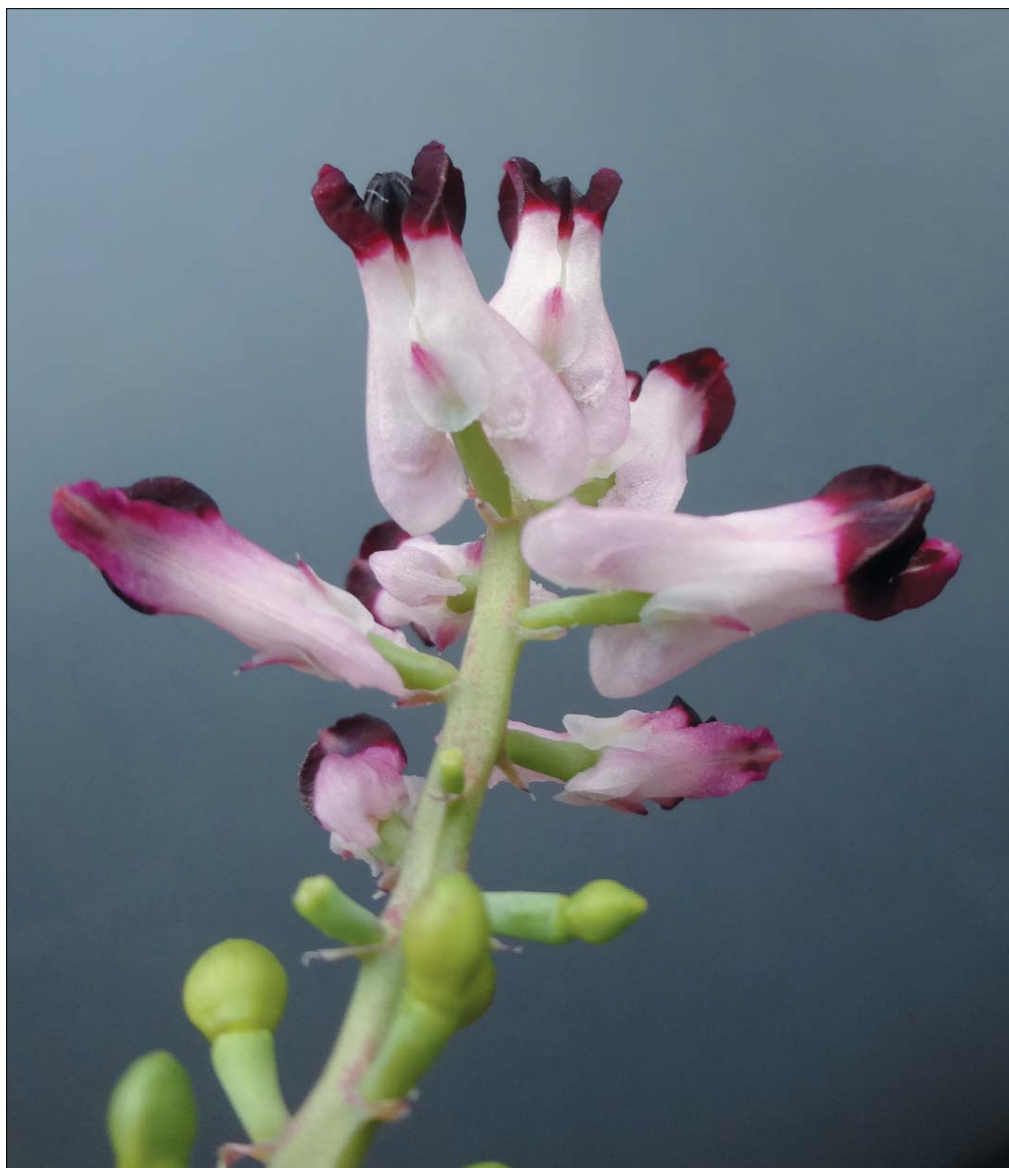


BSBI News

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Gymnadenia borealis



Gymnadenia conopsea



Gymnadenia conopsea × *G. borealis*

All *Gymnadenia* photos taken at Sleets Gill near Kilnsey in the Yorkshire Dales (v.c.64) by Jesse Tregale © 2016 (see p. 6)

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Cover picture: – *Fumaria reuteri* with peloric flowers. Photo A. Shaw © 2016 (see p. 11)

IMPORTANT NOTICES

From The President

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Many BSBI members have been actively recording this summer, for Atlas 2020, for local floras and other projects, or just for the fun of it. My recording has covered all these categories, but with a distinctly north-western bias, taking in (among others) the bogs and machair of Lewis in the far north-west of Scotland, Tory Island off the north-west coast of Donegal, and various sites in north and west Cumberland, the most north-westerly of English vice-counties. (Apologies to Wales – I will try to put that right next year!) Each area has its own plant specialities and landscape appeal. Even two days in the least rich hectads in my own inland Irish vice-county yielded several new records for each square, although it was dismaying to find that so much land at an altitude of over 200 metres is now dominated by intensive Rye-grass leys.

While all recording is valuable, it could be argued that, at least in the context of the BSBI's current top priority of Atlas 2020, a day's recording in an under-recorded area is more so than one in an already well-worked area. On that principle, my most valuable contribution must have been to join the BSBI's long-weekend meeting in County Longford in the very centre of Ireland. The Vice-county Recorder (VCR) position there is vacant and until this year there were relatively few post-2000 records. But a team of up to nine botanists more than trebled the number of records in just three days. A very high proportion of these were first post-2000 records for their hectad.

So, if you would like to maximise your contribution to BSBI science and Atlas 2020 next year, why not consider turning your attention to one of the under-recorded areas? Before you go, do please contact the relevant VCR, if there is one, or the relevant Country Officer if not.

Atlas 2020 may be prominent in the Society's priorities at present, but it is not the only game in town. Like all institutions, the BSBI needs to

keep in tune with changes in society and position itself for future development. Some of the external changes that affect us are obvious: new information technology, habitat degradation and loss, less money for botanical research, growth of the voluntary sector in conservation, increased postal charges *etc.* At the same time, there have been changes in our own resources, most notably through the investment we have made in our Distribution Database, the DDb.

In 2013, the BSBI underwent a major change in its formal status, becoming a company limited by guarantee. However, apart from the introduction of a new top tier of management in the form of the Board of Trustees, much of the rest of our structure of committees has remained more or less the same. Our staffing structure roughly parallels our committees, but it sometimes appears to have developed piecemeal in response to immediate priorities and the availability of funding. We have very dedicated and loyal staff, most of whom work from home, but we need to be sure that they have the most supportive working arrangements we can provide.

The Trustees and Council have now decided to instigate a review of the Society to help plot our future direction. All members will have an opportunity to contribute. Information about how to take part is given on the following page, and we would like to hear from anyone with something to say. From this process of review, I hope we will emerge as an even stronger, healthier and more dynamic body than we are now. The BSBI has a unique and precious scientific heritage and a strong tradition of involving amateur and professional botanists (and all points between) on an equal footing. These are some of our core values. We must satisfy ourselves that we are exercising them in the best interests of botanical science and of our wild flora.

BSBI Review

JANE HOULDSWORTH (Head of Operations), JOHN FAULKNER (President) and CHRIS
METHERELL (Hon. General Secretary)

As reported in the note from the Hon. General Secretary in the April edition of *BSBI News*, the BSBI's trustees and Council would like to consult with all members to hear views on the BSBI's structures and activities better to focus our resources on what our membership deem important. To do this Jane, John and Chris would like to invite all members to participate in a consultation exercise devised for this purpose.

We will attend all Standing and Country committee meetings and the Recorders Conference, Scottish Annual Meeting, Irish AGM and full AGM/Annual Exhibition Meeting this autumn to hear contributions directly. Chris will be approaching Vice-county Recorders and Honorary Members directly for their views. However, we would like to invite *all* members to contribute individually using a consultation form devised for this purpose. The trustees

and Council feel that this approach will allow all members to have an equal say on how the Society runs and where it focuses its energies; and would encourage all to send in their views.

It is expected that the results of the consultation will be considered at a joint meeting of the BSBI Board and Council early in the New Year, when decisions regarding any appropriate changes can be made.

To participate in the review please visit the home page of our website, where you will find a link to a consultation document under the 'Latest News' heading. Please download and complete this form before emailing it to Jane (jane.houldsworth@bsbi.org). If you would rather participate by post, please contact Jane to request a copy of the consultation document (Jane Houldsworth, 7 Grafton Gardens, Baxenden, Accrington, Lancashire, BB5 2TY. 07584 250 070).

Notes from the Editors

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Any lack of editorial skills apparent this time is due to my fellow editor Trevor being slightly 'under the weather' as this issue of *News* was being prepared but please continue to send him your contributions as usual

Clive Lovatt

Clive has now retired as BSBI Administrative Officer and there is an appreciation on page 40. May I add my own thanks to Clive for all the help and encouragement he has given me as Membership Secretary and I look forward to working with Julie.

Lack of contributions

Members may also notice that this issue is a bit thinner than usual; we can only publish what is sent to us, and this time there was a distinct shortage of contributions. We are therefore more than usually delighted to have received

two contributions from non-members who may possibly join the Society in the future. These can be found under **Publicity and Outreach** on pages 44-50.

We also received fewer photos than usual which is why we have included more full page plant portraits and also another runner-up from the 2015 photo competition (see Colour Section Plate 3).

It is strange that in this digital age, when almost everyone carries a 'smart phone' capable of taking excellent photos, we get so few sent in to accompany articles!

Correction to photo caption

The photo of "female *Petasites hybridus*" on the inside back cover of *News* 132 is in fact male *Petasites albus*. We apologise for the mistake.

NOTES

Keeping the wild in wild flowers?

KEVIN WALKER, *Suite 14, Bridge House, 1-2 Station Road, Harrogate, HG1 1SS*
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A recent report by Plantlife (http://www.plantlife.org.uk/our_work/campaigns/keeping_the_wild_in_wildflower/) raises a number of interesting questions over the use of seed mixtures to re-create grasslands and other habitats. Here we discuss some of the botanical issues raised from a BSBI perspective.

To seed or not to seed?

Biogeography is at the core of what the BSBI does best and so one could argue that the BSBI should be questioning why we are seeding at all. The reason is simple; introductions (and seeding with wildflower seed is just one example) blur native distributions. Ultimately, if we do not know where plants are native then our ability to map ranges and interpret change is impaired. For example, some of our most iconic landscape species have been planted so widely, and for so long, that their native range maps may be almost meaningless (*e.g.* oaks, Hawthorn, Rye-grass, White Clover). As a result, we no longer differentiate introduced from native populations for some of these species, although we try harder for those which are clearly native in one area but not elsewhere. Often, however, our attempts to draw the native-alien boundary are little more than guesswork.

Genetic effects

A much more convincing argument against seeding wild flowers is the disruption to the genetic structure of local populations that introductions can cause. Novel genes can reduce the fitness of native populations due to direct genetic effects (*e.g.* outbreeding depression) or because the locally adapted gene pool is ‘swamped’ by the novel genes (and therefore local variation is lost or diluted). This is textbook genecology but direct empirical evidence from restoration ecology is very scant (much of this is summarised in the

excellent review by Gray, 2002). Despite these dire warnings conservationists, private individuals and farmers have been introducing wild flower seed since the mid-1980s, often supported by public funds, in order to restore or enhance the diversity of sites they manage and cherish (including huge areas of arable reversion under successive agri-environment schemes). The reasons for this are compelling and the idea that this should be stopped to preserve native distributions is clearly absurd. The genetic arguments are more compelling, but their effects are difficult to prove and translate into practical guidance. This presents a major challenge for organisations such as the BSBI and Plantlife. In the absence of clear, unequivocal evidence, should we be arguing for maintaining the integrity of our local floras or do we just accept that seeding for restoration is a necessary evil for the conservation of biodiversity more generally?

Is local always best?

One way to combat these negative genetic effects is to only use seed sourced locally (often termed seed of local provenance). This is based on the assumption that species growing near to a restoration site are more likely to be better suited to the conditions and less likely to impact on the fitness of local gene pools than genotypes sourced further afield (the so-called ‘home-site advantage’). These assumptions are now central tenets of restoration ecology and at first reading they seem to make perfect ecological sense. However, the findings of research, at least in Europe, are less clear-cut. For example, although local genotypes of *Lotus corniculatus* (Common Bird’s-foot-trefoil) generally perform better within a restoration context (*i.e.* they have a ‘home-site advantage’),

ecological matching between the source and restoration site has been shown to be as important (regardless of how far the seed has travelled) (Smith *et al.*, 2005, 2009). Equally, geographic distance (as opposed to ecological distance) seems to be irrelevant for ancient introductions (archaeophytes) that have been transported throughout Europe and Asia by agriculture (Keller *et al.*, 2000). For these species, very little regional genetic differentiation or structure survives. Although we have no evidence, this may well also apply to meadow and pasture species that have been traditionally moved between sites by livestock (along transhumance routes), within green-hay or on machinery.

Homogenisation (McMeadows)

One of Plantlife's main concerns regarding seeding is that it replaces the local distinctness of habitats with monocultures of the same species (the so-called 'McMeadowisation'). It is true that commercial seed mixtures utilise a relatively small suite of species. Discussions with the main seed suppliers have shown that only around 120 native 'wild flowers' are being supplied and that of these only about 30 are being sown in large quantities (Walker *et al.*, 2004). This serves to simplify the local character of grasslands, which can vary markedly even within the 'types' that have been described by phytosociological schemes such as the National Vegetation Classification. Seed suppliers often tailor their seed mixtures to match the climate and soil type but ultimately it comes down to cost and practicality. There just is not enough demand to make production of seed of all grassland species economically viable. Even if there was, there is now a large body of evidence to show that it is impossible to re-create these communities overnight. Often we have to wait for decades before the soil has recovered the conditions that most desirable species need (*e.g.* fertility, structure, biota, *etc.*). What we start with today will look very different in 100 or 200 years' time.

A sense of perspective

The arguments against seeding wild flowers are often emotive, but as botanists we need to keep a sense of perspective. Often what we are replacing is an arable or Rye-grass 'desert', often devoid of grassland species, except in marginal areas that have avoided destruction. If we are lucky we may have species-rich grassland nearby from which we can harvest seed or encourage dispersal by movement of livestock. But, more often than not, we are starting afresh. In this context we are doing very little damage to the genetic structure of local populations. It is also worth bearing in mind that most restored grasslands are less than 30 years old. Older examples show that re-assembly can be a remarkably unexpected and erratic process. Species here today can be gone tomorrow. Take *Leucanthemum vulgare* (Ox-eye Daisy). This is an almost ubiquitous feature of newly restored grasslands but fast forward five years and it is almost always gone, whereas unexpected species will have colonised from who knows where.

Conclusions

Re-seeding with wild flowers is an inevitable consequence of a decline in biodiversity and has proven to be an effective way to re-create habitats and improve conditions for a whole range of other organisms (*e.g.* food, shelter, protection from pollution, *etc.*). Arguments against seeding include the impacts it has on native distributions and the genetic structure of local populations, as well as the creation of, at least in the early stages, a largely uniform matrix of species. But we need to keep a sense of perspective. Seeding mainly takes place in areas of little wildlife value, creating habitats that are more vibrant and diverse. Okay, they may all look similar at first but given time they will take on characters of their own and who knows they may become the 'Coronation Meadows' of the future.

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Putative Fragrant Orchid (*Gymnadenia*) hybrid in the Yorkshire Dales

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On 11th July 2015, I went on a Bradford Botanists’ field meeting to Sleets Gill near Kilnsey in the Yorkshire Dales (v.c.64). This was on private land, but fortunately our leader Carmen Horner had obtained permission from the farmer to visit this excellent site, mainly limestone meadows with areas of limestone pavement. Interesting plants seen included *Alchemilla glaucescens* (Silky Lady’s-mantle), *Galium boreale* (Northern Bedstraw), *Parnassia palustris* (Grass-of-Parnassus) and *Primula farinosa* (Bird’s-eye Primrose). There were quite a few pure white-flowered Heath-spotted Orchids *Dactylorhiza maculata* ssp. *ericetorum* var. *leucantha*, and some fine *Schoenus nigricans* (Black Bog-rush) in a more acidic marshy area and even *Plantago maritima* (Sea Plantain) in the meadow, possible coming in from road salting.

We saw many *Gymnadenia borealis* (Heath Fragrant-orchids) and Carmen mentioned she had also seen *Gymnadenia conopsea*, so I started to check all the fragrant-orchids we came across. All appeared to be *Gymnadenia borealis* until I came across a paler fragrant-

orchid, which turned out to be *Gymnadenia conopsea*, and a couple of metres away there was a patch of what appeared to be the darker *Gymnadenia borealis*. On closer examination they seemed to be intermediate in flower shape (see inside Front Cover), and I could only conclude they were the hybrid *Gymnadenia conopsea* × *G. borealis*.

The three taxa of fragrant orchids were once recognised as sub-species, but are now considered species, and are described as such in the latest edition of Clive Stace’s *New flora of the British Isles*, which also states “Hybrids might occur but the spp. seldom grow together”. However, I have seen *Gymnadenia borealis*, *Gymnadenia conopsea* and possible hybrids growing on another site, Tarn Moor in Westmorland, so it is possible that hybrids may be relatively common and should be looked out for.

I would be interested to find out if any other botanists have seen putative fragrant orchid hybrids, and on any views as to whether my fragrant orchid is the hybrid *Gymnadenia conopsea* × *G. borealis* or is just a form of one of the two species.

Attracting young botanists

NICK MILLER, *Tiger Hill Cottage, Bures, Suffolk, CO8 5BW*; (nicknewmiller56@gmail.com)

In the world of journalism, we are suffering from ‘too much news’; and so it is in the world of botany, with so many live issues of extinction, habitat loss, farming, food supply, genetic modification, herbicide use, and pollinator health, and now Britain’s freedom to make its own environmental laws in future.

Yet, at the same time, we regularly bemoan the failure of botany to attract enough young people.

We have a website and a facebook page *etc.* Are these giving strong enough links to our most usable material, such as our species accounts? Do we not have any members who are able to provide a ‘News round-up’ for *BSBI News* that is not about internal matters?

Surely, many young people are being drawn as if magnetically into training and work ranging from lab research and teaching to the media and surveying, countryside management and landscaping. By comparison, the BSBI would seem to present them with more of a vacuum than a magnet.

Although many current issues are implicit in the content of *BSBI News*, and passing references betray concern with climate change, seed-bank collection and conservation, the gap is rarely bridged, between such issues and our legacy from H.C. Watson.

No doubt such ideas have been broached, as, for example, tiny subscriptions for the first three years of membership, or basing our field trips on colleges (yes – in the lowlands and home counties!); and can we not start to develop some new roles for BSBI members? We botanists do need to intervene in conservation, exemplified by the many people who a generation ago led our current public-membership wildlife organisations.

Jim McIntosh, in a recent issue, promoted the BSBI’s role in providing helpful information to conservationists, and gave encouragement

to individual members doing conservation work, but pointed out that the “BSBI is not *per se* a conservation movement’. Jim has, however, made a partnership with Scottish Natural Heritage, which most of us can but envy. He points out how plant recording runs parallel with conservation of sites and of individual species. However it is too often the case that parallel lines fail to meet. At national level, we could negotiate such simple roles for our members as providing scarce plant information to the hitherto-apparently-deaf bramble-strimmers of Wildlife Trust reserves.

Returning to my list at the top of this article, let no-one fear that I am proposing the BSBI takes a political position, let alone starts campaigning. However, I predict that GM crops will be the top botanical issue of 2017. I am prepared to believe that key BSBI people already press government to assure independent assessments of important farming issues, and actively promote the needs of arable weeds, study the causes of species loss and produce ecological and management information rather than just lists of species presence/absence. Otherwise we would just be the train-spotters of the Beeching era, or pre-internet stamp-collectors. But if the BSBI is doing these things, maybe they need to be presented at the top of Page 1, not the bottom of Page 94, and maybe they need to be put out to the young generation in training.

[Nick raises a range of points here, mostly about the way we communicate what the Society is doing, and how much of a high profile where it matters this really has. As Receiving Editor, I have a lot of sympathy with his views. What do others think? Can these ideas feed into our ‘Review’ (see p. 3), or suggest ways to change the way we communicate? *T.J.*]

Ophrys finds in Dorset (v.c.9)

ROBIN M. WALLS, 10 Old Brickfields, Broadmayne, DT2 8UY; (robin@rmwalls.plus.com)

We have not been expecting the Atlas recording to add much to our understanding of the distribution of plants in Dorset (v.c.9), and so far this has proved to be the case. Working at the monad scale is improving the resolution for a number of species, of course, and it will be interesting to see what that reveals. The main benefit is that the project does get you to look in places you would pass by at other times. This is why, at the end of April, I stopped on the way back from a meeting that had finished early in a poorly recorded square in north Dorset. It was also a day before I was to have a hernia operation and a final bit of recording before forced inactivity was enticing. There was a lay-by, a broad scruffy verge and some woodland that looked accessible. Having recorded those, I still had twenty minutes to spare, so I walked back down the road to a cutting in the hope of some calcicolous grassland species.

The cutting, as I later found out, was created in 1993-4, so it had not developed one of the usual calcicolous communities. It was an open sward of *Carex flacca* (Glaucous Sedge), *Leontodon hispidus* (Rough Hawkbit) and bryophytes, in which I recorded a handful of other downland species, including some *Ophrys* leaf rosettes. To my surprise, one of these had some flowers. The weather was getting a little blustery and it was now well time I left, so with my slightly smart phone I took a few pictures. At home I could not place the orchid – a bit like *O. apifera* (Bee Orchid), which does not flower this early, but a hybrid perhaps. The only *Ophrys* out at the end of April in Dorset is *O. sphegodes* (Early Spider-orchid), which is found miles away to the south, along the coast. The only thing to do was to send my fuzzy pictures to a few friends and the referees for ideas.

To summarise a lot of emails over the next few days, Richard Bateman and Ian Denholm

came up with something even more exotic: *Ophrys insectifera* (Fly Orchid) × *O. scolopax* (Woodcock Orchid) (*O. ×nelsonii*) (see Back Cover). Mike Chalk, the finder of *O. tenthredinifera* (Sawfly Orchid) in Dorset two years ago, visited the site and Fred Rumsey came down to inspect for himself. By now, we had some excellent photos and 13 flowering spikes had been discovered. The opinion on the non-flowering rosettes was that they were probably *O. insectifera*. This is rare in Dorset, adding to the interest of this site, but I wanted to check by seeing flowers before getting too excited.

In early June I returned with my wife and Carolyn Steele from Dorset Environmental Records Centre to find a splendid population of orchids. The early *Ophrys* had gone over and did not look like setting seed, but there was an array of *O. insectifera* and *O. ×pietzschii* (its hybrid with *O. apifera*). Some assiduous counting by Fred Rumsey and Helena Crouch, who know a similar site in Somerset well, totalled 130 Fly Orchids, 42 Bee-Fly hybrids and a single Bee Orchid, making this by far the best Fly Orchid site in Dorset, without the additional interest of the hybrids and a few more common orchid species.

The results of DNA work on the putative *O. ×nelsonii* is still awaited at the time of writing. Meanwhile we can ponder the origin of a mainly south European taxon on a Dorset roadside. Many road cuttings have been coated with a nutrient-rich soil and sown with robust grasses. Our county ecologist, Phil Sterling, has long had a policy of avoiding this sort of restoration, preferring to sow a basic grass mix thinly on the mineral soil. This has paid off handsomely here and in other places, notably the Weymouth Relief Road, New Road on Portland and the West Stafford bypass.

A monstrous *Scrophularia nodosa*

THOMAS J.J. MCCLOUGHLIN, *Dublin City University – St Patrick’s Campus, Drumcondra, Dublin, D09 DY00*; (tom.mccloughlin@dcu.ie)

Scrophularia nodosa (Common Figwort) is a common and familiar herbaceous perennial of deciduous woodland and urbanised or degraded habitats in the northern hemisphere. It is found throughout the British Isles, except the extreme north-west regions, where tree cover is low (Fig. 1 below).

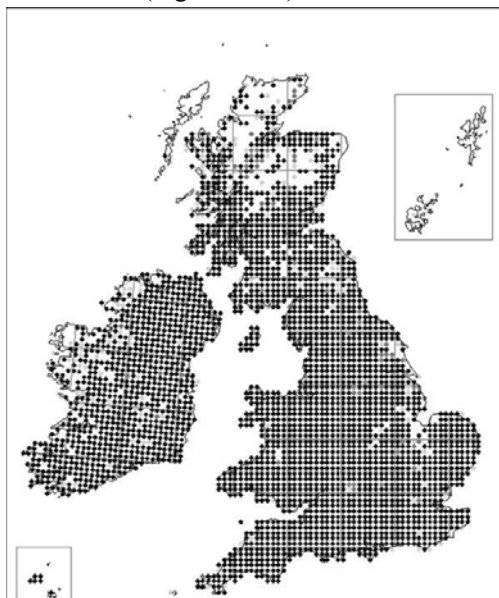


Figure 1. Distribution of *Scrophularia nodosa* L. in the British Isles.

Its distribution outside of the British Isles is difficult to ascertain, as it appears to be native in Newfoundland (Pennell, 1935), but not native in continental north America, although recorded in Rhode Island, Maine and Massachusetts (Hultén & Ries, 1986). The *Inventaire National du Patrimoine Naturel* (Muséum National d’Histoire Naturelle, 2015) lists *Scrophularia nodosa* as indigenous to continental France (upper two-thirds approximately) and absent from all overseas territories. Dupré & Ehrlén (2002) recorded *S. nodosa* in Sweden, so we can assume its distribution in Europe is extensive, but to what extent depends on the recording capabilities in numerous countries. The Botanischer Garten

und Botanisches Museum Berlin-Dahlem (2011) cites its presence in every country in Europe, including asiatic Turkey, Transcaucasia and Siberia within the Russian Federation (*i.e.* temperate Asia).

Seed was collected from a single specimen growing in the wall of Drumcondra Bridge, Dublin City (v.c.H21)(53.368382, -6.255153), near my place of work, and plants were raised from that seed. This was slightly unusual in itself, since one might have expected to find *Scrophularia auriculata* (Water Figwort) in this habitat, which was on a major artery road out of Dublin City, heading north in the direction of Belfast. One large nodular root system developed, which was divided into separate plants. On one of the divided plants, a shorter than normal stem appeared, which bore flowers that were different in structure from the other stems (see Colour Section Plate 4). For three years (2011 – 2013) this part of the divided root ball had sprouted the same aberrant form, whereas the shoots appearing from the rest of the root ball appear ‘normal’. The root ball was dug up to check whether the aberrant shoot had its own root or whether it did indeed emerge from a ‘normal’ root – and I can report that the latter was indeed the case.

The aberrant shoot grows to about 30cm high and the inflorescence is more branched and dense than the normal form, whereas the ‘normal’ *S. nodosa* can grow up to 80cm. Each flower has longer bracts, which give the inflorescence a leafier appearance. Some of the flowers appear to have a semi-normal appearance in respect of the petal arrangement (zygomorphic) but others possess a shorter green corolla of uniform length (actinomorphic); some flowers again possess a larger double ovary, which develop into a large fruit that extends beyond the corolla, and others were observed without a developed ovary at all. These observations need to be verified by microscopic study.

One of the recorded aberrations of *Scrophularia* is proterogyny (*i.e.* sequential hermaphroditism) and this phenomenon will result in flowers appearing different at different times. The advantage to *Scrophularia* of being proterogynous, as described long ago by Wilson (1878), arises from the fact of its being fertilised by wasps, which generally begin with the upper flowers and work downwards, while bees begin below and work upwards. The lower flowers are the older. The author has checked this and found it to be consistent with observation, in fact *Scrophularia* was the preferred flower of wasps in the author's garden. Hence a bee coming from another plant of the same species fertilises the lower flowers and then carries off a fresh supply of pollen from the upper and younger ones. On the other hand, as wasps commence from above, it is an advantage that the flowers should be proterogynous, because the consequence is that the wasp fertilises the upper flowers and then carries off a fresh supply of pollen from the lower and older ones.

The flowers of the Scrophulariaceae show a great diversity in form (Kampny, 1995), especially of the corolla, and in the aberrant specimen being discussed here, a rich diversity was observed. The most common pollinators are bees and wasps (as mentioned already) collecting nectar, pollen, or oil (Olivencia & Alcaraz, 1993); but other pollinators that have been recorded across the world are moths and butterflies, hummingbirds, syrphid flies and ants. One might speculate that the occurrence of bell-shaped corollas in most tribes of the Scrophulariaceae and in related families indicates that this is the ancestral flower form. The bell-shaped corolla gives rise to the following diversity of forms: narrow tubular corollas, wide flaring ones, corollas closed to unsuitable visitors by a palate (an upcurving of the tube), corollas forming a keel around the style and anthers either on the upper or lower side of the flower, corollas inflated to form a balloon, and corollas with one or two spurs. Of course, as well as a rich diversity due to evolutionary divergence, there is a second source of diversity due to evolutionary conver-

gence. Kampny (1995) believes that such convergences can be due to selection by pollinators and can limit the usefulness of most of these floral features in analysing the systematic relationships of the tribes of the Scrophulariaceae. However, she further states that their diversity of forms exemplifies the evolutionary potential of fused perianth parts. Olivencia (1993, 1998) and Olivencia & Alcaraz (1990) provide interesting insights into the range of the diversity of the Scrophulariaceae floral form.

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Peloric *Fumaria reuteri* (Martin's Ramping-fumitory)

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I previously reported peloric flowers on my cultivated *Kickxia spuria* (Round-leaved Fluelen) plants (*BSBI News*, **116**: 29). This year, I observed the same phenomena on *Fumaria reuteri* (Martin's Ramping-fumitory) (see Front Cover). Four *Fumaria reuteri* plants overwintered in my greenhouse and two of these plants produced peloric flowers at the beginning of March. The two peloric plants were growing in separate pots with different soil types. Arthur Chater tells me that as far as he is aware, it is likely to be due to some upset in the genes and how they are controlled, and that there is no external cause. Only the very first flowers of the year were peloric and subsequent flowers on the same plants were of the normal type. The peloric flowers produced the

normal single fruit. I have been growing all the British fumitories for six years and have never seen this phenomenon before. My *F. reuteri* plants originate from Lake Allotments on the Isle of Wight and are approximately six generations removed from the wild. I sent some photos to Rose Murphy, the BSBI *Fumaria* Referee, who had never seen a peloric fumitory before. Martin Barber, who collects records of interesting plant oddities, had also never encountered a peloric fumitory. Has anyone else ever seen a peloric fumitory or can I claim a first?

Acknowledgement:

My thanks go to Arthur Chater, Rose Murphy and Martin Barber for their comments on my photographs.

What's happened to Cow Parsley (*Anthriscus sylvestris*)?

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For years, roads were annually obscured by plants of *Anthriscus sylvestris* (Cow Parsley), flopping over at flowering-time. This would prompt retaliation by men on mowers, to the point of overkill, which in turn prompted botanical writing to be laced with the woes of mulching.

So, why is this not happening in recent years? Coinciding with partial abandonment of verge-mowing, even on main roads,

Anthriscus seems to have developed upright habits and become sparser, shorter, leaner and stiffer. Is this plant a prodigal son that has mended its ways? Has *Heracleum sphondylium* (Hogweed), with its more military bearing, stepped in to restore order?

Maybe it is environmental – less rain at flowering-time to weigh the plants down? Or does less mowing make for less *Anthriscus*?

Sorbus subgenus *Torminaria* (*Sorbus latifolia* agg.) in Devon newspapers

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Old newspapers have been an unexplored resource for botanical information. Access to them has been difficult and finding anything of use is the proverbial needle in a haystack. It is useful if there are regular articles about a subject as they can stand out in each edition but even a weekly newspaper will have 52 editions a year which is time consuming to look through. Some have been filmed onto microfiche and film and are a little easier, quicker, and cleaner to look through. Recently the British Library has started to digitise its archive of newspapers with Findmypast Newspaper Archive Limited, making digitised copies available with a subscription option of a search facility of the Optical Character Recognition (OCR) text version.

Researching a genus, species or common name occurrence is possible by searching for it and restricting the search by newspaper title, place of publication, county or region. The results can be filtered by those classes and by date, but there are limitations. The OCR technology relies on the newspaper print being recognisable. Due to the quality of certain papers, their printing, font, age and cleanliness, characters are often misread, 'b' for 'h' or 'n' for 'ri' for example. There is also the problem of misspellings in the original text, including letters inserted upside down. Although the OCR text version can be edited (including by subscribers) to correct OCR errors, typographical errors need to remain as printed. For this reason searches can be 'fuzzy' or 'exact' in relation to the search terms. Pages can however be tagged, which could include the correct spelling. In the 'advanced search' section, there are various options which include 'some of the words' or 'phrase'. A further problem is that individual documents may contain more than one article and multiple search terms may produce a result based on each actual article having only one of the terms. This is prevalent in family announcement columns which are treated as one article.

Practical application

The fruits of *Sorbus devoniensis*, Devon Whitebeam, have been recorded as sold in Barnstaple Pannier Market "French Hales. *Pyrus scandica*, Bab.-Dev. (Barnstaple). The fruits are sold in Barnstaple market for a half-penny a bunch" (Britten & Holland 1878), repeated by Friend (1882). Historic locations are worth investigating as they may represent locations not currently known. The locations detailed in the herbarium of W. P. Hiern (RAMM) and a paper by Moyle Rogers (1886) have been examined and locations not coinciding with known records investigated (Cann 1993, Cann 1994) which resulted in significant updates to the known distribution of *Sorbus devoniensis*.

The aims were therefore first, to find references to the fruits of *S. devoniensis* being sold in Barnstaple (or other North Devon) markets and, second, to discover how it was mentioned in print and if so, if any geographical locality information was given.

There are three species of the subgenus *Torminaria* (i.e. those derived from crosses between *Sorbus torminalis* and the *S. aria* group) in Devon, *S. admonitor*, *S. devoniensis* and *S. subcuneata*. *Sorbus subcuneata* was described first (1934), then *S. devoniensis* (1957) and finally *S. admonitor* (2009). *Sorbus devoniensis* is the most widespread in Devon, with *S. admonitor* and *S. subcuneata* restricted to woods near the north Devon coast. Although *S. devoniensis* was not the first species to be described, it was the first recorded species of the area, generally named as *Pyrus latifolia* and *P. scandica*, the name French Hales (Hail/s) being given both to it and the related species.

Methods

To find historic references of *S. devoniensis* in a period before it was described and formally named meant searching using numerous search terms. Searching for French Hales and *Pyrus latifolia* brought up various results. Narrowing down the possibilities by changing the

search terms and using logical sideways steps found various market reports and 16 other references in the North Devon Journal (NDJ) and two suitable but very broad references to whitebeams in the Western Morning News. However it was necessary to search using the following search terms in combination and singularly: *Pyrus*, *Sorbus*, *latifolia*, French, hales, hail/s, whitebeam, service tree and eagles, taking into account the possibilities for miss transcription by deliberately searching for misspellings. Other search terms used were scandica and rotundifolia which are part of the synonymy which returned no results.

Results

Market reports

The earliest market report is “French eagles, 1d per bunch” in the ‘Pannier’ section for ‘MARKET REPORTS. BARNSTAPLE MARKETS’, that has the report for the previous Friday (North Devon Journal, Thursday 15 October 1925) (Appendix A). The use of ‘French Eagles’ is consistent with a reply, to an enquiry about an unknown hedge plant (now in his herbarium in RAMM), made to W.P. Hiern of Barnstaple on 25 October 1920. The enquirer, from Bishop’s Tawton, Barnstaple “was out to tea...and someone brought in the enclosed which they had picked in the hedge and were most anxious to know the name of. No one had the faintest idea!”. He replied “Locally the fruit is called “French Hails” or “French Eagles”, and is sometimes sold at a cheap rate in Barnstaple Market.”. Further searches found market reports and prices for the following two weeks in October 1925, 28 October to 30 December 1926 and 24 October to 12 December 1929. In 1929 the name given changes to ‘eagle-berries’, the price remains 1d (one old penny) per bunch.

The price appears cheap but in context for October 1925 at Barnstaple Pannier Market: “blackberries 3d and 4d per lb; rhubarb, 1d per bunch”, “apples (cookers) 2d per lb” and you could buy a parsnip for the same price, “1d to 1½d” [‘lb’ is one imperial pound in weight]. A pound of *Sorbus devoniensis* fruit will be more than the three bunches needed to make it 3d per lb. It is surprising they were sold in bunches considering the variable nature of

fruit per bunch. However it is not known if a sellers’ bunch consisted of more than one fruiting head.

Newspaper articles

The earliest reference in a paper is 1904 and relates to ‘PUBLIC BOTANICAL WALKS’ that were regularly undertaken and reported upon in the North Devon Journal. The later reports are ‘NORTH DEVON NATURE NOTES’, which make interesting reading. The context of each *Sorbus* reference is detailed below (Appendix B) with a summary table of how the name appeared in the paper (Table 1, p. 15). The comment in the 1904 reference is echoed by Caroline Giddens in *Flowers of Exmoor* (1979) “the ‘Big tree near Watersmeet’...is still puzzling the experts”.

The North Devon Nature Notes (North Devon Journal - Thursday 26 October 1916) also mentions the sale of the fruit:

“Bunches of French Hails may soon be on sale at certain stalls in Barnstaple Market. Does any other local market countenance the display of this quaint commodity?”

In combination with ‘French’, the spelling ‘Hails’ was used most often, 13 times (including the typological error ‘nails’), this is the spelling used by Polwele (1797); the spelling ‘Hail’ used twice. ‘Hales’ which is the most quoted spelling in the botanical literature, was only used once. French Eagles, the name also used in the Market Reports is only used in the first reference, 1904, with the alternative ‘French hails’. Oval-leaved service-tree, recognising the less common (in Devon) parental species Wild Service Tree (*Sorbus torminalis*), is used once, in 1905. *Sorbus torminalis* is only commented on once in NDJ, and as part of the ‘NORTH DEVON NATURE NOTES’ 2 June 1910:

“In an old hedge nearer Torrington flourish some small Wild Service Trees (*Pyrus torminalis*), rarely met with in Devon, but no flowers were observed”.

There is a specimen from Great Torrington, potentially of this location in Herb. Hiern at RAMM dated 21 May 1910. Broad-leaved white-beam is used once and followed by “or French hails”. Where a botanical name is

given it is *Pyrus*, on its own in 1904 but on 10 occasions afterwards as *Pyrus latifolia*.

Mention is made of a tree planted in the garden of the North Devon Athenaeum, transplanted from Countisbury. The garden and tree have long gone but there is a herbarium specimen in Herb. Hiern at RAMM dated 28 May 1905, and it is confirmed as *Sorbus subcuneata*, consistent with the determination given in the *Flora of Devon* (1939), rather than the only other possibility *S. admonitor*.

There are also some vague references in the Western Morning News but without any confirmation as to where in the country they might refer.

Discussion

The newspaper search has shown the original evidence for the fruits being sold in the markets. Not just in the paper's market reports but also as a mention in the Nature Notes. Why an unusual product got a listing is not known and it is only recorded being sold in the Barnstaple Pannier Market reports for three years. From time to time, other fruits of the forest were available for sale. Elderberries were being sold in Exeter Pannier Market in 1845 (Exeter Flying Post, 2 October 1845) and are listed in the North Devon Journal for 9 October 1856 for Barnstaple and Bideford, 2½d per quart and 3d (for an unspecified amount) respectively but not in Torrington, South Molton or Tavistock. Whortleberries, much gathered from the moors and woods were being reported as sold at Exeter in 1842 (Western Times, 18 June 1842) and at Barnstaple in 1850 (North Devon Journal, 25 July 1850). A local cultivated crop, Mazzards (a form of cherry, sold in addition to cherries in the market), from 1844 at Exeter (Exeter Flying Post, 22 August 1844) and 1848 at Torrington (Exeter Flying Post, 17 August 1848).

None of the references indicate new locations for *S. devoniensis*, except possibly references to the Lynton line and the Great Western line, but they are vague and possibly covered by known populations. They do though provide an interesting insight into a group of species that was recorded with interest and query at the time, and were obviously worthy of note.

Acknowledgements

I would like to thank Tim Rich for valuable comments on the original text.

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Appendix A

1925 North Devon Journal

- Thursday 15 October 1925 - French eagles, 1d per bunch
- Thursday 22 October 1925 - French eagles, 1[d] per bunch
- Thursday 29 October 1925 - French eagles, 1d per bunch

1926 North Devon Journal

- Thursday 28 October 1926 - French eagles, 1d per bunch
- Thursday 4 November 1926 - French eagles, 1d per bunch
- Thursday 11 November 1926 - French eagles, 1d per bunch
- Thursday 18 November 1926 - French eagles, 1d per bunch
- Thursday 25 November 1926 - French eagles, 1d per bunch
- Thursday 2 December 1926 - French eagles, 1d per bunch
- Thursday 9 December 1926 - French eagles, 1d per bunch
- Thursday 16 December 1926 - French eagles, 1d per bunch

- Tuesday 21 December 1926 - French eagles, 1d per bunch
 - Thursday 30 December 1926 - French eagles, 1d per bunch
 - Thursday 14 November 1929 - eagle-berries, 1d. per bunch
 - Thursday 21 November 1929 - eagle-berries, 1d. per bunch
 - Thursday 28 November 1929 - eagle-berries, 1d. per bunch
 - Thursday 5 December 1929 - eagle-berries, 1d. per bunch
 - Thursday 12 December 1929,- eagle-berries, 1d. per bunch
- 1929 North Devon Journal**
- Thursday 24 October 1929 - eagle-berries, 1d. per bunch
 - Thursday 31 October 1929 - eagle-berries, 1d. per bunch
 - Thursday 7 November 1929 - eagle-berries, 1d. per bunch

Table 1

Paper	Name as quoted		Species referred to
	Common name	Botanical name	
North Devon Journal - 21 December 1944	French Hails	<i>Sorbus</i>	¹ <i>Sorbus subcuneata</i>
Western Morning News - 22 May 1933	whitebeams	\	<i>Sorbus</i>
Western Morning News - 22 May 1931	whitebeams	\	<i>Sorbus</i>
North Devon Journal - 17 June 1920	French Hails	\	¹ <i>Sorbus subcuneata</i>
North Devon Journal - 26 October 1916	French Hails	\	² <i>Sorbus devoniensis</i> , <i>S. admonitor</i> & <i>S. subcuneata</i>
North Devon Journal - 1 September 1910	French Hails	\	³ <i>Sorbus devoniensis</i> , <i>S. admonitor</i> & <i>S. subcuneata</i>
North Devon Journal - 30 June 1910	French Hails	<i>Pyrus latifolia</i>	⁴ <i>Sorbus admonitor</i> and <i>S. subcuneata</i>
North Devon Journal - 7 October 1909	French hail	\	<i>Sorbus devoniensis</i>
North Devon Journal - 12 August 1909	French Hails	<i>Pyrus latifolia</i>	⁴ <i>Sorbus admonitor</i> and <i>S. subcuneata</i>
North Devon Journal - 27 May 1909	French Hail	<i>Pyrus latifolia</i>	<i>Sorbus devoniensis</i>
North Devon Journal - 18 June 1908	French Hales	<i>Pyrus latifolia</i>	<i>Sorbus devoniensis</i>
North Devon Journal - 6 June 1907	Broad-leaved white-beam or French hails	<i>Pyrus latifolia</i>	<i>Sorbus devoniensis</i>
North Devon Journal - 30 August 1906	French hails	<i>Pyrus latifolia</i>	<i>Sorbus devoniensis</i>
North Devon Journal - 14 June 1906	French hails	<i>Pyrus latifolia</i>	<i>Sorbus devoniensis</i>
North Devon Journal - 17 May 1906	French nails	<i>Pyrus latifolia</i>	<i>Sorbus devoniensis</i>
North Devon Journal - 31 August 1905	oval-leaved service-tree	<i>Pyrus latifolia</i>	<i>Sorbus devoniensis</i>
North Devon Journal - 1 June 1905	french-hails	<i>Pyrus latifolia</i>	<i>Sorbus devoniensis</i>
North Devon Journal - 16 June 1904	French hails or French Eagles	<i>Pyrus</i>	⁴ <i>Sorbus admonitor</i> and <i>S. subcuneata</i>

Notes	
1	reference to the planted tree at the North Devon Athenaeum which was collected from Countisbury. Specimen in Herb. Hiern in RAMM (!)
2	reference is made to locations south of Barnstaple and to Watersmeet
3	a general comment
4	the location refers to Watersmeet and the East Lyn valley

Appendix B

The extracts, with the name in context, text as published:

North Devon Journal - Thursday 16 June 1904

THE PUBLIC BOTANICAL WALK

“from Lynton railway station, by way of Lynbridge, Summer House Hill, Lyn Cleave, and Myrtleberry Hangings the hillside overlooking Watersmeet;” “Several trees and shrubs were seen of the interesting French hails or French Eagles, a species of *Pyrus*, the correct nomenclature of which has given rise to much discussion among botanists.”

North Devon Journal - Thursday 1 June 1905

BOTANICAL WALK AT LYNTON.

Starting from Lynton Railway Station... trees and shrubs of french-hails (*Pyrus latifolia*) in flower-bud,

North Devon Journal - Thursday 31 August 1905

PUBLIC BOTANICAL WALK

...the seven parishes of Southmolton, Geogenympton, Queensnympton, Marian-sleigh, Romansleigh, Chulmleigh, and Kingsnympton,... The following are a few of the interesting plants met with:—Sundew (*Drosera rotundifolia*), long-stalked cranes-bill (*Geranium columbinum*), black alder (*Rhamnus Frangula*), oval-leaved service-tree (*Pyrus latifolia*),

North Devon Journal - Thursday 17 May 1906

PUBLIC BOTANICAL WALK

...in East Buckland, celandine or kill-wart (*Chelidonium majus*), wild apple (*Pyrus Malus*, var. *mitis*), French nails (*Pyrus latifolia*), arden-gate or London Pride (*Saxifraga umbrosa*, not near any house or garden),

North Devon Journal - Thursday 14 June 1906

PUBLIC BOTANICAL WALK

Last Saturday's walk was taken from Umberleigh,... French hails (*Pyrus latifolia*); many bushes were seen in the hedges, and in one case a small tree of it presented a truly fine object with numerous clusters flowers.

North Devon Journal - Thursday 30 August 1906

PUBLIC BOTANICAL WALK

Black alder or alder-buckthorn (*Rhamnus Frangula*); fairly frequent along the

Torrington and Marland Light Railway line. French hails (*Pyrus latifolia*); seen occasionally along the same line of railway.

North Devon Journal - Thursday 6 June 1907

PUBLIC BOTANICAL WALK

Last Saturday's walk was taken from Umberleigh Railway Station... Broad-leaved white-beam or French hails (*Pyrus latifolia*), remarkably frequent in this neighbourhood and apparently native.

North Devon Journal - Thursday 18 June 1908

PUBLIC BOTANICAL WALK

The route was from Torrington Station, back to the same point by way of the Town Mills, Dark Ham Woods,... *Pyrus latifolia*, French Hales;

North Devon Journal - Thursday 27 May 1909

NORTH DEVON NATURE NOTES

When lilac and horse-chestnut display their gorgeous plumes, when laburnum drops suspended tongues of flame rivalled only by the leas brilliant but equally luxuriant wistaria our native British trees seem dull and prosy by comparison, excepting, perhaps, the hawthorn, our wild cherry, the mountain ash or rowan, and the French Hail (*Pyrus latifolia*).

North Devon Journal - Thursday 12 August 1909

NORTH DEVON NATURE NOTES

"Farthest North!" where Foreland towers skyward and strides northward into Severn Sea... Above and below the path flourish wild fruit trees of French Hails (*Pyrus latifolia*), whose fruit bunches are now a rich green, surrounded with conspicuous white-backed leaves, and fine specimens of the Mountain Ash or Rowan Tree (*P. Aucuparia*), whose fruit-clusters of miniature apples are already a brilliant red.

North Devon Journal - Thursday 7 October 1909

NORTH DEVON NATURE NOTES

...through wood and field, between Chapelton and Umberleigh... In the month of fruit and floods, when barns and springs are replenished wild fruits are in their prime. Many people are content with the edible blackberry, nut, sloe, bullace and French hail.

North Devon Journal - Thursday 30 June 1910
NORTH DEVON NATURE NOTES

... on Countisbury hill, a commanding ridge rising between the sea and the lower part of the East Lyn Valley... Immediately opposite is Myrtleberry Wood, above which the treeless hilltop reaches above the thousand feet line, and along the upper part of the wood the green foliage brightened here and there with the white-felted under surface of the leaves of French Hails (*Pyrus latifolia*).

North Devon Journal - Thursday 1 September 1910

NORTH DEVON NATURE NOTES

Between breezy Bratton, that pleasantly situated sanatorium discovered by the Lynton and Barnstaple Railway, and the spot on the borders of Somerset, known as Mole's Chamber,... Here raspberry bushes flourish and bring forth abundant and fine fruit. The bushes are attractive, too, when the breeze turns over some of the tender green leaves revealing the fair white under surface, reminding one in this respect of the leathery leaves of the White Poplar in the marshes or the French Hails on the hillside.

North Devon Journal - Thursday 26 October 1916

NORTH DEVON NATURE NOTES

The spreading tree of French Hails (*Pyrus latifolia*) was the attraction and it is always well to have some definite object in view. Many a day the same tree bade the wayfarer stray along that lane, but the attractions along the valley had always hitherto prevailed. Such trees look very fair in spring when crowded with a profusion of whitish blossom, and again in summer, when the foliage—dark-green above and woolly white beneath, like those of the White Poplar (*Populus alba*)—oscillates in the breeze. In autumn the clusters of edible "apples" are turning ripe-brown and are becoming prettily speckled with whitish spots. Bunches of French Hails may soon be on sale at certain stalls in Barnstaple Market. Does any other local market countenance the

display of this quaint commodity? Another good specimen grows in the valley, and this interesting tree is frequent in the district between Barnstaple and Southmolton. One can be seen from the train on the Lynton line, as this one in the lane can be seen from the Great Western line. At Lynton you stand on Summer House Hill and look down on the wooded escarpment above Watersmeet the foliage is conspicuous and the trees seem quite at home.

North Devon Journal - Thursday 17 June 1920
NORTH DEVON NATURE NOTES. TREES IN BARNSTAPLE

The French Hails tree planted in the garden of the North Devon Athenaeum by the late Mr. T. Wainwright promises to become a good specimen of what is one of our most interesting North Devon trees.

Western Morning News - Friday 22 May 1931
NATURE JOTTING. May 21

The whitebeams are among the most handsome trees in the woods. There is just the right blend of sunshine and light breezes to ruffle their foliage into a shimmering display of shining white. The undersides of the leaves are clothed with white down. The whitebeams are also covered with clustered white flowers, and not a fairer tree is the big wood than they.

Western Morning News - Monday 22 May 1933
NATURE JOTTING. May 20

The great, cool-looking whitebeams are in bloom,

North Devon Journal - Thursday 21 December 1944

"LOCAL TREES" Address at Devonshire Association Meeting "Some Remarks on Local Trees" was the subject of a talk given by Mr. F. A. Brokenshire at the monthly meeting of the North Devon branch of The Devonshire Association, held in the Athenaeum, Barnstaple, on Saturday... The speaker drew attention to the "French Hails" (*Sorbus*) tree in the grounds of The North Devon Athenaeum, transplanted by Mr. T. Wainwright from the Watersmeet district;

Changing status of *Coincya monensis* ssp. *monensis* (Isle of Man Cabbage) on the Sefton Coast (v.c. 59, South Lancashire)

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Introduction

Coincya monensis ssp. *monensis* (Isle of Man Cabbage) is a British endemic annual or short-lived perennial of distinctive appearance associated with sandy ground near the sea in western Britain from Glamorgan to the Clyde Islands, including the Isle of Man. It is absent from Ireland (Stace, 2010). Pearman (2002) recorded this taxon as native in 34 hectads, making it Nationally Scarce, while the plant is also listed as a Species of Conservation Importance in North West England (Regional Biodiversity Steering Group, 1999). Although the vascular plant red lists for England (Stroh *et al.*, 2014) and Great Britain (Cheffings & Farrell, 2005) record its threat status as “Least Concern” (i.e. not at high risk), the latter acknowledges an international responsibility to conserve the plant. This subspecies is said to be stable or even increasing in Northwest England but is slowly declining elsewhere (Pearman, 2002).

Coincya monensis ssp. *monensis* on the Sefton Coast

C. monensis ssp. *monensis* has been known in v.c.59 (South Lancashire) since 1828 (Savidge *et al.*, 1963), the Sefton Coast sand-dune system in north Merseyside being one of its major British localities (Hipkin & Facey, 2009). It was long thought to be restricted to the Blundellsands area (Savidge *et al.*, 1963) but, in 1983, a small population of 55 plants was found in a disturbed hollow in the Birkdale frontal dunes (Smith & Hall, 1991). This increased to 168 plants in 1986, before becoming extinct in about 1993 as the habitat changed to a closed plant community dominated by *Hippophae rhamnoides* (Sea Buckthorn) (Smith, 2007). The Blundellsands habitat was progressively eliminated by housing development until, in 1989, *C. m. monensis* was restricted to a 60m-long

sandy footpath at Park Drive supporting 35 flowering individuals and a larger number of small rosettes (Smith & Hall, 1991). The only other Sefton Coast colony known during this period was on dunes west of Southport Marine Lake. Discovered by R.A. Hall and D.E. Nissenbaum in 1989, it totalled 347 plants, rising to 874 in 1997 but then declining to 281 in 2004 (Smith, 2007).

Reflecting the plant’s conservation significance here, detailed surveys of its distribution and status together with various management actions were undertaken from the early 1990s. These included translocation of young individuals from the relict colony at Park Drive, Blundellsands, about to be eliminated by development in 1992, to two ostensibly suitable duneland sites nearby. This eventually led to the establishment of two thriving populations at Hall Road, Blundellsands and Crosby Coastal Park, increasing from a combined total of 30 plants in 1994 to 1323 in 2007 (Smith, 2007) (Figs. 1; 2, p. 22).

Later monitoring showed the Southport Marine Lake population declined further to only nine plants in 2010 and none in 2012 (Smith & Lockwood, 2012). This was thought to be partly due to the fencing of the dunes by a private land-owner in February 2007 to prevent public access. As a result, bare sandy ridges and path sides previously occupied by *C. m. monensis* became overgrown by vegetation.

A further perceived threat to the plant arose in 2011, when 30,000 tonnes of sand were removed from an inner dune ridge at Crosby Coastal Park occupied by the largest of the translocated populations (Fig. 2, p. 22). The sand was used for a coast protection scheme at Hightown, about 5km to the north. As a contribution to ecological mitigation for this development, it was agreed that the Wildlife Trust for Lancashire, Greater Manchester and North

Merseyside would organise a rescue operation by volunteers, moving plants to selected dune sites elsewhere. Smith & Lockwood (2012) described the results of this operation in August 2011, during which 507 small plants were uprooted and replanted on a frontal dune ridge at Crosby, just west of the sand-extraction site, and a further 322 individuals moved to the Birkdale frontals near to its former location. Seed was also broadcast at both sites. Monitoring the receptor sites the following summer revealed 30 plants at Crosby and 124 at Birkdale, suggesting that the translocation had been successful, though mortality of transplants was high (Smith & Lockwood, 2012). Completely unexpected, however, was the discovery of over 1300 *C. m. monensis* plants on the site of the original Crosby colony, now an expanse of disturbed sandy ground, following the removal of the inner dune ridge. These had presumably arisen from seed, perhaps long-buried and exposed by the disturbance. Also surprising was the appearance of completely new colonies at Hightown, where sand from Crosby had been deposited the previous year to form two shore bunds. A total of 234 plants was associated with the southern bund, while three individuals were found on sand ridges in a restored former works compound. It was concluded that they were derived from propagules transported in the sand from Crosby (Smith & Lockwood, 2012).

The Crosby, Hightown and Birkdale sites were visited again in 2013. At Crosby, the sand-extracted inner ridge supported 1170 plants, this 12% loss from the previous year being attributed to heavy public pressure and consequent wind erosion. The transplant receptor site on the frontal ridge had 23 plants, human trampling also being a likely cause of the 41% reduction in number. At Hightown, 177 plants were found on the southern bund while the works compound sand ridges had 25. Then, a new colony of 20 plants was found adjacent to the northern bund. The overall total for Hightown of 222 plants was only 15 fewer than in 2012. Unfortunately, no plants were found at the Birkdale re-introduction site, it being concluded that the translocation in

2011 had failed, probably due to overgrowth of dense vegetation.

Finally, all the known sites for *C. m. monensis* on the Sefton Coast were monitored again in May/June 2015. At Crosby, a total of 1361 *Coincya* plants was counted on the levelled inner ridge, representing an increase of about 16% over the number in 2013. Due to almost unrestricted human trampling, the habitat here remained open and sandy with sparse vegetation and several active blow-outs. The transplant site on the Crosby frontal ridge produced a gratifying 211 *Coincya* plants compared with only 23 in 2013. The habitat here consists of mobile dune with open vegetation maintained by recreational disturbance.

These observations indicated excellent recruitment at the two Crosby sites. Overall, the population increased by 32% in two years. Even this may have been an underestimate as, in addition to many large flowering specimens, there were numerous immature rosettes which are difficult to count accurately.

Turning to Hightown, in 2015 the northern bund had 16 plants, compared with 20 two years earlier. Interestingly, all were small non-flowering rosettes, despite the fact that they were at least three years old. The habitat here is a 30° south-facing slope with about 50% cover of dense *Ammophila arenaria* (Marram). The former works compound sandridges supported 37 *Coincya* plants, most being small rosettes derived from seed produced by the original parents. The main colony associated with the southern bund comprised 81 plants. Lower totals than in 2013 for the southern bund were attributed to severe coastal erosion of this feature, much of which was washed onto the beach by storm surges, especially in the 2013/14 winter. Overall, the Hightown colonies had declined by 39%, probably mainly due to marine erosion.

The Blundellsands colony of *C. m. monensis* originated from the 1992 translocation. In May 2015, we counted 588 plants, representing a 19% increase on 493 found in 2012 (Fig. 1, p. 22). Although the habitat of fixed and semi-fixed dunes has become more overgrown in recent years, there is apparently

sufficient disturbance from pedestrians to maintain suitably open conditions for the plant, especially on track sides and the edges of small blow-outs. Most of the individuals were large flowering clumps but many small rosettes were also found, indicating that the population is reproducing successfully.

Although in the 1990s Southport Marine Lake dunes held the largest Sefton colony of *C. m. monensis*, recent observations had suggested the plant was possibly extinct here. However, during our June 2015 visit we unexpectedly discovered 22 plants, compared with only nine in 2010 and none in 2012. Almost all were mature flowering individuals. Much of the habitat is fairly densely vegetated semi-fixed dune dominated by *Ammophila arenaria*. Many of the *C. m. monensis* plants were associated either with the sides of an informal footpath along the top of the main ridge or the edges of blow-outs, both features providing the disturbed sandy ground required for seedling establishment (Hipkin & Facey, 2009). The reappearance of *C. m. monensis*, probably from seed, was thought to be due to the restoration of recreational disturbance following the deterioration of fencing erected by the land-owner in 2007. A summary of localities and dates for all known Sefton Coast colonies of *C. m. monensis* is presented in Table 1 (p. 23), while their distribution is shown in Figs 4 and 5 (p. 25).

Discussion

The status of *C. m. monensis* on the Sefton Coast has changed dramatically in the last 30 years. The 1980s saw the relict historical site at Park Drive, Blundellsands supplemented by newly discovered populations at Birkdale frontal dunes and Southport Marine Lake totaling a few hundred plants. In the 1990s, the Park Drive and Birkdale colonies became extinct due to development and scrub invasion respectively but were augmented by two translocated populations at Hall Road, Blundellsands and Crosby Coastal Park, these steadily increasing (Figs. 1; 2 (p. 22)) until the latter was destroyed in 2011 by sand-extraction for the coast protection project at Hightown. A further translocation, together with the unpre-

dictable appearance of new populations on the sand-extracted area at Crosby and new habitat at Hightown, resulted in 1908 plants being counted during an incomplete survey in 2013 with a further increase to a total of 2317 plants at all the colonies in 2015. The overall trend of increasing numbers for the Sefton Coast from the early 1980s to 2015 is shown in Fig. 3 (p. 23).

Pearman & Walker (2004) recommended that plant translocations should be used as a last resort, many having failed due to uncertainty about the requirements of the target species. They also emphasised the importance of documenting the results of such projects and suggested that scarce resources are best allocated to reintroducing native species to a native site, with habitat management probably being more cost-effective. In the case of *C. m. monensis* on the Sefton Coast, species requirements were well understood, detailed monitoring took place and translocations were eventually largely successful, although that to the Birkdale frontal dunes in 2011 seems to have failed. Smith & Lockwood (2012) suggested that using seed might be more successful than translocating small plants which suffer high mortality.

This study reinforces the finding that *C. m. monensis* requires open sandy conditions with bare patches for colonisation by seed, this being essential to maintain populations. The plant is unable to compete successfully in late successional grassland, being particularly associated with UK National Vegetation Classification communities SD6: *Ammophila arenaria* mobile dune and SD7: *Ammophila arenaria-Festuca rubra* semi-fixed dune (Hipkin & Facey, 2009; Rodwell, 2000). At some Sefton sites, including Crosby, Blundellsands and Southport, the sandy habitat is maintained by informal recreational trampling, though heavy visitor pressure can evidently also adversely impact the colonies, as can marine erosion. The plant demonstrates a remarkable ability to survive catastrophic disruption of its habitat, as seen at Crosby Coastal Park. Although the sand-extracted site currently supports a relatively open pioneer

vegetation ideal for *C. m. monensis*, the loss of topography may eventually encourage succession to a closed sward, which would not favour the plant (Hipkin & Facey 2009). At present, this is prevented by recreational pressure but understandable concern from local residents about sand-blow may lead to calls for dune stabilisation here.

The main long-term threat to *C. m. monensis* on the Sefton Coast and perhaps elsewhere is successional change to closed plant communities with tall herbaceous vegetation and scrub, this being a well-recognised conservation problem on coastal dunes throughout Western Europe (Houston, 2008). Active habitat management, including re-introduction of livestock grazing and physical remobilisation of selected dune areas (Howe *et al.*, 2012) are possible measures to reverse this trend and maintain suitable conditions for a wide range of specialist open-ground biota, including *C. m. monensis*.

Acknowledgements

Catherine Highfield kindly produced the distribution maps, while Mike Wilcox reviewed a draft manuscript.

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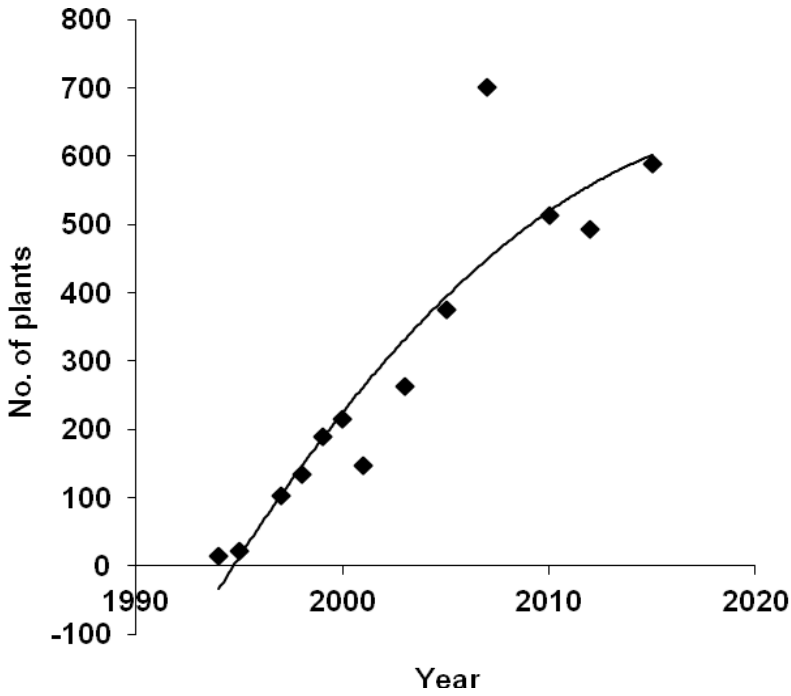


Fig. 1. Trend in counts of *C. m. monensis* plants at Hall Road, Blundellsands from 1994 to 2015

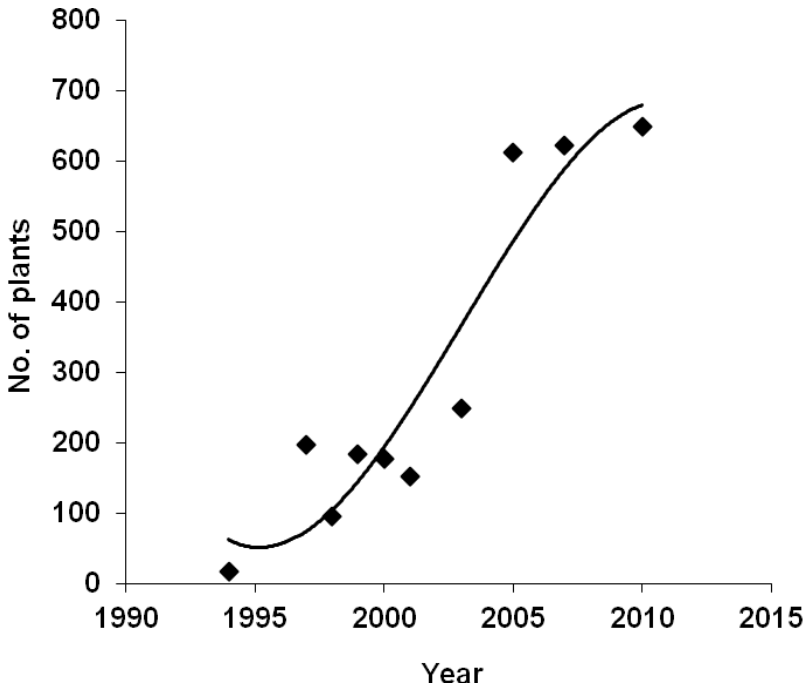


Fig. 2. Trend in counts of *C. m. monensis* plants at Crosby Coastal Park before the site was sand-extracted in 2011

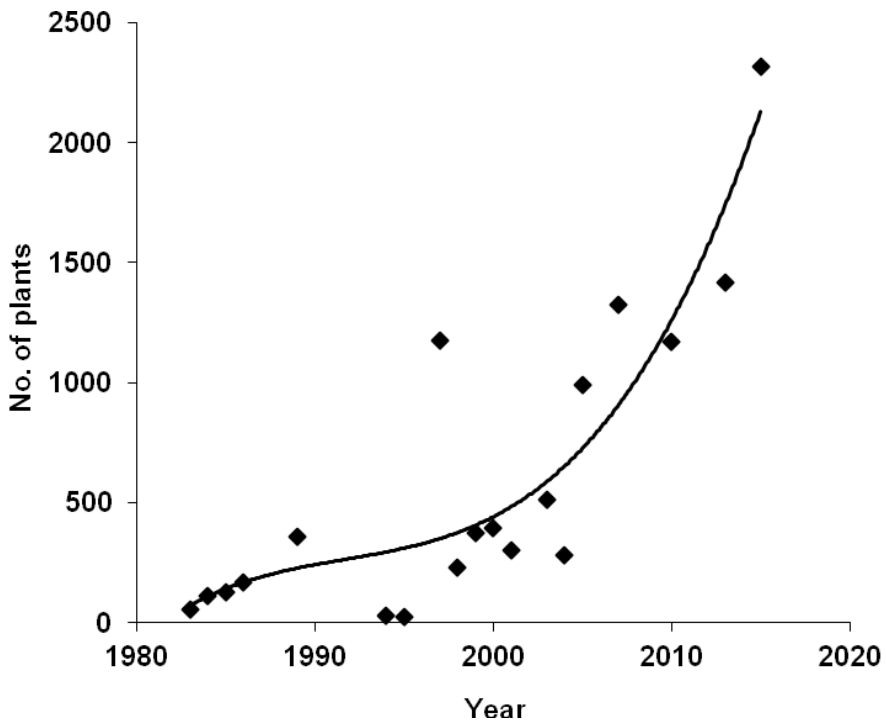


Fig. 3. Trend in counts of *C. m. monensis* plants on the Sefton Coast from 1983 to 2015. Note: counts in some years were incomplete

Table 1. Locations and dates of *C. m. monensis* colonies on the Sefton Coast. Numbers relate to locations in Figs. 4 and 5

No.	Location	Grid Reference	Dates extant
1	Southport Marine Lake dunes	SD338186	1989-2010; 2015
2	Birkdale frontal dunes	SD319160	1983-1993
3	Birkdale frontals receptor site	SD318162	2012-2013
4	Hightown north bund	SD295032	2013-current
5	Hightown south bund	SD296027	2012-current
6	Hightown sand ridges	SD297028	2012-current
7	Blundellsands Hall Road	SD299007	1992-current
8	Blundellsands Park Drive	SJ302999	1946 or earlier-1992
9	Crosby Coastal Park outer ridge	SJ309983	2011-current
10	Crosby Coastal Park inner ridge	SJ309984	1992-2011; 2012-current

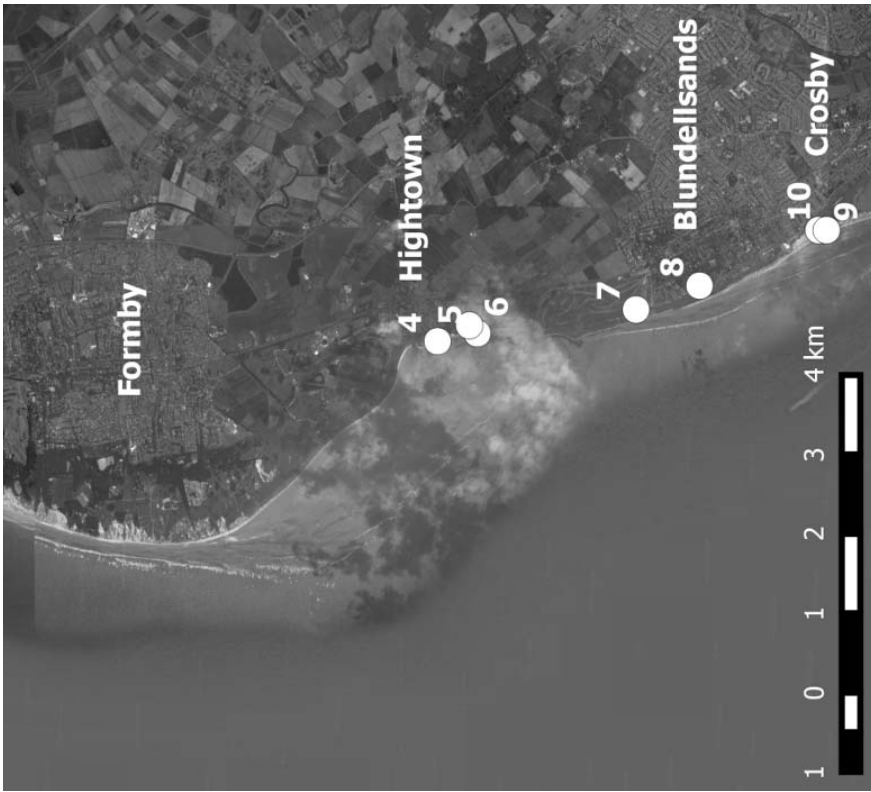


Fig. 4. Distribution of northern *Coincya monensis* ssp. *monensis* colonies on the Sefton Coast



Fig. 5. Distribution of southern *Coincya monensis* ssp. *monensis* colonies on the Sefton Coast

Hunting plants – additional notes

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Since the publication of *Hunting Plants* (Greenwood, 2015) additional information has become available.

It is always dangerous to commit to publishing a first record as someone somewhere is likely to find an earlier one. So the publication of the first record of a voucher specimen for any plant in North Lancashire (*Dryopteris filix-mas* from Yealand by James Jenkinson in 1774) has been superseded by one of over 100 years earlier. When John Ray passed through Pilling on his 1660 tour he recorded a few plants from the area including *Eriophorum vaginatum*. Dr C.D. Preston drew my attention to a paper by Mary Welch (1972) citing a specimen of *Eriophorum vaginatum* from Pilling Moss in Francis Willoughby's herbarium dated to the 1660 tour on which it is believed he accompanied Ray. The voucher is held in the Manuscripts and Special Collections at the University of Nottingham.

Amongst the botanists about which little was known was the Congregational Minister at Newton-in-Bowland, Rev. William Crombie. His help was acknowledged by Joseph Pickard (1902) although only a few records were specifically attributed to him. My attention was drawn to an account of his funeral in the *Burnley Express* for 24 December 1912. This led to the confirmation of his burial at the Quaker burial ground at Newton-in-Bowland. He died on 16 December 1912 in Burnley and was born at Slains, Aberdeenshire on 12 April 1841.

Even less was known about N. Buckley (erroneously cited as J on p. 33) who wrote an article on the plants of Lytham (Buckley, 1842). This gave his address as Fitzroy Square, London. Unfortunately no one of this name was traced to this address. The article was probably written when he was staying with his family at Bispham in 1841 (1841 census). However in preparing a review of *Hunting Plants* Dr David Allen (2016) suggested that N. Buckley was Nathaniel Buckley baptised in Rochdale on 25 February 1821, the son of John Buckley a surgeon and apothecary. Nathaniel followed his father as a general practitioner in Rochdale

having gained an MD at St Andrews University and becoming a member of the Royal College of Surgeons in 1842. He was also elected a Fellow of the Linnean Society of London in 1843 and of the Botanical Society of Edinburgh the same year. He died in Rochdale on 13 January 1871. Assuming he is the Nathaniel Buckley of Fitzroy Square it is surprising he does not appear to have made any further botanical contributions although he assisted in running botany courses at Manchester Royal Infirmary. A Richard Wilson Buckley (1822 – 1875), a London solicitor and member of the Botanical Society of London (Allen, 1986), may have been a relative but the link has not been proven.

Acknowledgements

I am grateful to Dr Chris Preston, Dr David Allen, Geoff Morries and Ken Spencer for drawing my attention to sources and to various librarians and archivists for checking society membership details and providing copies of publications and papers.

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- Details of life events have been taken from parish registers and the 1841 census via on-line facilities provided by FindmyPast.
- Hunting Plants* is available from the author price £12 + 1.75 p & p.

Chlorophyll-free variety of *Corallorhiza trifida* (Coralroot Orchid) in Berwickshire (v.c.81)

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Robin Cowe reported 60 spikes of *Corallorhiza trifida* on 18 June 2016 from Long Moss, Coldingham Common NT8568, a valley mire cut-over for peat and colonised by birch and willow carr. One plant with four flowering spikes differed from the rest in being almost white, both the flowers and the stem. A photo was submitted to Professor Richard Bateman who replied: ‘Such plants are very rare but not unknown on the Continent. I don’t believe I have seen a British plant of this kind before. Such plants are really rather interesting. This one isn’t strictly white, as you can see that the reddish anthocyanin spots have formed

normally on the labellum. Some ‘normal’ *Corallorhizas* also bear red anthocyanins on the stem, though many do not. What is actually missing is the yellowish-green chlorophyll throughout the plant. Although folk tend to divide orchids into green autotrophs and translucent mycoheterotrophs, ‘normal’ *Corallorhizas* usually contain some chlorophyll that continues to perform some, though not all, functions of chlorophyll in autotrophs. This plant has evidently abandoned photosynthesis altogether, and appears none the worse for it – unsurprising, as the normal plants gain little from possessing chlorophyll’.

Myosotis stolonifera (Pale Forget-me-not) on Exmoor, Somerset (v.c.5)

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While visiting Somerset as part of a study into a hybrid grass, on the 16th July 2016 I managed to get to part of Exmoor (Dunkery Hill) for a brief visit to see Fir Clubmoss (*Huperzia selago*) which is similar to subsp. *arctica* and with others is part of a study by F. Rumsey at NHM. The latter was told to me by Graham Lavender (GL) a local botanist with whom I have email correspondence.

When I had finished at the site of the Fir Clubmoss I made my way back to the road and came across two small patches of flush. These seem to be spring-like seepages from the hillside. They were mainly dominated by two taxa; *Montia fontana* s.l. (Blinks) and *Myosotis stolonifera* (Pale Forget-me-not) (see photo inside Back Cover). Being from the north this was a surprise as Pale Forget-me-not is a more northern species.

I am very familiar with *Myosotis stolonifera* and its hybrid with *M. secunda* (Creeping Forget-me-not) having searched successfully for it and its hybrid *M. ×bollandica* in v.cc.63-65. I informed GL of this find and also reported it to, and sent a small bit with photographs, to David Welch (DW), the BSBI referee for *Myosotis*. He was very pleased to see this and it gives added confirmation to the record.

Graham then started to look at other flushes and sent material to DW. Some of the material sent was inconclusive but suggested that the hybrid *M. ×bollandica* might be present in this area. A detailed study will be required to establish whether more *Myosotis stolonifera* is overlooked in the area and whether the presence of its hybrid with *Myosotis secunda* can be established.



Orchis militaris at a gravel pit site, Herts. (v.c.20), 24 May. Photo T. James © 2016 (see p. 31)



Sedum stoloniferum (*Phedimus stoloniferus*) general habit



Sedum stoloniferum (*Phedimus stoloniferus*) detail of flowers

Both *Sedum* photos taken at Cheddar (v.c.6) on 17th July by M. Wilcox © 2016 (see p. 29)



Nonea lutea at Alhampton (v.c.6). Photo Helena Crouch © 2015 (see p. 27)



Orchis militaris showing developed seed-pods.
Gravel pit site, Herts. (v.c.20) 19 June.
Photo I. Carle © 2016 (see p. 31)



A runner-up photo in the Autumn category by
Sarah Lambert – *Galeopsis tetrahit* flowers,
Twyford Wood, (v.c.53). Photo © 2015 (see p. 3)



Monstrous growth of *Scrophularia nodosa* (Common Figwort).
Photo T.J.J. McCloughlin © 2016 (see p. 9)

Adventives & Aliens News, 9

MATTHEW BERRY (Compiler), *Flat 2, 11 Southfields Road, Eastbourne, East Sussex, BN21 1BU*;
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In response to my speculations regarding the origins of recent *Lepidium virginicum* (Least Pepperwort) records, I received a very interesting letter (dated 2nd February 2016) from BSBI member and Kent-based botanist Brian Woodhams. I quote verbatim from the relevant passage: “Over the last two years my wife has been buying flowers that have included this plant as added green contrast material with very well advanced seed heads. As I have been putting the dead material on my compost heap, I now have them growing in my garden.” Other non-native species dispersed in this way might include *Ammi majus* (Bullwort) and *Allium nigrum* (Broad-leaved Onion) (see v.c.14).

Please keep sending me your records of *Euphorbia oblongata* (Balkan Spurge), *Portulaca oleracea* (Common Purslane) and *Gnaphalium luteoalbum* (Jersey Cudweed), not forgetting an earlier request for *Hypericum hircinum* (Stinking Tutsan)! Such records are especially welcome when they come with fascinating historical background – see David McNeil’s record of *Gnaphalium luteoalbum* (v.c.H39); or relate to what seems to be an unusual habitat for the species in question – see Phil Budd’s record of *Portulaca oleracea* (v.c.11). I would also like to receive any recent records for *Asphodelus fistulosus* (Hollow-leaved Asphodel) (see v.c.14) members might have in their possession, with a view to writing up this species in greater detail at a later date.

As usual I offer my sincerest thanks to all contributors.

V.c.6 (N. Somerset)

Nonea lutea (Yellow Nonea). Alhampton (ST62693488), 7/6/2015, H. & J. Crouch: one sprawling plant on pavement at base of stone wall. (See Colour Section, Plate 3.)

V.c.9 (Dorset)

Portulaca oleracea (Common Purslane). Woolsbridge (site confidential), 23/8/2014,

P. Budd (conf. E.J. Clement): 50 plants in manured field with *Urtica* (nettle) and *Rumex* (dock) species, found on private land during an ecological survey for insects.

V.c.10 (Isle of Wight)

Cotoneaster vestitus (W.W.Sm.) Flinck & Hylmo (Hairy Cotoneaster). Brading (SZ606874), 9/2015, P. Stanley (det. J. Fryer): bird-sown on wall top, Quay Lane.

Cynoglossum amabile (Chinese Hound’s tongue). Northwood (SZ475936), 10/2015, P. Stanley: junction of Pallance Lane.

V.c.13 (West Sussex)

Rubus parviflorus (Thimbleberry). Linchmere (SU83Q), 2015, M. Shaw: established both sides of shady lane, south of church; Forge Wood/Copthorne (TQ23Z), 2015, M.S haw: large clump over four by three metres. This species might be increasing (Stace, 2010: 244).

Scutellaria altissima (Somerset Skullcap). Plaistow (TQ0074031014), M. Shaw & D. Nelson (det. E.J. Clement): one plant in a fenced enclosure next to footpath, possibly self-sown from nearby garden. The very closely related *S. columnae* All. (Large Skullcap) might never have occurred in Britain or Ireland, but could be overlooked. It differs from *S. altissima* in the following ways:

(1) *S. altissima* - leaves glabrous to sparsely appressed hairy, more or less shiny; corollas purple-blue above, white below; inflorescence sparsely glandular hairy to moderately so.

(2) *S. columnae* - leaves appressed hairy to densely so, more or less dull; corollas uniformly purple-violet; inflorescence densely glandular hairy.

V.c.14 (East Sussex)

Reseda phyteuma (Corn Mignonette). Peacehaven (TQ419016), 10/10/2003, A. Knapp: three plants, east side of north-to-south

footpath; Peacehaven (TQ418015), 10/10/2003, A. Knapp: in maize crop north of east-to-west footpath. Last recorded at this site in 2011 (see *BSBI News*, **99**: 50-51 and Colour Section, Plate 1 in the same issue). Besides having flowers that are not odorous and the other characters distinguishing it from *R. odorata* (Garden Mignonette) given in Stace (2010), some references offer the following additional differences which might be of use in ‘border-line’ cases:

(1) *Reseda odorata* – petals yellow-green, divided into segments that widen distally; anthers borne on filaments that are parallel-sided.

(2) *Reseda phyteuma* – petals white, divided into linear segments; anthers borne on filaments that are subspathulate.

Physalis peruviana (Cape Gooseberry). Mount Pleasant/Lewes (TQ4148710205), 29/7/2014, P. Harmes: three plants in gutter, opposite Lewes Arms pub.

Asphodelus fistulosus (Hollow-leaved Asphodel). Denton (TQ4584602140), 30/4/2016, J. Reynolds (det. M. Berry): in profusion along pavement crack below wall, Mount Pleasant. First noticed by Janice in 2015, after it had gone over. From bird seed (it has been known as a grain alien in the past), or plant container? A Mediterranean species which could become more frequent (Stace, 2010: 895).

Puschkinia scilloides Adams (Striped Squill). Brighton (TQ3367905612), 31/3/2006, A. Spiers: two clumps on downland by racecourse, possibly escaped from allotment nearby. The fused tepals (for about a third of their length) and united stamens differentiate it from the superficially rather similar *Scilla puschkinoides* Regel (Russian Squill).

Allium nigrum (Broad-leaved Onion). Eastbourne Town Centre (TV61399980), 1/3/2016, M. Berry: several plants in a clump on waste ground at top of railway embankment, Whitley Road. The plants were in full flower by late May. The dead, desiccated inflorescences were first noted in October 2015. Contrast this with *Allium neapolitanum* (Neapolitan Garlic), the inflorescences of which do not persist much past flowering, at least on the evidence of the populations around Eastbourne. Sometimes sold as *Allium multibulbosum* (and/or *A. cyrilli*?)

V.c.95 (Moray)

Guizotia scabra ssp. *schimperi* (Sticky Niger). North Alves (NJ121631), 28/10/2015, I. Green (conf. M. Berry): two non-flowering plants below bird table. See *Adventives & Aliens News* 6.

V.c.H39 (Co Antrim)

Gnaphalium luteoalbum (Jersey Cudweed). Stranmillis (J336720), 11/2014, D. McNeill: in cracks between recently laid brick pavements. In 2015 David observed it in smaller quantity outside several terraced properties nearby at which re-surfacing had been carried out. He also notes that this species was recorded for the greater Belfast area in the 19th century, for Lambeg in *Flora of Ulster* (1864) and from Malone and Belfast in *Cybele Hibernica* (1898), the records being treated rather dismissively by the leading local botanists of the time!

References:

- KNAPP, A. & SPIERS, A. (2005). ‘*Reseda phyteuma* in East Sussex.’ *BSBI News*, **99**: 50-51.
- STACE, C.A. (2010). *New flora of the British Isles*. 3rd ed. Cambridge University Press, Cambridge.

***Sedum stoloniferum* (*Phedimus stoloniferus*) (Lesser Caucasian-stonecrop) in Somerset**

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(Michaelpw22@hotmail.com)

While in Somerset recently (17th July 2016) to follow up on some research into a hybrid grass, I visited Cheddar Gorge (v.c.6) to look at some of the whitebeams (*Sorbus taxa*) and other plants there. Going up one of the woodland tracks I spotted a *Sedum* (stonecrop), which was sort of unfamiliar to me. I am used to *Sedum spurium* (Caucasian-stonecrop) and had always wanted to come across *Sedum stoloniferum* (Lesser Caucasian-stonecrop). It was my lucky day, as I knew this was it, even though I had not seen it before in the wild.

These stonecrops are now treated in the genus *Phedimus* and so these two species are known by the names *Phedimus spurium* (*S. spurium*) and *P. stoloniferus* (*S. stoloniferum*). It may be likely that this genus is adopted in the next Flora, as it is one of the many splits in Crassulaceae.

I mentioned this plant from Somerset to the referee and sent pictures. He was very pleased to see it, saying that he had been unable to grow it in his garden and that it was an excellent record. I have a small bit which appears

to be doing well in the pot at home, so will send him a piece to see if it fares any better. There are several small patches of this stonecrop along the edge of the track.

Phedimus stoloniferus is a much neater, smaller-leaved species than *P. spurium* (see Colour Section Plate 2) and more or less with a petiole to the leaves. Stace (2010) states that the former is much rarer, being found in southern Britain, West Perth and the Channel Islands. It has been said that some records could be errors for *P. spurium*. It would be useful if you could check any records for your area and, if you can, take a photo and send it to the referee for confirmation. It would help to establish its current distribution as we go towards Atlas 2020.

Acknowledgement:

Thanks go to R. Stephenson for general confirmation and being interested in the plant.

Reference:

STACE, C.A. (2010). *New flora of the British Isles*. 3rd ed. Cambridge University Press, Cambridge.

***Spergularia bocconeii* (Scheele) Graebner (Greek Sea-spurrey), new to Scotland**

TIM RICH, 57 Aberdulais Road, Cardiff, CF14 2PH; (tim_rich@sky.com)

On 8th September 2014, whilst waiting for the Arran ferry, I found *Spergularia bocconeii* (Greek Sea-spurrey), growing scattered around the edges of the car park at Ardrossan Harbour, south of the ferry terminal (NS223420) (v.c.75 Ayrshire). The late time of year meant that the plants were small, dried up and difficult to determine. A specimen was collected and sent to the Royal Botanic Gardens Edinburgh for confirmation but no response was obtained.

On 3rd June 2016, Mark Hows kindly collected fresh material for me, which showed the characters more clearly – glandular plants with one-sided inflorescences and small flowers, white petals with pink bases, and

typically five stamens. Full identification features are given in the *Plant Crib* account (<http://bsbi.org/download/2843>). The voucher material has been deposited in E.

This species is new to Scotland. It is spreading, associated with small harbours, yachting marinas and car parks (e.g. Dorset in 2013 and in four sites in Ireland since 2014). I suspect it will be found much more widely if looked for in trampled places around harbours and marinas – the small, scruffy plants are often covered with dust and soil trapped by the glandular hairs and are easily walked past as *S. rubra*.

The *Allium subhirsutum* / *A. trifoliatum* pair re-visited

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(m.berry15100@btinternet.com)

This note is intended as a follow-up to some records and comments featured in *Adventives & Aliens News* concerning the *Allium subhirsutum* / *A. trifoliatum* pair, in part to present what I hope is new information, but equally to give the information presented previously greater prominence.

Since writing those comments (see *Adventives & Aliens News* 2 and 4), I have recorded *Allium trifoliatum* Cyrillo (Hirsute Garlic) in three more sites around Eastbourne. The details, for those who might be interested, are as follows: Eastbourne Seaside (TQ6271700868, TQ6271900874), 1/4/2016: on banks both sides of Fort Lane; Eastbourne Meads (TV6002398355), 24/3/2016: on earth spoil by golf course; Eastbourne Sovereign Harbour (TQ6437802646), 3/4/2016: one plant on bank, north side of Pacific Drive. In contrast I have only found *Allium subhirsutum* (Hairy Garlic) at one site locally: Bexhill (TQ7327808427), 24/6/2013: on rough ground, Heatherdune Road.

This means that, as far as my own recording history is concerned, the ratio of *A. subhirsutum* to *A. trifoliatum* records for the Eastbourne / Bexhill area now stands at 1:5. This is unexpected, given that *A. subhirsutum* is much the better known species. I wonder in how many other vice-counties this state of affairs might obtain. The differences between the two are summarised again below, the couplet integrating readily into key C on p. 899 of Stace (2010) :

Allium subhirsutum – tepals white; pedicels 28–35mm (3–3.5 × length of tepals); leaves ciliate.
Allium trifoliatum – tepals with pink vein (most conspicuous on abaxial surface), or pale pink-suffused; pedicels 15–21(–30)mm (1.5–2.1(3) × length of tepals); leaves ciliate to sparsely so.

These differences are more or less the ones given in Davies (1992). Having access to only one certain *A. subhirsutum* population, I cannot claim to have ‘road-tested’ these characters, much less to have identified new ones. However, the only character that did not segregate in accordance with the above couplet was that of leaf hairiness. My personal observa-

tions would be better summed up as “leaves of both species equally hairy with, if anything, those of *A. subhirsutum* the less hairy.” Perhaps leaf hairiness is variable in both species and this character less reliable. On the other hand, the possibility of the Bexhill *A. subhirsutum* population being atypical cannot be excluded at this stage. I have encountered only one instance of overlap for the second character in the above couplet, a plant of *A. trifoliatum* growing in significant shade, which had some pedicels that were unusually long (30mm). I could find no significant differences for the following characters: tepal length; leaf width; leaf odour when bruised or torn; degree of sheathing by uppermost stem leaf; flowering time; stem cross-section. I do get the impression that *A. subhirsutum* is the more robust and imposing plant (or has the potential to be) and that *A. trifoliatum* can be decidedly weedy- and I would surmise that the *A. subhirsutum* site is no more eutrophic than most of the *A. trifoliatum* ones. For the freshly opened flowers I examined, I found that *A. subhirsutum* had undehisced anthers that were reddish, soon dehiscent, with pollen detectable; while *A. trifoliatum* had undehisced anthers that were yellow, and which seemed to shrivel without detectable pollen.

I would be very interested to receive members’ feedback for what might be described as the *Allium subhirsutum* ‘aggregate’, in the form of records, specimens and /or observations.

Acknowledgement:

I would like to thank Eric Clement for casting a critical eye over these notes and for his support and encouragement generally.

References:

- DAVIES, D. (1992). *Alliums: the ornamental onions*. Hardy Plant Society and B.T.Batsford, London.
STACE, C.A. (2010). *New flora of the British Isles*. 3rd ed. Cambridge University Press, Cambridge.

Military Orchid (*Orchis militaris*) as an adventive weed?

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IAN DENHOLM, University of Hertfordshire, Hatfield, Herts., AL10 9AB

A report by Ian Carle of an unusual orchid found by him on 22nd May 2016 at a former gravel pit site in south Hertfordshire (v.c.20) was accompanied by a photograph of what was undoubtedly *Orchis militaris* (Military Orchid) (Colour Section Plate 1). Given the significance of this record, a visit to the site was immediately organised by myself and Ian Denholm, as orchid referee for the BSBI, not just to confirm the occurrence but to take stock of its possible origin.

The general locality (which is on private land and cannot currently be disclosed) is a fairly recently-excavated gravel pit complex with large pools bordered by banks of over-burden material, plus extensive areas of developing scrub, rough grass and ruderal habitats. Most of the site is evidently not strongly calcareous, being on periglacial gravels, although there are some indications of calcium in the soil and ground-water.

The solitary plant of *O. militaris* was at the foot of a steep, west-facing bank of mixed overburden interspersed with rubble beside a haulage track in moderately open, ruderal vegetation over friable soil. The plant was, in fact, growing between chunks of concrete rubble! A list of associated plant species within five metres included a few evident adventives as expected in such a habitat, such as *Buddleja davidii* (Buddleia), *Aquilegia vulgaris* (Columbine) and *Cotoneaster horizontalis* (Wall Cotoneaster). Otherwise, it was largely a ruderal flora, becoming dominated by *Arrhenatherum elatius* (False-oat), *Poa trivialis* (Rough Meadow-grass), *Holcus lanatus* (Yorkshire-fog) and *Trifolium repens* (White Clover), but retaining some bare areas with casual species. *Daucus carota* (Wild Carrot), *Lotus corniculatus* (Common Bird's-foot-trefoil), *Primula veris* (Cowslip), *Trifolium campestre* (Hop Trefoil) and *Vicia sativa* (probably ssp. *nigra*) (Common Vetch) were possible indicators of more calcareous conditions, alongside *Salvia verbenaca* (Wild Clary), which has recently turned up in a few similar localities away from its more usual chalk environment. *Trifolium*

medium (Zigzag Clover) and *Myosotis discolor* (Changing Forget-me-not) were two other less common species present.

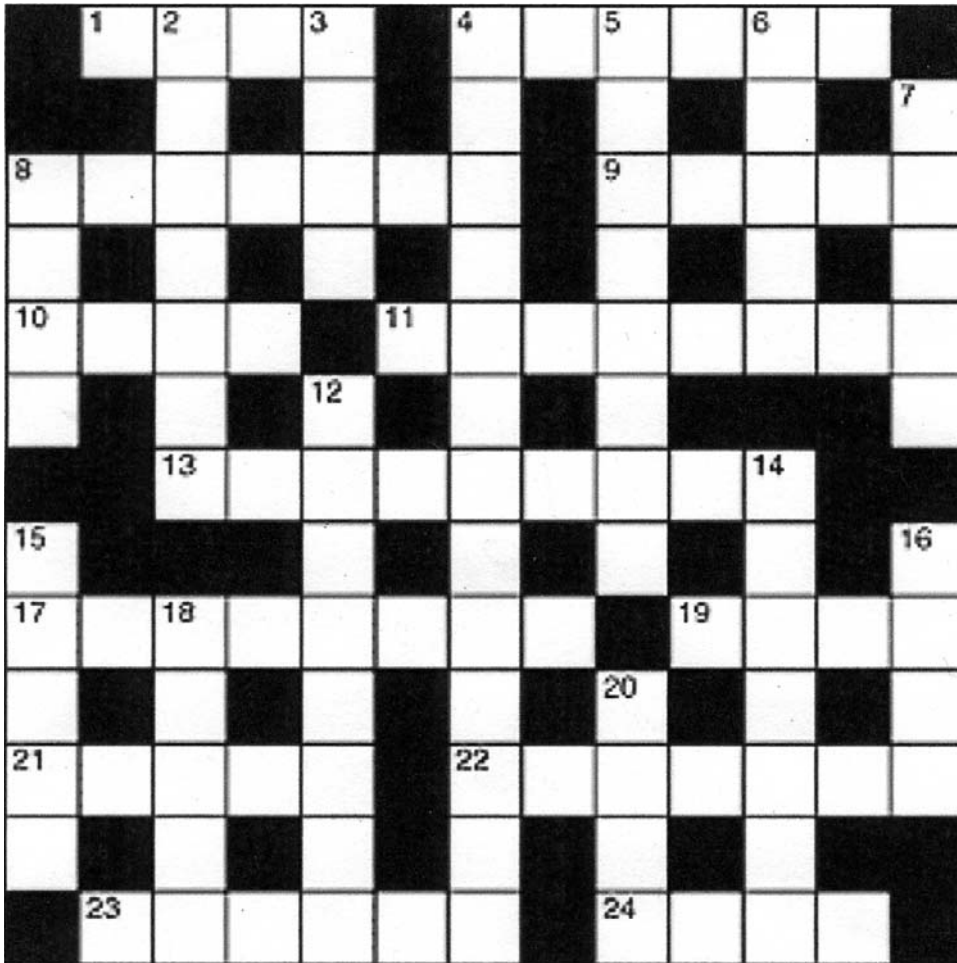
Given the private nature of the locality, the otherwise fairly unremarkable flora characteristic of regenerating communities on disturbed, gravelly soils, and the fact that the orchid was growing out of embedded concrete rubble at the foot of an otherwise undisturbed bank, it is hard to conceive of the plant being deliberately introduced. This, therefore, begs the question of how it got there. Airborne passage of seed from native colonies in Bucks or Suffolk (c.45 and 70 miles away, respectively) seems unlikely but cannot be ruled out. The vegetation did remind one of us (TJ) of a site in southern France where he had seen many hundreds of plants growing under cultivated vines in disturbed ruderal ground in the 1980s, raising a prospect that seed had arrived naturally and had found just the right soil/fungal conditions to germinate and develop in what otherwise could be seen as the 'wrong' habitat.

IC has kept an eye on the specimen locally, and on 19th June took a photograph (see Colour Section Plate 3) of the withered flower-spike, which clearly shows at least two or three maturing seed-pods. This implies either a level of self-compatibility or that somewhere in the same area there was at least one other specimen and that an insect pollinator was able to find both of them! It will be interesting to monitor events next year.

Footnote: it is worth noting that *Orchis militaris* was at one time a famous native plant in Hertfordshire, being 'quite common' at Tring Park in the west of the County in the middle of the 19th century. The craze for collecting rare orchids, however, soon led to it being exterminated there. It was last seen in the County on a rough chalky bank by a wood near Rickmansworth, in south-west Herts. in 1902, a site since lost to rank scrub. Ironically, next-door to that site (but in v.c.21 Middx.) is a rather extensive, old chalk pit site, not entirely unlike its current Herts locality.

BOTANICAL CROSSWORD 29

by CRUCIADA



ACROSS

1. Seaweed put right on stove (4)
4. It's amusing to take first early pear (6)
8. Un-manic waywardness like a (neutered) dog (7)
9. Nothing in France can hide first plant to reach maturity (5)
10. It's a kind of holly, my friend (4)
11. IRA clone new sort of honeysuckle (8)
13. *Ficaria* to flog and eat reported (9)
17. Plum is to be substituted for whisk fern (8)
19. *Sherardii*, for example, may soar out of control (4)
21. Mon Oncle laying earth on Scottish *Solanum* (5)
22. *Prunus* that scores highly in two games (7)
23. Artist's final piece of equipment made from *Dipsacus* (6)
24. Beginners raise a partially edible *Brassica* (4)

DOWN

2. Small carnivore put in charge due to inheritance (7)
3. Order or class, perhaps, considered thick and coarse (4)
4. Feature of Apiaceae may intensify with 'umble pie (8,5)
5. Ramping fumitory due to cocktail I down (8)
6. Police heard in thicket (5)
7. Showing root of e.g. carrot freely available (2,3)
8. Fancy message conveyed by cascade of flowers (4)
12. Flowers with specific habit of making embarrassing mistakes (8)
14. Dead fish swallowed old orange peel, for instance (7)
15. Sudden rush of hydrogen being lost from *Arum*'s bract (5)
16. Force eight *Myrica* (4)
18. *Cirsium* has heads chopped off, making way for Mexican fibre plant (5)
20. We desert bloom – yeast bloom (4)

NEWS OF MEMBERS

Mark Spencer

DAVID PEARMAN, *'Algiers', Feock, Truro, Cornwall, TR3 6RA*; (dpearman4@aol.com)

I was very sorry indeed to hear that Mark Spencer has left the British Herbarium at the Natural History Museum. For over twelve years he has been a super contact, help and enthusiast. Dealing with him has been like a breath of fresh air and an immense help in all

my dealings, both on 'official' BSBI matters and on my private projects. It will be a very, very hard act to follow, and we all wish him well in his next projects. We look forward to working with his successor.

REQUESTS

Forthcoming book – *A new botanical teratology*

THOMAS MCCLOUGHLIN, *9 Wendy Walsh Close, Lusk Village, Lusk, Co. Dublin, K45 ET88, Éire*; or: *31B Fintona Road, Corby Hill, Terrew, Clogher, Co. Tyrone, BT79 0LD, Northern Ireland*; (mccloughlin@mac.com)

A book: *A new botanical teratology* is proposed to be published (expected 2020).

I would like to ask fellow members for records including GPS or grid ref. and photo (if possible) for colour and structural variants (mutants, reversions, sports, peloric forms, *flore plenae, forma alba, etc.*) in the British/

Irish flora (Dicotyledonidae only). All records will be acknowledged according to details provided in the forthcoming book.

Contact details to send information are as above. Please quote the subject: 'New Teratology' in any communication.

Diary for 2016

CHRIS METHERELL, *Woodsia House, Main Street, Felton, Northumberland, NE65 9PT*; (01670-783401; chris@metherell.org.uk)

Date	Committee, etc.	Location
2016		
Tuesday 11 October	Records and Research	London
Thursday 13 October	Publications	London
Wednesday 26 October	Training & Education	Shrewsbury
Saturday 29 October	Committee for Wales	Newtown
Wednesday 2 November	Council	London
Saturday 5 November (p)	Scottish AGM	Battleby, Perth
Wednesday 23 November	Board of Trustees	London
Saturday 26 November	BSBI AGM/AEM	Wallingford
2017		
Wednesday 1 February (p)	Training & Education	Tbc
(p = provisional dates)		

RECORDERS AND RECORDING

Panel of Referees and Specialists

JEREMY ISON, 40 Willeys Avenue, Exeter, Devon, EX2 8ES; (Tel.: 01392 272600;
Jeremy_ison@blueyonder.co.uk)

No changes to report this time.

Panel of Vice-county Recorders

PETER STROH, c/o Cambridge University Botanic Gardens, 1 Brookside, Cambridge CB2 1JE;
(peter.stroh@bsbi.org)

After a distinguished 34 years **Chris Boon** has decided to stand down as VCR for **Bedfordshire** (v.c.30). In the early days of his tenure, and whilst still working as a physicist for the National Institute of Agricultural Engineering, Chris was fortunate to be mentored by John and Chris Dony, to whom his *Flora of Bedfordshire*, published in 2011, is dedicated. Twenty-five years in the making and clearly a labour of love, the *Flora* is a mine of information that has relevance and interest to the reader far beyond the county boundary. Not content with one stunning book, in 2013 Chris teamed up with Richard Revels, whose beautiful photos adorned the *Flora*, Graham Bellamy, and a host of local volunteers to begin two years of intensive fieldwork that led to the publication of the *Wild Orchids of Bedfordshire*. Peter Marren put it best when he said in his *British Wildlife* review that the book was “a superb production, beautifully printed, perfectly pitched, well presented and thoroughly reliable. This is English local botany at its very best”. Chris has made and continues to make a tremendous contribution to the life of the Society, and I know that the local Flora Group, which he was instrumental in forming in the late 1990s, and **John Wakerley**, who now takes up the reins as VCR for the county (but see below), will continue to draw on his considerable field skills and excellent company, as Chris once did with the Donys. We wish him a very happy and well deserved rest.

Bert Reid is stepping down from VCR duties after being joint recorder for **Worcestershire** (v.c.37) for the past seven years. Bert was the creator and custodian of the Worcestershire database for many years, and in that role a major contributor to the *New Atlas* and to the *Flora of*

Worcestershire. He also maintained for many years the *Taraxacum* database. **Paul Reade** (pl.reade@gmail.com) will be taking over responsibilities for all correspondence, and **John Day** will continue to act as the main scientific advisor.

Returning briefly to **Bedfordshire**, **John Wakerley** would appreciate assistance with the Atlas project and, in particular, but not exclusively, database management. If you are interested in speaking with John about being involved with recording in the county, please do get in touch with him at vetjw@btinternet.com. In **Dorset** (v.c.9) **Robin Walls** (robin@rmwalls.plus.com) would also welcome assistance with Atlas recording, particularly in the north of the county. There are also still vacancies for VCRs in the following vice-counties: **East Gloucestershire** (v.c.33), **Lanarkshire** (v.c.77), **Berwickshire** (v.c.81), **Caithness** (v.c.109), **Shetland** (v.c.112), **Mid Cork** (v.c.H4), **East Cork** (v.c.H5) and **County Longford** (v.c.H24). Please don't be put off by thinking you are not 'up to standard' – modesty is a common trait in botanists! Patience, enthusiasm, time and knowing your limitations are just as important as being a fully formed, top-notch plant hunter. If you're interested in becoming a Recorder for any of the above counties, please do contact me to have a chat about what is involved.

And finally, **Steve Parker**, joint VCR for **South Somerset**, has recently changed his contact details. You can now reach him at stephenjparker1710@gmail.com.

As ever, thank you to all VCRs, past and present, for your dedication, help and expertise.

Where and what do we record?

KEVIN WALKER, *Suite 14, Bridge House, 1-2 Station Road, Harrogate, HG1 1SS;*
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DAVID PEARMAN, *'Algiers', Feock, Truro, Cornwall, TR3 6RA;* (dpearman4@aol.com)

PETER STROH, *c/o Cambridge University Botanic Garden, 1 Brookside, Cambridge, CB2 1JE;*
(peter.stroh@bsbi.org)

The text below was commissioned by the Recording and Research Committee two years ago and has been on the Atlas 2020 webpage since that date (BSBI.org/Atlas-2020/guidance). In case some members have missed this we take the opportunity of reproducing a slightly-updated version here. We would say that in our collective experience it has made recording both much more varied and much more fun.

For many years we have not been consistent in the way we record plants in man-made habitats or that have been planted in the countryside. Before the 1990s alien plants were very erratically recorded, especially those that had been planted. Nowadays most recorders record aliens, but with wide divergences when near to habitations. Some people record up to x distance away, some up to the wall or fence, some on it, and one or two even as far over as they can reach! There are even wider variations in attitudes to shrubs and trees deemed to have been planted. We are not recording consistently what is out there in the countryside. But the British and Irish flora is a dynamic and changing flora, and the compass of our recording must reflect that. We would like to set out guidelines (please note that these are guidelines, not a dictat) for best practice. We should aim to record:

The countryside

Everything up to the boundary of gardens (this would include parks and estates, public or private, and cemeteries, although the boundaries will often be obscure). This should include anything planted outside these, including street trees. It should include what is growing on the outward side of the wall or boundary, if it is obviously an escape, *e.g.* *Cymbalaria* (Ivy-leaved Toadflax), *Campanula portenschlagiana* (Adria Bellflower).

Gardens and parks, including public or private estates, cemeteries and the like.

Anything growing wild or naturalised inside their boundaries. Status is the key here, especially for interesting or uncommon taxa.

However, for taxa such as *Bellis* (Daisy), *Taraxacum* (Dandelion) *etc.*, the default (*i.e.* native) would suffice. Planted trees in estates, *etc.*, are as worth recording as street trees.

Cultivated crops (annual or perennial), allotments, game cover and wildlife strips

These should be treated as gardens, *i.e.* ignored other than the weeds of the planted/seeded area, but crop volunteers (escapes/relicts) should be recorded as should contaminants (*e.g.* *Orobanche* (broomrapes) in bean crops). One could argue that when recording weeds in the crop species, the crop species themselves really should also be recorded, but we leave this up to the discretion of the recorder.

Woods, plantations, shelterbelts and hedges-rows

These should be recorded in the normal way, with the appropriate status attached. We appreciate that for many trees and shrubs, such as oaks, beech and hawthorn, this is often impossible to judge and the default status might (as well) apply.

This guidance is all about recording a changing landscape in a consistent manner and is intimately linked to recording statuses. Therefore, record street trees, forestry plantings, game crops, *etc.*, but simply attach status to the record wherever possible.

There are always going to be grey areas, but if you start off with the premise that you should try and record everything, including what is planted, up to the garden boundary, and anything growing wild or naturalised within their boundaries then at least we will be more consistent than in the past.

Digital archiving

QUENTIN GROOM, *Louis Pelserssquare 1, 3080 Tervuren, Belgium*; (quentin.groom@bsbi.org)

Do you ever wonder where you can archive your old recording cards, field notebooks or other miscellaneous data that you feel are important to keep for posterity? Obviously digital records can be archived in the BSBI Distribution Database, but there will always be other sorts of data and notes that have no obvious home. At one time museums and libraries might have taken important documents. However, these days, digital archives have replaced them. There are a number of digital archives for depositing scientific data. Two of them that I am particularly aware of are the Dryad repository (<http://datadryad.org/>) and the Zenodo repository (<https://zenodo.org/>). These data archives are backed and endorsed by scientific journals, societies and organisations. They aim to make published science more open, efficient and reproducible. They do this by giving access to research data, particularly those data supporting scientific publications. They also promote the re-use of data, either to enable repeat analyses or to allow novel analyses.

If you want to archive recording cards or notes they still need to be digitised by scanning or photography and it is important that nothing is lost in this process. Therefore, make sure everything is imaged and to a high quality. In original documents, even blank pages can infer information.

The longevity of these digital archives is obviously important, and only time will tell how well they persist. They are supported by some important institutions with truly massive data storage requirements and currently, the storage requirements that we need are tiny in comparison. For example, Zenodo uses the same data infrastructure as the CERN's Large Hadron Collider that can generate data at 25 GB per second!

It is pointless to archive data that you intend to keep private. Just like a library, you deposit documents so that anyone can consult them. When you upload data you will need to choose a data licence. This licence guides potential re-users what they are allowed to do with your data. Personally I recommend putting data in the public domain using a Creative Commons licence waiver (CC0). This makes re-use of your data easiest. Once uploaded, each dataset receives a Digital Object Identifier (DOI). This uniquely identifies your data and makes it easier for people to cite (*e.g.* 10.5281/zenodo.17640). Likewise, if you use someone else's data from the archive you should cite them, of course.

I encourage you to have a look at digital archives to see what they can do for you. They are a relatively new phenomenon, but one that is evolving rapidly and one that has many potential advantages for botanical recorders.

Some points for the next Atlas

ALISON RUTHERFORD, *19 South King Street, Helensburgh, Argyll & Bute, G84 7DU*

Garden escapes

Maybe we do not make as much use as we might of the horticultural world when naming garden escapes. I was surprised to see in a recent *BSBI News* that finders of an established *Pelargonium* did not approach the National Collection holder at Fibrex Nurseries, near Stratford-on-Avon, in the first instance.

The tricky to name New Zealand sedges *Carex buechananii*, *C. comans* and *C. flagellifera* 'Coca Cola', an upright bronze form, are illustrated in Rick Darke's *Encyclopedia* (Darke, 2007).

I have doubts about labelling New Zealand *Cortaderia* (Early Pampas-grasses). Here around Helensburgh in v.c.99, and on the

Ayrshire coast (v.c.75), they seed very freely indeed. It was seeing “ambig.” alongside *C. richardii* in the Royal Horticultural Society’s *Plant Finder* that alerted me to the possibility that *C. richardii* might not cover all the escaped plants. I bought an ‘ambiguous’ plant, but by the time it was well-developed and flowering, sprucing-up of certain parts of the town had wiped out every ‘wild’ colony. A friend, looking at its leaves, said they were quite unlike the ones he knew on the coast near his old home, half an hour’s drive away. They are certainly broader and brighter green than those in local gardens. Anyone able to wrestle with comparative descriptions might try vol. 5 of *Flora of New Zealand* (Edgar & Connor, 2002).

I also have uncertainties about naturalised narrow-leaved *Veronica* (Hebes) all being *V. salicifolia*. A glance at Lawrie Metcalf’s *Hebes* (Metcalf, 2006) shows a fair number of willow-leaved species.

Allan Stirling and I, when looking at v.c.99’s garden forms of climbing honeysuckles (*Lonicera*) gave up. We tried the National Collection holder, who could not name one. Chris Brickell, a former Director of the RHS said there were a lot of hybrids made in the 1860s. If this was done locally, we had little hope, as garden archives are very scant in the greater Glasgow area.

Ivies in the next Atlas

Recorders finding naturalised Irish Ivy should not confound it with well-grown, large-leaved *Hedera hibernica* ‘Hibernica’ (Atlantic Ivy). *Hedera hibernica* (Irish Ivy) is found widely escaped in the UK, except Devon and Cornwall, and probably not on the Isles of Scilly or in the Channel Islands. Atlantic Ivy is the wild ivy of those islands, Devon, Cornwall and up the western seaboard to South

Ayrshire. It grows best in shelter, but in good light. Most forms go through an ‘Irish’ phase before the flowering stage is reached, while Irish Ivy is in it from the start.

The wording of the new Atlas might perhaps emphasise that Atlantic Ivy is commonly found on acidic rocks and soils and rotten rock, and flourishes in mild sheltered areas in full light. It has been found at 689m on Cnicht, Snowdonia, but further north it is mainly found at the coast and up river valleys to about 50m.

Hedera Algeriensis (Algerian Ivy) also needs a little modification. It is a little tender, but is sold as much as an outdoor climber as for indoors. The only reason I know for its extinction is when gardeners dump on colonies. A BSBI member has found it naturalised in the Bradford area. The date 1833 for its first collection is unreliable. It was first collected in 1852 in Algeria and environs and was described in a Belgian journal that year. The date 1833 came from Alfred Rehder, a botanist and author. No one knows where he got it; the keeper of his manuscript notes found no clues.

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Coordinator’s Corner

PETER STROH, *c/o Cambridge University Botanic Garden, 1 Brookside, Cambridge, CB2 1JE;*
(peter.stroh@bsbi.org)

I hope you have all had a wonderful time outdoors in the sun (and rain) recording for the Atlas this summer. I have heard of many exciting finds, more of which in the next issue, and I am sure we are well on the way to yet another million records for the year – incredible when you think about it! I have been straying into Leicestershire from time to time to record a few squares close to the Northants county boundary, and although there were areas that amply demonstrated just how denuded some parts of lowland England have become, this does make the discovery of species that would otherwise be fairly unremarkable all the more rewarding – *Carex strigosa* (Thin-spiked Wood-sedge), *Chrysosplenium oppositifolium* (Opposite-leaved Golden-saxifrage) and *Dipsacus pilosus* (Small Teasel) in a scrap of woodland in one forsaken square more than made up for kilometres of pasture and crop devoid of diversity. Recording in such areas may not yield exciting rarities (although you never know, especially in corners of arable crops), but it is vital if we are to capture an accurate picture of our changing flora.

One of my favourite outings of the summer took me to Herefordshire, where I met up with Peter Garner, the vice-county recorder. It is such a beautiful landscape, so different from the relatively flat lands of my local patch, but only two hours away if I am lucky with traffic on the A14, M6, M42 and M5 (known locally as the tenth circle of hell). The highlight, and the main reason for travelling, was attending an evening botanical meeting that goes under the title of ‘Bonkers on Botany’, or BoB for short. These are regular events set up by Katey Stephen, a local botanist working for Natural

England, and Peter. The aim is simple – to get more young people out into the field and create an environment that encourages them to look at plants without feeling intimidated by the knowledge of those around them or the myriad of plants that one can find. In fact, two of Peter’s phrases, which he positively encourages all to shout out, are: “I don’t know” and “Sorry, I was wrong”. That soon dispels the myth of leader infallibility! There are three important points to mention here. Firstly, the leaders of the meeting do not attempt to find and describe all the species that are encountered. This can be overwhelming to those just beginning to get to grips with the basics. If someone wants to know what a plant is, they ask and are encouraged to keep on asking until the name sticks. We probably only looked closely at 25 or so species over a couple of hours, but the botanists attending will remember and recognise them when encountered again. Secondly, the events are not concentrated on the best sites, so that people can get to grips with the common species before moving on to the rarer ones. Thirdly, it is fun; as much a social gathering as a botanical training event. Katey and Peter seem to have hit on a winning formula and I was mightily impressed and duly inspired by the number of people and range of ages and abilities that attended. I counted seven attendees who seemed to be under the age of 25, making me feel quite old! If you want to know more about how the BoB events are set up and structured, please do get in touch.

There is a new tool available on the DDb that allows you to easily compile lists for grid squares of your choice. Most helpfully, the list tags species recorded post-1999 in bold, and

species previously present in the square but with no post-1999 record in italics. A number of recorders have told me how useful this function is when planning field visits for Atlas recording. It really is very simple to generate the list. Log onto the DDb, click on ‘Tools’ and then ‘Grid reference lookup’. This will take you to a screen where all you need to do is type in the square of your choice and then click on the button ‘look-up grid reference’. You are magically transported to another screen which shows a map with your chosen hectad highlighted. If you then click on the ‘view the detailed taxon list’ link, a list as described above will appear. Whenever instructions like these are written down they sound overly complicated, but I assure you it is very easy – I can do it.

Last, but by no means least, a few years ago Nick Stewart produced an excellent and eminently usable key covering over 99% of stonewort species encountered in Britain and Ireland. A link to the key can now be found by going to the Identification page of the BSBI website and looking for the link in the right-hand column of the page. If you do not have access to the internet but would like to receive a copy, then please get in touch. I would encourage you to give the key a go – it really is very good, and the wonders of stoneworts certainly warrant a closer look.

Under-recorded/overlooked species nos. 6, 7, and 8

After reading Tony Mundell’s excellent paper in the latest *New Journal of Botany* (Mundell, 2016), I thought it was timely to mention some

distinctions (unashamedly cribbed from Mick Crawley’s account of a recent field meeting in Hertfordshire) between the three relatively common *Conyza* species, and also to alert you to look for hybrids between these and *Erigeron acris* (Blue Fleabane).

Conyza canadensis (Canadian Fleabane) can be distinguished from *C. sumatrensis* (Guernsey Fleabane) by its hairless (as opposed to hairy) involucre bracts. *Conyza floribunda* (Bilbao Fleabane), a more recent arrival, also has hairless involucre bracts, but is distinguished by the hairs on its leaf-margins: these turn abruptly to point towards the leaf tip (as they do in *C. sumatrensis*), whereas in *C. canadensis* the marginal hairs stand out straight from the leaf edge.

Hybrids between *E. acris* and all three *Conyza* species mentioned above are described in detail in the *Hybrid flora of the British Isles* (Stace *et al.*, 2015; p.303). If you think you have found plants intermediate between a *Conyza* species and *E. acris*, refer to these accounts and Tony’s paper. Due to the recent spread of *C. floribunda*, the hybrid between this and *E. acris*, in particular, is almost certainly under-recorded.

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OBITUARY NOTES

CHRIS D. PRESTON, Obituaries Editor, 19 Green’s Road, Cambridge, CB4 3EF
(cdpr@ceh.ac.uk); assisted by the General Editor GWYNN ELLIS

Since the publication of *BSBI News* 132, we regret to report that the news of the deaths of the following members has reached us. We send regrets and sympathies to all the families.

Dr G.S. Davy of Tiverton, Devon, a member since 1970

***Dr Y. Heslop-Harrison** of Leicester, a member since 2004

***Miss A.M. Hutchison** of Warminster, Wiltshire, a member since 1959

***Mr L.J. Margetts** of Camborne, Cornwall, a member since 1968

Mrs R.M. Pride of Peterborough, a member since 1998

Obituaries of those marked * will appear in the next *BSBI Yearbook*.

NOTES FROM THE OFFICERS

From the Head of Operations – *JANE HOULDSWORTH*

7 Grafton Gardens, Baxenden, Accrington, Lancashire, BB5 2TY;
(jane.houldsworth@bsbi.org)

Since April's edition of *BSBI News* there have been a few changes to the BSBI's staff:

Administration/ Finance Officer

After serving the BSBI as Administrative Officer for five years, **Clive Lovatt** retired in early September. Clive will not be disappearing from view altogether, as he will remain our Company Secretary (so his house will remain our registered address) and he will, of course, remain as vice-county recorder for v.c.34. I would like to thank Clive for his dedicated service during his time as Administration Officer. David Pearman has written a short note giving a more personal view (see below).

A replacement for Clive was sought and appointed this summer. **Julie Etherington** has been appointed as BSBI's Finance Officer and started work in early September. She can be contacted by email: julie.etherington@bsbi.org, telephone: 07513 458921, or at Church Folde, 2 New Street, Mawdesley, Lancashire, L40 2QP. Julie comes to us from the Land Trust, a charity responsible for the management of land for amenity and conservation purposes, and before that, Liverpool

University. I am sure all will give Julie a warm welcome.

Communications Officer

I am delighted to let you all know that **Louise Marsh** has beaten stiff competition to become our Communications Officer. The role was advertised widely across the UK and Ireland and 127 people applied, giving the interview panel quite a difficult task! I am sure you will all congratulate Louise on her appointment, which started in June on a three days a week basis. Louise will continue with her publicity and outreach duties, but will now also lead on producing a communications plan for BSBI, which includes responsibility for our websites, social media, publications and answering general enquires to the Society. Her aim is to support staff and committees with joined up communications to our membership and beyond. Please ask her for help/run ideas past her where appropriate.

Projects Officer

Bob Ellis, our Projects Officer, reduced his hours from three days a week to one day a week from August. Bob will focus his time on supporting others with MapMate queries.

Clive Lovatt

DAVID PEARMAN, *'Algiers', Feock, Truro, Cornwall, TR3 6RA;* (dpearman4@aol.com)

I have known and kept in contact with Clive for almost 30 years (including custodianship of his library for a promised two years, which turned out to be twelve!) and was delighted when, on his return from decades in Africa, he applied to join us as our first 'Admin Officer', primarily to keep the books to support our Hon. Treasurer, but in fact to act as our conscience, especially in the tortuous change to a charitable company from an un-incorporated charity.

The fun side of our association arose from his deep interest in the famous Avon Gorge in

Bristol, on which he did his masterly PhD, of which I still have copies of key sections in my cabinets. In between the admin bits we correspond on arcane bits of historical botany, which makes the whole thing more fun.

On the one hand I shall be very sorry to see him retire, but on the other I am relieved for him that his circumstances have changed to allow him to do so, and look forward to a stream of investigatory revelations on Bristol botany.

From the Scottish Officer – *JIM MCINTOSH*

c/o Royal Botanic Garden, Inverleith Row, Edinburgh, EH3 5LR;
(Tel: 0131 2482894; jim.mcintosh@bsbi.org)

BSBI eNews

BSBI *eNews* is a short monthly electronic newsletter for recorders, referees, officers, staff and active members. In spring I took over as compiler and editor. Recent editions have included articles on technology such as the BSBI Database, GPSs and MapMate; on the identification of *Trichophorum*, Stoneworts and other tricky taxa; on recording for Atlas 2020 and news about the BSBI and its conferences and publications.

The current issue and recent back-issues are available to everyone on the Publications page of the BSBI website (Resources > Publications). We also send out an email with a link to the newsletter to all County Recorders & Referees. Please let me know if you are a County Recorder or Referee and have not received the monthly BSBI *eNews* emails but would like to.

I would welcome short contributions from anyone on topics of interest and relevance to fellow readers. BSBI *eNews* is generally published on the 1st of each month so contributions should arrive around the 21st of the preceding month. I would also be pleased to have any comments or corrections to BSBI *eNews*.

Rare Plant Registers

I am pleased to announce that two new, and very good, Rare Plant Registers (RPRs) have just been published for Dumfriesshire and Ayrshire respectively. They can be downloaded from the Science > Rare Plant Registers page of the BSBI website. This brings the total of RPRs available online to about forty.

County Recorders will warmly welcome any records that update their RPRs. Fieldwork to systematically do so could be a really interesting project for local or visiting members. Please speak to Recorders and send records directly to them.

Shetland Recording Week

As I write this I'm not long back from the second Shetland Recording Week, this year based at Scalloway on the mainland of Shetland. The three aims were to help with Atlas 2020 coverage, to share our knowledge of plant identification and to have some fun! And we succeeded on all three! Indeed, I think it is fair to say that never in the history of the BSBI has so much recording been done by a BSBI field meeting in a single week. It does, of course, help if you have a group of 30 BSBI members! Between them they surveyed 110 1×1km squares (monads) – which will make a huge contribution to full Atlas 2020 coverage of Shetland. Interesting finds included a couple of new populations of *Hammarbya paludosa* (Bog Orchid), *Oxyria digyna* (Mountain Sorrel) on a rocky foreshore at Scalloway and a new site for *Lycopodium clavatum* (Stag's-horn Clubmoss). A full report will appear in the *BSBI Yearbook* and meanwhile, there are several posts about the Shetland Recording Week on the BSBI News & Views blog for August (News > News & Views).

BSBI Scottish Annual Meeting

All BSBI members are very welcome to this year's Scottish Annual Meeting at Battleby Conference Centre, Perth on Saturday the 5th November. Our main speaker is Professor Mick Crawley, who will give a talk on *Aliens in the British flora*, which follows on nicely from Dr. Ken Thompson's talk on the same subject at last year's Scottish Annual Meeting. As well as a full programme of interesting exhibits and short talks there will be several mini-workshops and also regular features such as the Identification Helpdesk, the Photographic competition and Summerfield Books. Please see flyer enclosed with this issue.

BSBI Photographic Competition

If you are a keen photographer and are planning to enter the BSBI Photographic Competition, remember to send your entries to Natalie Harmsworth (natann29@freeuk.com) by **21st Oct 2016**. Full details of the competition appeared in *BSBI News* **132** and are online. But to recap briefly: the competition has just two categories this year: 1) Rare species and 2) Common species. Photographs should be taken in Britain or Ireland, but don't have to be taken during 2016 and you don't have to enter both categories. However there is a limit of two images per category per entrant. Winners

will be selected by a popular vote by those attending the Scottish Annual Meeting.

BSBI Recorders' Conference in Scotland

Northern recorders should note that I have just booked accommodation for a residential Recorders' Conference at FSC Kindrogan, near Blairgowrie, next year. The theme will be *Atlas 2020 – the final years* but there will also be sessions on the BSBI DataBase (DDb) and a round-up of reports from the vice-counties. It's a great opportunity to meet fellow recorders in the convivial surroundings of Kindrogan. The dates for your 2017 diary are Friday 10th – Sunday 12th March.

From the Welsh Officer – POLLY SPENCER-VELLACOTT

c/o Natural Resources Wales, Chester Road, Buckley, CH7 3AJ (Tel.: 03000 653893
(Wednesday-Friday); polly.spencer-vellacott@bsbi.org)

The meetings season in Wales seemed to focus on July this year, and I am still reeling a little from a trip to Glynhir (in Carmarthenshire), joining smoothly to the Welsh AGM, and followed only a week later by the Caerleon (Merionethshire) recording weekend. It is wonderful to think of the number of records that are generated by a few events like this. I will not go into detail about the records made, but I know of several exciting finds that will all be listed in the *Welsh Bulletin* next year. If you have an interest in Wales but are not resident there, do get in touch, as you can receive a copy of the *Welsh Bulletin* for £2.50 per copy wherever you live!

At the Welsh AGM Ray Woods spoke of the importance of good records – and the effective dissemination of records – to nature conservation, citing occasions where rare plants have

been re-found under piles of brash, or trees with rare lichens felled, despite being on a nature reserve, and by people who had the best of intentions. It really re-inforced the importance of the BSBI to nature conservation, in terms of the provision of data. At the same time, it illustrated how much more remains to be done in ensuring that the right people have access to the right detailed records at the right time.

If you are interested in a few photographs and snippets of botany (based mostly on my recent field visits) please visit my blog: bsbicymru.blogspot.co.uk. The Wales page of the BSBI website (bsbi.org/wales) is also a useful source of information where you can see back issues of the *Welsh Bulletin* and the most recent newsletters which I send to vice-county recorders.

From the Irish Officer – *MARIA LONG*

C/o/National Botanic Gardens, Glasnevin, Dublin 9, Ireland;
(Tel.: 00 353 87 2578763; maria.long@bsbi.org)

The field season is in full swing here in Ireland as elsewhere, with lots of events and field meetings. We have had training courses (*Euphrasia*; sedges; Charophytes to come), typical field meetings, ‘rough crew’ outings, local group trips up and down the country and, of course, recording weekends (Cavan, Longford, Cork to come), so there really has been something for everyone.

The most recent event that I have attended, and had a bit to do with organising, was the long weekend of recording in the vacant vice-county of Longford (v.c.H24). This is a relatively little-known county, even in a general sense, being nestled in the Irish midlands, and so lacking dramatic mountains or coastline, and without very many big towns or industries. But... it does have a lot of wetlands, semi-natural/semi-improved grasslands, bogs, lakes and, of course, fantastic callow-land along the Shannon system. Also, not being the richest or most urbanised of counties, means that agricultural improvement has not erased quite so much of the biodiversity as in other parts of the country. So, all in all, I have found it to be a pleasantly rewarding and often surprising county to botanise in (see photo inside Back Cover).

For this year’s long weekend, co-organised with John Conaghan, the Irish Field Meetings Secretary, we aimed to cover as much ground as possible and bring in records from as wide an area as possible. Longford is rectangular shaped, containing only 12 hectads with more than half the land area in the vice-county, and in fact, with only two entire hectads! Thus we based ourselves in the south of this rather compact county on the Friday, the middle on the Saturday and focused on the north of the county on the Sunday. Each day we had nine botanists, and so we split into three car-loads to maximise coverage, and headed off in different pre-prescribed directions.

We collected 2,705 plant records over the weekend, dipping into 11 hectads. We recorded >200 species in six of these. We dipped into at least 46 monads, and 12 of these had over 100 species recorded. Each day we all saw uncommon and rare plants, and we will most likely have new county records after the event, not to mention at least six new bryophyte county records, made by Rory, who was resolutely NOT looking at bryos! Some of the interesting species included: *Andromeda polifolia* (Bog-rosemary) (common on the raised bog fragments), *Bidens tripartita* (Trifid Bur-marigold), *Butomus umbellatus* (Flowering-rush) (may be new for the county), *Carex acutiformis* (Lesser Pond-sedge), *Carex hostiana* (Tawny Sedge), *Carex pseudocyperus* (Cyperus Sedge), *Drosera intermedia* (Oblong-leaved Sundew), *Elodea nuttallii* (Nuttall’s Pondweed), *Epipactis palustris* (Marsh Helleborine), *Erinus alpinus* (Fairy Foxglove) (may be new for the county), *Erysimum cheiranthoides* (Treacle-mustard) (rather unusually, found growing at the edge of milled-over raised bog on bare peat), *Huperzia selago* (Fir Clubmoss) (only the third record ever for the county), *Hydrocharis morsus ranae* (Frogbit), *Lathyrus palustris* (Marsh Pea), *Lemna minuta* (Least Duckweed), *Parnassia palustris* (Grass-of-Parnassus), *Potamogeton alpinus* (Red Pondweed), *Potentilla ×suberecta*, *Prunus padus* (Bird Cherry), *Rhamnus cathartica* (Buckthorn), *Rubus tricolor* (Chinese Bramble), *Rumex hydrolapathum* (Water Dock), *Sinapis alba* (White Mustard), *Sorbus aria* (Whitebeam), *Stellaria palustris* (Marsh Stitchwort) and *Vaccinium oxycoccos* (Cranberry).

All in all it was a very fruitful weekend and will help a great deal in filling in the blanks in Longford. So, once again, well done to all who were involved and roll on the next big recording event (Cork, 1st – 4th September)!

PUBLICITY & OUTREACH

From the Communications Officer – *LOUISE MARSH*

234 London Road, Leicester, LE2 1RH; (louise.marsh@bsbi.org)

Dates for your diary

The AEM and AGM

This year's Annual Exhibition Meeting and Annual General Meeting will take place on Saturday 26th November at the Centre for Ecology & Hydrology, Wallingford, Oxfordshire. A flyer included inside this issue of *BSBI News* gives more details and includes a booking form. It is, of course, possible to just turn up on the day but it helps us if we know in advance how many people are coming.

There will be the usual array of exhibits, talks, a pop-up bookshop from Summerfield Books and lots of networking opportunities. The morning session features four talks from well-known BSBI members under the heading 'From field to map – the story behind the dot'. The afternoon session, called 'Putting plants on the map – working together for botanical recording' features some speakers new to the AEM and our keynote speaker is David Roy (BRC/CEH) talking about BSBI and BRC working together.

If you have never attended an AEM before, you can get an idea of what goes on by visiting http://www.bsbi.org.uk/exhibition_meeting.html, where you will also find any updates about this year's AEM and Powerpoints from last year's talks.

Any members wishing to exhibit at the AEM should contact us at: meetings@bsbi.org to discuss any requirements and reserve a space. We welcome any poster or exhibit concerning British and Irish botany and would be happy to offer extra support and guidance to any member who has never exhibited before.

New Year Plant Hunt 2016

A reminder that we plan to run our sixth New Year Plant Hunt for four days over the New Year holiday. We hope that, whatever your skill level, you will want to join us in recording what is in flower in mid-winter. Details can be found on the website: <http://bsbi.org/new-year-plant-hunt>

Co-ordinating the New Year Plant Hunt takes a huge amount of work, so if you can spare some time to join the team as a volunteer this year, we would be delighted to hear from you at this address: nyplanthunt@bsbi.org

Wildflower Hour

Every Sunday night from 8.00 – 9.00 p.m., hundreds of plant-lovers across Britain and Ireland are using Twitter to share images of wild plants seen in bloom during the previous week, using the hashtag #wildflowerhour. Thousands more have tuned in to enjoy the weekly spectacle and the hashtag has been 'trending on Twitter', which in turn attracts even more people. You can view the most recent offerings, even if you do not have a Twitter account, at:

<https://twitter.com/search?f=tweets&vertical=default&q=%23wildflowerhour&src=tyah>

The BSBI's Twitter account is engaging with people every day and we now have more than 10,000 followers. You can view the content on the account at any time by clicking on the Twitter icon in the top right of any BSBI webpage or by going to:

<https://twitter.com/BSBIbotany>

International award for 'Hybrid Flora' authors and other news about BSBI Publications

LOUISE MARSH (BSBI Communications Officer)

A recent revamp of the Publications page on the BSBI website has highlighted the wide range of publications which bear the BSBI

name – but it doesn't tell the whole story. A quick look at the flyer for the AEM with this issue of *BSBI News*, or a visit to the BSBI

News & Views blog (<http://bsbipublicity.blogspot.co.uk/>), will alert you to a huge (and well-deserved) honour recently bestowed on the three co-authors of the *Hybrid Flora of the British Isles*.

Clive Stace, Chris Preston and David Pearman have been awarded the prestigious Engler Silver Medal by the International Association of Plant Taxonomy, “to commemorate your mammoth and outstanding compilation and synthesis *Hybrid Flora of the British Isles*”. The award will be presented at this year’s AEM by Dr Sandy Knapp of the Natural History Museum. More details on the flyer and here: <http://bsbi.org/annual-exhibition-meeting>

Also on the Publications page, the list of BSBI Handbooks was augmented earlier this year with a new Handbook on *Oenothera* (Evening-primroses) by Rosaline Murphy, while work continues apace on Handbooks for

Violets and Alchemillas, and Chris Metherell’s *Euphrasia Handbook* is nearing completion – he hopes to publish early next year.

Finally, you will be aware of BSBI’s two periodicals, namely *BSBI News* and *New Journal of Botany*, but we can now add a third, perhaps more modest publication. Under the editorship of Jim McIntosh, BSBI’s Scottish Officer and Senior Country Officer, BSBI’s monthly *eNews* for active botanical recorders has been refreshed and is fast becoming a must-read for members and non-members alike. The latest issue of *eNews* is now available free to download each month from the Publications page, where you can also find recent back-copies – I challenge you to read it and not learn anything new and useful! Find out more about *eNews* in a note from Jim on page 41.

The following two contributions come from prospective members at opposite ends of the age spectrum!

The state of nature in teenage society: an opinion from a young naturalist

HARRY WITTS, *Cottingham, Yorkshire*

I am 15 years old and a naturalist, nature photographer, writer and blogger from Yorkshire. I am not technically a botanist, more interested in other wildlife, namely insects, reptiles and amphibians, birds and, most of all, butterflies. But I do also take an interest in plants (mainly wild flowers), especially when they interact with the animals I want to see.

I think it is fair to say nature is not seen as ‘cool’ in today’s teenage society. This is something I feel passionately about and which needs to be changed, especially as I had first-hand experience of being teased (not exactly bullied) about my love for nature late in primary school. Because of this, I sadly felt the need to hide my passion and have denied it multiple times, many of these at high school. I also know of many other young naturalists

who have suffered the same fate. It is harrowing to think of the talent that is, or could be, out there but is being suppressed within people due to immature teasing, talent which could change the world. I am not just talking about scientific talent, or talent that could advance our knowledge of nature, but all forms of talent can end up being suppressed due to young people feeling the need to ridicule anything that is slightly different from what they are used to. Ecological and conservation talent is especially important, considering the challenges our planet faces in the future, with an ever-growing population.

Now I have got rid of my (relatively) childish embarrassment and am no longer hiding my love of nature. I assumed people would judge and think less of me as a person for it, but, in reality, no one would have acted differently

towards me. I am now confident if more people found out about my love for nature; it would not change their opinion of me. It is easier for me to realise this now, because I have gained the respect of my peers, as I have left school after my exams and no longer feel any need to prove myself to others. Sadly, children who are younger than me may be in a different position, feeling they have to fit in with their peers and need to prove themselves to others by trying to act hard. In my opinion, that is not the type of person you should aspire to be and you should never be afraid to be yourself. Eventually, everyone will respect you for your own character and not your quirks and interests. That is something I have learned.

Nature has not always been an uncool and ridiculed pastime. Around the time of the Second World War, nature was a cultural mainstay in England, especially loved and interacted with by teenage society. Activities like butterfly and birds' egg collecting brought teenagers into contact with nature and, although in most cases they were extremely detrimental to the species involved, it inspired future conservationists and nature personalities. It is ironic that destruction of species in the past led to the conservation and protection of species in the future. It demonstrates that the conservationists of today, or the near past, were enlightened about nature when it was a 'normal' activity to pursue. This is a scary prospect for the future, for if oppression by peers stops people interacting with nature, I fear there will be a significant lack of conservationists and nature-lovers in our future. This poses a huge risk at a time when humankind needs conservationists the most. It is quite clear to me the biggest problems affecting us as a species are the problems created by ourselves. For example, threats such as global warming and intensive farming are damaging the delicate links between species which make up the wider web of nature. The ecosystem that we are damaging provides us with fresh

drinking water and oxygen so it's clearly something we need to take care of. These are all problems caused by us.

Teenage society needs to accept wildlife watching for what it once was, a normal pastime. Clearly this is not going to happen overnight, so celebrities, nature personalities and organisations need to get involved. I feel there are a couple of solutions to this issue. There are brilliant projects currently in action run by organisations such as the Wildlife Trusts – inspiring people who would not otherwise have any stimulus to look at the world around them in more detail. There are children in cities who do not know where the food they eat comes from. If all children were given the opportunity to experience nature at a young age it would be particularly effective because, as these children get older and grow into their teens, they will become less judgemental and more accepting of change and new things. **This could be further implemented by creating a space in the national curriculum for a lesson of 'nature studies' or something similar.** This way, pretty much every child in the country could be brought closer to nature and, even if not everyone becomes a naturalist, botanist or conservationist, new generations will be more environmentally aware and more inclined to make a difference to the future of our planet.

I think it is clear that something needs to be done socially too. I am sure that many celebrities, nature ambassadors and those who govern education could really help change this. Then young naturalists, birders, botanists and conservationists can be free from the judgemental eyes of teenage society and be allowed to embrace their passions. Hey, maybe one day walking out onto the street with a pair of binoculars, a hand lens or a field guide might be cool?

If you would like to read more from me, my blog can be found at: harryswildlife.wordpress.com; or you can follow me on Twitter: [@newnaturalist](https://twitter.com/newnaturalist).

My Earliest Memories of Wild Flowers

SYLVIA MANDEVILLE, *Gwersyllt, Wrexham*

At the age of three, Laurie Lee was set down from the carrier's cart and with a sense of bewilderment and terror his life in the country began. My introduction to village and country life was much gentler. Due to the second world war, at the age of five I was transported from the pink concrete paving slabs of West Wickham in Kent to the lush fields and hedges of Herefordshire. Brought by my mother, with my older sister as evacuees to the small village of Llangarron, the years spent there laid the foundations of a life time's fascination with the abundance of wild flowers which surround us. I have never returned to Llangarron, not wanting to break the thread of deep memories, but the places in my mind are clearly marked where certain wild flowers grew, and I believe I could walk you round the village even now and point them out to you. The shape and colour of flowers was the first thing which assailed me as I stood tentatively with my mother and sister at the end of the garden path, looking up at the farmhouse and the family standing there to greet us. On either side of the front path strutted hundreds and hundreds of Maggie Mott violas. Their colour is difficult to describe – a beautiful lilac blue – but it was their exuberance which caught my attention, their buoyancy, like a coach load of children out for a day at the sea side, shouting and laughing to each other. This visual assault on my eyes was soon submerged by the whole business of settling into family life on a farm and it was only gradually that flowers began to register again on my radar. It must have been on our lengthy walks to school through the lanes, free of traffic, that I first became absorbed with plants, leaves and flowers. When you are very small, the banks and hedges are at eye level, so it is possible to make keen observations of the shape and colour and perfume of plants. As the seasons pass, the whole life history of a plant may unfold – from the intriguing bright green fiddle shaped bud emerging in spring from the bracken to its

wearily looking tattered sienna coloured leaves by late September.

It was on an old stone wall in front of a farmhouse that I first became aware of Ivy-leaved Toadflax, (*Cymbalaria muralis*) which grew abundantly in clumps from all the nooks and crannies of the stones. The long stalked ivy shaped tiny leaves – the delicate flowers with their soft lilac colouring delighted me, as did the slightly snapdragon appearance of the blossom. I do not know who told me what it was called, but it was the first wild flower's name I learned. Even now I have a thrill of excitement and recognition whenever I see it. I feel as if it is my plant and it gives me a feeling of belonging and security. If I walk through a village and do not spot its vigorous growth somewhere on a wall I feel somehow cheated, as if the village has not done its bit. It disappoints me now to find that it is considered by some to be a garden escape from years ago. Its widespread distribution however keeps it firmly in all the wild flower books I have seen. Some time later I realised I had found a relation of Ivy-leaved toadflax. Growing on a sunny bank I met the sprightly golden yellow flowered Common Toadflax, (*Linaria vulgaris*) a tall plant with sturdy stems. It glowed in its clump and was easy to snap off a stem to study more closely. (I was only five and the days of wild flower protection were far into the future.) The flower has a snapdragon head rather like the Ivy-leaved Toadflax, but instead of just one blossom on a dainty stem, the yellow toadflax has many flowers packed round its stem, growing in tall cylindrical spikes. They open in an orderly fashion, from the bottom. The flowers tightly in bud higher up the stem make a golden spire. There is also a purple version, (*Linaria purpurea*), but I did not meet this until very many years later, in Wales when I was considerably older.

The lanes which took us to school led us past a wild variety of plant habitats. One of these was the mysterious shrouded parkland of an

old estate. An iron gate allowed us to peer in wishing we had the courage to explore. But there was something about the dark shadowy evergreens which held a warning and we never even tried. But in late winter and early spring the grounds held a great delight. Sheets of dainty white snowdrops covered the ground as far as you could see, all amongst the shrubs and trees. We gazed in awe at the scandalous generosity of the spectacle. I loved the detail of the willow green line on the white petals. Alongside the snowdrop areas in the parkland there gradually emerged some much larger and rather murky plants. I watched them develop with interest. Vigorous shiny dark green pointed leaves appeared to be hiding something – though it was tricky to see what. Some time later I met the same plant in a shady corner of a field where I was able to study it more closely. What an extraordinary plant Lords-and-Ladies is, *Arum maculatum* sometimes called cuckoo-pint with its spotted arrow shaped leaves and its hint of intrigue and mystery. To my young eye it was not a proper flower as it had no obvious petals. Instead it has a pale green cowl shaped spathe shrouding the club like purplish brown spadix, on a slender stalk. By the autumn this has changed to a spike of red berries. It was only much later that I learned that the tiny male and female flowers are hidden from sight at the base of the spadix and it is they which turn into the berries which are revealed when the green shroud withers away. When I was in my teenage years and studying English Literature for GCSE's I was very fortunate to have a teacher who selected Victoria Sackville West's wonderful poem *The Land* for us to study. So many leaps of recognition with what she wrote. To my delight she completely captured the haunting atmosphere which surrounds Lords and Ladies describing them as 'dressed for masquerade in green silk domino discreetly hooded.'

My introduction to a Foxglove (*Digitalis purpurea*) was on the way home from school one day. Suddenly, there it was, looming down on me, on the final hill home. I scrambled up the bank and like many a child before me, looked up into the amazing spotted tunnel,

and then without a thought pushed my finger into the glove. What a wonderful name, foxglove. I can just imagine a fox cub trotting along with a purple blossom on each dark paw. Foxgloves seed very freely, so large clumps of their pinky purple or creamy white flowers can be seen almost everywhere in the summer and are easy to spot from a train where they are left undisturbed on the banks. For hundreds of years the foxglove plant has been used medicinally. The leaves were once used as poultices for sores and swellings, but the better known use has been for heart conditions. The drug obtained from the seeds, digitalin is still in use today and is reflected in its botanical name, *Digitalis*. During the second world war, when there was a shortage of drugs and medicines, volunteers of all ages in Wales and the west country had the distinction of collecting the most foxglove leaves and seeds for the Ministry of Health. Not that I remember being part of such a collection!

Another favourite flower I remember is the Ox-eye Daisy (*Leucanthemum vulgare*) It was shortly after our arrival in Llangarron that I first saw it. My sister and the farmer's daughter and I had been sent with a message to a neighbouring farm. It was a gentle walk down a lane and when we turned off into a field, there they were, a whole field of white daisies, heads up to the sun, dancing and enjoying themselves. My happiness was short lived as we soon walked into another field in sight of the farmhouse. There standing in front of the garden gate was a herd of cattle. From my short height, as we got closer, all I could see were rows of cows' bony back legs and I knew we had to walk through them to get to the gate. My four years of living in West Wickham had not prepared me for this situation. However, even at that age I was a precocious reader and a few days before had read that God loved me and cared for me and that I could pray to him at any time in any place. I swiftly prayed for courage and protection to get through those cows, and I remember how simple it became to reach the gate beyond them. Since then, oxeye daisies, prayer and cows' back legs have been firmly linked in my mind.

Nearly all the flowers I remember from my early childhood as an evacuee evoke powerful memories.

Although outwardly life appeared to be passing smoothly by with the rhythms of school terms and holidays, adequate food and shelter, there must have been an underlying tension within me. My father was away in the RAF in Egypt and we frequently moved lodgings within the area. After Garron Farm we stayed in a mill, where my mother had to cook over an open fire as well as ironing white school blouses using a flat iron heated on the coals. Next we had rooms above the local pub, The Three Horse Shoes. I remember the warm sound of many voices floating up the stairs, our playing on the huge ash heaps in the back yard, and being there on Boxing Day when the local hunt set out. The noise of the hunting horn, the baying of the hounds – what excitement. I also remember (to my shame now) of being part of the otter hunt and spending muddy hours with hounds following the local river searching for prey. Now of course all these years later, much time and effort have been put into restoring habitat for otters and many areas have successfully been restocked.

Perhaps the most pungent plant which never fails to stir my memories first came to my notice when we were lodging with the now famous Scudamore jockey family on their farm close to Llangarron. In one of the bitter snowy winters I remember Michael bringing in coal for us and also helping us to make a snowman. The plant of such pungent memory is Pineappleweed, (*Matricaria discoidea*) which I first saw growing profusely by a well trodden five barred gate on the Scudamore farm. It is such a widely spread plant that I was surprised to learn that it had only been introduced to the UK in 1871 from Oregon in North America. It certainly has felt at home and has become an abundant annual weed to be found throughout Britain. The strange compacted flower-heads rather resemble pineapples, and when trodden on, the plant has a strong smell of pineapple or apples. It is not a wild flower that one would ever pick for a

vase or bouquet, but it is a great favourite of mine.

Another flower I associate with the fields of Llangarron I first glimpsed out of the corner of my eye on a rather unusual occasion. At school we walked every day down the lane to the village hall for our school lunch. The village school was very small, with children aged five to fourteen. These lunches were very important as food was generally short during the war and we all enjoyed the daily outing for the meal. Well, on one particular day, whether there was a high wind which made us all boisterous, or perhaps the meal had been especially good, but as the straggly crocodile of children left the hall, led by the older boys, instead of walking steadily towards the school, they began to trot and then run and all of the school followed suit. ‘Fox and hounds!’ yelled the leading boys and when the school came in sight they made no attempt to go in at the entrance. With gathering speed we all ran past, through the lanes and into the fields. Such a sense of adventure and abandonment came over us all. Regardless of whatever the consequences might be we ran faster and faster, yelping and calling as we went. We ran along the edge of a field planted with now ripened wheat. There, almost hidden amongst the stalks I caught glimpses of heartsease or wild pansy (*Viola tricolor*) as I trotted past. The bright yellow, purple and white flowers caught my attention as well as the pert way they grew. They are mostly found where ground has been cultivated.

Of course with such a wide age range of children playing Fox and Hounds, we soon began to straggle and after a while we were all out of breath and stopped. The reality of what we had done began to dawn on us and rather slowly and bashfully we made our way back to school. I cannot remember if we were given any punishment. Perhaps we were all denied the much loved ritual story to end the afternoon. Perhaps we were given a lecture. But it was wartime. Days were difficult with so many fathers absent and families split. I like to think the headmistress took it in the spirit of a spur

of the moment's joyful extravaganza rather than a sullen rebellion by her pupils.

The two flowers that were most abundant in Llangarron were primroses (*Primula vulgaris*) and the white sweet violet with its powerful perfume, (*Viola odorata*). As soon as there was a hint of spring we would search the banks and lush grass verges for signs of these beautiful flowers which seemed to grow everywhere. Once they were in full flower we were sent out with small balls of wool, (the last few yards of wool left from some precious pair of socks or gloves or jumper that had been knitted at home with wool unpicked from a previous now grown out of garment – so the wool was all crinkly and rather tricky to use). I used to love picking each gently smelling primrose, running my fingers down the pink stems to reach the bottom, where the smell of the earth would compete with the perfume of the flower. Bunches and bunches did we pick and tie up carefully with the wool. The white violets were more difficult to pick than the primroses as they were often growing amongst tall grass and other plants. Also their stems were shorter and we had to find the longest stems to make sure they would fit into our vases. Once home we would fill bowls and jam jars and fish paste jars with our bounty and enjoy the perfumes which filled the rooms. Such unbridled picking of flowers was an aspect of the time we were living in. There seemed such an abundance of flowers that there was no thought we might be denuding the countryside. Of course flagrant picking of such large quantities of flowers would not be tolerated now, and fortunately, through more recent protective measures, many of the flowers once disappearing through over picking, are again becoming abundant.

Looking back at my war time memories of wild flowers in Llangarron I find it extraordinary that I cannot recall a single buttercup, daisy or dandelion, though they must have been growing plentifully around me all the time. The flowers I have mentioned all captured my imagination and somehow burned themselves on to my memory. After the war when we had left Herefordshire and moved to

a village in Kent, a biology teacher at Ashford Grammar School rekindled my enthusiasm for learning about wild flowers. She encouraged us to search the hedgerows and carefully pick one specimen of each flower we found. She helped in the identification of them. Once again I was hooked and always kept my eyes open wherever I went. I was given the newly published book by Penguin, *Common Wild Flowers*, carefully illustrated and described by John Hutchinson with amazingly neat and accurate drawings of so many British plants. Although I found the technical information somewhat daunting it fuelled my interest and it was a book I took everywhere with me. What surprises me in retrospect is that it was not until the 1960s when I was living in London that I first started recording the flowers I was seeing. This has become a life time's hobby and my book of flower lists is a joy of memories of places, walks and outings. One of my husband's elderly aunts who was born in the 1880s and who was a prolific observer of wild flowers gave me her treasured copy of Bentham and Hooker's *Handbook of the British Flora*, with the accompanying copy of Fitch and Smith's *Wood Engravings*. So many of the illustrations, hand coloured by Aunt Maud, have the date and place where she found the flower, neatly written in fine black ink. Her earliest entry is for 1928, so she began her study of wild flowers much later in life than I did. She travelled widely in Ireland and England and there are only one or two flowers that I have found which she has not recorded. I do enjoy neatly filling in the place and date of my finds beneath hers. Perhaps my favourite is beneath the Ivy-leaved Toadflax, the first flower whose name I learned, where Aunt Maud has written – three years before I was born, "Hythe 1933" and I have now added, "Llangarron 1941". I also like the only flower she noted in Wales in the very year I was born, Evening Primrose, "Fishguard 1936", to which I have added, "Powis 1997". What a privilege to own such a treasured book. And what a privilege to have had a village childhood to dazzle me with wild flowers.

STOP PRESS

List of Members September 2016

By the time you read this a new *List of Members*, in pdf format, will be available on the BSBI website, correct up to September 1st 2016.

Long run of *Watsonia* available for collection

DAVID BRIGGS, 41 Hartington Grove, Cambridge, CB1 7UA; dandd41@yahoo.co.uk

I am seeking a home for a long run of *Watsonia*. Given that they are now on-line perhaps they will have to be recycled, but I am reluctant to do this if there is some member who might like paper copies. Anyone interested would have to collect them from my home in Cambridge.

Solutions to Botanical Crossword 29

ACROSS

1. AGAR 4. COMICE 8. CANINUM
9. RIPEN 10. MATE 11. LONICERA
13. CELANDINE 17. PSILOTUM
19. ROSA 21. TATIE 22. BULLACE
23. TEASEL 24. RAPE

DOWN

2. GENETIC 3. RANK 4. COMPOUND
UMBEL 5. MARTINII 6. COPSE
7. ON TAP 8. CYME 12. BLOOMERS
14. EXOCARP 15. SPATE 16. GALE
18. ISTLE 20. FLOR

Crib to Botanical Crossword 29

ACROSS

1. AGA/R 4. COMIC/E 8. anag UN-MANIC
9. RI<P>EN 10. double definition
11. anag IRA CLONE 13. sell and dine
17. anag PLUM IS TO 19. anag SOAR
21. TATIE 22. BULL/ACE 23. T/EASEL
24. Raise A Partially Edible

DOWN

2. GENET/IC 3. dd 4. COMPOUND/anag
UMBLE ('pie' as in printer's pie)
5. MARTINI/I 6. cops 7. ON/TAP
8. fanCYMMessage 12. dd
14. EX<O>CARP 15. SPAT(H)E
16. dd 18. (TH)ISTLE 20. FLO(WE)R

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Oonagh Duggan and Rory Hodd busy recording on a raised bog remnant during the Longford recording weekend in July. Photo Maria Long © 2016 (see p. 43)



Myosotis stolonifera (Pale Forget-me-not) at Dunkery Hill, Somerset, (v.c.5).
Photo M. Wilcox © 2016 (see p. 26)



Putative *Ophrys xnelsonii* on a roadside in north Dorset. Photo F. Rumsey © 2016 (see p. 8)