

To see a thousand things – A Northumbrian nature quest

This is an account of my quest to see 1,000 different species, north of the Humber, in 2021. Why? Well as an ecologist it might reasonably be assumed that I am quite good at identifying wildlife but while I may know "stuff" about wildlife, I'm not that great at "spot the difference" and with wildlife spotting the difference can take a bit of doing. One blade of grass looks much the same as any other, even though it could easily be one of a dozen different types; some bats can only be reliably told apart by their DNA and even with those most familiar of creatures, the birds, some need to be listened to and not just looked at.

Every year I keep a diary of sorts. Usually this includes a summary of the year just gone and a short list of goals for the year to come. I've been doing this for over 30 years now and one goal that has featured in most of those years is to become a decent botanist. So each year I would learn a few new plants and inevitably forget a couple of old ones. Last year was a bit of an exception, I decided to tackle the goal by making it something that I could quantify, so I made it, to identify 500 different wild plants, which I then expanded to identify a thousand different species of any kind.



How many species can I see? I'm up to seven in this picture but there's at least a couple more.

This started reasonably well until an unexpected species called Covid-19 put my plans on hold, along with those of the rest of humanity. Our week's holiday in Norfolk which could be banked on to produce several new plants and other assorted wildlife not known in the north east was postponed indefinitely and, for a few months, plant hunting was confined to cracks in the pavements in the streets around our house. The cracks in the pavement proved surprisingly diverse and between that and a slight easing of restrictions over the summer I ended up with a total of 637 species identified, the last being a Mandarin drake, which had become something of a minor celebrity on Drinkfield Marsh and which I caught up with on Boxing Day.

This year I am going to play the game again but like any game it has a few rules. For a start all the species have to be north of the Humber, which I intended to be the north east and North Yorkshire but which might get expanded to the borders of the ancient kingdoms of Bernicia and Deira as I'm desperate to see the Lakes again and visit Edinburgh Zoo, if the C-species allows it. I could play the advanced version and limit myself just to the north east, after all that's where I live and have spent 99% of the minutes of my life. But then why would anyone not go to North Yorkshire if they could and, living in Darlington, I can be close enough to cough across the Tees at it. There is an ecological reason for making the Humber the boundary as well. As with many other things, there is a north-south divide in ecology. Actually in ecology there are lots of them but for many species the Humber is where that line currently lies. The south is a different country with many different creatures. For example, for my favourite insect family, the grasshoppers, the south has over thirty species, we have less than ten.

The second rule to this game makes it a lot harder but is actually the purpose behind all this. As the physicist Richard Feynman once said, "what is the point in knowing what the bird is called if you don't know anything about the bird." The name is just the label on the jar, to be an ecologist you should know something about the ingredients. So for every species I identify, it only counts if I learn a fact about it. It could be the habitat preferences of a woodlouse, or the medicinal properties of a plant; it doesn't really matter what but nature is a jigsaw and each piece must have at least one connection to something else.

Conversely the third rule should make things easier; I am going to recruit some help. These days there are numerous recording schemes or social media pages where you can post a photo of something and have someone more expert than you identify it. I've yet to use one and there will no doubt be much debate to wade through to find out which scheme would be the most useful but without them I'm probably not going to get very far with the likes of fungi. Not everything can be identified by photographs though, particularly invertebrates. For example the giant House Spiders that invade our houses in autumn could potentially be one of three species. The only way to know which one it is for sure is to pin it down and look at its bits under a magnifier. Rule 3b is that if I can't identify something without having to dissect it then I just count it to the nearest common denominator, in this case, giant House Spider. It will save a lot of grief, both for me and the spiders.



South Gare. Nearly 700 plant species can be found here, so will I, once Covid allows.

January 1st

Usually the first day of the year involves a visit to RSPB Saltholme, a place where my listing of things appears perfectly normal. The café is a twitcher's waterhole with bird spotters of all descriptions jostling for a seat so that they can re-fuel with tea and Victoria sponge before heading back to the chase. I say of all descriptions, actually they are nearly all male, over sixty and dressed head to toe in clothes that range from greenish-beige to beigey-green. There is the occasional female but neither sex is of reproductive age and I fear they may soon go extinct. Given the similarity, it can be a struggle to tell them apart and I don't want to stare too closely so I invoke Rule 3b. And when I say that I appear perfectly normal, in this company I am somewhat the odd one out, content as I am with a wander round the grounds and happy with whatever flies across my path to kick off my year. My companions at the waterhole are a lot more focused and have spent the morning flitting like bees in a meadow between one likely birdwatching spot and another. Still we are all there with one purpose, even if the level of obsession differs and it's good to be among it, listening to the air humming with the swapping of tales of birds spied and feeling slightly smug because I don't share the compulsion to down the sponge and dash off to where a lesser spotted was last spotted.

The Covid restrictions on New Year's day 2021 being of that most transient of states that was termed Tier 4, RSPB Saltholme was actually allowed to be open but even if I'd been prepared to risk a bit more chance of Covid transmission it wouldn't have been the same. Instead we opted for a short circular walk from our house to Drinkfield Marsh and back through North Cemetery. The Mandarin drake had been at Drinkfield for almost two weeks; milking its celebrity status. I had just seen it on Boxing Day, but that was last year's list and anyway Mandarins are genuinely uncommon and always spectacular and I often go a year without seeing one anywhere, so it seemed like a good way to start the list.

Birds are never going to get me far on my list though; I generally only see 130 birds species in a good year; its plants that I need. As I'm sure I don't need to tell anybody over the age of three, most plants exist in winter either as a few green leaves or as dead but for my purposes, possibly still identifiable, stems. So I wandered through the streets a few yards behind my family, head down making disjointed conversation, my obsession proving amusing enough for them not to be too annoyed at me.

Drinkfield was soggy with a slight thaw that had turned the snow into mush, but the lake was still nine tenths frozen and the Mandarin and the septet of Tufted Ducks that shared it had left for parts more liquid. Still I had the very pleasant surprise of bumping into my brother and his family, so unexpected that I didn't recognise him at first. He'd taken my great-nieces there to also not see the Mandarin, so we had a socially distanced catch up before leaving them to throw some crumbs to the gulls, which had gathered on the ice, obligingly in three different species.



The Drinkfield Mandarin - the lesser spotted version
(My thanks to Pat Blewitt for the use of the photo)

Despite the slight setback I'd reckoned on North Cemetery as a bit of a banker. Its rows of street trees mixed with conifers provide good winter shelter for birds and it's the most reliable place I know for Goldcrest and Nuthatch. Not only that but I'd found a stunning example of Grey Oyster Mushroom on a tree stump just before Christmas. Grey Oyster Mushrooms are one of the few fungi that I trust myself to reliably identify with their shiny, lilac grey caps growing out of dead hardwood trees. Maybe the weather had driven away the Goldcrests and Nuthatches as well, as there were no animals to be seen, except the odd Blackbird and some squirrels which were dancing round a regular feeding spot and gorging themselves to Gopher size. Even the Oyster mushroom had been kicked to pieces but there was just enough of its grey cap showing for me to be able to convince myself that I could have identified it if that's all I'd ever seen of it (I know it's a little sad, but my game, my rules). Still the Snowdrops were starting to protrude and the Lesser Celandines will be vying with them for the earliest flower and lawn moss around my family's grave was luxuriant, its stems living up to its scientific name of "squarrosus" meaning square. There was a young conifer growing as a weed between some graves, like a Yew but not a Yew. I took the end of a frond and looked it up when I got home, comparing it to each of the possible candidates. It turned out to be a Coast Redwood, the world's tallest conifer. I don't know if it will be left to grow there but I would love to be able to come back in another 100 years if it is.

Continuing the theme of plants in cracks and wishing to avoid contact with people coming the other way on a fairly busy pavement, we did a detour down the China Street back alley. A small cranesbill that I would have probably dismissed in the past as Herb Robert struck me as being particularly shiny. I put a leaf in my pocket. Usually leaves that go into my pocket stay there until they are dust and unidentifiable but if I'm not going to be diligent on the first day of the quest, when will I be, so this one got looked up as well. It turned out to be Shining Cranesbill, the first time I've definitely seen this plant, ever. In fact the alley proved to be quite productive with Ivy-leaved Toadflax and Harts Tongue Fern growing in the walls and a dead rat on the cobbles (if the plants don't have to be alive, the animals don't have to be either).

So as dusk fell and I tallied up, I'd identified 76 different species on my first day, including one that I'd never seen before. I would have been quite happy with that but then my wife shouted me to evict a Daddy Long-legs Spider from the kitchen; 77 it is then.



Grey Oyster Mushroom - a nematodes nemesis

Fascinating facts:

Grey Oyster Mushrooms are edible and even contain statins which could lower cholesterol. They are also one of the few carnivorous mushrooms; trapping and digesting nematodes, which are tiny roundworms. Edible, but I think I'll pass.

Neither part of the popular belief that; the poison of Daddy Long-legs Spiders is deadly to humans, it's just that they can't penetrate our skin, is true. They can just to say penetrate our skin in extreme cases, but even then their bite is merely slightly irritating, rather than being deadly. They do, however, eat other venomous spiders. A friend of mine, who kept Black Widow spiders in a spare bedroom used to encourage the Daddy Long-legs spiders in the room on the basis that, if a Black Widow got out, a Daddy-Long legs would hopefully get the Black Widow before the Black Widow got him.

January

That Julius Caesar has a lot to answer for! What was he thinking of, making January the start of the year instead of March? Had he not heard the saying that, “The blackest month of all the year is the month of Janiveer” (alright, I pinched that one from the “Country Diary of an Edwardian Lady”, so he probably hadn’t). But it’s no wonder people struggle to get into the habit of keeping fit or giving up things that they’d really rather not give up. And finding wildlife in January is proving no easier than being tee-total whilst teaching yourself Tai Chi. Even that high priest of nature diaries, Gilbert White, in his entries for January, could only seem to come up with a list of various forms of wildlife that were dropping dead with the cold. March would have been a much better time to start any kind of resolution.

I probably shouldn’t complain; this January was a proper winter month, like the ones we had before global warming. Temperatures struggled to get above freezing most days and we had at least two spells of proper “snowman” snow instead of the insipid grey mush that passes for snow in our gradually warming climate. So I’ll take that, a brief return to the British weather that we knew as children, at least for those of us who grew up in the 60s. The wildlife will no doubt do what it always used to do and emerge in the spring, and maybe it will be better for the wait.

Even so, the frozen cogs of the species counter kept turning over, click by icy click, throughout the month. I passed the 100 species total on 5th January. The Reed Buntings which take refuge in my garden each winter made their first appearance on 2nd January, nudging my bird list to 34, but it was a site visit for work (as opposed to the round-shouldered face-off with the kitchen wall that work usually consists of these days) that moved the clicker into treble figures. I’d been asked to check an area of land on Teesside for invasive alien plant species ahead of some maintenance going ahead. Fortunately, for the company at least, there were none of the “Triffid” species such as Giant Hogweed or Japanese Knotweed. There were some Cotoneaster bushes though, three species of them to be exact. There are dozens of species of Cotoneaster in cultivation and most of them look very much the same, with small, evergreen, glossy leaves and bright red berries. Five of them are listed under Schedule 9 of the Wildlife and Countryside Act, as it being an offence to cause them to spread in the wild and telling those five apart from the others can be challenging. Two of the five I know quite well; the Herringbone Cotoneaster grows in my garden where it introduced itself without asking and the second, Small-leaved Cotoneaster (a not very helpful name as they are mostly small-leaved), I have done battle with at Rockwell nature reserve. Both were present, as was a third species that I couldn’t put a name to. Its identification took a bit of digging (pun unintended but I’m sticking with it) but then learning is what this quest is really all about. It also proved to be a Schedule 9 plant, Himalayan Cotoneaster. Fortunately Cotoneasters are much easier to deal with than most invasive plants; in fact I don’t think they should really be listed with those invasive plants of developer’s nightmares, they probably just merit their own category as slightly naughty plants.

Good though a new plant was, the more interesting part of the visit was the ground that they were growing in, which was almost pure sand, this area having been part of the sea in my lifetime. Several of the typical sand dune plants such as Marram grass, Catsear and Stonecrop were still recognisable, but what really caught my eye was a tall, stringy, moss-like, lichen which covered a few tens of square metres. It looked just like what they used to make the vegetation out of in model railway sets and for all I know it might have been. I had seen it before but only in little sprigs and never paid it any attention, but here it grew as I’d never seen it before, in a lawn, refusing to be ignored. It turned out to be a form of lichen *Cladonia arbuscola**, a relative of Reindeer Moss, which is also a lichen and definitely not a moss.

(*Where species don’t have a common name in English it is customary to refer to them by their scientific name, which is usually latinised and always italicised. However I think it’s fun and maybe

even fair to the species, to make up a name for them that says something about them. So I am going to christen this “Model Railway Moss.”)



Fields of Grey. Model Railway Moss in assertive mode

Once I'd finished looking for naughty plants, I was tempted to drive a mile in the opposite direction for a quick peak at the wildlife watching point at Greatham Creek, where hundreds of wintering waterbirds gather in multiple species among the two species of seal. But that's a temptation for a year without Covid. The birds will be back in autumn and, god-willing, so will I! To compensate I did manage to add six bird species on the drive there and back; even at 50mph Shelducks are hard to not to spot.

It took another couple of days before I caught up with the Mandarin that I'd missed on New Year's Day. As if to make up for his absence he'd brought a friend and so two Mandarin drakes graced Drinkfield Marsh, though sadly they only count as one for my purposes. But, other than a Barn Owl at South Burdon community woodland, out hunting at midday in desperation as the snow started to melt, there was very little of note. It was just a couple of plants here, a bird there and, with just the odd exception, everything that wasn't a bird or plant, neither here nor there. The furthest we got was South Park at the other end of town. That added another three birds in the park and three plants down a back alley on the walk there (back alleys really are the place to go for biodiversity). By the end of the month I had pretty much exhausted all of the plants that were recognisable in the parks and streets of our town in January and, with Covid travel restrictions set to continue and the weather set to stay the same in the first half of February, I was starting to get a little bit desperate. I could always turn some logs over and, I expect, add three woodlice and half a dozen snails to the list

without too much effort, but it was flipping freezing out there and I didn't have the heart to disturb them. So the last weekend of the month found me surreptitiously pulling little clumps of moss off people's walls on our exercise walk round the streets. I'd been reading a little bit about them and had been encouraged by comments like, "a distinctive species of moss", "easily identified by", etc. That's hogwash! I now have a collection of them on my windowsill and I can vouch for the fact that mosses are without exception little, green, stringy things, whose distinguishing features are that they look little and mossy and nothing else. Nevertheless I really need to get on better terms with mosses as they can be distinctive indicators of habitats, so I mean to persevere with them in February.

Mosses then are more a measure of dedication than desperation. The true measure of my desperation was that I was thinking of slugs. They are everywhere; in my compost bins, in my garden and they even push their luck in our outbuilding. But crucially for my purposes they come in multiple sizes and colours, reflecting the different species. There is even a superb new field guide to the "Slugs of Britain and Ireland". There is a drawback though; I hate slugs! So in what is surely one of the most bizarre proofs of Chaos theory, Julius Caesar changing the start of the year from March to January has, just over two thousand years later resulted in me contemplating a slug safari. Honestly Julius, I just don't know what you could have had against March!



A slug safari really would be scraping the bottom of the barrel

Tally to 31st January: 151 species comprising: 84 plants; 52 birds; 5 mammals; 5 invertebrates (2 snails, 1 spider, 1 woodlouse and a gall wasp cunningly disguised as a Robin's Pincushion); 4 fungi/ lichen and a piece of seaweed.

Fascinating facts:

Cladonia arbuscula (or Model Railway Moss as it's now known) contains Usnic Acid, which has antimicrobial properties and has been shown to inhibit the growth of certain types of human cancer cells.

The Mandarin duck isn't native to Britain; it was introduced at the beginning of the twentieth century. It actually comes from China and Japan, where its population is gradually decreasing. In Britain its population is increasing and this country now supports a significant part of its global population.

There are 36 species of slug in Britain. That's way too many!

February

Phenologists (that is people who study the seasonality of nature and not to be confused with people who feel the bumps on your head) reckon that nature's calendar is gradually creeping forward. Well it took a big leap this month, as February stole March's clothes as a month of two halves. The first half was either frozen, or if it did briefly thaw, flooded. The last of several bouts of snow resulted in continuous snow and ice cover for a week, with the coldest night getting down to minus 8°C in my polytunnel; goodness knows what it got down to on the other side of the polythene. I kept telling people that I had never seen so much water on the fields. I probably have, I'm just too old to remember but I'm sure there was water where I have never seen water before and there wasn't a square inch of ground anywhere that had the capacity to hold any more.

The weather forecasters described it as the "mini beast from the east" but under all that snow and water, minibeasts were in short supply. I did find a Giant House Spider to add my list (and true to my word didn't enquire any further as to its personal details in order to determine its exact species) but other than that all I could add to my list in that first, frozen half of the month was another six plants, two birds and a mammal in the form of Brown Hares; four of them to be precise, stotting their way across the snow.

I'd had a minor bout of Athletes Foot, which is a type of fungus. I was getting to the point of thinking that I might have to add that to the list to get the numbers up when abruptly, within a day, it was all change. By chance, I had a day's holiday to use up that day so we took our exercise walk as a circular round the bend in the River Tees from Broken Scar to Blackwell. By the time we got half way round we were sweating and carrying our coats. I no longer felt guilty turning over logs and the woodland at Blackwell gave me a few to choose from. In just a few hours life had woken up; as I lifted the logs, a springtail sprang, a centipede pedalled, a white fly flew. All too fast to give me chance to identify them more precisely, even had I been able to, which I wouldn't have been. On the other hand a few hours of warmth hadn't been enough to bring the snails out from where they had sealed themselves up from the cold. Woodlice, however, were just right. Active enough to have reprised their niche role as under-log, wood munchers; slow enough for me to get a good look at them and distinctive enough for me to be able to assign them to a particular species. My woodlouse count for the year tripled.



Stotting through the snow
(My thanks to Dave Miles for the use of the picture)

The rest of the month continued with a series of firsts. The first frog of the year always goes in the notebook. They usually arrive around 11th February then lie around on the surface for a month, looking as glum and bored as only a post-hibernation frog can, before finally getting round to spawning in mid-March. This year they were a fortnight late but their arrival was even more appreciated for that. My first shieldbug of the year was possibly also first for Darlington. Green Shieldbug is a southern species that is moving north and one I found one in Billingham a couple of years back appeared to be only the second record for the north east. The Green Shieldbug is actually purple in winter, which does make you wonder, why isn't it the Purple Shieldbug that just happens to turn green in summer?

Even better, my first moth of the year, which appeared at our kitchen window on the 19th, was a new species for me. The moth, *Agonopterix heracliana*, is common enough but still doesn't have a common name, so I am going to call it the "Not the Brown House Moth, Moth". It looks just like the Brown House moth that feeds on my tee-shirts, which almost got it squished on sight, but it was a little smaller and a closer look revealed that the tiny dots on its forewing that typify its more troublesome relative were replaced with tiny white squiggles. It turns out that its caterpillars feed on Cow Parsley, of which I have the appropriately named, "Raven Wing" cultivar growing in my garden to thank for its presence. Its true identity realised, I turned it loose to allow plant and moth to reacquaint.



A purple, Green Shieldbug

Speaking of a moth, which having a bit of a lisp I sometimes lapse into, my moss list increased to six and I have a few sprigs of other mosses laid around in bags which could double that total for March if I can identify them. Mosses might be getting the quantity up but for quality my best plant, in fact my best wildlife sighting of any type for a couple of years, was Mistletoe. Mistletoe isn't supposed to be up here; the definitive "Flora & Vegetation of County Durham" only lists 12 records since 1950 of which only five remained, all on apple trees and all in parks and gardens, at the time of its publication in 1988. The tree that this Mistletoe was on wasn't even planted in 1988; it was just a Norway Maple standard tree, planted on a road verge, an unusual host in terms of its age and species. The location was even more unexpected. It was just around the corner from my house; 258m away to be precise, I measured it on Google Earth and somehow I'd never seen it before. I can't even claim credit for the discovery; it was my wife who spotted it. In my defence I only go that way occasionally and then only for a run where I usually take a sharp right 67m before the tree.

It will be interesting to see how March responds. Will it usurp April's showers or will it stay true to form with more typical changes to nature's procession. In either case Covid restrictions will confine us to orbiting our home until at least the end of the month, so I don't expect the list to progress very far. Like everyone else in the country, I'm impatient for summer.



Hiding in plain sight – the mystery Mistletoe

Tally to 28th February. 207 species comprising: 113 plants; 60 birds; 10 mammals; 1 amphibian; 15 invertebrates (6 snails, 3 woodlice, 2 spiders, 1 moth, 1 millipede, 1 gall wasp, 1 shieldbug, no slugs!); 7 fungi/ lichen and 1 piece of seaweed.

Fascinating facts:

Woodlouse are crustaceans, so are related to crabs, lobster and barnacles. While most species live on land they lose moisture easily so need to live in damp environments. One of their great many colloquial names is "pissibed" as they are said to taste of strong urine – for the culinary adventurers among you, you have been warned!

The Brown Hare is Britain's fastest mammal; half as fast again as Usain Bolt and with far more stamina. Its heart and lungs are much bigger than those of a Rabbit and its dark meat is due to the extra blood vessels in its muscles to transport the oxygen.

March

March was a much better month; it just was! The weather got better, so much so that according to the papers we had the warmest March day for 53 years (when I say we, it was the Telegraph so it will have meant that the south had the warmest day for 53 years, but I still ended up carrying my coat quite a bit). The insects came out in the open, rather than just skulking beneath logs and, best of all, the slight easing of Covid restrictions at the very end of the month meant that I could venture south of the Tees and east of Tees Valley airport.

Of course it was still just March so, other than the hares, nothing went mad but I saw four different butterflies on the wing starting, almost inevitably, with the Peacock and my first ladybird and first bumblebee turned up within half an hour of each other. The ladybird, specifically the large, invasive Harlequin variety, was mooching around in the comfrey that I was hacking back in my allotment. At the same time I was keeping half an eye on the pond in case an amphibian broke the surface. It was just half an eye, as the thing that appeared on the surface looked like it was breakdancing, which amphibians aren't noted for. The search engine in my brain being unable to find a match for "animals that breakdance", I took a closer look and there was a bumblebee, spinning furiously. I put it in the sun to dry off which gave me the opportunity to see what colour its bum was and how many yellow bands it had, which is pretty much all you need to identify the queens of the seven widespread bumblebee species that you are likely to get in your garden. Appropriately it turned out to be the Early Bumblebee, which is quite small and shaggy as bumblebees go.

The ladybirds, bumblebees and butterflies are all lovely to see, but I will see the common species of those in any given year, it's just a matter of when. If I am going to reach my target of 1,000 species I am going to have to find some specialities that I don't usually see, hence the middle of the month saw me on a very short pilgrimage for the Yellow Star of Bethlehem. This is a small and subtly beautiful bulb, which the Botanical Society of the British Isles atlas suggests, shines most of its pale yellow blooms on the "Little town of Darlington" (or more prosaically its centre of distribution is the banks of the River Tees between Darlington and Barnard Castle).

Starting in the east, we proceeded to scour the length of the woods at Low Conniscliffe without finding either the plant, or a manger, but I did find a couple of invertebrates that I'd only ever seen once previously. One was the Pygmy Woodlouse, which is probably Britain's commonest woodlouse but at 2mm long, one you could be forgiven for overlooking. It sometimes appears with a shiny purple iridescence caused by an iridovirus, which helps enormously with identification. This one didn't, so needed a X20 magnification hand lens to ensure that it wasn't a baby of some larger species. The other less usual invertebrate was a Harvestman. Harvestmen (preferred pronouns; "it", "they") are essentially spiders without the bit in the middle; so whereas spiders have separate heads, thoraxes and abdomens, in harvestmen the head just looks like it is part of the body. Like spiders they are very difficult to identify to species level but it just so happens that I have the definitive reference guide to Harvestmen. It has the most exquisite and detailed illustrations of any identification guide I have ever seen which is just as well as it is entitled, "De Nederlandse Hooiwagens", which just happen to be my only three words of Dutch. I did have a go at making sense of the text; interestingly "interische" and "parallele" would seem to have their English parallels and I think I got the gist of the phrase, "penis zeer lang en slank", but otherwise it was all Dutch to me. Fortunately my Harvestman was the most easily recognisable of them all, as it was black with two reddish dots, rather like the negative of photo of a Two-spot Ladybird. Its scientific name is *Nemastoma bimaculata*, but I'm calling it the "Reverse Ladybird Harvestman". I did find the Yellow Star of Bethlehem as well; just two tiny flowers poking through the Wild Garlic on the way back, but all the more appreciated for almost being missed.



The Yellow Star of Bethlehem twinkling at Low Conniscliffe
(my thanks to Derek Risbey for the use of the photo).

I don't know if I will do a sighting of the month, each month, but if I do it won't necessarily be the rarest or most unusual sighting. My main interest with wildlife is mammals but of all forms of wildlife, anywhere in the world, the ones I most like to see are the reptiles (alright if I could choose absolutely anywhere then maybe elephants but after that definitely reptiles). As far as I am aware, there are no reptiles whatsoever in Darlington, though apparently it had all four of the commoner British species in Victorian times, according to Richard Taylor Manson, the renowned Darlington naturalist who wrote, "The zig-zag ramblings of a naturalist", back in 1884. North east England as a whole isn't particularly blessed with them either and with scarcely an exception they are confined to the moorland fringes in the west and a series of narrow coastal strips. Fortunately I had the job of trying to catch one that had strayed onto a development site on Teesside and which needed to be moved out of harm's way. This would pretty much be mission impossible were it not for the fact that lizards can be tempted by mats of roofing felt placed to catch the sun and provide the heat necessary for them to become active on warm days. It's only a short window of opportunity before the lizards warm up enough to evade you and for several days the lizard sat on the mat, daring us to come closer, and then scuttling off into the undergrowth at the last second. Eventually, becoming desperate, I decided to engage "feline-mode" and crept belly to the ground, almost imperceptibly moving each limb a few inches at a time, trying to thread my arms through the brambles and ignoring the fox poo that my right knee had come to rest on. I got within inches; we stared, reflected in each other's eyes; I pounced, the lizard exited left. It mustn't have quite been warm enough though as half an hour later it was back and this time it made the mistake of disappearing under the felt where my colleague caught it.

The roofing felt had the bonus that it attracted lots of other creatures as well; ants and snails in abundance and every so often a Nursery Web Spider, stretched out as if doing yoga, but best of all

was a metallic green Tortoise Beetle, its legs characteristically drawn up under its shell. Not quite a reptile but the first time I have ever seen one, so almost as good.



A Tortoise Beetle – in this case relying on its shell for protection rather than camouflage

A much sadder sight was my first squashed Hedgehog of the year. The first few weeks out of hibernation seem to be the worst time for this, as the males go roaming in search of females. For the past few years I've been keeping a record of all the road kill Hedgehogs that I see in order to try and work out patterns (see my post, "Where didn't the Hedgehog cross the road"). At least the information gets put to good use but it's not a task that I look forward to.

I did relent this month and add a couple of slugs to my list. The big black ones are easily identified and impossible to miss and my son's new house came with a colony of Green Cellar Slugs under the decking. These are large slugs, extra slimy and almost luminous. They are described as synanthropic, which means that they like to live with us. They made it onto my list, but that's as close as we're getting. What I refused to include on my list was a Horse Leech. I merely hate slugs but I have a phobia about leeches and if I do find that I am stuck on 999 species at the end of the year then I swear I will wear the same pair of socks for a month and put down the resulting fungal infection, rather than the leech.

On a brighter note, a trip to the coast at the end of the month for a little walk along the beach resulted in two more bits of seaweed, three sea shells and a starfish that had washed up on the beach. There was also a fish washed up, which I think was a Herring but I haven't got round to identifying it from the photo yet and, while I don't intend to identify everything to the precise species, I'm not going to give myself a point for "fish", so that can wait for April's tally.

Tally to 31st March: 299 species, comprising 151 plants; 67 birds; 12 mammals; 3 amphibians; 1 reptile; 46 invertebrates (4 beetles, 6 bumblebees, 4 butterflies, 1 fly, 1 harvestman, 1 lacewing, 2 millipedes, 1 mite, 6 moths, 1 shieldbug, 2 slugs, 7 snails, 4 spiders, 2 wasps, 1 earwig, 5 woodlice, no leeches); 11 fungi/ lichens; 7 marine species (3 shells, 1 starfish and 3 bits of seaweed)

Fascinating facts:

Harlequin Ladybirds and Green Cellar Slugs may be vying with each other for the title of Britain's most invasive species. The Harlequin Ladybird, which comes in a confusing array of colour forms, was first found in south east England in 2003 and spread incredibly rapidly; I found myself sharing a bench in York town centre with them just a few years later. Its voracious appetite includes other ladybirds, raising serious concerns about potential impacts on those species.

The Green Cellar Slug was first identified in the UK in the 1970s and has subsequently spread throughout the entire country, no mean feat for something without legs. Its spread has coincided with the steep decline in the numbers of Yellow Slugs, itself an earlier introduction, suggesting that the two things might be connected.

April

I took my eye off the ball a bit in April. I'd had in mind that it would have been a bit of a banker, you know with spring and all that. But spring seemed to be in short supply, poking its head out occasionally between pockets of frost in what I'm told was the coldest April for 40 years. That's no excuse though for the fact that I only did one trip out where the focus was principally on seeing more species.

The month started well, with Opposite-leaved Golden Saxifrage, which oddly was growing in a grassy ditch in the stream beside the walled garden at Raby Castle. This plant is a firm indicator of ancient woodland, not a meadow plant, so I assume that the ditch gave it the bit of shade that it needed to have hung on from the days when the park would have been ancient woodland.

A short walk from Gilling West towards Richmond the following weekend turned up a few more of this specialised guild of plants, only this time growing in their proper niche. Town Hall Clock, its flowers facing squarely to four sides of the compass whilst a fifth flower points to the sky, is one that I haven't seen in my area before and Hairy Wood Rush was a completely new plant for me. This walk also produced my favourite plant of the month and the one on which I am also going to bestow the winner of species of the month for April, which was actually just a moss. It was growing on drystone walls, where it had shrivelled in what was also a notably dry month and clung tenaciously like a veneer of gold. Not knowing what it was I tentatively called it Golden Curly Wall Moss. It resembled the hair on the back of my head after four months of lockdown. It turns out that its actual name is Silky Wall Feather Moss or to give it its scientific name *Homalothecium seracium*. I've been saying that out loud in my best Dumbledore voice ever since but, as far as I am aware, so far I have remained visible.

We did get one day, the 16th to be precise, which encapsulated spring and by good fortune we had arranged a little walk out to Hurworth Burn Reservoir with my sister-in-law and her partner. In fact, so spring-like was the day that I saw her in shorts for the first time in 35 years. Hurworth Burn Reservoir is, as far as makes no difference, the source of the River Skerne which ran close to my house when I was growing up and, as I've never moved more than a mile from where I was born, is still within a gentle stroll. Hurworth Burn might only be 15 miles from my house but this was only the second time I've been there, the last being in 1988 with a local birdwatching club.

As soon as we picked up the trail along the former Castle Eden railway line you knew that something had changed. Within yards I heard my first Willow Warbler of the year and then seemingly in every

third bush there was another one, it's mellow, tumbling call, the sound of spring. They were vying for attention with their almost identical relative, the Chiffchaff, whose doggedly onomatopoeic call had filled the treetops for several weeks now. The Chiffchaff tells you that winter is over, but it's the Willow Warbler that announces that spring has arrived. I added seven new birds to my list that morning, including a couple of Pink-footed Geese, winter visitors that should have been on their way back to Iceland by now but which looked to be in no hurry to make the trip.

I will no doubt keep reiterating throughout this blog that really it's not about the numbers, it's about enjoying and learning about the wildlife and nothing typified that more than a pair of Great Crested Grebes that we watched on the reservoir. Probably no bird in this country has a more elaborate, or bizarre, courtship ritual. Gliding head down across the surface, like U-boats about to engage in battle, they meet, breast pressed against breast, and shake their heads in some unfathomable avian semaphore. This is just the prelude though; at some signal known only to them, they dive and emerge with great beakfuls of muddy pondweed, only this time when they come together they are paddling so frantically that they are effectively walking on the water. It was beautiful and breathtaking and I should have just gawped in rapt amazement but instead all I could think of was "which grebe first came up with the idea of the pond weed?"

Hurworth Burn gave a welcome boost to the list but otherwise things just ticked over. Ticking over can be enjoyable though and no more so that in our Sunday morning walks to pick up our baby granddaughter and push her back to our house along a short cut known locally as the Black Path. On the face of it, the Black Path is as botanically boring as only an urban footpath can be, with its soils enriched by legions of dog-walkers. It is largely a line of Hawthorn and Willow trees, underlain by Nettle, Raspberries and Feather Moss. But every week, in spite of walking half of it backwards to keep my granddaughter amused, I always seem to add one or two new plants. The best yet was White Bryony, a southern species which seems to reach its northern limit in Darlington, but does so, so rarely that few local naturalists seem to have seen it.



Black Path - White Bryony; the least scary of the Peter Benchley trilogy

My wildlife spotting trip was, as I'd promised myself at the start of the year, to South Gare. It has been described as being "botanically bonkers"; such are the incongruous mixtures of its huge number of plant species. I was expecting to fill a couple of pages of my notebook with new plants for my year list, or even new plants for my lifetime, but the ones that were out in a readily recognisable form were largely ones that I had already seen. Actually when I totted them all up, I did add 11 new plants, which would be good for anywhere else, but South Gare can do much better than that; it's just playing hard to get. South Gare did reward me with a few other things though, including my first terns of the year. I love terns! At a distance they are the gleaming, ethereal "sea swallows", up close they are like someone stuck feathers on a Ray Harryhausen pterodactyl. I also saw my first seal of the year. They are another iconic species for me, not least because I co-ordinate the Teesmouth seal monitoring programme on behalf of INCA. Sadly this one was long dead and laid high up on the beach like a sand sculpture, so much so that I needed to get within a few yards of it to be sure that it was a seal. Anyway it was and its long nose and long claws gave it away as a Grey Seal, so it went in the book along with the sand flies that danced round its corpse. Its death will at least be recorded for posterity in the next annual Teesmouth seal report.



A Grey Seal in happier times.

A youngster hauled out on Hartlepool promenade dreams of being a Labrador when it grows up

The last day of the month saw me just over the 390 mark and in a last minute bid to make it a round 400 I rooted around on my allotment, literally rooted around. I was sure that there would be a bit of Couch Grass that I had missed in my autumn weeding (there's always a bit of Couch Grass that you miss) but even with that and a couple of other weeds I couldn't quite make it. Technically I might be on target, almost 400 species in four months, but that's nearly all the easy ones done. I will have to try harder in May and June; they are the key months, for plants at least, after which most start to shrivel again. I might add a reasonable number of insects in July and August but after that I'm relying on fungi and odds and ends. If almost 400 didn't quite cut it for April, 500 certainly won't for May.

Tally to 30th April: 396 species, comprising 207 plants; 84 birds; 15 mammals; 3 amphibians; 1 reptile; 2 fish; 63 invertebrates (moths and bees tying for first place with eight species each, with butterflies and snails each just behind on seven); 11 fungi/ lichens; 7 marine species (4 shells, 2 crabs, 1 starfish and 3 bits of seaweed)

Fascinating facts:

If you are rubbish at gardening, mosses are for you. Some species have the ability to dry out completely, by which I mean go crunchy in your pocket then come back to life when you water them.

The UK has almost half of all the Grey Seals in the world, so has a particular responsibility for them. Only a tiny fraction of these, less than 100, live on Teesside.

May

I do pick them! Years in which to do a Bioblitz that is and what a year this is proving to be. As far as winter lingering on in to summer goes, I think I can only recall one other year like it, back in the 90s, when the May blossom didn't come out until June. May is supposed to be the best month – ask anyone! Even if you ignored all the good stuff in May it would still be the best, simply because it has none of the flaws of the other months. Imitating the traditional “in like a lion, out like a lamb” of March is really not what May is about and yet it stayed bitterly cold almost to the end, before the great switch-flicker in the sky allowed it to impersonate “flaming June” for its last couple of days. It's no surprise then that everything was late this year, but just to mark May's card; the St Mark's flies, whose emergence is supposed to coincide with the saint's day on 25th April, didn't reach their peak until mid-May; the Swifts, which I can set my calendar by seeing on the first Bank Holiday in May, were two weeks late; (they are gone again by the end of July, I was starting to wonder if they weren't going to bother this year); I didn't even see my first bat until 12th May. Bats are the creatures that I am probably still most closely associated with and the first sight of them is one of nature's defibrillators, causing a welcome flutter after the torpor of winter.

The first trip out of the month was to Low Barnes, a Durham Wildlife Trust reserve on the River Wear. It's only a small site, a mixture of wetland, woodland and wet woodland but it is part of a series of lakes along the River Wear, so will pick up wildlife from that wider area. I added a few new plants, a couple of snails and several bugs. By bugs I mean your actual bug, as defined by them having a tube-like rostrum, a kind of drinking straw that they poke into things to feed with, rather than bugs in the broader sense that Americans use as the equivalent of our term, “creepy-crawly”. The best of these were the Water Scorpions, which aren't scorpions but you wouldn't know to look at them. What looks like the sting in their tail is just a tube that they can stick out of the water to breathe through, so these bugs have tubes at both ends. I might have even gone one better; there were some tiny insects wandering across the surface, which I suspected were baby Water Stick Insects. This is a southern species and Low Barnes was the first place in the North East where Water Stick Insects were found, back in 2016. When full grown they are Europe's largest water insect, almost three inches long. These ones were just the size of a splinter that you might get in your finger but as they were at the wrong distance for the pair of glasses that I'd brought with me and they looked too delicate to fish out in my hand for a closer look, they will have to remain one to go back for.



Water Scorpions breathing on me with their "sting"

The main trip out for this month was with Darlington and Teesdale Naturalists Field Club, or the Field Club if you don't want to use up half a line just for their name; an institution in its 130th year and visiting that most hallowed of all North East wildlife locations, Upper Teesdale. My last visit there with the Field Club had been 30 years ago, for its hundredth anniversary. We'd been led on the outing by none other than David Bellamy, who sprawled among the "double-dumplings" for a photo opportunity and told us about the time he jumped off High Force for a TV programme but they couldn't show it for insurance purposes. Looking around I realised that I was the only person remaining from that day, even the great man, who had seemed as rugged as the landscape itself, had passed away two years earlier. I wondered if anyone would remember me on their 160th anniversary.



Double Dumplings aka Globeflower - without David Bellamy (photo courtesy of Derek Risbey)

The good thing about going out with the Field Club is that they include in their numbers people with a diversity of wildlife interests but of all of them nobody puts the diversity into biodiversity more than Jill Cunningham. Jill is queen of the unseen. Where other people might identify flowers and trees, she identifies the smudges, squiggles and stains on those flowers and trees that turn out to be rusts, galls and moulds. We had just crossed the road from the High Force Hotel and I hadn't even got my notebook out when she was crying "*Melampsora populnea*" at something on Dog's Mercury that resembled a tiny version of the scabs I used to get on my knees as a child. I jotted down as much as I could but as we walked downstream towards Low Force the bitterly cold temperatures meant that I had to stuff my hands in my armpits to stop the Raynaud's condition from rendering my fingers white and lifeless, so I concentrated on scribbling the English names I knew rather than the Latin ones that I didn't. Jill took pity on my and promised to show me some Smut on the way back that I had walked past without noticing. Smut, should you be wondering, to a naturalist at least is a fungal pathogen on flowers that just looks like dirt. Even so it is a thing, a living thing, so could go on my list.

They say that golf is a good walk spoilt but natural history is a good walk ruined completely and we had only made it as far as Middle Force before we stopped for lunch. Afterwards the main group decided to retrace their steps so that they could see High Force which was currently spewing over a second fall, as if being the largest waterfall in England wasn't enough. Derek Risbey on the other hand was heading down to Low Force, his mission the annual count of the Mountain Everlasting that

grows on a cliff face there. I'd never seen Mountain Everlasting before and, as of 12.30hrs on 22nd May 2021, it was the best name for any form of wildlife that I'd ever come across. Forget the Smut; I was going to Low Force. Mountain Everlasting is a tiny plant, its white, woolly leaves helping it cope with the dry conditions that allow it to live in places where other plants can't, such as on the apparently soil-less ledge that Derek was precariously leaning over in order to count them. It isn't necessarily a mountainous plant it's just that it has been all but driven out of lowland England and finds refuge in the hills. Unfortunately it's not everlasting either, of the almost 30 sites where it occurred in Northumberland some 40 years ago, it now occurs in none. Long may it cling to its ledge at Low Force.



The wild, white and woolly Mountain Everlasting
(photo courtesy of Derek Risbey taking his life in his hands)

We did think of trying to catch the up to the main group but by then we were suffering from lack of coffee and conversely too much coffee, so we made our way back to the hotel instead. On the way back up the steep, stone steps that had proved so productive for new species for my list on the way down, I spotted something unlike anything I'd ever seen before. Essentially it was blobs of goo sticking out of a completely rotted conifer trunk. Looking to be somewhere between a fungus and snot but with bright red tips, I guessed it was a slime mould. I took a photo and Jill later confirmed that it was indeed a slime mould, to be precise Wolf's Milk slime mould. As of 13.30hrs on 22nd May 2021, Mountain Everlasting was the second best name for a form of wildlife that I'd ever come across.

Back at home things were progressing much more slowly but my son's rotting decking, which had yielded an abundance of Green Cellar Slugs last month had another surprise for me, a Rosy Woodlouse. These are tiny things, a few millimetres long and are indeed a kind of brick-dust pink

with a pale yellow stripe where its vertebrae would have been if it hadn't been an invertebrate. And just as a bonus, on his wall there was a 14 spot Ladybird. With most ladybirds you do need to count the spots to identify the species but with the 14-spot version it's easy as they are bright yellow and the spots are actually squares and rectangles.

The final trip out of the month was to Durham Great Wood and it was as well that it was in the wood as we had just been plunged from winter into factor 50 weather, like a Swedish health freak in reverse. This was just a family walk out to see the Bluebells but woods ancient enough to harbour swathes of Bluebells hold lots of things besides. My eyes aren't what they were and the dappled light of a late-spring woodland didn't help but fortunately we had my son's friend Lucy with us. I think she may have been a kestrel in a previous life, her eyes missed nothing; the footprint of a rat in the mud; a dull brown Click Beetle on a dull brown path and an old owl pellet camouflaged in the leaf litter. I teased apart the owl pellet with my fingers (one of the few advantages of Covid is that you are never more than three feet away from a bottle of hand gel) and in it was the jaw bone of a vole and in the jaw bone was a tooth and in the tooth were open roots. Anyway to cut to the chase, that meant that it was a Bank Vole, so that went on my list as well. Under my rules, with mammals I don't actually have to see them to tick them off, their signs will do. No-one ever sees mammals; you could be forgiven for thinking that they are some sort of ethereal creature that only exists as footprints and droppings.



Looking for a Gruffalo to add to my list

Our route included a short cut across a field to Hollingside Wood. The sun had brought out a freshly minted Small Copper butterfly, dazzling in bright orange with black spots. It's looking good for June.

Tally to 31st May: 532 species, comprising 290 plants; 100 birds; 17 mammals; 1 reptile; 3 amphibians; 2 fish; 83 invertebrates, with butterflies just edging out moths, 11 to 10; 10 marine species; 16 fungi/lichens/rusts (no smut).

Fascinating facts:

When I was at school, life was divided into just two kingdoms, animals and plants, with fungi being lumped with plants. Then fungi were assigned to a separate kingdom with slime moulds part of that kingdom. But slime moulds are something else again. They start out as single cell amoeba-like organisms but can reproduce and form a large blob (technically a plasmodium) that acts as if it were living organism, moving around in search of food and even joining up again if pulled apart. They seem more like something from Star Trek than from a kingdom of planet Earth.

The only two recent records of Mountain Everlasting in the English lowlands appear to be from Peterborough and Ferryhill, which may be the only thing those towns have in common.

June

Where did June go? Before I knew it, it was the 23rd and I had only recorded an additional five species. Not that I hadn't seen any wildlife this month, in fact I had seen quite a lot, including some species that I had never seen in the wild before, such as Muntjac and Spoonbill, but these were down in north Norfolk on the week's holiday that we had postponed from the previous year. North Norfolk is undoubtedly much better for wildlife than Northumbria but it's not Northumbria, so those species don't count for my list. It was fascinating to see the differences though. The owner of the cottage where we stayed was a keen naturalist, so we would swap information on what was rare and what was common in our respective bits of England. The comparisons merit a whole blog of its own but there is no doubt that what is normal for Norfolk certainly isn't normal here.

Having left myself seven days at the end of the month and needing some 95 species, I turned to my notebooks, to the photo gallery on my phone and to the small plastic bags containing bits of decomposing vegetation that I have laid about the house. These were the things that I had noticed, photographed or collected but which I hadn't had chance to try and identify yet. Sadly, the bits of plant were only fit for the recycling but it turns out that the orange stain that I have been seeing on the Ash trees along Black Path was not one for my list of fungi, lichens and other biological obscurities, as I had assumed. It is actually a plant, a kind of algae, called *Trentopohlia*, but one that contains the same pigment that gives carrots their colour. Also, now that I knew what smut looked like, I realised that the black bits on many of the False Oat Grass seed heads that I discarded when picking seed heads for my budgies, was none other than False Oat Grass Smut, *Urocystis avenae-eliatoris*. It is currently leading the race for the least interesting form of wildlife that I have seen all year, but it still counts the same as the fascinating ones (a bit like democracy).

Of the five additional species I had seen in the first three weeks of the month, all had come to me rather than me going looking for them and two were real surprise visits. On the 17th a Banded Demoiselle fluttered onto the Forsythia bush outside our window and hung around as if trying to get my attention. These little damselflies look like they have been painted in dark-blue Hammerite and their wings have huge blue-black splodges, which, when they fly, produce a sort of strobe effect making them look like dancing fairies. These are damselflies of slow flowing water so shouldn't have been in my garden; I think it was just taking pity on me.

The other thing that definitely shouldn't have been in my garden was an Alpine Newt. I bred a dozen of these almost two decades ago and the first two of those larvae to shed their gills and leave the water climbed through the slits in the lid of the tank that same night and escaped. The others went safely to a local pet shop but somehow these two must have both survived the overwhelming

odds that all young animals face. To double the odds again they must have been a male and a female, for a few years later I was dipping my pond with a net when I found a total of four Alpine Newts. I didn't need to be a mathematician to realise that at least two of those weren't the ones that had escaped. Alpine Newts are a western European species, but one that didn't get its skates on in time to cross the land bridge known as "Doggerland" before Britain was cut off from mainland Europe at the end of the last ice age (at least as far as we know). They are therefore classed as illegal aliens, so those four also got donated to a local pet shop. I dip a net in my pond several times each year and for the next few years, every year or so I would pull out one or two Alpine Newts and consign them to captivity. As my pond is just a few feet long I was pretty sure I got everything that was in there and for a good five years now this hasn't included any Alpine Newts. Short of them recapitulating the evolution of reptiles in my garden and becoming terrestrial, I'm not quite sure how this one has managed to evade me until now.



An Alpine Newt – I should have bought a lottery ticket the day I found this one

In order to save myself from a total disaster, with two days of the month to go I tagged along with Robert Woods on a moth trapping session. Robert knows more about moths than anyone I have ever met knows about anything. His eyesight is if anything worse than mine but he never ceases to amaze me as to how he can identify a moth in flight, when I can do no more than determine whether it was a big moth or a little moth. What's more, the week before he had caught 80 different species of moth in a location not far from where he was trapping that night. Eighty would do me nicely. I arrived for 10pm by which time Robert and Steve, his fellow moth trapper (I think that sounds better than mother) had already made a start of sweeping the grass for any day flying moths in the last of the daylight. They had already caught, and released, ten different species. OK, so 70 would still be a good number. Much of insect life is what would be termed crepuscular, that is to say it comes out at dusk, moths on the other hand include the properly nocturnal and the number

of their different species builds up as the night goes on. Robert and Steve were planning to stay until 2am. Having to get up for work the following day I stayed until midnight and was rewarded with a total of 18 different species. Not quite what I was hoping for but all but one species was a first for this year and at least seven were entirely new to me and who could be disappointed by moths with names like Mottled Beauty, Brimstone and Lute String. As it turned out, it was a fairly poor night for moths, which for them meant 50 species between them, so they got a flyer at half past one.



The Brimstone moth - who needs butterflies when you have moths this pretty (Photo by Robert Woods)

One of the reasons that I try never to tell people that I work as an ecologist is that they imagine that I spend my days tramping around the countryside with binoculars. In reality at least 90% is either reading or writing reports and of the ten percent outdoors, nine are spent on industrial complexes. Work the following day was a treat though; I got to take some PhD students to look for seal poo. If you are a scientist there is a lot you can learn from seal poo and there is becoming quite the market for it among academics, but it is a rare commodity. Apparently, if it is truism that bears crap in the woods then the aquatic equivalent would appear to be that seals shit in the sea. To make things harder, even when they do it on land you can't just go and collect it. All of the places where seals haul out on Teesside are Sites of Special Scientific Interest and as seal poo is biological material we needed to be armed with a letter of consent, to go with the trowel, plastic bags and sample bottles. To make things harder still, there is no object in the natural world that is better camouflaged than seal poo. It is rather similar to what might pass out of a Labrador (in case you were wondering) *but*, it is the colour of mud, it is deposited on mud and it is usually squashed into the mud where the seal has laid on it. Not only that, the mudflat that it is deposited on is continually breaking up into little balls the size of seal poo. If you happen to be the world champion at "Where's Wally", you might just have a chance.



Spot the seal pool! (photo by Dave Miles)

We prodded quite a few small mud-coloured balls that day, of which about half a dozen seemed to be the real deal (and you'd be surprised by just how satisfying that can be) but it was the mile walk along the sea wall that occupied more of my notebook. The butterflies and day flying moths, whose appearance had been delayed by the lousy weather earlier in the year, had finally come out. These included the Common Blue, a butterfly so dazzlingly electric in colour that you would scarcely believe we had such things in this country. Considerably drabber and more bittersweet, the "brown" butterflies were also on the wing. Brown butterfly season is one of the markers of the year that I wish I could postpone indefinitely. It means that spring is well and truly over and that we are into high summer; another month and the seeds will be setting in readiness for the next year. Still there were three different species of brown butterfly and this month I was happy to look at them as roundabouts rather than as swings.



The uncommonly blue, Common Blue butterfly (Photo: Robert Woods)

In the end I scabbled my way to a tally of 573 species, just 41 more than at the end of May. This comprised: 303 plants; 102 birds; 17 mammals; 1 reptile; 4 amphibians; 2 fish; 111 invertebrates (with moths taking a clear lead over butterflies, 27 to 16); 15 marine species and 17 fungi/lichens/rusts, including a little bit of smut.

Fascinating facts:

“What is the difference between butterflies and moths?” Probably the second most commonly asked wildlife question after; “what is the point of wasps?” Technically there isn’t one, especially if you look at butterflies and moths across the world. In practice though, at least in this country, there are a couple of pointers which will tell most of them apart. Butterfly antennae have a little club on the tip whereas moth’s antennae are feathered or tapered. Also, almost all butterflies hold their wings up vertically when they rest, so that you are looking at the underneath of the wing, whereas moths rest with them horizontal or folded over their backs, so that you are looking at the tops of their wings. Robert tells me that there is a more technical difference in that many moths have a catch like structure called a retinaculum and a bristle-like hook called a frenulum, which makes the connection between the fore and hind wings more robust. With the exception of an obscure species of Skipper in Australia, butterflies don’t. Even someone with Robert’s practiced eye isn’t going to see that though.

Harbour Seals, which are the species that breeds on Teesside, are unique among seal species in having precocious pups. None of this lying around in a white, fluffy coat looking cute, for them. Instead, when the very next tide comes in they are off swimming with their mothers. Seal Sands, were the pups are born, is only above water for a maximum of four hours at each low tide, so the pups may well be swimming away within an hour of being born.

July

If June had been my worst month so far, then July was probably my best. Not quite as many new species as I found in May but then these were on top of the ones I had found in May, and all of the other five months in the first half of the year as well. I'd passed the total number of plants I'd seen in the whole of 2020 by 13 July and the 636 species of all kinds that I had seen last year by the 19th.

Not that it felt good to start with. I found myself with a couple of hours to spare on the first Sunday of the month so I decided on a dash around nature reserves in Darlington, mainly to see if I could pick up some of the dragonflies and damselflies that would now be on the wing. My first stop, Snipe Pond, was full of anglers and I would have felt a bit self-conscious, hovering between their rods, staring through binoculars, so I switched to the River Tees at Blackwell. A few days previously, Vince Robertson had come across a pair of Ring-necked Parakeets that were holding territory there. As well as being a new species for my year list, this was a first nesting record for this species in Darlington. Parakeets have an unmistakable piercing call which carries a very long way, though not far enough for me to hear it that day. I did a little loop round by the river. The silt that the river deposits on this bend makes this a very fertile soil and only a few of the most vigorous and ubiquitous plant species win the battle to survive there. I'd got all of those – most in the first month. There were a lot of flies, none of which seemed particularly shy in making my acquaintance, but you need a lifetime to tell them apart properly and that wasn't how I had spent my life so far. If I turned some logs over there would doubtless be lots of different beetles, God apparently having an inordinate fondness for them, but telling those apart is another lifetime, maybe two.



The parakeet blues - the result of not seeing any unusual wildlife (Photo by Eric Paylor)

I could feel myself getting increasingly despondent with my failings as a naturalist and was all set for going home and sulking, when I remembered that I had said that I would check out the newts at Horse Field. The Field Club had visited this nature reserve earlier in the year and had seen newts but weren't sure if they included any Great Crested ones. It was on my way anyway, so I might as well do it now. The run of hot weather meant that the first task was spotting the ponds. Only one held enough water to baptise a newt, never mind support it through its infancy. I wasn't in a hopeful mood to start with and it wasn't just the glass that was half empty. To my surprise then there were

still a few newt larvae, hanging motionless in mid water like little newt balloons. Three of them looked like they had tiny pieces of coal embedded their tails; the classic mark of baby Great Crested Newts!

Maybe I'm just shallow but it is amazing how one turn of events can change your mood. The pond turned out to hold a few new plants as well, including Amphibious Bistort, which surrounded the margins and, true to its name, was now living on the dried up land rather than in the water. All its leaves were covered in tiny slug-like creatures which will have been sawfly larvae. I still don't know their specific name but sawflies are generally host specific so "Amphibious Bistort Slug Sawflies" will do quite nicely for now. There were also some Picture-winged Flies, metallic green with big white splodges on their wings that they flashed at each other, in "my white splodge is better than your white splodge" fashion and, for all I know, it might have been. Jill Cunningham, of rusts and smut fame is also an artist of great skill and her note book is graced with intricate drawings illustrating the minute differences between the various species that she has encountered. Better still, she gave an impromptu demonstration of their courtship displays through the medium of dance, which was entertaining, though I can only conclude that I don't have any Picture-winged Fly genes in me.

A little way along from Horse Field is Brinkburn Pond. This is a deep pond, used for angling. We could fill milk bottles with newts from it when we were kids, though I suspect that the fish have eaten all the newts by now. Perhaps its greatest claim to fame is as the location for the British rod-caught record for the Pumpkinseed Sunfish (an American species that is now banned in the pet trade). Whether any Pumpkinseeds still remain below the surface I have no idea. In fact whether anything lay beneath the surface I couldn't tell as not a drop of water could be seen for the Duckweed and the Floating Pennywort. Floating Pennywort is another illegal alien that can and does choke waterways, though in this case the Duckweed clearly had the upper hand. I was just about to give up on the pond when I saw something other than a carpet of green on the far side. It turned out to be two enormous terrapins basking on an old Coot's nest. Not just any two terrapins either but two different species, a Red-eared, which must have been a foot long, sat on top of an even larger Yellow-bellied, so that's two ticks for my list! As alien species go, terrapins are one of my favourites. They are usually demonised as devourers of our native wildlife, but in fact adults are mainly vegetarians and probably eat less of our native fauna than that much-loved alien the Mandarin Duck. In any case they certainly aren't invasive; it's estimated that the average summer temperature in Britain would need to increase by a few degrees for them to be able to establish a self-sustaining, breeding population. If that ever happens I can guarantee that the last thing people will be worrying about will be an invasion of terrapins.

Of the three trips further afield this month, the first was for a short circular walk from Reeth to Healaugh in the Yorkshire Dales. I wasn't holding out much hope for this one. My name for the Yorkshire Dales is the "pretty desert". Its small, green fields edged with the grey limestone of both natural crags and drystone walls are as green and pleasant as Blake's "Jerusalem" could ever have envisaged and there is probably nowhere in the world I would rather be, but it is heavily managed for food and sport and in my experience there is bugger-all wildlife. On what was a scorching hot day we found some stepping stones across the river and I dipped my head into water of a tongue-twisting, Coca-Cola colour. I'd hoped to see Stone Loach, which I eventually found but there was another fish near it, which looked like a Stone Loach that someone had stood on. It took me a while to realise that I was looking at a Bullhead. I think the delay is because I hadn't seen one since I was a child. They have become quite rare, in part as a less-publicised victim of the introduced American Signal Crayfish. At least here they have found a refuge. I revised my assessment to, "almost bugger-all".



The "BABA" - the British Almost Bugger-All

Trip number two was to Greenabella Marsh, a mixture of wetlands and grassland overlooking the mudflats of Seal Sands. This was a Darlington Field Club outing and I was leading it. I'd done a recce for it earlier so I didn't expect to add many more species to my existing tally and so it proved. Of the 91 plant species that we recorded, all of them were already on my list. Jill Cunningham did come to my rescue with a few plant galls but it was the invertebrates that were the stars of the show this time. Perhaps the best of these was 11-spot Ladybird. I'd never seen one before; in fact of the great many numbers of spots that a ladybird can be, I'm not sure that I even realised that 11 was one of them. On checking later it turned out that there had only been a handful of records of this species in the North East in the past few years and not many more than that, ever.

At least I knew that creature was a ladybird; with the next species we encountered, my first guess was that it was an alien. Not in the usual ecological sense of an alien being a species introduced from another country or continent; I mean, outer-space alien! These things were the only apparent life-form in a shallow, brackish pool and were swimming and burrowing with equal facility. Whatever they were, they were ghostly white with long appendages and the debate lasted some time as to whether they had tail appendages and were swimming backwards or had ridiculously long antennae and were swimming forwards. Fortunately someone had a seaside identification book and it turned out that these were the mud shrimp, *Corophium volutator*. Other than nematode worms, this is conceivably the most abundant species on Teesmouth and is what most of the hundreds of small wading birds that Teesmouth is famous for feed on. I've written its name lots of times in reports, but I had no idea that it looked like an alien; shows how much I have to learn.



First pictures of life on the moon

The final trip out was to South Gare. In terms of its spiritual significance for botanists it's more New Age psychedelic trip than Mecca, given the weird combinations of habitats and plants. This was another Field Club outing and I was hoping that some of the group's botanists would be present, as much in the hope of improving my botany as in adding new species. Unfortunately they weren't so as the person most familiar with the locations of the various plant communities I ended up leading the group (if the term leading could ever be used with the Field Club, who manage to make cats seem as well drilled as a synchronised swimming team). It proved to be an excellent way of re-enforcing my knowledge but obviously not a good way to enhance it. Nevertheless I would defy anyone to go to South Gare in summer and not find a new plant species for the year; after all, people have found new plants for the country there. I added 20 in total. Perhaps the oddest of these was Courgette, growing on the strandline along with typical beach plants, and a Tomato! It turns out that it was only the third Courgette record for North East Yorkshire – I feel quite proud of that.

I ended the seventh month on 699 species: 362 plants; 105 birds; 22 mammals; 3 reptiles; 4 amphibians; 5 fish; 159 invertebrates; 18 marine species and 21 fungi etc.

Fascinating facts:

The mud shrimp can exist at densities of 50,000 shrimps per square metre. Sandpipers can eat them at a rate of 50 per minute. I'm sure there's a KS2 maths question in there somewhere.

There are 46 species of ladybird in Britain, with the number of spots the different species have ranging from 2 to 24. Not all of the numbers in between are represented though, for example there isn't a 17 spot Ladybird. Some ladybirds don't have any spots at all (is that even a ladybird?).

August

I hadn't expected much of August. The month when no news ever happens is also a lean month for wildlife. Most of the flowers are over, the fungi haven't really started and the birds have swapped singing for skulking. It is still a decent month for moths and with a good guide book and a little help you can tell almost all of them apart. I had them as my "go to" group for August; that is until my moth trap fell to pieces at the beginning of the month.

In spite of my low expectations I started off with great ambition, attempting to see what was possibly the most exotic animal ever to grace the north of England; an Albatross! Not only was this bird in the wrong country, it was in the wrong hemisphere. Lost without even its familiar stars to guide it, the Albatross has been cohabiting with the Gannets at Bempton Cliffs, where it seemed that everybody who went to look for it saw it. Bempton is a good two hour drive from my house, which would be the furthest that I have gone to see a rare bird by a good 90 minutes. A couple of wrong turns stretched that record to around three hours and we got there around eleven only to be told that the Albatross usually leaves for the day at 7.30am, as if commuting to work, but returns between 3pm and 5pm. We stayed until 5.15pm but the Albatross decided to work late that day. I should have been really disappointed but it's hard to be disappointed when the warm up act was thousands of Gannets with six foot wingspans and a birds-eye view of a Harbour Porpoise quartering the sea, hundreds of feet below us. I even managed to tick Puffins and Razorbills, just before the last handful of them disappeared out into the middle of the sea for the winter and out of tick-able range until next spring.



The awe-inspiring Bempton Cliffs. Each tiny, white dot represents a six foot wingspan

The key to seeing lots of species is to see different habitats so our next couple of days out were to some habitats that I hadn't managed to get a good look at so far this year. The first was to the North York Moors above Danby, though the trip was more to see the heather than its inhabitants. Heather moorlands are low in species diversity and I had already seen all three species of heather that we get locally, but species lists fade into insignificance compared to swathes of pale-purple Ling heather as far as the eye can see. Britain has more heather moorland than any other country and the North York Moors have the greatest expanse of it in England and therefore one of the greatest in the world. It turned out that we had got there perhaps a week too early; the brown of the heather was taking on a purplish tinge and there were patches of proper purple but the wow factor was missing as, it appeared, was quite a bit of the heather itself. As I was chasing around taking numerous fuzzy photos of a large, distinctive looking hoverfly that I hadn't seen before but felt sure I would be able to put a name to if only it would stand still for a photo, a fellow heather admirer asked me if I was looking for the beetle. It turned out that he meant the Heather Beetle, which apparently had been killing off large swathes of the heather; the place where we stood was one of the few reasonably intact places.

In spite of its trail of destruction, I didn't manage to see the beetle, or get a good photo of the hoverfly, but I did see a Mottled Grasshopper. Grasshoppers and their kin are my favourite group of insects. I've often thought that I would like to take a particular interest in them, were it not for the fact that by and large we just get two species in the North East and for the past decade the calls of one of those has been too high for my hearing threshold. Mottled Grasshopper was only the third species I'd ever seen up here, so a new grasshopper was easily species of the month at that point. The beetle's handiwork had also unearthed a second species that I wasn't expecting, Stag's Horn Club Moss. I had only ever seen club mosses once before, on the lower slopes of Cwm Idwal in North Wales, when I was a student on an Open University ecology course. I'd never expected them on the North York Moors, which as it turns out was not an unreasonable assumption as they have rarely been found there. To be fair to club moss spotters, they are small and grow low to the ground (the club moss that is, not the spotters) and I don't know whether the dead heather allowed them to grow or merely allowed them to be seen. Although club mosses are related to ferns they do at least look like mosses. Their scientific name is *Lycopodium*, which is a lot more misleading. Lycopodium is Latin for "wolf foot" whereas they actually look like a furry, chicken's foot – I have no idea what the Latin is for "furry chicken's foot".



Furry chicken's feet – rare in these parts!

The other habitat that I'd been meaning to do was rock pools and to find some we had a day out in Staithes. Like the moors, the trip was more about the place than the species. Staithes is a jewel and you'd probably travel half the world in search of it (unless you're Captain Cook in which case you travel half the world to get away from it) so it's one of the places we try and go to every year. Good choice for the place then, but on reflection perhaps not the best for rock pools. The rocks form a wide, shallow platform leading imperceptibly out to sea, so that most pools are just an inch or two deep, whereas the deeper channels still connect to the sea and any mobile creatures can escape with the tide. Still, as Forrest Gump might have said, "life is like a rock pool you never know what you are going to get". There were loads of little fish, which came in two colour forms that I hoped would be two species but the book said they were all just the common blenny species known as the Shanny. Hermit Crabs were everywhere as well, tentatively poking their legs out of the shell of a winkled winkle, then scuttling off when your shadow moved away. The remains of a large Lion's Mane Jellyfish coating a rock, as if someone had thrown a brown ale flavoured jelly off the top of the cliff, was perhaps the most spectacular find but my favourite was a juvenile Sea Slater. Sea Slaters are a giant, semi-marine woodlouse, giant by woodlouse standards that is. This one was only about a centimetre long but with an attractive black pattern; attractive by woodlouse standards that is.

The rocks at Staithes are known as the Staithes Sandstone Formation. Formed in the Lower Jurassic they are renowned for their ammonites and a few of these could be seen around the rock pools. It occurred to me that I count dead things on my list so why not count these. After all, I don't think there are different degrees of deadness and a hedgehog that was squashed by a car two days ago is just as dead as an ammonite that was squashed by tons of silt 200 million years ago. I know virtually nothing about fossils and can scarcely tell an ammonite from one of those tribes in the Old Testament, so this was never going to be a particularly fruitful diversion but even so I added a couple more types, including the largest Devil's Toe Nail that I have ever found.



Devils toe nail - who knew that the Devil suffered from fungal nail infection

In spite of seeing some fairly spectacular species and some that I had never seen before, my species of the month ended up being one that I had seen loads of times already, as its larvae are dotted all around my vegetable patch, the uber-invasive, Harlequin ladybird. It comes in many guises; yellow,

orange or red with anything from 0-21 spots, or even shiny black with two or four, red or orange blotches. The one that ended up in our bedroom had blotches that had fused to form a Rorschach blot on its back, which I swear looks like the Batman symbol. I wonder what that says about me?



What do you see?

In spite of my initial concerns I added a further 95 species in August, bringing the total to 794: 411 plants; 112 birds; 23 mammals; 3 reptiles; 5 amphibians; 7 fish; 177 invertebrates; 28 marine species; 25 fungi and other oddities and 3 fossils.

Fascinating facts:

Albatrosses can glide for hundreds of miles on a single flap of their wings. Their wings have a locking mechanism so don't require any energy to hold them out. They mate for life and have the lowest divorce rate of any bird; even so I think this one is in bother when it gets home.

They may be small now but in the Carboniferous period Club Mosses grew over 100 feet tall and their trunks are what we now call coal.

September

September sucked!

I was thinking of leaving the entry for September at that, a sort of blogging equivalent of the Haiku, only for people who haven't the patience to read a whole Haiku. I had envisaged August as being the month when nothing much happened, a brief pause before the next season started. I hadn't reckoned on September being that month and certainly not the sort of month where I only added 29 species.

That wouldn't really be fair to September though. It was an exceptional month, one which stoked the flames of summer from the embers of an autumnal August. In truth, it was me that sucked. I thought that October would be the month to start off the fungi season, only to arrive there and be told that September had been better. I'd missed the Field Club outing at the beginning of September, deciding that it was too early for fungi and that I'd rather watch the first rugby game of the season instead. The fungi had other ideas and as I couldn't make the next Field Club outing then I could only hope that the fungi would wait for me in October.

My only trip out with the Field Club ended up being to Saltholme bird reserve at the end of the month. I did have high hopes for that, the migratory birds that I had missed back in March should have been returning by then, but, unlike the fungi, they were late and all I had to show for the morning was one new plant, Stonewort, one new bird, Barnacle Goose and one new moth, the Nettle Tap.



The Nettle Tap Moth – tapping up a Dandelion for a change

It turned out to be an afternoon visit to see the house and gardens at Kipling Hall in North Yorkshire that proved the most profitable trip of the month. We had time for a quick walk around the lake, whose entire perimeter was fringed, appropriately as it turned out, by the Fringed Water Lily. For such a distinctive plant it seemed odd that I didn't know it but it turns out that it's quite rare up north. The other distinctive species, which I had no trouble identifying as it had turned almost every leaf on the Alder trees into a skeleton, was the Alder Beetle. There were thousands of them, probably tens of thousands. What I hadn't realised was just how unusual this was. The Alder Beetle was at one time considered extinct in Britain, just occurring here as migrants, but recently it's been undergoing a population explosion and is another of those species for which Darlington is currently its northernmost outpost.



The Alder Beetle – I wish the Chinese White Dolphin was this extinct

The Alder Beetle wasn't my favourite species of the month though; my favourite was many people's least favourite, the House Mouse. I can understand the hostility; House Mice don't do a lot to endear themselves to us. As their name suggests, their typical habitat is the house, where they will nibble food, electric cables and anything else that is softer than their teeth, whilst all the time marking the boundaries of their territories by a constant dribble of urine that smells of basmati rice. Not having any in our house (we have the less smelly but equally nibbly Wood Mice) I can afford the luxury of appreciating their cuteness. I hadn't seen one for almost 20 years when I noticed some scooting around the aviaries in the local park a couple of years ago. Compared to the bouncy Wood Mice, House Mice really do look like a clockwork wind-up toy; zooming from hole to hole without ever seeming to move their feet. I was pleased to see that they were still there; I expect the aviary keeper was less pleased.

It wasn't just the weather that made September special. Sunshine was also radiated in the form of our granddaughter, as my wife took semi-retirement in order to mind her part-time. Mine is just a supporting role in this but one unexpected side effect is that I have had to hone my identification

skills on a whole new habitat, "The Night Garden". Telling "Iggie Piggie" from "Macca Pacca" was dead easy and I soon got my eye in with the "Tombliboos", but I would defy anyone to tell the "Pontipines" apart without DNA analysis. Incidentally, am I the only person who finds the "HaHoos" just a teeny bit unnerving?

Of the 29 new species I added in September, there were; 2 birds, 15 plants, 2 mammals, 10 invertebrates, bringing my total for the year so far to 825.

Fascinating facts:

The island of St Kilda in the Outer Hebrides used to have its own sub-species of House Mouse, which was larger than House Mice on the mainland. When the last people left the island in the 1930s, the mouse went extinct.

*Three of the four types of Tittifers (which for the benefit of those not trying to get a toddler off to sleep, are the birds that sing their song in the Night Garden) are real birds - White-cheeked Turaco (*Tauraco leucotis*), Common Hoopoe (*Upupa epops*) and Channel-billed Toucan (*Rhamphastos vitellinus*). I have no idea what the fourth type, the blue Tittifers, are and I'm not about to Google it.*

October

October started with great excitement. A Facebook friend posted a photo of a shrew that her cat had caught in the garage. The photo, just of its head, resembled a flattened Womble, which is exactly how I think White-toothed shrews look. I would have gone with that identification were it not for the fact that no-one has ever found a White-toothed shrew on mainland Britain before. I decided that the opportunity to make zoological history was worth the risk of looking very foolish if I was wrong and asked if there were more photos. To my even greater excitement the next photo, of the side of its head with its mouth open, showed teeth that appeared white. (For the non-soricophiles among you, all the shrew species we get in this county have red-tipped teeth). It wasn't impossible, White-toothed shrews didn't live in Ireland until 2007 (not that anything much lives in Ireland, though that is the fault of the glaciers rather than the Irish). They then started turning up in owl pellets in Tipperary, presumably having been introduced through the horticultural trade. If it had happened in Ireland it could happen here. I was now so excited that I was all ready to shell out the fifty quid to get DNA analysis done on it when a further photo, of its full body with a ruler for scale, showed it looking more a bit more like a native Pygmy Shrew. I emailed the two people I know who are most familiar with shrews and they both thought it looked a bit odd for Pygmy Shrew as well, so I don't feel quite so foolish, but for now the fifty quid is staying in my pocket.



A somewhat dazed shrew, trying to remember if it's a womble (thanks to Melissa Young for the photo)

Next up was the much awaited fungal foray with the field club. I turned up at their usual start time of 10am, in fact I was a minute early, but no-one was there. I double-checked; I was definitely in the right place – perhaps they weren't. There was nothing I could do, so I went home again, only to find that I should have been there for half past ten. I dashed back, arriving just five minutes late but they were nowhere to be seen. Now if the subject of the trip is anything to do with stationary wildlife, such as plants or fungi, then the field club moves at an average of five metres per minute; you don't need a Bloodhound to track them down, a well-trained African Giant Snail would do. This wasn't a big wood; there was only a single track running south to north, so why couldn't I see or hear them? I jogged up to the north end, no naturalists; I jogged down to the south end, no naturalists; I jogged up to the north end again and this time stood and listened for any excited exclamations in Latin; nothing! About to give up I gave it one last go at the southern end, from where an improbable number of them filed out one by one from behind the root of a fallen tree, as if a magician was pulling naturalists out of a hat. At least I had found them but by then I had missed about a dozen species. Even so, I added another twenty one species to my list. The most abundant was Blackening Brittleghill, which peppered the wood like soggy charcoal umbrellas. It was mostly over, but we managed to gather a range of specimens in stages ranging from greyish-brown and plump through various stages of decay culminating in the black and shrivelled. We lined them up in row and then lined ourselves as to where we thought we stood in terms of "Blackening Brittleghill years"; there was a lot of blackening and shrivelling.

The best discovery of the month that I made myself was an odd plant, growing in a shallow pool on Seaton Common. The odd thing about it was that it didn't appear to have any petals. As the only other plant growing in the pool was a saltmarsh plant, then all I could think of was that it was Sea Aster, which had unaccountably managed to lose all of its petals at once. It wasn't until a couple of weeks later when someone posted on Facebook that they had been to see the only Buttonweed

plant in County Durham that I realised what it was, and that mine was now the second Buttonweed plant in the county. It turns out that it is a non-native plant from New Zealand, though it can hardly be called invasive as there is only one in North Yorkshire as well.



Buttonweed - a most unusual plant in more than one sense

The best was saved for last though and on my birthday at the end of the month I did my first field trip with Durham Wildlife Trust botany group. This was to a hamlet called Dirt Pot, which is no more than a tiny stain on the map, close to where the three counties of Durham, Northumberland and Cumbria meet. The combination of clean air and conversely historic contamination from lead mining has resulted in a hotspot for rare or unusual plants and lichens. I saw several plants that I had only seen once or twice before, a few mosses that were completely new to me, including one that looked like a miniature palm tree and several lichens that were unlike anything I'd seen before. The one which most enthralled the leader, who was very well versed in lichens but had never seen one of these before, was the size and appearance of a "Lolo Rossa", cut and come again, lettuce. I am taking her word for it that it was, in fact, a lichen and not a lettuce. The oddest looking, and therefore my species of the month, clung to a Hawthorn as if someone had thrown a plastic bag into the tree, which had then partially disintegrated over several years. It goes by the name of *Ramalina fraxinia*, but I have christened it the Dog Bag Lichen.



Dog bag Lichen - if only everything was this biodegradable

In spite of this botanical gold mine (alright, technically, it was a lead mine) that wasn't the best bit. The best bit was that in this company, I was the novice. I'd gone from being the person that is often expected to know the answer, to having nothing useful to contribute whatsoever. It was like I'd got to a certain standard then discovered a secret society where nothing I knew before was of any use, a bit like "Batman Begins" for botanists. There might have been the ever so slight feeling of the sticking plaster ripping off my ecological ego, but I hardly noticed as inside I was leaping cartwheels at the prospect of advancing the botanical education that I had started over 40 years ago, on a field trip at sixth form. I wish I had met this group at the start of my quest.

My tally to the end of October was 901 species, comprising: 119 birds; 456 plants; 191 invertebrates; 23 mammals, 5 amphibians, 3 reptiles, 7 fish; 64 fungi/lichens; 28 marine species; 3 fossils

Fascinating facts:

After the last glaciers retreated, Ireland was cut off from Europe before Britain, which means that there are lots of animals that made it to Britain but which didn't make it as far as Ireland. Amongst other absentees, Ireland has no Harvest Mice, no Weasels, no Moles and no Great Crested Newts. It wasn't just the creeping creatures that didn't make it to the Emerald Isle; there were no Tawny Owls or Woodpeckers until some arrived in the last decade (it's only taken them 9,000 years). And, as for St Patrick banishing snakes from Ireland, that was about as miraculous as St Cuthbert banishing elephants from Lindisfarne.

The other, very obvious fungi on my trip out with the Field Club, was Fly Agaric. This is the toadstool of choice for gnomes, bright red with a speckling of white warts. As its colour suggests, it is poisonous but not quite as much as some of its very deadly close relatives and its poison can allegedly be nulled if it is filtered through a Reindeer. It then merely becomes hallucinogenic. What I want to know is who first thought that feeding the toadstool to a Reindeer then collecting the Reindeer's urine and drinking it, would get you high?



Fly Agaric - judging by the bite mark there's a very merry Reindeer somewhere

November

The poet Thomas Hood has beaten me to my blog this month. His poem, "No!" ends with the stanza;

"No shade, no shine, no butterflies, no bees,
No fruits, no flowers, no leaves, no birds, November!"

That was pretty much it for November. I found two new plants, though neither was a flower, and added another five from earlier in the year that I'd only just got round to identifying. I only added a single new insect and just one new bird, though both were pretty stunning and both were in my garden.

On the first day of the month I was amazed to see a large, brick-red "butterfly", weakly fluttering by the window at midday and then crash land on the *Leylandii*. There are no largish brick-red butterflies, at least not in this country, hence my amazement. It must have been a moth, but I didn't know of any moths that size and colour and especially not ones that flew in the middle of the day in November. For the first time this year, or at least the first time with any success, I wafted my butterfly net and caught the moth; although the verb suggests a more active role on my part than was merited, it seemed more like the moth just surrendered and fell into my net. It turned out to be

a Feathered Thorn (and I ought to be able to make at least a feeble joke out of that name, but it's late and I'm not sure it would be worth the effort). It also turns out that October-November is its time to be, just not at midday. I let it go and it struggled its way over the four foot fence into next door's garden. This was not a moth that was looking like it would be around to see in the New Year, but I was delighted that it was around to brighten up my November.



Feathered Thorn (Nope, still can't think of anything amusing)

The bird was a Brambling, which is essentially an orange and black Chaffinch. They flock to this country in winter (alright I have never seen a flock of them but there isn't a verb to "drib and drab") seeking sanctuary from the Scandinavian winters. They will be dribbing and drabbing (see it didn't work) across the country every winter but I doubt that I have seen much more than a handful in my life and this was only the second ever in my garden. Stunning it may be, though partly because orange and black is a rare combination in birds, but it can't match the Chaffinch. In some ways it's a shame that Chaffinches aren't rare because if they were we would fall over ourselves to fall over them. They mix understated beauty with the most extroverted of personalities and an all-pervading voice; if I'm ever unsure what bird it is I hear calling, it's always a Chaffinch.

My species of the month was a bizarre life form which resembled a platoon of chocolate caterpillars doing a Mexican wave (the collective noun for caterpillars is an army but this was a smaller version). The resemblance was even closer when we blew on them and they vibrated in synchrony and released a cloud of chocolate dust. Of course, if it was a bizarre life form then you can bet it was a slime mould, which it proved to be and not only are slime moulds the weirdest form of life, they also have the best names. This one is called "Chocolate Tubes"; not quite as good a name as the Wolf's Milk slime mould encountered in my May blog, but a lot more Christmassy.



Chocolate Tubes - if you think the photo is weird you should see the video

My species list to the end of November stood at 924. This was essentially October's list plus fungi and other strange life forms.

Fascinating facts:

A few species of butterflies and moths survive the winter as adults ready to emerge in the spring and will sometimes come out of hibernation in the middle of winter if it is a nice, sunny day. I once got called to a house where the builders had downed tools in the attic because they thought they had seen a bat. It turned out to be a Peacock butterfly, one of the largest species in this country. It was hibernating in the attic with its wings held up so that all you could see were the black underwings.

The species that I would really love to have seen, which turned up in the North East in November, was a Walrus. It was the first ever for the North East and would have been the species of a life time for these parts. Unfortunately for m, but fortunately for the Walrus, as they are extremely sociable and being feted as the first Walrus to discover Northumberland would be scant consolation for missing its friends, it only hung around for a day before heading north again. By my calculations, Walruses (so why isn't it walri?) are the tenth heaviest species of animal that can be found on land, weighing in behind three elephants, three rhinos, hippos and the two species of elephant seal, at one and a half tons.

December

Well that felt like the quickest year of my life; perhaps seeming even quicker for having documented it on a monthly basis. December was a good month for my list with the addition of over 50 species, though most of them were technically not new species. Instead they were ones that I had just got round to identifying or, in most cases, had plain forgotten to write down from earlier in the year.

There were some new species though and among those some that would headline in any month. I found both Yellow Brain Fungus and White Brain Fungus. I'm not sure which one my brain most resembles – they were both a bit mushy, so it could be either. My first Kingfisher of the year, which arrowed out of a bridge beneath me looked even more absurdly electric-blue than normal, if such a thing could be possible. But my species of the month, which was, I think, also my last genuinely new species of the year, was Harvest Mouse. I didn't see the mouse itself, I never have, at least not in the wild, though I did once breed dozens of them. Instead I found their nests in Reed Sweet Grass around a pond on the North York Moors. Until recently these would have been quite a staggering find, as the Harvest Mouse distribution map for the North York Moors in the recent, "Atlas of Mammals of Great Britain" looks remarkably similar to the one in the less well known, "Atlas of Hen's Teeth of Great Britain". However I know that Derek Capes of Great Ayton Wildlife Association has been industriously picking apart owl pellets and has found Harvest Mice remains from 24 locations on the North York Moors; or at least from 24 locations where owls have "sicked-up" on the North York Moors, which may or may not be the same thing. I therefore contented myself with the possibility that this was the first time someone had recorded the actual spot where the mouse was.



Harvest Mouse nest - when they are this cryptic it's perhaps no wonder that it's only owls that can spot them

So how did I do in my quest to see a thousand different species, north of the Humber? If you've read so far, you'll realise that another 50 or so in December wouldn't quite do it and you'd be

correct; I finished the year on 977. Had Storm Arwen not wiped out the last field trip of the year, or if I'd been on another moth trapping session, or even if I'd just cast my net a bit wider more often (over 500 of those species were in my own town and over 200 in my own garden/allotment) then I would probably have scraped home. But towards the end I found that it didn't really matter. A thousand is a nice round number, but 977 is still a good number and I achieved my original target, to see 500 plant species and in the process achieved my purpose, to learn a bit more about Natural History. In some ways it felt better being a little way off the target rather than falling short by just one or two. If nothing else it means that I don't have to list the fungus causing my Athletes Foot to get me over the line. I did however find a very attractive, pink lichen called *Verrucaria*.



Verrucaria Lichen – or my toes on a bad day

I was listening to an episode of Desert Island Discs recently, featuring the TV presenter, Richard Osman. One of his pieces of advice was that everybody fails; the secret is to fail well. I do feel as if this has been a good failure. It certainly added an extra element to our days out. My wife, who is by no means a naturalist, was as enthusiast about the quest as I was and, though she wasn't too bothered about learning all the names, she probably absorbed more than she realised. There wasn't a visit to a castle or garden that didn't have the bonus ball of a new plant growing in a crack in the mortar or a new weed in the border. And I'm definitely a better botanist than when I started the year. There are even a few mosses that I am confident in identifying and a few more still that are starting to emerge from the vague green ball that is mossdom, as I repeat their names.

Did I learn anything else? Well, I learned that I'm not very good at identifying things and I learned that it's a lot more fun looking for things with other people. Actually, I don't know that I did learn those things; I think I knew them already. Would I do it again? Probably not, as realistically I am

never going to get into fungi, or most groups of invertebrates, so would just be cribbing off other people's lists to get the numbers up. However I did find the moths enjoyable as they are many and varied and, crucially, mostly identifiable, even by me, so my new moth trap is likely to get well used. I do like lists though and as I have never managed to see 150 species of bird in any one year, then that is my target for 2022. I would also like to see more different species of ladybird, because why wouldn't you?

So, out of 977 species, which was my favourite? The 11 Spot Ladybird is a strong contender, because I'd never even realised there was one until I found it, plus it's a ladybird. But top spot must go to the Mistletoe. Not just because it's such an iconic species and so rare up here, but because it was hiding in plain sight, within metres of my house. As Elton John might have put it, "there's more to be seen than can ever be seen!"



And the runner-up goes to

My final species tally for 2021 was 977 species, comprising: 123 birds; 502 plants; 195 invertebrates; 26 mammals; 5 amphibians; 3 reptiles; 7 fish; 82 fungi, lichens etc.; 29 marine species; 4 fossils.

Fascinating facts:

Harvest Mice are the only British species with a prehensile tail (species of anything, not just of mice), which they use to climb around on stems of grass. They don't make their nests in the grass; instead they make it out of the grass, by weaving leaves of living grass together. This makes the nests part of the grass itself and very difficult to see.

Owl pellets are the undigested bits of an owl's food that it effectively "sicks" back up again. Unlike other birds, owls don't have a crop so the food goes straight to their stomach. As their stomach acid and stomach muscles are relatively weak then most of the bones of their prey, including the skull, survive intact and can be used to identify what the owl has been eating. In my limited experience, a typical Barn Owl pellet will contain two voles and a shrew.