions and to be inspired by the individuals who are striving to make a difference. It might be upsetting, but it's also the truth. As the ocean continues to choke up with plastic, so do the creatures that call it home.

# Hugh Warwick

Affectionately nicknamed 'Hedgehog Hugh', Hugh Warwick, a writer and ecologist, is known for his prickly passion. The author of four books, Hugh is also the spokesperson for the British Hedgehog Preservation Society as well as working as a public speaker and photographer.

*Hi Hugh. You are often strongly linked to the humble hedgehog, despite your career as an ecologist being much further reaching. What is it about hedgehogs that have endeared you to become so passionate about them?*

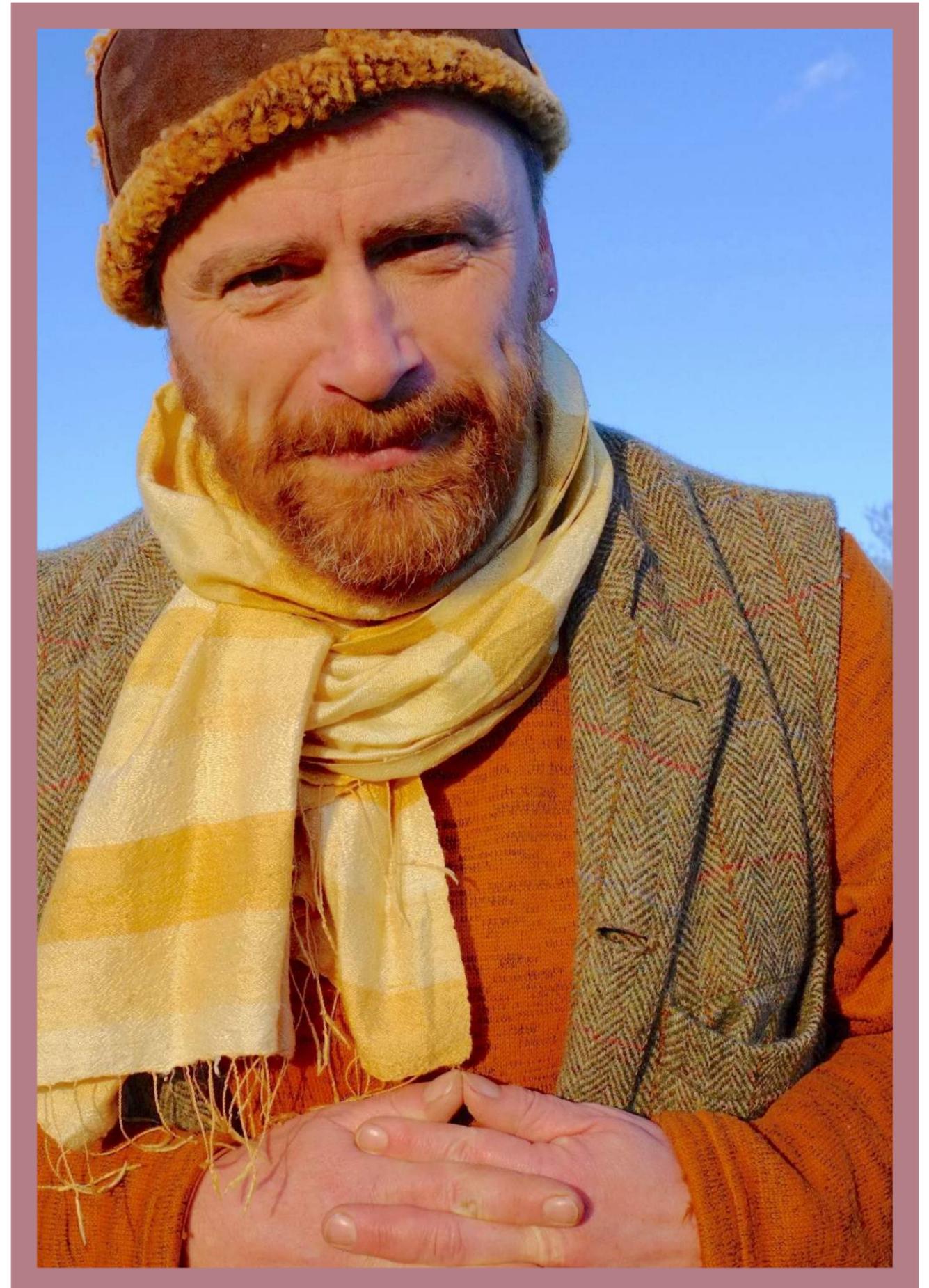
Less of the humble, thank you; this is the most important creature on the planet, winner of polls for favourite species (in Britain at least) and a fascinating subject to study! Initially my interest was sparked by an opportunity to focus on a real 'story' for my degree's 3rd year project – looking at the impact that hedgehogs were having on the breeding success of ground-nesting birds up on the Orkney island of North Ronaldsay. They had been introduced 12 years earlier by the postman in an attempt to control slugs in his garden! This introduced me to them, made me realise how little work was done on them and showed me an animal that did not run away or bite ... so relatively safe and calm to study. But over the years, (many, many years) I have grown to love them for something else; their capacity to act as a gateway in conversation into deeply important ecological and environmental issues.

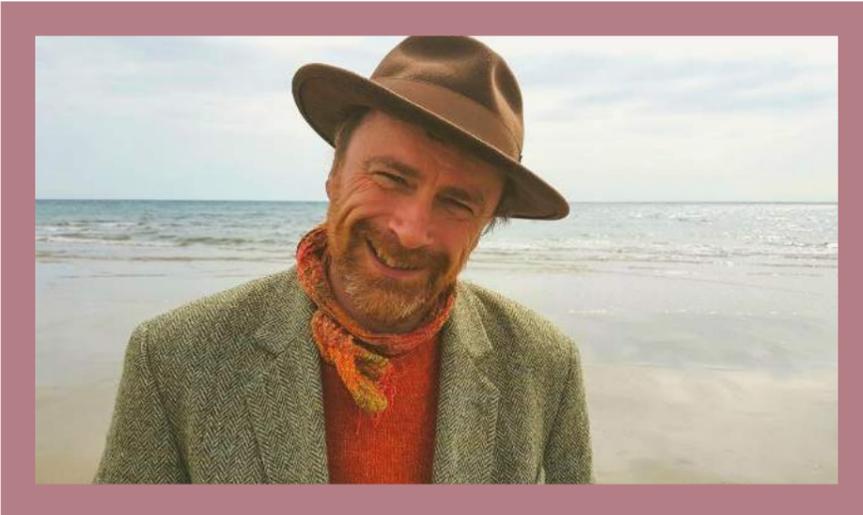
*We keep hearing that hedgehogs are seriously under threat; what vital steps do we need to take to try and ensure their future?*

Hedgehog population decline is serious and seems to be driven by rather different factors in urban and rural populations, but there are common features, mainly lack of food and fragmentation of the landscape. Jokingly I have suggested the only way to get hedgehogs back to a really healthy population is to dismantle industrial capitalism and replace it with something kinder to the natural world. However, I have not worked out how to do that yet, so for now I look at the steps we can take in the patches of land over which we have some control, such as gardens. And the first thing is connectivity – making sure hedgehogs can get in. A small hole in the fence or wall is all that is needed, just 13cm square. There is a whole range of wonderful advice to be found via the Hedgehog Street website: [www.hedgehogstreet.org](http://www.hedgehogstreet.org)

*In your latest book, 'Linescapes', you discuss the consequences of segregating our landscape, something that is only just beginning to be explored. How serious do you think this is, in comparison to the other major threats British wildlife faces?*

Habitat fragmentation is a massively underappreciated threat to the capacity of our landscape to support a vibrant ecosystem. There are, I believe, four lenses with which we can assess ecosystem degradation. Two have a vast amount more of attention than the others. We, quite rightly, become agitated at the thought of the loss of biodiversity, the loss of a species locally, regionally, nationally or globally, is a disaster. But we seem to worry less about the build up to that final moment – yet we need to, and that means a focussing of our thoughts on the loss of bioabundance. The 'great thinning', as the wonderful writer Michael McCarthy described it, is an unreported disaster. But it is the calling card of the Anthropocene, the human generated geological epoch. Recent research from protected areas in Germany, revealed that the biomass of





invertebrates had dropped by 75% in just 27 years, while showing no dramatic shift in concern over conservation, as nothing was nearing extinction. This is a clear indication of why we need to worry.

And in a similar way, we care about the loss of habitat – and of course we should. With over 97% of wildflower meadows destroyed since the end of the Second World War, for example, it is serious. But my concern lies with the fragmentation of the habitat that remains. The cutting of the landscape into smaller pieces has an impact that is less dramatic than the simple destruction of the habitat but no less devastating. For example, we now know that for a population of hedgehogs to be viable they need a patch of the best quality habitat – and suburbia can be a good approximation to that – of at least 90 hectares, that is nearly a square kilometre. And it needs to be in one piece, not chopped up.

Fragmentation is one of the chief causes of the collapse in bioabundance and must be tackled.

*We are constantly hearing about the dwindling connection between*

*people and nature; why do you think that separation is reportedly growing and what should be done about it?*

We do not live as close to nature – fewer people live in the countryside and there is less wildlife around for us to come into contact with wherever we are. Remember, this loss of abundance is at the heart of so much. Without contact there are no reasons to form a relationship and therefore no reason to fight to protect the natural world. In urban areas the very real fear of cars – which have driven children away from active play and onto a passive sofa – is combined with media-generated fears about the danger children face from strangers to keep us out of contact with nature.

Kids playing unsupervised in an urban park might not be having a Serengeti-like experience, but they are out there and nature becomes incorporated into their games. Keep them tethered to a sofa and this cannot happen.

*Why do you write?*

I have ideas I want to express. I never intended to write books, I

was writing articles for magazines like BBC Wildlife and New Scientist and appearing on the radio. But I am surrounded by authors here in Oxford and it just seemed a natural progression. And now I find I love it – the process – of bringing something deep and hopefully life changing into existence (that sounds a bit grand – but I have had many letters, emails and tweets from people who have been moved by my work to actually change what they do!)

*What is your writing process?*

Chaotic! Depends on what I am doing and at what stage it is at. Research can be just reading book after book. Or it can be going out to meet amazing people in wonderful places. For Linescapes I read so much – it was such a great opportunity to absorb knowledge from the real experts. I know from experience I have a natural rhythm to writing, but as that involves working 8-12, eating, snoozing, walking 12-3 and then working again 3-8 ... I never get to run with it, as the demands of family life insist otherwise!

*You used to be involved in a magazine about genetic engineering; why is it now you veer more to environmental subjects?*

The environmental impacts of genetic engineering were what fascinated me – I edited the magazine Splice and got to read about the latest research along with detailed critiques. The vast majority of GE crops grown around the world are not food, they are feed, feed for livestock. And this is already a disastrous and

unsustainable industry. The way that companies such as Monsanto tied farmers into a regime of buying their GE crops and their agrochemicals was also something that I found, and still find, disturbing. There was no reduction in agrochemical use – and in many areas an actual increase due to the problems the GE crops caused.

*Nature writing seems to be having a bit of a revival, and there are some incredible writers producing work at current, however not everyone is happy. How do you feel about the criticism that modern nature writing doesn't go deep enough and is simply 'urban whimsy'?*

I like to think I go deep – would certainly challenge and accusation of urban whimsy! In the same way that a beautiful TV documentary can give you the impression you

have 'done' nature, I do see that beautiful writing might grant you that satisfaction. I am always writing with a message – the magnificence of the natural world needs us to stop 'liking' it and start 'loving' it – 'We will not fight to save what we do not love' said the American writer Stephen Jay Gould. And it is very true.

*What advice would you give to young people interested in a career such as yours?*

That is where I am of no help – marry well, win the lottery .... If I was even just 10 years younger I would find it almost impossible to do what I do now. My living costs are low because we bought our house in 1998. I was not saddled with debt from my time as a student. The need for people to be creative is vital. And there needs

to be a support structure because without creativity our culture will stultify and die.

If I was to offer advice it would be to spend your formative years finding what it is that you are passionate about – become an expert in what you love. And then, only then, start to worry about how you communicate that passion. It could be though Instagram as easily as a book – be inventive in finding ways of reaching an audience and be relentless in pursuit of a message that will lure people back to a love of nature.

I do not just write – I earn money taking photographs, I do a lot of public speaking, I help research and conservation charities. Find what you love and then your work will be so much less painful!

*What can we expect from you in the future?*

I have a couple of book ideas brewing, but I have also to try and earn a living, and even after four books, it is for me still impossible to do that just from what I have published. Who knows what will happen, I have a radio programme I would love to present ... but for the time being, I will concentrate on getting the message of Linescapes and hedgehog love out to as wide an audience as possible.

Thanks Hugh! For more information about Hugh, his blog or one of his books, including his latest titles *Linescapes* check out his website: [www.hughwarwick.com](http://www.hughwarwick.com) or follow him on twitter: @hedgehoghugh. For more about hedgehogs, head to [www.britishhedgehogs.org.uk](http://www.britishhedgehogs.org.uk)



# AFON:

## Who we are, what we do, and what we plan to do

AFON's new associate director, Isla Hodgson, explains the ethos of the organisation, it's future, and what you can gain by being a member.

I'm so excited to be introducing you to AFON's little corner of New Nature. We are delighted to be working with such a brilliant and talented young team – and that is exactly why a partnership made sense. AFON is the youth nature network; an organisation aimed at connecting and supporting young people (aged 16-30) who are interested in nature conservation, and passionate about wildlife. Some of you may not be aware of us: a warm hello to you, and I hope you find something in AFON that benefits you. We are a UK wide organisation, offering a whole range of things to get involved in. We run events (such as the **'Future Wildlife, Future Farming'**) – you can read more about this, as told by one of our members, below – and offer plenty of opportunities to engage and showcase your talents on social media (see our **Member's Corner**). Whether you're a wildlife journalist, photographer, blogger or artist, there's an outlet for you. We also have projects and workshops, targeted at a variety of skills and interests. Not to mention our fantastic mentorship schemes, where you can sign up to work alongside an expert in the industry, receiving one-to-one tuition and advice. Lastly, one of our biggest and best ways

of getting involved is through our campaigns. Our first was 'Vision for Nature', for which we produced a report in 2016 detailing what young people wanted the future of conservation to be, and how they wanted it to be reached by 2020. We now are focussed on #NowforNature – use the hashtag and tell us what you're doing day-to-day to help nature.

Some, of course, will already know us, and possibly I am even talking to some of our members. A warm hello to you as well, and I wanted to take the opportunity to tell you how the organisation is changing and what you can look forward to as a member. Firstly, you may have noticed Vision for Nature has gone a little quiet. This is because we are working behind the scenes, pushing for it to get translated into policy and make the UK government aware of the wants, needs and concerns of our generation with regards to the future of nature. Secondly, this is quite a transitional period for AFON – and an exciting one. Our committee has changed a lot over the last year, and there are a lot of new, fresh ideas. We also asked our members in the summer how we could improve our organisation, and we

are making moves to respond to those requests. Our website is currently getting a revamp, we're looking to increase the network across the UK by introducing regional reps, and we are working on getting more events and projects that cover a greater range of interests, and making them more inclusive. There is a lot of exciting stuff to come, which I hope you're excited about as much as we are!

Myself and the committee are very passionate about what we do, and are always looking for ways to drive the youth conservation movement forwards. There are plenty of ways for you to get involved, too – so what's stopping you? Get in on the action, talk to us on social media, and be part of nature's future.



Isla Hodgson,  
Associate Director

 @Isla\_dawn

## What have we been up to?

### Future Wildlife, Future Farming

On Saturday 4<sup>th</sup> November, the Game and Wildlife Conservation Trust hosted a first in conservation agriculture. Young Farmers and AFON members, from all realms of farming and conservation interests, gathered under one roof to learn about and discuss issues surrounding the future of farming and wildlife in the UK. People from Exeter right up to the hills of Yorkshire gathered, and guided by the likes of Rob Yorke, the Game and Wildlife Conservation Trust, the National Federation for Young Farmers, and a

few other innovative people in the farming industry, came up with some fantastic solutions to issues in conservation agriculture.

Speakers included Jim Egan (Head of Development and Training at GWCT), Emily Norton from Norton's Dairy and Quentin Clark from LEAF, who came to speak about sustainable farming practices, and how farming can work for wildlife.

“...I felt proud and privileged to be part the group at this event, full of the next generation of farmers and conservationists. Rob Yorke explained at the beginning of the event that we should not look at ourselves as belonging to groups of farmers or conservationists either, but as individuals all with the same interest in looking for answers to issues facing conservation agriculture. I think this point was taken on very well by everybody and that really set the mood for the day.

The whole day was very refreshing, exciting, and gave me a great deal of hope for the future of farming and wildlife. Ben Eagle organised the event with the help of the Young Farmers, and I cannot thank everybody involved enough, for the organisation and running of a very successful event.”

-Georgie Bray, Assistant Farm Manager at RSPB Hope Farm, MSc Zoology

Insta-moments

Every month, we'll be showcasing the four most popular pictures from our Instagram feed, where we post our members' brilliant photography and art. You can find us here: @afocusonnature



Helen Mylne @helenmylne



Kate Whittington @fox\_onstilts\_creations



Emma Smith @\_el.smith



Matt Hall @matt\_hall\_

Blog Highlights

Every week we receive fantastic blogs from our members, talking about what they've been up to and topics they're passionate about. You can check the blog out here [www.afocusonnature.org/blog/](http://www.afocusonnature.org/blog/) ... here are some highlights!

@bardseyben wrote about the importance of bird observatories: "Whilst I've been incredibly lucky to grow up alongside a bird observatory, young people all over the country can easily participate in their activities and receive the same invaluable training that has helped me so much in my development as a naturalist".

@BrittanyMaxted talked about the joy of seeing ospreys return to Dorset through her work at the @harbourospreys: "It is true, that one of the key reasons for our undertaking this project is to help restore, to its previous range, a species which I – among many others – believe deserves to survive and thrive as it once did".



Brittany Maxted

How To Get Involved

Are you making the most of AFON's mentoring scheme?

Mentoring co-ordinator Charley Miller explains more about how you can get involved

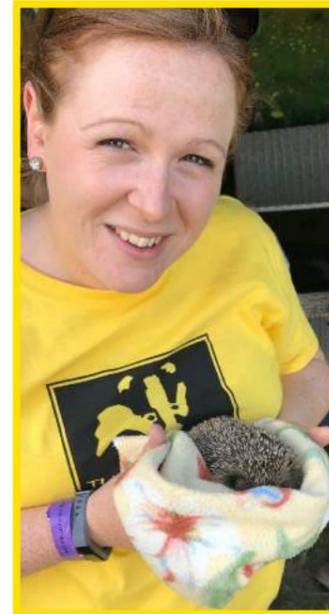
Conservation professionals often talk about someone who helped them get started, someone who was a sounding board for their early ideas or who guided them through their first jobs – a mentor. AFON was founded with the desire to pass the passion, knowledge and skills in conservation on to new generations. Today, this continues through AFON's mentoring programme.

Open to all AFON members aged 18-30, the mentoring programme offers young aspiring conservationists the opportunity to link with established professionals for tailored one to one guidance, support and advice as they develop their careers. This can take many different formats

– from conversations by email, phone or social media or even work experience.

Whether you are still thinking about what career path you might want to take, or whether you've got some experience and jobs on your CV already, a mentor can provide a knowledgeable and experienced point of view. In fact, they probably faced similar questions, situations and decisions at your age!

There are over 40 AFON mentors with a variety of backgrounds and routes into their professions – from academics, photographers and ecologists to broadcasters, writers and practical habitat managers. They are all passionate about sharing their knowledge and experiences – you can take a look on our website. If you are interested or have any questions about mentoring, please contact AFON's Mentoring Coordinator Charley Miller at [afonmentoring@outlook.com](mailto:afonmentoring@outlook.com)



Right: Becky O'Melia, Education and Engagement Mentor  
Above: David Tompkins, Practical Habitat Management Mentor

Become a Regional Rep!

Are you passionate about wildlife and conservation on your local patch? Could you enthuse others to get involved? We want you!

As the Youth Nature Network for the UK, we want to encourage and facilitate connections between our members. Although we run a number of events throughout the year, due to venue locations, timings and other commitments, these events don't always cater to everybody. By introducing regional reps, we hope that our members may be able to engage with each other and have the chance to meet like-minded individuals who are based nearby, organising events locally, sharing opportunities and learning from one another.

We are looking for people who are excited about connecting young naturalists in their area to share their skills and support, as well as exploring your natural spaces. Regional reps will be a flexible role, held on an informal basis – at the very least, a rep should be prepared to engage with other

members via social media and arrange informal meet-ups, but if they wish they may also help facilitate larger-scale events, or represent AFON at local events. However much a rep wants to be involved, they will be supported fully by our Projects Officer Beth Aucott.

Currently, regions are broken down into:  
Scotland | North East England | North West England | Yorkshire | North Lincolnshire | East Midlands | West Midlands | Wales | Eastern | London | South East | South West

We hope to diversify further, once we have gauged interest. This is a great opportunity to develop your CV with a nationally recognised organisation, learn new skills and help to bring together like-minded individuals with a love of the natural world.

To find out more about the role, including how to apply please send an email to Project Officer Beth Aucott – [beth.aucott@googlemail.com](mailto:beth.aucott@googlemail.com)

# Dr Euan Dunn MBE



New Nature's Alice Johnson talks to the RSPB's Principal Marine Policy Officer about his career and what advice he has for young naturalists

Working with the RSPB since 1994, Dr Euan Dunn has been involved with a variety of projects, from reducing bycatch of albatross to protecting waters closer to home for visiting seabirds. Focusing on fisheries management and policy development, on both a national and international scale, he looks to protect wildlife through political channels. With much of his work involving the Common Fisheries Policy, Brexit offers a new challenge, along with the continued effects of climate change. We spoke to him about the main focuses of his job, career advice and what exciting projects he is working on.

## The Beginning with the RSPB

A seasoned RSPB staff member, Euan has been working to protect the marine environment for many years. He told us how it all began and how his job has changed over the years: "I started in 1994 and I was the only Marine Policy Officer working on fisheries, so it was a relatively small part of the RSPB's marine work in those days. There was a bigger focus then on oil pollution, but thankfully that is something that has diminished whereas fishing has come up the agenda. That's really how I started."

With links to fishing from a young age Euan has seen how the industry works from family experience, he said: "I come from

Aberdeen and my grandfather and great grandfather were both North Sea trawl fisherman, and my father was a fisheries journalist. I was a seabird biologist to begin with and then I became interested in policy as I realised that if you wanted to protect seabirds you needed to try and change how things are managed."

## Principal Marine Policy Officer

Euan's job now involves a variety of different aspects, and he tells us what his key aims are: "The focus prior to Brexit has been to make the Common Fisheries Policy more environmentally friendly, particularly seabird friendly, so it's about getting environmental limits set. Fishing has to adapt to the marine environment not the other way around. Twenty years ago, the waters around the UK were just conceived to be a factory floor for the fishing industry and I have been trying to shift the focus to awareness of the complex and sensitive marine environment.

The greening of the Common Fisheries Policy has been my overarching aim, but within that there are two key things. The first is trying to reduce the number of seabirds that get killed by getting entangled in fishing gear, which is called bycatch. Birds get trapped in fishing nets and caught on the hooks of long-lines – that is when you stretch a line out behind the

fishing vessel with thousands of baited hooks and, as they sink, the seabirds dive and try to steal the bait and they get hooked instead of the fish! I started focusing on that around 15 years ago, and it is only now that we are beginning to see changes – it is a very long game. It has taken that amount of time for the European Union to take this seriously; they are light years behind other developing nations. For example, in the early 2000s one of the fisheries in South Africa was catching about 18,000 seabirds a year and most of them were albatross! However, by putting the right technical fixes on the fishing gear the numbers have been reduced by 99%, so it is almost a total success. That is the great thing about tackling seabird bycatches, it is a highly solvable problem – you just need to apply the right technical solutions as well as work with the fisherman, which we do very closely. The European Union is just catching up with this; they produced a Seabird Bycatch Plan in 2012, and I'm happy to say that the UK Government was right at the front of supporting the call for it.

The second area I have been working on over many years is sandeel fisheries. Seabirds are highly dependent on these small shoaling fish that should be numerous – they form potentially huge shoals and can breed rapidly. But there is a Danish fishery operating in the North Sea and when I started, there were no rules



Puffin Images: Harriet Gardiner

or regulations, so it took years of lobbying to get that fishery better managed. Now we are still trying to improve the amount of sandeels that are set aside for the seabirds – the rule of thumb is leave a third for the birds. Without those fish they can't raise their young to fledging, so they can't breed successfully."

With huge pressures on fish stocks, seabirds can struggle to find enough food, which is why aspects of Euan's work revolves around creating no-go areas, he commented: "The thing we are most proud of is that we helped to establish a huge closed area to sandeel fishing off the East Coast of Scotland to help protect kittiwakes, a species highly

dependent on sandeels, from going down the pan! That closed zone, over 20,000 square kilometres from North East Scotland down to Northumberland, is sometimes called a 'box', and vessels (essentially all Danish ones) can't fish for sandeels inside it. It gives the seabirds a safe haven to fish. We have had to fight to keep that box in place because there is

always pressure from the Danish fishing industry to open it up as they look into it quite longingly, like looking into a shiny shop window full of goodies!

Those are two of my main work areas, but with Brexit it means the UK is now developing a new fishing policy for Britain. It's a blank canvas, a chance to produce something even stronger and better than the Common Fisheries

Policy, which I have to say was already going in the right direction. The last revision of the Common Fisheries Policy in 2013 was a huge step forward and a lot of it took into account the concerns of the RSPB and other Non-Governmental Organisations. These areas have been my fascination for 20 odd years."

### Seabird Conservation

A lot of Euan's work revolves around seabird populations, and he tells us how the eradication of rats on several islands is a huge step forwards for seabird recovery: "It is one of the most important things you can do to protect seabirds. They are in dire straits at the moment, their populations are declining across the country, especially in Scotland which holds about 80% of our UK seabird populations. Seabirds need two things: a safe place to breed and an accessible and adequate food supply offshore, so if you give them a safe place to breed you are half the way there and the results are instantaneous. On the Isles of Scilly and Lundy where the RSPB played a key role in getting rid of the rats, we are seeing Manx shearwaters and storm petrels breeding for the first time in living memory."

### Project focus

Working in a changeable and developing field means Euan is often involved with exciting new projects, he told us about vital group discussions and seabird

tracking: "This time last year I led a workshop in Iceland where we had seabird biologists, oceanographers, fish experts and plankton experts, and we all pooled our knowledge to try to join the dots on what was the cause of the seabird declines in the far North. One project is to identify the areas birds use outside the breeding season on the high seas of the North Atlantic by using seabird tracking, geolocators. The tracking technology is utterly remarkable, now we are discovering that birds from our colonies are going as far as Newfoundland and Labrador. There are areas of very high productivity in the North Atlantic, and the plan is to establish that these are areas of regular use so then the huge challenge is to make sure that they have the right protection in place. This is where it gets political as you've got to persuade various fishing nations to maybe do something they would rather not do. With this remarkable remote tracking technology, it really is a revolution, we are only now just learning where seabirds go on the high seas when we don't see them."

### Career highlights

Working for the RSPB for over 20 years, Euan has been involved in a huge variety of schemes, but sharing a career triumph he said finally achieving a goal is a very memorable experience. He explained: "The highlight would be the day that after 10 years of trying to persuade the European Union to have a plan of action for reducing seabird bycatch in fisheries, we

finally got one in November 2012! It took 10 years of 'banging' on the door of officials in Brussels and having public campaigns. All of that energy finally paid off with a plan from Brussels with a whole bunch of actions that member states had to take to try and eliminate birds getting caught in fishing gear, so that was very satisfying."

### Career Advice

Euan had some great guidance for young naturalists hoping to pursue a career in a similar field: "Try to get yourself to university and, if you can, get an MSc degree and even a PhD! Of course it is hard to get these places, but because it is such a competitive situation these days the more qualifications you have under your belt the better."

The second thing I would say is get involved in volunteering, it's not paid, but there are lots of opportunities on RSPB reserves, such as at Bempton Cliffs in Yorkshire, where people can pick up seabird knowledge but also get insights into marine policy. For example we have an amazing visitor centre there that has strong links to the work we do offshore, such as on sandeels and the impact of windfarms on seabirds, so you can begin to get a feel of what makes the colony tick, the threats it faces offshore, and how we can tackle those."

To find out more about puffins from Euan you can read his book RSPB Spotlight: Puffins



Words and Images by Jack Bucknall

I have lived in Northumberland my whole life and first began taking an interest in the wildlife of my county in 2008, when I was 12 years old. I began by visiting a local birding site with my dad once or twice a week and my passion gradually progressed over time, until I wanted to be out each and every day photographing and watching birds. I found myself wanting to know more about the birds of my local area and was interested to start visiting different sites in search of a wider variety of bird species.

In 2009, I discovered something that transformed the way I looked at birding – my dad and I decided to join the Northumberland and Tyneside Bird Club, a local community that hold monthly meetings where birders can come together and discuss sightings and birding sites in Northumberland. On attending the first meeting, I was blown away by the number of people who shared the same passion as me and was introduced to some very experienced birders; many of whom I am still in contact with now on a daily basis. I learned more in that two hours about my local area than ever before

## The Importance of Bird Clubs to Young People and Wildlife

and about the status of the birds in my home county. I am still a contributing member of the bird club today and would recommend to any young birder looking to learn more about the birds in their local area to join their local club.

The most valuable thing I learned as a young birder was just how many sites there are for birding in Northumberland and how many different species occur every year that I would never have associated with my home county. For example, when I first picked up my bird book, I picked out nightjar as a species I would love to see – I never thought they would be a regular breeder just 45 minutes from my house! This was exactly the type of knowledge I gained from some very helpful birders at my first bird club meeting; the guidance that is offered to newbies within bird clubs is priceless and was vitally important to me as a new starter.

After being a member of the bird club for a few years, I felt myself growing in confidence regarding my birding knowledge

and ability. I had learned so much about local sites and where to go for certain species, but had also been introduced to the concept of ‘patching’; visiting an area close to home on a regular basis to look for birds. As a result of some good advice from members of the Bird Club, I began patching St. Mary’s Island, not five minutes from my home in Whitley Bay. This was the start of my passion (which still exists now) for my local patch and I made some friends through the bird club that also visited St. Mary’s on a regular basis – all of which were more than happy to help and assist me.

After about a year of patching St. Mary’s twice or three times a week, my confidence was growing considerably and I began to consider myself quite knowledgeable about the site. The Bird Club introduced me to elements of birding that I had never previously considered; the idea of ‘seawatching’ in the autumn months for passing seabirds was never something that I had really considered before attending a talk on it at the club

– now it is probably my favourite type of birding! The one thing that stands out massively that the Bird Club did for me, was when I was asked to do a presentation at one of the monthly meetings on St. Mary’s Island. To be recognised as being capable of presenting to a hall of very experienced birders was a huge confidence booster for me and I’ll never forget how much that meant to me as an upcoming birder.

Hopefully, by reading this article I have made you think about joining your local Bird Club! Not only is it a fantastic asset for any ‘new starter’, but the work that goes into monthly bulletins and annual reports is huge and often contains vital information about the trends of birds in your area. The comparisons between previous years are priceless for showing which species are doing well in the local area but also for highlighting local declines, shining light on certain species that are really struggling and helping to build a bigger picture for bird declines on a national scale.

# Warm, Wet and Wild:

## Winter's Winners and Losers

Recent winters have failed to be white. Instead, they've been warm, windy and wet. Not exactly the winter wonderland we all envisage. Fortunately, we have the luxury of escaping the ferocious winds and relentless rain, but what happens to wildlife? And with climate change increasing the probability of such weather, how is nature going to cope?

### The Winners

#### Slugs

Warm, wet winters provide the perfect conditions for a slimy population explosion. These misunderstood molluscs only go into their winter slumber when temperatures drop consistently below 5°C. Slugs are hermaphrodites, lay up to 100 eggs at a time and can reproduce year-round. These prolific breeding abilities, along with a bigger, better food supply and no shortage of the wet stuff, equals an invasion of supersized, sleepless slugs.



#### Dartford Warbler

This rare and tiny bird at less than 12.5 cm long, has previously suffered in harsh winters, with up to 80% mortality. However, thanks to the recent run of mild winters, their population is steadily increasing and range expanding. Protected from the elements by thick layers of dense heather and compact gorse, this practiced patroller of the undergrowth literally is a 'home bird', seldom venturing from their sheltered nests in foul weather. Therefore they're likely to be unaffected by increased rainfall.



#### Mosses

Britain is home to nearly 800 different moss species, all of which thrive in moist conditions. Rainfall is essential for moss reproduction as some species have flagellated sperm that must swim to the archegonia to be fertilized. Other species, such as *Mnium hornum* or *Polytrichum* species, have small leaves that form a splash cup where the sperm is located. Water droplets splash it onto neighbouring stalks. Wind is critical for the dispersal of their spores.

#### Invasive Species

Unfortunately, non-native species will also inevitably benefit. Seeds from the problematic giant hogweed and himalayan balsam can colonise new areas during high rainfall. Additionally, perhaps our most iridescent invasives, ring-necked parakeets, are also being aided by milder winters. Their population has increasing by a whopping 1455% in the past 20 years and their range now expands as far north as Manchester.

#### Hedgehogs

This iconic British species has experienced a sharp decline of over 30% in the past decade. Hedgehogs normally hibernate, but the warm winters are leaving them in a bit of a prickle. Mild weather is confusing hedgehogs into thinking spring has arrived, causing them to leave their nests and deplete their brown fat reserves when food is still scarce. This can cause them to die from starvation and affects breeding success. Furthermore, heavy winter rainfall can cause their nests to flood and although hedgehogs can swim, they may not be alert enough to save themselves.

#### Seabirds

Severe storms bring raging waves, violent gales and torrential rain, having a catastrophic impact on the seabird population. The churning sea makes it difficult for birds to see fish and also causes fish to move deeper to find calmer conditions. This poses a problem for puffins who can't dive very deep. Malnutrition and flying in wild winds causes species such as razorbills, guillemots and puffins to be washed up exhausted on beaches.

#### Amphibians

Amphibians are cold-blooded and therefore in warmer winters their metabolism is greater, burning up reserves that should be used to prepare for breeding. A long-term study shows that warmer winters cause reduced female body condition resulting in fewer eggs laid in great crested newts and common toads. The probability of contracting the Ranavirus also increases.

### The Losers

#### Barn Owls

This species is perfectly adapted for silent flight with a soft, delicate plumage. However, during heavy rainfall their feathers become waterlogged and heavy, both impacting on their flying ability and causing them to lose body heat more readily. Field voles, which make up 85% of a barn owls diet, are also adversely affected by warm, wet winters. The lack of prey, combined with a lack of dry leaf litter makes it very difficult to detect voles by sound, meaning this species literally is starving to death.



#### Native Trees

Some seeds have to undergo a period of physiological dormancy, or a cold shock, in order for complete development and germination. The warm weather also decreases the mortality of insect pests such as the horse chestnut leaf miner and bark beetles. Fungal pathogens also thrive in warmer winters such as *Phytophthora ramorum* causing sudden oak death. Waterlogging can reduce root stability and high winds can cause additional damage.



Climate change projections indicate that we will be faced with increasingly warm, wet winters, with successions of storms battering our coastlines. As with anything, there will inevitably be wildlife winners and losers, but what will be the exact extent of these consequences? Only time will tell.

Words by Sophie Brooks

# New Nature Writing Competition 2018

## Prizes

New Nature is launching its first nature writing competition! All entries will be judged by the New Nature team and Robert Macfarlane.

Pieces of work can be written in any style, but must be a maximum of 600 words and focus on the subject matter: The Embodiment of Spring

Closing date: 31<sup>st</sup> March 2018. Winners to be revealed in our June issue and on our website, however all winners will be contacted beforehand. Participants must be aged 30 and under.

**1st prize** – 1 pair of Viking Vistron binoculars, courtesy of Viking Optical, and a special signed edition of Robert Macfarlane's new book 'The Lost Words'

[www.vikingoptical.co.uk](http://www.vikingoptical.co.uk)  
 @RobGMacfarlane

**2nd prize** – Free entry to the British Wildlife Centre for 2 people  
[www.britishwildlifecentre.co.uk](http://www.britishwildlifecentre.co.uk)

**3rd prize** – Vouchers courtesy of British Wildlife Gifts  
[www.britishwildlifegifts.co.uk](http://www.britishwildlifegifts.co.uk)

All winners will also get a unique New Nature logo for use on their website or blog pages.

## Judge

Award-winning writer Dr Robert Macfarlane has produced many bestselling books about landscape, nature and language, including *The Wild Places*, *The Old Ways* and *Landmarks*. His most recent book, *The Lost Words: A Spell Book* (2017) with the artist Jackie Morris is being used in schools up and down the country. He is a founding trustee of the youth conservation charity Action For Conservation. His work has been adapted for radio, film and television and Robert also turned his hand to presenting for BBC 2's *Natural World* in 2010. He has experience as a judge, sitting on the panel for the 2007 and 2013 Man Booker Prize for Fiction. Robert is a Fellow at Emmanuel College, Cambridge University.

## How to submit your work

Work must be submitted by **6pm March 31<sup>st</sup> 2018** by email to [editorial.newnature@gmail.com](mailto:editorial.newnature@gmail.com). The email must contain your full name, place of residence, age email address. Please attach your piece as a word document. Please send your piece within an email which has writing competition and your full name and age in the subject space, ie:

Subject: Writing Competition Andrew Aardvark 21

Andrew Aardvark  
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Any submissions without these details will not be accepted.

Good luck!



# Our Contributors



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Chloe Brookes has a BSc Honours degree in Zoology from the University of Dundee, has worked in agricultural research, the veterinary industry and has spent time volunteering as a countryside ranger for the National Trust. She enjoys learning about all aspects of nature and is currently trying to develop her skills as a birder.



Ciara Stafford

Ciara Stafford is a conservation scientist who has just completed her PhD at Manchester University. She blogs about her love of the Amazon rainforest and the reedbeds of Norfolk.

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Ele Johnstone

Ele has an MBiolSci in Biology from the University of Sheffield. She is passionate about protecting the natural world and aspires to have a career in conservation.



George Hassall

In May 2014, aged 8, George was crowned RHS Young School Gardener of the Year. A year later George was made the first RHS Young Ambassador in order to inspire other children to share his love of gardening and the natural world.

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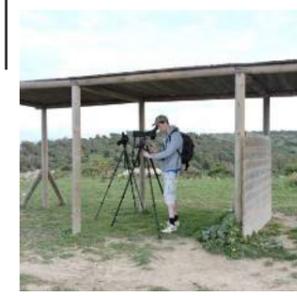
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Check out our amazing young contributors and connect with them online!



Irene Mendez Cruz

Irene Mendez Cruz is a wildlife and underwater photographer, currently studying at Falmouth University. With a background in arts and Political Science at La Sorbonne, she is passionate about nature and raising awareness on conservation. Her most recent work focuses on exploring the different colours, shapes and details of the fascinating Portuguese Man O' War.



Jack Bucknall

Jack Bucknall is a 21-year-old Accounting student from Newcastle, who has a passion (obsession!) with birding and wildlife photography, mainly in Northumberland.



Sarah Gaunt

Sarah is a writer and content producer who has strayed into the world of engineering. With a BSc in Conservation Biology and an MSc in Science Communication, she loves inspiring others with words.

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Sophie is a volunteer with BEACON (Bollin Environmental Action and Conservation), an eco-club and the National Trust. She will study Conservation Biology at the University of Cumbria from September.

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Let us know what you thought about this issue of New Nature, or what you would like to see in future issues.

We are always on the lookout for young writers, photographers and artists. Please get in touch if you are interested in submitting work.

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