Norfolk Flora Group Newsletter 2025

Issue 11

Eupatorium cannabinum Janet Higgins

Editorial

Welcome to the 11th issue of the Norfolk Flora Group Newsletter. Firstly, I hope you enjoyed the new look of the newsletter last year and that you continue to enjoy hearing about the Norfolk Flora Group activities and the particular interests of various members. I look forward to hearing any feedback and suggestions for future articles.

We had a busy 2025 season with 44 meetings. This included hosting a 3-day specialist *Rubus* BSBI meeting in July. There were 19 meetings in the West of the county (v.c 28) and 20 meetings in the East (v.c 27) which included six 'missing monad' meetings and a joint meeting with the Norfolk & Suffolk Bryology Group. Two 'Introduction to Wildflowers' meetings were held in collaboration with the Norfolk & Norwich Naturalists' Society: one in the West at Sennowe Park led by Jo Parmenter and the other in the East at Upton Fen led by Bob Leaney, both were very well attended and have interesting write-ups in Natterjack.

Thanks to Alex Prendergast for leading workshops on *Taraxacum, Rubus* and *Euphrasia*. These are valuable additions to our field meetings and a welcome opportunity to both revise and continually learn about these difficult groups. Alex and Mike Ball are working on a photographic resource for Norfolk Brambles.

Finally NFG made an enthusiastic contribution to the BSBI New Year Plant Hunt. We found 102 species in flower in Norwich and 101 species in flower in Sheringham. Overall we had four lists in the top twenty longest lists for the whole country.

The Field meeting programme and past newsletters are made available on the NFG website https://www.norfolkflora.org.uk/. Resources from previous workshops are also available on the NFG website including Bob Leaney's amazing illustrated keys.

Janet Higgins

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Acknowledgments

Our particular thanks go to the various landowners who allowed us access in 2025.

Thank you to all the NFG contributors to this edition: our celebrity guest contributor BSBI President, Paul Ashton, our perennial puzzle-setter, the Sedge Warbler and to Mike Crewe, Bob Ellis, Mary Ghullam, Tim Doncaster, Tim Holt-Wilson, Mike Padfield, Sarah Morrison, Jo Parmenter and Suki Pryce.

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Norfolk Botanical Roots

Paul Ashton

My botanical roots lie in Norfolk, most deeply at Foxley Wood. My time spent teaching and botanising there in the early 1990s served as my education and inspiration that has stayed with me ever since.

In 1989 when I took up my teaching post at Dereham Neatherd High School and Sixth Form I had just finished my PhD on the evolution of *Senecio cambrensis*. While I understood the intricacies of *Senecio* I felt I knew little of the wider British flora and its habitats. Norfolk became my botanical school that filled this gap in my knowledge. Early indications of the plant pleasures of the County came with a residential sixth form trip to the Norfolk LEA's centre at Wells-next-the-Sea. Highlights of that trip were the orchid flora on the inland side of the pinewoods at Wells and the saltmarsh community east of Wells.

By the time my second year of teaching started in 1990 I was looking to widen my horizons and those of my pupils. The Norfolk Wildlife Trust provided the opportunity to do this. At that point Foxley Wood was newly acquired by the Trust who had bought it from the Forestry Commission and appointed a reserves officer, John Milton. John was always open to wider community involvement, in my case school groups. Further support came from the Trust's Harry Bowell along with that from the school's management team. Hence I started to work with school children at Foxley.

This work took a number of forms. We had a conservation activity week in February for Year 10 students. This was followed by a Science week in June when all Y10 students would have a day at Foxley doing three investigations. These were an assessment of the impact of coppicing on the composition of the ground flora; a consideration of the impact of changes in soil moisture on the tree community and a circular walk around the site, with flags posted at regular intervals indicating questions to be answered by observations at that point, for instance the difference between grasses, sedges and rushes or the flower shape of the Fabaceae. The overall aim being to develop observation and natural history skills. We also had a small regular group that visited the site that undertook conservation work and wrote a tree guide to the site. Other non-botanical work involved building and erecting owl boxes and butterfly surveying. Foxley also became the chosen site for sixth form project work, two highlights being an assessment of the fertility of *Sorbus torminalis* (Wild Service Tree) and the extent of hybridisation between the two *Crataegus* species at the site.

Aside from work the reserve became the favourite location for a family walk. The size and relative isolation of the reserve meant that a restorative sense of being alone in nature was never far away. It was this combination of regular work and family visits that gave me a close familiarity with the wood. There is nothing to compare with seeing a site through the seasons to help one gain an understanding of the plants that grow within it. This experience developed my floral skills beyond the confines of the nature reserve. The restoration work that the Trust did also gave me an understanding of conservation management. This included a return to coppicing, ride management and conifer removal to enable regeneration of the tree community removed in 1950s forestry operations.

When I left my teaching post to take up my lectureship at Edge Hill in Lancashire in 1994 my weekly visits to Foxley ceased. However the knowledge and joy the site brought me has stayed with me. In teaching my own students over the last thirty years I hope I have distilled what the place gave me all those years ago and passed it on to the next generation.

Paul Ashton BSBI President
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NWT Foxley Wood Photo: Richard Osbourne

How to record plants really, really, well

Jo Parmenter

For those of you who do a lot of recording or may occasionally be called upon to record ….. here are some hints and tips.

❋ Recording the grid reference correctly is the most important thing you can do (apart from making sure the species ID is correct). Each 6 fig grid ref for each monad is made up of the first 2 digits of that monad followed by a third digit for the 100m square and then a second set of 3 numbers, with the first 2 being the second part of the monad ref and the final digit being for the 100m square. For example: TG123456 will be in monad TG1245 as will TG124456; however TG12**43**56 is in TG1235. Transposing just a single digit, for example TG**2**13456 can potentially send your plant up to 10km away! Writing TL instead of TF will dump your plant in the seas somewhere off the Lincolnshire coast.

❋ Mapmate data entry involves setting up sites and then assigning species to those sites, so its easiest for the person doing the data entry to read from a sheet that lists 'griddable' species by grid ref. If using a tetrad sheet, then grid your records monad by monad in separate sections, each headed with the unique monad reference. If you run out of space, then you can create a new monad header e.g. TF7831 #2 further down the sheet.

❋ Always write the full 6 or 8 fig grid: don't be tempted to use the shorthand of e.g. 6,7 as it a) takes the person doing the data entry longer as they have to go back and set up a load of extra sites half way through the data entry process and b) it's also a double check that you've not accidentally strayed into the adjacent monad without realising.

❋ If you return to a 6 fig grid ref (e.g. you're going back up the other side of the road etc) and have run out of space, add 'cont' or '#2' to the 6 fig grid ref when you write it out again, so that the person entering the data knows it's not an error.

❋ The choice of a 8 vs 6 fig grid is yours. Things to consider are species rarity, the numbers of the plant in that particular monad, and also the size (someone may want to try to re-find it). If it is rare/scarce, or the only one you've seen in that location and on that day or very small, then an 8 fig grid might be best, not least because if anyone needs to revisit the site to check it, they can find it more easily. This is particularly important in urban habitats where a 6 fig grid can encompass several streets.

❋ Make sure your grid reference stands out as a heading for the species within it. You can do this by offsetting the species relative to the grid ref, or else by underlining the grid ref.

❋ Never record over a range (eg TG12345678 to TG12345689) – it's impossible for the person entering the data to know if the plant has been recorded in every 10m between those 2 extremes and neither Mapmate nor the DDb have the facility to record that sort of detail except as a comment, and those aren't searchable.

❋ Always write both the genus and specific name to avoid confusion, but its fine to shorten both to 3-4 letters, noting that some griddable taxa are easily confused: for example 'Car pan' (*Carex panicea* or *C. paniculata*); 'Epi pal' (*Epilobium palustre* or *Epipactis palustris*), 'Ver off' (*Veronica officinalis* or *Verbena officinalis*). There are others, so beware!

❋ If a sample needs to be confirmed later, write TBC next to it, and circle the TBC so that it stands out. If someone then takes it home, put their initials alongside to help with follow-up.

❋ If you have several samples of (probably) the same thing from different parts of the monad (or several monads) then put then in different bags and label them 1, 2, 3 etc on both the sheet and in the bag. Carry a notepad or scrap paper for such moments. Better still, if there are more than a couple, then label the specimen with its full 6 fig grid ref along with an identifier. Sticky labels are very helpful at such times.

❋ Keep separate sample bags for each monad visited and either put a label in them or make a note on the sheet (eg TG1000 = blue bag). If other people in your group want to collect their own samples to check at home or share with others in the pub, then make sure these are kept separate.

❋ If you encounter a planted tree or clearly sown wildflower mix etc then write 'P' for 'Planted' next to it. If you have a planted 'non-griddable' which you then find growing wild, rub out the 'P'. If you find something which doesn't normally self-seed but which clearly has done so, then write 'ss' for self-sown or 'rg' for 'regenerating' alongside. For something particularly unusual, a couple of words about context can be helpful, but no need for an essay.

❋ Write small but neatly. If you don't have enough room, then use a continuation sheet (always keep a spare sheet of paper for such purposes) or better still fold over an edge of the sheet and write on the reverse. Write 'PTO' along the bottom of the sheet so that the person doing the data entry knows to turn over.

❋ If you briefly stray into a new monad which isn't a target for recording, then by all means record rarer taxa, but it's best to do this on the reverse of the sheet or in a separate box at the bottom so that they don't get muddled with your main recording. It can be helpful to fold over the right margin of the sheet and then record in the bottom corner of the reverse under a clear heading which givies the new monad reference.

❋ If you're filling out the recording sheet and are not sure about the ID that you've been given, or aren't sure you've heard correctly, then double-check (even if it risks annoying someone). You are a critical part of the recording process, second only to the VCRs, and you need to be confident that what you are recording is **100% correct**. The person entering the data may do it several months later, and by then, everyone will have forgotten exactly what it was they saw last January.

❋ Use a pencil with eraser so that you can rub out and correct as necessary. 0.5mm propelling pencil is ideal. Bright colours are less likely to be lost … and always carry a spare pencil.

❋ If in doubt, leave it out. It's very easy to get data glitches of all types between finding a plant and getting it onto the BSBI DDb, without additional uncertainties creeping in at the recording stage.

❋ If it's raining/likely to rain then ask for waterproof paper!

It's going to be especially important to get into good recording habits before we start using the recording app (the direct entry system will make verification of uncertain IDs much more difficult to keep on top of). Luckily, we have plenty of time to practice!

We may have missed something, so if anyone else has useful hints/tips then please let us know and we can add them to a Norfolk Flora Group recording guidance document which we hope to further develop with guidance on recording using the App.

Jo Parmenter, Richard Carter & Bob Ellis

Great Yarmouth South Denes 26th April

Suki Pryce, Janet Higgins and Mary Ghullam

Bob Leaney, Sarah Morrison and Suki Pryce started in the northern part of the monad TG5305. This monad, south of the Pleasure Beach comprised mainly dunes to the east, a light industrial area and streets inland, with a brownfield area in between. It supplied a surprisingly rich and varied flora, with plentiful typical seaside taxa as well as interesting aliens, hybrids, varieties, etc. Key dune taxa included Early Hair-grass *Aira praecox*, Sea Bindweed *Calystegia soldanella,* Grey Hair-grass *Corynephorus canescens*, Sea-holly *Eryngium maritimum*, Sea Sandwort *Honckenya peploides*, Sheep's-bit *Jasione montana*, Lyme-grass *Leymus arenarius* and Common Restharrow *Ononis repens*. The brownfield and industrial areas had locally plentiful Bur Chervil *Anthriscus caucalis*, Little Mouse-ear *Cerastium semidecandrum*, Springbeauty *Claytonia perfoliata*, Perennial Wall-rocket *Diplotaxis tenuifolia*, Narrow-leaved Ragwort *Senecio inaequidens*, Jersey Cudweed *Laphangium luteoalbum*, Tree-mallow *Malva arborea*, Early Forget-me-not *Myosotis ramosissima*, Rue-leaved Saxifrage *Saxifraga tridactylites*, Eastern Rocket *Sisymbrium orientale*, Lesser Chickweed *Stellaria pallida*, Sea Radish *Raphanus raphanistrum* ssp. *maritimus*, Hare's-foot Clover *Trifolium arvense* and Slender Trefoil *Trifolium micranthum*. Other taxa of interest included Hoary Mustard *Hirschfeldia incana*, Smooth Cat's-ear *Hypochaeris glabra* (flowering in a gutter!), Early Meadow-grass *Poa infirma* and Spanish Broom *Spartium junceum* (self-seeded from nearby mature planted specimens).

Common Stork's-bill *Erodium cicutarium* with pure white flowers on a sandy bank
Photo: Janet Higgins

Suki in front of the mature specimen of Spanish Broom *Spartium junceum* on the seafront at Great Yarmonth. Photo: Sarah Morrison

Mary Ghullam, Bob Ellis and Janet Higgins explored the southern end of TG5305 looking for both bryophytes and vascular plants. We recorded a few additional plants: Sea Pearlwort *Sagina maritima*, Sea Mouse-ear *Cerastium diffusum* and Oxford Ragwort *Senecio squalidus*. Mary pointed out a white-flowered form of Common Stork's-bill *Erodium cicutarium* .

The bryophytes recorded fell into three distinct habitats: sea and other walls with common mosses such as Thickpoint Grimmia *Schistidium crassipilum* and Intermediate Screw-moss *Syntrichia montana*; this was subtly different from the grassy area inland of the sea wall, where some species such as Juniper Haircap *Polytrichum juniperinum* and Whitish Feather-moss *Brachythecium albicans* were found, which were also part of the sand dunes bryoflora. The northern area of the dunes in TG5305 was subtly different from that further south, with greater amounts of moss cover and slightly different assemblages. Near the Pleasure Beach was the only place where the invasive alien liverwort, Southern Crestwort *Lophocolea semiteres* was found, which is also known to be present on North Denes.

Missing Monads 1: Scole area 1st May

Janet Higgins

Group1: TM1781, TM1880: Janet Higgins, Bob Ellis, Stuart Rogers

An enjoyable walk through the country lanes of South Norfolk on a very hot day seeing typical clayland plants such as Cowslip *Primula veris* and Hedge Bedstraw *Galium album*. The scattered plants of Winter-cress *Barbarea vulgaris* were difficult to miss with their clusters of bright yellow flowers on top.

Bulbous Buttercup *Ranunculus bulbosus* showing off its reflexed sepals on the roadside nature reserve
Photo: Stuart Rogers

Another plant of interest was the abundant White Stonecrop *Sedum album* creeping into the road from the base of roadside verges. We were very pleased to

An impressive specimen of Russian Comfrey *Symphytum × uplandicum* on the roadside nature reserve
Photo: Stuart Rogers

come across a roadside nature reserve in TM1781 that contained frequent flowering Bulbous Buttercup *Ranunculus bulbosus*, several young plants of Pepper-saxifrage *Silaum silaus*, an impressive plant of Russian Comfrey *Symphytum asperum* × *officinale* = *S.* × *uplandicum* and the scattered leaves of the emerging Agrimony *Agrimonia eupatoria* and Lady's Bedstraw *Galium verum*.

On our way back to the car, we came across a delightful patch of around 20 plants of Early-purple Orchid *Orchis mascula* growing in the short grass alongside a track though arable fields in TM1780.

Missing Monads 1: Scole area 1st May

Tim Holt-Wilson and Suki Pryce

Group2: TM1779, TM1778: Suki Pryce, Bob Leaney, Tim Doncaster, Tim Holt-Wilson

Billingford is on the northern shoulder of the Waveney valley. We roved around TM1778 and then TM1779, parts of the Thelveton Estate. The land is founded on Lowestoft Till (boulder clay), with heavy, clayey land on the plateau giving way to sandier land along the valley sides where glacial sands and gravels outcrop. The land on the floodplain is a mixture of river alluvium and wasted valley peat. Each area has a different floral population, although we did not record these variations within each monad. TM1778 is on the slopes of the valley leading down to the river side, and includes an ancient drove lane.

TM1779 is on the plateau and includes more ancient countryside, with lumps and bumps in a pasture indicating buried archaeological features and a big, what looked like a, moated site in a wood, and - further on - patches of scrubby common land dating back to mediaeval times. Both monads were in the countryside and included road and lane-sides, woodland, Waveney valley, arable/setaside and common. Notable plants were several plants of Milk Thistle *Silybum marianum* along A143 layby, one clump of Cyperus Sedge *Carex pseudocyperus* in damp coarse-herb valley bottom near the river Waveney, plentiful Stone Parsley *Sison amomum* in turf at a wood edge and a single clump of Wood-sedge *Carex sylvatica* in setaside.

Holmes's Wood, Hindolveston 17th May

Suki Pryce and Janet Higgins

We recorded the east (TG0530) and west (TG0430) monads separately in groups of around six people, covering approximately 60 hectares. Typical woodland plants included a great spread of Bluebell *Hyacinthoides non-scripta*, frequent flowering Yellow Pimpernel *Lysimachia nemorum* and Bugle *Ajuga reptans*, frequent Wood-sorrel *Oxalis acetosella* mainly around the perimeter of the woodland and Wood Speedwell *Veronica montana* which was less common but widely scattered throughout the woodland.

Native Yellow Archangel *Lamiastrum galeobdolon* subsp. *montanum* showing white marbling on the leaves Photo: Mike Padfield

Less common woodland plants were Sanicle *Sanicula europaea* (western side) and Wood Anemone *Anemone nemorosa* (eastern side). The native Yellow Archangel *Lamiastrum galeobdolon* subsp. *montanum* was scattered on the eastern side and less common on the western side, with some plants showing some white marbling on the leaves. It was a rare treat to see some lovely areas of Wood Millet *Milium effusum* throughout the woodland with their tall whorled, loose spreading panicle inflorescence.

There was a good diversity of ferns, the commonest being Broad Buckler-fern *Dryopteris dilatata.* Lady-fern *Athyrium filix-femina* was occasional. Large shuttlecocks of Scaly Male fern *Dryopteris affinis* agg. were plentiful in the western side where we also found the occasional Hard-fern *Blechnum spicant*.

The sedges were also diverse, with plentiful Remote Sedge *Carex remota*, occasional Wood-sedge *Carex sylvatica* and scattered Pill Sedge *Carex pilulifera*. The large loose clumps of the matt green leaves with a tall inflorescence were Green-ribbed Sedge *Carex binervis*, this was mainly seen on the eastern side. Bladder-sedge *Carex vesicaria* was found just in one hectare on the western side.

Other species of interest were a few plants of Slender St John's-wort *Hypericum pulchrum* and a large area of Lily-of-the-valley *Convallaria majalis* just inside a young plantation at the far north eastern corner of the woodland. We also noted Ivy-leaved Toadflax *Cymbalaria muralis*, a plant more typical of walls, was here growing on the ground on the woodland ride.

Fulmodeston Severals
County Wildlife Site 24th May 2025

Mike Padfield

This woodland is located mainly on an ancient woodland site with acidic soil conditions (greensand over clay). It was planted with an unusual and broad mix of conifer and hardwood species in 1865 by the 2nd Earl of Leicester when the wood was bought to add to the nearby Holkham Estate. The wood was acquired by the current owners from the Holkham Estate in 1979 and has been selectively thinned then restocked with Douglas Fir *Pseudotsuga menziesii* and a range of deciduous timber trees, primarily Pedunculate Oak *Quercus robur*.

Source Google Earth

The Norfolk Flora Group split into two groups (two monads (1 x 1km) to the north and two to the south) to survey the woodland. An excellent range of ancient woodland indicator species were present primarily along the rides and an area to the west of the site, including Bluebell *Hyacinthoides non-scripta*, Sanicle *Sanicula europaea*, Dog's Mercury *Mercurialis perennis*, Wood Melick *Melica uniflora*, Pignut *Conopodium majus*, Wood Anemone *Anemone nemorosa*, Wood Sorrel *Oxalis acetosella*, Wood Millet *Millium effusum*, Wood Speedwell *Veronica montana*, Yellow Archangel *Lamiastrum galeobdolon* subsp. *montanum*, Moschatel

Woodruff *Galium odoratum*
Photo: Mike Padfield

Wood Melick *Melica uniflora*
Photo: Mike Padfield

Adoxa moschatellina and Woodruff *Galium odoratum* in good quantity.

Sedges included Remote Sedge *Carex remota*, Wood-Sedge *Carex sylvatica*, Pill Sedge *Carex pilulifera* and Green-Ribbed Sedge *Carex binervis*.

Two small extant ponds (one nearly dry) on the western boundary yielded a few plants of note, including a stonewort *Chara sp.*, Thread-Leaved Water-Crowfoot *Ranunculus trichophyllus*, False Fox-Sedge *Carex obtrubae* and Marsh Yellow-Cress *Rorippa palustris*.

Opposite-Leaved Golden Saxifrage *Chrysosplenium oppositifolium* Photo: Mike Padfield

Other species of note included frequent Scaly Male Fern *Dryopteris affinis* agg., Lady Fern *Athyrium filix-femina*, Hart's Tongue Fern *Asplenium scolopendrium* along a shady ditch, two patches of Greater Woodrush *Luzula sylvatica*, a small patch of depauperate looking Hairy Wood-Rush *Luzula pilosa*, Water Avens *Geum rivale*, Marsh-Bedstraw *Galium palustre*, Slender St. John's-Wort *Hypericum pulchrum*, Hybrid Cinquefoil *Potentilla x mixta* and Opposite-Leaved Golden Saxifrage *Chrysosplenium oppositifolium*.

Scaly Male Fern Dryopteris affinis agg with Suki for scale Photo: Mike Padfield

Notable tree species included Oriental beech *Fagus orientalis*, a Hiba Cedar *Thujopsis dolabrata* and some large Wellingtonia *Sequoiadendron giganteum*.

There were casual records of numerous bird species, most notably Hawfinch *Coccothraustes coccothraustes*, Common Crossbill *Loxia curvirostra* and Firecrest *Regulus ignicapilla*.

Note there was some debate as to the nature of a whitish substance present on the young Douglas Fir trees. This is Trico, a deer repellent spray based on emulsified sheep fat, that is being used to protect new trees and coppice against expanding deer populations. This involves spraying the trees manually twice a year for possibly up to four years. It is a technique well used in parts of Europe. Traditional deer fencing of compartments is also being used. The costs and effectiveness of both methods across larger areas are being assessed. Spraying Trico has advantages for protecting small groups of plantings where fencing would be impractical and too expensive.

Trico, a deer repellent on young Douglas Fir trees

Hindolveston Wood 29th May

Janet Higgins

This was our third visit to this group of woodlands in the Hindolveston area on the border between East and West Norfolk which has been a great opportunity to see a wide selection of ancient woodland plant species. Hindolveston Wood is mainly in one monad (TG0428) but also extends into the adjoining eastern and western monads, so this time we split into two groups to cover half the wood each, a total of around 50 hectares. Large oak trees formed the canopy, these were mostly Pedunculate Oak *Quercus robur*, but it was also noted that some of the trees were *Quercus* × *rosacea* (*Q. robur* × *Q. petraea*). There was the occasional conifer throughout the woodland but conifers (primarily Douglas Fir *Pseudotsuga menziesii*) were the dominant tree only in the far eastern monad. The subcanopy comprised predominantly of Hazel *Corylus avellana* and Bird Cherry *Prunus padus* (some of the trees being stripped bare by ermine moth caterpillars).

The ground flora had a good diversity of plant species, common species are listed below in decreasing order of abundance: Wood Anemone *Anemone nemorosa* scattered throughout with the leaves now dying off and no sign of the flowers, Ramsons *Allium ursinum* forming dense patches and starting to fruit, Wood Speedwell *Veronica montana* which was widely scattered especially along the tracks, Yellow Pimpernel *Lysimachia nemorum* which was spotted amongst other vegetation by its small yellow flowers, Yellow archangel *Lamiastrum galeobdolon* subsp. *montanum*, Pignut *Conopodium majus* and Wood-sorrel *Oxalis acetosella*. We were especially pleased to find some small patches of flowering Woodruff *Galium odoratum* and Hairy Wood-rush *Luzula pilosa* with its spreading deflexed inflorescence. Opposite-leaved Golden-saxifrage *Chrysosplenium oppositifolium* was confined to the damp areas including the main track. Bush Vetch *Vicia sepium* was just coming into flower. Sanicle *Sanicula europaea* was only found in the western side and Climbing Corydalis *Ceratocapnos claviculata* was only found in the eastern side, especially on the perimeter and amongst the conifers. The two grasses of interest were Wood Millet *Milium effusum* which was scattered throughout and Wood Melick *Melica uniflora* which was less common but when present formed dense patches. Soft Shield-fern *Polystichum setiferum* was found mainly around the perimeter ditches in groups of up to 20 plants.

Point Farm Fen at Barton Turf 3rd July

Janet Higgins and Suki Pryce

The Norfolk Flora group were shown round the fen by members of the Broads authority. We surveyed approximately 15 hectares covering two monads, TG3522, the western monad and TG3622, the eastern monad. Mike Ball joined the eastern group where he took many photos, a few of which we have included. More photos can be viewed here Barton Fen 03/07/25. The main habitats were ditches, fen and alder carr, overall the western monad being drier.

There was a good range of plants in the ditches. Greater Bladderwort *Utricularia vulgaris* and Greater Duckweed *Spirodela polyrhiza* were locally frequent, Frog-bit *Hydrocharis morsus-ranae* was plentiful. There were scattered small plants of Greater Water-plantain *Alisma plantago-aquatica*. Occasionally flowering Water Violet *Hottonia palustris* and Water-soldier *Stratiotes aloides* were confined to the western monad. Submerged aquatics included Soft Hornwort *Ceratophyllum submersum* and Whorled Water-milfoil *Myriophyllum verticillatum.* The ditches were surrounded by tall reed making them difficult to access. Hiding amongst the reed were the leaves of Milk-parsley *Thysselinum palustre*, a swallow tail butterfly being spotted in the western monad.

Greater Bladderwort *Utricularia vulgaris*

The fen was species rich and contained both taller areas of reed and large areas of shorter vegetation dominated by Blunt-flowered Rush *Juncus subnodulosus* where Marsh fern *Thelypteris palustris* was locally abundant. The highlight was seeing flowering Greater Water-parsnip *Sium latifolium*. There was a good variety of sedges including Grey Club-rush *Schoenoplectus tabernaemontani*, Fibrous Tussock-sedge *Carex appropinquata*, Brown Sedge *Carex disticha*, Tufted-sedge *Carex elata*, Greater Tussock-sedge *Carex paniculata* and Great Fen-sedge *Cladium mariscus*.

Greater Water-parsnip *Sium latifolium*

Grey Club-rush *Schoenoplectus tabernaemontani* (left)
Brown Sedge *Carex disticha* (right)

Species present in the the Alder Carr included Velvet Bent *Agrostis canina*, Bottle Sedge *Carex rostrata*, Narrow Buckler-fern *Dryopteris carthusiana*, Common Cottongrass *Eriophorum angustifolium*, Small Sweet-grass *Glyceria declinata* and Orange Balsam *Impatiens capensis*. The alder carr was surrounded by areas of shorter grassland where Skullcap *Scutellaria galericulata* was plentiful with occasional Lesser Spearwort *Ranunculus flammula.*

Marsh Fern extending into the Alder carr

Chestnut Farm, Langley 12th July 2025

Sarah Morrison with notes from the other group by Tim Doncaster

We had a very enjoyable day surveying the fen restoration and grazing marsh at Chestnut Farm, Langley. We split into two groups, ours covered the northern fields and the others the adjacent southern fields, which meant that very unusually we shared the monads, each doing part of TG3701 and TG3702.

The fen restoration at Chestnut Farm, we found *Chara* species in a ditch like this one (featuring Bob Leaney). Photo: Ian Senior

Some of the ditches had more varied flora than others, possibly related to how recently they had been dug out, but some were lovely with a good show of Greater Bladderwort *Urticularia vulgaris* in flower, plenty of Frogbit *Hydrocharis morsus-ranae*, and the pleasing dangly flowerheads of Cyperus Sedge *Carex pseudocyperus* along the margin. Small China-mark moths whirled around followed by Ian Senior trying to photograph them. Bob Ellis and Bob Leaney used their sampling poles to scoop plants from the water that were otherwise out of reach and it was interesting to watch the mysterious glistening clumps being gently untangled and deciphered. These included Whorled Water-milfoil *Myriophyllum verticillatum*, which was flowering, along with Spiked Water-milfoil *Myriophyllum spicatum*, and various species of *Chara*. These were taken home and identified as Rough Stonewort *Chara aspera*, Common Stonewort *Chara vulgaris* and Fragile Stonewort *Chara globularis*. We appreciated close up the below-water parts of Greater Bladderwort, including some good sized bladders. Meanwhile Suki Pryce in the other group had a close encounter with Frogbit and noticed for the first time its sweet scent.

Just as I was almost giving up on Duckweeds *Lemnas* with their stubbornly invisible veins, Bob Leaney kindly explained to me the colour, shape and other subtle differences between the species that weren't explained in the book I was using. Suddenly they became something I could take a stab at, and I could see why most of the duckweeds we saw today - narrow at both ends, bright green and opaque, small but not tiny - were Common Duckweed *Lemna minor*. That is besides the pretty and distinctive Ivy-leaved Duckweed *Lemna trisulca*, which there was plenty of.

Greater Bladderwort *Urticularia vulgaris* with its characteristic bladders for catching prey. Photo: Ian Senior

On the grazing marsh a nice find was Slender Spike-rush *Eleocharis uniglumis*. It was also useful for me to see Plicate Sweet-grass *Glyceria notata* and then Floating Sweet-grass *Glyceria fluitans* quite soon afterwards for comparison, and to learn that even the experts find measuring the lemmas a fiddly task! We saw Blunt-flowered Rush *Juncus subnodulosus* and Brown Sedge *Carex disticha*, which Jo explained in the other group were indicators of alkaline or base-rich conditions. There were a few plants of Ragged Robin *Silene flos-cuculi*, and Marsh Ragwort *Jacobea aquatica* was nice to see.

Norfolk Hawker *Aeshna isoceles*, one of many insect highlights of the day. Photo: Sarah Morrison

The rich habitat and sunny weather made a great day for insects as well. We saw plenty of Norfolk Hawkers, including great views of them perched and one patrolling along a ditch looking quite red in the bright sunlight. In the other group, someone found a remarkably large slug-like larva on a dyke edge which Evan suggested was likely a Great Silver Water Beetle larva. There were many damselflies including Red-eyed and some Emeralds, but my insect of the day was a single Wall butterfly.

Asplenium ceterach Rustyback in Croxton and Norfolk

Suki Pryce and Mary Ghullam

Rustyback *Asplenium ceterach* on wall in Croxton Photo: Alex Prendergast

On a routine Norfolk Flora Group outing in late March 2025, Mary Ghullam, Suki Pryce, Tim Doncaster and Dorothy Casey found a remarkably large colony of *Asplenium ceterach* Rustyback in Croxton, mid-Breckland. As this is a rare species in Norfolk, and there was so much of it present, we thought it was worth writing a piece about the find for the NFG Newsletter.

Mary was aware that the species might be present in Croxton, as she had looked it up before our visit in the 1999 A Flora of Norfolk (Beckett et al.), where it is listed for this location. Nevertheless, we were all startled and delighted by the unusual vigour, size, and numbers of plants seen – at least 97 on a June re-visit count with Alex Prendergast, and probably more. They were growing on the southern half of an east-facing old garden wall which runs for a distance along the main street through the village, from TL87288687 to TL87278688. The wall is about 1.8 m high, built of flints with lime mortar, and with a concrete coping. The Rustybacks were mainly growing in the top third of the wall and were most numerous just under the coping. They were accompanied by a few plants of *Asplenium trichomanes* Maidenhair Spleenwort.

Most of the Rustybacks were on the road/east-facing side of the wall, but a few more could be seen in the west/garden-facing side too. Alex thinks that the colony may well be one clone, whose root system has spread throughout the interior of the wall and is producing plants on each side. The colony currently inhabits only the southern half of this wall. However, the northern half - evidently in a different ownership - has been repointed recently, so may well have also hosted the species in the past.

Rustyback is described in the BSBI Plant Atlas 2020 as

> ". . . a perennial, calcicolous fern found on crags and cliffs of basic rocks, especially limestone, and also on limestone pavements and mortared walls. Generally lowland, reaching 580 m in High Cup Nick (Westmorland). Historically, this species has benefitted from the increase in available habitat created by the built environment. Its range has increased markedly since the 1960s, particularly in eastern Britain, but recent losses are also greater here, suggesting colonization which is not always successful. The species is distinctive and thus well recorded but its wall habitats are prone to renovation with the loss of small isolated populations."

It requires a pH between 7 and 9, needs reasonably high light levels, and is tolerant of low nutrient conditions. As a calcicole, we assume that it is enjoying the lime mortar in the wall; but why it should be thriving in this particular wall – seeing as there are thousands of similar ones in Norfolk – is a mystery. Historically, it has been seen in parts of both Norfolk and Suffolk as a persistent

species, since ". . . once established, populations are long-lived', (Sandford et al. 2010; and see also the 'Heydon Church' box below.) So one can assume that – finding exceptionally suitable conditions here – it has persisted long-term to gradually colonise much of this wall. But what these conditions are we have yet to discover.

Distribution and History of Rustyback in Norfolk

Beckett and Bull (1999) have this to say about the species in Norfolk:

> "Winter-green perennial with a south-western distribution in Britain. Only 12 localities have ever been recorded in Norfolk. All have been on walls. At present it is known from Heacham W63; Sedgeford and Shernborne W73; Great Snoring W93; Croxton W88; Loddon E39; Norwich riverside E20 and Heydon E12 where it was recorded by Trimmer, 1866, 'above the reach of ladders', as is still the case."

The BSBI DDb currently shows some seventy records of Rustyback for Norfolk, although several/many of these are probably repeat-records of the same sites. We also know that records for other locations have been added since the 1999 Flora, including findings from Great Yarmouth, Heacham, Kings Lynn, Outwell, South Lynn, and Syderstone. Conversely, we know that there have been losses in addition to the apparent loss from Heydon Church described below. For example, Rustyback had been noted in 1964 at Forncett St Peter church; and by 1971 its population was said to have "doubled in seven years" (Swann, 1975). However, Beckett et al. (1999) does not mention this site nor the Watton population previously cited by Swann. The Loddon population, and that of Norwich Riverside, also appear to have disappeared (R. W. Ellis, & R. Leaney, pers. comms.)

Rustyback *Asplenium ceterach* on wall in Croxton
Photo: Suki Pryce

Rustyback Growth Habit Inside Walls

The authors received different views on how Rustyback might inhabit the walls it grows in. Fred Rumsey (pers. comm. 2025) says, "I doubt that the species spreads along/through the wall vegetatively beyond a small degree of clumping- it is more likely that plants arise through sporing." Whereas Alex Prendergast's view (pers. comm. 2025) differs:

"I've never seen direct evidence of a rhizotomous habit in Rustyback but I have presumed that plants in a colony are connected inside a wall. This is due to a number of separate observations:

- On the edge of its range as here, we frequently find colonies on both sides of a wall but not on nearby walls of similar construction & environmental conditions – if they were reproducing by spores I would expect them to be more scattered around a location.

- Plants fail to thrive/grow in good cultivation – I've tried Rustyback a few times, alongside other tricky species of similar habitats, and they gradually fade out over a few years, presumably lacking support from others. Rustyback on the retained section returned the next season, suggesting recovery from a deeply buried structure (those on the removed top section were taken into cultivation and died).

- Plants tend to desiccate at the same time – independently growing plants would tap into different pockets of moisture and therefore desiccate at different times. They grow in such harsh environments that a communal water resource in the deeply buried rhizomes would offer a distinct advantage. In brickwork or other similarly tight substrates, we often see small buds of plants, clearly not recent sporelings but seemingly too small to persist for decades, as they do, through phases of extreme environmental conditions.

These are just observations and my inference about a clonal growth. I guess it could only be ascertained by destroying part of a wall/colony (which a reader in an area where it is common might have an opportunity to do), or by genetic analysis across a colony."

Heydon Church Rustybacks

Beckett and Bull (1999) say of Rustyback on Heydon church that " . . . it was recorded by Trimmer, 1866, 'above the reach of ladders', as is still the case." Swann (1975) provides a bit more detail in his earlier 1975 supplement, by saying that it ". . . still persists on Heydon Church whence it was first recorded 200 years ago." In fact Nicholson (1914) cites it being at Heydon in 1779, found by "Mr Bryant Fl. Br" (an abbreviated reference to Sir J.E. Smith's 1800-04 Flora Britannica.)

Sadly, these Heydon Church Rustybacks appear to be no more, as the building was checked during an NFG visit to the area on 19 July 2025, and no plants were seen.

Protecting The Croxton Colony and other sites

We are not sure what would be the best way of protecting the Croxton colony from disturbance/ damage. The wall it inhabits is quite old, and its mortar also looks fairly old. As noted above, the northern half of the wall's mortar has already been raked out and repointed, and this fate could easily befall the surviving colony's habitat too at some stage. Should we alert the current owner to the fact that they have an exceptionally large population of a rare fern on their property? Or tell the Parish Council about this? Maybe lobby to have a little information sign fastened to the wall, telling the Rustyback's story and making the case for conserving it as much as possible?

Suggestions for Further Research on Rustyback in Norfolk

Where there are helpful details in previous Norfolk Floras, or in the DDb, about the location, habitat or size of colonies, then attempts to revisit/refind sites might be appropriate. These could perhaps be undertaken by individuals, or as part of the NFG programme, when in the vicinity. For example, Swann's 1975 Supplement to the Flora of Norfolk provides such details: " Shernbourne church wall three plants in 1972 . . ."; "Sedgeford, old garden wall on the Fring road, . . . a lot of it, 1974 . . ."; "Watton, disused railway station". This could build up a picture of the state of the species in Norfolk, such as the persistence or otherwise of populations; their associates - including other fern species and bryoflora; and possibly provide answers to questions raised by the Croxton population as well as those sparked by Fred Rumsey's article on 'The surprising lives of urban wall ferns' (Rumsey 2025). It also needs to be noted that this distinctive fern is not always readily seen, as it can easily escape notice when small numbers are growing mixed in with larger populations of species such as Polypody (even well below "the reach of ladders"). The recent discovery of the Syderstone population is a case in point.

A solitary Rustyback found growing among a large population of Polypody on a low garden wall in Syderstone Photo: Marilyn Abdulla

What's in a Name?

This species of fern seems to have undergone considerable change to its names, both taxonomic and vernacular, over time. For example, in the Rev. George Mundford's list of Norfolk plants prepared and arranged for White's History and Directory of Norfolk (Mundford 1864: he was Rector of East Winch). The species does not appear at all in the Pagets' 1834 Sketch of the Natural History of Yarmouth and its Neighbourhood and only in the north central region of Norfolk in Mundford's list.) *Ceterach officinarum* Willd. was being called Scaly Spleenwort and also subsequently in Galpin's 1888 flowering plants of Harleston. Nicholson (1914) provides no vernacular name, but the plant is still under its own section of Ceterach in the ferns. By the time of Petch & Swann's 1968 Flora, it was part of the Polypodiaceae, with the vernacular name of Rustyback Fern; and this type of name has continued to the present in various forms - with or without a hyphen or even the word 'fern' (Beckett et al. 1999). In Swann's 1975 Supplement, however, it was placed under the Aspleniaceae, although its taxonomic name stayed the same. By the 2010 third edition of Stace's New Flora of The British Isles, not only was the species still under the Spleenwort family, but its taxonomic name had also changed - to Asplenium ceterach L. Rustyback, where it remains in his 2019 fourth edition. So, in one sense, it has almost gone full circle: will it end up as Rustyback Spleenwort again one wonders?

Acknowledgements

Many thanks to Alex Prendergast for kindly taking Suki Pryce back to the Croxton site in June 2025, helping count plants, pondering over why they are so successful there, and offering his views on the species' mode of wall colonisation. Likewise, thanks to Fred Rumsey for kindly sending us his thoughts on these same issues.

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Early Purple Orchids East of Southrepps

Suki Pryce

Roadside Nature Reserve, Loop Road, Southrepps Photo: Suki Pryce

On 30th April 2025, orchid enthusiast Tony Eadson and I set out to view as many *Orchis mascula* Early Purple Orchids as we could in known sites around the Southrepps-Mundesley road – with great success. We found 255 spikes altogether on the following lane verges: Southrepps 'Loop Road' RNR (TG2636) 85; Wellspring Rd (TG2636) 6; Hall Rd (TG2736) 40; Brick Kiln Rd (TG2935) 123, which was an increase on recent years' populations according to Tony. Despite the challenges of increasing lane verge erosion by vehicles, eutrophication, and the prevailing drought, most plants appeared to be thriving, there were some fine multiple clumps, and colour variants from white through pink to deep magenta on Brick Kiln Rd. The latter lane is a particular delight, with a verge-side ditch populated by plentiful *Dryopteris borreri* Borrer's Male-fern, *Polystichum setiferum* Soft Shield-fern, *Primula vulgaris* Primrose, and *Viola riviniana* Common Dog Violet, as well as the Orchids.

Colour variants, Brick Kiln Road
Photo: Suki Pryce

Roadside Nature Reserve, Loop Road, Southrepps
Photo: Suki Pryce

Pounding the Streets – a photo essay

Mike Crewe

With the end of the year in sight, the countryside starts to shut down and finding plants gets close to wishful thinking! But with climate change, plants in urban centres are increasingly continuing to grow through the cooler parts of the year and heading into Norfolk's streets at this time can produce some interesting finds. Since November, I've been working through the streets of Northeast Norfolk to see what's popping up outside of gardens, so here's a few of the early results of interest under a selection of discreet ecotype headings.

Botany extremes in Sheringham. Some new-builds (left) leave little room for plants to survive and many people's life styles exclude the natural world. In contrast, this older, less intensively managed stretch of back lane between streets recently provided me with nearly 80 species, which is pretty good for November! Accentuating the usefulness of recording urban habitats at this time of the year, five monads have so far produced over 200 taxa, while one monad has provided 339 taxa (Oak Grove and Sadler's Lane, Sheringham).

Urban 'classics' create a botanists' eclectic wonderland when things are left a little more natural. Local Ribwort Plantain *Plantago lanceolata* and Common Cat's-ear *Hypochaeris radicata* are joined by Common Butterfly-bush *Buddleia davidii* from Asia, Mexican Fleabane *Erigeron karvinskianus* from Mexico and the now rampant Guernsey Fleabane *Erigeron sumatrensis* from South America (Campion Way, Sheringham).

Fortunately, artificial lawns appear not to be overly popular in Norfolk. They represent one of the worst attitudes towards the natural world and sadly deny most fauna and flora a place to survive. Perhaps as if to accentuate the point, the lawn in the distance (top right) held at least three Bee Orchids *Ophrys apifera* when I visited (Blackthorn Avenue, Holt).

Unexpected bed fellows readily crop up in urban environments and sometimes require close scrutiny to avoid missing the unexpected. Amongst a colony of Bee Orchids, a closer check revealed a rosette of Blue Eryngo *Eryngium planum* (on the right) on this grassy street corner (Sycamore Grove, Sheringham).

Wallflowers

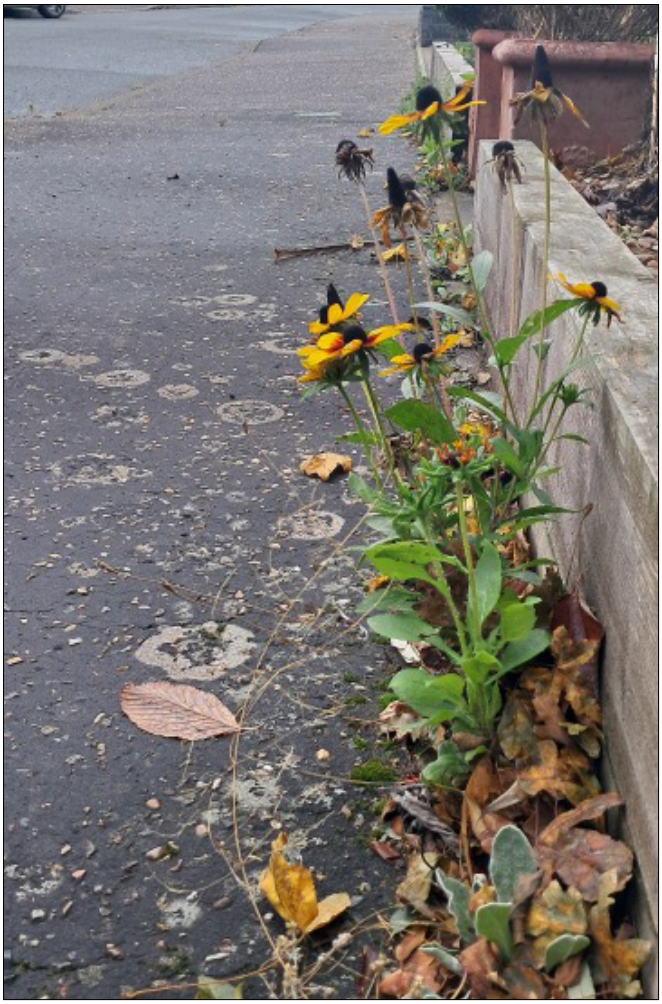
Walls offer up an almost blank canvas for plants to grow in, complete with detritus-filled nooks and crannies and often little competition. Some walls are hot, sunny and dry, others can be shaded and damp, offering a range of opportunities for a great number of plants.

Retaining structures with soil behind them probably offer the best wall opportunities for plants. Here, Seaside Fleabane *Erigeron glaucus* dominates, with *Veronica* 'Marjorie', Hedge Hebe *Veronica x franciscana*, Grey Willow *Salix cinerea* and Reflexed Stonecrop *Petrosedum rupestre* getting in on the action, too (Abbey Road, Sheringham).

As well as ferns, damp or shady walls are popular with the rapidly increasing Trailing Bellfower *Campanula poscharskyana*. Root systems can penetrate softer mortar and spread through an entire wall given time (Knights Green, Sheringham).

Off the Wall

The base of a wall can support a richness of plants; wind-blown detritus gathers there and there can be extra water available that runs off the wall when it rains. Indeed, where a wall meets the pavement and where the pavement meets the road (see Gutter Snipes) provide the richest hunting grounds for the urban botanist.



A mass of Lamb's-ear *Stachys byzantina* (left) spreading along the foot of a wall, originating from a garden further up the street. This plant may have originated from seed or vegetative material but is spreading vegetatively by following the base of the wall, where extra moisture and easy access into the ground provide a good growing location. Spilt seed from the sowing of nectar-rich annuals can find its way to the foot of a wall and germinate naturally, like this Black-eyed Susan *Rudbeckia hirta* with Rose Campion *Silene coronaria* popping up in the foreground (Woodland Rise, Sheringham and Cowslip Lane, Sheringham).

Sicilian Sea-lavender *Limonium hyblaeum* has long been known as an established garden escape on the coast in Sussex, but remains very rare elsewhere in the UK. I recorded Norfolk's first record(s) of this species in Sheringham, where at least 30 plants are scattered along the foot of walls and appear to have been there for a number of years. Some plants also grow on the walls themselves and this habitat doubtless has some resemblance to a rocky coastline that suits this plant. It has been considered problematic in Sussex where it can become dominant to the detriment of native sea-lavender species. (Common Lane, Sheringham).

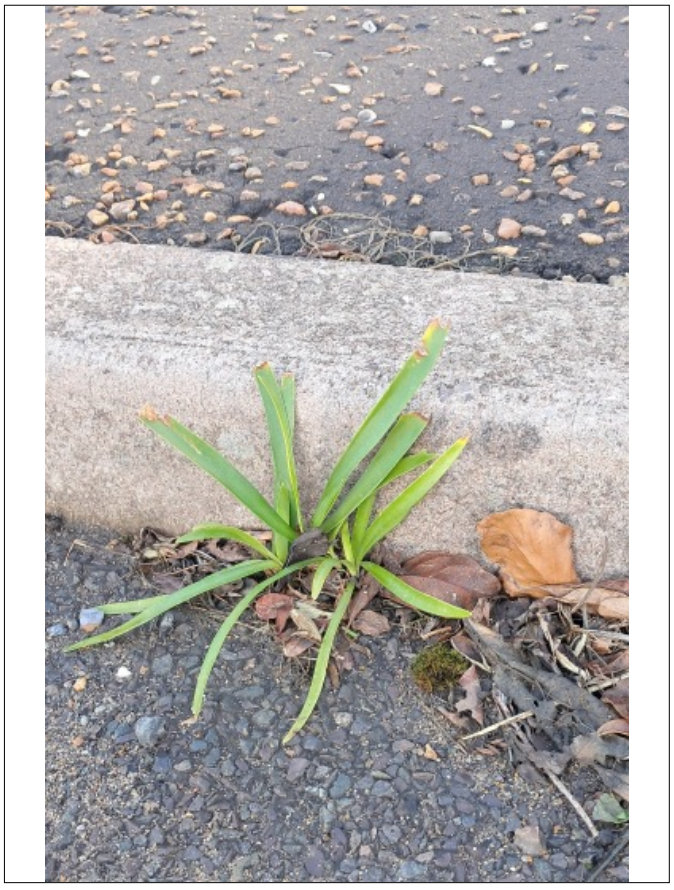
Gutter Snipes

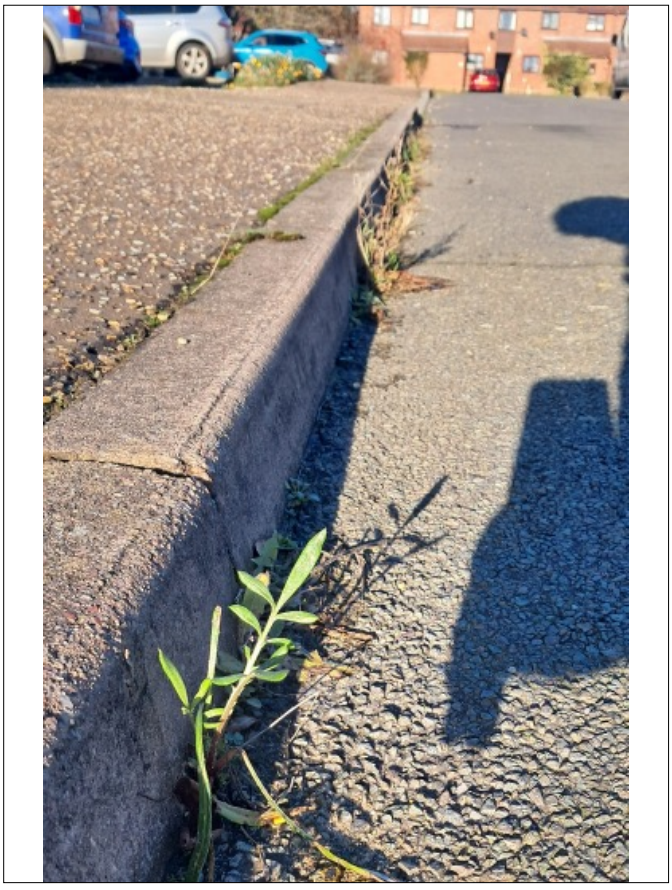
The foot of the kerb offers a prime location for young plants to grow, with a supply of water when it rains and a good supply of wind-blown detritus providing a growing medium. With local councils reducing the use of weedkillers in recent years, plants have even more opportunity to become established in such places.

Narrow-leaved Lavender *Lavandula angustifolia* is now a common, self-seeded plant in all of the urban areas that I have visited recently. The warmer climate and the arid conditions of the streetside environment probably replicate quite well a rocky, Mediterranean hillside (Wood View, North Walsham).

Steadily increasing in recent years, the attractive, speckled leaves of Dappled Hawkweed *Hieracium scotostictum* are now a not unexpected site in urban locations. This one is sandwiched in the gutter between two Fragrant Evening-primrose *Oenothera stricta* plants (Childs Way, Sheringham).

Trends in horticulture have seen a switch away from the sometimes scruffy-looking Cape-jewels *Nemesia strumosa* to the neater-growing Cape Snapdragon *Nemesia fruticans* (shown here). This is still poorly reflected in botanical literature, with the latter species being absent from both Sell & Murrell and Stace, perhaps resulting in it being under-recorded. I have found it as an urban weed a number of times in North Norfolk since 2016 and it should certainly be expected in other areas (Purdy Way, Aylsham).





African Lily *Agapanthus praecox* (left) and Treasureflower *Gazania rigens* (right), both from South Africa and enjoying streetside locations in Northeast Norfolk. In both these cases, the source could be seen by a quick look around and this sometimes helps with the identification of small plants, especially those with grass-like leaves which might be rather similar vegetatively. The African Lily (one of 10 or so seedlings along the gutter) was very clearly down a sloping gradient, where rainwater will have washed the seeds from the parent plant. In the Treasureflower photo, you can see the orange flowers of the parent plants, several gardens away in front of the bright blue car in the background. Unlike the African Lily, these seeds were more likely wind-assisted along the road (All Saints Way, Mundesley and Harvey Drive, North Walsam).

Down the Drain

Every time it rains, water moves detritus off the streets and pavements, along the gutters and into the storm drains. With a build up of detritus, minerals and soil particles, drains can become blocked and the moist environment offers a cosy place for young plants to develop.

While the sides of functioning drains and even the water itself can offer opportunities for ferns and even duckweeds to thrive, silted up drains can become home to a range of surprises. This Wilson's Honeysuckle *Lonicera nitida* may have become established from seed, or perhaps from a vegetative propagule (a hedge clipping) which was able to root into this fertile spot (Lynfield Road, North Walsam).

Lemon Balm *Melissa officinalis* doing well in a drain – and perhaps making it smell more fragrant! Members of the Lamiaceae don't have bird-sown or wind-blown seed, but many do flower and set seed readily and such seed seems to manage to find its way out onto our streets on a regular basis for quite a number of species in this family (Holman Close, Aylsham).

A Bird in the Bush

Berrying plants are readily spread by fruit-eating birds as we all know, but I've discovered that the distributional pattern of these plants is not random. Instead, clear clusters soon became apparent and with a little thought, the reason seems quite clear. By dot-locating seedlings of berry-bearing species on maps, tight clusters of records can be seen, rather than a broadly spread, sparser distribution. Careful reviewing shows that – perhaps obviously – these seedlings occur most often where birds perch regularly. On top of walls is a well-known location for such seedlings, but I've found a far more common location – at the foot of berry-bearing hedges. A hedgeline will typically be planted all in one go, so the plants will all be of the same age. Come across a well-established hedge of, say, Oval-leaved Privet *Ligsutrum ovalifolium* with small, plants of other species poking out from the base and it becomes obvious that those small plants were not planted there. Chances are, the vast majority will be berry-bearing plants when they get older…

It's difficult to show the full array of bird-sown plants at one location in a single photo as the detail is lost when going wide enough to show a reasonable length of hedge. Under this privet hedge - Itself a berrying species – were four species of cotoneaster (*C. horizontalis*, *C. hjelmqvistii*, *C. simonsii* and *C. franchetii*), Darwin's Barberry *Berberis darwinii*, Common Ivy *Hedera helix* and Elm-leaved Bramble *Rubus ulmifolius*. Other plants regularly found in such places include Common Yew *Taxus baccata*, Oregon-grape *Mahonia aquifolium*, Flowering Currant *Ribes sanguineum*, Common Holly *Ilex aquifolium*, Spurge-laurel *Daphne laureola* and other Cotoneaster species. Note that both native and introduced species appear to be spread in this way.

A Late Cotoneaster *Cotoneaster lacteus* seedling growing in the gutter. Not all bird-pooped berries end up under hedges. Note the narrow leaves of young plants which are rather different to the larger, broader leaves of older specimens of this species.

Return of the Native

A few species that are natives, but have been on the decline due to changes in habitat or land management, have started to find a niche in urban habitats and are seeing a reverse in their fortunes.

Generally scarce and declining as an arable weed, Field Madder *Sherardia arvensis* appears to be remarkably common in some urban locations, growing in flower borders and even impoverished lawns, from where it spreads readily to pavement cracks and gutters (Tungate, North Walsham).

An easing-off of herbicide spraying (left) has seen great carpets of Annual Meadow-grass *Poa annua* and Wall Barley *Hordeum murinum* flourishing along road margins and gutters in urban areas. Among them, may often be found colonies of Rigid Fern-grass *Catapodium rigidum* which does particularly well in dry sites and can be recorded well into winter due to its distinctive and persistent seed spikes. Urban habitats are now very important for this species. Jersey Cudweed *Laphangium luteoalbum* (right) is an extremely rare native species in the UK but more recently has been spreading rapidly as an urban weed. This is an interesting one, since the source of these plants is most certainly not our tiny native population, so the species' status has become complicated (Partridge Road, Aylsham and Cowslip Lane, Sheringham).

New Kids on the Block

Trends in horticultural purchasing can produce peaks and troughs in the fortunes of some species that otherwise would seem strangely random and difficult to explain. Gone are the days of the labour-intensive, annual bedding schemes and Blooms-inspired conifer-and-heather gardens, to be replaced with increasing exotica that comes hand in hand with climate warming. Milder winters means that warm temperate or even sub-tropical plants not only survive the cooler months, but go on to set seed which can now germinate rather than perish.

Two of the more iconic species currently doing well and flourishing on our streets are New Zealand Cabbage-palm *Cordyline australis* (left) and Argentine Needle-grass *Nassella tenuissima* (right). Certainly, the former has been around for a long time, but original purchasers were given instruction on how to wrap up and protect plants to get them through the winter and no-one ever expected to see one in flower. Now they not only flower, but also seed freely and germinate readily. The needle-grass is a more recent introduction but, along with New Zealand Wind-grass *Anemanthele lessoniana*, it has wasted no time in heading out into the streets (John o'Gaunt Close, Aylsham and Garden Close, North Walsham).

Mediterranean species are currently responding well to our warming, urban environment. Mediterranean Spurge *Euphorbia characias* is a classic example of a species that has long been grown as a garden ornamental but has only recently taken off with gusto as a self-sown street walker (Thompson Avenue, Holt).

The shrubby *Veronica* species often known as Hebes present a number of interesting issues. There is a large number of species in cultivation and an even greater number of horticultural hybrids and cultivars. With many of the latter being remarkably similar and with self-sowing on the increase, the identification of many individuals may not be possible beyond being just a 'Hebe'. On the left is a seedling of *Veronica glaucophylla*, a first for the UK which required a new file to be set up in the BSBI database so that it could be recorded. On the right, seedlings from a nearby parent plant of one of the large, 'Speciosa'-type hebe.

At my best guess this appears to be the cultivar 'Wiri Image' based on the nearby parent but a further question mark hangs over whether these hybrids come true from seed and therefore whether such seedlings can be labelled the same as the parent plant (Snaefell Park and Scotter Rise, Sheringham).

While the sources of many plants are clearly neighbouring gardens where the species is in cultivation, some plants appear via other routes. Annual Buttonweed *Cotula australis* (left) seems to have been spreading via the nation's travelling caravaners. A few years ago, Mary Ghullam found this species as a gutter weed in North Walsham (where it still persists and has spread) and I discovered it for the first time recently in Mundesley. African River-grass *Cenchrus caudatus* (right) may well become invasive if it becomes popular in the future. While I was photographing this plant, the house owner told me that she removes large

numbers of seedlings from the pavement as well as from her garden every year but it continues to increase, with parent plants forming quite large tussocks. There are currently only three records of this species in the BSBI database, so watch this space (Meadow Drive, Mundesley and Woodland Rise, Sheringham).

Foreign exotica - Abyssinian Gladiolus *Gladiolus murielae* in Sheringham and Chusan Palm *Trachycarpus fortunei* seedling in North Walsham. The gladiolus is a classic 'fell off the back of a lorry' case. Nestled amongst Alexanders *Smyrnium olusatrum* seedlings beside an ivy-covered Hawthorn hedge, it's not a typical site to have been planted and may have arrived accidentally via garden waste. Whatever its origin, it's useful to record such things as we don't know whether it will fizzle out, or become the next coloniser. The palm is a classic sign of climate change as we see more and more palms planted in gardens – and even municipal street plantings – with flowering and fruiting events increasing. This seedling, amongst native plants with no signs of garden waste having been dumped, doubtless originated from one of two Chusan Palms some 30-40m away in a garden, but it's still unclear how it got here; perhaps a bird is the most likely possibility, but it will be interesting to see how it fares over time.

Newly arrived in the early 2000s, *Erodium trifolium* is often misnamed and confused within the horticultural industry. It has become established around Cambridge and there have now been several records in Norfolk in recent years (Lynfield Road, North Walsham).

Canary Clover (*Lotus hirsutus*) is beginning to appear as seedlings in urban locations and can be quite prolific when it gets established (Compit Hills, Cromer)

As it is a rare native, it might seem highly surprising to find Common Pasque-flower *Pulsatilla vulgaris* growing as a street weed, but it is quite popular as a garden ornamental and has wind-blown seeds, so there's always a chance of it turning up in odd places (Thompson Avenue, Holt)

Always expect the unexpected when taking on urban botany. Anything in cultivation that can produce viable seed or which propagates readily vegetatively might turn up. This small plant of Southern Scabweed *Raoulia australis* was clearly from a nearby rockery where large amounts of it were carpeting the ground. It's perhaps more likely that this is a vegetative propagule rather than a seedling, but it's not always easy to be sure. A crack between the pavement and the kerb in Norfolk is a far cry from a New Zealand mountain slope – note the Dove's-foot Crane's-bill *Geranium molle* leaf for scale! (Snaefell Park, Sheringham)

Recording Progress Maps

Bob Ellis

Tetrad Scale

The number of vascular plant taxa recorded in each tetrad gives some idea of recording progress since the last flora was published in 1999 (Beckett, Bull & Stevenson), see Figure 1. However, the data for the last flora, which was mostly gathered between 1985 and 1998, already gives us a measure of the species diversity in each tetrad and therefore a better idea of our current recording progress by tetrad can be made by comparing the latest figures (Figure 1) to those of the earlier period (Figure 2). An attempt to illustrate this is shown in Figure 3.

To derive Figure 3, the number of taxa in each tetrad during the 2nd period has been divided by the sum of the taxa recorded in each tetrad in each period, the result being expressed as a percentage. This gives a percentage figure for the contribution of the second period to the joint total giving a scale of 0 to 100 and broadly speaking 50% would indicate similar levels recording in each period so the range 44-56 might be a reasonable target. Anything below 50% would suggest either more work is needed or that there has been a decline in species diversity. Conversely levels over 50% would suggest under-recording in the first period or a true increase in diversity (or a mixture of both). Note that that the figures in the highest range all occur at the outer edges of the vice-counties with only small areas within the boundaries and some were probably not recorded in the first period. There are several in the lowest range in similar locations.

In all maps, squares with zero records are shown in pale blue. The large pale blue area in the Wash in the north-west corner of West Norfolk comprises intertidal areas which are unlikely to support any terrestrial vascular plants.

It is reassuring to note that Figure 1 and Figure 2 show broadly similar patterns which are somewhat obscured by differences in recording intensity in the two periods and across the individual vice-counties.

Table 1 lists comparative figures for the mean taxa per tetrad across the two periods for several different classifications of taxa.

There is a strong indication of an increase in the mean number of neophytes recorded, which doesn't come as a surprise and probably accounts for the slightly higher value of the mean number of all taxa per tetrad in the second period. The small difference between mean numbers of ubiquitous and very common species, archaeophytes and axiophytes is reassuring but the lower means in the overall number of tetrads recorded and the values for the native species suggest a need for further work.

Monad scale

Current progress at monad scale is shown in Figure 4.

Unfortunately, but understandably, relatively little recording was systematically done at monad scale between 1985 and 1998. Some individual records were made at a finer scale, typically 6-figure grid references read from an Ordnance Survey map (GPS was not available then). These would be included in a monad taxa count, but they were only made for a relatively small cohort of species. We must rely solely on the results from the more recent period to assess progress but perhaps with the comparison in Figure 3 in mind. The Fenland part of the monad map may be somewhat compromised by a practice of using the grid reference of the south-west monad of a tetrad to identify that tetrad rather than the DINTY system. We were only recently made aware of this.

Table 1	1985-1998	2000-2025
No. of tetrads with at least 1 record	1422	1414
Mean number of taxa per tetrad	268	272
Mean number of ubiquitous or very common taxa per tetrad	76	74
Mean number of native taxa per tetrad	201	193
Mean number of archaeophytes per tetrad	38	37
Mean number of neophytes per tetrad	25	40
Mean number of axiophytes per tetrad	28	26

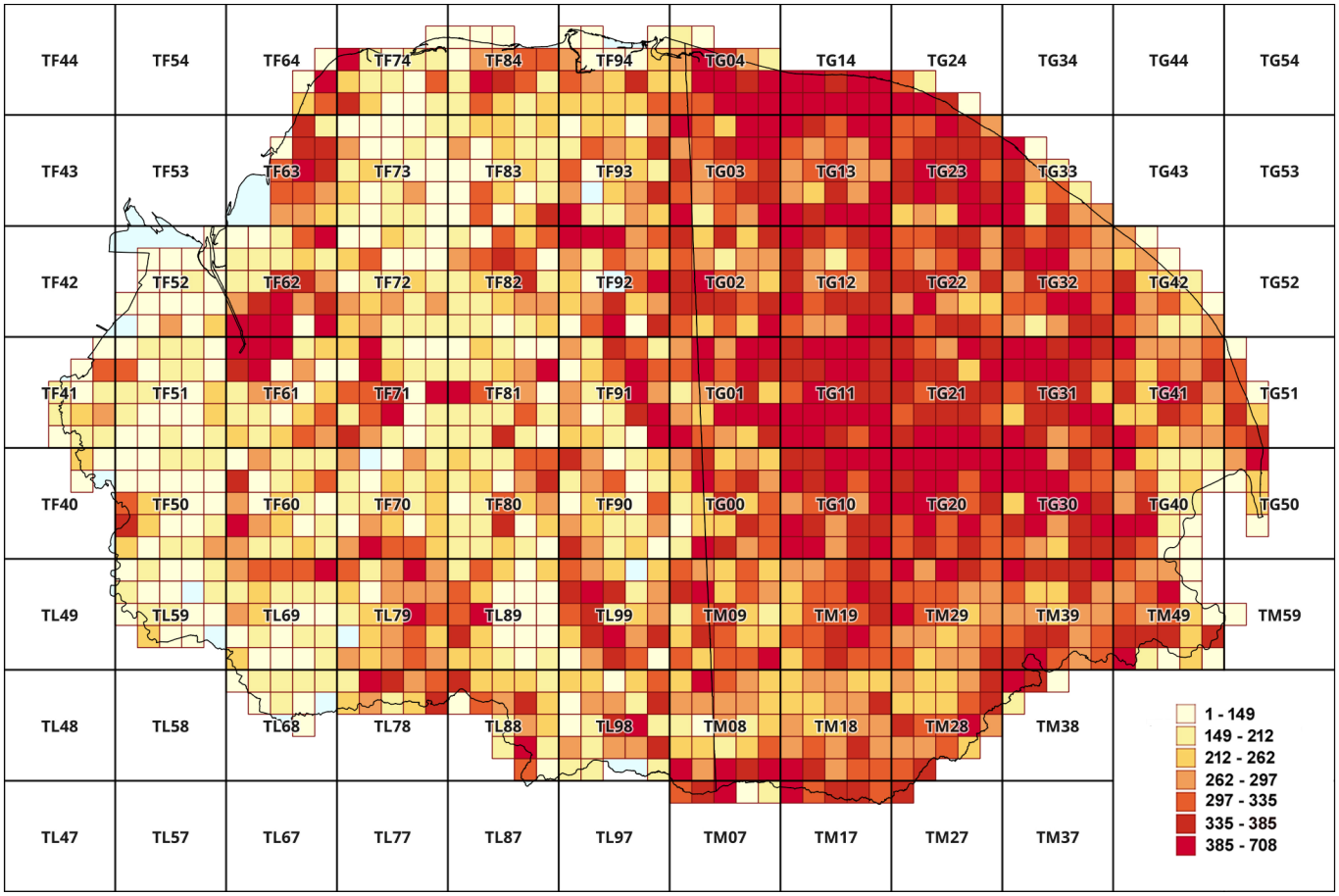


Fig. 1 The number of taxa recorded in each tetrad from 2000 to 2025

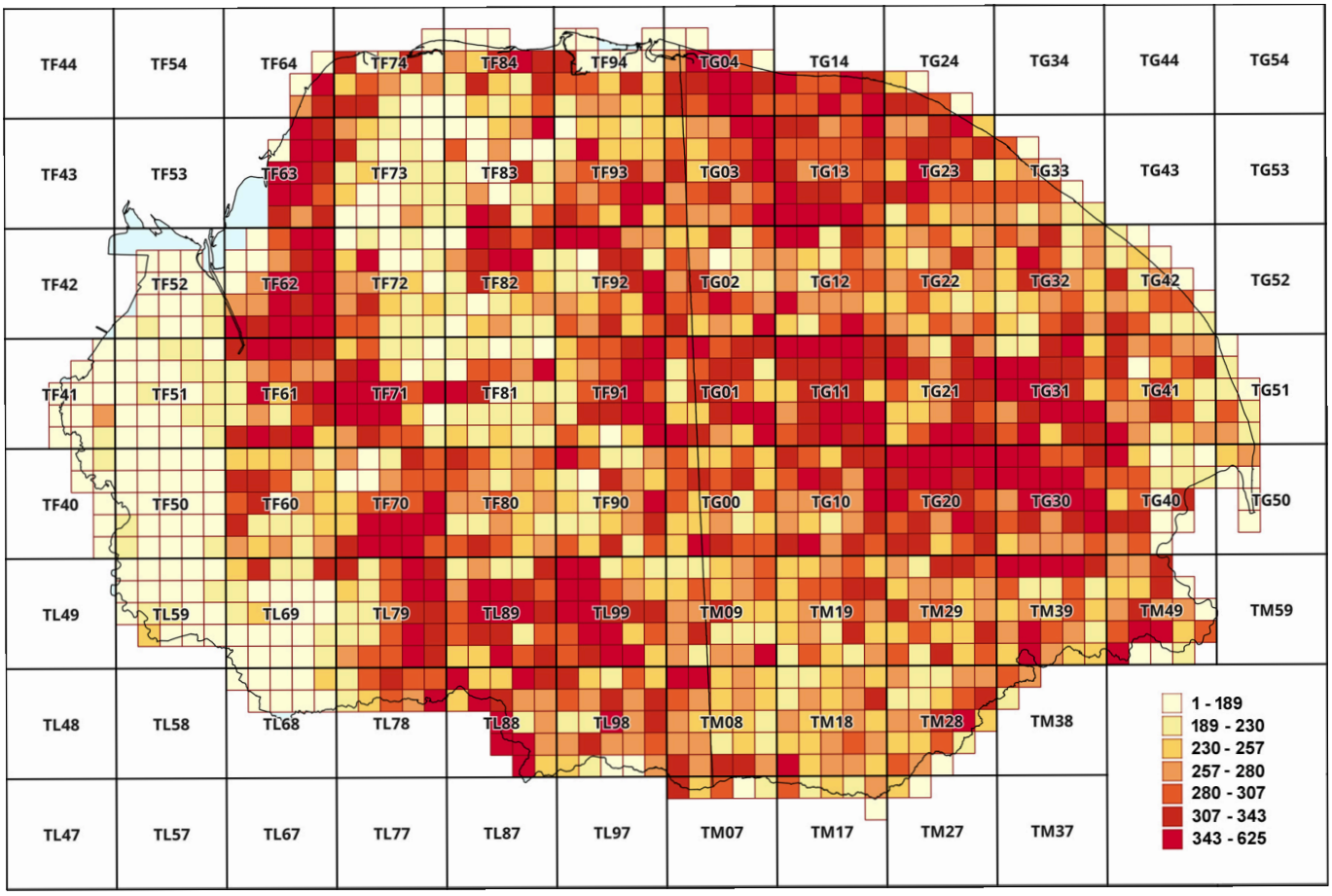


Fig. 2 The number of taxa recorded in each tetrad from 1985 to 1998

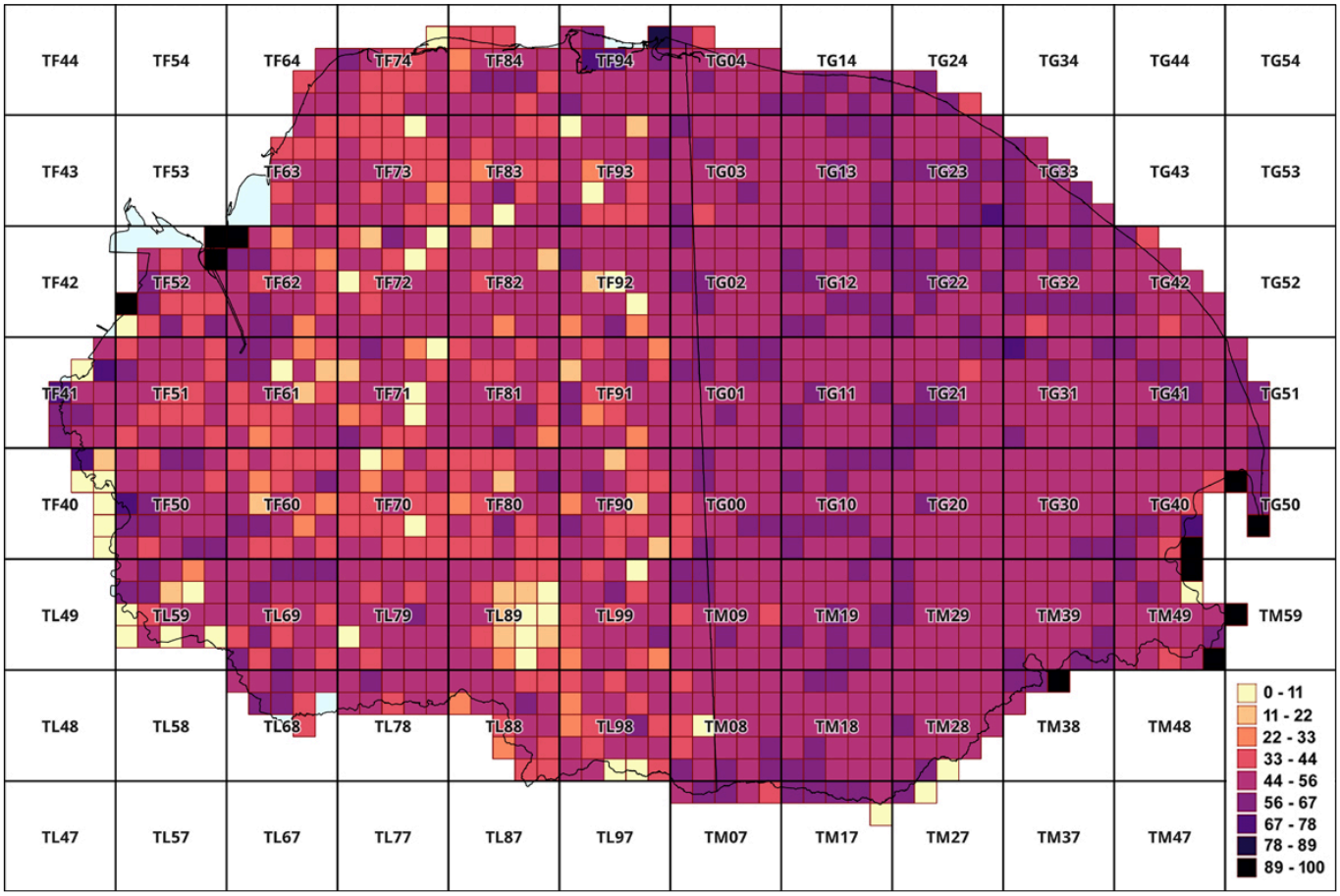


Fig. 3 The number of taxa recorded in each tetrad from 2000 to 2025 compared to the period 1985 to 1998

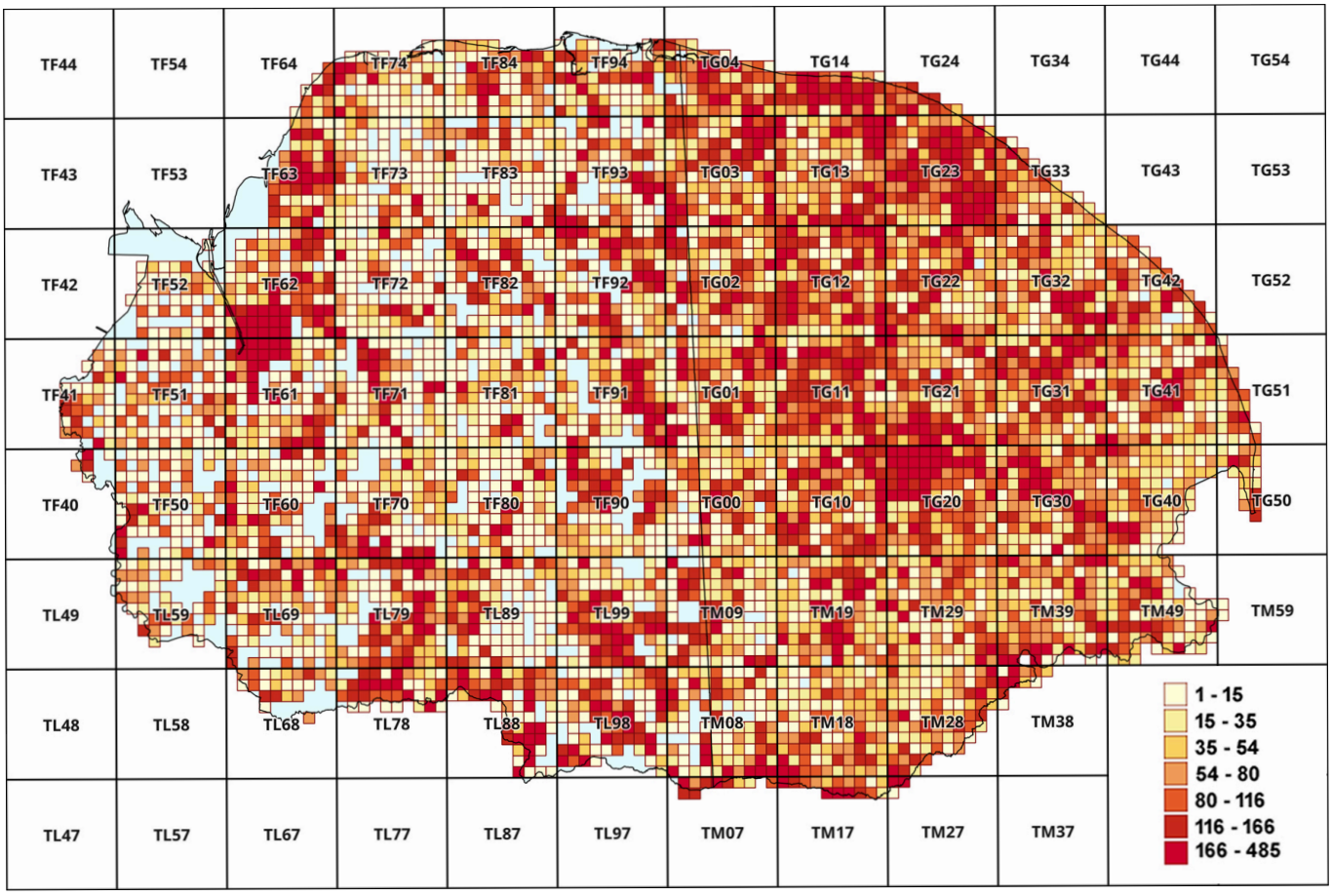
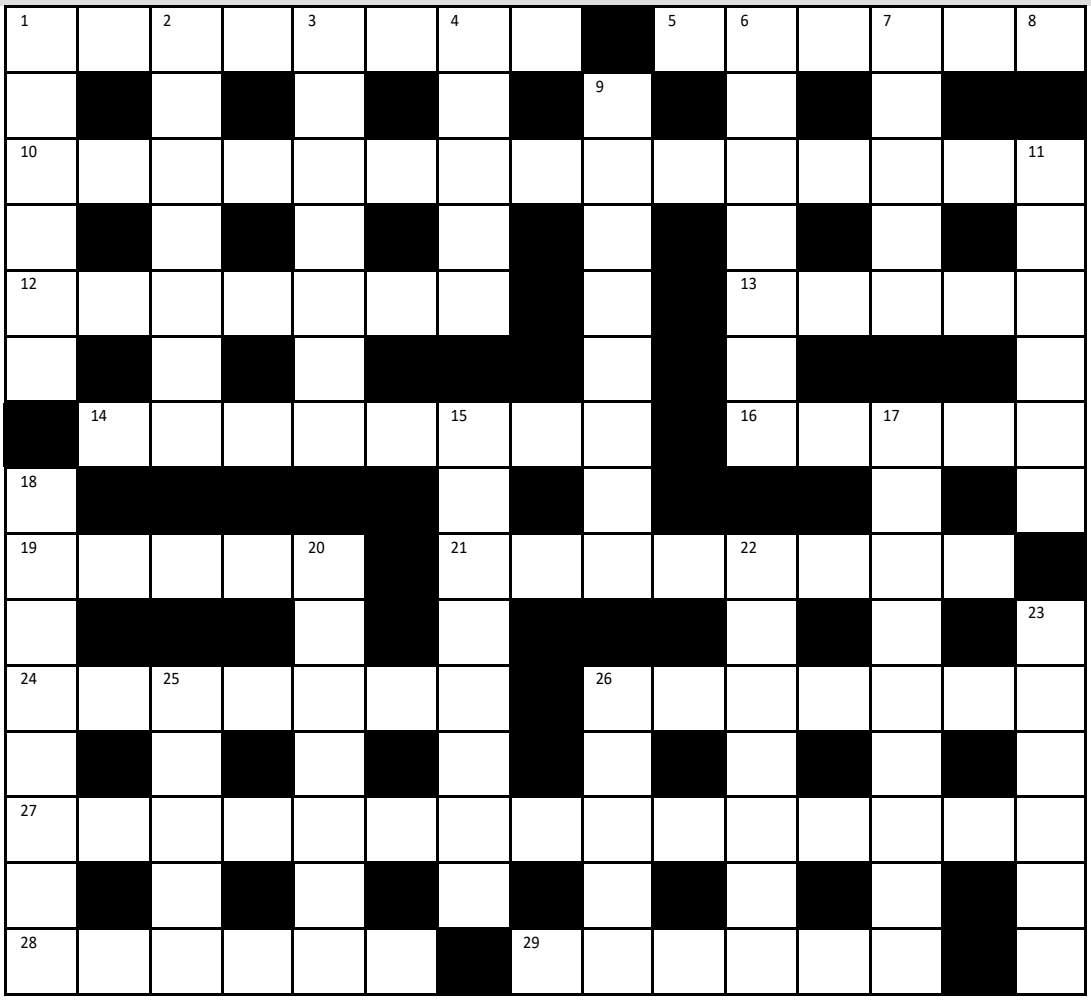


Fig. 4 The number of taxa recorded in each monad from 2000 to 2025

Crossword

Sedge warbler



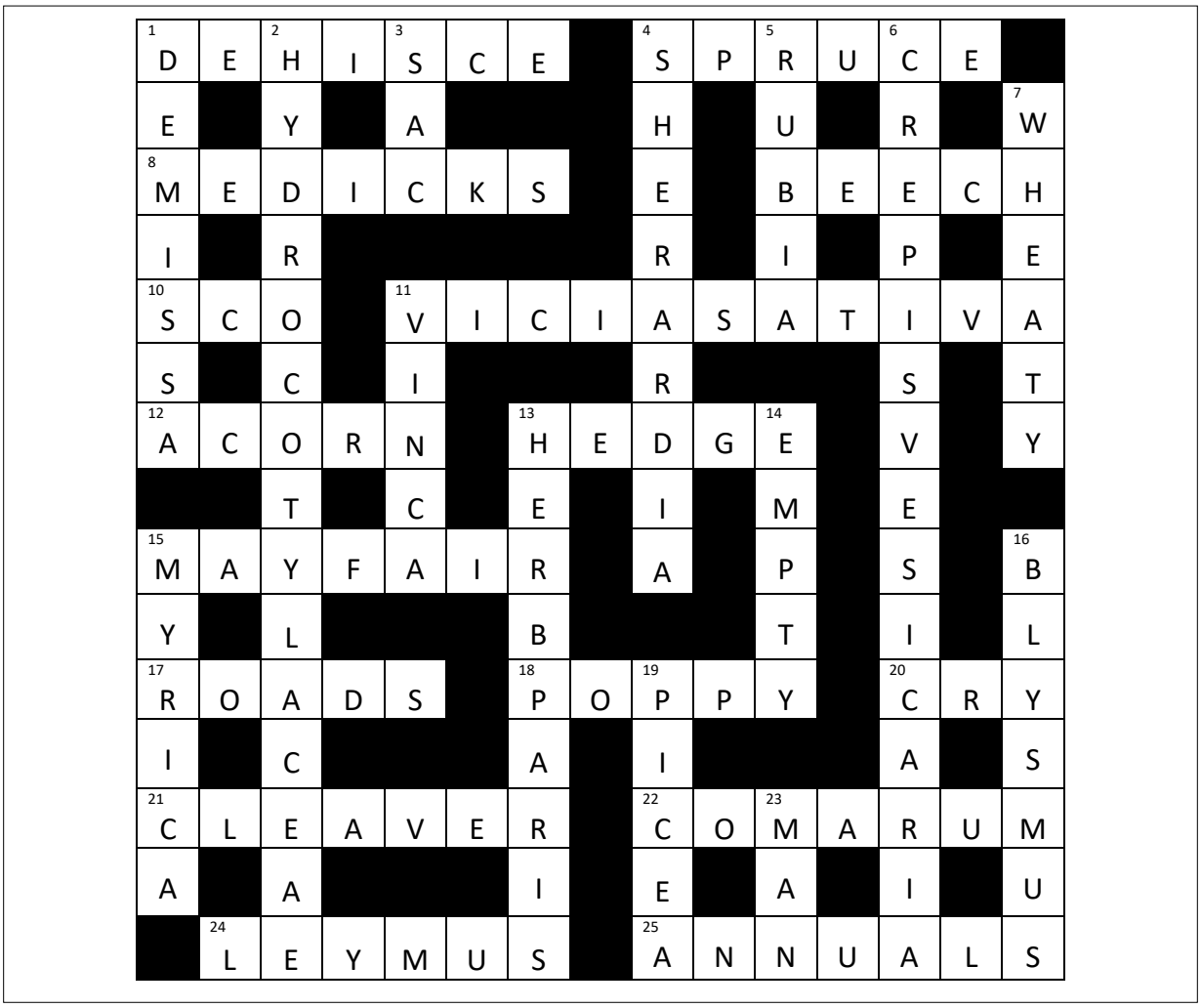
ACROSS

1. Sounds like an array of parrots for this blue beauty (8)
5. Stir these melons round for your G & T (6)
10. Small-minded spurge (9,6)
12. Scoters, for example (7)
13. What you can give on a Flora Group outing? (5)
14. Two women needed for thatching (5,3)
16. Bush in bog or sedge (5)
19. Floral alto strings (5)
21. Sounds like a very hungry plant in the cabbage family (8)
24. Mix up a sort of rice with the ends of hash to make this solvent (7)
26. Pleated, like some leaves (7)
27. Female dell-dweller (4-2-3-6)
28. Unfortunately, King Arthur initially is in the far north-west of the US (6)
29. Another layer of plant interest (6)

DOWN

1. A P in the Ps and Qs (6)
2. The AA has confused plans for this common plant (7)
3. Spherical (7)
4. Useful information in a plant pot (5)
6. The primrose that's more of an owl than a lark (7)
7. Almost a stock cube at the entrance to the mouth of this plant (5)
9. What the plants are doing in spring (6,2)
11. Gordon? Or a feathered someone wintering in southern Africa (6)
15. Calyx and/or corolla (8)
17. Rubs easel to send them round again (9)
18. Beautiful grass of acid soils (8)
20. An important element of the older plant ID books (7)
22. Things at the top (7)
23. A 'walking tree' of great spiritual significance (6)
25. Close to the lemma (5)
26. Double-flowered with Flore (5)

Answers to the 2024 Norfolk Flora Group Crossword



Looking forward to 2026 field season — Jo Parmenter

Woodland at Swanton Novers - Joint meeting with bryological group

Norfolk Wildlife Trust Sotshole Broad

Talconeston Hall

Weeting Forestry

Hevingham Park

Tottenhill County Wildlife Site

Cranwich Camp SSSI - Joint meeting with NNNS

Dillington Meadows & Spring Beck

RSPB Hope Farm

Filby Hall

Grimston Warren

Roydon Common - Joint meeting with NNNS