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COMMITTEE FOR IRELAND, 1997-1998
BOTANICAL SOCIETY OF THE BRITISH ISLES

In line with the Rules, two new committee members were elected at the Annual General Meeting held in the Ulster Museum, Belfast on 4 October 1997 (Office Bearers were subsequently elected at the first Committee Meeting). The Committee is now:

Dr E.C. Mhic Daeid, Chair (retiring October 1998)

Dr Sharon Parr, Secretary (retiring October 1999)

Dr Michael Wyse-Jackson (retiring October 1998)

Mr Shaun Wolfe-Murphy (retiring October 2000)

Miss A.M. McKee (retiring October 2000)

The following are also members of the Committee:

Dr David W. Nash, Representative on BSBI Council

Mr Paul Corbett, Observer, Environment & Heritage Service (NI) Representative

Dr Colman O'Criodain, Observer, National Parks & Wildlife Service, Republic of Ireland Representative

Mr Alan G. Hill, Field Meetings Secretary, co-opted October 1995

Dr Brian S. Rushton, Editor *Irish Botanical News*, co-opted October 1995

Dr Declan A. Doogue, *Atlas 2000* Co-ordinator, co-opted October 1995

Dr John J. Early, Treasurer for the *Atlas 2000* Project in the Republic of Ireland, co-opted October 1995

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All species names and common names in *Irish Botanical News* follow those in Stace, CA. (1991). *New Flora of the British Isles*. Cambridge University Press, Cambridge.

The cover illustration shows *Simethis planifolia* (Kerry Lily), one of the most rare plants in Ireland, found during the BSBI field meeting to South Kerry in May 1997. Taken from Adams, J. (1931). *A students' illustrated Irish Flora*. Reeve & Co., Ashford, Kent.

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EDITORIAL

I like nothing better than hunting around old book shops trying to find botanical “treasures” - not necessarily valuable books, just interesting ones. Some time ago, from a small local “War on Want” shop I bought a copy of W. Marshall Watts’ *A school Flora for the use of botanical classes* (1927, Longmans, Green & Co. Ltd, London). Since buying it, for 50 pence I might add, it has languished on my book shelf largely untouched but last week I was looking for another book and found my forgotten school Flora. Being diverted I started to thumb through it. The Preface states that “The object of this little work is to provide the student who has mastered the elements of botanical science with a Flora of such a small size as to be easily carried on country rambles, which shall enable him readily to identify the common plants with which he will meet.” (We should perhaps forgive the impression that field botany is a male pursuit!)

But this is an unforgiving identification manual - long on technical jargon and short on illustrations. And I wonder just what the student at school who had “mastered the elements of botanical science” thought about it and whether they actually used it.

One thing is certain, modern-day undergraduates would blanch at such a text and would struggle to understand many of the terms that are used. And as for “country rambles” these have to be fitted in with the other diversions such as Internet-surfing and video-gaming. Botany is becoming more and more a minority subject at schools and universities as we move into the molecular biology era and surveys I have recently seen suggest that plant and animal diversity have now become very minor components of undergraduate biological science programmes of study IF they are taught at all! The age profile of BSBI, which highlights the lack of a younger component, is another reflection of the same trend away from the traditional areas of biology.

Unfortunately, it is difficult to see how this tide can be reversed; cloned sheep seem to make better headlines than plant surveys.

Have a good field season,

Brian S. Rushton, Editor, *Irish Botanical News*

AZOLLA FILICULOIDES LAM. (WATER FERN) IN FRESH AND BRACKISH WATER IN E. CORK (v.c. H5)

J. Lucey

Environmental Protection Agency, Butts Green, Kilkenny

Azolla filiculoides Lam., a native of western North America, Central and South America (Clapham *et al.* 1962), was apparently introduced to Ireland where it has been used as a floating plant in aquaria and garden ponds. Because of its sensitivity to cold, it usually dies back in winter, except in sheltered areas, but has become naturalized in a few places in the south in the past (Webb 1963). In the most recent vice-county flora census (Scannell & Synnott 1987), *A. filiculoides* was listed as occurring in two vice-counties (Mid Cork, v.c. H4 and Co. Wicklow, v.c. H20), not seen since 1950 in another (E. Cork, v.c. H5) and extinct in a further one (Meath, v.c. H22). More recently, in 1995, it has been recorded in Co. Antrim (v.c. H39) by Wolfe-Murphy (1997).

During 1994 and 1995, *A. filiculoides* was recorded at two sites in E. Cork and it has survived through to the time of writing (May 1997) at one of these. The location and natural chemical characteristics of the sites can be described as follows: Pond (area c. 0.1 ha) on Great Island (W/817.696) in fresh water (pH 7.25 and conductivity 474 μScm^{-1}); Ditch/drain (width c. 2 m) on Little Island (W/740.725) in brackish water (pH 7.5, conductivity $>1000 \mu\text{Scm}^{-1}$ and salinity 3.9 parts per thousand NaCl). The ditch/drain is located some 7 km east of the centre of Cork while the pond is a further 8 km to the south-east; Praeger (1934) included *A. filiculoides* among the mainly southern plants, not native to the country, which had run wild in the neighbourhood of Cork City. The habitat for *A. filiculoides* in Britain, where it has become naturalized in many places mainly in southern England (Clapham *et al.* 1962), is given by Haslam *et al.* (1975) as ponds, dykes and backwaters in still and slow-flowing, often brackish, water.

At both of the locations in E. Cork, the surface area was effectively completely covered by *A. filiculoides* where, in places, it grew in tufts protruding from the water to the exclusion of other floating and submerged macrophytes. At the pond site, however, there were some emergents present, viz. *Apium nodiflorum* (Fool's Water-cress) as well as *Typha latifolia* (Bulrush) and the pond on its northern side was

fringed by *Ulex europaeus* (Gorse). Both water bodies had low dissolved oxygen levels, 35-43% and 18-31% saturation in the ditch and pond respectively when measured on two occasions. The depressed oxygen values recorded, in both situations, were likely to be a result of lack of exchange or diffusion from the atmosphere rather than variation due to respiratory activity.

Thus, *A. filiculoides* over-wintered successfully at two loci in E. Cork, where it had recently become established, in the relatively mild 1994/95 period. However, the relatively severe winter of 1995/96 saw its disappearance from one of these, the ditch/drain, though it is not clear whether this was facilitated by the opening of a sluice. With the proliferation of garden centres in Ireland it is likely that this species will spread to ponds and ditches in suitable habitats in the future and could be, in some instances, a troublesome weed. However, Irish winters are likely to keep its spread in check in all but a few sheltered frost-free areas; its ability to colonize brackish water where the roots will have some buffer against the cold, confers an advantage in this respect. Given that the climate in Ireland can be relied upon to have frost, even in the areas of mildest weather, it is unlikely that *A. filiculoides* would get a foothold to such an extent that it became a pest species. Unless, of course, as is being predicted, a warming of the climate with concomitant increases in winter temperatures, occurred. A bloom of *A. filiculoides* occurred in the lower reaches of the River Guadiana in southern Portugal in 1993 which has been attributed to slower and lower flows and an increase in phosphate content in the water (Carrapico *et al.* 1994). In late 1995 the surface of the River Lagan, in Belfast, became completely covered with floating plants consisting mainly of the duckweeds *Lemna gibba* (Fat Duckweed) and *Spirodela polyrhiza* (Greater Duckweed) but which included some fronds of *A. filiculoides* (Wolfe-Murphy 1997).

During a drought period in 1949, J.P. Brunner recorded that *A. filiculoides* had colonized the remaining pools of a stream draining through dunes south of Brittas Bay in Co. Wicklow and attributed the colonization to “gardening”. Although Brunner (1949) deplored this “interference with the natural flora” he goes on to say that he had “given away about twice as much” as he had collected, thus spreading the plant himself. Stewart & Church (1992), who included *A. filiculoides* among the alien plants that can swamp the native flora, have suggested that

education of the public is the best way of preventing the spread of such species, e.g. by discouraging people from emptying aquaria into wild situations without first removing the plants.

The present note confirms *A. filiculoides* living in E. Cork (v.c. H5) in both brackish and fresh water in the recent past. It was previously recorded from E. Cork in 1950 but not seen there since then (Scannell & Synnott 1987); the prolonged cold winter of 1962/63 is likely to have checked any spread of the species up to that time. In the present decade the colder winter of 1995/96, after the two preceding milder ones, may similarly have checked the spread of *A. filiculoides*. It has, however, survived for three successive winters, at a sheltered pond site in this vice-comital division.

REFERENCES

- Brunker, J.P. (1949). *Azolla filiculoides* Lam. in Co. Wicklow. *Irish Naturalists' Journal* 9: 340.
- Carrapico, F., Costa, M.L., Teixeira, G., Costa, M.H., Frazao, A.A. & Santos, C.R. (1994). The *Azolla* bloom in the Guadiana river (Portugal) in April 1993: its causes and consequences, in *Book of abstracts, European Weed Research Society 9th International Symposium on Aquatic Weeds*, p. 11. Trinity College, Dublin.
- Clapham, A.R., Tutin, T.G. & Warburg, E.F. (1962). *Flora of the British Isles*, 2nd ed. Cambridge University Press, Cambridge.
- Haslam, S.M., Sinker, C.A & Wolseley, P.A (1975). British water plants. *Field Studies* 4: 243-351.
- Praeger, R.L. (1934). *The botanist in Ireland*. Hodges, Figgis & Co., Dublin.
- Scannell, M.J.P. & Synnott, D.M. (1987). *Census catalogue of the flora of Ireland*, 2nd ed. Stationery Office, Dublin.
- Stewart, N.F. & Church, J.M. (1992). *Red data books of Britain and Ireland: Stoneworts*. Joint Nature Conservation Committee, Peterborough.
- Webb, D.A (1963). *An Irish Flora*, 4th ed. Dundalgan Press, Dundalk.
- Wolfe-Murphy, S.A (1997). Some non-native aquatic plants in the lower River Lagan. *Irish Botanical News* 7: 27-28.

THE BOTANICAL SOCIETY OF THE BRITISH ISLES *ATLAS 2000*
PROJECT IN NORTHERN IRELAND

Fiona McKee

CEDaR, Ulster Museum, Botanic Gardens, Belfast, BT9 5AB

I have been employed under contract since April 1997 by the Botanical Society of the British Isles to computerise all records relating to Northern Ireland vascular plants. The objective of the contract is to compile the records needed to meet the requirements and the deadline of the *Atlas 2000* Project and in so doing compile a comprehensive Vascular Plants Database for Northern Ireland. My contract is to work three days a week, currently spending two in the Ulster Museum and one in the Environment and Heritage Service (EHS) at Commonwealth House, Belfast. In the Museum I am entering all plant data available from the six vice-county recorders and any miscellaneous records, and in the EHS I am entering all non-ASSI site data. Damian McFerran and Julia Nunn are entering the ASSI data at CEDaR (Centre for Environmental Data and Recording) and the staff at EHS have agreed to computerise, on to the RECORDER database, all data recorded after 7 April 1997.

The first job was to estimate the possible number of records available for entering on to the database. This involved assessing the site data in the EHS and contacting the six vice-county recorders in Northern Ireland and estimating how many records they had. In the EHS the assessment of both ASSI and non-ASSI site data has produced a figure of 60,000 records and an estimate of 100,000 records for each vice-county recorder was concluded which initially sounded daunting in terms of meeting the deadline of December 1999 to enter all the data. Fortunately, Ralph Forbes and Robert Northridge - recorders for Co. Fermanagh (v.c. H33) - have been entering the Fermanagh plant data on to the RECORDER database. This in itself has taken c. 130,000 records out of the total. Stan Beesley in Co. Antrim (v.c. H39) has also been computerising all his data using a different database (BioRecs). This is compatible with RECORDER, taking another c. 100,000 records from the total. Paul Hackney, recorder for County Down (v.c. H38), is currently entering all his data on to RECORDER along with the remainder of the *Flora of the North East* records, subtracting another 100,000 records from the total.

That has only left me with a total of 330,000 records to enter in the two and a half years!

Initial analysis of the vascular plants records currently stored by CEDaR shows that 32,100 records have been entered at CEDaR from data compiled from vice-county recorders, ASSI site reports and 12,100 records have been entered at Commonwealth House, Belfast. These records are included in the total of 279,600 vascular plant records stored on the database. Interestingly, the total number of records stored at CEDaR is 443,897 and over 50% of these records are for vascular plants.

If calculations are correct, by the end of the contract, CEDaR should have c. 800,000 vascular plant records stored on the RECORDER database at the Ulster Museum.

An example of the maps produced by RECORDER is shown in Fig. 1. This map of *Potamogeton x zizii* (Long-leaved Pondweed) was produced at a 10-km square level and shows the general distribution of the plant around Northern Ireland. At the end of December 1999 we will finish sending vascular plant records to the Biological Records Centre in Monks Wood and maps for each species will be produced and incorporated into the *Atlas*.

In practice the quality of records sent to me for computerisation varies tremendously. Data sent on field cards with accurate six-figure grid references are easily entered on to the database. Some cards however do not have anything more than a 10-km square grid reference which is of less value in terms of the vascular plants database, and records often come with no date or specific site name. Another stumbling block that arises is hand writing, a problem that can be overcome with time and input from other parties working with me.

The priorities for data transfer over the remainder of this contract have recently been agreed. Data currently stored on card, and made available to CEDaR on card, will be computerised first. Data that have to be transcribed from notebook(s) or is a personal communication will be stored on RECORDER at a later date. Of this latter group, records that are post-1987 will be computerised first.



Potamogeton x zizii (Long-leaved Pondweed) Koch ex Roth.

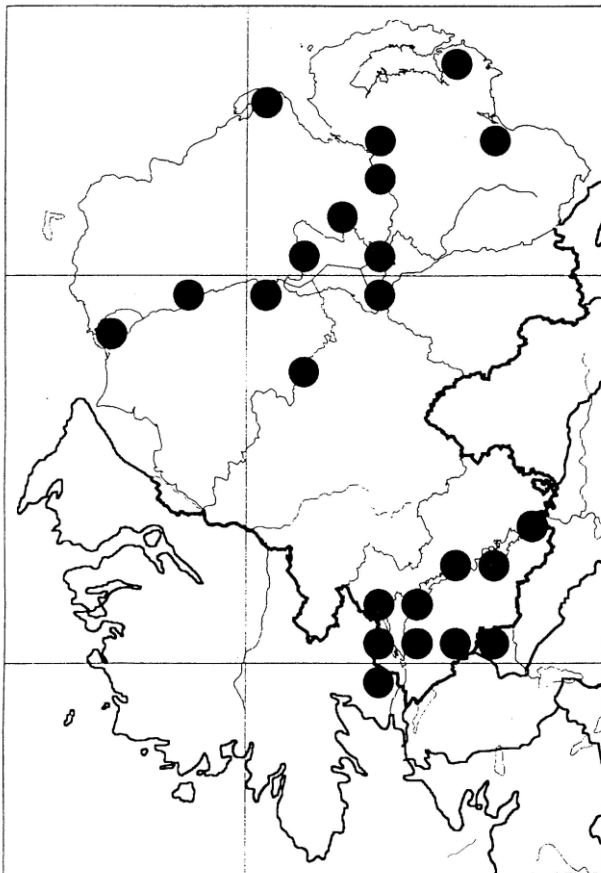


FIGURE 1. An example of a distribution map produced from the REORDER data base being used in the *Atlas 2000* Project.

A Steering Committee meeting for the contract was held at which the date classes were discussed. It was pointed out that in Northern Ireland a number of botanical surveys had been carried out in the 1970/80s and that this could have an adverse effect on the most recent date class. Trevor Dines, BSBI *Atlas 2000* Coordinator said that unfortunately at this late date, it was unlikely that the date classes would be changed. It was therefore generally agreed that, where appropriate, assistance with recording for the *Atlas* should be sought.

“WILD” STRAWBERRY-TREES (*ARBUTUS UNEDO*) IN CO.
DOWN, v.c. H38

P. Hackney

Department of Botany, Ulster Museum, Botanic Gardens, Belfast, BT9 5AB

In my 1992 edition of the *Flora of the North-east of Ireland*, p. 46 (Hackney 1992), I refer to a single Strawberry-tree (*Arbutus unedo*) found growing in 1984 as a “self-sown specimen” beside the Glen River near the Donard Bridge, the lowest of three bridges crossing the Glen River in Donard Park on the north-eastern edge of the Mourne Mountains.

In October 1997 I re-visited this site. The river at this point, just above the Donard Bridge (J/372.301), is a fast-flowing narrow torrent running over a rocky bed of granite. The stream runs within a picturesque glen surrounded by nineteenth century and more recent plantations of conifers (Scots Pines (*Pinus sylvestris*) and spruce (*Picea* spp.)), with a thick understorey of large *Rhododendron* bushes. I attempted to relocate my 1984 tree, which I recalled was growing almost horizontally across the stream out of the left bank (i.e. the right side of the stream as one ascends the glen, opposite the path which takes the other bank above the bridge). In fact, this tree has recently been cut back so that the horizontal trunks and branches have been removed and only a few upright trunks remain, but vigorous new shoots are arising from the stumps and the tree is obviously perfectly healthy. I was surprised to notice a further four trees in similar positions on the edge of the riverbank of obviously similar ages and size, all in full flower and with some fruit on at least

one of them, a little further up the river. The five trees are spread along about a couple of hundred metres of river bank from just above Donard Bridge, and it is possible there may be others which I have missed. The trees are growing among rhododendrons and behind them is a mature conifer plantation. The whole appearance of these Strawberry-trees and their habitat evoke an attractive semi-natural scene, as if one were in the mountains of southwest Ireland, but clearly such a group within what was a demesne of a large residence must surely be planted. My original thought that the tree which I found first in 1984 was self-sown seems now unlikely.

The Donard Bridge, which bears a date of 1835 and is at an altitude of 50 m, carries a driveway across the river to the site of Donard Lodge, now demolished, around which Donard Park (now in the care and management of the Forest Service, Department of Agriculture for Northern Ireland) was created in the last century. The Strawberry-trees would have been situated only about 400 m or so from Donard Lodge and its garden, and presumably would have been planted with the deliberate intention of providing the romantic scene I have described above. The mature Scots Pines beside the river are probably of the same age.

There are few relics of cultivation about the immediate site of the demolished Lodge - a big Irish yew (*Taxus baccata*), a large mature Chile Pine (*Araucaria araucana*), a white-flowered *Fuchsia*, Himalayan Honeysuckle (*Leycesteria formosa*), Snowberry bushes (*Symphoricarpos albus*) and some plants of Red Valerian (*Centranthus ruber*) were all I could find on a quick visit on 23 October 1997. The site is richer in weeds than elsewhere in the area - I noticed *Epilobium brunnescens* (New Zealand Willowherb), *Juncus tenuis* (Slender Rush) and *Acaena ovalifolia* (Two-spined Acaena) about the house ruins.

As curiosities the Donard Park Strawberry-trees are worth a visit - at least it saves those of us who live in northeastern Ireland a long journey to Sligo or Kerry! They can be accessed easily from the Donard Park car park which is situated at the south end of the town of Newcastle, and which has an entrance close to the sea front with a rectangular concrete gateway bearing the sign "Donard Park 1951" - just follow the footpath which hugs the side of the river. It would be interesting to find where

these particular trees came from. I presume they are of Irish origin, but from where exactly?

REFERENCE

Hackney, P. (1992). *Flora of the north-east of Ireland*, 3rd ed. The Institute of Irish Studies, The Queen's University of Belfast, Belfast.

CORRESPONDENCE BETWEEN R.W. SCULLY AND A.W. STELFOX

Nora McMillan

The Nook, Uplands Road, Bromborough, Wirral, Merseyside, L62 2BZ

In a previous issue of the *Irish Botanical News* (McMillan 1997) I described a copy of R.W. Scully's *Flora of County Kerry* (1916) in my possession which was once owned by A.W. Stelfox. When I received the book (from Stelfox's son) I also received a letter of 16 June 1934 from Scully to Stelfox which contains lists of Kerry desiderata. This letter is reproduced below as it might prove useful to modern-day botanists researching the flora of Co. Kerry (v.cc. H1, H2).

The Grove,
Rushbrooke
Co. Cork.

16 June 1934.

Dear Mr. Stelfox,

I am very glad to learn you are going to visit Kerry. I quite envy you your trip. I suppose you already know the small hotel at Glencar; rather rough and much haunted by anglers. You will find it quite convenient for Carrantuohill & Mallaghanattin.

There are one or two fine cirques facing north on Mullaghtn.; I think Colgan nobbled at one of them. They are best reached from the Ballaghbeama road leaving your car at the "Gap", or from a small lake (Lough Eskabehy) about a mile west of the "Gap".

Then there is a fine jumble of small lakes and cliffs under a peak called Tinnaragh - practically a 'terra incognita'. It is best reached by taking the more eastern gully above Lough Reagh. There is (or was) a stone causeway crossing the swamp between Loughs Cloon and Reach. If you wish I could lend you my inch-to-a-mile Ordnce. maps for this district duly marked.

When on Carrantuohill please look for *Juncus trifidus* reported in 1910 as growing quite close to the summit (vide Flora of Kerry p. 290). All these localities lie in Dunkerron North, District IV of my Flora. I give on a separate sheet some of the numerous desiderata for this district.

As to Daarynane (in my District II) it has been pretty well worked, but you might keep a look out for *Spiranthes gemmipara* already found near Westcove and Waterville Lake, as well as for the other desiderata on accompanying list.

A talk and explanation of maps would be far better than several letters, and if you and Mrs. Stelfox - you say 'we' in your letter care to come here for a night or two, we would be glad to put you up. I could send my car to meet you at Cork which would save you the trouble of taking our local train to Rushbrooke.

Yours sincerely

Regibald Scully (signed)

Lists of desiderata for Districts IV and II will follow on my hearing from you.

Desiderata. Fl. of Kerry District IV - Glencar, Reeks, etc.

Coronopus (either sp.)	Juniper (tapering straight leaves)
Arenaria serpyllia	Sisyrinchium
Vicia hirsuta	Juncus trifidus
Agrimonia odorata	Sparganium neglectum
Myriophyllum spicatum	Carex filiformis
Epilobium hirsutum	Phleum pratense
Smyrnum olusatrum	Koeleria cristata
Valerianella olitoria	Ophioglossum
Pulicaria dysenterica	Equisetum sylvaticum
Matricaria discoidea	Lycopodium alpinum
Petasites officinalis	(found by A.G. More on
Wahlenbergia	Reeks, not seen since).

Myosotis palustris
Scrophularia aquatica
Utricularia neglecta
Atriplex hastata
Salix alba

Desiderata District II. Darrynane & East of

Cochlearia anglica	Equisetum maximum
Subularia	" sylvaticum
Diploxys	Botrychium.

Coronopus Coronop.

Erodium cicutarium

Hippuris

Scabiosa arvensis

Filago minima

Saussurea

Gentiana campestris

Mentha arvensis

Salsola

Polygonum Raii

Listera (either)

Juncus obtusiflorus

Phleum arenarium

Catabrosa

Lastraea spinulosa

Spiranthes gemmif. has been
found near Westcove (Dist. II)
and near Waterville Lake (Dist.
III).

SURVEYING SOUTH KERRY (v.c. H1) FOR *ATLAS 2000*

T. Hodd

Coolies, Muckross, Killarney

In 1962 the first vascular plant atlas of the British Isles (Perring & Walters 1962) was published by the BSBI. All the known records since 1930 of wild vascular plants were displayed as a solid dot (●) on a map of squares with each square being 10 km x 10 km. Records prior to 1930 were recorded as a clear dot (○). Many of the records for Ireland, particularly those from the west of Ireland were made by D.A. Webb, F.H. Perring and R.L. Praeger (older records). Now in 1997 there are more than 100 members of the BSBI in Ireland so the task of preparing a new atlas for the year 2000 is much easier than in earlier years.

Surveying for the *Atlas 2000* project has been taking place all over the country and in May 1997 South Kerry (v.c. H1) was the chosen venue for a BSBI field meeting to record for the *Atlas*. Kerry is divided into two vice-counties, the recorder for South Kerry being Careen Mhic Daeid and the recorders for North Kerry (v.c. H2) being Michael and Peter Wyse-Jackson.

On 17 and 18 May Rory Hodd and I joined this excursion to South Kerry. The trip was interesting and ably led by Careen Mhic Daeid. We could not identify all the plants (many were not in flower) but often a negative record is as valuable as a positive one.

Saturday 17 May found nine of us meeting at Waterville. Apart from the leader there was Alan Hill (Holywood, Co. Down), Anne Carter (Belfast), Kieran Griffin (Cromane, Killorglin), Declan Doogue (Dublin), Rory and Toby Hodd (Killarney), and Patrick and Mrs O'Hara (Carrigaline, Co. Cork). So it was a good turn-out.

We set off for the only known site of *Polygonum sagittata* (American Tear-thumb) which is now traversed by the Kerry Way and consists of a damp marshy unimproved field of about 2 ha, adjacent to a small and uninspiring stream. The field was interesting and had some nice boggy areas. *Dactylorhiza majalis* (Western Marsh-orchid) was in flower on the drier parts while on the *Sphagnum*-dominated parts there was a fine stand of about ten flowering heads of *D. incarnata* (Early Marsh-orchid).

The flower colours of these inflorescences varied from dark pink to pale pink to pure white. Of the *Polygonum sagittata* there was no sign and when Careen Mhic Daeid returned in early August 1997 she was still unable to relocate it. Apparently it has been seen as recently as 1993. It was first found here in the 1840s and it is regarded as an introduced plant from North America - it has not been found growing wild anywhere else in western Europe.

We did see, however, a Small Copper butterfly and a male Orange Tip butterfly and numerous Common Frogs.

Then we went on to Caherdaniel and Abbey Island. There was plenty of *Juniperus communis* (Common Juniper) which we were told is a special creeping variety, *portlandica*. The tide was well out making our passage on to Abbey Island easy. Careen was rather alarmed by signs of a very major fire and she feared that the elusive *Simethis planifolia* (Kerry Lily) could have been wiped out. We headed along the north western shore and after half an hour we had still not located it. Then we struck lucky and I found it about 150 m from the shore and on a quite steep sided bank. Only a few greyish, twisted leaves but it was a start. All the BSBI party converged on my spot. I was right and soon many more leafy plants with flower buds were found but there were no open flowers ... we seemed to have been too early. Then Patrick O'Hara let out a shout of delight as he explored an area some 50 m from us. We viewed the flowers with their funny woolly white stamens. Soon we found still more flowers and at least four BSBI cameras were ranged on this delightful flower. On the way back, Declan Doogue and I climbed up several steep slopes and found the Kerry Lily was present in quantity on nearly every slope we examined - so this is one *Red Data Book* species that is not facing extinction.

The party then dispersed leaving the O'Hara's sketching the Kerry Lily in preparation for their next artistic creation.

Next day, Sunday 18 May, saw us at Waterville again to be greeted by Careen and Diamurd Mhic Daeid, Alan Hill and Anne Carter, a smaller group but Alan was in expansive mood having won the local Waterville jackpot on the previous evening!

It was off to Inny Estuary where we saw the usual salt loving plants as

well as more Western Marsh-orchids. Interesting birds included a pair of Ringed Plovers and a confiding Grey Heron. We worked our way along the coast at a leisurely pace heading for Bolus Head. *Lepidium heterophyllum* (Smith's Pepperwort) was added to the list with a little help from Alan's field guide. We had nearly reached Bolus Head and were just inside one of the "smallest" Irish 10-km squares (from the point of view of the amount of dry land, just 5 km²).

Were the locals friendly? We were examining a farm building for wall plants for at least 15 minutes when a clearly puzzled farmer said "Would we mind, but he wanted to put some sheep in there!" Careen put on her best Kerry accent and explained that we were only looking at plants. Anyhow our farmer did not seem interested so we retreated to our cars and headed back towards Waterville.

The birds made up for the lack of flowers and I spotted a male Wheatear, Gannets offshore and a rare Whinchat, a summer visitor from Africa, similar in appearance to the resident Stonechat (virtually wiped out in Kerry by the severe cold spell in mid-winter, 1996/97). A black car load of people passed us up the hill tooting and gesticulating. I took no notice. We caught up with Alan, Anne and Careen when the black car swept up to us and out jumped Pascal and Eva Sweeny and son, and Mary O'Connor from Mallow, Co. Cork. They had thought the meeting started at 11.30 a.m. and had missed us by 15 minutes - it was by now 4.30 p.m.! We caught up on their news and Careen got them to fill in a record card for the bog they had just surveyed near Waterville. Interesting birds popped up before us. Most special was a very large and majestic female Peregrine Falcon that flew past us over the high cliffs below. Then a Chough, having betrayed its presence with its "choughing" call eventually sat on a nearby rock to reveal its red-orange beak and legs.

We made one more stop near the "artists" recreated village near Ballinskelligs to key out a non-flowering figwort (which turned out to be *Scrophularia nodosa*, Common Figwort). The car bonnet looked like a botanical library with at least seven plant books being used to clinch the identification. The *Atlas* was used to confirm that the Figwort had been recorded here during the previous survey. And then it was back to Waterville to dilute Alan's jackpot in the local hotel!

REFERENCE

Perring, F.H. & Walters, S.M. eds (1962). *Atlas of the British flora*. E.P. Publishing Ltd, Wakefield.

A NATURE WALK ON DURSEY ISLAND, WEST CORK (v.c. H3)

T. Hodd

Coolies, Muckcross, Killarney

On 6 September 1997 Rory Hodd and I accompanied 15 members of the Killarney Nature Conservation Group on a minibus from Killarney to Dursey Island at the western end of the Beara Peninsula in Co. Cork. We arrived there at 10.30 a.m. and had to wait at the cable car departure point while two live sheep and numerous bags of sheep's wool were unloaded! Then about ten of us piled into the car and we were hauled across the 200 m wide channel about 30 m above the turbulent sea.

On regaining land we walked along the island road for about 5 km to the most westerly point. The island itself is very narrow and very hilly with a series of four hills of more than 210 m in height. Nearly all the settlements are concentrated along the road which skirts the southern flank of the island. There are 30 or 40 houses but sadly only six are still occupied. Even more sadly the occupants are all over 30 years of age and there are no school children at all.

As we climbed to the top of the first ridge we were rewarded with excellent views of four small whales as they swam out to sea about 400 m from us. They were about 3-4 m long and were apparently all black in colour.

After about 2 km we saw some purple flowered *Mesembryanthemum* sp. growing from the gable end of a house. Further on, about 3 km from the cable car we came to a rock strewn part of the road overlooking the cliffs and it was here that Rory and I simultaneously spotted *Cerastium arvense* (Field Mouse-ear) which had formed large clumps right beside the road on both sides. It bore large white flowers and the leaves were almost hairless, which is not typical but which is the same

as the Blasket Island variety (see Scully 1916) which still occurs there. Seemingly this is the first time that this species has been recorded in West Cork (v.c. H3) so it is an exciting discovery. Judging by the large amount of the plant found there it has been on Dursey Island for a long time and I can see no reason why it should have been introduced there by any agency of man.

We had lunch at this point and saw two Kestrels, a Cormorant, an Oystercatcher and two Choughs.

Nearly at the most southern point and still on the track we came to a wet, bare peaty area where Jim O'Malley pointed out *Cicendia filiformis* (Yellow Centaury) to me. Near there he also found *Radiola linoides* (Allseed). We had wonderful views of Mizen Head to the south and the Cow and the Bull island to the west of us, but then suddenly the mist rolled in and we lost our lovely views.

Rory, Maureen O'Riordan and I decided to go back by the highway past the signal tower and on the way we found a fine clump of *Empetrum nigrum* (Crowberry) on the maritime heath at 144 m. This is a new "dot" for the *Atlas 2000* and is an interesting record as it is usually a mountain plant found above 600 m.

We soon met up with the rest of the party. I found one of the standing stones but it was not very spectacular. While looking for the Holy Well, I found a fine clump of the *Red Data Book* species *Stachys officinalis* (Betony) in a ravine cut by a stream. This is also a new "dot" for the *Atlas 2000* and a new record for Dursey Island although it is found in the heathland which surrounds the mainland side where the cable car starts from.

From the road I could see yellow flowers on the ruined church and an inspection revealed that it was *Crithmum maritimum* (Rock Samphire). While there I had a look at the gravestones, most of which were not marked but one of the marked ones was for a man who had lived to 104 and had died in 1919. The cable car operator told me that the 104 year old had spent all his life on the island!

At 4.00 p.m. we returned to the mainland by cable car which we shared with sheep droppings from the morning!

REFERENCE

Scully, R.W. (1916). *Flora of County Kerry*. Hodges, Figgis & Co., Dublin.

PLANT NOTES FROM THE NE AND SW OF IRELAND, OCTOBER 1997

T. Hodd

Coolies, Muckross, Killarney

A new v.c. record for East Cork (v.c. H5)

I can never resist stopping by a bridge and looking over it in search of unusual plants. How many hundreds of times have I looked over one to find nothing special but 13 October 1997 was different. I stopped to peer over a bridge near Mitchelstown and was able to cry "Eureka! ... Brittle Bladder-fern and lots of it!" The bridge is near Kilworth Mountains and about 6.5 km south-east of Mitchelstown, some 200 m south-east of the Mountain Barrack crossroads and public house. It is just about 3 km inside East Cork (v.c. H5) and is, I believe, a new v.c. record for *Cystopteris fragilis*.

The fern is there in great profusion, covering an area of c. 15 m² on the east side of the bridge and is well shaded by large deciduous trees. I think the bridge wall was of sandstone but the fern was growing from the mortar. A stream and marshy area lie below, so it is quite a humid area, although the fern itself is 3-6 m above the stream and the mortar here must be quite dry most of the year, only moistened by water seeping from the roadside verge itself above the bridge.

Tony O'Mahony tells me that the colony could have come from the Galty Mountains where it is found on wet shady cliffs some 30 km north-east of this particular site.

The AGM of the Irish Branch of the BSBI

I mounted four small exhibits at the AGM in the Ulster Museum, Belfast as follows:

a. Illustrations and up-to-date distribution maps of three rare species

found in the Killarney area of Co. Kerry:

Pilularia globulifera (Pillwort)

Stachys officinalis (Betony)

Wahlenbergia hederacea (Ivy-leaved Bellflower)

b. Two polished stem cross-sections of coppiced *Ilex aquifolium* (Holly) from Coomclachan Wood, near Tomies Wood, Killarney which showed they were last coppiced 84 and 102 years ago respectively.

c. Samples of the two filmy ferns, *Hymenophyllum tunbrigense* (Tunbridge Filmy-fern) and *H. wilsonii* (Wilson's Filmy-fern) demonstrating how to distinguish them.

d. Six illustrated articles by myself:

i. Guided botanical walk on Muckcross Peninsula, Killarney to find spring flowers;

ii. Guided botanical walk on Muckcross Peninsula, Killarney to find summer flowers;

iii. Guided botanical walk through the Gap of Dunloe, Killarney to find spring flowers;

iv. A mapping expedition to Waterville and Caherdaniel in South Kerry;

v. A search for *Listera cordata* (Lesser Twayblade) and rare ferns in the Killarney area; and

vi. A tour of Dursey Island, West Cork.

The field meeting, to Crow Glen about 8 km from Belfast, following the AGM, was quite eventful. The journey from the Ulster Museum (where *Epipactis helleborine* (Broad-leaved Helleborine) apparently grows wild in the front gardens) was past Black Mountain (390 m) and Divis (476 m) to the densely wooded Crow Glen which has been deepened by the Forth River as it cut through the sticky clay overlaying sandstone.

The key plants we were searching for were: *Crataegus laevigata* (Midland Hawthorn) and the Northern Ireland speciality *Equisetum pratense* (Shady Horsetail). There were masses of *E. telmateia* (Great Horsetail) and *E. arvense* (Field Horsetail) beside the open pathway and a little *E. sylvaticum* (Wood Horsetail) in the more shady area as we crossed the Forth River on the way up to a flint quarry about 0.5 km further on. However there was no sign of *E. pratense* - apparently it had not been seen in Crow Glen since 1962 though it is more commonly found in the north of Co. Antrim, in the Glenarriff area.

Whilst wading along the river Rory Hodd and myself found a 10 m square patch of *E. hyemale* (Rough Horsetail, Dutch Rush), not recorded in the area since 1969, on the north facing side of the stream bank - a further 150 m downstream, also on the north facing bank, I spotted some rather odd looking horsetails scattered sparingly along the bank which looked like a cross between the Field and Wood Horsetails. The odd looking specimens were identified as the elusive *E. pratense* which produced a loud cheer. So, with *E. fluviatile* (Water Horsetail) we had found a total of six horsetail species in an area of less than 1 km² and all within 2 km of the city boundary of Belfast - the clay, shady conditions and high rainfall being ideal.

The Giant's Causeway, Co. Antrim (v.c. H39)

A "flying" visit to the Giant's Causeway on the day after the AGM field meeting turned up some really nice bird sightings as well a broomrape right on the edge of the cliff where it was growing with *Thymus vulgaris* (Thyme). Although the inflorescence was dead it was obvious that it was *Orobanche alba* (Thyme Broomrape). There were at least 20 flowering heads in all. From the *Atlas*, it appears to have been recorded for Rathlin Island off the north Antrim coast but not in the 10-km square of the Giant's Causeway though it has been recorded 16 km to the east along the north coast at Carrick-a-rede.

A REPORT ON THE FLORA OF CORK (v.cc. H3-H5), 1997

T. O'Mahony

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In April, on-going work on the distribution of *Allium scorodoprasum* (Sand Leek) on a c. 32 km stretch of the River Blackwater between Mallow and Fermoy (H5, W/5.9, W/6.9 & W/7.9), was undertaken. Four new populations were found on the right bank of the river below Mallow town, while a second River Blackwater population of *Lysichiton americanus* (American Skunk-cabbage) was found adjacent to my 1992 Killathy Wood (H5, W/74.98 & W/75.98) site for *Allium scorodoprasum*, where the species covers at least 400 m of riverbank.

In May, the first stages of a systematic search of the northern shore of

Lough Allua on the River Lee (H3, W/1.6 & W/2.6) were undertaken. *Carex aquatilis* (Water Sedge) and the violet hybrid *Viola canina* (Heath Dog-violet) x *V. riviniana* (Common Dog-violet) were added to the Cork flora, while *Hieracium umbellatum* (Umbellate Hawkweed) was reinstated to the Cork flora, having been originally found here in 1897 by R.A. Phillips. Other additions to the flora of Lough Allua and its environs were: *Carex vesicaria* (Bladder-sedge), *Carex muricata* subsp. *lamprocarpa* (Prickly Sedge) and *Lysimachia vulgaris* (Yellow Loosestrife), while *Rosa pimpinellifolia* (Burnet Rose) was found in five sites (very rare inland in Co. Cork) having originally been recorded from Lough Allua in c. 1810 by James Drummond.

Also in May, the sedge hybrid, *Carex rostrata* (Bottle Sedge) x *C. vesicaria* (Bladder-sedge) was refound in my 1984 site in the Lee Reservoir basin below Carrigadrohid Dam (H4, W/41.72), while *Nymphoides peltata* (Fringed Water-lily) was added to the Mid Cork flora from two nearby pond habitats at Caum (H4, W/38.71 & W/38.72). Ro FitzGerald added both *N. peltata* and *Lagarosiphon major* (Curly Waterweed) to the East Cork flora in 1992, from a pond near Glanworth (H5, R/72.05).

In mid-June I rechecked my 1987 site for the sedge hybrid, *Carex divulsa* subsp. *divulsa* (Grey Sedge) x *C. muricata* subsp. *lamprocarpa* (Prickly Sedge) from the Brookville area of Riverstown (H5, W/75.76). Only two of the original four tussocks were refound on this visit. A shaded roadway at nearby Glenmore House (H5, W/76.76) was also rechecked for my 1987 find of the rose hybrid, *Rosa corymbifera* (Hairy Dog Rose) x *R. tomentosa* (Harsh Downy-rose). Only one of the three original bushes was refound. This hybrid is new to the Irish flora.

Also in June, the Knotweed hybrid, *Fallopia japonica* (Japanese Knotweed) x *F. sachalinensis* (Giant Knotweed) was found in a number of Mid/East Cork sites, such as Barrington's Avenue, Ballintemple, Cork City (H4, W/70.71) and near Upper Glanmire Bridge (H5, W/71.78). I strongly suspect that this hybrid is of widespread and locally frequent occurrence throughout Ireland.

I
(While buying rockery plants on 5 July, I observed that both *Eleocharis acicularis* (Needle Spike-rush) and *Equisetum scirpoides* (Alpine Horsetail) were on sale in the aquatics section of Dripsey Nursery.)

A visit to Middleton Distillery (H5, W/88.73) in mid-July turned up a single bush of the rose hybrid *Rosa micrantha* (Small-flowered Sweetbriar) x *R. rubiginosa* (Sweet-briar) on the riverbank, where the Horsetail hybrid, *Equisetum arvense* (Field Horsetail) x *E. fluviatile* (Water Horsetail) occurred abundantly. On 19 July, the Cork-Dublin Railway Line near the Kilnap viaduct on the Old Mallow Road (H4/H5, W/66.75) produced well-established populations of *Brachypodium pinnatum* (Tor-grass) on embankments bordering both sides of the line (the H4/H5 boundary), while the adjacent Kilnap Amenity Walkway (H5, W/66.75) held a few plants of *Viola tetrasperma* (Smooth Tare) - a species of very rare and fleeting occurrence in Ireland these days.

A further trip to Lough Allua on 27 July, turned up two small populations of *Persicaria minor* (Small Water-pepper), which is very rare on the lough itself, yet frequent to locally abundant on the Lee Reservoir from the Gearagh eastwards to Inniscarra Dam (H4, W/54.72) a distance of c. 29 km. This trip also established that *Viola lactea* (Pale Dog-violet) is of extremely rare occurrence on the northern shore of Lough Allua, where it is virtually replaced by the hybrid, *V. lactea* x *V. canina* (Heath Dog-violet). *V. canina* has its Cork headquarters at Lough Allua, being of extremely local occurrence elsewhere in the county.

In August, systematic work on the southern bank of the Douglas Estuary (H4, W/7.6) showed the maritime grass-hybrid, *Elytrigia atherica* (Sea Couch) x *E. repens* (Common Couch) to be locally common/abundant on sea-walls, to which microhabitat it is virtually restricted. Here, it is often accompanied by *E. repens*, but *E. atherica* is absent in these hybrid sites. *Epilobium tetragonum* subsp. *tetragonum* (Square-stalked Willowherb) is also well-established locally on the southern margins of the Tramore River and Douglas Estuary (H4, W/6.6 & W/7.6).

A further August discovery was *Persicaria amphibia* var. *glandulosum* (Amphibious Bistort) found in small quantity in damp ground at the base of Half Moon Lane, South Douglas Road, Cork City (H4, W/68.70). This rare taxon is new to Mid Cork.

Also in August, two bushes of the rose hybrid, *R. canina* (Common

Dog-rose) x *R. tomentosa* (Harsh Downy-rose) were found in a roadside hedgebank near Sullane Bridge, Macroom (H3, W/25.73), new to West Cork, while the sedge hybrid *Carex otrubae* (False Fox-Sedge) x *C. remota* (Remote Sedge) was discovered in an impounded brackish meadow adjacent to the Rochestown-Blackrock Amenity Walkway (H4, W/72.69) - the first Mid Cork record since 1866.

In September, *Carex punctata* (Dotted Sedge) was found in small quantity in Commoge Marsh (H4, W/63.49), a brackish lagoon near Kinsale. This is the first Mid Cork record for the species since 1892.

On 10 September, a 3 m square patch of *Selaginella kraussiana* (Krauss's Clubmoss) was found near the South Channel of the River Lee, in the grounds of University College Cork, Western Road, Cork City (H4, W/66.71); it is new to Mid Cork. Associated species included *Allium vineale* (Wild Onion) and *Allium oleraceum* (Field Garlic), both of which I first recorded from here in 1975.

A number of new (if transient) sites for *Verbascum virgatum* (Twiggy Mullein) were also located. These were: 1. a few plants in a limestone quarry at Carrigshan Midleton (H5, W/89.72); 2. two plants in a limestone quarry-park, near Douglas Road, Cork City (H4, W/69.70), associated with *Verbascum thapsus* (Great Mullein); and 3. a single plant sprouting from a wall near the Wellington Road/York Hill road junction (H4, W/67.72).

Also in September, Toby and Rory Hodd found *Cerastium arvense* var. *andrewsii* (Field Mouse-ear) and *Stachys officinalis* (Betony) on Dursey Island off the Beara Peninsula, West Cork (H3, V/40.40). *Cerastium arvense* is an extremely local Irish species, being new to H1 (the nearest known sites are on the Blasket Islands, South Kerry (H1)) and the only Co. Cork record this century.

REPORT FOR CO. LIMERICK (v.c. H8), 1997

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The aim of this report on field work in Co. Limerick in 1997 is primarily to draw attention to some good botanical sites and habitats visited while recording for *Atlas 2000*, rather than to emphasize the rare plants found. A number of these sites are proposed Natural Heritage Areas (NHA). Details of specific plant records will be submitted to the *Irish Naturalists' Journal*.

At Curragh Chase (R/4.4), formerly an estate and now a Forest Park and proposed NHA, habitats of interest include grassland, woodland and lakes. The unimproved grassland in the arboretum was studded with spring flowers such as *Primula vulgaris* (Primrose), *Viola riviniana* (Common Dog-violet), *Ajuga reptans* (Bugle), *Carex caryophyllea* (Spring Sedge) and *Luzula campestris* (Field Wood-rush) in April; by June, the same area had been mown and looked like an ordinary lawn. *Neottia nidus-avis* (Bird's-nest Orchid) was coming into flower, and *Lathraea squamaria* (Toothwort) was growing under *Aesculus hippocastanum* (Horse-chestnut) and *Prunus laurocerasus* (Cherry Laurel) by the ruined house. *L. squamaria* was also found under *Prunus laurocerasus*, *Populus* sp. (Poplar) and *Corylus avellana* (Hazel) in woodland north of the house (R/4.5). Within this woodland of native and introduced tree species, there is a *Taxus baccata* (Yew) wood. The Yew trees are of varying ages, including some very old trees and others recently self-sown. *Listera ovata* (Common Twayblade) was abundant in one place, and *Aquilegia vulgaris* (Columbine) appears to be native in the Curragh Chase woods. There are also several lakes at Curragh Chase with interesting aquatic and emergent vegetation, for example *Carex paniculata* (Greater Tussock-sedge), *C. acutiformis* (Lesser Pond-sedge) and *C. pseudocyperus* (Cyperus Sedge), all reported from here nearly a century earlier. One lake just south of the Yew wood has a marl substrate.

Yew also occurs very sparingly on Tory Hill (R/5.4), another proposed NHA. The wooded limestone hill is a conspicuous steep-sided feature in the otherwise flat terrain north-east of Croom. Nearby Lough Nagirra and its surrounding fen contribute to the diversity of habitats and plant

species. There is mature Ash-dominated woodland on the east side of the hill, Ash-Hazel wood with *Galium odoratum* (Woodruff), *Ranunculus auricomus* (Goldilocks Buttercup) and *Melica uniflora* (Wood Melick) at the south end, and outcrops and good limestone grassland on glacial gravels with *Geranium lucidum* (Shining Crane's-bill), *Carlina vulgaris* (Carline Thistle) and orchids at the north end. However, since visiting Tory Hill in May, several hectares of woodland have been bulldozed by the owner and there is an on-going threat of quarrying.

The Shannon Fields (R/5.5), lying east of Corbally Road between Limerick city and the Shannon, are an expanse of floodplain grassland with bodies of open water. The largely unimproved grassland contains *Lotus pedunculatus* (Greater Bird's-foot-trefoil), which is abundant in places. Of particular interest are the plants at the edge of the river, including *Spirodela polyrhiza* (Greater Duckweed), and those of the open water inland, for example *Potamogeton lucens* (Shining Pondweed). *Sium latifolium* (Greater Water-parsnip) was refound among other emergent vegetation by the open water; there is a herbarium specimen in **DBN** from the same area collected by a member of the Limerick Field Club in 1897. It was growing with *Rumex hydrolapathum* (Water Dock), *Schoenoplectus lacustris* (Common Club-rush), *Lysimachia vulgaris* (Yellow Loosestrife), *Phalaris arundinacea* (Reed Canary-grass) and *Lycopus europaeus* (Gypsywort). New housing estates are encroaching and it is to be hoped that the low-lying Shannon Fields will remain too wet for further development. To the east of the Limerick Canal (R/6.5), the margins of the lake there contained a similar richness of species, including *Sium latifolium*, *Oenanthe fistulosa* (Tubular Water-dropwort) and *Menyanthes trifoliata* (Bogbean), as well as *Oenanthe aquatica* (Fine-leaved Water-dropwort) and *Bidens cernua* (Nodding Bur-marigold).

Normally a coastal species, *Bolboschoenus maritimus* (Sea Club-rush) was found in the River Maigue at Adare (R/46.46), about 16 km upstream from the Shannon. Water levels here are influenced by the tides and fluctuate twice daily. *Potamogeton pectinatus* (Fennel Pondweed) and *Elodea canadensis* (Canadian Waterweed) were thriving in the swiftly flowing water, and *Rorippa palustris* (Marsh Yellow-cress) and *R. sylvestris* (Creeping Yellow-cress) were seen on the river bank by the Abbey, the walls of which had some small plants

of *Adiantum capillus-veneris* (Maidenhair Fern)!

Two lakes in the private grounds of Glenstal Abbey at Murroe (R/7.5) contained interesting aquatic plants, including *Ranunculus circinatus* (Fan-leaved Water-crowfoot) and *Potamogeton obtusifolius* (Blunt-leaved Pondweed). *Bidens cernua* (Nodding Bur-marigold) and *Glyceria declinata* (Small Sweet-grass) grew on the poached margins. Glenstal Wood, also within the grounds, is a proposed NHA.

In the same 10-km square, Dromsallagh Bog (R/7.5) north-west of Cappamore is a large expanse of wet raised bog. *Molinia caerulea* (Purple Moor-grass) was dominant in parts of this proposed NHA, while other parts were dominated by *Calluna vulgaris* (Heather) with mounds of luxuriant *Sphagnum* and *Cladonia*. There were occasional plants of *Dryopteris carthusiana* (Narrow Buckler-fern) and *Osmunda regalis* (Royal Fern) and patches of *Vaccinium oxycoccos* (Cranberry) and *Andromeda polifolia* (Bog-rosemary). Near the bog, just south of Portnard House, *Galium uliginosum* (Fen Bedstraw) and *Ranunculus flammula* (Lesser Spearwort) were found in open peaty water between *Carex paniculata* (Greater Tussock-sedge) under mature *Betula pubescens* (Downy Birch). *Carex paniculata* was also prominent in Red Bog (R/6.3) south of Lough Gur with *Potentilla palustris* (Marsh Cinquefoil) and other sedges such as *Carex diandra* (Lesser Tussock-sedge).

West of Friarstown (R/57.49), a *Molinia*-dominated fen merged into *Phragmites australis* (Common Reed) stands. *Cirsium dissectum* (Meadow Thistle) was abundant among the *Molinia caerulea* (Purple Moor-grass), with patches of *Epipactis palustris* (Marsh Helleborine). In an adjacent hedge were two species uncommon in the county, *Rubus caesius* (Dewberry) and one large tree of *Rhamnus cathartica* (Buckthorn).

Just north of Blane Bridge (R/12.39), by the main road north of Athea, a stretch of blanket bog was dominated by *Calluna vulgaris* (Heather), *Erica tetralix* (Cross-leaved Heath), *Narthecium ossifragum* (Bog Asphodel) and *Trichophorum cespitosum* (Deergrass). This bog, where there is active cutting going on, contained much *Rhynchospora alba* (White Beak-sedge) and had a few plants of *Platanthera bifolia* (Lesser Butterfly-orchid) at its edge.

Undoubtedly the best limestone grassland seen in 1997 was at Mullagh, east-south-east of Shanagolden (R/28.46). Robert Lloyd Praeger was brought to this area by a local botanist when he was doing field work for *Irish topographical botany*. The grassland is fringed by a dense Hazel wood and thickets of Hawthorn and Blackthorn (including one Yew tree). In early April, many plants of *Viola hirta* (Hairy Violet) were dotted over a gentle slope. Although cattle were present at Mullagh in April, the grassland must not have been grazed over the summer as there was a colourful display of tall herbs in August including *Daucus carota* (Wild Carrot), *Galium verum* (Lady's Bedstraw), *Centaurea nigra* (Common Knapweed), *Succisa pratensis* (Devil's-bit Scabious) and pink *Achillea millefolium* (Yarrow). Around small outcrops grew *Rubus saxatilis* (Stone Bramble), *Euphrasia salisburgensis* (Eyebright) and *Arenaria serpyllifolia* subsp. *leptocladus* (Thyme-leaved Sandwort). The leaves of *Viola hirta* (Hairy Violet) were not easy to find at this time of year.

Also in August, a new site was found for *Trifolium fragiferum* (Strawberry Clover) on the Shannon estuary north-east of Glin (R/15.49) on a grassy bank between the rocky shore and the saltmarsh. Two species of *Salicornia*, *S. europaea* s.s. (Common Glasswort) and *S. pusilla* (One-flowered Glasswort), were collected in the saltmarsh, which also had *Parapholis strigosa* (Hard-grass). At the top of the same saltmarsh, many plants of *Plantago major* (Greater Plantain) looked distinctly different from typical inland plants. They had light green, shiny, glabrous leaves which are characteristic of *P. major* subsp. *intermedia*, but the seeds were fewer in number and larger than have been described for that subspecies.

Finally, a brief stop at a promising-looking roadside bank south of Pallasgrean (R/7.4) on the way to a BSBI field meeting yielded *Gaudinia fragilis* (French Oat-grass) in the grass verge.

I would like to thank Michael Quirke for taking me to Glenstal Abbey and Dromsallagh Bog, and David Nash, Elinor Wiltshire and particularly Julian Reynolds for accompanying me and recording in some lovely places.

REPORT ON THE FLORA OF FERMANAGH (v.c. H33), 1997

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The past season was largely spent in recording in tetrads which had not previously received enough attention. We have now visited all 525 tetrads in the county and feel that, with the resources available, we can now fairly represent the distribution of the county's flora. All but 20 tetrads have had over 100 species recorded in them, and some tetrads have reached almost 400 species.

Our database, on the RECORDER system, has over 170,000 records of plants at over 3000 sites, and built into the system is a window on which our proposed *Flora of Fermanagh* can be written. The window automatically accesses such information as the first county record for a plant, the number of records for the species and the number of tetrads from which it has been recorded. So far, we have written draft species accounts for just over 500 of the 1000 or so species which occur in the county. We now need to find sources of funding for our *Flora*.

Botanically, the past season has not produced many records of interest. *Pseudorchis albida* (Small-white Orchid) near Kinawley and *Sisyrinchium bermudiana* (Blue-eyed-grass) at Ross Lough and near Five Points were probably the most interesting.

Wild flower mixes have reached Fermanagh; the area in front of the demolished castle at Castle Archdale was covered in hundreds of plants of *Parentucellia viscosa* (Yellow Bartsia), new to the county, while a garden near Levally had *Papaver rhoeas* (Common Poppy), *Chrysanthemum segetum* (Corn Marigold) and *Daucus carota* subsp. *carota* (Wild Carrot).

RECENT PLANT DISCOVERIES IN CO. TYRONE (v.c. H36)

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Acorus calamus (Sweet-flag)

J. Harron re-worked much of the Lough Neagh shore in the summer of 1997 and found *A. calamus* (in fair quantity) at Brookend. Almost certainly this is the first Co. Tyrone record. D. Lambert has a note in her files indicating that she had seen a reference to it as a Tyrone plant, but believed the reference to be in error. Sweet-flag was introduced from an estate near Moira, Co. Down into the Lagan Canal, where it became abundant over a century ago and later spread along the canal to Lough Neagh where it established itself along the shore for a few km in Cos Armagh, Down and Antrim. It would seem strange that only now has it “jumped” across the Lough, especially as it has decreased in its stations on the far shore.

Aethusa cynapium (Fool’s Parsley)

Casual plant found in Cookstown, 1996; several plants on weedy ground at Moy, 1997. In 1992 it had turned up in quantity on waste ground at Strabane. It seems to have been relatively frequent earlier in the century, but had disappeared for 50 years or so.

Borago officinalis (Borage)

Turned up on waste ground in Cookstown, 1996. 1st Tyrone record (although probably a blatant garden escape).

Chenopodium rubrum (Red Goosefoot)

I found this in September 1997 growing on a dump at Aughlish, W. of Castlecaulfield. P. Hackney agreed the identification. 1st Tyrone record. Then (as so often happens) I saw it again, twice, in the ensuing month at Annaghmore (Co. Armagh, H37) and SE of Castleblayney (Co. Monaghan, v.c. H32). All three were growing on dumps with a common characteristic - spent mushroom compost!

Cicerbita macrophylla (Common Blue-sow-thistle)

1st Tyrone record, 1994 at Pennyburn Bridge, NW of Donemana. In 1997, we found four further sites somewhat to the west of the Pennyburn site, scattered in the Ballymagorry/Artigarvan areas.

Cirsium heterophyllum (Melancholy Thistle)

Found in July 1996, growing by the roadside near Fivemiletown. Only Tyrone record, but hardly satisfactory as it could scarcely be other than an introduction in such a position - but introduced from where?

Erysimum cheiranthoides (Treacle Mustard)

Found in a very ordinary marshy field at Aughertaine, near Fivemiletown. Identified by T.C.G. Rich. 1st Tyrone record.

Festuca vivipara (Viviparous Sheep's-fescue)

Found at Sruhingarve, 1997, in the very far west of Tyrone, where it in-lies Co. Donegal to within a few km of the Barnesmore Gap. I had found it to be abundant in adjacent areas of Donegal, so it was not too much of a surprise when it turned up in Co. Tyrone. 2nd county record (1st record, J. Harron, Dart Mountain, 1970).

Galium mollugo (Hedge Bedstraw)

Found in 1996 alongside Caledon-Aughnacloy road. 2nd Tyrone record - the first was exactly 100 years earlier at Strabane.

Geranium columbinum (Long-stalked Crane's-bill)

In large quantity along disused railway tracks at the old 2nd World War airfield at Cluntoe, in the Ardboe area, a km or so from Lough Neagh. Last recorded in the county about 50 years ago.

Geranium pusillum (Small-flowered Crane's-bill)

Found in 1996 at Seskinore. Confirmed by P. Hackney. The last Tyrone record was early in the century.

Lactuca serriola forma *integrifolia* (Prickly Lettuce)

Found by A. McNeill on waste ground at Annagher, near Coalisland, 1997. Identified on the basis of Stace (1992) and Rich & Rich (1988). This would appear to be the same plant that grows frequently by motorways and other roads in S. England. Brought to Ireland by lorry-traffic? 1st Tyrone record.

Linum bienne (Pale Flax)

Found by R. Irvine alongside a path by Lough Fea, July 1997 - and amazingly he found it again a few days later growing as a weed in his

own garden in Cookstown. The path at Lough Fea was laid several years ago, but several “alien” plants appeared this year for the first time. As well as *Linum bienne*, *Fallopia convolvulus* (Black-bindweed) and *Anagallis arvensis* (Scarlet Pimpernel), neither natural on upland bogland, were seen along the path. 1st record for *Linum bienne* in Tyrone.

Mimulus luteus (Blood-drop-emptles)

This lovely plant turned up on the banks of the Glenelly River, W of Clogherny Bridge in 1997. 1st Tyrone record.

Ophrys apifera (Bee Orchid)

R. Irvine found a fine colony at Cumming’s Quarry, a disused limestone quarry near Cookstown, 1997. This is a site we have worked thoroughly over the last 15 years, and I suspect the Bee Orchid has just arrived this year - yet there were 15 spikes, which seems far too many for a new arrival! 2nd extant site in the county.

Polypodium cambricum x *P. interjectum* (*P. x shivasiae*) (Hybrid Polypody)

J. Harron found this interesting hybrid in 1996 on a rocky bluff overlooking the Ballinderry River at Killymoon, near Cookstown. Identified by R.H. Roberts. 1st record for Tyrone. Both parents grow locally, *P. cambricum* sparingly.

Rorippa islandica (Northern Yellow-cress)

Found at Gortin History Park, 1996. 4th site in county (first found 1994 at a similar public amenity area at Drum Manor Forest Park, near Cookstown).

Sisymbrium orientale (Eastern Rocket)

A. McNeill found this on waste ground at Cullion, near Coalisland, 1997. Confirmed by P. Hackney. Last record in Tyrone was over 50 years ago. However, I have seen it frequently around Belfast in recent years and I would anticipate a more general spread throughout N. Ireland in the future

REFERENCES

- Rich, T.C.G. & Rich, M.D.B. (1988). *Plant crib*. BSBI, London.
Stace, C.A. (1992). *New Flora of the British Isles*. Cambridge University Press, Cambridge.
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SOME INTERESTING PLANTS FROM DUNDRUM BAY (EAST), CO. DOWN (v.c. H38)

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In the summer of 1997 I visited Tyrella on the east side of Dundrum Bay in Co. Down (v.c. H38) on two occasions as part of the *Atlas 2000* recording scheme. Four other recorders visited this area independently, Mrs Anne McComb of Newcastle, Ronnie Irvine of Cookstown and Graham Day and Julia Nunn of Newtownards. At the western end of Tyrella Beach some rocky reefs project out into the bay through an otherwise sandy coastline. On my first visit in mid-April I was surprised to see *Eryngium maritimum* (Sea-holly) growing in sand in crevices of one of these rocky outcrops just west of Ringsallin Point (J/461.354). Later in the year Mrs McComb informed me that she too had seen these plants, and a later visit by me in September revealed more plants scattered at the edge of dunes a little further west of my first sighting. Graham Day and Julia Nunn also found these plants on their visit on 21 September. This species, once fairly abundant, is extremely rare now in the county. There is a 1984 record from Tyrella and a 1987 report from Cranfield in Carlingford Lough.

My original purpose in visiting the Ringsallin Point area was to see whether *Mertensia maritima* (Oysterplant), which I saw here in 1981 (one plant only), was still present. I failed to re-find it, yet Graham Day and Julia Nunn and, independently, Ronnie Irvine, all found the plant - 16 individuals according to Graham and Julia, 30+ according to Ronnie, at J/466.358 a little north-east of Ringsallin Point. Ronnie found another isolated plant at Craigailea Rocks (J/448.351) about 2 km west of the main population.

Further west from Ringsallin Point and the other rocky outcrops is the Ministry of Defence range at Ballykinler Dunes. Ronnie found *Atriplex laciniata* (Frosted Orache) on the beach here - a rare species in the county. Right at the eastern edge of the range at about J/446.353 is a piece of marshy ground with good fruiting *Sparganium erectum* (Branched Bur-reed). Both *S. erectum* subsp. *erectum* and subsp. *oocarpum* were present side-by-side, the latter clearly distinguishable by having fruiting heads with a high proportion of sterile fruits (it is suspected of being a hybrid in origin - see Stace (1991)).

Another interesting species of the eastern Dundrum Bay area was *Leymus arenarius* (Lyme-grass), once quite uncommon in Co. Down, but steadily increasing over the years. This plant is now abundant at several spots between Ringsallin and Ballykinler Beach.

One final plant deserves a mention, namely a colony of *Spartina anglica* (Common Cord-grass) in Inner Dundrum Bay found by me whilst accompanied by Graham Day and Cormac Moody in early August at c. J/415.380, beside the old Co. Down railway line which borders the Inner Bay. This is the first time I have seen this invasive salt marsh species in Dundrum Bay and appears in fact to be the first record (can anyone else confirm this?). It is a somewhat worrying development, although as only one clump was seen the plant could easily be dug out and destroyed.

REFERENCE

Stace, C.A. (1991). *New Flora of the British Isles*. Cambridge University Press, Cambridge

BSBI FIELD MEETINGS IN IRELAND, 1997

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Once again we had a full calendar of field meetings the first of which was to South Kerry (v.c H1) and was centred on Waterville and was

attended by members and friends from Belfast, Dublin and some more local. The trip was led by Caroline Mhic Daeid and on Saturday 17 May we travelled east from Waterville in dull conditions to search for the rare *Polygonum sagittata* (American Tear-thumb) but despite very good directions we did not find it, but we may have been too early. We proceeded to Abbey Island near Derrynane to look for the Kerry Lily (*Simethis planifolia*) and despite parts of the island being burnt the lily was growing well with some plants in flower. On the Sunday we headed west to Ballinskelligs and Bolus Head and with the weather improving we were able to record more squares for the *Atlas 2000* project.

The second meeting was to Co. Cork (Mid and West Cork, H4 and H3) and was led by Maura Scannell and Tony O'Mahony. On Saturday 7 June after heavy rain the previous day the party worked eastwards from the town of Bandon and laybys, an old railway line and hilly areas with scrub and trees were botanized. After lunch a quarry on the east side of the estuary and upper reaches of the Ballinadee creek were checked for saline flora and two shrubs of *Hypericum hircinum* (Stinking Tutsan) were recorded, apparently a second record for H3 as it was reported by Ian McNeill elsewhere in West Cork (v.c. H3) in 1996. On the Sunday other areas of the River Bandon were visited as well as a wet marsh at Clonomera and an area of marsh and open water at Portalougha where an extensive colony of *Carex limosa* (Bog-sedge) was found.

On 14 and 15 June, Co. Down (v.c. H38) was the venue for a two day meeting with areas around Downpatrick and Killard Point visited. Plants recorded included *Vulpia bromoides* (Squirreltail Fescue), *Carex riparia* (Greater Pond-sedge) and, after a forced march through thick Alder carr, a fine patch of *Hottonia palustris* (Water-violet). There were between 30 and 40 spikes of Water-violet, a good improvement on three years ago when there were only about five flowering spikes. At Killard Point on the Sunday the flowering spikes of *Orchis morio* (Green-winged Orchid) were over but *Ophrys apifera* (Bee Orchid) were in flower. Also recorded were *Cynoglossum officinale* (Hound's-tongue), *Koeleria macrantha* (Crested Hair-grass) and *Euphrasia tetraquetra* (Eyebright).

Co. Leitrim (v.c. H29) was the next county to be visited and we met at Derrycarne amenity area on the Leitrim side of the River Shannon and recorded in various habitats from woodland to wet marsh, riverside and

bog. The main plants were *Moehringia trinervia* (Three-nerved Sandwort), *Leycesteria formosa* (Himalayan Honeysuckle), *Hydrocharis morsus-ranae* (Frogbit), *Orobanche hederiae* (Ivy Broomrape), *Galium boreale* (Northern Bedstraw), *Ranunculus lingua* (Greater Spearwort), *Stellaria palustris* (Marsh Stitchwort) and all three species of *Drosera*, *D. rotundifolia* (Round-leaved Sundew), *D. longifolia* (Great Sundew) and *D. intermedia* (Oblong-leaved Sundew).

In July we were at Ferbane in Co. Offaly (v.c. H18) and here, in a variety of habitats, we recorded *Galeopsis angustifolia* (Red Hemp-nettle), *Rubia peregrina* (Wild Madder), *Pimpinella saxifraga* (Burnet-saxifrage), both species of *Gentianella*, *campestris* and *amarella* (Field and Autumn Gentian). *Hordeum secalinum* (Meadow Barley) and *Lathyrus palustris* (Marsh Pea) unfortunately were not in flower.

August saw us in Co. Roscommon, v.c. H25 and we visited the dense undergrowth of St John's Wood and the shoreline of Lough Ree proved profitable with *Teucrium scordium* (Water Germander), *Lathyrus palustris* (Marsh Pea) again not in flower, *Rorippa amphibia* (Greater Yellow-cress), *Carex pseudocyperus* (Cyperus Sedge), *Oenanthe fistulosa* (Tubular Water-dropwort), *Hydrocharis morsus-ranae* (Frogbit), *Sagittaria sagittifolia* (Arrowhead), *Equisetum x litorale* (Shore Horsetail) (a hybrid of *E. fluviatile* and *E. arvense*), *Eleocharis multicaulis* (Many-stalked Spike-rush) and *Thalictrum flavum* (Common Meadow-rue).

At the end of August we met at Cahir in South Tipperary (v.c. H7) for the last official field meeting of the year. Again a variety of sites were visited and one plant which was in profusion was *Orobanche hederiae* (Ivy Broomrape). Other notables were *Spiranthes spiralis* (Autumn Lady-tresses), *Clinopodium acinos* (Basil Thyme), *Chaenorhinum minus* (Small Toadflax), *Galium mollugo* (Hedge Bedstraw), *Melampyrum pratense* (Common Cow-wheat), *Geranium sanguineum* (Bloody Crane's-bill), *Utricularia minor* (Lesser Bladderwort), *Geranium columbinum* (Long-stalked Crane's-bill), *Clinopodium ascendens* (Common Calamint), *Verbena officinalis* (Vervain), *Pinguicula lusitanica* (Pale Butterwort) and *Andromeda polifolia* (Bog-rosemary).

There were two further field meetings, one in Westmeath (v.c. H23) and

the other in NE Galway (v.c. H17) but I was unable to attend these two. On 4 October the Irish AGM was held in the Ulster Museum, Belfast and was well attended. Mary Briggs, the in-coming President, was there as also were Trevor Dines and Cameron Crook. As well as the usual business session, Trevor gave an interesting illustrated talk entitled "Rafting the Rainforest" in which he described the method for studying the forest canopy on an expedition to the Cameroons. Mary Briggs and myself showed slides taken on a recent field trip to the Pontos Mountains in NE Turkey. Later, we had a conducted tour of the Tropical Ravine in the nearby Botanic Gardens. In the evening some members enjoyed a superb meal in "true" Roman surroundings at the Villa Italia restaurant. On Sunday there was a short field meeting to Crow Glen on the outskirts of Belfast where a surprising number of plants were recorded in spite of the lateness of the season. The two outstanding records were *Equisetum pratense* (Shady Horsetail) and *Equisetum hyemale* (Rough Horsetail) spotted by the eagle eye of Rory Hodd. There were also several other species of *Equisetum* present. The afternoon was spent in a quiet walk through Redburn Country Park at Holywood where there were ferns aplenty and Trevor Dines identified at least three morphotypes of *Dryopteris affinis* (Scaly Male-fern).

I would like to thank all the leaders of the various field meetings for the effort they put into the trips which made them not only informative but also very enjoyable. Enclosed with this edition of *Irish Botanical News* is a list of field meetings that I have arranged for 1998 so I hope to see as many of you as can get away for the occasional weekend.

BOOK REVIEW

The wild plants of Sherkin, Cape Clear and adjacent islands of West Cork. Edited by J.R. Akeroyd. Pp. 180. Sherkin Island Marine Station, Sherkin Island, Co. Cork. 1996. £20.00 + £3.00 postage. ISBN 1 870492 86 2.

Despite the fact that reports on the flora of Co. Cork have appeared in every issue of *Irish Botanical News* and elsewhere over the years the last major publication was over 100 years ago by T. Allin (1883, *The*

flowering plants and ferns of County Cork, Weston-super-Mare). Consequently this latest offering represents a major step forward. Work towards the Flora started in the mid-70s at the same time as the Sherkin Marine Station was founded. So far the list of species is most impressive - a grand total for the islands of Roaringwater Bay being 592 species of flowering plants, conifers and ferns which includes 12 Irish Red Data Book species, over 30 other species which are significantly rare and a number which are new to the Irish flora. The result is an area which turns out to be the 10-km square with the highest species number in the whole of Ireland.

This Flora reports on the diversity of these islands. Introductory chapters include: The environment and history of Roaringwater Bay (climate, geology and soils, human history and land use), Vegetation (history, outline of plant communities), Flora (richness of the flora, a concentration of rare Irish plants), Botanical exploration of the islands (historical outline, contribution of the Sherkin Island Marine Station botanists), and Brief description of the islands. This is then followed by a systematic account of the flora. For each species we are given the Latin name, English name and Irish name, habitat information and a list of islands on which the species is found; where appropriate additional information is provided such as distribution through the rest of Ireland, subspecific variation patterns, significant historical records, etc. It additionally includes 14 pages of excellent colour photographs (with 31 separate plates of individual species and habitats), 8 pages of black and white photographs (with 14 separate plates largely of abandoned buildings!) and 18 pages of line drawings of individual species (131 species depicted in all). Infuriatingly, the index is divided into three - one part for Latin names, one for Irish names and one for English names. There are two appendices containing an unpublished manuscript of Oleg Polunin produced as a result of his visit to Sherkin Island in 1947 and some agricultural notes also made by Oleg Polunin.

There is little doubt that this is a botanical “tour de force” and is a fine example of a local Flora. But there is just the hint that some things were included with little thought. For example, one wonders why the plant illustrations, incidentally most beautifully drawn by Elspeth Beckett, were included. Since less than one quarter of the 592 species are illustrated these cannot be used for the purposes of identification and choice of species doesn’t really seem to reflect species which might be

difficult to sort out. Similarly, two colour plates supposedly showing the vegetation of Heir, The Skeams, Long and Goat are, and I am sorry to have to say this, useless. What could have been an excellent addition to the distributional data on individual species in the systematic account cannot be used as the plates have no key and are, in any case, far too small to see the detail.

But these are two minor grouses. The rest of the book is excellent and a valuable addition to any botanical collection and essential reading for anyone visiting the area.

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BOOK NOTICE

Urban Flora of Belfast. S. Beesley & J. Wilde. Pp. 196. The Institute of Irish Studies, The Queen's University of Belfast, Belfast. 1997. £8.50. ISBN 0 85389 695 X.

This charming and useful book is the culmination of a three year study (1993-95) of the vascular plant flora of Belfast conducted by the members of the Belfast Naturalists' Field Club. The distribution of each species within the city is detailed and for each of the 76 1-km squares the main habitats and "specialities" are recorded. Additionally there is background information on the geology of the area, previous recording, some statistical analysis of the results, a comprehensive index and a map. An imposing watercolour of the Waterfront Hall complete with *Buddleia* and butterflies by Diana Oxlade graces the front cover; there are a number of other sketches throughout the text by the same artist.

Excellent value for money and a good companion to *The Flora of Inner Dublin* by P. Wyse Jackson and M. Sheehy Skeffington (1984. The Royal Dublin Society, Dublin).

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