



Irish Botanical News

No. 26

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Editor: Paul R. Green



Above: Beggarticks (*Bidens frondosa*) in Grand Canal Docks, Dublin. Photo: R. McMullen © 2015. See page 32. Below: Field meeting at Curragh Chase, Co. Limerick, 16 May 2015. Photo: J. Reynolds © 2015. See page 68.



Committee for Ireland 2015 -2016

The following is the Committee as elected at the Annual General Meeting at The Botanic Gardens, Glasnevin on 19th September 2015. Office bearers were subsequently elected at the first committee meeting. Two further members are co-opted to the Committee. The Committee is now:

Mr R. H. Northridge (Chairman, Atlas Planning Group, Irish Officer Steering Group and NI Representative on Records and Research Committee)
Dr J. Denyer (Vice-Chair, Irish Officer Steering Group)
Mrs P. O'Meara (Hon. Secretary)
Mr J. Conaghan (Field Secretary)
Dr R. Hodd (Hon. Treasurer)
Mr C. Breen
Dr M. Sheehy Skeffington

The following are co-opted members of the committee:

Dr M. McCorry
Mr G. Sharkey (ROI Representative on Records and Research Committee)

The following are nominated observers to the committee:

Mr M. Wright (Northern Ireland Environment Agency)
Dr M.B. Wyse Jackson (National Parks & Wildlife Service)

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Front cover photo: *Vicia sepium* var. *ochroleuca* (Bush Vetch). Photo: Margaret Cahill © 2015. See page 28.

All species and common names in *Irish Botanical News* follow those in the database on the BSBI website <http://rbg-web2.rbge.org.uk/BSBI/> and Stace, C. (2010). *New Flora of the British Isles*, 3rd ed. Cambridge University, Cambridge.

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BSBI Irish field programme, 2016

These are dates for your diary only, full details are to be found in the BSBI Yearbook 2016 and on the BSBI website.

<p>Saturday 12th & Sunday 13th March, Irish Recorders Conference, Glasnevin BG, Dublin. Maria Long. Contact: maria.long@bsbi.org</p>	<p>Friday 22nd, Saturday 23rd & Sunday 24th July (G,R) – Co. Longford (H24) Leaders: John Conaghan and Maria Long. conaghaj@indigo.ie or 353-87-2239858</p>
<p>Saturday 21st & Sunday 22 May (R) – North Kerry (H2) Leaders: Rory Hodd and Caroline Mhic Daeid rhodd@gmail.com or 353-87-7692001</p>	<p>Saturday 30th July (G,R) – Blackstairs Mountains, Co. Carlow (H13) Leader: Lisa Dowling dowling_lisab@yahoo.com or 353-87-6125041</p>
<p>Saturday 28th May & Sunday 29th May (G,R) – Clifden & Carna, West Galway (H16) Leader: John Conaghan conaghaj@indigo.ie or 353-87-2239858</p>	<p>Saturday 6th & Sunday 7th August (G,R) – Donegal Town area , East Donegal (H34) Leaders: Oisín Duffy and Mairéad Crawford oisinsduffy@gmail.com or 353-86-0526161</p>
<p>Saturday 4th June (G,R) – Derrycarne Wood, Co. Leitrim (H29) Leader: Michael Archer michaeldarcher@eircom.net or 353-86-1716286</p>	<p>Saturday 13th August (G) – Drumnaph Community Nature Reserve, Co. Londonderry (H40) Leader: Dave Riley Meet in car park at 10.30 a.m. at map ref: C837039.</p>
<p>Saturday 18th & Sunday 19th June (R) – Bailieborough, Co. Cavan (H30) Leader: Robert Northridge robhannort@aol.com</p>	<p>Saturday 20th & Sunday 21st August (G,R) – South-east Galway (H15) Leader: Micheline Sheehy Skeffington micheline.sheehy@nuigalway.ie</p>
<p>Sunday 10th July (G,R) - Monaghan (H32). Leader: Alexis FitzGerald alexisfitzgerald434@gmail.com or 353-86-1266167</p>	<p>Thursday 1st to Sunday 4th September (G,R) – Macroom & further afield, Co. Cork (H3, H4 & H5) Leaders: Clare Heardman clare.heardman@ahg.gov.ie and Edwina Cole edwinacole@eircom.net</p>
<p>Saturday 16th July (G,R) – Co. Laois (H14) Leaders: Mark McCorry and Fiona MacGowan mark.mccorry@bnm.ie or 353-87-7530718</p>	<p>Saturday 17th September - Irish AGM, Dublin, more information can be found on the BSBI Irish webpage.</p>

Editorial

It has been so pleasing to have an overwhelming number of contributions for Irish Botanical News. Thank you so much for your help. Unfortunately, for technical and economic reasons, the format has to be kept under a certain number of pages, this is why I had to shrink the text size down to font 10.5. I hope that it is not too small and that everybody will still be able to enjoy reading this issue of IBN.

Have a great field season.

Paul. R. Green

Notes from the Irish Officer, New Year Plant Hunt, Call for volunteer help

Maria Long, BSBI Irish Officer, National Botanic Gardens, Glasnevin, Dublin
9. Email: maria.long@bsbi.org Tel: 00353-87-2578763

With only four recording seasons remaining until Atlas 2020, things are really hotting up. Myself and the CFI (Committee for Ireland) are working hard trying to understand where our strengths and weaknesses are as a recording network, and how best to help and support the fantastic work done by VCRs and members. It is difficult to assess progress and to plan if records are not reaching the DDb in a timely fashion, so I wanted to take this opportunity to **ask all VCRs to make a concerted effort to submit all 2015 records to the DDb asap, and before end April 2016**. Even if you have a backlog of records from other years, make a start by getting 2015 done and dusted before the 2016 season starts! Just get in touch with me if you need help in any way at all with this.

I look forward to seeing most of you at one of the many field meetings or training courses that are planned for this year.

New Year Plant Hunt 2016

I reported in last year's IBN about the unexpected success of the New Year Plant Hunt (NYPH) in 2015. So this year I can't really state that the success was unexpected – but I think the scale of participation was!

Now in its fifth year, the NYPH has really caught on. This year 850 people took part across Britain and Ireland, submitting 400 species lists and it all amounted to 8,568 plant records. Thirty-eight of these lists came from Ireland, almost doubling up on our 21 lists of last year. A whopping 612 species were recorded in flower across the board (compared to 368 last year), with 192 species recorded in bloom in Ireland (up from 140 last year).

Our longest list this year in Ireland had 52 species, and was recorded by Sylvia and Julian Reynolds in Limerick city. Again, this beats last year's highest

count of 40. In fact, Sylvia and Julian were involved in three of the top five Irish lists, taking up fourth and fifth places also with lists from Dublin! Brian Seales' list from DCU came in at second, with 43 species, and Fiona Devery was third with 40 species recorded in flower in Birr, Co. Offaly. The average number of species per list was 23, and data came in from 17 Irish VCs.

The top ten most commonly recorded species in Ireland looked very similar to last year's, but with Herb-Robert, Common Ragwort and Creeping Buttercup edging out Hogweed, Winter Heliotrope and Common Field-Speedwell.

Kevin Walker, BSBI Head of Science, has done some analyses on the data submitted and found that spring flowering species (e.g. Lesser Celandine, Cow Parsley) made up less than a fifth of the total number of records. Instead, three-quarters of the records were for 'autumn stragglers' – e.g. Yarrow, Red Dead-nettle. About one third of the species recorded are considered aliens, and, as in previous years, urban areas appeared to have more species in flower than rural ones.

Irish participants: **H1** Marc Cruise, Mary Mahony; **H2** Marc Cruise, Rory Hodd; **H3** Clare Heardman + nine others, Fionnuala O'Neill; **H4** Rodney Daunt; **H5** Isobel Abbott, Judy Casells; **H8** Julian Reynolds, Sylvia Reynolds; **H9** Caroline Sullivan; **H12** Ciarán Byrne, Deborah D'Arcy, Paula O'Meara; **H16** Ciarán Bruton; **H17** Catherine Seale, Fiona Mohr, Friends of Merlin Woods (x4 people); **H18** Fiona Devery; **H21** Aislinn NigFhloinn, Brian Seales, Julian Reynolds, Maria Long, Oonagh Duggan, Paul O'Flaherty, Richard McMullen, Róisín NigFhloinn, Sunniva Hanley, Sylvia Reynolds; **H34** Mairéad Crawford, Oisín Duffy; **H36** Mairéad Crawford, Oisín Duffy; **H37** John Faulkner, Mairéad Crawford, Oisín Duffy, Therese Hamill; **H38** Graham Day; **H40** Sharon Spratt + two others.

Ways for BSBI members to get more involved:

1. Come along to field meetings, especially recording events (list downloadable from Irish webpage: <http://bsbi.org.uk/ireland.html>)
2. Join/form a local group (there are a number in existence – email Maria to find out)
3. Take on a square – record near where you live, or somewhere you love to visit. THIS IS A GREAT OPTION – a bite-size, locally relevant site!
4. Record when you are on holidays/weekends away
5. Join the 'rough crew' (email Rory Hodd, rlhodd@gmail.com, to join the email list, and read more on the Irish webpage)
6. Become a Vice-County Recorder (or joint-VCR) – if you are a botanist, and importantly, are passionate about recording, then get in touch! We have vacancies in Longford and Cork, but also a need for some joint VCRs.

7. Become an '**Atlas 2020 recorder**' – focus on Atlas recording, 2016-2019 period only.

Get in touch with Maria, the Irish Officer (maria.long@bsbi.org), or your local VCR, to learn more about any of these options, or to suggest any other ways you might contribute.

Call for volunteer time – can you help?

I am **looking for volunteers** who could spare some time to work with me in the National Botanic Gardens. This could apply to existing VCRs, or members, or other interested parties. I really need some support, and if you feel that you could have some time to give to supporting the work of BSBI I'd really like to hear from you. People who can give either one big block of time, or smaller amounts but consistently over a longer period of time would both be considered. Thanks!

Fieldwork, Observation and Notation systems in Floristic Botany

Howard Fox, *National Botanic Gardens, Glasnevin D09 VY63, Dublin.*

Maria Cullen, *DCU Alpha, Innovation House, Glasnevin Hill*

D11 KXN4, Dublin. Corresponding author: howard.fox@opw.ie

'Providing names for plants subordinates them to our understanding.'
(paraphrased, Genesis 2: 3-5, after Lysaght 1997: 440).

Keywords: species, plants, fungi, geography, botany, philosophy, identification, specimens, vouchers, herbaria, methods, science.

Preamble

There are still relatively few Irish field botanists, but a new heyday of Irish botany has arrived (Synnott 1997). Maria Long has illustrated figures that show that more botanists in Ireland have joined the BSBI, year on year in the last decade (2006-2015), than from the period 1964 on, with peaks in 1985 and 1997.

What do botanists do with their developing knowledge of Irish plants? What sort of works ought a botanist produce and publish for the wider society in Ireland, is a worthwhile question to ask (Doogue 1992) of ones own botanical activity and career. Listing the plants living in different sorts of places is what doing floristic botany is all about. Ecology is about learning how to communicate results about plants to the wider society, so that both the conservation of plants and what plants need to live and reproduce are actually taken into account by land managers.

Listing plant names involves observation, plant recognition, plant identification and note taking, all the while knowing precisely where one is, in terms of spatial geography and habitat, in Ireland. Each plant location in Ireland

has townland and vegetation contexts. In addition, plant recording can include temporal, personnel, taxonomic reference, Ordnance Survey of Ireland raster grid and other contexts, all of which can become the normal part of a scientific biological record or a reference collection (Speight 1977, 1978).

All this geographic and spatial cognitive activity while reacting to seeing plants happens outdoors, so many kinds of notation systems are useful to record the history of these sightings, and to note any ecological or scientific interpretations, species determinations and so on, that cross ones mind while in the field, and when thinking, about each place and detail seen, afterwards. Botanists parse the visual sensory stream that we experience into plant species, so much so that a decade ago the notion of botanists as '*bipedal optical scanners with species recognition software*' was elaborated in a Dublin Naturalists Field Club programme and newsletter editorial. The literature that inform botanists of species concepts is diverse (Fox 2013), and includes biology syllabuses, natural histories, floras, identification guidebooks, science journals, geographic information, communication and research technologies, such as 'Google Images <latin name>'. Getting to know species in somewhere new and unfamiliar, like in tropical forests on a Caribbean island (Fox & Cullen 2014, Fox 2014), is a fully engaging process of botanical research.

In more than twenty years of floristic botany, mainly on lichens, but also on mosses, liverworts, macro-fungi, woody plants, micro-fungi, seaweeds, etc., one tends to develop habits, some ways of doing things that are retained, and some notation systems that are discarded or kept when improved, for the purposes of providing a rich record of species lists from fieldwork.

Historical geographers, librarians and archivists have taken to mine our collective printed botanical floristic information heritage (Collins 1992) for cultural ends. Indeed, Robert Lloyd Praeger's printed legacy (Praeger 1934, etc.) has already attracted considerable attention (Collins 1985, Lysaght 1998), and now increasingly that of David Moore (Johnson 2011) and Ellen Hutchins (Mitchell 1999, Heardman 2015).

Narrative order

We have for several decades been fans of narrative order; i.e. the operative order that events and observations happen, during a day out in the field.

The training for undertaking the Natural Heritage Area survey (Lockhart et al. 1993) instilled the value of a system of note numbers, linked to place points with interpretative ideas, facts and details, which were marked upon photocopied sections of the relevant six inch map. HF's contribution to this fieldwork, undertaken in 1993 and 1994, was mainly in County Wexford and County Wicklow. The Northern Ireland Lichen Survey, from 2002 to 2005 during which 150 sites were surveyed, for our part also employed a notation system of narrative order by stop numbers, dependent woody plant host details and short species lists. This narrative order based system, combined with the

mycorec reporting package, was also used in a fungal survey of Fingal Parks (Cullen & Fox, 2006).

Specimen numbering systems are a normal part of the continental European and North American botanical traditions. We can draw an example from H.A. Imshaug (d. 2011) whose legacy in making tens of thousands collection numbered voucher specimens, subsequently digitised in the MSC herbarium, facilitated the generation of a lichen checklist (Fox & Cullen 2014). A narrative order is a good basis for such a career long specimen numbering system.

Species name prompt caveats

We have taken a rather reactionary stance on observational prompting from reading text in the field. By that, we mean reading a species name from a prompt card, and then looking for that species in nature. This heightens the danger of delusion with cursory field observation. Conversely, using a prompt card to recording a search with a null result for a wide range of taxa would be interesting scientific data, for any area of search with a defined search effort. However the recording of positive data on mapping cards is synoptic. By that, we mean that each one field observation itself is not of prime importance, and it is more that the repeat observations, of a series of views of a range of diagnostic characters needed to identify the species as present in the area of survey, that is considered the valuable currency, for record collectors to gather, in summary for onward communication.

Psychology of recognition

Writing on the psychology of recognition, Lawley (2011) indicates that the favoured haunt of rare species are rare habitats, and so these are rewarding places in which to search. The effort of naming every organism encountered in any place, according to the morphological differences between them, and being alert to the unfamiliar, requires calm, considered and reflective identifications. The critical questioning attitude towards the descriptions in identification manuals are the hallmarks of a good botanist, seeking to build a repertoire of species they can recognise in the field. When each habitat is assiduously quartered, geographic novelties are found by searching in places where others have not thought to look. Looking in the field, collecting material, illustrating and controlling the collection at the microscope (W. Labelij, in conversation) is a process that lead to the initial detection of interlopers from the southern hemisphere (Lockhart, Hodgetts & Holyoak 2012: 512-513).

Mapping cards and walking

Filling out mapping cards is nonetheless both a crucial and industrious habit, one that allows one to visually consume a considerable land area on foot, and rapidly gain a presentable synoptic record of the species present. This is ideal for novelty

hunting; first records for set areas, and so forth. However, often operative order is not preserved, repeated observations of individual species are not tacitly acknowledged, and thus using a mapping card is an exceptionally wasteful system, always forcing synopsis, that inhibits more extensive notation, and limits, or rations, the person to plant contact time in the field.

Towards a general method of notation

We have this notion that in the field, the creative act in observation is notation. Notes in the field are signals for the mind (D. Stewart, in conversation). Writing diagnostic characters, species names and ecological words in the field helps create identification guides, and so we value this, and that reading, as an activity, detracts. We have the view that observation and recording is more significant, and that the main decision points in keys to species should be in mind, when outdoors. This allows the dividing lines between species to be interpreted in view of the morphological expressions observed in the field. Spending time outdoors reading field guides or keys as an *aide memoir* is not time well spent, but we would rather spend time observing detail in nature and time sampling to bring for laboratory study.

Releves

In recording vegetation, the discipline of setting out a quadrat of 10m, 2m or 0.5m, can be an interesting exercise in data collecting. All sorts of ancillary information can be documented in addition to the vegetation layer; e.g. soil samples can be taken for later analysis, voucher specimen packets for species determination validation, and so on. A system of releve plots, set out in experimental arrays (Gordon 2007) of 3 replicates in 5 sites 'of a kind' can be helpful in circumscribing within site, and between site, variation in particular habitat types.

HF has been involved in several quadrat surveys – the Moneypoint tree trunk epiphyte vegetation quadrat survey to bioindicate air quality in 1990 and 1991 for the Electricity Supply Board – and the Brackloon wood survey in 1997 for Coillte (Cunningham 2005) – and the FORESTBIO woodland vegetation study in 2007, 2008 and 2009 for COFORD. These surveys all provoked a consideration of and practice of notation systems; such as DAFOR scales for species cover abundance, as well as dependant epiphyte host substrate notations for 10m forest vegetation monitoring plots, discussed below.

Notation systems for epiphytes

In studying epiphytes, there is a structural dependence of epiphytes on woody host trees and shrubs for their micro-habitat, up in the air on the tree bark surface. Detailing this dependence is an important activity in modelling the correct evaluation of individual woody plants as the settling points for species dispersed in the aerobiota as ascospores, conidia, soredia and vegetative diaspores.

Learning about the micro-habitat preferences of individual species, requires attention to recording the substrate details in a synoptic manner.

For many years, we have used a system of woody host plant substrate notation, initially observed in conservation site reports, from the late 1980s on (Hill 2006), and have adapted it to a standard contracted form of abbreviation which is resistant to misconstrual on re-expansion. This substrate notation revolves around noting the genus of the woody plant host, using double letter codes with leading capital and trailing small letters, followed by a hyphen, followed by a two letter coding for the tree part, to indicate whether a trunk, bough, branch or twig is providing the structural support for the epiphyte.

Epiphyte epidemiology

This notation system can be taken further in epidemiological studies. For newly colonising species, we have taken to note (Micheline Sheehy Skeffington, *in conversation*) that a species *Teloschistes chrysophthalmus*, occurs 'as a single thallus with small apothecia, in the axil of the 8th annual node of branches from the south side of a willow bush, *Salix cinerea*, on the east shore of Whiddy Island, 30 August 2015. If it takes 2 or 3 years for willow bark to become a suitable substratum for lichen growth, and the thallus is 30mm in diameter, then it might be upwards of 3 years old, then the epidemiological inference is that this species colonised at some stage in the time period 2009 to 2013. Counting back branch nodes, marked by annual bud scale bark scars is a non-invasive method, while counting branch tree rings in cross section is suitable method, if woody vegetation sampling, and some note is taken whether the part of the twig, with the lichen thallus on, is live or one to several years dead attached. On a card, an epidemiologically instructive notation might be: *1380 Telos chry, Sx-br, 8yo, 30mm, fertile*. This cuts to the chase, identification secure, and reports only the ecology. The logic of the taxon *Teloschistes chrysophthalmus* also needs to be abstracted.

The broader consideration here is to plan for using an optimal notation system through your botanical career, and for long term plant observation projects, so that data losses, between field observation and resulting scientific syntheses, are nil.

Writing a field guide

To engage with creating pleasant botanical activity outdoors for eco-tourism, one has to really consider what litany is to be recited about plants in habitats in nature. The Latin names of plants are a start, together with technical details in species memoirs, and a recital of previous finds. To make this, one needs to collate results from fieldwork, observations and notation into an illustrated guide book to the species in order to facilitate others to make species identifications (Fox 2014). This will ensure the propagation of floristic botany, as a pleasant

outdoor visual and cognitive activity, for the wider society in Ireland to engage with.

Digital camera media streams

The practice of recording photographically the critical series of observations of the diagnostic features of particular plants and animals, needed during the identification process, with a digital camera is an interesting development.

Some plant recorders think little nowadays of making 500 photos from a days outing, and the macro-lens views can capture lots of interesting features for analysis. Editing this media stream series, down by 10-fold or more, for onward presentation, is a key method for improving the overall image quality.

The pioneer in Ireland with botany image websites must be Stuart Dunlop of Donegal Hedgerow fame, who has made a huge contribution to biodiversity recognition in Ireland, with his media stream on his website from 2003 to 2007 which continues to this day as a blog. In the DNFC from the last few years, Pat Lenihan has been publishing many photos, on the DNFC event reports website. His images from weekly outings, ensure that a wide range of taxa that are named in the field by specialists and naturalists present on site, are captioned, harnessing the collective knowledge of people attending with years to decades of experience in Natural History species recognition and identification.

We have often retold the story of the making of Roger Phillips 1981 *Mushrooms*, which hinged on Roger setting up a camera studio in the corner of the week long British Mycological Society residential forays, starting from the amazing summer of 1976 with the autumn that was alive with mushrooms, and photographing choice exhibition collections from the residential foray, which were also dried and scientifically vouchered into the K herbarium, for a few years, until his set of photographs and technical descriptions were second to none.

There is an incredibly exciting future to 2020 for natural history illustration in Ireland using digital camera media streams, something that Mark Cruise on Twitter and Vincent Hyland in Derrynane are pushing out the envelope, with underwater digital videos of the behaviour of subtidal inshore fauna and the dynamic forms of seaweeds in the seawater column.

It would be remiss not end this essay by mentioning the Irish Association of Botanical Artists, with many artist members talented and fluent in watercolour and book design and production, which with some social crossovers, and exchange of natural history and horticultural materials to illustrate, will also be part of this Irish botanical media stream into the future. Conceptual line art in botany is a key area that requires attention in Ireland, and more intensive integration into biology syllabi, and the advice of a botanical artist Claire Dalby on making line illustrations has been highlighted too (Fox 2015).

Atlas 2020

The distribution of plants in Ireland is on the agenda to 2020. In this essay, we would encourage botanists to examine their notation systems, and try and improve them, extend them, with all mod cons, so that they have a rich legacy to draw from. While people are out botanising, why not point your mind to other pressing questions about plants, the number of flowers of a plant that set seed, annual reseeding success, annual vegetation gap dynamics, micro-habitat humidity, and plant point temperature measurements at a noted time on the survey day, to name but a few attributes that we have scant original data in Ireland for. The day of the natural history mapping distribution card and the tick list, invented in the late 1950s for the first atlas in 1964, has evolved to the computer age in the 2010s to MapMate, Recorder and Mycorec. These computer applications have been in use by recorders in Ireland from at least 2003, 1997/8 (P. Green, pers. comm.) and 2002 (the authors) respectively. The most troubling aspects of these computer systems have been (1) when a recorder has a large batch of records in an excel spreadsheet to append, and the precise process involved is tricky to discern and unclear with a worrying risk of things going awry, and (2) during the bedding in period in the early 2000s of the concept of 'names in current use' when the species name dictionaries were highly irritating and forcing recorders to select among species synonymies they did not agree with. Species concepts in use in literature from continental Europe (Finland, Sweden, Norway, Germany, Denmark, Netherlands, Luxembourg, Belgium, France, Italy, Spain, Portugal, etc.) and biogeographic regions of Atlantic Europe like Macaronesia, and not solely Britain alone (e.g./*Fraxinus angustifolia*, *Cladonia stereoclada*./, *Toninia kolax*./, *Caloplaca polycarpa*./) always have played a role in informing the taxonomic repertoire of botanists studying Ireland. Indeed, taxonomic literature from New Zealand and Terra del Fuego has been helpful in learning about southern hemisphere aliens that are growing naturalised in Ireland. With the era of national checklists, many of the obscure taxa from many parts of Europe have come to light, and in the internet age now, with global access to taxonomic species concepts from arctic, temperate and tropical zones, there are interesting efforts afoot in harmonization of nomenclature between biogeographic regions. The use of regionally ground-truthed distribution cards and species tick lists, that act to enforce by consensus ones taxonomic opinion, do not automatically hold universal appeal with the Irish psyche; 'au contraire', a psyche that is more comfortable with taxonomic nuance and ambiguity as a proxy for a scientifically laborious description of variation. One must be pluralist enough to accept that there is always a role for continental European and exotic taxonomic literature in Irish botany.

The migration to complexity will continue to 2020, with digital image stills, YouTube instructional videos on how to observe particular species, and gopro footage of fieldwork, together with watercolour illustration, natural

history sound libraries, and line art for naming the plant parts, are now all part. All this ought to be part of the Irish botanical record.

Acknowledgements:

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A taxonomic comparison of *Helosciadium inundatum* (L.) W.D.J. Koch, *H. nodiflorum* (L.) W.D.J. Koch and their interspecific hybrid, *H. x moorei* (Syme) Druce (Apiaceae)

T. O'Mahony, 6 Glenthorn Way, Dublin Hill, Cork City.

Abstract

This paper provides a detailed, definitive account of the taxonomy of the interspecific hybrid, *Helosciadium x moorei* and its parents, *H. inundatum* and *H. nodiflorum*. A key is also provided, aimed at facilitating accurate identification of these three, polymorphic, taxa.

Introduction

The flowering plant family Apiaceae, consists of approximately 450 genera and 3700 species (Pimenov & Leonov 1993) and exhibits a cosmopolitan distribution, but is chiefly found in the north temperate region (Tutin 1962). A major peculiarity of this family, is the paucity of interspecific hybrids, which are mainly associated with the genera *Heracleum* L. and *Helosciadium* W.D.J. Koch (= *Apium* sect. *Helosciadium* (W.D.J. Koch) Bab.). Moreover, the propensity for interspecific hybridisation within the small genus *Helosciadium* (as confirmed in 2015, by means of molecular studies at the University of Leicester, England (S.D. Desjardins, pers. comm.)) is both remarkable and revelatory – as is the recent confirmation of the first European record for the intergeneric hybrid, *xBeruladium procurrens* (= *Berula erecta* (Huds.) Coville x *Helosciadium nodiflorum*) from England (Desjardins *et al.* 2015).

The genus *Helosciadium* consists of just five perennial species (Ronse *et al.* 2010), namely: *H. bermejoi* (L.Llorens) Popper & M.F. Watson (an extreme world rarity, that is endemic to the island of Menorca); *H. crassipes* W.D.J. Koch ex Rchb. (confined to Corsica, Sardinia, Sicily, S. Italy and parts of N. Africa); *H. inundatum* (L.) W.D.J. Koch (mainly in western Europe, extending eastwards to Sicily, SE. Sweden and C. Russia, while in Africa it occurs in Tunisia and Algeria); *H. nodiflorum* (L.) W.D.J. Koch (throughout most of Europe, W. and C. Asia, and N. Africa; naturalised in parts of N. and S. America); and *H. repens* (Jacq.) W.D.J. Koch (of local/rare occurrence in W. Europe and parts of C. and S. Europe; also occurs in parts of N. Africa).

Helosciadium x moorei (Syme) Druce: its history and distribution

The first world records of a putative interspecific hybrid within the genus *Helosciadium*, came from Ireland, during the period 1804-1886: they were of the presumed cross, *H. inundatum* x *H. nodiflorum*. This putative hybrid was also reported from a handful of English sites during the period 1881-1913, though the identifications of some of these taxa were tentative, and subsequently disputed (e.g. Riddelsdell 1914). Syme (1865) initially described this phenotypically very variable taxon as a luxuriant form of *H. inundatum*, but later treated it as a variety, namely, *H. inundatum* var. *moorei* Syme, on the basis of material collected by David Moore (then curator of the National Botanic Gardens, Glasnevin, Dublin) from the River Boyne, County Meath (**H22**) (Syme 1878). Druce (1912) subsequently raised this taxon to species rank, but his reasons for this upgrading in status were decidedly unconvincing, as pointed out by Riddelsdell (1914), in an excellent taxonomic paper that powerfully demonstrated the hybrid nature of this taxon as the cross, *H. inundatum* x *H. nodiflorum*. In the same paper, Riddelsdell also collated all recorded Irish and British records for this hybrid, drawing attention to putative finds in both Wales and Scotland, and highlighting the fact that the original Irish find was actually made by J.T. Mackay in 1804, from beside the banks of the River Fergus at Ennis, County Clare (**H9**), and that a voucher from this population resides at **KEW**. Currently (2016), the precise European distribution of *H. x moorei* remains tantalizingly unclear. What *is* certain, however, is that the island of Ireland (where *H. x moorei* has been recorded in at least twenty-six of its forty vice-counties (Scannell & Synnott 1987)) is the core base for this hybrid on both a European and world scale. However, many of the older Irish records need updating. In Britain, *H. x moorei* has relatively recently been reported in Scotland from the Outer Hebrides (v.c.110) (Stace *et al.* 2003; 2010). Older records (c. 1881-1914) also exist for a handful of sites in CE England (i.e. Northamptonshire, v.c.32; North Lincolnshire, v.c.54; Derbyshire, v.c.57), but it is unclear if any of these populations are still extant (Stace 2010). The *absence* of *H. x moorei* records from mainland Europe is perplexing, given that both its parents commonly cohabit over much of that continent. Intriguingly, Druce

(1932) stated that this hybrid occurs in West Germany, though I am unaware of any corroboration of this assertion. *Helosciadium x moorei* will, no doubt, ultimately be recorded on the European mainland. I suspect that the dearth of European records for *H. x moorei* is in no small measure attributable to the predominantly terse and wholly inadequate descriptions of this hybrid in the literature (e.g. Lambrick 1998; Tutin 1962, 1968, 1975, 1980; Parnell & Curtis 2012). It is hoped that the detailed descriptions of the hybrid and its parents provided in this present paper (in addition to the accounts of Riddelsdell 1914; O'Mahony 2015) will remedy this situation. (**Note:** In November 2015, T. O'Mahony collected living material of *H. x moorei* and its parents from a West Cork section of the River Lee (**H3**, W3170), adjacent to the River Lee Reservoir, SW of Macroom town. This is the major, extant locality for *H. x moorei* in Co. Cork (O'Mahony 2009). The material was sent to Mr Stuart D. Desjardins at the Department of Genetics, University of Leicester, England, who undertook a molecular and cytological study of these plants. This definitive molecular study, established beyond doubt for the first time, that *H. inundatum* and *H. nodiflorum* are the parents of *H. x moorei* (Desjardins in prep.) – thus validating the views of generations of botanists in regard to the parentage of this interspecific hybrid.)

The comparative taxonomy of *H. x moorei* and its parents

The perennial taxa, *H. inundatum*, *H. nodiflorum*, *H. x moorei* and *H. repens* all exhibit considerable vegetative plasticity, which results in ongoing identification difficulties for field botanists, in the absence of flowering and fruiting material. Throughout Europe, and further afield, this situation has been the bane of botanists for over two centuries, and has frequently resulted in erroneous determinations of taxa. Grassly *et al.* (1996), referring to the *H. nodiflorum* situation that they encountered in Port Meadow, Oxfordshire (v.c.23) (where dwarf-statured, procumbent phenotypes of *H. nodiflorum* mimic cohabiting *H. repens*) stated: “The RAPD data do, however, show the tight genetic clustering of *Apium nodiflorum*, even though there is great phenotypic plasticity. The plasticity of Port Meadow *A. nodiflorum* can be seen to produce several discrete morphological types as recognisable plastodemes (sensu Gornall 1987; Gilmour & Heslop-Harrison 1954). These plastodemes (assemblages of plants phenotypically rather than genetically distinct) are the result of local environmental conditions...”. In the same paper, they further stated: “When such a range of phenotypes is assumed by a species such as *Apium nodiflorum*, allowing the occupation of a range of habitats, the selective advantage of phenotypic plasticity is obvious (Coleman *et al.* 1994)”.

H. inundatum

A diminutive, delicate, aquatic, semi-aquatic or terrestrial perennial, to 100cm; **leaves dimorphic**, the *basal 2-3-pinnate*, their leaflets with long, filiform, flaccid segments when submerged, or short, rigid, linear segments when growing

terrestrially on mud and gravel substrates; leaves of flowering stems *1-pinnate*, their leaflets *5-12 mm*, commonly obovate, with cuneate, entire-margined, bases and often shallowly 3-lobed apices; **umbel-peduncles** *c. 12-30 mm* on any one plant, equalling or much longer, than the 2-4 umbel-rays; **peduncles and rays of umbels** *subterete and smooth-walled* in living or freshly-collected material; **umbel-bracts** 0 (-1); **umbellules** (partial-umbels) *c. 7-12-flowered*; **bracteoles** 4-7, very unequal-sized, either *wholly herbaceous*, or with a narrow hyaline margin basally; **pollen grains** numerous, short-ellipsoid (oval in outline) and fully viable; **fruits** viable, *elliptic-oblong* in outline, *c. 2.5-3.5 x 2-2.6 mm*; **combined style and stigma length** *c. 0.25 mm*, *much shorter* than the stylopodium. Somatic chromosome number $2n = 22$ (Al-Bermami *et al.* 1993).

H. nodiflorum

A generally robust perennial, exhibiting extreme vegetative polymorphism, and existing as a range of phenotypes; erect/suberect plants range to 1m in height and only root at the lower stem-nodes, but dwarf, procumbent phenotypes root at most nodes, and these are frequently mistaken for the much rarer *H. repens*; **leaves** all *1-pinnate*, their **leaflets** 1-10 cm, ovate to lanceolate, finely crenate-serrate to near the (usually) rounded base, and sometimes incised proximally; most leaves with sessile leaflets, but the basal and/or sub-basal pairs *occasionally bear petioles 4-10 mm in length*; **umbel-peduncles** very variable in length on any individual plant, and *ranging from 0.4-3.2 cm*, much shorter, to occasionally much longer, than the rays; peduncles *quadrangular/rectangular* in cross-section, each angle with a *conspicuous, stout, translucent, cartilaginous rib/wing*, *c. 71-142 (-184) microns wide*, *bearing an unevenly-crenulate crest*; **umbel-rays** 3-10 (-15), displaying the same cross-section and micromorphology as the peduncles (a suite of peduncle/ray characters that may be unique to *H. nodiflorum* within the genus *Helosciadium*); **umbel-bracts** 0-2 (-3), with conspicuous, uneven, hyaline margins; **umbellules** *c. 10-20-flowered*; bracteoles 5-7, unequal-sized, *with conspicuous, uneven, hyaline margins*; **pollen grains** numerous, short-ellipsoid (oval in outline) and fully viable; **fruits** viable, ovate to suborbicular in outline, longer than broad, to very occasionally slightly broader than long, *c. 1.5-2.5 x 1.5-2.75 mm*; **combined style and stigma length** *c. 0.35-0.5 (-0.6) mm*, *equalling or longer* than the stylopodium. Somatic chromosome number $2n = 22$ (Hollingsworth *et al.* 1992).

H. x moorei

A straggling perennial, its intertwining stems forming a semi-submerged or floating mat in the marsh, ditch, streamside or lake-margin habitats that it usually frequents; it becomes terrestrial on mud and gravelly substrates during periods of exceptionally low water-levels, or when exposed in reservoirs during water draw-down, without any deleterious effects; **flowering-stems** ascending when supported by surrounding vegetation, and reaching *c. 15-25 cm* in height;

vegetative facies extremely variable over its range, and forming a *spectrum of variation* linking both parents; populations from some regions mimic *H. inundatum* in their delicate, demure stature and obovate aerial leaflets with cuneate, entire-margined bases (these leaflets often with a distinctive fan-like splay of irregular, blunt, distal lobes), while other populations approach *H. nodiflorum* in robustness, being stout-stemmed and bearing larger-dimensioned aerial leaves and leaflets, the latter frequently lanceolate and evenly crenate-serrate on their margins; **basal, submerged leaves** *1-pinnate* (as in *H. nodiflorum*) and very distinctive, commonly obovate-cuneate in outline, their leaflets up to 30 mm in length and *deeply and irregularly dissected* into linear-oblong, blunt lobes (see photos page 40); **umbel-peduncles** *c.* 12-30 mm on any one plant, equalling, or much longer, than the 2-4 umbel-rays; **peduncles and rays of umbels** *subterete and smooth-walled* in living or freshly-collected material (a *H. inundatum* character); **umbel-bracts** 0 (-1) and **umbellules** *c.* 7-12 (-15) flowered, as in *H. inundatum*; **bracteoles** 1-6, very unequal-sized, either *wholly herbaceous* or with a narrow, hyaline margin basally (as in *H. inundatum*); **pollen grains** often sparse, narrowly-ellipsoid and longitudinally furrowed on one side, *the majority devoid of contents and sterile*, though occasional grains take up stain; **fruits** sterile, commonly shrivelling and disarticulating soon after petal-fall, but some umbellules may produce incipient fruits that attain dimensions of *c.* 2-2.5 x 1.75 mm, and turn a blackish-purple colour, giving the illusion that they are viable; however, vertical-sectioning of these fruits, reveal their ovules to be *minute, abortive, and devoid of contents* – this latter feature starkly contrasting with the fruits of both its parent species, in which each of the two conjoined mericarps bear a solid-bodied, ellipsoid seed (*c.* 1.6 x 0.5 mm) that totally fills its mericarp-loculus; **combined style and stigma length** (after petal-fall, or on incipient fruits) *c.* 0.3-0.35 mm (i.e. closer to its *H. nodiflorum* parent).

A key to *Helosciadium x moorei* and its parents

1a All leaves 1-pinnate, the laminate leaflets ovate to lanceolate, and more or less evenly crenate-serrate to the usually-rounded base; umbel-peduncles and rays (in the living state) quadrangular/rectangular in cross-section, each angle with a translucent, cartilaginous rib/wing, bearing an unevenly-crenulate crest; rays 3-10 (-15); umbellules 10-20-flowered; bracteoles with conspicuous hyaline margins; pollen abundant and viable; fruits viable, ovate to semicircular in outline, longer than broad, to slightly broader than long, 1.5-2.5 x 1.5-2.75mm; combined style and stigma length *c.* 0.35-0.5 (-0.6mm), longer than the stylopodium:**H. nodiflorum**

1b Basal leaves either 2-3-pinnate, with filiform or linear segments, or 1-pinnate with highly-dissected leaflets; umbel-peduncles and rays subterete and smooth-walled in the living state (lacking the translucent, cartilaginous

ribbing that is characteristic of *H. nodiflorum*); rays 2-4; umbellules mainly 7-12-flowered; bracteoles wholly herbaceous (green), or with a narrow hyaline margin basally:(2)

2a Leaves dimorphic: those on the flowering-stems 1-pinnate, with obovate-cuneate, often 3-lobed leaflets to 12mm; the basal leaves 2-3-pinnate, their segments filiform and flaccid when submerged, or linear and rigid when terrestrial; anthers bearing abundant, viable pollen grains; fruits freely produced and fertile, elliptic-oblong in outline and *c.* 2.5-3.5 x 2-2.6mm; combined style and stigma length *c.* 0.25mm, much shorter than its stylopodium:**H. inundatum**

2b All leaves 1-pinnate, their leaflets commonly 20-30mm long; the lower leaves (submerged or semi-submerged) bearing highly-dissected leaflets, their segments linear-oblong and obtuse; leaves of flowering-stems with laminate, variably-shaped leaflets, these most frequently obovate-cuneate and 3-lobed at the apex (as in *H. inundatum*), or more rarely lanceolate-acute and crenate-serrate (as in *H. nodiflorum*); anthers with rather sparse pollen, the grains narrowly ellipsoid, predominantly devoid of protoplasm, and thus sterile; incipient fruits sterile, mostly shrivelling and disarticulating after petal-fall, but a variable number darken purplish-black and reach full size, but bear a minute, empty, abortive ovule in each mericarp-loculus; combined style and stigma length *c.* 0.35mm:**H. x moorei**

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Additions to the flora of Sherkin Island, Roaringwater Bay, West Cork (H3)

John Akeroyd, *Caroline Cottage, The Dene, Hindon, Salisbury, Wilts.,
SP3 6EE, UK*

Introduction

The islands and adjacent mainland of Roaringwater Bay in West Cork (H3) comprise a frequently overlooked Irish botanical ‘hotspot’. *The Wild Plants of Sherkin, Cape Clear and adjacent islands of West Cork* (Akeroyd 1996), published by Sherkin Island Marine Station, provided a detailed *catalogue raisonné* of the rich flora of 592 taxa found in the islands. Plant records continued to accumulate and the resulting *Supplement* (Akeroyd *et al.* 2011) added another 35 to Roaringwater Bay. The present note brings together a further six taxa – two species, one variety and three hybrids – bringing the total to 633. Of these, 513 occur on Sherkin, which is not only the best explored island botanically but also has a wide range of habitats and a long coastline.

I visit Sherkin each year, usually in late summer. In 2015 I was there on 23–24 May, in order to celebrate the 80th birthday of Matt Murphy, founder and director of the Marine Station. By happy coincidence, during the actual celebrations I discovered a coastal variant of *Anthyllis vulneraria* previously unrecorded in the islands; and the following morning the adventive *Libertia chilensis* naturalized on a nearby roadside. I was also able to re-confirm the presence of *Valerianella carinata* on Sherkin, a record originally included for convenience in Akeroyd (2013) in a note under that species.

The three other new records are of *Atriplex* hybrids, which I found on a further visit to Sherkin on 25–27 October 2015. All occur at Kinnish Harbour, in and near small patches of saltmarsh vegetation beside the main cross-island lane that runs along the southern margin of the inlet. One of the three, the hybrid between Spear-leaved and Babington’s Orache (*Atriplex prostrata* x *A. glabriuscula*) is more widespread on the island, as are the putative parent species. Although the season was almost over and plants in poor condition (and therefore herbarium material was not collected), I was well familiar with these three hybrids after leading an *Atriplex* hybrid workshop for the BSBI on Anglesey in mid-September 2015. Long-stalked Orache (*A. longipes*) has only been recorded from one locality in Co. Waterford, Little Island in the tidal River Suir (Green 2008), and from several locations in Co. Wexford (Green 2015), although perhaps present elsewhere and overlooked. Green (2008) has also reported the hybrid between *A. longipes* and Spear-leaved Orache (*A. x gustafssoniana*) on the tidal River Suir near Little Island; and more recently the same hybrid, together with the hybrid with Babington’s Orache (*A. x taschereaui*) from the tidal stretch of the River Barrow, and scattered locations

from Wexford town to Duncannon, Co. Wexford. *A. longipes* is rare too in Britain, despite the wide distribution of hybrids.

For ease of comparison with material already published, the notes below are laid out in a similar format to the layout conventions of Akeroyd (op. cit.) and Akeroyd *et al.* (op. cit.), including the consecutive numbering system of those publications (*alien).

Amaranthaceae (Chenopodiaceae)

74a. *Atriplex prostrata* Boucher ex DC. x *A. glabriuscula* Edmondston

Spear-leaved Orache x Babington's Orache

Rocks, shingle and gravel at top of sandy and muddy strands, and crevices of low retaining wall between road and saltmarsh.

Sherkin (Kinnish Harbour, Cow Strand and adjacent 'Gravel Strand', Trá Ban, JRA 2015, confirming the record of Polunin (1950), "gravelly shores, Sherkin Island")!

This hybrid, which is present in some quantity, is especially abundant at 'Gravel Strand'. *A. prostrata* occurs also at these sites. Note that, although it still lacks a formal hybrid binomial, *A. prostrata* x *A. glabriuscula* can be locally abundant, as along the shores of the Menai Strait in North Wales (I. Rees & I. Bonner collections 2013, *fide* JRA *et al.* 2015).

74b. *Atriplex prostrata* Boucher ex DC. x *A. longipes* Drejer (*Atriplex* x *gustafssoniana* Tascher.)

Gustafsson's Orache (Spear-leaved Orache x Long-stalked Orache)

A few plants in narrow saltmarsh band and on grassed-over slipway, at top of muddy strand.

Sherkin (Kinnish Harbour near Community Centre, JRA 2015)!

The plants had slightly fleshy hastate leaves, the lamina more or less truncate, and some foliate bracts up to 9 mm long, the fruiting structures on pedicels 1–5 mm.

New to West Cork. A search of taller brackish marsh vegetation on the fringes of Kinnish Harbour, and also above the beach at Trá Ban to the west failed to reveal any evidence of actual *Atriplex longipes* or even further plants of *A. x gustafssoniana*. *A. longipes* is probably not present on the islands, but it could possibly occur on the adjacent mainland, especially near the mouth of the River Ilen, which enters the sea at Baltimore. Above Baltimore, the river is a maze of channels, islands, tall saltmarsh vegetation and reeds, with tidal and brackish habitats up as far as Skibbereen.

75a. *Atriplex glabriuscula* Edmondston x *A. longipes* Drejer (*Atriplex* x *taschereaui* Stace)

Taschereau's Orache (Babington's Orache x Long-stalked Orache)

A few plants among boulders and in crevices of low retaining wall between road and saltmarsh dominated by *Juncus maritimus* (Sea Rush), at top of muddy strand.

Sherkin (Kinnish Harbour, JRA 2015)!

New to West Cork. *A. glabriuscula* does not occur in Kinnish Harbour, although it grows on strands at the mouth of the inlet. *A. longipes*, as is often the case with this hybrid, does not appear to be present here or elsewhere on Sherkin. It is possible that the record from "gravelly shores, Sherkin Island" of *A. prostrata* (as *A. hastata*) x *A. patula* (Polunin 1950) may refer to this hybrid. Hybrids involving the tetraploid *A. patula* – our other species in this group are diploid – have not been reported in the wild from Ireland or Britain (but see Richards 2015).

Fabaceae

206a. *Anthyllis vulneraria* L. subsp. *vulneraria* var. *langei* Jalas

Kidney-vetch

Low rock outcrop in mown grassland, formerly pasture.

Sherkin (western end of Marine Station land, JRA 2015)!

Most material of this variable species in Roaringwater bay belongs within *A. vulneraria* subsp. *lapponica* (N. Hyl.) Jalas, which in this part of West Cork is a distinct variant that usually has purplish-pink, pale pink or cream flowers. A more prostrate, branched yellow-flowered plant, *A. vulneraria* subsp. *vulneraria* var. *langei* has probably been overlooked and is perhaps present at low frequency. In Bantry Bay (Akeroyd 2013), this last variant was present only on Dursey, the most western and exposed of the islands. Some plants of subsp. *lapponica* on Dursey, and at the western end of Bere, have yellow flowers and appear to vary towards var. *langei*. It may well occur in other more exposed rock and cliff sites in Roaringwater Bay.

Valerianaceae

***398a. *Valerianella carinata* Loisel.**

Keel-fruited Cornsalad

Gravel drive of cottage with other weeds, and occasionally on adjacent stone wall.

Sherkin (lane heading SE at western edge of inner Kinnish Harbour, JRA 2010–2015)!

This cornsalad species is rather widespread in and around Cork City and County, on walls and in dry or gravelly places rather than tilled ground (T. O'Mahony pers. comm.). The owners of the cottage where it occurs on Sherkin also live in Cork, probably the origin of this population. "JRA 2012" cited in Akeroyd (2013) derives from the fact that only from 2012 were ripe fruits present for accurate determination.

Iridaceae

***470a. *Libertia chilensis* (Molina) Gunckel (*L. formosa* Graham)**

Chilean-iris

Grassy roadside; originally from Chile.

Sherkin (lane above Trá Ban, JRA 2015).

New to West Cork, although there are a few records from Kerry (Reynolds 2002). This variable species with erect sprays of white flowers is increasingly grown in Irish gardens, often as *L. grandiflora*, a name that properly belongs to another species, from New Zealand (Shaw 2015). Dublin Zoo holds a National Collection of *Libertia*.

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Changing the face of a village Notes on some alien flora in Guileen

Judy Cassells, *Bridge House, Guileen, Midleton, Co. Cork. P25 PW50*

The village of Guileen [An Gaibhlin] is a favoured spot on the East Cork (H5) coast where it is possible to have a close encounter with otters and choughs, unusual moths, chimney swifts (fleetingly) and the odd drift seed (*Entada*). In the past few years however, some rather different species have made their presence felt, such as the distinctly invasive *Persicaria wallichii* (Himalayan Knotweed) along stream banks, road verges, fields and levelled areas, *Carpobrotus edulis* (Hottentot Fig) in gardens and on the main strand and *Delairea odorata* (German-ivy) as a climber on shrubs, trees and a rocky outcrop near the sea.

The stately Himalayan Knotweed is a relatively recent introduction to the village. It presumably arrived in subsoil for infilling but spread rapidly into areas normally occupied that other invader, *Petasites fragrans* (Winter Heliotrope). The change from being a minor element of vegetation to an expanding population and a threat to the character of the village was almost imperceptible but in the summer of 2014, it was finally recognized that control was overdue. A dense stand extending 60x20m dominated the land on the right hand side of the road adjacent to the stream. While not considered to be as destructive as *Fallopia japonica* (Japanese Knotweed), Himalayan Knotweed had nevertheless invaded areas where management was essential, like those containing septic tanks and a large culvert carrying the stream under the road to the sea. It was also found some twenty feet above the road amongst buildings across the stream. Some residents sought professional help involving the use of a combination of herbicides applied when the plants were in full flower and at maximum height, along with stem injection of those plants on the stream banks. Others cut stems singly to ground level at an earlier stage, leaving them to wither on concrete or gravel and sprayed the re-growth with glyphosate, a method almost certainly necessitating re-application.

The flurry of activity in Guileen coincided with a general awareness of the knotweed problem by Cork County Council and thence by village groups, community workers and private companies. We are likely to see more notices on roads advising us not to cut Japanese Knotweed as seen in Whitegate in 2015 and significantly, advertisements for soil now include the key word 'sieved'. Isolated stands remain on a steeply-sloping bank of the stream which runs through a number of different properties and on two separate areas of farmland. It seems that the sweet perfume of the flowers will continue to pervade the village in July and August. As an invasive species, *Persicaria wallichii* attracts few positive comments. However, it did provide cover for a 'family' of mallard in the stream last year and the flowers were still impressive in mid-October

when, as Tony O'Mahony observed (2008), it provides 'a mass of bloom for nectar-seeking insects at a time when most native flowers are on the wane'. It can also be found in a field near Inch strand (west) and in a layby leading down to that strand.

For the past few years *Carpobrotus edulis* (Hottentot Fig) gained quite a stronghold on the main (boat) strand in Guileen as a garden escape, apparently unaffected by trampling. Initially it produced few flowering heads but of late has produced many more. In the storms of January 2014, this dense mat was uprooted along with associated plants like *Crithmum maritimum* (Rock Samphire). The only species able to withstand extreme wave action on the same site was *Honckenya peploides* (Sea Sandwort), now under a considerable depth of sand. The fig propagules appear to have perished in the sea; there is no sign of the species at Inch although it still features on garden walls in Guileen (see photo page 43) and is likely to be planted more as flowering becomes more prolific. It is doubtful if those who plant it are aware of the National Biodiversity Data Centre's recent risk assessment (O'Rourke & Lysaght 2014) and plant it simply as a novel species with curiosity value. *Carpobrotus* has none of the charms of the related *Lampranthus* now naturalized on the rocky cliffs east of the lighthouse at Roche's Point and first reported by bass fishermen looking for a firm foothold on the lower cliffs. Neither of these species appears to be currently represented in gardens at Roche's Point.

Delairea odorata (German-ivy) has been known in the village for more than two decades, its presence attributed locally to a visiting thatcher! Its propensity for survival was noted in 1993 (J. Cassells) and its establishment at the seaward end of the village is likely to have resulted from the careless disposal of garden trimmings. It is easy to see why this species attracts gardeners; its light green leaves are reminiscent of the ivy-leaved *Pelargonium* and remain evergreen in sheltered places. These rather succulent leaves have a sharp, lemon scent when crushed and are also known to contain a liver toxin that might cause a problem to stock. Over 20 years it has become established on four sites in Guileen and can also be found in Roche's Point by the Boat House (see photo page 43). Like *Carpobrotus*, *Delairea* has been largely vegetative with a proliferation of flowers in the past two years. The deep winter cold of 2009 caused all the growth above ground to disappear but recovery was rapid in Guileen - it merely re-appeared in the spring using its own desiccated stems to scramble up again. It is hard to imagine that the cold winter of 2011 might have been 'the last straw for this species in Wexford' – a wistful thought by Paul Green (Green 2011).

The most noteworthy flowering was in 2014. Flower clusters appeared in November and lasted until February 2015 in a colourful and eye-catching display, with corymbs of groundsel-like heads made up entirely of deep golden disc florets. These have a perfume reminiscent of *Petasites*. No achenes have been observed so far. Searing November winds limited flowering for this season,

although enough survived to make an appearance on the New Year's list for 2016 on a rocky outcrop at the road's end and on shrubs and trees bordering the stream. In this latter niche the foliage of the host plants will be completely overgrown in the summer months. It also grows as groundcover in a garden adjacent to the strand and on the cliff walk to the sandy beach.

Delairea is still widely sold and requested on the internet but gardeners in the know will comment on its disadvantages. The species' bindweed-like habits are not something that will be borne in mind by those taking material for propagation from the wild – they see it only as an attractive, winter-flowering climber. This South African native currently has a low profile in Ireland. In other parts of the world where it is notoriously invasive, various methods of biological control (like a defoliating moth) have been employed.

It seems that these three are here to stay in the village. All we can do is use effective but minimal control where necessary and monitor their progress.

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National Biodiversity Data Centre.
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A New Find - *Vicia sepium* var. *ochroleuca* in Limerick

Margaret Cahill, *Limerick*

I took my camera with me when I headed out for a walk around the beautiful grounds of the University of Limerick (R616581) on Sunday evening 17 May 2015. My regular route takes me along the banks of the Shannon, along meadows, pathways and tended beds. I had spotted what I thought was a patch of Red Campion (*Silene dioica*) from the car the day before and despite how common it is, I realised I didn't have a photo of it in my collection of wild flowers.

It was indeed Red Campion I had seen, growing in a metre-wide strip of grass that had been allowed grow wild by the side of the main road through the campus. A white/cream-coloured flower caught my eye and on closer inspection I recognised it as a Vetch but I was a bit confused about it because it looked incredibly like a Bush Vetch which I knew was always deep purple but not like any of the other Vetches I had come across. Coincidentally, I also found the white form of Herb-Robert (*Geranium robertianum*) later that same evening in a different location.

I looked the flower up on the internet when I returned home and was surprised to find that it was in fact a variation of a Bush Vetch (*Vicia sepium* var. *ochroleuca*) (see photo on front cover). One of the internet sites I found the flower on was actually the editor Paul Green's *BSBI Cymru blog. Paul had identified it from John Akeroyd's *The Wild Plants of Bere, Dursey, Whiddy and other Islands in Bantry Bay* (2013).

I posted photos of both the Vetch and Herb-Robert to a Facebook group that I'm a member of to double-check that I was right and to show the unusual finds I had made. The group, the Ireland Plant Identification forum, is a mix of curious members of the public, wild flower enthusiasts like myself and botanists. Brian Seales, a BSBI member, got in touch with me and was intrigued by the find and my identification of the flower as it wasn't included in Stace's *New Flora of the British Isles* (Stace 2010) or *Webb's An Irish Flora* (Parnell & Curtis 2012), commonly used reference guides for Ireland and the UK. The named variety has only been previously recorded at five sites in Ireland (Akeroyd 1996 & 2013), (Green 2015), making mine the sixth recorded sighting. I thought it was just me who hadn't seen the flower before and never imagined that most other people hadn't either! We have since heard of a white flowering Bush Vetch in Donegal identified by Stuart Dunlop, and a white-flowered plant of *V. sepium* was recorded in 2007 near Clonmacken Roundabout on the west side of Limerick City in the **H9** part of the county (Reynolds 2013).

It's great as someone who loves wild flowers to be able to feed into recording work and connect with experts. Without our Facebook group, my photos and record of this unusual variant would not have gone further than my own computer. Come join us!

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Editor's note: *BSBI Cymru blog is now managed by Polly Spencer-vellacott the BSBI Welsh Officer.

Irish Species Project - Cowslip - Laois - 2014-2015

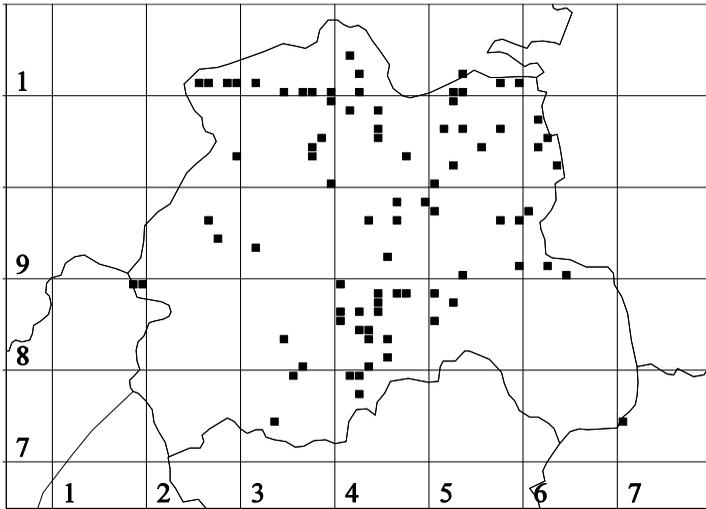
Mark McCorry & Fiona MacGowan,
9 The Cross of Newtown, Ballyroan, Co. Laois

The Botanical Society of Britain and Ireland carried out a Cowslip (*Primula veris*) survey in Laois as part of the Irish Species Project. The main objectives of this project were to improve our understanding of the distribution of several selected plant species of particular interest and to stimulate recording activity, obtaining records of selected species (http://www.bsbi.org.uk/Irish_Species_Project_John_Faulkner.pdf). The selected species, including Cowslip, were scarce but not rare, thought to be in decline and easily identifiable. Cowslips are a typical species of calcareous grassland and have a widespread distribution in the midlands of Ireland including Laois. This is to be expected as Laois has limestone bedrock and is predominately made up of Limestone-based sub-soils and soils, although not all regions.

We took part in this survey. Part of the survey was to re-visit locations in Ireland where Cowslips had previously been recorded, and see if the plants were still there and how they were doing. The site we had to check was in Ballydavis Townland, north-east of Portlaoise. The previous record was made in 1987 by Peter Foss. This site was not located again (the area being dominated by improved grassland and farmland). However, we decided to spend some time making records of Cowslip from around the county. I planned to collect records when driving around the county and on my commute back and forth to work, taking different routes home. We also circulated a message on the Co. Laois Heritage Facebook page about our survey.

We collected 83 records of Cowslips in total and several individuals who had seen our request on Facebook also sent us records from their locality around the county (see map showing all records collected during the survey as well as some recorded collected during the Laois Habitats Survey 2005-2009). These included records such as 'on the road verge at Poorman's Birdge, Abbeyleix,' and 'in the graveyard at Emo'. Cowslips are quite well distributed through Co. Laois, although there are still some gaps. New records were collected from three hectads (10 km² grid squares) where there had previously been no records of Cowslip. Records were also collected from hectads where there had been no records since 1969 or for a longer period. Fewer records in the SW and SE part of the county can be partially attributed to surveyor bias as these areas were visited less frequently or not at all. Some gaps can be attributed to environmental factors, such as the upland area of the Slieve Bloom Mountains (sandstones), which is covered in bog, heath and conifer plantation. However, some still turned up on a roadside verge where imported road material (from Limestone quarries of the lowlands?) or more probably 'imported' glacial till,

may have influenced distribution. A large gap is also present in the SE of the



county and this is influenced by the predominance of intensive cereal production and other agriculture in this part of the county (Barrow floodplain) and unsuitable

sub-soils found over the Castlecomer Plateau (sandstone and shale based). There are fewer potential habitats for Cowslip in the lowlands of the Barrow floodplain as much of the land is intensively improved farmland. However, no doubt there are more records waiting to be made and it is planned to continue recording Cowslip and collect records from un-visited parts of Laois.

The majority of records collected in 2014 and 2015 were on road-side verges, particularly on verges where grass is maintained or has an open sward. This obviously reflects the recording effort and the time spent driving around Laois. Other records came from un-managed grassy banks along roadsides, in graveyards, in private lawns, along the canal and verges along railways. They are also present (and locally frequent) on Bord na Mona cutaway on sites (Coolnamona and Coolnacarten) where underlying sub-soils (mainly limestone-based mixed till glacial material) have been exposed and are being colonised by typical calcareous grassland species.

It seems that Cowslips are now quite rare in agricultural grassland, mainly as a result of more intensive agriculture. Only one old pasture with Cowslips was recorded in Abbeyleix (see photo page 42). However, it was more difficult during recording to pin-point old meadows where Cowslips could be present and this is why the more easily recorded records along road-sides dominated. It is interesting that Cowslips have now colonized the lawn of the new school (South School) in Abbeyleix (open only 5 years). Cowslips are also quite well distributed on verges along the N7 motorway opened in 1997. So perhaps they still have opportunities to remain part of the flora of Co. Laois in grassland and emerging habitats that will not be intensively managed in the future. Many thanks to all those who contributed records.

Atlas Poppy (*Papaver atlanticum*) in Bray, Co Wicklow (H20)

Richard McMullen, 75 *Silchester Park, Glenageary, Co. Dublin*

On 18 August 2015 I came across a single plant of the Atlas Poppy (*Papaver atlanticum*) (see photo page 42) at the north end of the Bray Promenade (O269191) looking very much at home in the sandy/shingly substratum with plants such as White Clover, Perennial Rye-grass, Biting Stonecrop and Buck's-horn Plantain.

The flowers are orange/yellow and the capsule is club shaped with the upper part transversely wrinkled.

This is the first record for Ireland.

Beggarticks (*Bidens frondosa*) in Grand Canal Docks, Dublin (H21)

Richard McMullen, 75 *Silchester Park, Glenageary, Co. Dublin*

At the E. end of the Grand Canal Dock (O1834) the old Aran Island ferry, the Naom Eanna, is moored gradually rusting away, in a very decrepit state. The area surrounding it is about the size of a football pitch and has been allowed to run wild. It is fenced off from the general dock area by a fence thankfully less secure than that which protects most of the derelict sites around Dublin.

As well as the usual inhabitants of these derelict sites - Buddleja, Prickly Lettuce (*Lactuca serriola*), Bilbao Fleabane (*Conyza floribunda*), Oxford Ragwort (*Senecio squalidus*), etc. - several plants of Beggarticks (*Bidens frondosa*) were found growing from the cracks in the granite dock walls, close to the water. A few capitula had small yellow ray florets and the achenes were exactly as described in Stace (2010). This appears to be the first record of *Bidens frondosa* for Ireland.

Several plants also occurred which seemed out of place to me e.g. Remote Sedge (*Carex remota*) growing from cracks in the vertical face of the granite dock wall, Hairy Sedge (*Carex hirta*) growing not far from Marsh Woundwort (*Stachys palustris*) in an area not noticeably wet. A few plants of Field Woundwort (*Stachys arvensis*) also occurred and a single unhappy - looking plant of Common Calamint (*Clinopodium ascendens*).

Bidens frondosa was also found growing on dock walls beside lock gates just outside the Naom Eanna enclosure.

I would like to thank Sylvia Reynolds for confirming the identification Beggarticks and Common Calamint.

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Rough Poppy (*Papaver hybridum*) in Rathfarnham Golf Club, Co. Dublin (H21)

Richard McMullen, 75 Silchester Park, Glenageary, Co. Dublin

In 2014, having acquired some adjacent land, Rathfarnham Golf Club created three extra holes to add to the existing fifteen holes. This required much earth movement and remoulding of the landscape to lay down the new fairways. To beautify the marginal land east of the fifteenth fairway a Wild Flower Seed mix was sown which germinated in the spring of 2015 to produce a spectacular splash of colour.

The mix contained Austrian Chamomile (*Anthemis austriaca*), Corncockle (*Agrostemma githago*), Cornflower (*Centaurea cyanus*), Corn Marigold (*Glebionis segetum*), Oxeye Daisy (*Leucanthemum vulgare*), White Melilot (*Melilotus albus*) and various grasses.

A single specimen of the very rare Rough Poppy (*Papaver hybridum*), was found in the Chamomile meadow. Did this arise from a long dormant seed brought to the surface by earth movements or was it part of the wild flower mix?

The 'New Flora of the British Isles' (Stace 2010) describes its habitat as 'arable fields and waste places; formerly widespread in BI except Scotland, now much less common and more or less confined to E and S England on calcareous soils'.

The 'Flora of Co. Dublin' (Doogue *et al.* 1998), has the following entry - Extremely rare. An endangered species in Ireland, legally protected under the Wildlife Act of 1976.'

The two latest records are from 'a housing estate to the west of Malahide' (1985) and 'still on the margin of a barley field on the Portrane peninsula' (1985 - 'Still there 2001'). All records for Dublin prior to 1985 are confined to Skerries, Portrane, Sutton, Howth, Raheny, Baldoyle, Portmarnock, and St Douloughs. There are no Dublin records from south of the Liffey.

On balance it would seem that its provenance is the wild seed mix but if so, why such a miniscule proportion of the mix? Or, did only one of many such seeds germinate and establish successfully? This poppy is pretty scarce in England too but the seed mix was simply labelled 'packed in England' so it might have been harvested from further afield.

It is becoming increasingly popular for wild seed mixtures to be used to brighten up marginal land and this poppy may well turn up in sandy seaside walks.

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Longford – a lovely county to botanise in

John T. Brophy and Maria P. Long

John T. Brophy, Botanical Environmental & Conservation Consultants Ltd.
43 Herbert Lane, Dublin 2, D02 TE86. jbrophy@botanicalenvironmental.com

Following a field season that found us in Longford on several occasions, we would like to take this opportunity to highlight a few interesting botanical finds in this county and perhaps encourage you to consider putting yourself forward for the role of Longford VCR, or even just volunteer to do some recording there or take a square.

The habitats of Longford include the islands and shoreline of Lough Ree and the River Shannon, the re-opened Royal Canal (and the still disused Longford Branch stretching from the main line to Longford Town), callows grassland, raised bogs and woodland. Longford is not known for its range of altitude, with its highest point being Corn Hill, which tops out at 278m (still meaning Longford is more mountainous than Denmark), so botanists heading out into the field can rest assured that ‘rough crew’-like treks up mountains in search of records can be left to others.

In the course of surveying for Marsh Fritillary in September 2015, we recorded a partial list of 64 species at Cloondara (N0778) on the banks of the Camlin River, a tributary of the River Shannon. The habitats were mostly wet grasslands, dominated by *Juncus* species or *Molinia caerulea* (Purple Moor-grass), while a poke around the river turned up *Lemna trisulca* (Ivy-leaved Duckweed) and *Nuphar lutea* (Yellow Water-lily). Other nice species records here included *Crepis paludosa* (Marsh Hawk's-beard) and *Cirsium dissectum* (Meadow Thistle).

Another partial list prepared at Derrycolumb (N0958) on the 14th September saw 84 species recorded, with some highlights including *Lycopus europaeus* (Gypsywort), *Primula veris* (Cowslip), *Scutellaria galericulata* (Skullcap), along with multiple orchid spikes which will have to wait for another day for ID (we were there in September). A few additional records from the adjacent square, N0957, include *Cicuta virosa* (Cowbane), *Rumex hydrolapathum* (Water Dock), *Thalictrum flavum* (Common Meadow-rue) and *Glyceria maxima* (Reed Sweet-grass). The habitats present included wet grassland, planted immature woodland, calcareous grassland, cutover/milled bog and drains.

A fascinating site visited in the course of this survey (17th Sept) included a series of meadows in the townland of Derawley, 2km NE of Drumlish (N1786), which yielded 82 species. The meadows were managed by late mowing (mid-September), with the landowner telling us he was planning on cutting the following day. The sward was dominated by forbs, with *Succisa pratensis*

(Devil's-bit Scabious) often carpeting the area. The sward was most unusual. Species of note included *Carex laevigata* (Smooth-stalked Sedge), and the lovely *Sisyrinchium bermudiana* (Blue-eyed-grass) which was found in the uppermost field (see photo on page 41). Orchid spikes were recorded in abundance, but again could not be identified due to the lateness of the season. Also on 17th September, a visit to an acid mire beside the R184 in Prucklishtown near Granard (N2779) yielded a partial list of 61 species, including *Carex vesicaria* (Bladder-sedge) and numerous orchid spikes.

A change of focus found us surveying for the snail *Vertigo moulinsiana* in the disused Longford Branch of the Royal Canal (tetrad N17A) on 13th October. A partial list from this site turned up 151 species including *Scutellaria galericulata*, *Equisetum variegatum* (Variegated Horsetail) and the duckweeds *Lemna minor* and *L. trisulca*. A particularly notable find was not a vascular plant, but rather the floating liverwort *Ricciocarpus natans*, which was a new county record.

And not five minutes in a callows grassland field in N0475 (south-west of Termonbarry, 15th Sept), and only a very quick glance in the drain, gave us *Bidens cernua* (Nodding Bur-marigold), *Stellaria palustris* (Marsh Stitchwort) and *Cicuta virosa*.

These lists we made are far from exhaustive – rather they are species we noted while doing other work. The fact that we found so many species of interest while ‘not really looking’ gives an indication of the botanical delights that might await anyone tempted to tackle lovely Longford!

We aren't the only people who have been out making plant records in Co. Longford. Sylvia Reynolds and Julian Reynolds spent two productive days in the county in September (see report below by SR and JR), while John Faulkner and John Conaghan both recorded in Newcastle Wood (N1856/N1956).

So there it is, Longford is a county with interesting things to see across a range of habitats, so if you think becoming the VCR is something you would consider, or even if you'd prefer to explore on a smaller scale, then contact the Irish Officer, Maria Long (maria.long@bsbi.org). We should of course also mention that the previous vice-county recorder, Seán Howard, is happy to chat with anyone interested in learning more about the botany of Longford, and furthermore, his thesis is available for reference (hard copy only for now) in the National Botanic Gardens.

Reference:

Howard, S. (1986) Flora of Longford. MSc Thesis, University College Dublin.

Two days in Longford (H24) and miscellaneous records from Wicklow (H20) and Dublin (H21), 2015

Sylvia Reynolds and Julian Reynolds, 115 Weirview Drive, Stillorgan, Co. Dublin

Following Sean Howard's long stewardship and recent retirement as vice-county recorder for Longford, there was a request for other botanists to record there for *Atlas 2020*. Because we didn't know the county at all well, the attraction for us was get to know it better and to botanise in an area which has habitats and plants different from those we usually encounter in Limerick. It is also a shorter driving distance from our home in Dublin!

We only managed to spend two long days in Longford towards the end of the field season, but they were two most enjoyable and productive days. On 8 September we planned to go straight to the edge of Lough Ree, then a nearby bog and also a stretch of the Royal Canal. However, as we were driving to the lake we spotted what looked like a good weedy area and decided to record there first – the idea being to find as diverse habitats and as wide a range of species as possible in the time we had. That stop south-west of Forthill (N0658) proved worthwhile. There was dumped soil and disturbed ground with weedy species and garden discards such as *Persicaria lapathifolia* (Pale Persicaria) and *Tropaeolum majus* (Nasturtium), roadsides with *Conium maculatum* (Hemlock) and *Salix pentandra* (Bay Willow), and some cut-over bog with *Rhynchospora alba* (White Beak-sedge).

Barley Harbour (N0157) was our access to Lough Ree. The water level was quite high, so some lake edge plants were submerged. There were shells of the invasive Zebra Mussel and a dense growth of a blue-green alga in shallow water. Species we recorded included *Littorella uniflora* (Shoreweed), *Rumex hydrolapathum* (Water Dock) and *Potamogeton perfoliatus* (Perfoliate Pondweed) at the lake edge, *Rhamnus cathartica* (Buckthorn) beside the pier, *Sorbus hibernica* (Irish Whitebeam) on the nearby roadside, and a large *Salix caprea* (Goat Willow), *Orobanche hederæ* (Ivy Broomrape) and common woodland species in the wood beside the car park.

After a picnic lunch, we headed for what we thought (from googling) was an extensive bog, accessed by a lane south-east of Collum Point (N0256). The lane itself was rather nice, with *Carex pseudocyperus* (Cyperus Sedge) at the wet wood edge. The 'bog' on the west side of the lane turned out to be, in part, a beautiful swamp with *Phragmites australis* (Common Reed) and a raised grassy track around and through it, making access much easier than is usual in such swampy ground. Characteristic species there included *Lathyrus palustris* (Marsh Pea), *Stellaria palustris* (Marsh Stitchwort), *Thalictrum flavum* (Common Meadow-rue), *Galium uliginosum* (Fen Bedstraw), *Carex lasiocarpa* (Slender Sedge) and *Parnassia palustris* (Grass-of-Parnassus), the last seen in

just one place. A bit further down the lane, which we also thought was ‘bog’, was an area of species-rich unimproved wet meadow, some of it recently cut. As we started to record, the farmer arrived ready to cut the rest of the meadow. We chatted and found that we were in a managed Special Area of Conservation. The best find there was a patch of *Eriophorum latifolium* (Broad-leaved Cottongrass).

Our final site of the day was the Royal Canal at and near Pake Bridge north-west of Ballymahon (N1259). Using a grab, we checked the aquatics which included both *Myriophyllum verticillatum* (Whorled Water-milfoil) and *M. spicatum* (Spiked Water-milfoil), *Elodea nuttallii* (Nuttall’s Waterweed), *Ranunculus circinatus* (Fan-leaved Water-crowfoot), non-flowering *Utricularia vulgaris* s.l. (Bladderwort) and, on the canal bottom, much *Eleocharis acicularis* (Needle Spike-rush). There was a small tree of *Taxus baccata* (Yew) in a nearby hedgerow. We could see the tempting open water of a pond some distance from the canal, but at that stage the light was fading.

A week later on 15 September we were back in Longford again. This time we started at Cloondara (N0675), recording in the town, on roadsides and at the harbour and canal. *Potamogeton lucens* (Shining Pondweed) was abundant in the canal, but it was too late in the season to be sure whether an *Oenanthe* was *O. aquatica* (Fine-leaved Water-dropwort) or *O. fluviatilis* (River Water-dropwort). An impressive stand of erect *Equisetum variegatum* var. *majus* (Variegated Horsetail) extended for some 200 m along the base of a hedgerow by the road just above the west side of the canal.

After a quick stop in a downpour where we had seen *Fallopia japonica* (Japanese Knotweed) on a roadside near Cloondara (N0775), we proceeded to another stretch of canal south of Cloondara (N0673), a habitat we both like and because no two stretches are the same. First we recorded near Begnagh Bridge, finding abundant *Eleocharis acicularis* and more *Potamogeton lucens*, as well as flowering *Scutellaria galericulata* (Skullcap) and a tussock of *Carex pseudocyperus*. Another tussocky sedge by the canal near the bridge puzzled us and Con Breen later determined a specimen from it as *Carex* x *boenninghausiana*, the hybrid between *C. paniculata* (Greater Tussock-sedge) and *C. remota* (Remote Sedge), considered one of the more frequent sedge hybrids in the British Isles (Stace, Preston and Pearman 2015).

We continued to walk north along the Royal Canal in the same monad (N0673), adding among other species *Alchemilla filicaulis* subsp. *vestita* (Hairy Lady’s-mantle). Next we recorded in the adjoining monad south of Cloondara (N0674) at the edge of an extensive cut-away bog, bordered by a deep drainage ditch with *Bidens cernua* (Nodding Bur-marigold). There were the usual species at the bog margin, also *Drosera intermedia* (Oblong-leaved Sundew), scattered *Myrica gale* (Bog-myrtle) and a small plant of *Andromeda polifolia* (Bog-rosemary).

On our way back to Dublin, our last stop was on higher ground west-south-west of Ardagh, taking in parts of several monads. Species added to our lists for the day included *Polypodium vulgare* s.s. (Polypody) and *Agrostis canina* s.s. (Velvet Bent) in N1868, *Blechnum spicant* (Hard-fern) in N1767, and *Juncus squarrosus* (Heath Rush) in boggy ground on the hill top in N1867. A surprise at the end of the day was to find some weedy peaty ground (also in N1867) with single plants each of *Raphanus raphanistrum* subsp. *raphanistrum* (Wild Radish) and *Galeopsis tetrahit* s.s. (Common Hemp-nettle). Then we watched the sun set over west Longford.

Including miscellaneous records noted between the main sites, we made altogether about 1055 records of some 345 taxa over the two days in Longford. As important as records are, it was very satisfying just to explore places and good habitats new to us.

As well as the Longford visits, SR led a Dublin Naturalists' Field Club outing at Kilcoole as part of the ongoing project to update Bruncker's *Flora of County Wicklow*. In preparation, the two of us went to Kilcoole on 12 May, also with the aim of searching for coastal species of *Trifolium* (Clovers). We were very pleased to find *T. occidentale* (Western Clover) in flower in short turf at the top of the shore south of the railway station (O3107), superficially looking like a small *T. repens* (White Clover), but the diagnostic features of the leaves and flowers were quite distinct. More patches were seen with Field Club members on 20 May. This species is known on the east and south-east coasts of Ireland.

To assist David Nash with recording for *Atlas 2020* in Dublin, we made three visits to hectad O13, mainly between the River Liffey and Grand Canal. *Erodium moschatum* (Musk Stork's-bill) was already in flower on the roadside at the north end of Beach Road (O1833) on 25 April and on open ground near the Grand Canal (O1233) on 9 May. This species was also spreading along a pavement/road edge at Weirview Drive in Stillorgan (O2026) in 2015 from where it was first seen in 2014. *Polypogon viridis* (Water Bent) and *Epilobium tetragonum* (Square-stalked Willowherb) were found in the Kilmainham area (O1233) on 30 August, both species apparently establishing themselves in Dublin City. Flowering *Malva neglecta* (Dwarf Mallow) was found near the canal in the same monad on 30 August, the leaves mistaken for *M. sylvestris* (Common Mallow) on an earlier date.

Aquatic plants were grabbed from the Grand Canal near the south end of Connolly Avenue (O1233) on 30 August, including some of the submerged dense grass-like growth rooted in the soft mud. When examined it was found to be vegetative *Eleocharis acicularis* (Needle Spike-rush), found again in September in the Royal Canal in Longford. Other aquatics included *Hippuris vulgaris* (Mare's-tail), *Myriophyllum verticillatum* (Whorled Water-milfoil) with club-shaped turions and *Elodea nuttallii* (Nuttall's Waterweed). There were also floating plants of what looked like an *Apium*. Specimens were collected and pressed. They seemed to match well the illustration of *A. x moorei* in the *Plant*

crib (Rich and Jermy 1998) and also specimens in the National Herbarium at Glasnevin. If right, it was an interesting record and specimens were sent to the BSBI referee Tony O'Mahony to check. He confirmed *A. x moorei* (under its new name *Helosciadium x moorei*), the hybrid between *A. nodiflorum* (Fool's-water-cress) and *A. inundatum* (Lesser Marshwort). It would be worth finding out more about its distribution and where it is actually growing in the canal.

To finish, apart from our continuing fieldwork in Limerick, dipping into Wicklow and doing some recording in Dublin, we particularly enjoyed our forays into Longford and would like to encourage other botanists, if they have time, to record towards *Atlas 2020* in Longford too.

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- Rich, T.C.G. & Jermy, C. (1998) *Plant crib 1998*. Botanical Society of the British Isles, London.
- Stace, C.A., Preston, C.D. & Pearman, D.A. (2015) *Hybrid flora of the British Isles*. Botanical Society of Britain and Ireland, Bristol.
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New records of *Blackstonia perfoliata* (Yellow-wort) in Northern Ireland

Ian McNeill, 86 Fairhill Road, Cookstown, Co Tyrone, BT80 8DE

Roy Anderson, 1 Belvoir View Park, Belfast, BT48 7BL

Dave H. Riley, 161 Duncrun Road, Limavady, Co Londonderry, BT49 0JJ

According to 'Atlas 2000', *Blackstonia perfoliata* is common across a central belt of Ireland from Galway to Dublin, coincident with underlying Carboniferous Limestone. It occurs quite often south of this belt, but showing up as more likely in coastal areas. However, it quickly fades away northwards, and for the most recent date class in the Atlas (1987 – 1999) it was not found north of Co Sligo. It is therefore surprising that in 2015 it has been recorded much further north at a site at Coolkeeragh, not far from Derry City, and in superabundance on landfill sites on the fringe of Belfast Lough.

During a visit to the extensive infill area on the north shore of Belfast Lough called Dargan Road Landfill (J3478), on 19 July 2015, RA discovered a very large colony of *Blackstonia perfoliata*. Infill at the site is now virtually complete but grading and finishing is still in progress. At J345785 there is a graded, flattened area the size of two football pitches finished with pulverized basalt. On the bare gravel *Blackstonia* is abundant, densely covering about half the total area. Other plants noted were: *Centaureum erythraea* (Common Centaury); *Senecio inaequidens* (Narrow-leaved Ragwort) – rare; *Leontodon saxatilis* (Lesser Hawkbit); seedling *Alnus cordata* (Italian Alder) (seeded from nearby amenity plantings); and a scattering of weed grasses. On 15 October 2015, RA encountered a further colony, this time on old basalt landfill opposite the RSPB hide on Airport Road, on the south side of Belfast (J374778).



Above: *Helosciadium x moorei* flowering stem showing basal, median and aerial leaves. Below: Submerged leaf of *H. x moorei*. Photos: T. O'Mahony © 2015; See page 15.





Above: Old Head, BSBI Mayo recording week. Flora Donald & Anne Green. Photo: P. O'Meara © 2015: See page 67. Below: *Sisyrinchium bermudiana* (Blue-eyed-grass) at Derawley, Co. Longford. Photo: John T. Brophy © 2015: See page 34.





Above: white-flowered variant of *Epipactis helleborine* at Drumherriff Lodge. Photo: J. Faulkner © 2015: See page 46. Right: Cowslips in meadow outside Abbeyleix. Photo: M. McCorry © 2015: See page 30. Bottom left: Atlas Poppy (*Papaver atlanticum*) in Bray. Photo: R. McMullen © 2015: See page 32. Bottom right: *Scrophularia nodosa* var. *babartii* at Coolaw. Photo: P. O'Meara © 2015: See page 52.





Above: *Carpobrotus edulis* (Hottentot-fig) planted on garden wall at Guileen. Photo: J. Cassells © 2015; See page 26.
Left: double flowered Creeping Buttercup at Abbyleix. Photo: M. McCorry © 2015; See page 58. Below: *Delairea odorata* (German-ivy) at Roches Point. Photo: J. Cassells © 2015; See page 26.



This brownfield site beside the city airport is long abandoned and starting to scrub over but *Blackstonia* is scattered thinly in open gravelly places.

On 29 October 2015, IMcN and DHR decided to visit the industrialised area around Maydown, some 7km NE of the centre of Derry, in the hope of finding an interesting ruderal flora. At first we were disappointed, but our day turned right around when, on waste ground in the Coolkeeragh area, we found a healthy colony of *B. perfoliata*, with 100+ plants, many of which were still in flower. One of the main associates was its close relative, *Centaureum erythraea* (Common Centaury). There were several other good plants close by: *Parentucellia viscosa* (Yellow Bartsia), *Filago minima* (Small Cudweed), *Leontodon saxatilis* (Lesser Hawkbit), *Carex otrubae* (False Fox-sedge), one bushy plant of *Galium album* (Hedge Bedstraw), *Parietaria judaica* (Pellitory-of-the-wall) on dumped material – it grows on the walls of Derry – and many chunky dead heads of an orchid, whose appearance and habitat suggested *Dactylorhiza purpurella* (Northern Marsh-orchid).

On 11 November, DHR re-visited the site and moved on to the levelled surface of a former lime tip, extending for 2+ ha at C487222. The lime was tipped during the 1960's and 1970's as a by-product of Carbide Industries Ltd. The weathered surface of the tip now has a calcareous, rather poorly drained mineral soil, with substantial areas remaining exposed. Here *B. perfoliata* is widespread, with 500+ flowering spikes. *B. perfoliata* apart, the tip has developed a plant community that resembles those characteristic of similar environments along the north coast of County Londonderry, with frequent *C. erythraea*, *D. purpurella* and *L. saxatilis*. In addition there is some evidence of interventionist management along the southern margin of the tip. Here frequent seedlings of *A. cordata* are spreading from a planted line of trees, and *Origanum vulgare* (Wild Marjoram) and *Poterium sanguisorba* subsp. *sanguisorba* (Salad Burnet) appear to be the survivors of wildflower gardening. In these circumstances there is at the least a distinct possibility that *B. perfoliata* also is an introduction.

At the sites described in 2015, *B. perfoliata*, as a calcicole, has taken advantage of skeletal soils developed on basic substrates of either quarried basalt or lime. Biogeographically, *B. perfoliata* can be allocated to a Submediterranean – Subatlantic element of the European flora, in which a broadly southern distribution in eastern Europe is extended much further north in areas closer to the Atlantic: this suggests that it may have gained advantage from the moderately oceanic climate of the coastal sites described. At all the sites, *B. perfoliata* has successfully exploited the open habitats newly created by large scale disturbance. The sites are remote from the natural populations of *B. perfoliata* in Ireland, but well within the reach of the commercial wildflower industry.

***Alopecurus myosuroides* – an agricultural viewpoint of finds in Co. Antrim and Co. Derry**

Sharon Spratt – *AFBI Plant Testing Station, Crossnacreevy, Co. Down*
(sharon.spratt@afbini.gov.uk)

During the summer of 2014, I received a grass specimen by colleagues in the agriculture industry asking if I could identify it. The suspicion was that it was Black-grass (*Alopecurus myosuroides*) as it was found growing within a field planted with winter wheat at a location within Co. Antrim. It was reported as being taller than the surrounding wheat plants and indeed upon inspection, this plant was tall and certainly could out-grow even the healthiest crop of wheat. This specimen was positively identified as *A. myosuroides* and was later supplemented with further specimens from another cereal field, this time within Co. Derry. Amongst other identifying features visible both with and without the aid of the microscope was the vibrant red colour of the inflorescence, characteristic of the species. However the diagnostic characteristic came on inspection of the glumes which were united one third to half of their length and minutely hairy. This contrasts with the other most likely species for the region and habitat, *A. pratensis* (Meadow Foxtail).

I was both pleased and slightly alarmed by the discovery. Although I had never seen it in person before, I had read much about Black-grass during my research on arable weed species and was aware that its discovery would not be welcomed by the cereal industry of the area. *A. myosuroides* constitutes a considerable weed issue within arable agriculture in the South East of England in particular. There is much research into this weed species, its impacts on crop yields and influencing agronomic practices. Significant to the agricultural industry, it has gained resistance to a broad range of herbicides.

Upon inspection of the BSBI hectad map service, one record for NI (Co. Antrim) was found for *A. myosuroides* between 2000 and 2009. Scattered records for the rest of Ireland were supplied by our Irish Officer, Maria Long. A record (3rd for the county) was made recently by Paul Green for Co. Wexford in his online blog in November 2014. *Alopecurus myosuroides* is a rare grass species of Northern Ireland (Hubbard, 1992). It is considered to be a native species of Britain and Ireland by some. However it is possibly an ancient and accidental introduction by farmers (archaeophyte) having been brought in with crop species (Cope and Gray, 2009).

Although the native status of *A. myosuroides* in Ireland cannot be certain, it does appear that it is a species which may have naturalised here and occurs in small, under recorded populations across the country. More concerning is the possibility that this species could be the result of accidental introductions to the country via cereal seed purchased from outside the country. It will be

interesting to see if further or more frequent records of *A. myosuroides* will be made across Ireland in the near future.

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- Cope, T. and Gray, A. (2009) *Grasses of the British Isles. BSBI Handbook no. 13.* Botanical Society of the British Isles, London.
- Hubbard, C. E. (1992) *Grasses. A guide to their Structure, Identification, Uses and Distribution in the British Isles.* Penguin Books Limited, England.
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A white-flowered variant of *Epipactis helleborine*

John Faulkner, *Drumherriff Lodge, Orchard Road, Lough Gall, BT61 8JD*

There has been a small population of *Epipactis helleborine* (Broad-leaved Helleborine) in the woodland section of my garden at Loughgall, Co. Armagh, for about 20 years. At first there was one fairly tight cluster of spikes, but gradually they have become more spread out. The plants are all more or less typical with pinkish-green flowers in July-August.

On 24 October 2014, I noticed two unusual spikes in the adjoining paddock, partially shaded by tall birch trees and well within the lateral reach of the tree roots. They were shorter than normal (20-30cm); only their lowest flowers were open and these were entirely white. These two spikes were some 15 to 20 metres distant from the nearest typical (and, by then, withering) spikes, and were in ground that had been continuously grazed by goats for 15 years. There was no sign of any *Epipactis* in the paddock in 2015.

The interesting question is whether the white colour and lateness of these spikes have a genetic or an environmental basis. White-flowered variants of the species have apparently been recorded from time to time under such names as var. *albiflora*, but I have not found much detail about these plants. On the basis of my description and pictures, the BSBI referee for *Epipactis*, John Richards, believes they are probably a genetic variant. I remain to be convinced. Maybe they will reappear in 2016 to give us more evidence!

Interesting Plants in Co. Waterford (H6), 2015

Paul R. Green, *Yoletown, Ballycullane, New Ross, Co. Wexford,*
Y34 XW62 paulnewross@eircom.net

The year started off really well with Mieke Muyllaert re-finding *Ceratophyllum demersum* (Rigid Hornwort) for the county, in January, in a pond at Gurteen Lower (S2623), this being the second county record and the first since before 1866. It had been last reported from Melbrook, near Clonmel by Miss A. Taylor.

The next interesting record came via 'Twitter' in June, when I happened upon a photo of *Anagallis arvensis* subsp. *arvensis* f. *carnea* taken by Oisín Duffy at Crooke (S704087). This is the first time this pale pink flowered form of the normal red Scarlet Pimpernel has been recorded for the county.

In July, John Diggin found two *Neottia nidus-avis* (Bird's-nest Orchid) under Rhododendron by Drumber Bridge (S047016), a new hectad record. The same day, John found *Sagina nodosa* (Knotted Pearlwort) higher up in the Knockmealdown Mountains (S0406), along a forest road where it was abundant, this is the first record for Knotted Pearlwort on the Waterford side of this mountain range.

Chatting to Megan Morris on the phone, she dropped into the conversation that she had found *Scrophularia umbrosa* (Green Figwort) and that it had yellow flowers, as I went quiet Megan knew I did not believe her! Visiting the site at Corranaskeha (X059908) with Megan, in July, I was convinced she had the correct species and all the population on one side of the road had yellow flowers and, further up the road on the other side, the plants had the normal reddish-purple flowers. Green Figwort is a rare species in Ireland more or less confined to the River Liffey. Searching the internet I came across pictures of yellow flowered *S. umbrosa* on an Austrian site: <http://botanische-spaziergaenge.at/viewtopic.php?f=80&t=260>.

Hosta fortunei 'albomarginata' found by Paula O'Meara at Kilclooney (S340098) on the 4 August, on the side of a forest road was a new county record. Paula's *Sedum telephium* (Orpine) found a few days later on the side of a forest road, also at Kilclooney (S3409), is the first record for the hectad since the 1950s.

The highlight of the year for the county came when I received an email from Martin Doyle asking if his photo was of Betony. I had already been asked the same question a few times during the summer and I had to always reply that the plant was in fact *Stachys palustris* (Marsh Woundwort). But Martin's picture was actually the genuine thing this time: Betony (*Betonica officinalis*)! A species that had been thought to be extinct in the county since 1886, when last report by A.R. Friel from Bilberry Rock on the edge of Waterford City. This was the same location as Martin's photo was taken. How on earth, over the years, botanists searching Bilberry Rock, including myself, had over looked the Betony is a mystery! I met with Martin and his son to see the Betony on 9 September, I was shown a patch at least 5 x 5 m, and told there were two other patches, which we could not find on the day. Martin told me he had known the Betony for about 20 years, not long after he moved to the area.

A day in the county on 20 September was extremely productive. My first stop was at Whitefield Court (S530088), a large estate which has been derelict for a number of years, had just been sold. I wanted to explore the grounds and the large house before it would be out of bounds again. Amongst a patch of brambles was a large stand of *Mentha x villosa* var. *alopecuroides* (Apple-mint),

a tall mint with large roundish leaves, this is a new county record, as the only other record of *M. x villosa* for the county was of var. *villosa*. *Erigeron karvinskianus* (Mexican Fleabane) that was common on the walls of the house, this being a new hectad record. Noticing a mass of *Conyza floribunda* (Bilbao's Fleabane) on waste ground at Highfield Business Park (S470168) on the edge of Portlaw, I stopped to take a look. Here, by one of the abandoned units, was *Phalaris minor* (Lesser Canary-grass) a new county record, with an abundance of *Anisantha diandra* (Great Brome) and *Polypogon viridis* (Water Bent), the latter a 2nd county record. The last stop of the day was on some disturbed ground at Powersknock (S520081), there was a single plant of *Ammi majus* (Bullwort), a new county record, and a large population of *Cyperus eragrostis* (Pale Galingale), a new hectad record. Paula O'Meara also visited the county in September, finding *Muehlenbeckia complexa* (Wireplant) established on a wall at Passage East (S701101), a 3rd county record.

My last visit of the year into the county on 14 October was in the far west with Megan Morris collecting leaf samples of *Gunnera* to send to the Royal Horticultural Society at Wisley for DNA tests to be done to see if any of the populations might be hybrids. On the roadside at Ballygalane (X066992) was one large *Senecio inaequidens* (Narrow-leaved Ragwort), a new county record.

A report on fieldwork in Limerick (H8), 2015

Sylvia Reynolds, 115 Weirview Drive, Stillorgan, Co. Dublin

In 2015 recording towards *Atlas 2020* with Julian Reynolds continued, mainly at sites not previously visited. Of special interest was finding rare annuals following clearance along a disused railway. As in previous reports, a selection of records is given below and all dates are 2015 unless otherwise stated.

First of all I want to clarify three records from 2014 (Reynolds 2015). *Prunus padus* (Bird Cherry) was confirmed on 17 May 2015 from a wood edge and roadside north-west of Cappamore (R7553) and in 2015 Ray Harley determined *Mentha* specimens collected in a wet field in 2014 at Kilmallock (R6027) as *M. x verticillata* (Whorled Mint), not 'probably *M. arvensis*'. Also north-west of Cappamore (5 July 2015, R7553), the tussocky sedge with poor end-of-season spikelets seen in 2014 was in fact a large plant of *Carex pilulifera* (Pill Sedge), not the suggested *C. appropinquata*. From photographs taken in 2014, Ian Denholm identified *Dactylorhiza* from two sites as *D. kerryensis* (Irish Marsh-orchid) – south-east of O'Briensbridge (31 May 2014, R6764) in a rushy field with *Juncus acutiflorus* (Sharp-flowered Rush) and *Sisyrinchium bermudiana* (Blue-eyed-grass), and north-west of Doon (31 May 2014, R8053) on a wet slope with *Equisetum palustre* (Marsh Horsetail) and *Lotus pedunculatus* (Greater Bird's-foot-trefoil).

The first record of the 2015 season came from Roger Goodwillie, who refound *Equisetum hyemale* (Rough Horsetail) at Ballyvollane by the River Shannon (R6359) on 25 March, seeing many more plants at its only known Limerick site than the one plant noted in 1998 (Reynolds 2013). Julian and I started our recording in late April, including checking *Cochlearia officinalis* s.s. (Common Scurvygrass), over 50 plants in flower and with immature fruits inside the low wall near the pier at Glin (27 April, R1247). *Cochlearia* becomes more complicated further up the Shannon Estuary.

On 5 May by the Allaghaun River in the south-west of the county (R1824) we found large patches of flowering *Viola palustris* (Marsh Violet) in a small area of wet woodland, a habitat not noted before for this species in Limerick. It was not clearly either of the two subspecies. Later that day we saw abundant *Pedicularis sylvatica* (Lousewort) in flower on a wet boggy slope at Boherduff (R1522), but were unable to assign it to a subspecies as the pubescence was very variable from plant to plant. By 27 August only a few leaves of this species were seen on the same slope and it could easily be overlooked.

The BSBI meeting at Curragh Chase on 16 May is reported on separately. There was time that evening to do a quick card in the Newcastle West Demesne (R2633, R2733), where it was a surprise to find many clumps of *Carex strigosa* (Thin-spiked Wood-sedge). This sedge is otherwise only known in recent times south of Newcastle West and has not been refound in the Foynes area. The following day, we noted *Trifolium micranthum* (Slender Trefoil) to be well established in short grass in the graveyard beside the ruined church at Nantinan near Rathkeale (17 May, R3545), new to the Limerick flora.

In August 2014 we had botanised the west side of Knockroe hill (204 m), with its substantial bluffs, and decided to check the east side and top earlier in the year in 2015. The short turf with outcrop around the cross on the hill (17 May, R6647) contained *Vicia sativa* subsp. *nigra* (Common Vetch), with *Aphanes australis* (Slender Parsley-piert), *Sedum anglicum* (English Stonecrop), gone-over *Erophila verna* s.l. (Whitlowgrass) etc. *V. sativa* subsp. *nigra* was also seen on a vertical bluff below the hill fort just to the west (R6547) and there were scattered plants of *Senecio sylvaticus* (Heath Groundsel) in the valley between bluffs on Knockroe (R6547). The second plant new to Limerick found that day was *Fallopia x bohémica* (Bohemian Knotweed) – a large patch established by the nature trail at Kilmoylan Wood near Doon (R8250).

Because we were away, no recording work was done in June. In July, we did a commissioned survey of the plants at Doohyle Lough near Rathkeale (R3743). The narrow uncut margin on the north side was species rich. *Carex elata* (Tufted-sedge) and *Juncus subnodulosus* (Blunt-flowered Rush) were common here, with some *Epipactis palustris* (Marsh Helleborine) and *Schoenus nigricans* (Black Bog-rush), and *Parnassia palustris* (Grass-of-Parnassus) was later seen on 3 September. *Thalictrum flavum* (Common Meadow-rue) is also

common by the lake. There is an extensive fen area on the south side of Doohyle Lough, with *S. nigricans* (abundant here), *Cirsium dissectum* (Meadow Thistle), *Senecio aquaticus* (Marsh Ragwort) and many patches of *Parnassia palustris*. Species at the lake edge and aquatics included *Sparganium natans* (Least Bur-reed), *Utricularia vulgaris* s.l. (Bladderwort), *Potamogeton coloratus* (Fen Pondweed), *P. berchtoldii* (Small Pondweed), *Myriophyllum verticillatum* (Whorled Water-milfoil), *Elodea canadensis* (Canadian Waterweed) and much *Lemna trisulca* (Ivy-leaved Duckweed). A robust *Chara* was abundant in the deep canal between the lake and the disused swimming pool.

On and around castle ruins on a hill east of Athlacca (15 July, R5834) were characteristic species such as *Conium maculatum* (Hemlock), *Smyrniolum olusatrum* (Alexanders), *Malva sylvestris* (Common Mallow), *Anisantha sterilis* (Barren Brome) and *Parietaria judaica* (Pellitory-of-the-wall), also a small patch of *Arabis hirsuta* (Hairy Rock-cress). Outcrop on the slope below the ruins had some *Origanum vulgare* (Wild Marjoram), *Arenaria leptoclados* (Slender Sandwort), *Aphanes arvensis* s.s. (Parsley-piert) and *Sherardia arvensis* (Field Madder). *Trisetum flavescens* (Yellow Oat-grass) was conspicuous in the grassland, while *Poa pratensis* s.s. (Smooth Meadow-grass) was growing on a nearby roadside bank – the latter species apparently much less common in Limerick than *P. humilis* (Spreading Meadow-grass). A contrast was then to record in Bruff (15 July, R6236), with many weedy species including *Veronica polita* (Grey Field-speedwell) and *Valerianella carinata* (Keeled-fruited Cornsalad). *Vulpia myuros* (Rat's-tail Fescue) grew densely on top of a high wall, as it has been noted to do in Askeaton.

Returning to our car along a road just west of Doohyle Lough north of Rathkeale (R3643) on 23 July, we couldn't miss the distinctive grass which was abundant along the low roadside bank – it was *Brachypodium pinnatum* (Heath False-brome). Tony O'Mahony had recorded a tiny roadside stand beside the old railway bridge not far from this site in 1995.

On 26 August we explored the valley on the south side of Knockaclugga (R1838). The bog there had been cut over and was degraded, so we were pleased to find *Equisetum sylvaticum* (Wood Horsetail) and one tuft of *Carex laevigata* (Smooth-stalked Sedge) in less disturbed peaty ground near the river, also *C. paniculata* (Greater Tussock-sedge) which was last recorded in the hectad in 1906. *Solanum tuberosum* (Potato) plants were thriving among dumped hedge clippings at the edge of another bog near the road (R1839). The next day, south-west of Dromtrasna Bridge (27 August, R1622), we came across a neglected farmyard beside a quarry with *Chenopodium rubrum* (Red Goosefoot) on a manure heap and *Galeopsis bifida* (Bifid Hemp-nettle) in open weedy ground.

Early in 2015 the vegetation had been cleared back along the disused railway between Limerick City and Foynes prior to assessing the possibility of reopening the line. The clearing work exposed soil and some rare annuals were found later in the year. On 4 September north-west of Doohyle Lough and

Ballingarrane station (R3545) *Euphorbia exigua* (Dwarf Spurge) was the first unusual species to be noted in sandy soil, growing with *Anagallis arvensis* (Scarlet Pimpernel). Further along the tracks similar sandy soil over low limestone outcrops contained *Chaenorhinum minus* (Small Toadflax), as well as *E. exigua* and single plants of *Papaver lecoqii* (Yellow-juiced Poppy), *Fumaria bastardii* (Tall Ramping-fumitory) and *Valerianella rimoso* (Broad-fruited Cornsalad), the last a very rare arable weed in Ireland and a new record for Limerick.

We were now curious to check other stretches of the same railway. On 12 September we walked north-west from the level crossing south of Askeaton (R3349, R3249) and found occasional patches of *Chaenorhinum minus*, often with *Anagallis arvensis* and sometimes with *Euphorbia exigua* in open ground. There were also small undisturbed wet areas by the tracks on either side of the road bridge south-west of Askeaton (R3349, R3249) with *Schoenus nigricans* (Black Bog-rush), *Epipactis palustris* (Marsh Helleborine), *Schedonorus arundinaceus* (Tall Fescue), *Molinia caerulea* (Purple Moor-grass), *Succisa pratensis* (Devil's-bit Scabious) etc. A bit further on (R3249) we saw some *Ononis repens* (Common Restharrow) and dense patches of *Brachypodium pinnatum* (Heath False-brome). *B. sylvaticum* (False Brome) was common along the railway. Fruiting *Cotoneaster integrifolius* (Entire-leaved Cotoneaster) was well established at the former station south of Askeaton (R3349).

The third stretch walked was east of Robertstown Creek, but no unusual annuals were seen; two plants of *Euphorbia exigua* had been found here in 2005. However, an unexpected find was made by the railway below the bridge just north of Barrigone (12 September, R2850), at least two large *Ficus carica* (Fig) trees with tiny fruits in the leaf axils. They seem unlikely to have been planted here – perhaps originating from the remains of fresh figs thrown out of a train window in bygone times?

Although Lough Gur had been visited on many earlier occasions, post-2000 records were needed for this botanically diverse area. It was our last stop of the day on 4 September before heading back to Dublin and we recorded over 160 species around the north-east corner of the lake (R6441), including *Rumex maritimus* (Golden Dock), *R. hydrolapathum* (Water Dock), *Bidens cernua* (Nodding Bur-marigold), *B. tripartita* (Trifid Bur-marigold) and *Ranunculus lingua* (Greater Spearwort), also *Arabis hirsuta* (Hairy Rock-cress) on a grassy slope.

The final records of the year were from Foynes Port (R2551) on 10 October, where there has been widespread use of weed killer. Species previously recorded there and seen again included *Erucastrum gallicum* (Hairy Rocket), *Hirschfeldia incana* (Hoary Mustard), *Sinapis alba* (White Mustard), *Thlaspi arvense* (Field Penny-cress) and *Urtica urens* (Small Nettle), as well as more recent arrivals at the port, *Anisantha diandra* (Great Brome), *Polypogon viridis* (Water Bent), *Conyza floribunda* (Bilbao's Fleabane) and *Senecio inaequidens*

(Narrow-leaved Ragwort). New to the port this time was *Epilobium tetragonum* (Square-stalked Willowherb), with its characteristically long fruits. *Amaranthus retroflexus* (Common Amaranth) and *Setaria viridis* (Green Bristle-grass), both formerly common at Foynes Port, have not been seen there since 2004 and 2001 respectively.

In December, Rory Hodd kindly emailed me a list of 12 records he had made in the Limerick part of the Galty Mountains in 2015. They included a second site for the fern *Botrychium lunaria* (Moonwort), seen on Temple Hill (26 May, R8321), an update for *Sedum rosea* (Roseroot) on Lyracappul (28 May, R8423) and, best of all, he found *Oxyria digyna* (Mountain Sorrel) on a north-facing rocky slope of Carrignabinnia (28 May, R8423) in the same area where it had been recorded by A.W. Stelfox in 1944.

I also appreciated that John Conaghan sent me a copy of the field card he had done at Tory Hill and Lough Nagirra (R5343) on 29 July and 1 September. He added several species to the hectad, including *Gentianella amarella* (Autumn Gentian), *Solidago virgaurea* (Goldenrod), *Carex vesicaria* (Bladder-sedge) and *Lycopus europaeus* (Gypsywort), and he confirmed *C. elata* (Tufted-sedge). The disused limestone quarry at Tory Hill is a new site for *G. amarella*, otherwise only known in the northern limestone area of the county. John reported too that *Azolla filiculoides* (Water Fern) had been found by Jim Ryan in a drain at the north-east end of Lough Nagirra.

Apart from fieldwork, all Limerick records from 1983 to 1999 with monad or tetrad grid references were extracted from field notebooks and cards, entered onto Excel spreadsheets and sent to the BSBI for its distribution database (DDb). To keep track of what still needs to be done for the next atlas, a luminous orange pen has been used to mark Limerick sites on Discovery maps where there are reasonable plants lists since 2000 – and there are still extensive unmarked areas on those maps!

References:

- Reynolds, S.C.P. (2013) *Flora of County Limerick*. National Botanic Gardens, Glasnevin, Dublin.
- Reynolds, S. (2015) A report on fieldwork in Co. Limerick (H8), 2014. *Irish Botanical News* No. 25: 41-48.
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Recording in Wexford (H12), 2015

Paul R. Green, Yoletown, Ballycullane, New Ross, Co. Wexford,
Y34 XW62 paulnewross@eorcom.net

2015 was very productive with much more recording done than previous years: 24,000 extra records collected than any other year, the most number of new species for the county in a year, 54, and the highest total of species recorded for

a monad in a single visit, 270; this was at Blackwater (T1234) on 24 August. Of the 199 species not reported for the county since 2000, 22 were re-found. Some with surprisingly long gaps between sightings. Mary Foley's *Echinochloa crus-galli* (Cockspur) found as a weed in her greenhouse was last reported from the county in 1865.

The first new county record of the year was a non-native species *Myriophyllum aquaticum* (Parrot's-feather) from a pond at Clonsharragh (S739095), found by Paula O'Meara on 23 February. Paula went on to find a number of other new county records:

- *Nassella tenuissima* (Argentine Needle-grass) established on gravel at Curraghmore (S789127),
- *Hedera algeriensis* (Algerian Ivy) well established in the roadside hedges, Linziestown (T047090), specimens were sent to the BSBI Ivy referee Alison Rutherford, who confirmed the ID,
- *Dactylorhiza fuchsii* subsp. *okellyi* (Common Spotted-orchid) two on heath near power station, Great Island (S694145),
- *Jasione montana* var. *latifolia* few clumps flowering on sea-cliff, Arthurstown (S716103), this variety of Sheep's-bit has much larger flower heads,
- *Scrophularia nodosa* var. *babartii*, a yellow flowered form of Common Figwort was found in a damp roadside ditch at Coolaw (S921186), all other county records are of plants with red flowers, see photo p. 42.
- *Mentha x villosa* var. *alopecuroides* (Apple-mint) seen on a heap of rubble at Grange (S721134) is a tall mint with broad round leaves,
- *Solidago canadensis* (Canadian Goldenrod) self-sown on a wall of the graveyard at Kilmokea (S687165),
- 5 clumps of *Ceratochloa carinata* (California Brome) on the road verge leading up to Stokestown Port (S706240) and in the port itself Paula had two fine plants of *Chenopodium glaucum* (Oak-leaved Goosefoot),
- a self-sown clump of *Geranium* 'Ann Folkard' (*G. procurrans* x *psilostemon*) on the side of a field at Kilmokea (S687165) was an unexpected find.

Paula's last new county record of the year was made on 29 October when *Rheum x rhabarbarum* (Rhubarb) was seen on rough ground at Monachee (S759133).

Paula also refound the first species of the year that was thought to be extinct in the county: *Clinopodium vulgare* (Wild Basil) on a road bank at Curraghmore (S788126) on 13 March, last reported here in 1889 by G.E.H. Barrett-Hamilton. The most recent record of Wild Basil for the county had been reported in 1943 from a road bank near Dunbrody Abbey.

Paula's other interesting records of the year include:

- a new hectad record for *Radiola linoides* (Allseed) on coastal heath, Broomhill (S747044),
- *Mercurialis annua* (Annual Mercury) on a heap of rubble at Campile

- (S724153),
- *Melilotus indicus* (Small Melilot) one on rough ground, Marshmeadows (S708260), 3rd county record,
 - a single plant of *Misopates orontium* (Weasel's-snout) as a weed of an arable field at Dunganstown (S688222),
 - *Lamium maculatum* (Spotted Dead-nettle) on a road verge at Knockroe (S788299), this is the 2nd county record and first since 1932.

On 25 May, I joined Ciarán Byrne and Paula O'Meara on a visit to Black Rock Mountain (S8654) to update the only extant site in the county for *Myrica gale* (Bog-myrtle). Here, we found several patches and added a new hectad record for *Ophioglossum vulgatum* (Adder's-tongue).

Mick O'Connor sent me a photo of a cream coloured Bush Vetch he found on a road bank at Mangan (S883425) on 31 May. I identified this as *Vicia sepium* var. *ochroleuca*, 2nd county record. See front cover photo by M. Cahill.

In early June, Dominic Berridge found a new site for *Salvia verbenaca* (Wild Clary) at Ballinesker (T117288) on the dunes. This population is 20km north of any extant site in the county.

Catherine O'Donovan did some recording at Whitewell (T0752), *Viola arvensis* (Field Pansy) was a new monad record.

The Wexford Naturalists' Field Club had a BioBlitz in the grounds of Newtownbarry House (S95), Bunclody on 13 June. 265 species of plants were recorded, the best find of the day was of a single *Neottia nidus-avis* (Bird's-nest Orchid) under a large Beech tree, this being the first county record since 1943. *Libertia formosa* (Chilean-iris) self-sown on the side of a wall by a pond was a new county record. Another meeting by the Field Club with leaders Jim Hurley and Roy Watson on 12 September at Tacumshin Lake (T0305) lead to the discovery of a new county record, *Salicornia emerici* (Shiny Glasswort) on a small area of saltmarsh. Searches elsewhere in the county has turned up Shiny Glasswort on many of the saltmarshes.

Lots of *Rumex pulcher* (Fiddle Dock) appeared in Frankie Tennant's garden at Ballykelly (T0515), around his bird table, it is assumed the seed came in with the wild bird seed! Frankie and Roy Watson turned up some good records from around the county: *Ranunculus auricomus* (Goldilocks Buttercup) at Borodale (S963366) is a new hectad record. Their *Linaria repens* (Pale Toadflax) along a forest road at Ballycrystal (S869512) is the 3rd record for the county. On the side of a forest road at Ballyconigar (T138344), they found a new site for *Filago minima* (Small Cudweed).

I had a day with Ciarán Byrne in the north of the county on 28 August, we visited the Rock of Toberanierin (T118545) to update a record of *Ceratocarpus claviculata* (Climbing Corydalis), and from some rough ground at Barnadown Lower (T146542) we had *Gnaphalium luteoalbum* (Jersey Cudweed) and *Cyperus eragrostis* (Pale Galingale), first records for the north of

the county. A month later we had a day on the south coast, on the inland side of Ballyteige Burrows (S80 & S90) where we walked for 6km updating sites for *Sarcocornia perennis* (Perennial Glasswort), which we saw in 5 monads. The surprise of the day was finding a very large stand of *Salicornia pusilla* x *S. ramosissima* (Hybrid Glasswort), thousands of plants, forming a long pink strip at the top of the saltmarsh. *S. ramosissima* (Purple Glasswort) was common on the saltmarsh but it was more or less impossible to find any true *S. pusilla* (One-flowered Glasswort).

Úna FitzPatrick, Paula O'Meara and Zoë Devlin visited Kelly's Wood (S710255) on 2 September where they found *Persicaria campanulata* (Lesser Knotweed), a new hectad record.

A visit to look at bogs in the Ballycrystal area (S85) with Betsy Hickey and Mary Tubridy on 15 September was surprisingly productive, *Carex pulicaris* (Flea Sedge) was new for the hectad and *Eleocharis multicaulis* (Many-stalked Spike-rush) was the first hectad record since 1990.

I had a non-recording walk at Saint Kieran's (S8109) along the road at the back of Bannow Bay with Helena & Jim Crouch on 25 September, here we added *Juncus foliosus* (Leafy Rush) new to the hectad.

Mary Foley showed me some damp fields at Coolcotts (T0221) on 16 October where there is planning to build a large number of houses. The fields had a good population of *Achillea ptarmica* (Sneezewort), a rare and declining species in the county, and the only extant site for the hectad of *Anagallis tenella* (Bog Pimpernel). The bulldozers moved in a few days later and destroyed the Bog Pimpernel! Mary also showed me *Geranium* x *oxonianum* 'Thurstonianum' which appeared on a road bank near her home at Coolcotts (T0221), this *Geranium* has very narrow pink petals.

Sometimes it can be quite a challenge to name a non-native species found growing wild especially if you have no idea what it is. In one such case I posted on Twitter photos of a prostrate white flowered plant I had seen in a field on North Slob (T1024). Nobody was able to come up with a name of my mystery plant. I then tried iSpot, bingo! Somebody suggested *Limnanthes douglasii* subsp. *nivea*, I did more research on-line and agreed with their identification. What surprised me was that it hadn't crossed my mind it was a *Limnanthes*. I am very familiar with *Limnanthes douglasii* (Meadow-foam) which has white petals with a yellow base and is an erect plant commonly grown in gardens.

On the 26 February I had a good look around Rosslare Harbour (T1312) in search of *Galium murale* (Yellow Wall-bedstraw) which Paul Stanley & Keith Turner informed me they had found in June 2014. Actually I found this new non-native species for Ireland. The Wall-bedstraw is likely to have arrived via ferry traffic from Fishguard Ferry Port where it has been known since 2012.

I found a rather long list of new species for the county in 2015, here in the order they were found:

- *Callistemon viminalis* (Weeping Bottlebrush) which was naturalised over

waste ground, Gorey (T1559), several of the bushes were over 1m tall. The parent bushes were in the grounds of the adjoining school, first record for Ireland;

- *Aucuba japonica* (Spotted-laurel) bush on bank of Urrin River, Mocerrey Bridge (S864466),
- *Poa infirma* (Early Meadow-grass) on the side of the paths on the dunes, Rosslare Harbour (T1312);
- *Hemerocallis fulva* (Orange Day-lily) clump in roadside ditch, Kinnagh (S799126),
- *Allium neapolitanum* (Neapolitan Garlic) small clump on road bank, Coolroe (S787142),
- *Geranium macrorrhizum* (Rock Crane's-bill) clump on road verge, Clongeen (S834165),
- *Dactylorhiza purpurella* x *D. kerryensis* with both parents on lawn, Booley (S7506),
- *Hypericum xylostefolium* (Turkish Tutsan) bush on edge of wood, Ballybought (S983089), first record for Ireland,
- *Sedum spectabile* (Butterfly Stonecrop) clump on bank on edge of wood, Ballybought (S984089),
- *Rosa multiflora* (Many-flowered Rose) large bush climbing over trees on margin of a wet wood, Ballyanne Old Bridge (S741304),
- *Tellima grandiflora* (Fringecups) patch in wood, Arnestown (S739250),
- *Arbutus unedo* (Strawberry-tree) one on edge of wood, Mullanour (S998188),
- *Weigela florida* (Weigelia) single large bush amongst brambles, Mullanour (S997189),
- *Dactylorhiza* x *latirella* (*D. incarnata* x *D. purpurella*) with both parents in dune slack, White Gap (T114273),
- *Carex* x *fulva* (*C. hostiana* x *C. demissa*) several clumps in bog, Loggan Lower (T078696),
- *Cotoneaster splendens* (Showy Cotoneaster) two bushes self-sown on dune, Raven Point (T109229), det. J. Fryer, BSBI referee for *Cotoneaster*, the first record for Ireland,
- *Centaurea jacea* (Brown Knapweed) rough pasture, Churchtown (X734986), likely to have been introduced with a wild flower mix, growing with an abundance of *Centaurea nigra* var. *radiata*,
- *Phygelius capensis* (Cape Figwort) patch amongst scrub in field, Knockbrack (T096662),
- *Dittrichia viscosa* (Woody Fleabane) three on rough ground by lorry park, Rosslare Harbour (T131116),
- *Euphorbia characias* (Mediterranean Spurge) six on rough ground by lorry park, Rosslare Harbour (T131117),
- *Lonicera pileata* (Box-leaved Honeysuckle) two bushes self-sown on bridge, Blackwater (T123340),

- *Frangula alnus* (Alder Buckthorn) three bushes on bank of sunken lane, Blackwater (T129339), likely to be a garden escape here, rather than a native,
- *Carex x pseudoaxillaris* (*C. otrubae* x *C. remota*) clump on rough ground with both parents, Scaughmolin (T004175),
- *Helianthus x laetiflorus* (*H. rigidus* x *H. tuberosus*) waste ground, Fisherstown (S683184),
- *Cotoneaster x watereri* (Waterer's Cotoneaster) large bush amongst brambles, Fisherstown (S685181),
- *Buddleja x weyeriana* (*B. davidii* x *B. globosa*) large bush on rough ground, Ballygerry (T126122),
- *Diplotaxis tenuifolia* (Perennial Wall-rocket) one on wall top, Lough (S893082),
- *Salicornia pusilla* x *S. ramosissima* (Hybrid Glasswort) top of saltmarsh, Lough (S897081), the first record for this hybrid in Ireland,
- *Alchemilla xanthochlora* (Intermediate Lady's-mantle) lots along road verge, Ballymaclare (S735216), confirmed by M. Bradshaw,
- *Cirsium x celakovskianum* (*C. arvense* x *C. palustre*) bank of drain, Newtown (S973058),
- *Cotoneaster lacteus* (Late Cotoneaster) several on wall top, Wexford Town (T048213),
- *Aster x versicolor* (Late Michaelmas Daisy) clump on road verge, Saint Kieran's Quay (S811094),
- *Guizotia abyssinica* (Niger) two on edge of field, Coolrainey (T108272),
- *Erica vagans* (Cornish Heath) clump on sandy waste ground, Ballyboggan (T022225),
- *Papaver atlanticum* (Atlas Poppy) one on waste ground, Ballynagee (T032201), 2nd record for Ireland.

I had sent Chris Metherell some *Euphrasia* specimens I had collected in July 2014 from Baginbun Head (S8003), on short sea-cliff top vegetation. He named them as *Euphrasia tetraquetra* x *E. confusa*, this is a new hybrid for Ireland.

Paula O'Meara made a start on recording the Stoneworts as there are very few post 2000 records for the county. Claudia Ferguson-Smyth kindly agreed to look at specimens, being very encouraging and helpful. 2 new hectad records were made for *Chara vulgaris* (Common Stonewort), and another was the first hectad record since 1991. I also decided I better take an interest in trying to identify the Stoneworts, something I had never done before! My first specimen I sent to Claudia has got me hooked on Stoneworts as it turned out to be *Chara connivens* (Convergent Stonewort), a species that had not been reported from the county since 1906. Even though there are a couple records from elsewhere in Ireland from the 1960s there are no specimen to support these, they have not been accepted. Rev. E.S. Marshall first found *C. connivens* new

for Ireland in 1896 on North Slob (T02), and it was last reported there by G.C. Druce in 1906. My record is from a disused quarry at Ballyconnick (S9413), where it is the dominant aquatic of the pools. Claudia asked Nick Stewart for his opinion and he agreed with the identification.

Botanising in Laois (H14) in 2015

Mark McCorry, 9 *The Cross of Newtown, Ballyroan, Co. Laois*

One of the nicest walks in Laois is the river-side walk along the Nore in Course Wood, north of Durrow. This is part of the longer 'Durrow Leafy Loop', which extends around Durrow for about 13 miles. The majority of the wood is conifer plantation but there is a lovely strip of old broad-leaved alluvial woodland along the river. We walked this path several times during the year, each visit finding new species in this diverse strip. There are some great specimens of White Willow (*Salix alba*), Crack Willow (*Salix fragilis*) as well as Osier (*Salix viminalis*) and the more ubiquitous Rusty Willow (*Salix cinerea* subsp. *oleifolia*). Bird Cherry (*Prunus padus*) is present along the wood (and is also found in several of the woods around Abbeyleix and along the River Nore). Some indicators of the rich diversity of this woodland included Hard Shield-fern (*Polystichum aculeatum*) (my first record of this species in Laois) and Dog's Mercury (*Mercurialis perennis*) (although there is probably some doubt over the native status of this latter species). The only previous recent record of this species was by Paul Green and Megan Morris in Abbeyleix Demesne. Betsy Hickey also recorded this species in the same wood back in 2009 during fieldwork for the Laois Habitat Survey. No doubt there are more species to find – I still have to explore the flora of the river channel, with the large patches of Water-crowfoot and other species, at some stage when the water is low enough. It may be some time as I had a look at the site over Christmas and it is impossible to travel along the path due to winter flooding. This really is an alluvial woodland and there is great potential to extend the broad-leaved woodland cover by taking out some of the lower conifers.

We also spent a lovely summer's evening in July with our friends the Leonards, who run Castlewood Organic Farm along the Nore (on the other side of the river to Course Wood). We wanted to explore and record in an old quarry that we had visited previously. On the way into the quarry we passed though some broad-leaved woodland and the first thing the kids found was some Ivy Broomrape (*Orobanche hederæ*). Much of the quarry was overgrown but sure enough there was some calcareous grassland around the margins with typical indicator species such as Pyramidal Orchid (*Anacamptis pyramidalis*). There is also some alluvial woodland along the margin of Castlewood Farm on the other bank of the Nore that hopefully we will have a chance to explore in the future.

One species of interest for us during the year was Toothwort (*Lathraea squamaria*) as it was part of the Irish Species Project. This species had not been recorded in Laois before so we resolved to visit some of our usual woodland haunts early in the year to see if we could come up with any records. While we did not find any Toothwort ourselves we were serendipitously sent a photo of some plants by Conor McGrath, a student working with the Abbeyleix Bog Project. His family also run an organic farm near Ballinakill and he had found some Toothwort in some Hazel scrub that forms part of the farm. Many thanks to Conor for sending us the record.

I have only recently started to use the BSBI DDb database to query Laois plant distributions and records. One plant I queried was Alder Buckthorn (*Frangula alnus*) as I had recently found a small population along the edge of Coolnacarten Bord na Mona production bog south of Portlaoise. (One of the advantages of my job as ecologist with Bord na Mona is getting to explore sites like these.) I discovered that the only previous record for Alder Buckthorn was back in the 19th century in a 10 km² grid square NE of Mountmellick, which overlaps with Offaly. I figured out that the only bog in this square was at Garryhinch BnM bog. So one evening when I had an extra hour I went for a walk along a track into the bog and sure enough there was Alder Buckthorn still present and growing along a drainage channel/channelized stream called Cottener's Bank flowing from the site. A quick survey produced over 20 plants growing on both banks of the channel and in the adjacent cutover bog margin of the track. As Cottener's Bank is part of the county boundary this means there are records for this plant in both Laois and Offaly for this square! This example shows how the BSBI DDb database can be used to find some species, along with some educated guesswork, even when records are only recorded at 10 km² resolution over 100 years ago.

One of the more unusual plants we found during the year was when we led a guided walk along Collin's Bog way-marked trail as part of family fun day in Abbeyleix South School at the end of the school year. This is a local walk that passes close to the school, crosses some recently felled conifer plantation and also takes in Abbeyleix Bog. We came across a funny looking Buttercup again, (see photo page 43) with a double row of petals. Fiona had seen this the previous year and had highlighted it in her BSBI talk. Was it a new growth form or phenotype of Creeping Buttercup (*Ranunculus repens*)? A bit of googling found out that several ornamental buttercup species have double or numerous petals, including *Ranunculus repens* 'Pleniflorus', which looks remarkably like our specimen. So unfortunately I will have to wait a bit longer to name something 'Abbeyleixei'.

Something else I did for the first time this year was use a BSBI referee. I had a look at a small area of Black Bog-rush dominated fen habitat near Ballybrittas during the summer. I had looked at it the previous year but later in the year during August, and had come across some *Dactylorhiza* orchids that

had gone over. So I had hoped to come across these orchids in better condition. I found them, figured out they were Marsh-orchids and took some pictures, which I sent to Ian Denholm for identification. He identified the pics as Narrow-leaved Marsh-orchid (*Dactylorhiza traunsteinerioides*). This is only the second record for this rare orchid species in Laois and surprisingly there are not that many other Marsh-orchid records in Laois. However, I have definitely come across Marsh-orchids in Laois before but have struggled to identify them to subspecies. Now I will be paying more attention, trying to figure out what subspecies they are and taking lots more pictures!

Fiona organised an event for Heritage Week at Abbeyleix Bog in August. This was themed as beginner's wildflower identification led by the local BSBI recorder. We were unsure what level of interest there would be as it was timetabled for a mid-week morning. Unfortunately the weather didn't help and it bucketed down all morning – 'the worst day of the whole summer'. It was even too wet to take photos. However, 25 brave souls faced the wet conditions and came down for the event, some from as far away as Dublin. Fiona was able to point out some of the wildflowers and other plants around the site and compared several habitats, showing how you can use various different plants as indicators of different habitats.

Fernando Fernandez reported an interesting find to me from Abbeyleix Bog. Jim Ryan, John Cross and Fernando were down looking at some of the great wet woodland that has developed around the high bog, much of it in old cutover bog formerly planted as conifer woodland in the past but now dominated by Rusty Willow. Some of this woodland is now considered to be one of the best examples of raised bog lagg zone woodland in Ireland. Much of the ground cover is dominated by tussocks of Greater Tussock Sedge (*Carex paniculata*) and Lesser Pond Sedge (*Carex acutiformis*) along with a suite of typical fen carr species. While examining the woodland they came across some *Pyrola* plants scattered over a small area and were subsequently identified as Common Wintergreen (*Pyrola minor*) by Fred Rumsey of BSBI. John Cross had previously recorded *Pyrola* at Abbeyleix Bog but it had not been seen for several years, so this was a welcome find. There are no other records of any *Pyrola* species in Laois from the BSBI database.

Abbeyleix Bog has always got plenty of attention from us due to its proximity and great access for walking. I thought I knew the site fairly well. However, Jim Ryan, Fernando Fernandez, Maurice Eakin and I explored some wet grassland along the eastern margin of the site during the summer. The wet grassland turned into a fascinating seepage zone located between the eastern glacial moraine and the bog. This was vegetated with a diverse range of typical fen species including Blunt-flowered Rush (*Juncus subnodulosus*), Common Butterwort (*Pinguicula vulgaris*) and several *Carex* species. (I looked at this area again in June as I thought it was a typical site for Marsh Fritillary but none turned up.)

So 2015 has been a good year for botanising in Co. Laois with a relative ‘plenty’ of records collected and sites visited. Hopefully 2016 will be just as good and will bring more interesting sites and species.

Co. Monaghan (H32) Report for 2015

Alexis FitzGerald, *Apartment M, Coliemore Apartments, Coliemore Road, Dalkey, Co. Dublin*

Pat Lenihan retired from the Co. Monaghan (H32) recordership in 2015, and simultaneously, I was generously encouraged by both Pat, Declan Doogue (VCR, Co. Kildare) and Maria Long to take on the Monaghan recordership. Even with the prospect of making many long Dublin to Monaghan (and back) drives ahead of me, I was keen to accept the challenge and begin exploring the county, one which was relatively unknown to me. This county is often neglected by Irish holiday-goers and botanists alike, who pass through the county, having their sights set on more oceanic western and northern locations. I was determined to prove that the county is worth a stop and I certainly wasn’t disappointed. The first thing that struck me whilst recording in the county was the contrast in vegetation with Co. Wicklow, where I also do recording work. Co. Monaghan is a northern midlands county and is covered by extensive rolling drumlin hills, intermittent loughs and rivers and canals. I soon became very familiar with the abundant and diverse aquatic and emergent vegetation to be found in the county.

Furthermore, there is a nice balance of acid and limestone soils in the county, with the north and extreme south predominantly limestone and the central region being predominantly acidic. However, the effect of the drumlin landscape is such that the acidity/basicity of the soil is somewhat muted in most places. The drumlins are leached to produce slightly acidic soils at their peaks and relatively but not strongly basic soils in the troughs.

I was very interested in refinding older records by previous recorders in the county. Whilst looking through Monaghan records in Praeger’s (1901) *Irish Topographical Botany*, I was struck by the apparent ease with which he found orchid species which are now rare or extinct in the county. He found both *Pseudorchis albida* (Small-white Orchid) and *Coeloglossum viride* (Frog Orchid) in grassland surrounding Creeve Lough in 1900, during one of his many extraordinarily long walks to gather data for the under-recorded Irish counties. Today, this site is heavily trampled, grazed and fertilised and these species are almost definitely extinct here. The heavy fertilisation has also led to some eutrophication of the lough. This trend of increased agricultural intensification is unfortunately reflected across many parts of the county, to the detriment of its botanical richness.

Ian McNeill (VCR, Co. Tyrone) found *Pyrola rotundifolia* subsp. *rotundifolia* (Round-leaved Wintergreen) in 2008 at Kilroosky Lough, which is

in the extreme west of the county, bordering Co. Fermanagh. This site was in fact first found by S.A. Wolfe-Murphy in the early 1990's. I returned to the site in 2015 to refine the plant and indeed it still thrives there in the wet, lacustrine woodland of *Viburnum opulus* (Guelder-rose), *Betula pubescens* (Downy Birch) and *Alnus glutinosa* (Alder), with at least 30 plants counted during a short visit. This site is one of the few SAC's in the county and is a very significant one. Calcareous flushing is evident at the site and as a result it harbours some rare Co. Monaghan species such as *Eleocharis quinqueflora* (Few-flowered Spike-rush), *Parnassia palustris* (Grass-of-Parnassus), *Dactylorhiza purpurella* (Northern Marsh-orchid), etc.

In my own recording work in the county, I have made some attempts at tackling intraspecific taxa, including subspecies and varieties, as well as critical taxa, e.g. *Rubus*, *Taraxacum*, *Euphrasia*, etc. and introduced species. These are often the areas where work is still very much in need, even in VC's where a Flora is already produced. Unusual finds are often uncovered, and furthermore, for those who enjoy finding new county records (e.g. Paul Green!), these areas are exactly where to look. For example, by looking more closely at the varieties of *Trifolium pratense* (Red Clover) occurring in the county, I found a site for *T. pratense* var. *sativum* east of Carrickatee Hill and the specimen was confirmed by the BSBI *Trifolium* referee, Dr Chris Preston. It is a larger, agriculturally-bred variety which has hollow stems. This is, as far as I can tell, the first county record for this variety, and is probably very much overlooked in the county.

Similarly, collection of *Euphrasia* specimens in the county generated one find of particular note. I collected a *Euphrasia* specimen from a small patch of heathland surrounded by *Ulex europaeus* west of Lough Nahinch and initially it resembled *E. micrantha*, in most of its characters and its habitat. However, when sent off to Chris Metherell, the BSBI *Euphrasia* referee and co-author of the up-and-coming BSBI Handbook on the genus, he informed me that, even though most of the characters fitted *E. micrantha*, the strongly and somewhat non-contiguously toothed cauline leaves were very indicative of *E. salisburgensis* var. *hibernica* and that the specimen was therefore the hybrid, *E. micrantha* × *E. salisburgensis* var. *hibernica*. I lodged this specimen in the National Herbarium, Glasnevin (**DBN**) in October 2015. It was the fifth specimen of this hybrid to be found in Ireland and the second to be lodged in an Irish herbarium (the first is also in **DBN**). The other three known specimens of this hybrid were collected in three separate sites in western Co. Galway and were all determined by P. Yeo and confirmed by Chris Metherell. They are lodged in Cambridge University Herbarium (**CGE**) (Chris Metherell, pers. comm., February 2016; Stace *et al.* 2015). The *E. salisburgensis* parent has not yet been found in the area of the hybrid. This find presents something of a distributional puzzle, as the *E. salisburgensis* parent has not been found in Monaghan and is very much a western Irish species of limestone rock. Could it be a relic from an outlier population, or even from a previous more widespread distribution, of *E.*

salisburgensis? Perhaps it left behind its genetic mark in this hybrid as the species made its way across Ireland to the west following the end of the last Glacial Period? I don't know and the jury is out on this one.

My first season recording in Co. Monaghan was a delight and I look forward to many more years of recording in this beautiful Irish county.

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Interesting plants in Tyrone (H36), 2014 – 2015

Ian McNeill, 86 Fairhill Road, Cookstown, Co Tyrone, BT80 8DE

Berula erecta (Lesser Water-parsnip)

In July 2014, I found *B. erecta* growing in a stream at Sluggan Bridge, south of the road between Pomeroy and Carrickmore. *B. erecta* is rare in Tyrone – previously recorded sites are all from fairly rich water in the E and SE of the county. The Sluggan Bridge site, however, is in the midst of poor ground, in very boggy country – most unexpected. Determined by John Poland.

Anisantha diandra subsp. *diandra* (Great Brome)

In July 2015, Andrew McNeill and I found this grass growing on top of the parapet wall of a bridge over the Blackwater River at Favour Royal, SW of Ballygawley. First Tyrone record. Determined by T.A. Cope.

Campanula persicifolia (Peach-leaved Bellflower)

Again in July 2015, Andrew and I saw this along a roadside some 3km W of Stewartstown. It had presumably escaped from a nearby cottage garden, but seemed happy on the roadside grass bank. Determined by Markus Ruhsam, Royal Botanic Garden, Edinburgh. Not previously recorded in Tyrone, nor can I recall having seen it as a garden plant in the county.

Conyza canadensis (Canadian Fleabane)

This appeared as a street side weed in Cookstown in September 2015. Determined by R.M. Burton. *Conyza* species have become frequent in recent years in eastern counties of N Ireland, especially around Belfast, but this is the first record of any *Conyza* species in Tyrone.

Epilobium pedunculare (Rockery Willowherb)

John Harron reported this from near Glenroan Bridge in the Glenelly valley in June 2012. First Tyrone record.

Erigeron karvinskianus (Mexican Fleabane)

In June 2015, I saw this daisy-like plant in some quantity at Aughtentine House, N of Fivemiletown. It had been planted in the gardens, but is now seeding itself freely and seems very happy. Not otherwise recorded in Tyrone, but I must admit I have seen it on a garden wall in Cookstown, and am keeping a watchful eye on adjacent ground to catch its first move to jump out of the garden!

Geranium pyrenaicum (Hedgerow Crane's-bill)

In August 2015, Kevin Johnston and I found this at Magheralough Primary School, near Trillick. It may have been planted in the school garden, but is regenerating freely. Recorded once before in Tyrone, by Miss M Knowles at Newtownstewart in 1896.

Mentha requenii (Corsican Mint)

This has been established at Drum Manor, near Cookstown, since 1998. It has now appeared at two further sites:

at Drumcairne, near Stewartstown. It was found, incidentally, in July 2014, when a group of us were on a Bramble foray (see below, under *Rubus*).

In the gardens of Aughtentine House in June 2015. It was not deliberately planted there.

The common factor in all sites may be Forestry operations. It has been established along forest rides etc on the slopes of Slieve Gullion, in Co. Armagh, for many years.

Rubus species (Brambles)

On 15 July 2014, Declan Doogue, John Faulkner and I joined up with the English Bramble expert, D.E. Allen, and we visited a number of sites in SE Tyrone. Mr Allen determined at least six species not previously recorded in the county:

<i>R. lindleianus</i>	Torrent River, near Coalisland
<i>R. nessensis</i>	Derrylaughan
<i>R. norvicensis</i>	Drumcairne
<i>R. plymensis</i>	Drumcairne
<i>R. polyanthemus</i>	frequent
<i>R. prolongatus</i>	Torrent River

He also named *R. hesperius* (Torrent River) as new to the county. However, there exists a previous record from Straduff, near Dromore. It is possible that the Straduff specimen may have undergone a redetermination and that *R. hesperius* is indeed new to the county.

Salix daphnoides (European Violet-willow)

In October 2014, Dave Riley reported this willow species from near Cashel Bridge, in the Greencastle area (16km NE of Omagh). I am not aware of any previous Tyrone record. Presumably it was planted.

Vulpia myuros (Rat's-tail Fescue)

This grass species seems to be 'on the march'. I first recorded this in Tyrone in September 2012 (*Irish Botanical News* No **24**, P 39). It has turned up again:

in July 2014, at Tullagh, just W of Cookstown

in July 2015, at Mullygruen, near Donaghmore.

I have also seen it recently in Co Derry and Co Armagh. At many of its locations, it seems to be associated with new-build houses, or around aborted foundations of unfinished developments. Where did the hard-core come from?

Co. Down (H38) recording in 2015

Graham Day, *Cherry Cottage, 11 Ballyhaft Road, Newtownards,
Co. Down, BT22 2AW*

Monthly field meetings were organised to make records for the forthcoming new atlas, and in support of the proposed flora of Co. Down. My grateful thanks go to David McCormick, Margaret Marshall, Anne McComb and Mark Wright who sent records to me.

Castleward (National Trust) by Strangford village was visited in mid-May when most of the estate was walked. Many established introductions were found, including *Polygonatum x hybridum* (Garden Solomon's-seal). Other than the ornamentals and estate woodland, much of the land is given over to improved grassland which botanically is of little interest. However, a single specimen of *Alchemilla filicaulis* subsp. *vestita* (Common Lady's mantle) was found on a track. Also notable was an extensive colony of white-flowered *Geranium robertianum* (Herb-Robert) by the campsite.

The Eastwood sand pits in the south-east of the county near Carlingford Lough were visited in early June in fair weather. The pits provide some shelter from the wind. *Ranunculus aquatilis* (Common Water-crowfoot) was in full flower in a stream at the bottom of a pit where it was in the company of many damsel-flies. The sides of the pit had *Spergularia media* (Greater Sea-spurrey), *Myosotis discolor* (Changing Forget-me-not) and sand-martin holes. By the entrance to the pit, *Ornithogalum umbellatum* (Star-of-Bethlehem) was in flower.

Castlewellan Forest Park was visited in late June. Work had been done to restore the greenhouses in the arboretum, and the *Spergularia rubra* (Sand Spurrey) colony had vanished, probably due to use of herbicides. *Crassula tillaea* (Mossy Stonecrop) and *Oxalis exilis* (Least Yellow-sorrel) were,

however, present. *Lysichiton americanus* (American Skunk-cabbage) was present in one of the ponds by the forestry tracks.

The highpoint of the year was a visit to the Ballykinler army base in early July as part of the National Trust's Murlough NNR BioBlitz. Part of the dunes and land adjacent to Dundrum Bay was recorded, but much remains to be seen, and this ground would be of enormous interest. All the usual native species found at Murlough NNR at this time of year were also seen here, but in greater abundance. Of particular interest was a colony of *Rosa spinosissima* x *caesia* growing by one of the access tracks, and *Bromus lepidus* (Slender Soft-brome) on disturbed ground by some buildings close to the estuary. Murlough NNR itself was visited the following day. *Crassula tillaea* was seen on the boardwalk and roadside, and *Erodium maritimum* (Sea Stork's-bill) was around Murlough House. *Atriplex littoralis* (Grass-leaved Orache) was present by Dundrum estuary. The dunes held *Euphorbia paralias* (Sea Spurge) and *E. portlandica* (Portland Spurge), *Filago minima* (Small Cudweed), *Erodium lebelii* (Sticky Stork's-bill) and *Cerastium semidecandrum* (Little Mouse-ear), but large areas were closely cropped by rabbits and identifications were much reduced in these.

In mid-July, a note from Margaret Marshall led me to a *Senecio inaequidens* (Narrow-leaved Ragwort) plant in the Cregagh, Belfast.

Walking along pads in the Slieve Croob hills in early August produced *Hypericum humifusum* (Trailing St John's-wort), *Myosotis discolor* and *Carex hostiana* x *viridula*. Species-poor improved grassland made up fields adjacent to the pads, and the pads and tracks themselves were the best pieces of ground remaining in the low-lying hills that were seen.

The River Bann at Polands Bridge, south-east of Banbridge, produced *Ranunculus penicillatus* (Stream Water-crowfoot), *Sparganium erectum* (Branched Bur-reed) and otter tracks in mid-August.

Large numbers of *Glebionis segetum* (Corn Marigold) were seen in two small arable fields and *Mimulus* x *robertsii* was present in streams at Imdel south-west of Knockiveagh in mid-August.

The Bog of Donard, Chimney Rock Mountain, Long Mountain and the Crock Horn Stream in the Mourne were walked in beautiful weather in mid-August. *Carex bigelowii* (Stiff Sedge) and *Salix herbacea* (Dwarf Willow) were found on Chimney Rock, and a large colony of *Equisetum sylvaticum* (Wood Horsetail) was present by the Crock Horn. The latter also held *Pinguicula lusitanica* (Pale Butterwort) and *Euphrasia micrantha*.

After leading a plant identification day for the Conservation Volunteers at Clondeboye, an invitation was given to record at Giant's Ring House, Ballynahatty in Belfast. This produced a few *Heracleum sphondylium* x *mantegazzianum* plants (first record since 1980 at Belvoir Park) and one *Rumex obtusifolius* x *sanguineus*.

A meeting for the Belfast Naturalists' Field Club at Ballyhornan produced an interesting record of 12 *Crambe maritima* (Sea-kale) plants.

Walking north, *Parapholis strigosa* (Hard-grass) was found at Benderg Bay in a small area of salt marsh, and several species typical of light east Down soils were found in a crop by the beach. These included *Lamium confertum* (Northern Dead-nettle), *Stachys arvensis* (Field Woundwort) and *Veronica agrestis* (Green Field-speedwell).

On a visit to the Belfast Harbour Estate by the RSPB reserve in late August, several unusual species were found on gravelly ground. These included *Blackstonia perfoliata*, *Filago minima*, *Galeopsis bifida* (Bifid Hemp-nettle), *Myosotis ramosissima* (Early Forget-me-not), *Thlaspi arvense* (Field Penny-cress), and very large numbers of *Senecio inaequidens*. Immediately adjacent to the RSPB reserve was a population of *Heracleum sphondylium x mantegazzianum*, some of which appeared to be fertile.

Walking south from Killough in mid-September to check on the population of *Artemisia maritima* (Sea Wormwood), Paul Hackney's 1988 record of *Glyceria maxima* (Reed Sweet-grass) was refound in a small marshy area before finding the *Artemisia*. *Asplenium marinum* (Sea Spleenwort) and *Eleocharis quinqueflora* (Few-flowered Spike-rush) were also noted close by. *Glebionis segetum* plants were seen in a small arable field. The well-known *Mertensia maritima* (Oysterplant) plant by the lighthouse further on at St John's Point was not seen. This may have disappeared in last winter's severe storms. On the walk back to Killough, *Sambucus ebulus* (Dwarf Elder) was recorded. This may be the same site where S.A. Stewart found this species in 1866.

Salicornia ramosissima (Purple Glasswort) was identified from specimens and *Elytrigia x drucei* recorded at Mahee Island, Strangford Lough in late September.

In late September, Ian McNeill's first Co. Down record for *Polypogon viridis* (Water Bent), which he found growing in a plant trough at Ballywalter, Ards Peninsula in 2014, was followed up. The species was found, this time growing against a wall.

Finally, samples of *Gunnera manicata* (Brazilian Giant-rhubarb) were collected from Mount Stewart, Whiterock and Crawfordsburn for genetics work at RHS.

Field meeting reports, 2015

Summary of the 2015 BSBI field meetings in Ireland

It was a very busy year on the field meeting front. A brief summary has been put together of the meetings where no full write up has been provided.

The first field meeting of the year was in South-east Galway (**H15**) to woodland areas around Woodford to record the late spring flora and to check out the *Cephalanthera longifolia* (Narrow-leaved Helleborine) records. The first day was well-attended with about a dozen people, many ex-NUIG students, one

bringing three children who proved themselves great apprentices. We found about a dozen *Cephalanthera* spikes along the road and in the Rosturra NNR at Derrylahan. More were located in the wood, but none were found at the Coillte Rosturra site. Derrycrag NNR provided some surprises including *Equisetum x trachyodon* (Mackay's Horsetail) with other riparian species such as *Prunus padus* (Bird Cherry). The next day was extremely wet, but a few of us persevered and recorded the woodland NNR above Woodford at Derrylahan, which provided heathland as well as woodland habitat.

A very successful field meeting was held in Co. Cavan (**H30**) at the end of June. There were approximately ten participants on each day and the group was split up in to three teams. On the 27th two hectads near Cavan Town were visited and two near Virginia on the 28th. Each of the groups was given a list of sites in their hectad where interesting plants had been recorded in the past, and were asked to survey these and any other interesting sites that they came across during the day. Over 200 species were recorded in each of the hectads; over the two days, a new site was found for *Carex pseudocyperus* (Cyperus Sedge) and new vice-county records were made for *Pyrola rotundifolia* (Round-leaved wintergreen), *Trichophorum cespitosum* (ss) (Deergrass) and *T. x foersteri*. At the end of the second day all the botanists were treated to tea and a tour of the garden at Jonathan Shackleton's house at Mullagh.

The Mayo (**H26 & H27**) recording week held at the end of July/beginning of August was the obvious highlight of the recording year. An account of the weeks exploits have already been presented by Maria Long in the recent Irish Newsletter. In summary, nearly 11,000 plant records were collected from a wide range of habitats throughout the county with 40+ participants contributing.....many over a number of days.

On the 29th of August a one day meeting was held at the windswept Bangor-Erris region of north-west Co. Mayo (**H27**). There were approximately 15 participants which included family and friends of Caoimhe Muldoon in whose memory this field meeting was held. Before lunch areas of scrubby woodland and blanket bog were visited with *Saxifraga hirculus* (Marsh Saxifrage) and *Vaccinium oxycoccus* (Cranberry) proving to be the botanical highlights. After lunch an area of coastal habitat west of Bangor-Erris was visited where there was some nice flowering *Eryngium maritimum* (Sea Holly). Approximately 290 plant records were gathered in the two hectads visited.

John Conaghan

Curragh Chase Forest Park, Co. Limerick (H8), 16th May

A small group joined the leaders (Sylvia Reynolds and Julian Reynolds) at Curragh Chase – Tom Harrington, Pascal Sweeney, Aisling Walsh and Marie Tuttle, the last two on their first BSBI meeting. The aim was to record for *Atlas 2020*.

Curragh Chase is an early 19th century demesne, with extensive woodlands (including semi-natural and conifer forestry), lakes, wet grassland and an attractive arboretum. We spent the morning recording in R4148, mainly in deciduous woodland including *Fagus sylvatica* (Beech) and *Fraxinus excelsior* (Ash). There were patches of *Melica uniflora* (Wood Melick) in flower along the track and *Geum rivale* (Water Avens) at one place. The thin fronds of *Polypodium cambricum* (Southern Polypody) were distinctive, with the sporangia mostly dehisced by mid-May. Scattered *Aquilegia vulgaris* (Columbine) had purple flowers and were a garden escape here. (Native plants of this species, with smaller blue flowers, are found in calcareous grassland near the quarry at Barrigone and elsewhere). We walked back along a road where *Cornus sericea* (Red-osier Dogwood) is well established in wet ground at a wood edge.

Before picnicking we checked *Lathraea squamaria* (Toothwort) under planted *Aesculus hippocastanum* (Horse-chestnut) near the ruined house (R4049) where it has been known since 1997, and counted about 90 flowering spikes.

After lunch we recorded in the adjoining hectad to the north in R4150, along tracks and through more woodland to Glenisca Lough, finding species not seen in the morning, including *Moehringia trinervia* (Three-nerved Sandwort). Of most interest is the *Taxus baccata* (Yew) wood on the east side of the lake, with the roots of very old trees growing among the limestone outcrop. The lake is marly and overgrown at its south end with *Cladium mariscus* (Great Fensedge), and *Carex acutiformis* (Lesser Pond-sedge) with young inflorescences was seen at the lake edge.

Still in R4150, flowering *Prunus padus* (Bird Cherry) was not obviously planted and had not previously been recorded at Curragh Chase. Returning to our cars, we noted patches of *Galium odoratum* (Woodruff) and *Hyacinthoides non-scripta* (Bluebell) along the road in R4050, neither species seen earlier in the day, and where *Hypericum calycinum* (Rose-of-Sharon) is well established.

When the others had left for home, Julian and I continued to record, adding mainly common weedy species to the list for the day from open and disturbed ground. The only unexpected find was *Veronica polita* (Grey Field-speedwell) with good fruits on gravel (R4049). *Lysimachia nummularia* (Creeping Jenny), an introduction at Curragh Chase, has become naturalised in the damp grass between the car park and the loos (R4149). We ended the day walking through the arboretum (R4049) and admiring *Hyacinthoides x massartiana* (Hybrid Bluebell) with various flower colours, some flowers close to the *H. non-scripta* parent. It was a satisfying day, including showing the participants plants new to them and getting some earlyish season recording done.

Sylvia Reynolds

Ballyhale Quarry, Co. Kilkenny (H11), 20th June.

Ballyhale Quarry is a long narrow quarry set in the sandstone part of Kilkenny but it has sufficient limey influence to have a wonderfully varied flora. It is also so little used that the new adventives like *Conyza floribunda* (Bilbao fleabane) and *Lactuca serriola* (Prickly Lettuce) have not arrived and there is no *Buddleja*. As well as the surrounding cliffs there are piles of grit and sand and a few pools. 14 people assembled on the sunniest morning in June, passing *Erica cinerea* (Bell Heather), *Solidago virgaurea* (Goldenrod), *Salix repens* (Creeping Willow) and *Sorbus aucuparia* (Rowan) on the path in, to be greeted with waving stands of *Vulpia bromoides* (Squirreltail Fescue) and *Aira caryophyllea* (Silver Hair-grass) on the quarry floor, as well as countless plants of *Filago minima* (Small Cudweed). *Minuartia hybrida* (Fine-leaved Sandwort) soon succumbed to the eagle eye of Paul Green whereas *Cerastium diffusum* (Sea Mouse-ear), *Epilobium brunnescens* (New Zealand Willowherb) and, surprisingly, *Ophioglossum vulgatum* (Adder's-tongue), were slower to come to light. These all grew on the sandy floor which in places had old puddles containing tiny *Lythrum portula* (Water-purslane). Penetrating up to the only permanent pond, we found *Ranunculus aquatilis* (Common Water-crowfoot) and *Osmunda regalis* (Royal Fern) with small *Viola canina* (Heath Dog-violet) on a slope that had previously been flooded. The western part of the site is more open and calcareous and we hurried amongst *Ophrys apifera* (Bee Orchid), *Dactylorhiza fuchsii* (Common Spotted-orchid) and *Trifolium campestre* (Hop Trefoil), as well as *Rumex acetosella* (Sheep's Sorrel) and *Carex pilulifera* (Pill Sedge) to make a timely lunch. The two marsh-orchids *Dactylorhiza purpurella* (Northern Marsh-orchid) and *D. incarnata* (Early Marsh-orchid) had appeared earlier, the former in a particularly dry site.

After lunch we moved to a wetland a little to the west, exciting some local interest with our attempts at parking. There was a cattle pond at the entrance with *Bidens cernua* (Nodding Bur-marigold) and then the ground got progressively poorer in nutrients with peaty soil and quaking fen. One of the goals of the trip was to re-find *Carex canescens* (White Sedge) at its only Kilkenny station and soon two large stands could be seen from 50m, picked out by the yellow fruiting heads. The plant grows in the scraw with *Carex diandra* (Lesser Tussock-sedge), *Comarum palustre* (Marsh Cinquefoil), *Menyanthes trifoliata* (Bogbean), *Epilobium palustre* (Marsh Willowherb) and *Silene flos-cuculi* (Ragged-Robin). *Dactylorhiza incarnata* was scattered through, in a more traditional site than the quarry, as was *Eriophorum angustifolium* (Common Cottongrass). Richard McMullen came up with *Eleocharis uniglumis* (Slender Spike-rush) at a third inland site for the county – it must be more widespread in the Midlands – while others found *Scutellaria minor* (Lesser Skullcap), *Apium*

inundatum (Lesser Marshwort) and *Montia fontana* subsp. *amporitana* (Blinks), a fact explained with clarity, and a good lens, by Paul Green.

Roger Goodwillie

Kilmacrenan area, West Donegal (H35), 4th-5th July

Eight members responded to the invitation to bump up the Atlas totals for a couple of squares in north-central Donegal - Eamon Gagan, Gillian Faulkner, John Faulkner, Kevin Johnston, Mairéad Crawford, Margaret Marshall, Oisín Duffy and Ralph Sheppard.

We started in Hectad C12 to do a few lake shores. These were Lough Fern, at C1824, Lough Keel at C1423, and a small lake in Milford village, Lough Napuckan at C1926. The forest trail around the lake at Lough Fern was very species-rich, with the highlight being a couple of *Trollius europaeus* (Globeflower) plants still in bloom at a very late date. The lake itself yielded three pondweeds *Potamogeton crispus*, *P. gramineus* and *P. perfoliatus*, but we could probably have done a lot better for aquatics at other locations around the shore.

Although a lowland site, Lough Keel had some heath and bog vegetation up to the lake shore, which added to its diversity. An unusual inland record for *Isolepis cernua* (Slender Club-rush) was the best find, along with *Vicia sativa* subsp. *nigra* at the edge of the nearest cultivated area. Here we were joined by a curious local resident who decided to join us for the second day – possibly a first for any field meeting in Donegal.

The area around Lough Napuckan had many of the aliens expected at a suburban location. We were initially confused by *Spirea x pseudosalicifolia* (Confused Bridewort), and noted that the nearby colony of *Verbascum virgatum* (Twiggy Mullein) discovered in 2014 was still thriving. But the most vivid memory of this visit is undoubtedly the sight of one of our members sinking rapidly into the quaking zone of tall reed-swamp surrounding the lake. Happily, there were enough hands available to avert disaster, and we even managed to save her brand new wellies - complete with a good sample of the water column.

On the second day, we went to some woodland and forest trails on the shore of Mulroy Bay, at C1830. The plants were again very diverse, with a brown-field area producing lots of surprises. We found little of great importance, but it gave most of us a good chance to put our Chairman to the test with some less familiar grasses and sedges, such as *Carex laevigata* (Smooth-stalked Sedge) and both species of *Aira*. But John had already earned his keep by doing a card before breakfast in Ramelton (C2321) – adding a few species of urban plants and halophytes to the hectads list.

Lunch on the Mulroy shore was accompanied by a shower of monsoon standard, and was followed by one of the cars refusing to start. This

unfortunately shortened the week-end for some, but four of us went on to the north coast at Carrigart (C1237), where we wandered through a large area of dune and machair. Both forms of *Arabis hirsuta* (*hirsuta* and *brownii*) seemed very distinct. Other good finds included *Cerastium semidecandrum* (Little Mouse-ear), and enough orchids to keep anyone busy for the afternoon.

The total list for the weekend was 301, with 230 species being recorded at only one location, and only *Angelica sylvestris* (Wild Angelica) and *Senecio jacobaea* (Common Ragwort) being recorded at all six locations. And the totals for each hectads visited were all substantially increased.

Ralph Sheppard

Courtmacsherry, West Cork (H3), Saturday 11th & Sunday 12th July

Approximately 18 enthusiastic plant lovers (including 3 vice-county recorders and our BSBI Irish Officer) braved a damp and windy Saturday to meet up and record plants in Courtmacsherry. We started out with a walk along the beach eastwards to start recording in W5242. A considerable amount of time was spent recording the many species that were growing on the cliff, including *Blackstonia perfoliata* (Yellow-wort), *Jasione montana* (Sheep's-bit), *Centaureum erythraea* (Common Centaury) and the introduced *Epilobium brunnescens* (New Zealand Willowherb). We got slightly side-tracked by an impressive colony of hornwort but soon were back on the hunt of vascular plants again!

After lunch (and a very welcome cup of tea in the local hotel for some of us) we headed up to the north-facing wood at the end of the beach. Here we encountered many typical woodland species growing under a mixed canopy of *Quercus robur* (Pedunculate Oak), *Acer pseudoplatanus* (Sycamore) and *Fagus sylvatica* (Beech). Nice finds within the wood included *Euonymus europaeus* (Spindle), *Rubia peregrina* (Wild Madder) and *Moehringia trinervia* (Three-nerved Sandwort). The wood opened out into a small patch of coastal grassland where we saw *Daucus carota* (Wild Carrot), *Thymus polytrichus* (Wild Thyme) and the tiny *Polygala vulgaris* (Common milkwort).

Sunday brought a much brighter day and after an initial meet up in Courtmacsherry, we headed off SE to Coolbaun Strand to see some coastal species. We were not disappointed and recorded, among other species, the native grass hybrid *Elytrigia atherica* x *E. juncea*, *Beta vulgaris* subsp. *maritima* (Sea Beet), *Cakile maritima* (Sea Rocket), *Honckenya peploides* (Sea Sandwort) and *Tripleurospermum maritimum* (Sea Mayweed). The highlight of the morning was the exciting find of a population of *Crambe maritima* (Sea-kale). Lunch was enjoyed on the beach while two of our group even headed into the water for a swim!

The afternoon saw us walk up Buttercup Lane (part of the Seven Heads walk, behind the strand) where we enjoyed seeing some typical wall species of fern including *Asplenium adiantum-nigrum* (Black spleenwort), *A. ceterach*

(Rustyback), *A. ruta-muraria* (Wall-rue) and *A. scolopendrium* (Hart's-tongue). We also recorded *Geranium dissectum* (Cut-leaved Crane's-bill) and *G. molle* (Dove's-foot Crane's-bill).

Our final visit of the weekend was to Timoleague Abbey and its surrounds for some more wall species. Some of the plants recorded include *Parietaria judaica* (Pellitory-of-the-wall), *Sherardia arvensis* (Field Madder) and the tiny annual *Saxifraga tridactylites* (Rue-leaved Saxifrage). The tiny grasses *Catapodium rigidum* (Fern-grass) and *Vulpia bromoides* (Squirrel-tail Fescue) were found growing side by side on top of the outer wall of the abbey while inside *Senecio squalidus* (Oxford Ragwort) was recorded growing on a grave. *Sedum album* (White Stonecrop) was in full flower at the abbey and was particularly splendid. *Erysimum cheiri* (Wallflower) and *Crithmum maritimum* (Rock Samphire) were two nice finds on the stone wall at the sea outside the abbey.

The weekend ended with a much deserved cup of tea in Monk's Lane in Timoleague. It was a wonderful outing, hopefully the first of many in the Cork region! We recorded a total of 236 species.

Edwina Cole

Inishowen 14th – 16th August - East Donegal (H34)

A three day field meeting in the Inishowen peninsula (**H34**) was held between the 14th and the 16th of August. The main aim of the meeting was to investigate a number of botanical hotspots across the peninsula in order to record for Atlas 2020 and to attempt to re-find populations of some rarer species. The weather was generally dry and sunny throughout and over the weekend a total of just over 900 plant records were collected within 6 different hectads.

On Friday the 14th six recorders were joined by three members of the Inishowen Wildlife Club in Buncrana and the weekend of recording kicked off at Straghill beach (C3234), a few kilometres to the north. To the north of the beach at Straghill there are narrow areas of windblown sand along the tops of low sea cliffs which leads to the presence of a species-rich dune flora. In addition to the usual dune species such as *Campanula rotundifolia* (Harebell), *Galium verum* (Lady's Bedstraw) and *Linum catharticum* (Fairy Flax) a few rarities were found, most notably *Orobanche hederiae* (Ivy Broomrape) and *Draba incana* (Hoary Whitlowgrass). The *Draba* record was a particularly nice find as it only the third recorded site for the species on the Inishowen peninsula.

Our afternoon venue on Friday was the scenic Crummies Bay (C2939), which lies just north of Fort Dunree and has stunning views of the surrounding landscape. The walk down to the bay was rewarded with views of a number of different butterfly species on the wing which was nice to see as butterfly numbers have been low in 2015. Areas affected by blown sand along the northern margins of the bay yielded *Gentianella campestris* (Field Gentian) and,

in addition, a white variation of *Thymus polytrichus* (Wild Thyme) was seen. Before leaving the bay we also came across good populations of *Coeloglossum viride* (Frog Orchid) and *Gymnadenia conopsea* (Fragrant orchid) growing on a low sandy knoll which prompted much photography. It appeared that three subspecies of *Gymnadenia* were present however this was a matter of some debate throughout the weekend. On our way back to the cars a member of the Inishowen Wildlife Club kindly showed us the location of a real rarity in Co. Donegal, *Euphorbia hyberna* (Irish Spurge). We were fortunate to have someone point out the location of the species as there were only a couple of plants growing on a roadside bank which would have been easily missed. Our final notable species of the day was encountered a few minutes before the cars were reached when we came across a population of the very beautiful *Parentucellia viscosa* (Yellow Bartsia), growing in a disturbed area beside the road.

On Saturday the 15th a total of thirteen people met again in Bunrana and we headed north to Lough Fád (C3943), an upland lake halfway between Bunrana and Carndonagh. A good typical blanket bog/heath flora occurs along the shores of this lake along with a number of orchid species. The main orchid species recorded were *Dactylorhiza fuchsii* (Common Spotted-orchid), *Dactylorhiza maculata* (Heath Spotted-orchid), *D. purpurella* (Northern Marsh-orchid) and the hybrid *D. purpurella* x *D. maculata*.

In the afternoon we headed for the Isle of Doagh (C4251) and for lunch we had wonderful views looking across to Malin Head. The car park to the north of the Doagh Isle Visitor Centre proved to be a good botanical site courtesy of some recently disturbed soil areas and even before we had left we had quite a full card. The best find at this location was *Galeopsis speciosa* (Large-flowered Hemp-nettle) an arable weed species which is becoming increasingly rare in Ireland. Dune and low sea-cliff areas to the north-west of the car park supported species such as *Catapodium marinum* (Sea Fern-grass), *Asplenium marinum* (Sea Spleenwort), *Aster tripolium* (Sea Aster), *Coeloglossum viride*, *Gymnadenia conopsea* (Fragrant Orchid), *Empetrum nigrum* (Crowberry), *Neottia ovata* (Common Twayblade) and a large number of *Juniperus communis* (Juniper) shrubs, many of which were laden with berries. We also came across a petal-less form of *Senecio jacobaea* var. *flosculosus* (Ragwort) which had been shown to us a few weeks previous in Co. Wexford by BSBI VCR for Wexford/Waterford and BSBI stalwart Paul Green.

On Sunday the 16th nine people met at Moville and sites in the north-eastern part of the peninsula were visited. We started south of Culdaff beach (C5549), a beautiful area of rocky coastal habitat with great views looking out to Inishtrahull Island and beyond. After only half an hour or so we came across the rare northern species *Ligusticum scoticum* (Scots Lovage) which was found growing in a number of locations scattered across the rocky shoreline. Although this is a well known site for the species it was good to see a relatively large

population occurring. At this stage of the year there was still a small amount in flower although the vast majority had gone to seed.

The final stop of the weekend was an area of blanket bog and sea cliff habitat at Glengad Head (C5055). On the walk up to the cliff area we came across some good species, in particular *Pinguicula vulgaris* (Common Butterwort), *Carex dioica* (Dioecious Sedge), *Neottia cordata* (Lesser Twayblade) and *Pinguicula lusitanica* (Pale Butterwort). The main aim at this location was to refind an old site for *Saxifraga oppositifolia* (Purple Saxifrage) which, to the best of our knowledge, had not been seen for more than 100 years. The species was first encountered by the rapidly-moving David McNeill close to the top of a shaley gully at the top of a precipitous sea cliff. The species proved to be locally frequent in the gully and included a few clumps still in flower. Other noteworthy species noted at this location were *Sedum rosea* (Roseroot) and *Selaginella selaginoides* (Lesser Clubmoss).

The refinding of this record was the icing on the cake for the weekend and it puts the importance of botanical recording (or any biological recording) in perspective. This weekend was a very successful one which demonstrates that some nice surprises do still lurk in locations such as Inishowen which receive infrequent botanical visits.

John Conaghan, Oisín Duffy and Mairéad Crawford

Streamstown, Co Westmeath (H23) (N283433) 5 September 2015

Deferred from 25 July, due to another unforeseen engagement by the leader, 12 members explored some habitats in the immediate area of Streamstown. First stop was a visit to a nearby disused railway line to the south (N287429) - now being converted into a cycleway. Dry calcareous banks flanked the former railway line. Here, among characteristic species of these Irish midland habitats were *Gymnadenia conopsea* (Fragrant Orchid), *Chaenorhinum minus* (Small Toad-flax), *Briza media* (Quaking-grass), *Koeleria macrantha* (Crested Hair-grass), *Origanum vulgare* (Wild Marjoram) and *Leontodon hispidus* (Rough Hawkbit). The best find in this habitat, noted by Sylvia Reynolds, was *Poa compressa* (Flattened Meadow-grass) a species previously unrecorded in **H23** and easily recognisable by its distinctly flattened culms although sometimes may be confused with depauperate *Poa pratensis* (Smooth Meadow-grass) in dry wall habitats. Nearby, damp grassland and an adjoining stream yielded *Typha latifolia* (Bulrush) and *Berula erecta* (Lesser Water-parsnip). After a pleasant lunch break at Streamstown crossroads under the shade of a fine specimen Beech tree, featured in “Heritage Trees of Ireland” (Fennell et al., Collins Press 2013), we went 1km to the south-west where a wetland in a morainic hollow was dominated by a floating scraw (N282417). Largely dominated by *Typha latifolia* (Bullrush), the wetter areas and a fringing area of fen yielded *Carex diandra*

(Lesser Tussock-sedge), *C. disticha* (Brown Sedge), *C. dioica* (Dioecious Sedge) together with *Parnassia palustris* (Grass-of-Parnassus), *Erica tetralix* (Cross-leaved Heath), *Schoenus nigricans* (Black Bog-rush), *Berula erecta* (Lesser Water-parsnip) and *Potamogeton coloratus* (Fen Pondweed). An indeterminate *Eriophorum* ssp. defied attempts to identify it and hence confirmation of the previous record by the VC Recorder of *Eriophorum latifolium* (Broad-leaved Cottongrass) from this site was not possible. Finally, a brief visit to a dried-out turlough-type lakelet at Doraheen (N232242) brought the day's events to an end. Largely dominated by extensive stands of *Eleocharis palustris* (Common Spike-rush) and *Oenanthe aquatica* (Fine-leaved Water-dropwort) intermingled among which were whitish papery sheets of an alga - *Oedogonium* ssp. - evidence of a higher winter-time water level - other species also noted included *Chenopodium rubrum* (Red Goose-foot) and *C album* (Fat Hen).

Con Breen

BSBI Irish Branch - Annual General Meeting, 2015

(Unapproved)

Saturday 19th September 2015, 2pm
National Botanic Gardens, Glasnevin, Co. Dublin

In the Chair: John Faulkner

John Faulkner welcomed the 26 attendees and apologised for the relatively short notice of the AGM to members this year. In particular, he welcomed the new and prospective members as well as thanking the President, Ian Denholm for his attendance at the AGM and at meetings during the year.

Apologies

Michael Archer, Catriona Brady, Ciarán Byrne, Zoë Devlin, Joan Fallows, Pat Lenihan, Jenny & Michael Neff, David McNeill, Ian McNeill, Sharon Parr, Sylvia Reynolds, Eva & Pascal Sweeney, Faith Wilson, Mark Wright and Mike Wyse- Jackson.

Minutes of BSBI Irish Branch AGM 2014

Copies of the minutes were circulated to the attendees at the AGM. The minutes were agreed to be a correct record of the meeting, and this was proposed and seconded by Micheline Sheehy Skeffington and Robert Northridge.

Matters arising from the Minutes

The delay in the publication of the *Flora of Connemara & The Burren* was queried. Gerry Sharkey announced that it should be ready in a number of weeks and that he was unsure if a sale price had been agreed.

Chairperson's Report 2014-2015

In his Chairperson's report, John Faulkner summarised the past year as eventful, and by no means a routine one. Many of these "events" had been positive and heartening, but the year had begun on an extremely sad note with the sudden death of Caoimhe Muldoon shortly after being elected onto the CFI for the first time and appointed as Field Meetings Secretary. He expressed the Committee's gratitude to John Conaghan for stepping in to undertake the urgent task of co-ordinating the field meetings programme for 2015. The Committee had decided to exercise its powers under the constitution to co-opt two additional members, Rory Hodd and Con Breen.

John reported that BSBI's negotiations with the National Parks and Wildlife Service (NPWS) had been successful. An agreement on grant aid was concluded in April 2015 which had enabled BSBI to increase the Irish Officer's employment to 3 days per week. Approaches to the Northern Ireland Environment Agency did not come to fruition, but we had been more successful in two other bids for specific projects based in Northern Ireland. One of these is a wildflower awareness and survey project in the Ring of Gullion, being undertaken jointly with the County Armagh Wildlife Society and the Ring of Gullion AONB Officer, and financed by the NI Challenge Fund. The other project was BSBI's Atlas 2020 recording in Northern Ireland, for which a contribution towards expenses will be provided by the Environmental Recorders' Group Grants, administered by CEDaR.

On the ground, John felt there had been a huge effort and much enthusiasm for Atlas 2020 recording during the year. Last winter, the Committee had identified some key areas where the post-2000 coverage was weak, notably some vice-counties with no recorder in post. Members were encouraged to target those areas. The outstanding success was the recording week in Mayo, during which over 10,000 records were made, but there had been many other fruitful meetings and innumerable excursions by individual recorders.

John expressed thanks to the National Biodiversity Data Centre for helping us to publicise the Irish Species Project on its website, and to Phoebe O'Brien who drafted species profiles and sourced photographs for them. This was the second and final year of the project, but it was too early to assess the outcome.

One of the most significant events of the year was the BSBI's Annual Spring/Summer Meeting (ASM), based at the University of Ulster in Coleraine, from 12-16th June. After a Saturday morning of talks about the north coast area, there were organised excursions to some of the well-known botanical sites in the north coast area. The Monday and Tuesday were dedicated to recording some local hectads. A fuller report of the meeting would appear elsewhere, but John felt he should mention here the role played by Louise Marsh, BSBI's Publicity and Outreach Officer, in helping to organise and publicise the meeting, and by

the local VCRs, David and Ian McNeill, Dave Riley and Robert Northridge in the organising of excursions.

In April we had been asked to approve the use of further data from the DDb in the Irish Red List Project, an initiative in which BSBI has been working with the statutory authorities, both north and south, since 2012. In the knowledge that some VCRs were likely to be unhappy about this request, all VCRs were asked whether or not they would be content for their data to be used for this purpose. A substantial majority agreed, but a few did not, and their records were excluded from the dataset supplied to the Red List Working Group. Micheline Sheehy-Skeffington has represented BSBI on the Working Group, and John thanked her for undertaking this role with her customary professionalism.

John observed that BSBI's structure is evolving to fit the new Articles, and one of the changes that will be introduced in the coming year is a common framework for Country Committees. This means we will have a new constitution in place for the 2016 AGM.

To finish, John thanked all officers and committee members of CFI for their support and dedication over the year. Of necessity, he said, much of its business had been done by phone and email, but the Committee and the Irish Officer had worked exceptionally hard and there was good reason to believe that the fruits of their labour will be apparent in the growth of the Society and its stature in Ireland in future years.

Hon. Secretary's Report 2014-2015

CFI met three times during 2014 - 2015, on 11th October, 31st January and 21st of May.

We would like to thank the National Botanic Gardens here at Glasnevin for the use of their premises for our meetings; as a conference venue and for providing accommodation for the Irish Officer, Maria. We would also like to thank the Armagh Natural History and Philosophical Society for use of its Reading Room for our meeting in January.

There were twelve field meetings held throughout the year. The committee is most grateful to John Conaghan who stepped in as Field Meeting Secretary following Caoimhe Muldoon's untimely death. The focus for this year's meetings has largely been on recording for Atlas 2020. John arranged meetings for twelve different VCs, from The Annual Summer Meeting right on the north coast to Courtmacsherry, Co. Cork in the very south.

We also organised a Field Meeting in West Mayo to honour Caoimhe, where she spent many happy days in the bogs. We would like to extend our deepest sympathies to all her family and friends.

We've seen a number of VCR changes during the year. Our thanks are due to Seán Howard, VCR for Longford, Jonathan Shackleton, VCR for Cavan and to Tony O'Mahony, VCR from the three Cork VCs who retired during the past year. In particular we would like to thank Tony O'Mahony, who retired as

VCR from the three Cork VCs earlier this year, for his many years of work on the flora of the county. He worked for 4 decades, tirelessly covering the length and breadth of Cork and collecting fastidious records, particularly on some tricky groups. He will continue to record and work on some of his favoured groups, and we hope that the BSBI will continue to hear more from Tony.

We would like to extend our welcome and thanks to Clare Heardman as VCR for **H3** West Cork, Alexis FitzGerald as joint VCR for **H32** Co. Monaghan and to Robert Northridge as VCR for **H30** Cavan until 2020, as well as his own VC of Fermanagh.

The Irish membership count remains stable this year, at 165 members, with a slight decrease of two. 27 members did not renew their subscriptions for 2015, but there have been 25 new members so far this year.

Paula O'Meara

Report from Irish Officer to Committee for Ireland October 2015

The Irish BSBI Members Conference took place in April. Well-attended one-day event with workshops (e.g. fern ID, using the DDb) and talks.

Irish Officer continuing involvement (in own time) with running and supporting the BSBI Dublin local group. Dataset from 2014 submitted to local VCR.

Irish Officer continuing with successful and fruitful social media campaign - includes web page, Facebook and Twitter. Also a range of other communications, e.g. info for CEDaR web page, INJ article on NYPH, represented BSBI and gave presentation at meeting to set up a BES (British Ecological Society) chapter/branch, or equivalent independent group, in Ireland.

Rough crew – great success so far with a number of outings generating great publicity, great records.

ISP (Irish Species Project) – good help and support from keen volunteer and also the National Biodiversity Data Centre. Very many record cards received, but data coverage likely to be patchy.

Irish VCR newsletter – bumper edition during the year.

Funding:

NPWS – since April, National Parks and Wildlife Service are funding an additional 1.2 days of I.O. time, in return for a number of outputs, all of which tie very closely with what we already do. Summary of outputs circulated.

CEDaR/ERG – £1,000 received to support recorders in NI.

Challenge Fund/Ring of Gullion – sum received for specific project in south Armagh.

New Year Plant Hunt – unexpected success. Piece written for Irish Naturalists Journal (still in review). Will be even bigger event this year.

Irish Officer has given talks at National Botanic Gardens, Mayo and Cork for the public and interested botanists, about work of BSBI and why important – good turn-out, good feedback.

Field meetings – very ambitious schedule 2015, very successful – especially Mayo week and Cork and Cavan weekends. I.O. provided detailed and dedicated training for new-comers at some events.

MapMate training day in NI in early 2015. Occasional MM support requests. Also queries relating to use of DDb. Dealt with as they arise.

Working with NBDC – e.g. ISP species profile pages, plans to compare gaps, plans for NPWS survey datasets, etc. Meeting planned soon to begin transfer of data for two trial VCs.

I am continuing to support one Irish VCR with scanning of recording cards with a view to a third party doing data entry. This is progressing, albeit slowly. Also had a volunteer in for 3 weeks during summer working on this project, entering older data. Hope to try to find a volunteer during winter to help with data entry.

Dr Maria Long

Election of Committee for Ireland, to serve from 1st October 2015

John Faulkner announced that he would stand down as Chairman.

Micheline Sheehy Skeffington announced that while she was vice-chair and eligible for nomination as chair, she had a number of commitments that necessitated attention, she would prefer to be nominated as a committee member for the coming year, rather than Chairman.

The following nominations were proposed and seconded:

Chair: Robert Northridge was proposed and seconded by Sylvia Reynolds and Con Breen.

Vice-chair: Joanne Denyer was proposed and seconded by Micheline Sheehy Skeffington and John Conaghan.

Con Breen was proposed and seconded by Maria Long and Robert Northridge.

John Conaghan was proposed and seconded by Paula O'Meara and John Faulkner.

Rory Hodd was proposed and seconded by Mairéad Crawford and Oisín Duffy.

Paula O'Meara was proposed and seconded by Phoebe O'Brien and Hannah Mulcahy.

Micheline Sheehy Skeffington was proposed and seconded by Gerry Sharkey and Maria Long.

All of the nominations were unopposed and Robert Northridge, Joanne Denyer, John Conaghan, Paula O'Meara and Micheline Sheehy Skeffington were duly re-elected. Con Breen and Rory Hodd, as co-opted members to the 2014 -2015 committee, were elected.

Agreement on funding with NPWS (David Nash)

David Nash raised a number of concerns regarding agreement between NPWS and BSBI on Red List data, and funding for the Irish Officer position of 1.2 days

per week. He felt that CFI had exceeded its authority in agreeing to become a partner in the Irish Red Data List project and to the use of BSBI data for this purpose, without more extensive consultation with the VCRs. He also felt that BSBI was sacrificing its independence by accepting funds from the NPWS.

A lively debate followed, where some VCRs voiced mistrust at their DDb data being handed to any outside agency. A few VCRs agreed that the BSBI risked losing its autonomy/authority if it entered into a funding relationship with state authorities. The Chairman emphasised that records had been omitted from any VCR who did not wish to have their data included in the Red List analysis process, apart from the already published Atlas 2000 presence/absence data. He did not accept that there was any significant erosion of BSBI's independence. Most VCRs were happy to have their data included in the Red List.

On a more positive note, the President commented that it made sense to work in partnership with kindred agencies, with which we had the common aim of improving knowledge of our Flora and shared broadly similar conservation purposes to our own.

Regarding the NPWS funding of the Irish Officer position, two members pointed out that funding from other agencies contributes significantly to the Scottish and Welsh Officer positions. The President pointed out that as a registered charity, BSBI currently runs at a deficit and funding from other sources is integral to furthering the work of the BSBI.

AOB

No other business was outstanding.

Closing

John Faulkner thanked all for attending the AGM. He apologised that the AGM had run on so long this year. In particular, he thanked Ian Denholm for making the journey to be with us. Ian Denholm mentioned that his term as President would be up in November and announced that John Faulkner was to be his successor (once formally elected) and offered his congratulations.

Close of formal AGM 16.30

John Faulkner, Chair, BSBI Committee for Ireland

Paula O'Meara, Honorary Secretary, BSBI Committee for Ireland

Contributions intended for *Irish Botanical News* No. 27

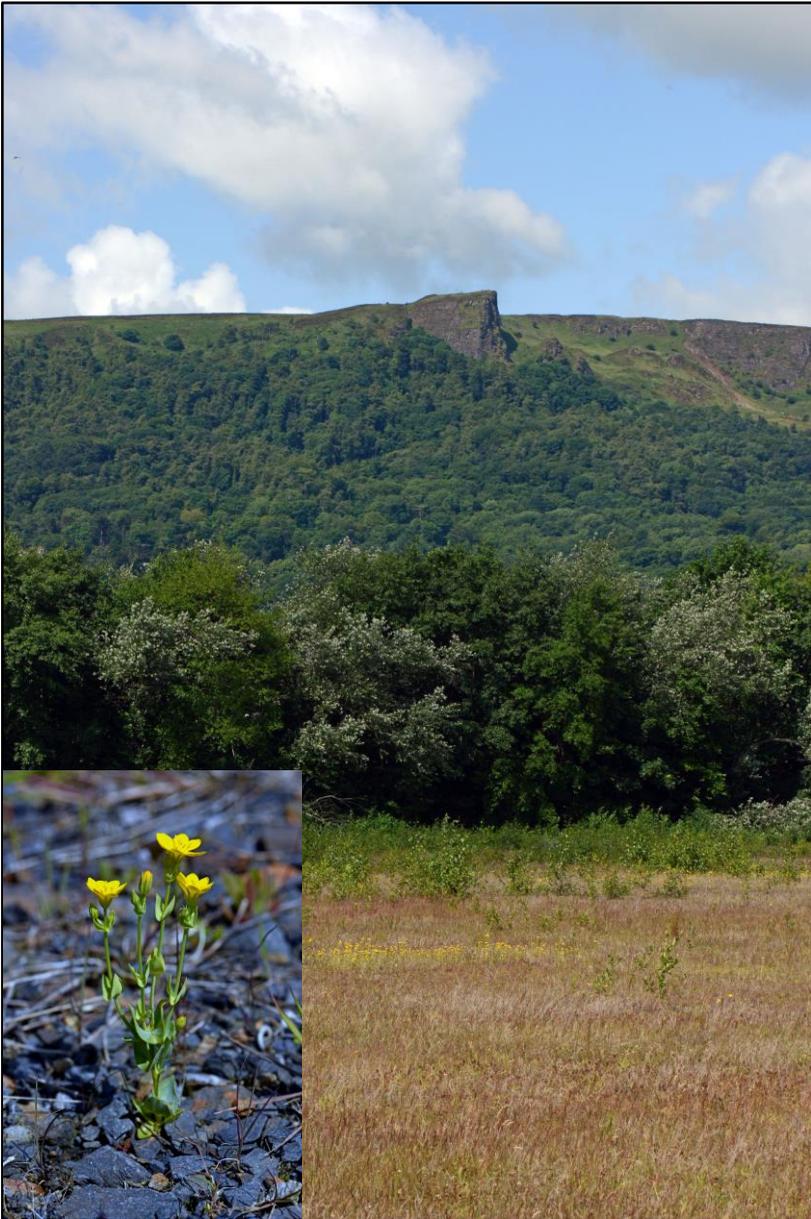
Should reach the Editor before January 31st 2017.

The Editor Paul Green can be contacted at: *Yoletown, Ballycullane, New Ross, Co. Wexford, Y34 XW62.*

E-mail: paulnewross@eircom.net or by mobile: 00 353 (0)87 7782496



Heracleum sphondylium x *H. mantegazzianum* (Hogweed x Giant Hogweed), Belfast. Photo: G. Day © 2015: See page 65.



Blackstonia perfoliata (Yellow-wort) at Dargan Road Landfill.
Photo: R. Anderson © 2015. See page 39.