Norfolk Flora Group News – Winter Newsletter 2018-19

Welcome to the NFG Winter Newsletter!

In Issue 4 … we show you the long-awaited outcome of the NFG photographic competition and give the answers to Sedge Warbler's plant-based puzzler. We have, for the first time, managed to persuade a very special guest to write about something, and a lyrical job he's made of it too. Suki has shared a few of the things she's been getting up to this past year; Robin muses on the subject of aliens and shares a couple of his fantasies with us (I am quite sure these are just the tip of the iceberg); the results of 'Norfolk Flora Group Pub of The Year' are announced; and finally, I thought you might like a sneak preview of some of the exciting things we have in store for you in 2019 so that you can make plans to leave the country.

Contributors to this edition are Suki Pryce, Janet Higgins, Mary Ghullam, Robin Stevenson, Mike Crewe and myself, together with our West Norfolk VCR, Richard Carter, our pointy-beaked crossword compiler, the Sedge Warbler and the special celebrity guest, the very wonderful Pete Stroh.

Feedback on the content of NFG News would be very welcome. If you would like to write something yourself, I would be delighted, as would Suki, who surely must be running out of ideas by now …… or you could drop someone that you wish to seek a subtly hideous revenge upon in it - by nominating them to produce something both witty and erudite on a topic they know nothing about!!! The possibilities are endless ……

A Big Thankyou

Once again, I would like to thank the various landowners who allowed us access in 2018 and to staff and volunteers at Norfolk Wildlife Trust, the Norfolk Rivers Project, Mid-Norfolk Railway, RSPB and Holkham Estate for their help in organising some of the meetings. I would also like to thank the Ted Ellis Trust for allowing us to use the Wheatfen study room, the National Trust for the loan of the marvellously well-appointed Brancaster Activity Centre for a day, and Norfolk Museum and Archaeology Service for allowing us to use the herbarium collections and hosting an ID workshop.

Jo Parmenter

The views and opinions expressed in this Newsletter are those of the individual authors, not of the Norfolk Flora Group, nor its membership in general.

Our first article was inspired by something produced by a geologist, Dave Waters, who posted it on LinkedIn; and on reading it I thought "They're just as peculiar as we are …" and so, with a nod to Dave for coming up with the idea in the first place, and also to Robin's insightful article in the last edition: "Just how strange am I?", we are proud to help cast some light on your winter darkness. Maybe you've been having a few doubts about your vocation. Here are a few tips to help decide. Tick five or more of these, and I think your fate is well and truly sealed … luckily, you're amongst friends JP

YOU KNOW YOU'RE A SERIOUS BOTANIST WHEN ….

- Other people's garden weeds are more interesting than your own
- You find wall tops and bottoms better harbingers of spring than hosts of golden daffodils
- Your office carpet is covered in bits of *Conyza*-fluff
- You are totally immune to the stares of passers-by as you kneel in the gutter
- You decide you can never have enough books on grasses
- There are more petri-dishes in your dishwasher than wine-glasses (at least during *Potamogeton* season)
- You stop the car and run back down a main road to check a Ragwort
- You cannot resist peering down drains (even when there are other people about)
- You carry a notebook and pencil with you wherever you go
- It drives you absolutely mad when the EDP publishes misidentified pictures of plants
- It drives you even more mad when newspapers publish wrongly identified photographs of plants, and can't even get their scientific names right (not **just** the EDP!)
- You plan family holidays around plants you haven't seen before
- Your coffee table supports a teetering pile of books, and plant specimens in various stages of decomposition
- You can't pass a ditch without dipping for *Lemna*
- You can remember at least three different names for some species whose taxonomy has been revised in the last decade
- Even your 'best' trousers have scuffed knees
- You have a hand-lens for every handbag and never lack a means of determining the grid reference
- There are bits of foliage in the bottom of the washing machine
- You can name plants, even if not in flower - and often when dead (the plant, that is)
- Your garden pond would merit designation as a SSSI
- You have an overwhelming compulsion to record any interesting plant you see
- Friends and colleagues give you dead bits of plant and blurry photos to identify
- You realise that you are inadvertently moving plant species around the county on your socks

Got any more? An updated list in the 2019-20 would be a nice way to round off the decade…

Jo Parmenter & Robin Stevenson

VCR 28 NEWS

Richard – our Vice-county Recorder for West Norfolk VC28 – sends the following note…and it is very good news – as someone who holds down a full time job myself, I know how challenging trying to be everywhere at once can prove at times and I have the advantage of actually living in the county as opposed to driving 3 hours every time I fancy doing a bit of botanising. JP

Let me say at the outset that this note is not going to express any foreseeable wish or intention on my part to step down as VCR for West Norfolk, lest the opening sentences should give the wrong impression! Well, the thing is I have been rather struggling to keep abreast of all the VCR tasks over the last few years. It was originally intended that I would be a joint VCR *and* I was expecting to retire, whereas I am in fact full VCR *and* still holding down a job. Luckily Jo has increasingly taken over the task of organising NFG meetings which helps enormously.

Anyway, with Atlas 2020 looming, *something* needs to change. Looking ahead to about April 2020, I am planning to reduce my working days to two-and-a-half or three per week, which will make me better able to function as VCR in the long term. But more immediately the good news is that I have requested sabbatical leave over the summer of 2019, and I have got initial verbal agreement from my employer (though arrangements have not yet been finalised). It looks as if I will work just about five days a month for my employer over the period May to September 2019, leaving lots of time for Norfolk botany. I have made quite a bit of progress with back-logged entry of plant records over the last two months, and I hope to go into the sabbatical period with most of the backlog behind me, so that I will be free to spend lots of time dealing with any fieldwork necessary to gather the final data for Atlas 2020. So, apologies if you have sent me records that are not yet on DDb – they have not been lost or forgotten, and I am progressing with data entry.

And now the most important bit – while I could roam West Norfolk botanising on my own this summer, I would be delighted if some of those reading this were at least occasionally to join me, singly or in mini-groups. Of course, I do not want anybody to feel pressured. So, my intention is to post my fieldwork plans and contact details on the NFG website a week or two in advance on a rolling basis, in the hope that some of you will occasionally be able to join me!

Richard Carter

THE BSBI NEW YEAR PLANT HUNT

Last mid-winter, 2017-2018, I took part for the first time in the BSBI's New Year Plant Hunt (NYPH), fellow NFG members having told me about it the previous autumn (it's to my shame that I hadn't known about it before – this was the seventh event.) As a bit of a pagan, I celebrate the Winter Solstice, but am not too bothered about Christmas and New Year's festivities, so thought that the NYPH could be just the activity to liven up that holiday period. And so it proved – I found it a very happy experience.

The NYPH is 'citizen science' similar to the RSPB's Big Garden Birdwatch. The BSBI asks volunteers to submit lists of native and naturalised alien plants they have found in flower in wild situations (NFG rules apply), during a three-hour walk (as many of these as you wish), at sites throughout Britain and Ireland between 30th December and January 2nd. The Hunt is growing in popularity year by year, and participants' observations are helping the BSBI to build up a clearer picture of how our wild and naturalised plants are responding to changes in winter weather patterns across Britain & Ireland. Although intended to provide a fun and competitive activity for botanists during a quiet period, these surveys have a serious element. Observations of 'unseasonal' phenological events are being reported from around the globe in response to rising temperatures, and projects like the NYPH are therefore providing evidence of how changing weather patterns are influencing wildlife. They also provide new information on the phenology of common British and Irish species outside of the normal recording season.

I chose Cromer, East Runton, and West Runton for my three-hour recording spots. The weather was quite mild, as is often the case during that 'halcyon days' period, but I was still amazed at the number of species I found. I asked several botanising friends to guess what numbers they'd have expected me to see, and most people thought about 25 . . . but my haul was in fact a splendid **77** (see table below). Nevertheless, this is still much fewer than some recorders, with the biggest list (from Berkshire) comprising 142 species. More species have also been recorded in the mild-autumn years of 2014 and 2016 than in 2017 and 2018.

My areas were a mix of town, village, lanes, commons, woods and fields, and about 15 % of my total species were naturalised garden plants – reflecting the built-environment influences. My areas were also near the sea, so – though these spots are often chilly - they are milder overall than places further inland and this helped boost my total. My list included natives capable of flowering at any time of year and at lowish temperatures (Daisy, Annual Meadow-grass, Chickweed); 'Autumn Stragglers' (Yarrow, Ragwort, Hogweed); 'Winter Specialists' (Winter Heliotrope); and 'Springtime Specialists' flowering early (Snowdrop, Primrose, Lesser Celandine, Hazel). I found plants flowering that I didn't expect at all at that time of year (Fool's Parsley, Field Scabious); flowering exceptionally early (Alexanders, Thale Cress, Common Whitlowgrass); and species new to me (Greater Quaking-grass, Six-rowed Barley).

Analysis of this season's results, instructions on how to join in, and much more can be found on the BSBI's NYPH website. I highly recommend the Hunt as a fun activity with a mildly competitive side, which will help keep your recording brain from rusting too much out of season. And how cheering it is to see all these gallant plants flowering at this short day-length time of year – it's never really winter to a botanist.

PS - I'm proud to say that my West Runton list (54 plants) just squeaked in at the bottom of the 2017 NYPH's 'Longest Lists' list. I did two more sites this '18-'19 midwinter (Overstrand and Upper

Sheringham), bringing my total score of plants seen in flower to 105. Interesting newcomers this winter included Yellow-flowered Strawberry *Duchesnia (Potentilla) indica* (by Upper Sheringham churchyard), Common Ramping-fumitory (round Upper Sheringham Village Hall), Field Madder (Overstrand housing estate), and Corn Spurrey (ditto).

Suki Pryce

Potentilla indica Suki Pryce

NB – More details about the Plant Hunt, including instructions on how to register and take part can be found on the BSBI's website at https://bsbi.org/new-year-plant-hunt JP

ONE FOR THE ÜBER-NERDS

A fruiting *Epilobium*. But which one? Answers on a postcard or by email to Robin crs111@talktalk.net accompanied by a detailed statement setting out your reasoning.

Robin Stevenson

COMMON HEDGEROW AND ROAD VERGE BRAMBLES

Identifying brambles is something most of us view with trepidation, though in Norfolk we have a fine tradition of doing it, with our own resident expert in Alec Bull, and others including Colin Dunster and now Alex Prendergast continuing the good work. If you are beyond the beginner stage as a botanist and you haven't tried brambles, I would urge you to come along to Alex's annual bramble meeting to get a feel for what it involves. We are lucky in Norfolk as we have enough bramble species to make recording them interesting, but not enough to make it all hopelessly baffling.

But that isn't what this article is mainly about. Rather it is about whether we could be doing more to record the very common brambles of roadsides and hedgerows, where only a very few taxa are commonly encountered, and those relatively distinctive. So here goes!

Brambles in the UK are hard to identify because there are several hundred true-breeding species - often called 'microspecies' – differing from one another only in very small (albeit consistent) ways. This is the result of a breeding system called 'apomixis' that allows seed production without sexual cross-fertilisation, so that seeds are genetically identical to the parent plant producing them. Experts divide the genus *Rubus* into several sections (*c.*10) each containing many species. For bramble beginners, even getting that far isn't always easy, as it involves careful scrutiny of the types of hairs and pricklets on a first-year stem. But one of the sections – the *Discolores* – are rather more easily recognised because they are distinguished by the white-felted backs of their leaves.

Rubus ulmifolius

Rubus ulmifolius

Now it so happens that of the Section *Discolores* brambles to be found in Norfolk, most are very rare. And by far the commonest is a species called *Rubus ulmifolius*. This is what you might call an ordinary-sized bramble with leaves about *c.*8-10 cm long by *c.*6-8 cm wide each with up to five leaflets *c.*4-6 cm long by *c.*3-5 cm wide. It has rather characteristically pointed flower buds, pink flowers and usually late-ripening fruits (still good in September). The first-year stem is dusky purple with a wax-like covering. But the important thing is the noticeably whitish felted backs to the leaves. The backs are paler in most brambles, but in other Sections pale greenish. It really isn't too hard to get your eye in on this plant. And the thing is, that in roadside hedgerows it is not just common, but in many areas overwhelmingly the commonest species, even sometimes the only species. So, if you can record it, then it may be – at first it seems amazingly – that you start recording squares (monads at least) with absolutely no *Rubus fruticosus* agg. at all! That rather underlines the flip side of the observation, which is that many bramble species are specialists of good habitats – woodland (especially ancient woodland), old commons, heaths, fens etc.

Rubus ulmifolius

It was only when Alec Bull convinced me of this that I became interested in brambles after ignoring them for years.

In summer you usually need to turn a leaf over to see the whitish back in *Rubus ulmifolius*; but in late winter – about the time this newsletter will be issued – the semi-evergreen leaves curl a bit and you can see the backs from a distance. Once you have become familiar with the way it looks you can spot *Rubus ulmifolius* in the hedges while you are just driving around the countryside, though it is probably advisable to take a closer look before recording it. You can see how common it is though.

There is one other Section *Discolores* bramble that isn't rare in Norfolk. Luckily you are not going to confuse it with *Rubus ulmifolius* or anything else much. I suppose, however, that at this point I should say that we must not be cavalier about brambles. They *are* difficult, and there *are* other Section *Discolores* brambles in Norfolk, and you *may* encounter these others occasionally - so if you find a bramble with whitish backs to the leaves that you are unsure about then it should be investigated further, and certainly not put down as the common species just on the balance of probabilities. But this second species is usually recognisable just by its size.

Rubus armeniacus

Rubus armeniacus

It is called *Rubus armeniacus* and though probably native it is the one from which garden varieties such as 'Himalayan Giant' have been selected. It has large whitish-backed leaves which may be more than twice the size of those of *Rubus ulmifolius*; the first year stem is also large, and brightly coloured with red prickles contrasting with the orange-green stem. It has showy and wide panicles of large pink flowers, and early-season large and juicy fruits (often edible before the end of July). The smartphone generation of kids are unaware of this last point (when I was a nipper, the blackberries were always eaten before you got there), and a will of iron is required to avoid over-indulgence and purple-stained recording sheets – your VCR will know what you have been up to.

Anyway, *Rubus armeniacus* is a ferocious colonist of waste ground, and if a patch is completely swamped by tall bramble thickets (often 2m high), then it is likely to be this species. Though to some extent the same might be said of *Rubus ulmifolius*, which is often a colonist of abandoned rural fields, rapidly taking over on set-aside. Around the edges of towns - where agricultural land and brownfield land mix - these two species may often be hugely abundant to the exclusion of all other brambles.

On ordinary Norfolk lane-sides, there is another common bramble that complicates the picture. It is not part of the *Rubus fruticosus* aggregate, but *Rubus caesius* (Dewberry), which is a low-growing and somewhat scrambling shrub often barely overtopping the rough grasses of a road verge though it can form a sparse bush. It has slightly yellowish-green leaves with only three more-or-less unlobed leaflets (never more than three), the lower two of which are sessile; by contrast in *Rubus fruticosus* agg. there are almost always some leaves with five leaflets, and often some with the lower pair deeply lobed as if two leaflets are fused together. The trailing stems in *Rubus caesius* have a strong bluish-white bloom on the surface, and weak short straight prickles. The white flowers are grouped in few-flowered panicles (up to *c.*6 but usually less) and in late summer they have fruits composed of a just a very few large dark-bluish druplets (usually less than ten), and they too have a strong whitish bloom on the surface. These fruits are the best character for *Rubus caesius* and many will not record it without them.

Rubus caesius

The reason that *Rubus caesius* so complicates the picture is that though the bramble species in *Rubus fruticosus* agg. are usually apomictic, *Rubus ulmifolius* is an exception – it breeds sexually and outbreeds (i.e. does not always self-fertilise). In fact, to digress *Rubus ulmifolius* is something of an oddity all round, because whereas most members of *Rubus fruticosus* agg. are rather local in their occurrence, *Rubus ulmifolius* is common all the way south through western Europe, and when you get down into southern Spain it is the *only* bramble. In semi-arid Almería province the driest areas are too much for it, but as you move into the foothills of the sierras you see familiar-looking clumps of brambles in the steep ramblas (stream valleys), and they really are exactly the same species of bramble as that of Norfolk lanes.

Returning to the point about *Rubus ulmifolius* out-breeding, this means first that it can be a little more genetically variable than the other species in *Rubus fruticosus* agg., and second that it can cross with *Rubus caesius*. In fact both these species can cross with any other species from *Rubus fruticosus* agg. (usually producing poorly fruiting and dispersing progeny) , but as *Rubus ulmifolius* is so very abundant in ordinary Norfolk lanes and hedges and *Rubus caesius* is also reasonably common, the result is that hybrids between them – usually looking a bit like *Rubus caesius* - are common there too. They are usually a bit too big for *Rubus caesius*, and though most of their leaves may be three-lobed they have a few 'give-away' leaves with deeply-lobed lower leaflets or even five leaflets. This explains why bramble experts are so careful about recording *Rubus caesius* and often insist on fruits. How we record these plants is tricky, but there is a case for recording *Rubus caesius* '*sensu lato*' at monad level ('dottable') to include the hybrids, and taking six-figure grid references for any sure records of true *Rubus caesius*. Whether the hybrids back-cross I am not sure, but I suspect they do. Some plants closer to *Rubus fruticosus* agg. with many five-lobed leaves and stout stems are true-breeding apomicts placed in the Section *Corylifolii*. These probably originated as *Rubus caesius* hybrids (though not necessarily hybrids with *Rubus ulmifolius*).

Of course, there will sometimes be other brambles on Norfolk roadsides and in hedges, especially near woods, ponds, green lanes, and complicated bits of old countryside generally. The backs of their leaves will almost certainly be greenish, whether paler or not. They can be correctly recorded as *Rubus fruticosus* agg. at least until you get the bug and start doing brambles properly! But getting to know *Rubus ulmifolius*, *Rubus armeniacus*, *Rubus caesius* and *Rubus caesius* hybrids is not so very difficult and would greatly improve our picture of the commonest Norfolk brambles, and perhaps more importantly the many other less common species that are not *Rubus ulmifolius*. That is to say, that if we took out all the *Rubus fruticosus* agg. records that are really *Rubus ulmifolius*, then *Rubus fruticosus* agg. might appear to be somewhat more local than we had generally thought.

Many thanks to Alex Prendergast for checking over this article and for useful additions to it.

Richard Carter

I am still very much a bramble novice, but after Richard explained this to me earlier in the summer, I have started to find *R. ulmifolius* and *caesius* hybrids when one all I found was *Rubus fruticosus* agg. I have also found that if you eat your blackberries immediately you pluck them, avoid the very squashy ones, and remember to occasionally wipe your fingers on your jeans you can maintain a pristine recording sheet (so far….so good)…. JP

SO YOU THINK YOU KNOW PRIMROSES?

Already the new fresh leaves of *Primula vulgaris* are visible on many a hedge bank. There are even the occasional pale yellow buds unfurling above the collar of green. But how well do we really think we know Primroses?

Well we all know that it is Primroses that have solitary flowers rising on basal stalks. Most of us, at some time or other, will have checked to see if the flowers of a particular plant are thrum-eyed or pin-eyed.

In a county such as Norfolk with its wide range of soils, there's always the chance of coming across the natural hybrid between Primroses and Cowslips, *Primula x polyantha*, or as Sell and Murrell[1] prefer to call it, *P. tommasinii*. Near habitation or as throw-outs in laybys, the garden hybrid *Polyanthus* can be found, often in a range of colours. Both these hybrids are usually recorded as part of the *P. x polyantha* complex and it is only extra comments attached to the records that might distinguish between them. Of course, nowadays, it is not just garden Polyanthus but garden Primroses that can be found in a range of colours and forms possibly as throw-outs or deliberate plantings.

Unfortunately the true Oxslip, *Primula elatior*, is no longer found naturally in Norfolk woods. So it seems unlikely that it or its natural hybrids with either Primroses or Cowslips will be present either. Or is it? Clive Stace[2] states that the fertile Primrose/Oxslip hybrid, *Primula x digenea*, occurs frequently in and around the areas where Oxslips grow. I can testify from experience how easily they can hybridise, when many years ago Oxslips were introduced into a Norfolk garden where there were already Primroses. So could not the hybrid still be present, even if true Oxslips are not? The other Oxslip/Cowslip hybrid, *P. x media*, is much rarer and only partially fertile.

At present, wild flowers are being increasingly introduced both in gardens and the wider countryside, for a variety of reasons. So it becomes much harder to decide both the natural distribution and origin of plants or, indeed, the likely range of *Primula* hybrids that might be found in the county, let alone identify them.

So while we might be struggling with the Primrose hybrids or even Cowslips, *Primula veris*, or possibly planted Oxslips, we still know Primroses. After all, all the other species mentioned, do not have one flower per stem, but an umbel of flowers on top of a single scape or main flowering stem. Moreover if the 'primroses' are not the usual pale yellow, they are likely to be of garden origin.

Unfortunately, like most things in nature, it is not that straight forward! Clive Stace warns against confusing *P. x polyantha*, *P. elatior* and *P. vulgaris*. He says that "careful attention to leaves, flowers and hairness is needed to avoid this."[3] Why is this? Isn't it obvious when we

[1] Sell P & Murrell G, (2014) Flora of Great Britain and Ireland volume 2, Cambridge University Press, p 90.
[2] Stace C A, (2019) New Flora of the British Isles, 4th Ed, C&M Floristics, Middlewood Green, p 546.
[3] Op cit p 546.

find Primroses, at least? No! Primroses can have an umbel of flowers on a scape, just like all the other species mentioned here. Indeed, they can have both a scape and individual solitary flowers on the same plant, to confuse matters more. Sell and Murrell call those with flowers solitary on a flowering stem, *forma vulgaris* and those with a scape, *forma caulescens*.[4] But at least wild Primrose flowers are pale yellow, so that helps. No again! They are, usually, pale yellow, but can be white or pinkish red, as shown in one of the pictures.

So what did I record the plants in the pictures, which grow on the Felbrigg Estate, as? Some had both solitary and umbels of flowers on the same plant and one plant had a pink-flowered umbel, but I recorded them all as *P. vulgaris*.

Next time you see what might be a humble Primrose or even what you think is *P. x polyantha*, have a closer look. Oh, and by the way, wild Cowslip flowers aren't always the usual deep butter yellow either!!

Mary Ghullam

Primula vulgaris, with, and without scape, and also the pink form Mary Ghullam

[4] Op Cit p 90.

SOME BOTANICAL RAMBLINGS?

How and when alien plants arrive at new destinations is often a great mystery, as is their future: will they survive and thrive? Or disappear, never to be seen again?

King's Lynn has witnessed the appearance of two plants new to Norfolk this year: *Haloragis erecta* (Upright Raspwort 'Wellington Bronze'), and *Solanum chenopodioides* (Tall Nightshade).

Both were growing by the sides of well used paths, one in the suburbs, the other in the historic centre of the town. The *Haloragis*, which hails from New Zealand, must have been a garden escape, though fences and hedges prevented any close examination of adjacent gardens. (Gardeners are, surely, just as odd a bunch as botanists: the challenge of growing a foreign plant, no matter how boring, is obviously the gardening equivalent of the botanist who is prepared to travel miles, just to tick off an exceptionally rare (but otherwise boring) Hawkweed).

To my mind, however, the appearance of the Tall Nightshade is much more interesting. According to the NBN Atlas map the nearest other occurrences are well to the south and west, so how and when did it get here? Devil's Alley, where it was found, is a fairly scruffy and undistinguished cut-through - not the sort of spot a botanist would linger in, so it may have been there for some time, unnoticed. And, as it was fruiting abundantly it may survive and spread. However, the name of the locality seems appropriate for a member of the poisonous Solanaceae.

Finding new things is always interesting, however, what is probably equally interesting - but much more difficult to do - is to register the *disappearance* of things.

Back in the mid-eighties the local sports field used to be blue in springtime with the flowers of *Veronica filiformis*. However, it was only year or two back that I realised it had all but disappeared. Only obsessive levels of note taking, covering details such as presence and abundance would help record such absences. Did it occur gradually? Or was it sudden? And, even if its absence was duly recorded would it be possible to actually determine *why* it had disappeared. Climatic factors? Or changes in management technique? Is it still thriving elsewhere in Norfolk, or has it only disappeared from the environs of Lynn? We just have so much to learn.

It was once one of my fantasies, that youngsters like Lewis Saunders would, twenty years from now, be sitting in the pub reminiscing and saying 'I can remember going out with that Robin Stevenson, back in the days when you could find *Urtica dioica*, almost everywhere...'. Well, maybe not *Urtica dioica*, but what which is common now will be the rarities of tomorrow?

One of my other fantasies was that, when I got too frail to walk, I would acquire a mobility scooter with a large magnifying panel fitted to the bottom, and devote myself to a detailed study of the pavement floras of King's Lynn. Well, I'm not quite there yet, but Bob Ellis has recommended some very close focussing binoculars (Pentax Papilio) to me and I have, already, attracted some very odd looks.... And also realised that I am not as good as I thought I was at recognising common weeds at seedling stage.

Robin Stevenson

Robin Stevenson

COTONEASTERS – DON'T BELIEVE THE HYPE!

(and with this article, we run out of excuses….. JP)

Mention the word 'cotoneaster' and most botanist's eyes glaze over as they heave a heavy sigh. "I don't do cotoneasters, they're too hard" is the mantra and in some ways, it may be easy to see why. The third edition of Stace (2010) lists 86 cotoneasters, while the BSBI list from 2007 gives us 94 names – and it gets worse... the ever-thorough Sell & Murrell (2014) offer up 124 while, if you really want to lose the will to live, the ultimate authority on the genus, Fryer & Hylmo (2009), gives the ideal bedtime reading on the subject with around 460 taxa covered!!

The subject seems to be a complete nightmare for would-be plant recorders, but don't believe the hype! Cotoneasters are generally much misunderstood and bringing them down to the local level can be the best first step to getting them identified and recorded accurately around Norfolk. So, the shortest list above (in Stace) gives us 86 species, which sounds pretty daunting, but turn to the Norfolk Flora (Beckett & Bull, 1999) and you will find that just 13 species of cotoneaster have been recorded in Norfolk (ignoring for now that there may have been the odd new one since 1999 that I know nothing about!) – now we are getting closer to something workable...

In reality, the vast majority of cotoneasters that have been recorded in the UK have only been recorded from one or two sites and a great number of these are rare in cultivation and thus very unlikely to be found spreading into the wider countryside. Another saving grace with cotoneasters is that most of them are apomictic (let's leave that for another day!!) which essentially means there is very little variation in their appearance, while cross-pollination is rare, meaning that confusing hybrids are very rare except in just a handful of cases. All of this means that, while you are out plant recording or simply plant hunting in Norfolk, you are only likely to have five species to consider if you chance across a cotoneaster, with a further eight or so as a vague possibility to keep in the back of your mind – and that's an awful lot easier than 460!

Some general comments on cotoneasters

These are plants that are typical members of the rose family (Rosaceae) in having five-petalled, pink or white flowers, followed by (usually) red berries that largely rely on birds as seed-dispersal agents. Several species readily grow from cracks in walls or pavement, which perhaps is not dissimilar to their native habitat of rocky hillsides. The species of cotoneaster can vary considerably in appearance from each other (which aids identification, of course!) with some species being woody subshrubs, some shrubs and others small trees, while the leaves may be either evergreen or deciduous. Some species produce a magnificent display of large clusters of fully open, white flowers in May or early June, other species have small, pink flowers with petals that barely part and with the flowers only opening one or two at a time. The berries are usually either fully rounded (globose) or have distinctly flattened tops (obovoid), while berry colour varies from bright scarlet to dull crimson (sometimes yellow in cultivated varieties). All these variations should be noted when coming across an unfamiliar cotoneaster, while collecting a few leaves for measurement will also be helpful.

Note: Since flower and fruit detail - as well as whether the plant is evergreen or deciduous – are all important, you may need to visit a plant more than once to make a full determination. Also, my top tip is to have a small ruler handy at all times!

The Top Five

Here's a quick run through of our Norfolk cotoneasters so that you can be prepared should you come across one of these berried gems, starting with the five most common and widespread species (figures in brackets are the number of records in the Norfolk Atlas). Even if you learn just these five, you'll have the bulk of the work done!

1. *Cotoneaster horizontalis* (Wall Cotoneaster) (106)

This is the number one species when it comes to the likelihood of what you will find out there. This species is plentiful as a plant of walls in churchyards, villages and pretty much anywhere that there's a wall to grow from. Plants may grow to two metres in height but the growth style is more or less horizontal and thus plants are typically much smaller. The branches (especially when devoid of leaves in the winter) show a distinctive 'herringbone' pattern, while the leaves are small (0.6-1.2cm long), thick and distinctly pointed at the tip. The flowers are small, deep pink and carried singly or up to three together in the leaf axils. Although small, they are very popular with pollinating insects. The berries are small, fully rounded and clothe the branches well into winter.

(see *C. hjelmqvistii*, below).

2. *Cotoneaster simonsii* (Himalayan Cotoneaster) (28)

This species is occasionally grown for hedging as it survives clipping well and can form a dense, rather upright style of growth if cut. *C. simonsii* may be quite commonly found in churchyards where it is readily bird-sown and also appears on walls and cracks in pavement in urban areas. Left unclipped, plants may grow to around three metres in height and have a rather, upright, stiff and angular look to the branching. Leaves are deciduous, shiny, smooth and medium-sized (1.5-2.5cm long) and with just a few hairs on the underside. The flowers are pink, small and carried one to four in the leaf axils. Berries are orange-red and a little variable in shape, with some bushes bearing rounded fruits while others are more obovoid.

3. *Cotoneaster lacteus* (Late Cotoneaster) (2)

Although the Norfolk flora lists just two records of this species, it is extremely common as a garden plant, especially for hedging and as a screen and is likely to become more widespread from bird-sown berries. It is frequent around churchyards and cemeteries and occasionally appears on walls and in pavement cracks. A dense, many-branched, bushy species to four metres or so in height (though usually much less), the outer branches usually extending out in graceful, arching curves. Leaves evergreen, dark green and very variable in shape, with narrower, smaller leaves on young plants and on new growth, 3.5-9cm in length; often broadest in the upper third and with obtuse tips. Flowers are white and open fully, appearing in great abundance in broad, many-branched inflorescences. These are followed by dull red berries which hang in great quantity well into winter.

4. *Cotoneaster x watereri* (Waterer's Cotoneaster) (4)

This is a group of rather large plants, originating in cultivation as a hybrid between *C. frigidus* and *C. salicifolius*. This is a groups of fertile hybrids, with a wide range of cultivated varieties having been produced over time, so the appearance of plants under this name can be very variable. These plants are more likely to be recorded not on walls but in rough ground or old borders in churchyards and cemeteries, or occasionally as relics from former plantings. Waterer's Cotoneaster can reach eight metres in height and typically forms a multistemmed, large bush or small tree. Leaves are very variable but typically between the parents in appearance, having the size (6-15cm in length) of *C. frigidus* but the stronger veining of *C. salicifolius*. The flowers are white and carried in great abundance in many-branched inflorescences. These are followed by masses of red berries, or yellow in some named varieties. As hybrids from deciduous and evergreen parents, the deciduousness of the leaves is rather variable, with plants generally described as 'semi-evergreen'.

5. *Cotoneaster franchetii* (Franchet's Cotoneaster) (4)

The last of the big five, this species has been planted abundantly on new housing builds over the past 20 years or so and its frequency as a bird-sown species in rough ground and roadsides can be expected to increase in suburbia. This is a bushy, many-branched species, to three metres in height, which is best told by its leaves (2-3.5m long) which appear greyish due to a thick covering of downy hairs. The tiny, deep pink flowers barely open and open singly in sequence in the clusters. Thus, the flower show is not great, but they are followed by an abundance of orange-red, strongly obovoid berries.

Other Norfolk Species

The following list includes all other species of cotoneaster that are listed in the Norfolk Atlas. Notes on these are briefer, but give a little guidance as to what to look for, as well as detailing which of the 'Top Five' they might be confused with. Being aware of these will be very useful and this group, together with the top five will have all of the likely species covered for you, with anything else being an added bonus!

***Cotoneaster frigidus* (Tree Cotoneaster) (2)**

A tree-like species with thick branches, sometimes occurring in woodland settings on the site of old plantings. Similar to C. x watereri but with barely impressed veins on the leaves and fully deciduous. One of the few sexual varieties so some variation may be found in the plants.

***Cotoneaster salicifolius* (Willow-leaved Cotoneaster) (3)**

A sexual species, available from garden centres in a range of named cultivars and thus variable in appearance. Typically, this species has elongate, willow-like leaves (3-10cm long) with deeply impressed veins but may be an upright plant or almost prostrate. Flowers and red or yellow berries are like those of *C. x watereri* and produced in great abundance.

***Cotoneaster bullatus* (Hollyberry Cotoneaster) (6)**

Although the Norfolk Atlas lists six records for this species, for many years it was confused in cultivation with the rather similar *C. rehderi* (see below) so at least some of the records may be errors and should be checked. Over the past three years, I have not found this species at large (yet!) in Norfolk, but I have found *C. rehderi* several times, so it is worth being careful with observations. Hollyberry Cotoneaster may grow to four metres in height but is typically much less; it has strongly bullate leaves (ie with an almost corrugated look) of 3.5-7cm in length, clusters of small pink flowers and shiny, orange-red, obovoid fruits of less than 8mm long.

***Cotoneaster hjelmqvistii* (Hjelmqvist's Cotoneaster) (1)**

This species has had a chequered history nomenclaturally and is still often sold under the wrong name in garden centres. It is often known as the 'Robusta' form of *C. horizontalis* and, as such, it seems more than likely that at least some of the old records of *C. horizontalis* relate to this species, particularly as I find Hjelmqvist's Cotoneaster to be common and widespread in parks, cemeteries and gardens and can be found as a bird-sown plant of walls and rough ground. It rather resembles *C. horizontalis* in overall appearance, but the branches do not form such a tight and regular herringbone pattern, while the leaves are larger (to 2cm in length) and ovate.

***Cotoneaster divaricatus* (Spreading Cotoneaster) (2)**

Another popular hedging species since it is densely branched and takes clipping well. Although pretty common as a garden plant, C. divaricatus seems to be rare as an escapee, but is worth keeping an eye out for. It has small-medium sized leaves (0.8-2.5cm) which have distinctively wavy margins. The berries are deep red and somewhat cylindrical in shape.

***Cotoneaster sternianus* (Stern's Cotoneaster) (8)**

This and the following species form a somewhat similar group of plants with *C. franchetii*, but neither Stern's nor Diels's Cotoneasters have the hoariness of Franchet's and shouldn't really be confused with it. Although *Flora of Norfolk* shows a relatively high number of records for *C. sternianus*, it is not particularly common in cultivation and the records all come from a handful of wall locations in major conurbations – mostly in West Norfolk. Stern's Cotoneaster is a more or less erect, evergreen shrub, to three metres in height, has small to medium-sized leaves (2.5-5cm long) with impressed veins and a thick, grey down on the underside. Berries are red and more or less globose.

***Cotoneaster dielsianus* (Diels's Cotoneaster) (4)**

Rather similar to *C. sternianus* at first glance, but this is an evergreen species with rather gracefully arching branches. Leaves are typically 1.5-3cms in length, rather shiny above and grey felted below. The small flowers have deep pink petals and are followed by red, subglobose fruits.

***Cotoneaster integrifolius* (Entire-leaved Cotoneaster) (1)**

A colony of this species has long been known from the coastal dunes at Burnham Overy. It is one of a number of low-growing, sprawling species that are popular for landscaping in municipal areas so may turn up elsewhere. *C. integrifolius* has tiny, stiff, evergreen leaves (0.7-1.5cm long), fully open white flowers usually carried singly along the stems and distinctive dull, matt red fruits.

Other Species to Watch for...

Just to throw a little bit of a spanner into the works, the following are also possible in Norfolk and are worth being aware of.

***Cotoneaster rehderi* (Bullate Cotoneaster)**

Some years ago, it was realised that many of the plants sold as *C. bullatus* were, in fact, *C. rehderi*, which is a very similar but typically larger species. I have seen *C. rehderi* in several places around Norfolk, in churchyards, parks and municipal plantings on undeveloped land, so it is a good one to be aware of. This species has the same leaf appearance as *C. bullatus* but the leaves are typically 5-15cm in length and the plant is more upright, growing to five metres in height. The fruits are typically over 8mm long and deep red in colour.

***Cotoneaster conspicuus* (Tibetan Cotoneaster)**

Although the Norfolk Atlas lists no records of this species, it is quite popular as a landscaping plant around municipal developments and modern trading estates, so should be considered if a low, wiry, small-leaved cotoneaster is encountered. I recently found this plant growing from a retaining structure on the side of the River Wensum in Norwich, so it is out there! This is a stiffly arching and wiry species growing to around a metre in height with branches bearing many side branches, similar to the growth style of *C. horizontalis*. Evergreen leaves are tiny (0.5-1.5cm long), flowers single, white and similar to those of *C. integrifolius*. Berries produced in great abundance, shiny, bright red.

***Cotoneaster x suecicus* (Swedish Cotoneaster)**

This hybrid is commonly planted in parks and in municipal landscaping schemes, usually as the varieties 'Skogholm' or 'Coral Beauty'. Branches may reach 60cm in height, but these are essentially trailing plants that creep over the ground. Flowers are white and may be single or in small, tight clusters, they are followed by shiny, bright red berries.

Further photographs and more details on all these Norfolk species can be found at www.webidguides.com/cotoneaster

Mike Crewe

RECENT SIGHTINGS IN 2018

During the year members of the Norfolk Flora Group have shared their interesting findings as Recent Sightings on the Norfolk Flora Group website (https://www.norfolkflora.org.uk/). These findings may have been during a Norfolk Flora Group outing or whilst going out for a local walk.

What makes a recent sighting?

- An interesting or rare find.
- A plant looking at its best or an unusual variant.
- Some interesting fact about the history of the plant in Norfolk.
- A lovely plant photo you wish to share

Here are some of the highlights:-

We found an interesting selection of plants during our annual visit to the mid-Norfolk railway, typical plants such as Small Toadflax (*Chaenorhinum minus*) and Sticky groundsel (*Senecio viscosus*) interspersed with more surprising finds such as Maple-Leaved Goosefoot (*Chenopodium hybridum*) and Green Field-speedwell (*Veronica agrestis*), both are more typical of arable fields.

We found some unusual colour variants; a pale pink Scarlet Pimpernel (*Anagallis arvensis forma pallida*) in an abandoned field of barley and just one plant of Cross-leaved heath (*Erica tetralix*) with white flowers amongst the many typically dusty pink flowered plants during our jolly to Winterton Dunes NNR.

There were 35 recent sightings in 2018 starting with Rue-leaved Saxifrage (*Saxifraga tridactylites*) seen in Norwich in April and ending in December with a New Year Plant Hunt along the Norfolk Coast Path from Holme to Thornham. July was the most prolific month with six sightings from our visits to the coast, marshes and Felbrigg Park for the bramble workshop.

Please explore the tags to find out the "where, when and who" for each of the sightings.

We welcome contributions from as many of you as possible, as this is a great way for you to share your interesting findings during 2019. Either email Janet directly or use the Recent Sightings form (in Contacts at the bottom of each page) on the Norfolk Flora Group website. One or two pictures, 50-100 words and a catchy title is all that is needed. Your sightings will be tagged by your name, habitat and month.

Janet Higgins

FLORA GROUP PHOTO-COMPETITION

Back in 2017, Robin came up with another one of his bright ideas. Some work, some don't, and in some cases the material he is forced to work with is sadly lacking, poor chap. In this case, only a couple of you seem to have taken the idea of the photo-competition even vaguely seriously, although other people HAVE inadvertently sent me their entries anyway.

You will recall that Robin's suggested categories were:

1. The most boring flower
2. The tallest flowering stem of *Plantago lanceolata (photo should include a means of gauging size)*
3. The smallest example of *Erophila verna (photo should include a means of gauging size)*
4. Biggest stand of a Proscribed Species
5. Fieldwork "Hat of the Year"
6. Most useless piece of field equipment *(please submit a brief explanation with your photo)*
7. Best dressed botanist
8. Best Ditching Pole (*remember it's not just about how long it is*)
9. Most incoherently mumbling botanist of the year

Given the nature of the inadvertent entries, I have included a new category:

10. Best lunch-spot of 2018

…and the winners can be found just over the page…….

Given the poor showing, I've not bothered purchasing a prize, but I will buy Katherine and Suki, our star, and indeed only serious entrants, a drink next time I see them!

Despite a low number of entries, you may find yourself inspired, and so I would like to try this one more time in 2019. Your categories this time are:

1. The most alarming plant *(the photo should speak for itself: if you have to explain it then it's not all that scary, is it?!)*
2. Fieldwork "Hat of the Year"
3. Best dressed botanist
4. The most well-appointed Ditching Pole (*remember it's not just about how long it is*)
5. Best lunch-spot of 2019

See what you can come up with in 2019?

Jo

Best dressed botanist:

Winner: Katherine Trehane, with a late entry involving a strand of hops and a great pair of legs

Highly Commended: Suki Pryce, with '***hayseed chic***' (rather poor photo by me, but Suki didn't have any control over the calibre of the photographer and so we'll let her off)

Best lunch-spot of 2018:

Winner: Chris Romer, with '***The Phone-box***'

Chris had no idea he was even going to be entered, but very well done there!

Highly Commended: '*The aliens have landed*' - Suki, Tim, Mike and Bob, making good, if lopsided use of a 'teen shelter'

GUEST ARTICLE: TAKE CARE OF THE LITTLE THINGS…

I thought it might be nice this year to have an article from someone outside our region – and we are fortunate indeed that the legendary Pete Stroh, who (if indeed any introduction is needed) is the BSBI's England Officer, agreed to grace our little newsletter with some erudite utterances …. JP

When I was out walking my dog, thinking about what to write for this renowned Newsletter, distracted occasionally by the elegance of two Great White Egrets that have set up home for the winter months, I was struck by how little botanising I have actually done in Norfolk. Lots of family walks at Holkham and the surrounding area in the depths of winter, hanging around on the occasional NFG field trip trying to look like I knew what I was doing, a bit of solo twitching around the edges – all good fun, but then I thought about how much you lot know about the flora of the county. Since 2000, I calculated on the back of an election voting card (that may or may not be topical by the time this is published) that you've collected just over 300,000 records, spotted 1,950 species, and all the while, I am led to believe by the field meetings programme, consuming an incalculable number of pints/G&Ts/fizzy pop. And I came to the conclusion that it would be a bad idea to try and write something specifically about the flora of Norfolk (or local breweries). I ruled out the Atlas project, purely for selfish reasons, as I've written a fair number of words about it over the past few years. I could have written about local bakeries I have known and loved, but that is being saved for my 'Good Bakery Guide', a sure-fire best-seller if I ever get around to starting it. In the end, I decided to write a bit about what was in front of me – no, not my dog, although he is lovely – but the flora of Aldwincle, Northamptonshire, my home for the past four years, taking in some of the best places for plants and a tale about a long-neglected SSSI. Hopefully, some of this will chime with experiences you have had, and so will in some small way be relevant for this publication.

The name Aldwincle translates from the Middle English as 'little nook', which is apt, as it's situated on a low hillock around which the River Nene runs in a huge oxbow. The river itself used to be considered a 'no-go' area by locals, with farm run-off the main reason for its polluted state. But in recent times all this has changed, and this stretch of the river now boasts six species of Pondweed, including Grass-wrack Pondweed *Potamogeton compressus*, and a swimming club. John Dryden, England's first Poet Laureate, was born in the village Rectory in the early 1600s. The house is still there, and I plan to buy it just as soon as my lottery win comes in. He probably walked in the local ancient woodland, which is a stronghold for the Purple Emperor butterfly. There are at least six excellent dog walks from my front door and, perhaps more relevant for this note, we are surrounded by protected sites - five SSSIs, including a lovely stretch of wet woodland and a network of flooded gravel-pits, and one field that could be a SSSI (more of this later). The largest and most species-rich of the SSSIs is an unimproved flood meadow almost 50 hectares in size, which is a blaze of colour and pollen in spring and early summer, swarming with insects (most notably horseflies – woe to those who visit the site wearing a t-shirt and shorts), and home to Northants only pair of breeding Curlews. This last species is relevant in my diatribe about flowers, as the farmer won't let anyone on his land for fear of upsetting Natural England (and the Curlews, I guess). He makes the occasional exception

for persistent locals, and the last time I went a-wandering there, Mousetail *Myosurus minimus* turned up in a gateway poached by cattle, a species thought to be extinct in the county (the plant, not the cow). The field is expertly managed, and I wish the farmer a long and happy life.

Standing in my back garden, the flood meadow can be seen in the distance, on the far side of the river. On the near-side, just out of sight, there is a small ridge & furrow field surrounded by tall, wonderfully unkempt hedgerows. It is, technically, private land, but the local farmer (a different one to the flood meadow) is a friendly chap, and he lets me mooch around. I took a proper look at the field's flora when starting Atlas recording in the area, and was amazed to discover how rich it is - the surrounding fields were sprayed in the 1980s (thanks to subsidies) and have not recovered from the experience. The ridges are white with Meadow Saxifrage *Saxifraga granulata* in the spring, and the furrows stuffed full of Tubular Water-dropwort *Oenanthe fistulosa*, Ragged Robin *Silene flos-cuculi*, Kingcup *Caltha palustris*, Greater Burnet *Sanguisorba officinalis*, Common Sedge *Carex nigra* (very rare in the v.c.!), Round-fruited Rush *Juncus compressus*, and to my great surprise, Slender Spike-rush *Eleocharis uniglumis*, like Mousetail also thought extinct in the county. After compiling a species list (and getting a det. for the Spike-rush from Jeremy Roberts), and walking the field with the farmer and his son trying my best to wax-lyrical about the joys of plants-that-are-not-orchids-or-daffodils, it was decided that although the site was clearly exceptional, bureaucracy was not 'his bag', and as the management for the flora was perfect, why not just carry on as before, without the need for paperwork. Sometimes a pragmatic approach built on trust and communication works best - a social contract rather than a legal one.

Floristically, the most interesting site in the village is also the smallest – about two hectares according to the citation, but actually the real interest amounts to perhaps less than half a hectare. Aldwincle Marsh SSSI is typical of many lowland England reserves – tiny, isolated, and sliding towards a rank and under-managed species-poor mess. Back in the day, it boasted a species-rich fenny flora, including Bogbean *Menyanthes trifoliata*, Black Bog-rush *Schoenus nigricans*, Long-stalked Yellow-sedge *Carex lepidocarpa*, Marsh Pennywort *Hydrocotyle vulgaris*– all very common in the uplands, but very rare in Northants - and I'm certain that without intervention by the Nature Conservancy Council it would now be an arable field or an extension to the nearby fishing lake (which inadvertently provides excellent snacks for hungry Otters). But, but. It's deeply frustrating to see a site gradually going 'down the pan'. Cattle grazing was restricted to two animals, with perhaps little thought given to actually monitoring the site to see if this grazing regime might be working. The rushes grew taller and spread, litter accumulated, the grazier just did what he was told to do – fair enough. Regular emails to those responsible did not work, even though I know that local staff at Natural England care deeply about such matters. They simply do not have the resources to cope, particularly when it comes to 'low priority' sites. When the grazier retired, and the site was sold on and left without any management, the first act of the new owner of the SSSI and a large chunk of arable land was to plough up all the five metre margins that were beginning to develop quite a passable flora. Not a good sign. More emails followed, promises were made, nothing happened. To cut a long story shorter, a chance meeting with the head of the local Wildlife Trust led to action. They found funds for cattle fencing, met with NE, the landowner and the local grazier (he of the ridge & furrow field mentioned earlier), and by autumn 2018 volunteers were on site cutting and raking off the rank vegetation. I can now appreciate why modern farm machinery was welcomed with open arms! Cattle will start to do their thing next spring. I now walk past the site knowing that the field and its flora has been given every chance of recovery, and I feel hopeful rather than angry. I've chatted

with the grazier about the plants found there, why grazing is good for them, have been on site to explain how it should look by the time the cattle come off, and I trust him to do a good job – he's the expert, after all. I'll be monitoring the vegetation and reporting back to the Trust, and their volunteers. It feels good to have been involved in something positive.

Why am I blethering on about this? Well, I'm sure that many of you will have encountered a similar situation. We record plants not just to gather evidence, not just because we enjoy identifying and finding new species. We do it because we love the outdoors, care about our flora, about our local environment, and if we don't try and help our local sites, then who will? I'm not suggesting that we march around trying to fix it all, but if we focus on one or two sites close to home, build relationships with landowners and land managers, then collectively we can make a difference. Folk appreciate the fact that we value what they own or manage (even if sometimes that appreciation is well-disguised). Communication is key, and perseverance. Lots of that.

Pete Stroh

Pete's Meadow, Aldwincle (*Oenanthe fistulosa* in the foreground) Pete Stroh

WILDLIFE IN COMMON

The Project: In May 2018 the Norfolk Wildlife Trust won funding (Heritage Lottery Fund plus Essex & Suffolk Water Branch Out fund) for a two-year project on Norfolk's commons. There are more than 300 commons in our county, ranging in size from tiny fragments to several hectares, and in quality from relatively ordinary to SSSIs (such as New Buckenham Common, famed for its Green-winged Orchids). Besides their wildlife value, commons are also often places where people walk, enjoy encounters with wildlife and seek solace or solitude. Now, working in partnership with the University of East Anglia and Norfolk County Council, the Wildlife in Common project aims to comprehensively survey at least sixty small commons - many for the first time. The aim is then to carry out habitat improvements where appropriate, and by doing so to contribute to the development of the Trust's ongoing 'Norfolk's Living Landscapes' initiative. As with the recent NWT initiative to resurvey County Wildlife Sites, this project relies on recruiting and training up volunteers (more than 150 are hoped for) to do the fieldwork. And as with that project, this is being done with well-planned methodologies, back-up and training from the Trust, steered by tireless project leader Gemma Walker.

The Wildlife in Common project also intends to "reconnect local people with their commons and celebrate the importance of Norfolk's common land". To achieve this, five sites will be subjected to detailed historical research carried out by the UEA's Historic Landscape Group with the help of volunteers who will be trained in historic landscape recording. In addition, help will be provided for communities taking practical action to protect and conserve commons; while events involving schools, artists and museums will raise the profile of common land across Norfolk. NWT will also explore the potential to create new commons for the future - including establishing new common rights (perhaps in the form of community orchards or coppice woodlands) - so allowing residents to have a real stake in the land. These would be informal open spaces with wildlife habitats, used for walking and enjoying wildlife. This is a bold step and an innovative approach to public open space that has not yet been explored in Britain.

My Involvement: I'm intrigued by commons – not least because they tend to be on poor or hard-to-farm land and so are likely to be interesting botanically. I therefore volunteered for several sites on dry/heathy land (my favourite type of habitat), or ones near me. I acquired Crostwight Heath near Honing (working with two fellow volunteers); Abbs Common (East Runton, working with one colleague); and Incleborough Hill (between East and West Runton) on my own. I'm also doing a CWS resurvey on part of East Ruston Poors Allotments, which is a common too and has been included in this project.

These are all lovely sites – surprisingly unspoilt, clean and mainly free of dog fouling and litter. Some seem hardly used by humans at all (E. Ruston); others are well used and much loved (Abb's Common; Incleborough Hill). Some are threatened by gorse invasion and need much intervention in order for their heathland to survive (Crostwight, E. Ruston); others seem to need little assistance to remain attractive. As one would expect with these ancient placed, most have interesting old ditches, hedge/wood banks and characterful veteran trees and shrubs. Several also have intriguing 'up and downy' topography (from sand/gravel/road-material extraction? We hope to find out more.) It's a pleasure and a privilege to be given this opportunity to study these special places in detail; and as all aspects of wildlife are included in our surveys, an added benefit is that I get to learn from colleagues who are knowledgeable about birds, bats, bees, butterflies etc; also geology, as we invited local expert Martin Warren to help us, and he has now got fully involved - contributing excellent descriptions of their geology for our reports and conducting graphic on-site tutorials.

The NWT first-phase methodology encourages an informal, subjective approach to describing our 'initial impressions'. This is refreshing and allows us to wax a bit lyrical if we wish, so here goes – my highlights so far have been:

East Ruston Common - Venturing off the surrounding roads through tall encircling hedges and charming light Oak-Birch woodland into the absolutely peaceful, sheltered piece of heathland within. Hearing Turtledoves and being shown Green Tiger Beetles. Finding plentiful *Ulex gallii* Western Gorse there in September.

Crostwight Heath - Enjoying the varied and picturesque woodland, and discovering *Blechnum spicant* Hard-fern, and *Frangula alnus* Alder Buckthorn there. Finding *Danthonia decumbens* Heath-grass on the heath, plus much Western Gorse. Discovering *Potentilla argentea* Hoary Cinquefoil on an enclosing verge.

Incleborough Hill - The 360 degree views from the top are superb and uplifting, but the delightful, varied path circumnavigating the sides (described as "a magical fairyland" by one user) was a discovery for me.

Abb's Common - Finding an unexpected and increasing colony of 35+ *Dactylorhiza fuchsii* Common Spotted-orchids; talking to users (much enthusiasm for this site and neighbouring Incleborough).

The main question raised: Should more use be encouraged in 'under-used' commons, or is their peacefulness/wildlife value sufficient *raison d'etre*? In fact, should a heightened level of public access be positively *discouraged* on some sites, or is this a misuse of whatever public resources are being spent on commons?

If you'd like to find out more, or take part, go to wild@norfolkwildlifetrust.org.uk

Suki Pryce

East Ruston Common Suki Pryce

EARLY SPRING SPEEDWELLS IN THETFORD:

(a report on the visit to the 'Speedwell Twitchers' Site' in Urban Thetford, 14th April 2018)

2018's first field meeting of the NFG was in and around Thetford, but we finished early so that we could take the opportunity to visit the town's famous (to botanists) housing estate site, which still supports a small population of the rare local Speedwells *Veronica triphyllos* Fingered Speedwell and *V. praecox* Breckland Speedwell. Ian Woodward, of the BTO, who follows the fate of these precarious survivors, helped us to spot them, and filled us in on the history of this unusual site (on an area of amenity grassland associated with a modern housing estate on Rosecroft Way – Bluebell Close in the southeast of the town), which has been designated as a Roadside Nature Reserve (RNR 33). The plants are mainly on a short, steep, mainly rough-cut, thinly-grassed slope facing the pavement, with the steepness of the slope and patches of bare ground providing suitable habitat for these tiny ruderal annuals to seed into. We also saw another Breckland speciality - *Herniaria glabra* Smooth Rupturewort, beside the path up on the flat ground above the Speedwell slope.

I've been to this site before, on one of Simon Harrap's workshops ('Spring Flowers in Breckland'), held on April 17th 2014. This was the only time I've ever encountered true plant 'twitchers', for there were several keenies peering at the tiny specialities alongside us, who'd travelled from afar (one couple from Newcastle) just to tick these rarities off their lists.

Alas, with cuts to Council budgets, this precious little site isn't getting the sympathetic management it needs, with some areas being cut too often/close, and others not often enough. It needs trees removal (and removal of the chippings) to open up further areas of sunny grassland, and an amenity mowing regime which avoids cutting on the slopes between February and June, or else cutting following survey to identify locations where plants are flowering.

Suki Pryce

Veronica triphyllos *Veronica praecox*

Misc. botanists enjoying those *Veronicas*! Photos: Jo Parmenter

COLLECTIVE NOUNS FOR BOTANISTS

You will recall that this was an idea we started at the 2017 and I am sure you've all been on tenterhooks since then.

We have narrowed the suggestions down to the top 5, as follows:

- A family
- A twitch
- An indetermination (or a determination, if you prefer!)
- An aggregate
- A bumble

Personally I am not sure about 'a twitch'. It was a popular choice, to be sure, but doesn't it make us sound like a load of birdwatchers? We are quite obviously far superior and much more 'normal'.

Email me to vote for your top favourites and one runner up: jo.parmenter@tlp.uk.com

PROGRESS ON ATLAS 2020

You are probably aware that over the last few years we have been striving to get good recording coverage of Norfolk tetrads (2 km grid-squares on the OS map) for the next edition of the BSBI's national plant atlas, to be called 'Atlas 2020'. And 2019 will be the last year of field recording for it. So how are we doing? Are we on target? Is there a crisis? What things may we need to do in 2019 that are out of the ordinary?

First, Jo has provided an overview of the Atlas 2020 project using the latest information from the BSBI.

The main focus of the Norfolk Flora Group is to observe, identify and record plants, usually with a particular purpose in mind and this is primarily carried out by means of our annual programme of field meetings. Our present priority is the collection and collation of records for the BSBI's Atlas 2020 project https://bsbi.org/atlas-2020.

The first atlas of the British and Irish flora, published in 1962, pioneered the use of 'dot-maps' aligned to the OS grid and this system has been used ever since to monitor trends in the UK flora. A repeat atlas was published in 2002 based on fieldwork carried out from 1987-1999. The BSBI is now producing a third atlas, "Atlas 2020", which will be published after fieldwork is completed in 2019.

Atlas 2020 will provide:

- *Maps for both native and introduced taxa*
- *Interactive maps able to display frequency and distribution at a variety of scales*
- *Analyses of changes, summarising the state of the British and Irish flora in 2020.*

These elements will be presented by means of an eAtlas, and the team working on this have now finalised a fixed list of taxa to map. Species captions for all taxa will be updated from those in Atlas 2000, usually by the previous author and the next phase will be to allocate the remainder of taxa to new authors.

Our Vice County recorders, Bob and Richard, have been approached to validate records of rare and threatened taxa, to ensure data are accurate.

A published Atlas book will also be produced, and this work will be led by Mick Crawley. No further information is available at the present time, but ideally the publication of this book would coincide with the launch of the online eAtlas.

A summary 'State of the Nation' report will also be produced by CEH and BSBI staff. A species policy document was produced after the last Atlas and it is considered that this would be a useful output for the present Atlas. Engagement with the statutory agencies would be an important part of this work. The policy document could potentially compare data and trends for the countries (Scotland, Wales, Ireland and England), and might ultimately feed into country Red Lists in the longer term.

So, what about the questions above. Well firstly, it isn't a crisis! Thanks to NFG – that's you, by the way – Norfolk is a more thoroughly botanised county than most, and we don't have many seriously under-recorded areas. The NFG website displays Bob Ellis's regularly updated maps of how well-recorded our squares are as compared with the 1998 *Flora of Norfolk* by Alec Bull and Gillian Beckett. The maps feature coloured dots showing the number of species recorded between 2000 and the present as a percentage of the number known from each square in the 1988 to 1998 *Flora of Norfolk* survey.

Bob's maps show that, for most East Norfolk (VC27) tetrads, the number of species recorded post-2000 already exceeds the 1998 total, and that in very nearly all VC27 tetrads a respectable percentage of the 1998 species total has been recorded (over 90%). In West Norfolk (VC28) the cover currently looks less complete, but extensive apparently under-recorded areas in the far west have in fact been magnificently covered by the *Flora of the Fenlands* project, from which we are still importing records into our MapMate database for Norfolk. And for an apparent lacuna north of Thetford, data from Stanta are about to be entered into our MapMate (after settling confidentiality issues regarding who might have access to our records for MoD land). Thus, the larger seemingly under-recorded areas are in fact very well recorded, leaving a fine-grained scatter of less well-recorded tetrads in a mosaic with the main area of deficit being towards the border with East Norfolk. We have plans to target these areas during the 2019 meetings programme.

An important point is that the BSBI Atlas – the book form at least – will map at the scale of hectads (10 km grid-squares on the OS map). These are big squares integrating blocks of 25 tetrads (or 100 one-kilometre squares). A few under-recorded tetrads will not therefore matter greatly, provided they are in mosaic with well-recorded ones, and not lying together to form large under-recorded areas. This means that 'square-bashing' – essential though it is (not only for Atlas 2020 but for the next *Flora of Norfolk* a few years down the line) – may give diminishing returns. After a while ittends to produce lists of the same widespread Norfolk species for square after square while adding increasingly little to the species total for the hectad. This should not be over-stated, because merely looking somewhere you had not looked before often does turn up new species. But in the later stages of recording for something like Atlas 2020 it is certainly worth considering whether it might not also be cost-effective to look at flagship sites like NWT reserves, SSSIs and county wildlife sites (CWSs) where we may pick up species that are not widespread in the Norfolk countryside. Which is why Jo's splendid work in arranging visits with the Norfolk Rivers Trust, NWT's Commons project, and NWT's ongoing CWS survey programme is so important – it is not just a mere 'win-win', but an even more remarkable 'win-win-win' because we go to new places *and* we hit flagship sites *and* we help our friends at Natural England, the RSPB, Norfolk Wildlife Trust and the Norfolk Rivers Trust.

Still, the fact that we have enough tetrads in hand to give good coverage in hectads does mean that, even in West Norfolk, we have no any serious problems as we go into the final year of recording for Atlas 2020. Thus, it is more a matter of tying up loose ends. What are they?

The main concern at this stage is that **the Atlas 2020 data will be used to analyse change in species distribution patterns and rarity**. Though we may have got our post-2000 records up to previous species totals, it is much harder to be sure that we have recorded the same species. So, we could be indicating significant changes, which might of course be genuine (e.g. the increase in

Amaranthus bouchonii (Indehiscent Amaranth) or the decrease in *Drosera anglica* (Great Sundew)), but might on the other hand be illusory, perhaps reflecting nothing more than differences in how we record and the sites we visit. And there is good reason to think that we may have recorded a rather different set of species since 2000, because in times past it was less customary to record plants escaping from gardens than it is now. Indeed, it is not so many years ago that BSBI recorders were forbidden to count any non-native plant growing within 50m of a house! That had begun to change by the time of the 1988-1998 *Flora of Norfolk* survey, which covers a good many escapes, but almost certainly we are setting ever lower thresholds for accepting that plants have got out of the garden. That means that since 2000 we could have ramped up to 1998 species totals in a square by recording more impermanent seedlings of garden plants than erstwhile, while under-recording or even altogether failing to re-find the more important native species. That risk is increased by the fact that we have naturally learned that when 'square-bashing' the way to push the species numbers up is to focus on the villages, which is where the escapes mostly are.

It is therefore likely that our post-2000 records will suggest a partly illusory increase in escaped plants (simply because they were less thoroughly recorded in the past). Of course, that much the botanical recording community *must* accept (as being of no great concern), if it wants to capture in its records the early origins of escaped species that later establish, persist and spread (which it does want to do). What would give greater concern would be if - owing to a shift in our recording effort from flagship sites to tetrad recording in less exciting areas - we under-recorded (or even in effect recorded the loss of) rarities and axiophytes that are in fact still there (axiophytes are 'good plants' – see the NFG and BSBI websites). And the likelihood that our species totals for tetrads include more escaped species than they did in the past could theoretically be masking such an effect.

Now all this is not to discourage 'square-bashing' or the recording of escapes, which are necessary and virtuous activities. But, in the last year of Atlas 2020 recording, it does suggest two additional things we could usefully do.

- First, the VCRs will be looking at the state of our records for the rarer and more interesting Norfolk plants to see what we have *not* recorded since 2000 (either altogether missing or greatly reduced) – who for example last saw *Alchemilla filicaulis* spp. *vestita* (Hairy Lady's-mantle)? Don't forget the hyphen in that one. The VCRs will then publicise any requirements for checking past sites for missing species, either using the NFG website or by word of mouth when we meet up at NFG meetings, in the hope that somebody will be able to follow it up.
- And second, if anybody can visit flagship sites to which they have access near to home – especially NWT reserves, but anything good really – then **please do**! (with, of course, the permission of the NWT, or other landowners) There is a good chance that these sites will throw up species additional for the hectad or under-recorded in it, especially in West Norfolk (in East Norfolk most good sites will have been covered recently, though even there a few extra finds may still turn up).

So that's it really – please keep up the good work 'square-bashing' but alternatively, if possible, get out looking for those important native species that we may be missing or under-recording. So, at last an excuse to get together in mini-groups to go botanising in really nice sites!

Jo Parmenter & Richard Carter

NORFOLK FLORA GROUP PUB OF THE YEAR, 2018!!!!

… and now it's time to reveal the NFG Pub of the Year for 2018.

The survey scored pubs on a total of 10 categories, with a maximum score of 5 and a minimum score of 0 available for each of these. The total was divided by the number of categories given a score (we didn't often eat, and if staying indoors were not able to fairly assess the quality of the garden etc.). This year, we again substituted the 'would Bob come back' category for 'comfort' due to a very distressing lack of Bobs on a number of occasions. Hopefully they will both try a bit harder in 2019.

On several occasions we ended up in a different pub to the one we'd planned to be in, sometimes by accident, sometimes by design and so you will find that the final list of pubs visited doesn't entirely match the programme. I also completely forgot to do the scoring on a number of occasions … I can only apologise… Despite this impediment, we did manage to successfully score a grand total of 25 hostelries this year, and for the first time, there was quite a stark division between the top-rated pubs, and the also-rans. It may be that we are becoming more discerning….Anyway:

In third place, we have a tie between our regular Norwich favourite for post-herbarium workshop refreshment: **The Murderers, in Norwich**, which is a warm, cosy place with good beer, and interesting if slightly sinister décor, and won the Great British Pub Awards twice in a row in 2016 and 2017 and **The Crown Inn in Pulham Market.** The Crown won 'Norfolk's Best Pub' award in 2017 and was chosen to represent the county as a finalist in the National Pub and Bar Awards. The Crown again features some excellent beers, and also boasts a regular 'Pie Night'. Pie … Mmmmmm. We didn't stay for dinner, but maybe next time??

In second place, we have the **Berney Arms, in Barton Bendish**, which was recently voted Best Pub by the Norfolk Food & Drink Awards

A tiny way ahead, however ……

In first place, the winner of the NFG Pub of the Year Award for 2018: was

*********The White Hart, in Rockland All Saints********

The White Hart pretty much swept the board in all categories from the beer to the toilets. I couldn't find any 'official' awards for this one, but I am sure its just a matter of time, once CAMRA etc find out about our endorsement.

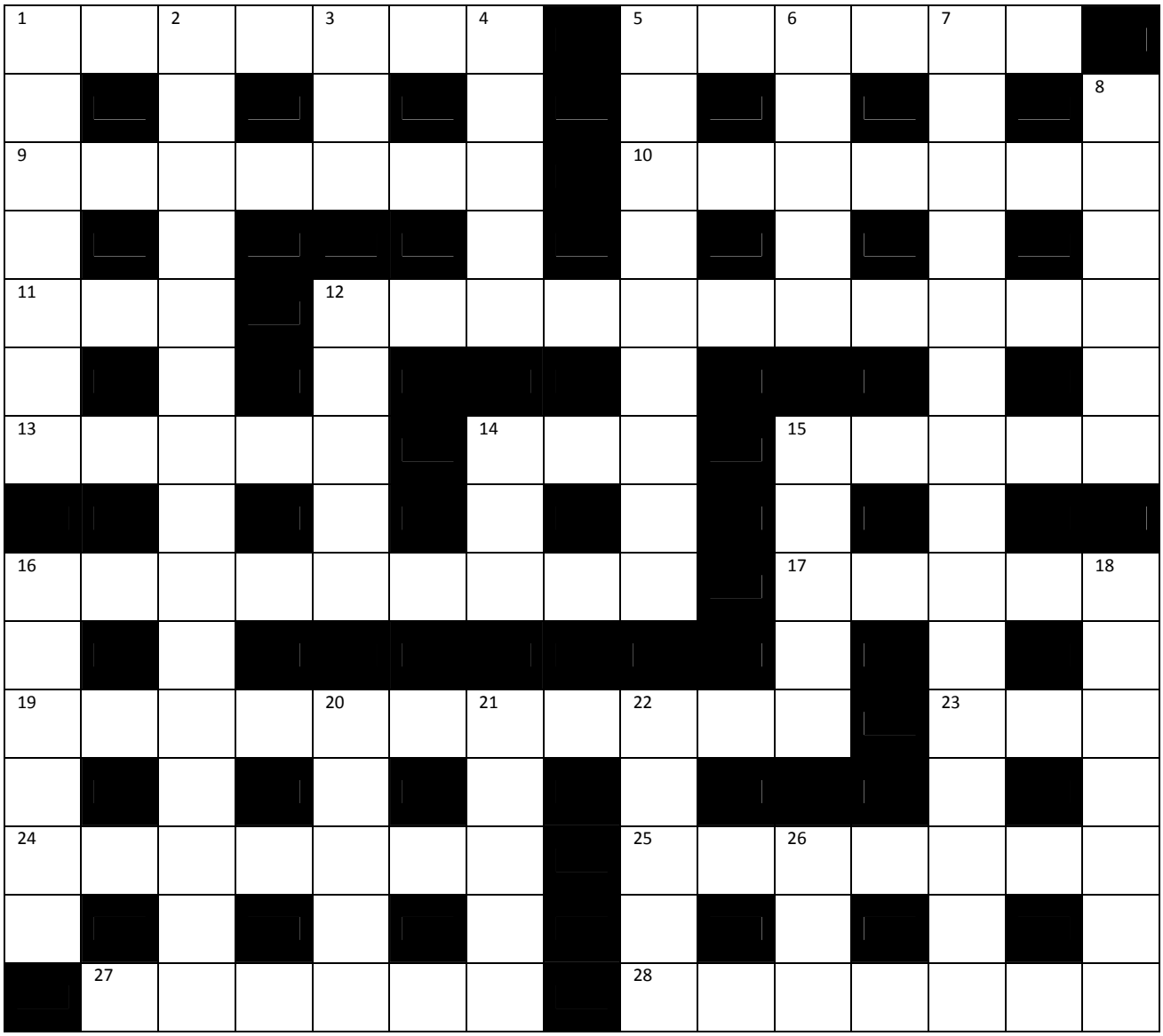
Thank you all for taking part (willingly or otherwise).

Jo Parmenter

A NORFOLK FLORA GROUP CROSSWORD 2018-2019

Sedge Warbler has gone all 'hi tech' on us this year (take note, BobL: if a tiny passerine can successfully engage with the digital age, then so can you) and has thoughtfully tweeted the clues prior to commencing his long migration back north to us. Answers in the 2019-20 Edition……hopefully the crossword will be a bit easier this time. I don't know about the rest of you, but personally, I hate being outwitted by a bird. JP

THE CROSSWORD



HANDY SPACE FOR SCRIBBLINGS (because we think of everything)

THE CLUES……

Across

1. A gentle knock, then settle down, being well-anchored (3,4)
5. Tragopogon head (6)
9. A tricky one, starts again with the wool and needles in reverse (7)
10. Virgin Dame Nut went crazy (7)
11. One my own kind, though unable to migrate! (3)
12. E.g. Darwin, Hooker and the like (4,7)
13. Not flat (5)
14. Hedge plant (3)
15. Orange cake (5)
16. Somewhat glaucous (4,5)
17. Gobbledygook would be twice as much (5)
19. Produce flowers and seed-bearing carpels (11)
23. One could be an age (3)
24. What's my wage sir, for ridding you of those scuttling insects? (7)
25. Plants with explosive capsules (7)
27. Multiple coloured willows (6)
28. Rather like a spindle (7)

Down

1. Found in a 'Ruppiesque' situation (7)
2. Sir, I a vulgar lump, yet so pretty in spring! (7,8)
3. The Major tree (3)
4. Disturbed rates for these confused members of the Pea family (5)
5. Sometimes you just can't decide ... (9)
6. "Which?" and other trees (5)

7 and 16 down. Healthier and healthier floral folk (6,6,3,6)

8. You can visit the Potemkin Stairs here (6)
12. Avian blend of seed and computer science (5)
14. Fuel for a Flora Group outing?
15. Double-crossing tree (5)
16. See 7 down
18. "...is the best policy" (7)
20. Beloved by Popeye (5)
21. Exercise, then saints, are nuisances (5)
22. Prickly scrambler (5)
26. Garland? I thought you said meadow (3)

ANSWERS TO THE NORFOLK FLORA GROUP CROSSWORD 2018-19

		1 C	A	2 L	L	3 I	T	4 R	I	5 C	H	6 E
7 S		O		A		F		E		U		L
U		9 R	I	B	E	S		10 S	P	R	A	Y
B		N		I				T		A		T
11 S	H	U	M	A	C	S		12 F	U	T	U	R
E		S		T				U		O		I
13 T	A	S		14 E	R	15 G	A	L		16 R	E	G
		A				A		L				I
17 L	A	N	E	18 S		19 R	O	Y	A	20 L		21 A
A		G		C		I				A		R
23 R	H	U	B	A	R	B		24 L	E	G	W	E
C		I		R		A		I		U		P
25 H	A	N	D	F	U	L		26 N	E	R	V	E
		E				D		G		U		N
		27 A	R	A	B	I	D	O	P	S	I	S

												8 C
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												A
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Sedge Warbler

NB –Due to fear of persecution from grumpy botanists unable to complete the crossword or disputing the answers from last time round, Sedge Warbler wishes to maintain his (or her – I can't tell the difference myself) anonymity. I have asked, but there you go. He's shy and retiring. JP

……. LOOKING FORWARD TO THE 2019 FIELD SEASON

Highlights for the coming field season (other than the regular supply of cake-based sustenance) include…..

Coastal Spring Fling – BobE has promised to lead another excursion to the seaside (or at any rate to somewhere vaguely close to the coast).

Conifers Workshop – Matt Parratt of Forest Research has kindly agreed to come and teach us how to identify conifers, using the weird and wonderful collection at Lynford Arboretum. Booking essential.

County Wildlife Site surveys – Sam B is putting together a series of sites along the Cut-Off Channel for us to look at.

Fantastic Ferns and Brilliant Brambles – Alex Prendergast will once again patiently attempt to teach us how to identify *Rubus*, and, provided we all pay attention and behave ourselves is also going to tackle the more daunting aspects of *Dryopteris*.

Longham Lollopings and Weasenham Waysides – a follow up to last year's well-attended 'Laneside Lurkings': more meanderings around West Norfolk lanes.

Joint meeting with Lowestoft Field Club – Arthur proposes taking us to Roydon Fen, and for those of us who don't come over all strange and agitated on crossing the border, Wortham Ling, just into Suffolk

Mid Norfolk Railway – Part IV, led by Barney and his team. We have a few little bits and pieces that we weren't able to access last time. More *Chaenorhinum* is anticipated!

Norfolk Rivers Project – This year we will be looking at the rest of the River Wissey, which, based upon what we found last year, promises to be quite interesting.

Pubs – Still plenty more to visit!

River Bure – Emily, the NT's project officer is arranging access to a couple of sections of the upper Bure

Scary Swamps – A terribly wet fate awaits us at NWTs Hickling and Ranworth reserves. I am going to try to time our visits so as to avoid peak horsefly season though, as I'm nice like that.

Wild Flowers Revealed – What will BobL reveal to us this time? We have one meeting planned for 2019, and Bob proposes to take us all off to the seaside and buy us ice-creams; or failing that, at least we'll have a lovely walk around RSPB Titchwell and NWT Holme reserves.

Wildlife in Common – The Norfolk Wildlife Trust's Gemma Walker has asked for our help with their Common's project, and we will go and have a look at some of the ones we haven't previously visited: Harpers Common, Brisley Green and Beetley Common to name a few.

Wildflower Walks – whilst golf is oft quoted as a good walk spoiled, botanising is surely the cherry on top of the icing on a lovely cake (…..cake….mmmmmm….), and so as a bit of an experiment, I have planned a nice walk for us all along the Peddars Way, with some light botanising thrown in.

… and back by popular demand ….

Christmas!!! - it will come around eventually (it usually does, anyway).

Jo