IRISH BOTANICAL

NEWS

Number 16 March 2006



Mibora minima (L.) Desv.

Edited by: Dr Brian S. Rushton, University of Ulster

Coleraine, Northern Ireland, BT52 1SA

Published by: The Committee for Ireland

Botanical Society of the British Isles

COMMITTEE FOR IRELAND, 2005-2006 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 National Botanic Gardens, Glasnevin on 15 October 2005. Office Bearers were subsequently elected at the first Committee Meeting. The Committee is now:

Dr E. Caroline Mhic Daeid, Chair and Republic of Ireland Representative on Records Committee (retiring Irish AGM 2006)

Mr W. Semple (retiring Irish AGM 2006)

Mr G. Sharkey (retiring Irish AGM 2006)

Mr M. Archer (retiring Irish AGM 2007)

Mr P.R. Green (retiring Irish AGM 2007)

Dr D.A. Doogue (retiring Irish AGM 2008)

Dr J.S. Faulkner, Field Meetings Secretary (retiring Irish AGM 2008)

The following are co-opted members of the Committee:

Mr P. Hackney, Secretary and Representative on BSBI Council

Mr A.G. Hill, Northern Ireland Representative on Records Committee

Dr B.S. Rushton, Hon. Editor Irish Botanical News

Mr M. Wright, Environment and Heritage Service (N.I.)
Representative

Dr M.B. Wyse Jackson, National Parks and Wildlife Service, Republic of Ireland Representative

Irish Botanical News is published by the Committee for Ireland, BSBI and edited by Dr B.S. Rushton. © B.S. Rushton and the authors of individual articles. 2006.

The cover illustration shows *Mibora minima* (Early Sand-grass) (taken from Fitch, W.H. and Smith, W.G. (1908). *Illustrations of the British flora*. Lovell Reeve and Co., Ltd, London, p. 286) an addition to the Irish flora (see the article by O'Mahony, this issue).

All species and common names in *Irish Botanical News* follow those in the database on the BSBI web site http://rbg-web2.rbge.org.uk/BSBI/ and Stace, C.A. (1997). *New Flora of the British Isles*, 2nd ed. Cambridge University Press, Cambridge, except where otherwise stated.

CONTENTS

Editorial
Articles
Mibora minima (L.) Desv., Early Sand-grass (Poaceae) in West Cork (H3): an addition to the Irish flora T. O'Mahony
A day spent looking for <i>Trifolium glomeratum</i> (Clustered Clover) P.R. Green
Knockanore: botanically the best churchyard in Co. Waterford (v.c. H6)? P.R. Green
Nauntinane Bog, North Kerry (v.c. H2) M. O'Sullivan
Vice-county reports for 2005
A report on the flora of Cork (v.cc. H3-H5), 2005 T. O'Mahony
Azolla to Zostera: a report on fieldwork in Co. Limerick (v.c. H8), 2005 S.C.P. Reynolds
Interesting plants from Co. Tyrone (H36), 2004-2005 W.I. McNeill
Annual General Meeting, 2005
Minutes of the Annual General Meeting of the BSBI Irish Region 2005 held in the National Botanic Gardens on 15 October 2005 (Unapproved) 43
Secretary's Report 2004-2005 P. Hackney

EDITORIAL

A number of developments to note in this issue of Irish Botanical News.

It is with great sadness that I have to report the passing of Stan Beesley, the v.c. Recorder for Antrim (v.c. H39). He was one of the authors of the *Urban flora of Belfast* (Beesley, S and Wilde, J. (1997) *Urban flora of Belfast*. The Institute of Irish Studies, Queen's University of Belfast, Belfast) and I had the delightful pleasure of working with him on this project as a proof-reader. Stan was a very gentle man and his winning smile and down-to-earth charm will be sadly missed.

On a more cheerful note, *Irish Botanical News* will soon be available on the Internet. In order to increase the contribution of the Committee for Ireland to the BSBI website I've agreed to get back issues mounted on the website. I have six back issues in electronic form and it should be possible to get these up fairly quickly but older issues will have to be scanned and will take a while longer. If you know of errors in previous issues, can you let me know (deadline, 31 May 2006) as this will give me the opportunity to correct things? ... however, I don't want complete re-writes! Do not worry – you will continue to receive a free paper copy of the newsletter. Those readers who have taken out a subscription should have a letter with this issue outlining what I intend to do about pre-paid subscriptions.

In last year's issue, I speculated on the use of electronic gadgetry to improve our work and this issue contains such an example – a botanist in the field who couldn't find a plant and who therefore 'texted' a friend to consult the literature and text back with more specific information. And, of course, the species was located. Such are the marvels of the age in which we live. Gilbert White is probably rotating gentle in his resting place.

Have a good field season,

Brian S. Rushton, Irish Botanical News

MIBORA MINIMA (L.) DESV., EARLY SAND-GRASS (POACEAE) IN WEST CORK (H3): AN ADDITION TO THE IRISH FLORA

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

ABSTRACT

The essentially coastal annual grass, *Mibora minima* (L.) Desv. (Early Sandgrass) was added to the Irish flora in May 2005, from the Cannawee dune-system at Barley Cove, West Cork (H3). The status of this find is assessed in light of the known native and naturalized distribution of *M. minima* in Britain and mainland Europe, and it is concluded that *M. minima* is best treated as an indigenous Irish species. The late addition of *Mibora minima* to the Irish flora can be attributed to the combination of its diminutive size, very early flowering season (December to May, but predominantly between March and April) and the 'uninviting' windswept nature of its exposed coastal habitats at this time of year. It is predicted that *M. minima* will be found in other Irish coastal habitats in future years.

INTRODUCTION

On 17 May 2005, a botanical outing was undertaken to the Toormore-Barley Cove area of West Cork (H3), the primary objective being the search for new populations of the nationally rare *Viola lactea* Smith (Pale Dog-violet) and its interspecific hybrid, *V. lactea* × *V. riviniana* L. (Common Dog-violet), both of which had originally been recorded from this general area in the 1930s. In the event, *V. lactea* was found in one new site, and *V. lactea* × *V. riviniana* in two new sites, all sites lying a short distance to the north of Toormore village (O'Mahony, 2006).

At 6 p.m., a final stop was made at the eastern section of the picturesque Cannawee dune-system (H3, V76.25) at Barley Cove, near Mizen Head, to check out a recent report of *Arenaria serpyllifolia* subsp. *loydii* (Thyme-leaved Sandwort) from here (Green, 2000), and to hopefully refind the nationally rare *Cuscuta epithymum* (Dodder) which is known to be locally common on these dunes. In diminishing light conditions, general plant recording was undertaken here over a one-hour period, the flora proving to be delightful and species-rich (O'Mahony, 2006). Moreover, some intensive searches were also made (on hands and knees) for diminutive dune annuals – an activity that ultimately

resulted in the totally unexpected discovery of a small population of *Mibora minima* (L.) Desv. (Early Sand-grass), an addition to the Irish flora!

Given the time of year, some 90-95% of this M. minima population had already seeded. Yet the filiform stems, bearing linear, spike-like, secund racemes (the latter with a double row of minute-pedicelled spikelets and blunttipped glumes) looked singularly distinctive, and thus provided the necessary suite of morphological characters for the initial, tentative, determination. All doubts about this determination were quickly dispelled however, when further searching produced some fresh inflorescences, these displaying surprisingly large, exserted, anemophilous anthers, which were versatile on their filaments and tremulous in the breeze. Later at home, microscopic examination of voucher material revealed that both the lemmas and paleas were covered with long, densely entangled, crinkly hairs – very different in appearance to the straight, erecto-patent, neat hairs depicted for these structures in the linedrawing of M. minima in Hubbard (1968), and thus suggesting interpopulation morphological variability in this species. Stebbins (1960) states that annual plants in north-temperate regions are almost exclusively self-fertilized. Yet M. minima, an often diminutive annual, bears proportionately very large anthers (1-1.7 mm long), which are an emophilous and clearly adapted for outcrossing! Nevertheless, where populations of this species are tiny, and highly disjunct – as at the Cannawee Dunes, West Cork site – self-fertilization must be the norm, in order to ensure seed-set, and thus survival.

My identification of the Cork material of *Mibora minima* has been confirmed by Dr T.A. Cope of the Royal Botanic Gardens, Kew, Richmond, Surrey, who commented: "Some authorities like to split it into subspecies, and in this case your specimen would be subsp. *minima* and not subsp. *littorea*, which you might have expected on the coast (the latter has marginally longer spikelets, and the first and third in the raceme overlap). If it is indeed native where found [i.e. Cannawee Dunes, Barley Cove, West Cork], this is a significant addition to its known range."

While Dr Cope does *not* recognize subspecies within *M. minima*, in response to some queries of mine concerning the British west coast populations of *M. minima*, he stated: "Material that corresponds to both 'subspecies' can certainly be found on Anglesey, sometimes in mixed collections, *but some material is intermediate and difficult to place* [my emphasis]. The small

[herbarium] fragment I have from Whitford, Gower [Peninsula] is 'subspecies' *minima* without doubt. I have no material from S. Lancs."

Therefore, on the basis of these observations, not withstanding the slight difference in spikelet length in both taxa, it would seem that the spacing of the spikelets in the racemes of *M. minima* is *a very fluid* feature, the so-called 'subspecies' merely being end-points in a continuum of variation in inflorescence laxness/compactness in this species, and thus hardly worthy of recognition as discrete entities.

On 7 June 2005, a second visit was made to Cannawee Dunes, to search for *Mibora minima* over a wider area here. However, despite a rather protracted survey on this occasion, *M. minima* was only encountered in the vicinity of its original site, which is a well-demarcated, small, flat, elevated area of stable sand, backed by a low cliff of sheltering dune. In this microhabitat, *M. minima* is essentially confined to an area measuring c. 18 m × 18 m, where it cohabits with an abundance of such annuals as: *Aira praecox* (Early Hair-grass), *Catapodium marinum* (Sea Fern-grass), *Arenaria serpyllifolia* subsp. *serpyllifolia* (Thyme-leaved Sandwort), *Trifolium dubium* (Lesser Trefoil), *Valerianella locusta* subsp. *dunensis* (Common Corn-salad), *Veronica arvensis* (Wall Speedwell) and *Geranium molle* (Dove's-foot Crane's-bill), associated perennial species commonly occurring here, being: pink-flowered *Anthyllis vulneraria* (Kidney Vetch), *Thymus polytrichus* (Wild Thyme), *Plantago coronopus* (Buck's-horn Plantain), *Leucanthemum vulgare* (Oxeye Daisy) and *Senecio jacobaea* (Common Ragwort), etc.

In the course of this work, a small additional population of *Mibora minima* was found on the wind-exposed plateau of the clifftop, behind the main population. More intensive searches here in future years during the optimum flowering period for this species, might well extend its range on the Cannawee Dunes.

THE AUTECOLOGY OF MIBORA MINIMA

In the work, *British red data books 1. Vascular plants*, John (1999) provides some detailed observations on the autecology of *M. minima*, viz: "Flowering begins in December during mild winters, and ends by mid-March, each plant producing a few synchronous, often reddish inflorescences. Despite its small size (often less than 2 cm) it is wind-pollinated and habitually outbreeding: levels of genetic variation are high in British populations, although lower than

on mainland Europe (John, 1992). Some seeds are shed upon maturity in March to May; others remain attached to the parent plant, which dies immediately after seed production. Seed dispersal is often very limited. Germination normally occurs in late-summer or autumn, and temporary chilling is necessary to initiate flowering (Pemadasa and Lovell, 1974a, b)."

John (1999) further comments that *M. minima* "... grows on nutrient-poor sandy soils that are freely draining but damp in winter, and is typically found in small isolated patches of open ground set within a matrix of unsuitable habitat. It occurs in small erosions and rabbit-scrapes, stabilising blow-outs or patches of bare sand, and on pathsides. It tolerates a wide range of soil pH levels."

THE DISTRIBUTION AND STATUS OF *MIBORA MINIMA* IN EUROPE Tutin (1980), in his account of *Mibora minima* in *Flora Europaea* **5**, gave its phyto-geographical range as: south, west, and west-central Europe, and he listed it as indigenous in Belgium, Britain, France, Germany, Greece, Holland, Spain and Portugal, while indicating that *M. minima* is doubtfully recorded from Bulgaria, and that it is possibly extinct in Italy.

John (1999) summed up *Mibora minima*'s European range and status thus: "*M. minima* is largely confined to western Europe and the Iberian peninsula, where [in addition to its native, and predominantly coastal, dune habitats] it also occurs on old fields and waste ground inland. It is scarce in Belgium and Germany, and most Dutch populations are naturalised introductions, perhaps from southern European stock. Isolated populations also occur around the Mediterranean and in Russia." With regard to *Mibora minima*'s extra-European distribution, Hubbard (1968) states that it is native in N.W. Africa, and an introduction in Australia and the United States, while Tutin (1962) gives its native African distribution as Algeria.

In the Channel Islands, *Mibora minima* is a widespread native of sand-dune and seacliff habitats in Jersey and Guernsey, while in Britain both native and naturalized populations occur, and Leach (2002) comments that: "Several new populations of *M. minima* have been discovered on dunes [in Britain] since 1980, and it is almost impossible to say whether they are native or alien." In mainland Britain, *M. minima* is recorded as a native species (of coastal dune habitats) in just *six* post-1987 hectads, in the work: *New atlas of the British and Irish flora* (Preston, Pearman and Dines, 2002). Moreover, all six hectads

occur on the west coast (and thus accord with the west-European phytogeographical trend exhibited by this species), namely: Anglesey, v.c. 52 (four hectads); Whiteford, Gower Peninsula, Glamorgan, v.c. 41 (one hectad); and Sefton Coast, South Lancashire, v.c. 59 (one hectad).

The Sefton Coast site, which lies immediately to the north of Anglesey, was only discovered in April 1996 (Earl and Buckley-Earl, 1997; Smith, 2005), and Leach (2002) speculates that this population: "... seems most likely to be the result of spread from the known native sites in Wales." It could, of course, be just as easily an independent, insular population. While this Lancashire site is regarded as the first authentic *native* English site for *M. minima* (Rich, 1997), there is, in fact, an earlier (i.e. 1993) record from the dune system of Studland Heath National Nature Reserve in Dorset (v.c. 9), on the *south* coast of England. However, this Dorset population is treated as *adventive* by Preston, Pearman and Dines (2002) – a decision possibly influenced by the fact that it bucks the prevailing west-coast distributional pattern exhibited by native *Mibora minima* in Britain.

As an *obvious adventive* species in Britain, *M. minima* was well established in plant nursery sites (on a sandy substrate) in Dorset, Hampshire and Suffolk in the 1960s (Clapham, Tutin and Warburg, 1962; McClintock and Fitter, 1965; Hubbard, 1968), though a perusal of the relevant map in the *New atlas of the British and Irish flora* (Preston, Pearman and Dines, 2002) suggests that most of these populations did not persist into the late-1970s.

Lastly, the long-recorded, and *sole* Scottish population of *Mibora minima* (on sand-dunes at Dirleton, East Lothian, v.c. 82) is now known to have been deliberately introduced (vide John, 1999). Prior to the establishment of this fact, the status of *M. minima* at East Lothian had been very controversial, given the extremely disjunct north-east coast location of this population.

THE STATUS OF MIBORA MINIMA IN THE IRISH FLORA

The present, unexpected discovery of *Mibora minima* in Ireland is not without precedent, as a suite of (mainly annual) *maritime* grass species have been added to the Irish flora since 1979! Consequently, some details are provided here on these equally exciting discoveries, in order to put the *Mibora minima* find in context, and to hopefully more accurately evaluate its *true* status in Ireland. For example, *Parapholis incurva* (L.) C.E. Hubbard (Curved Hardgrass), an annual maritime species which occurs along the Atlantic coasts of

Europe, was found on coastal rock-outcrops at Sutton, Co. Dublin (H21) in June 1979, the sole population being confined to a tiny area measuring approximately 10 m × 3 m, on a shelf of eroding drift (Akeroyd, 1984). There can be little doubt but that *P. incurva* is a native Irish grass – a belief buttressed by the discovery of a 19th century herbarium voucher (**DBN**) of this species, collected from the coast about Cork City (H4/H5) by W.J. Sullivan, in c. 1845 (Akeroyd, 1984). Moreover, at Sutton, the related species, *Parapholis strigosa* (Dum.) C.E. Hubbard (Hard-grass) occurs close by, as does the indigenous perennial maritime clover, *Trifolium occidentale* D.E. Coombe (Western Clover) – a species described as 'new to science' by Coombe (1961) – which was also first recorded in Ireland in June 1979, but from Bray Head, Co. Wicklow (H20) (Preston, 1980), and which was subsequently found in other localities on the east coast, as far south as Forlorn Point, Co. Wexford (H12) (Akeroyd, 1983).

More recently, *Poa infirma* Kunth (Early Meadow-grass) — an extremely localized native in Britain — was recorded as an *adventive* at Castlerock, Co. Londonderry (H40), where it persisted as a garden-weed during the period 1987-1992 (Hackney, 1992). Subsequently, Selby (2000) recorded several hundred plants of *Poa infirma* growing at the base of the border-wall of the tidal River Bandon at Castlepark, Kinsale (H3, W64.49) on 19 March 2000. However, the status of *P. infirma* at Kinsale remains very uncertain, as my own visit to this site a fortnight later, on 2 April 2000 (O'Mahony, 2001) failed to find a trace of the original large population, although two plants of this species occurred on a nearby, tabular rock-outcrop, the plants growing in a damp micro-hollow, and cohabitating with *Montia fontana* L. s.l. (Blinks). Furthermore, an intensive search for *P. infirma* in this general area was also unsuccessful, only numerous, diminutive plants of the ubiquitous *Poa annua* L. (Annual Meadow-grass) being found in all of the seemingly suitable habitats for *P. infirma*.

In May 1997, the early-flowering, perennial maritime grass, *Poa bulbosa* L. (Bulbous Meadow-grass) was added to the Irish flora, when some ten plants were found on the roadward edge of the sand-dunes at Rosslare Harbour, Co. Wexford (H12), while some tens of thousands of plants of this species were subsequently recorded here in June 2002 (Green, 2003)! As both *Lagurus ovatus* L. (Hare's-tail) and *Anisantha diandra* (Roth) Tutin ex Tzvelev (Great Brome) have been established in this habitat since the early 1980s (Reynolds,

1994, 1996, 2002), it seems probable that all three species have arrived in Ireland via the nearby Car Ferryport.

The West Cork (H3) Cannawee Dunes site for *Mibora minima*, lies c. 400 km southwest of its locations on Anglesey Island, and a somewhat shorter distance west of its other Welsh site on the Gower Peninsula of Glamorgan – and therefore represents a major westwards extension of *Mibora minima*'s current-known European range. Moreover, as *M. minima* has never been recorded as an *adventive* species in Ireland (unlike the situation in Britain and mainland Europe), while its Cannawee Dunes site supports a wholly indigenous flora and is also representative of the extreme Atlantic-type phyto-geographical habitat associated with *M. minima* in Europe, I suggest that this grass species should be treated as a native member of the Irish flora. Doubtless *Mibora minima*'s diminutive size, and very early flowering season, are accountable for its belated addition to the Irish flora. Sustained searches in future years, are likely to extend the known range of this maritime grass species in Ireland.

From a Co. Cork perspective, *Mibora minima* represents the most recent, fascinating addition to the remarkable flora of the Mizen Head-Barley Cove-Toormore area, which boasts sites for the *Irish red data book* species, *Asplenium obovatum* Viv. subsp. *lanceolatum* (Fiori) P. Silva (Lanceolate Spleenwort), *Tuberaria guttata* (L.) Fourr. (Spotted Rock-rose), *Viola lactea* Sm. (Pale Dog-violet) and *Lotus subbiflorus* Lag. (Hairy Bird's-foot-trefoil), in addition to nationally rare/scarce taxa such as: *Cicendia filiformis* (L.) Delarbre (Yellow Centaury), *Ornithopus perpusillus* L. (Bird's-foot), *Cuscuta epithymum* (L.) L. (Dodder), *Sagina subulata* (Sw.) C. Presl (Heath Pearlwort), *Erodium maritimum* (L.) L'Hér. (Sea Stork's-bill), *Orchis morio* L. (Green-winged Orchid), *Cytisus scoparius* subsp. *maritimus* (Rouy) Heywood (Prostrate Broom) and *Arbutus unedo* L. (Strawberry-tree).

ACKNOWLEDGEMENT

I express my gratitude to Dr Tom Cope of the Royal Botanic Gardens, Kew, Richmond, Surrey, for confirming my identification of *Mibora minima* from the Cannawee Dune-system, Barley Cove, West Cork, and for providing me with data on inflorescence-variation in this species in its native, Welsh, dune habitats.

REFERENCES

- Akeroyd, J.R. (1983). Further notes on *Trifolium occidentale* D.E. Coombe in Ireland. *Irish Naturalists' Journal* **21**: 32-34.
- Akeroyd, J.R. (1984). *Parapholis incurva* (L.) C.E. Hubbard a grass overlooked in Ireland. *Irish Naturalists' Journal* **21**: 228-230.
- Coombe, D.E. (1961). *Trifolium occidentale*, a new species related to *T. repens* L. *Watsonia* **5**: 68-87.
- Earl, D.P. and Buckley-Earl, J. (1997). The discovery of Early Sand-grass (*Mibora minima*) on the dunes of South Lancashire. *Parnassia* 8: 9-10
- Green, P.[R.] (2000). The highlights of recording for the *Atlas 2000* in SW Ireland, 1999. *Irish Botanical News* **10**: 30-33.
- Green, P.R. (2003). *Poa bulbosa* L. at Rosslare Harbour, Co. Wexford (v.c. H12). *Irish Botanical News* **13**: 19-20.
- Hackney, P. (1992). Stewart & Corry's Flora of the north-east coast of Ireland, 3rd ed. Institute of Irish Studies, Queen's University, Belfast.
- Hubbard, C.E. (1968). Grasses, a guide to their structure, identification, uses and distribution in the British Isles, 2nd ed. Penguin Books Ltd, Harmondsworth.
- John, R.F. (1992). Genetic variation, reproductive biology and conservation in isolated populations of rare plant species. Ph.D. Thesis, University of Wales, Swansea.
- John, R.F. (1999). *Mibora minima* (L.) Desv., Early Sand-grass (Poaceae), in Wigginton, M.J., comp. and ed. *British red data books. I. Vascular plants*, 3rd ed. Joint Nature Conservation Committee, Peterborough.
- Leach, S.J. (2002). *Mibora minima* (L.) Desv., in Preston, C.D., Pearman, D.A. and Dines, T.D., eds. *New atlas of the British and Irish flora*, 780. Oxford University Press, Oxford.
- McClintock, D. and Fitter, R.S.R. (1965). *The pocket guide to wild flowers*, 5th impression. Collins, London.
- O'Mahony, T. (2001). A report on the flora of Cork (v.cc. H3-H5), 2000. *Irish Botanical News* **11**: 31-37.
- O'Mahony, T. (2006). A report on the flora of Cork (v.cc. H3-H5), 2005. *Irish Botanical News* **16**: 17-30.
- Pemadasa, M.A. and Lovell, P.A. (1974a). Factors affecting the distribution of some annuals in the dune system at Aberffraw, Anglesea. *Journal of Ecology* **62**: 403-441.
- Pemadasa, M.A. and Lovell, P.A. (1974b). Factors controlling the flowering time of some dune annuals. *Journal of Ecology* **62**: 869-880.

- Preston, C.D. (1980). *Trifolium occidentale* D.E. Coombe, new to Ireland. *Irish Naturalists' Journal* **20**: 37-40.
- Preston, C.D., Pearman, D.A. and Dines, T.D. (2002). *New atlas of the British and Irish flora*. Oxford University Press, Oxford.
- Reynolds, S.C.P. (1994). Records of alien and casual plants in Ireland, 1993. *Irish Naturalists' Journal* **24**: 515-517.
- Reynolds, S.C.P. (1996). Alien plants at ports and at coastal habitats on the east coast of Ireland. *Watsonia* **21**: 53-61.
- Reynolds, S.C.P. (2002). *A catalogue of alien plants in Ireland*. Occasional Papers No. 14. National Botanic Gardens, Glasnevin and Dúchas, The Heritage Service, Dublin.
- Rich, T. (1997). Wildlife reports: flowering plants England. *British Wildlife* **8**: 328
- Selby, P. (2000). *Poa infirma* a new grass for Ireland. *BSBI News* **85**: 18.
- Smith, P. (2005). *Mibora minima* on the Sefton Coast, Merseyside. *BSBI News* **99**: 33-34.
- Stebbins, G.L. (1960). *Variation and evolution in plants*. Columbia University Press, New York.
- Tutin, T.G. (1962). *Mibora minima* (L.) Desv., in Clapham, A.R., Tutin, T.G. and Warburg, E.F., eds. *Flora of the British Isles*, 2nd ed., 1176. Cambridge University Press, Cambridge.
- Tutin, T.G. (1980). *Mibora minima* (L.) Desv., in Tutin, T.G. *et al. Flora Europaea* **5**, 173. Cambridge University Press, Cambridge.

A DAY SPENT LOOKING FOR TRIFOLIUM GLOMERATUM (CLUSTERED CLOVER)

P.R. Green

46 Bewley Street, New Ross, Co. Wexford

Trifolium glomeratum (Clustered Clover) is a very rare plant in Ireland. The *New atlas of the British and Irish flora* (Preston, Pearman and Dines, 2002) shows two pre-1970 sites in Co. Wicklow (H20); it also shows a pre-1970 site in Co. Wexford (H12). Two more recent sites, one in Co. Wexford and one in Co. Waterford (H6) are also shown and it is these two sites I visited in 2005.

The Co. Waterford site was first noted in late July 1974 by P.H. Carvill (Carvill, 1976) by the side of the path from Creadan Cottage, Dunmore East. Declan McGrath and I visited the Creadan Cottage site on 23 June. We had no luck in finding the clover as I did not have the information with me and I had the feeling it said lane leading to Creadan Cottage. We walked the lane but found no trace of the clover. We headed back into Dunmore East for a spot of lunch and for Declan to do his annual count of the nesting Kittiwakes on the cliff by the harbour. While Declan did his bird count I had a wander about to see if I could find any plants of interest. There was a single plant of Agapanthus praecox subsp. orientalis (African Lily) self-sown in a pavement crack, Phalaris canariensis (Canary-grass) on gravel by the harbour along with Diplotaxis muralis (Annual Wall-rocket).

Our next destination was to go as foot passengers on the ferry from Passage East across to Ballyhack, Co. Wexford. We headed for the top of a rocky outcrop where Declan knew the Clustered Clover was to be seen. We soon found 48 plants growing on rocky outcrops in the field and on the bank of the field. This was very exciting for me as it is a species that I have never encountered in Ireland before. The site was a real gem as it had three more species that I had not seen in Ireland: *Rumex pulcher* (Fiddle Dock), *Trifolium ornithopodioides* (Bird's-foot Clover) and a single plant of *Trifolium striatum* (Knotted Clover). The Fiddle Dock has been known from the Ballyhack area since the 1940s (Akeroyd, 1993). If I was back in England recording I would take it to be native but here in Ireland it is counted as an alien. The habitat is just like that of many of the sites I know in Somerset.

Declan sent a text message to a friend to say we had no luck in finding the clover at Creadan Cottage. The reply said look by the steps leading from the cottage. The following day I returned and sure enough there was the Clustered Clover – 36 plants in the grass on either side of the steps leading from the cottage to the beach.

REFERENCES

Akeroyd, J.R. (1993). The distribution and status of *Rumex pulcher* L. in Ireland. *Irish Naturalists' Journal* **24**: 284-285.

Carvill, P.H. (1976). *Trifolium glomeratum* L. new to Co. Waterford and other new records. *Irish Naturalists' Journal* **18**: 365.

Preston, C.D., Pearman, D.A. and Dines, T.D., eds (2002). *New atlas of the British and Irish flora*. Oxford University Press, Oxford.

KNOCKANORE: BOTANICALLY THE BEST CHURCHYARD IN CO. WATERFORD (V.C. H6)?

P.R. Green 46 Bewley Street, New Ross, Co. Wexford

My first memory of Knockanore churchyard was when I walked through the gate on 24 October 2002 and to my surprise there were Eyebrights growing in the mown grass next to the path leading to the church door. This was *Euphrasia arctica* subsp. *borealis*, the only common species of *Euphrasia* in the county.

My next visit was on 4 July 2003. The Eyebrights were flowering well along with clumps of *Danthonia decumbens* (Heath-grass) and *Nardus stricta* (Matgrass). The next delight was to find *Ophioglossum vulgatum* (Adder's-tongue) abundantly in a small triangle of grass between the path and the church and 27 *Listera ovata* (Common Twayblade) along with nine *Dactylorhiza fuchsii* (Common Spotted-orchid) scattered about the churchyard. Even though the grass had been cut, the orchids somehow were missed and were flowering well. I have never met anybody to ask if the churchyard is managed in any way for its wildlife. Other plants of interest on this visit were *Leontodon hispidus* (Rough Hawkbit) and *Luzula campestris* (Field Wood-rush) in the grass and *Polypodium cambricum* (Southern Polypody) on one of the churchyard walls.

My next visit was on 20 June 2005 with Matt Storable. All the above species were looking good but to our astonishment we found *Carex pulicaris* (Flea Sedge), a species I never would have expected to see in a churchyard, especially as it is a dry churchyard. We also found *Pilosella officinarum* (Mouse-ear-hawkweed), *Galium saxatile* (Heath Bedstraw), *Polygala serpyllifolia* (Heath Milkwort), *Veronica officinalis* (Heath Speedwell), *Carex caryophyllea* (Spring-sedge), *Linum catharticum* (Fairy Flax) and *Potentilla* × *mixta* (Hybrid Cinquefoil). There were four species of *Epilobium* including *E. brunnescens* (New Zealand Willowherb) which I have now come across in several other churchyards in the county. To finish with we had a large patch of the brightly colourful orange heads of *Pilosella aurantiaca* subsp. *carpathicola* (Fox-and-cubs).

Even though there are several nice churchyards scattered about the county, most only have one or two good native species. Knockanore seems exceptionally rich.

NAUNTINANE BOG, NORTH KERRY (V.C. H2)

M. O'Sullivan Knockavota, Milltown, Co. Kerry

The site is comprised of 28 ha of cutaway bog about 3 km south of Milltown, Co. Kerry. It is dissected for its entire length by a small stream and for most of its length by a roadway.

It is the largest of its type in this area and is also designated a wildfowl sanctuary by the Killorglin Gun Club. As a consequence, the birdlife is both rich and varied and includes Mallard, Teal, Heron, Moorhen, Water Rail, Snipe, Pheasant, Woodcock and Grasshopper Warbler, among many others. All feed and mostly breed on the site.

The plant life is typical of damp peaty soil with a few scattered trees such as *Alnus glutinosa* (Alder), *Betula pubescens* (Downy Birch) and *Salix* spp. (Willows). As in many such habitats, the dominant shrub is *Ulex europaeus* (Gorse) while *Myrica gale* (Bog-myrtle) grows in prominent stands. A few specimens of *Rhododendron ponticum* (Rhododendron) add a splash of colour at flowering time. The stream-side flora embraces a wide variety of waterloving plants such as *Veronica beccabunga* (Brooklime), *Mentha aquatica* (Water Mint), *Alisma plantago-aquatica* (Water-plantain) and the eye-catching *Iris pseudacorus* (Yellow Iris). Umbellifers include *Berula erecta* (Lesser Water-parsnip), *Oenanthe crocata* (Hemlock Water-dropwort) and on drier zones *Angelica sylvestris* (Wild Angelica) and *Carum verticillatum* (Whorled Caraway).

Insect-eating plants such as *Drosera rotundifolia* (Round-leaved Sundew), *Pinguicula vulgaris* (Common Butterwort) and its diminutive relative *P. lusitanica* (Pale Butterwort) flourish in their natural habitat. Orchids are numerous especially *Dactylorhiza incarnata* (Early Marsh-orchid) and *D. maculata* (Heath Spotted-orchid) which sometimes display white flowers. In

late summer, the unmistakeable scent from the creamy flowered heads of *Filipendula ulmaria* (Meadowsweet) is very much in evidence. Other plants worthy of mention that can be found are *Menyanthes trifoliata* (Bogbean), *Scutellaria minor* (Lesser Skullcap), *Hypericum elodes* (Marsh St John'swort), *Bidens tripartita* (Trifid Bur-marigold) and *Sparganium erectum* (Branched Bur-reed).

The most widespread grass is *Molinia caerulea* (Purple Moor-grass) whilst the list of sedges is extensive from the robust *Carex paniculata* (Greater Tussocksedge) to the delicate *Rhynchospora alba* (White Beak-sedge). There are other plants too to be encountered – we almost take them for granted in a setting like this, yet they are an integral component of the bogland flora. They are the Cottongrasses (*Eriophorum* spp.), Horsetails (*Equisetum* spp.) and the aptly named *Osmunda regalis* (Royal Fern).

It is unfortunate, but sites like this are fast disappearing – many are being planted. If this continues, one of our most unique ecosystems will be lost forever.

A REPORT ON THE FLORA OF CORK (V.CC. H3-H5), 2005

T. O'Mahony

6 Glenthorn Way, Dublin Hill, Cork City

The highlights of recording in 2005, included the addition of *Mibora minima* (L.) Desv. (Early Sand-grass) to the Irish flora from West Cork (H3); the addition of the annual *Persicaria* interspecific hybrid, *P. hydropiper* (Waterpepper) × *P. maculosa* (Redshank) (= *P.* × *intercedens*) to the Irish flora from Mid Cork (H4); a new Cork City (H4) hectad record for adventive *Mentha pulegium* (Pennyroyal); a first Co. Cork record for the nationally rare *Rosa* cross, *R. tomentosa* (Harsh Downy-rose) × *R. sherardii* (Sherard's Downy-rose) from Mid Cork (H4); and two new Cork City (H4) sites for the nationally rare annual, *Geranium pusillum* (Small-flowered Crane's-bill), this latter species now being recorded from four city locations since 2004!

On 3 April, a Sunday excursion in the Mid Cork (H4) hectad, W5.9 (Banteer-Drommahane area), turned up two, tiny, disjunct populations of a yellow-

flowered *Narcissus* taxon (Daffodil), viz: two roadside plants in a ditch adjacent to Clashmorgan Bridge (H4, W53.99) on the River Lyre near Drommahane Village, and some twelve clumps in a sloping meadow (H4, W322.974) close to 'Sandpit Pub' T-junction on the N 72 (Mallow-Killarney Road). While many taxonomically spurious Daffodil clones are of widespread occurrence in Co. Cork (and of scattered occurrence throughout Ireland generally), it is a mystery as to why major naturalized populations are so rare, given the very long period of cultivation of this genus in Ireland, with the concomitant discarding of bulbs into the wild. Early-flowering clumps of *Euphorbia hyberna* (Irish Spurge) were seen on embankments at both Clashmorgan Bridge and Drommahane Village.

On 5 May, the limestone boundary-wall (H4, W66.71) of the River Lee (South Channel, between Donovan's Road and Lancaster Bridge) produced an abundance of *Arenaria serpyllifolia* subsp. *serpyllifolia* (Thyme-leaved Sandwort), *Sedum acre* (Biting Stonecrop), *Erophila verna* s.s. (Common Whitlowgrass), *Catapodium rigidum* (Fern-grass) and long-naturalized, freely-seeding, *Erigeron karvinskianus* (Mexican Fleabane), associated with more localised populations of *Sedum album* (White Stonecrop) and *Cerastium diffusum* (Sea Mouse-ear), this latter in only its second recorded Cork City site.

On 9 May, the limestone quarry-park (H4, W69.70) adjacent to Douglas swimming pool, Cork City, was revisited, and the long-known populations of *Veronica crista-galli* (Crested Field-speedwell) proved locally abundant on the margins of the park, with *Festuca arundinacea* (Tall Fescue) occurring frequently in damp, rough ground beneath the limestone cliffs. I also rechecked small, cohabiting populations of *Allium vineale* (Wild Onion) and *Alliaria petiolata* (Garlic Mustard), while this is the only Co. Cork site known to me for the pink-flowered form (i.e. forma *colorata*) of *Calystegia sepium* subsp. *sepium* (Hedge Bindweed).

On 13 May, I rechecked the flora of the tiny, remnant, limestone outcrops at Deanrock (H4, W65.69 and W66.69), Togher, Cork City. These habitats still harbour populations of native *Pimpinella major* (Greater Burnet-saxifrage), *Geranium rotundifolium* (Round-leaved Crane's-bill), *Geranium molle* (Dove's-foot Crane's-bill), *Saxifraga tridactylites* (Rue-leaved Saxifrage) and *Erophila verna* s.s. (Common Whitlowgrass), associated with naturalized *Tanacetum parthenium* (Feverfew), *Aquilegia vulgaris* (Columbine) and a new

find in vegetative mats of putative *Sedum spurium* (Caucasian Stonecrop) – this latter to be confirmed when in flower in 2006.

Populations of the nationally rare *Geranium pusillum* (Small-flowered Crane's-bill) (first recorded here on 12 October 2004) were rechecked on the northern, eastern and southern sides of Deanrock Park, all populations looking healthy. It is impossible to say if *G. pusillum* is a recent arrival at Deanrock, or long-established in this locality. However, here, as elsewhere about Cork City, it survives the regular mowing/weedkiller regimes of Cork City Council, while the former activity may, in fact, assist the dissemination of its seeds!

On 17 May, a botanical outing was undertaken to the Toormore-Barley Cove area of West Cork (H3). The main objective was the rechecking of populations of Viola lactea (Pale Dog-violet) and its interspecific hybrid, V. lactea \times V. riviniana (Common Dog-violet) from about Three Castle Head (H3, V7.2), where both taxa were first recorded by Hall and Simpson in May 1936, and refound by myself in May 1992. In the event however, I never reached Three Castle Head, as a late start to this outing, plus a number of unscheduled stops en route, put paid to this agenda. Nevertheless, synchronicity played its hand, in that a stop opposite an old graveyard at Barnatonicane (H3, V868.339), some 3 km to the north of Toormore Village, produced a small population of flowering Viola lactea on heathy ground, associated with V. riviniana and their interspecific hybrid! Moreover, a second locality for V. lactea × V. riviniana was found closer to Toormore, on grassy rock outcrops bordering a farmboreen, though the precise grid location needs to be ascertained. In this locality - which is close to Gorttyowen, where Hall and Simpson found *Viola lactea* in May 1936 – the hybrid was vigorous and in beautiful flower, associated taxa including: Saxifraga spathularis (St Patrick's-cabbage), Euphorbia hyberna (Irish Spurge), Eupatorium cannabinum (Hemp-agrimony), Fragaria vesca (Wild Strawberry), Festuca rubra (Red Fescue) and Festuca ovina (Sheep'sfescue). A gravelly pathway nearby, produced a single flowering clump of Sagina subulata (Heath Pearlwort). [Note: In Preston, Pearman and Dines (2002) (Preston, C.D., Pearman, D.A. and Dines, T.D. (2002). New atlas of the British and Irish flora. Oxford University Press, Oxford) the map for Viola *lactea* × *V. riviniana* inadvertently *omits* the Irish records!]

My final stop (at 6 p.m.) was at the panoramic and picturesque eastern section of the Cannawee dune-system (H3, V76.25) at Barley Cove. This species-rich habitat was aglow with the beautiful yellow flowers of *Ranunculus bulbosus*

(Bulbous Buttercup), associated with an equal abundance of carpet-forming perennials such as: pink-flowered Anthyllis vulneraria (Kidney Vetch), Thymus polytrichus (Wild Thyme), Galium verum (Lady's Bedstraw), Lotus corniculatus (Common Bird's-foot-trefoil). Trifolium repens (White Clover). Leontodon saxatilis (Lesser Hawkbit), Carex arenaria (Sand Sedge), Carex flacca (Glaucous Sedge), Elytrigia juncea (Sand Couch) and Festuca rubra (Red Fescue), etc. The annuals, Catapodium marinum (Sea Fern-grass), Trifolium dubium (Lesser Trefoil), Veronica arvensis (Wall Speedwell) and a dwarf-statured Euphrasia taxon (Eyebright) were also abundant, while sandblowouts and rabbit-scrapes held populations of Valerianella locusta var. dunensis (Common Cornsalad), Arenaria serpyllifolia subsp. serpyllifolia (Thyme-leaved Sandwort), Anagallis arvensis (Scarlet Pimpernel) and the delightful perennial, Viola tricolor subsp. curtisii (Seaside Pansy). Localised perennials included: Eryngium maritimum (Sea-holly), Calystegia soldanella (Sea Bindweed) and cohabiting Euphorbia paralias (Sea Spurge) and Euphorbia portlandica (Portland Spurge). The nationally rare Cuscuta epithymum (Dodder) was not seen, though it is stated to be locally abundant on the Cannawee Dunes. The last find of the evening was also the most unexpected and marvellous - Mibora minima (Early Sand-grass), an addition to the Irish flora!

On the 21 May, a drive through the River Araglin valley (H5, R8.0) from Araglin Bridge to Araglin Village, allowed a rechecking of the large populations of the exquisitely beautiful *Euphorbia hyberna* (Irish Spurge) which I first recorded in this part of East Cork in the early 1970s. On 23 May, the margins of the roundabout (H4, W69.70) at Douglas Hall Lawn, Well Road, Cork City, produced flowering populations of *Geranium pusillum* (Small-flowered Crane's-bill) and *Veronica polita* (Grey Field-speedwell), while the fringe of the Douglas Estuary here, held single, naturalized bushes of *Ribes nigrum* (Black Currant), early-flowering *Rosa multiflora* (Manyflowered Rose), and a vegetative stand of an as yet undetermined *Solidago* taxon (Garden Goldenrod). Scattered flowering plants of *Hypericum humifusum* (Trailing St John's-wort) occurred as a roadside weed here. [Note: A further Mid Cork site for *Geranium pusillum* was discovered about this time, on the grassy footpath margin of the Skehard Road, Blackrock, close to the Old Railway Bridge at Ringmahon (H4, W71.70).]

On 4 June, a visit to the expansive, beautiful, and ecologically diverse Ballincollig Amenity Park (H4, W5.7) on the River Lee to the west of Cork

City, allowed a rechecking of some of its more interesting plants. These included: Rosa stylosa (Short-styled Field-rose), Lysimachia vulgaris (Yellow Loosestrife), Lysimachia nummularia (Creeping-Jenny), Ranunculus auricomus (Goldilocks Buttercup), Allium vineale (Wild Onion), Mentha × gracilis (Bushy Mint), Stachys × ambigua (Hybrid Woundwort), Lepidium heterophyllum (Smith's Pepperwort), Carex vesicaria (Bladder-sedge), Carex pendula (Pendulous Sedge) and Geum rivale (Water Avens), this latter found by Ger Morgan in April 2005, and an extremely rare plant in Mid Cork and East Cork. An unimproved meadow beside the River Lee here, still holds the populations of Dactylorhiza majalis agg. (Western Marsh-orchids) and Alchemilla filicaulis subsp. vestita (Lady's-mantle) that I first found in June 1973. However, the speciality of the Park is Scirpus sylvaticus (Wood Clubrush) which is of very local occurrence here (first found in April 1995) and of which a fine new population was discovered on the present visit.

On 7 June, a return visit was made to the Cannawee Dunes (H3, V7.2) at Barley Cove, to establish how widespread *Mibora minima* (Early Sand-grass) is in this habitat. Despite a prolonged search however, only the original population of this diminutive, early-flowering annual grass, was located – though searches for it in 2006 during its main flowering period (March-April) might well prove more rewarding. On crossing the Pontoon Bridge to the western section of the dunes, I immediately refound the populations of *Orobanche minor* (Common Broomrape) known from here since at least 1991. The Broomrape was just coming into flower, the normal purple-pigmented plants growing intermixed with plants devoid of such pigmentation, and thus yellowish-brown in colour (including the stigmas). *Calystegia soldanella* (Sea Bindweed) is especially common on this western section of the dunes, which exhibit considerable rabbit damage.

On the south-eastern margin of the dunes, the short turf on the rock outcrops below the main road, was seen to hold populations of white-flowered *Rosa pimpinellifolia* (Burnet Rose), *Schoenus nigricans* (Black Bog-rush), *Dactylorhiza majalis* agg. (Western Marsh-orchids) and *Koeleria macrantha* (Crested Hair-grass), the latter a very local grass in Co. Cork, where it is virtually confined to coastal sands in the south-west. Moreover, rock-ledge microhabitats proved a delight, bearing tiny populations of *Euphorbia portlandica* (Portland Spurge), *Geranium columbinum* (Long-stalked Crane's-bill), *Erodium maritimum* (Sea Stork's-bill), *Sherardia arvensis* (Field Madder) and *Asplenium ruta-muraria* (Wall-rue), this assemblage of calcicole

taxa suggesting that base-rich conditions prevail here. The gulley between the outcrops and the road, held populations of *Euphorbia hyberna* (Irish Spurge), while *Carex divulsa* (Grey Sedge) proved frequent along the margins of the roadway.

The overarching and imposing Dough rock outcrop, with its micro bog habitats, provided a contrasting flora to the Cannawee Dunes, with an abundance of *Schoenus nigricans* (Black Bog-rush) and sedge species such as *Carex hostiana* (Tawny Sedge), *C. pulicaris* (Flea Sedge), *C. echinata* (Star Sedge), *C. panicea* (Carnation Sedge) and *C. flacca* (Glaucous Sedge), etc. (the local abundance of *Koeleria macrantha* (Crested Hair-grass) possibly being attributable to amelioration of the acidic habitat by wind-blown deposits of calcareous sand), while tiny rills held populations of cohabiting *Pinguicula lusitanica* (Pale Butterwort) and *Pinguicula vulgaris* (Common Butterwort), the latter confined in County Cork to bog habitats in the extreme south-west. Rock-ledge habitats held an abundance of *Euphorbia hyberna* (Irish Spurge), and more local *Saxifraga spathularis* (St Patrick's-cabbage) and *Solidago virgaurea* (Goldenrod).

On 11 June, work was undertaken in the East Cork hectad, R6.0, using Clenor Church carpark (H5, R62.03) as a base. The hedgebank opposite the church (bordering the N73) held a single robust bush of the rose interspecific hybrid, Rosa canina (Dog-rose) \times R. tomentosa (Harsh Downy-rose) (= R. \times scabriuscula), which was subsequently found also in the adjoining 1-km squares, R60.04 and R61.03. The minor road from Torpys Crossroads northwards to the old Clenor Cemetery, held an abundance of Rosa arvensis (Field-rose), associated with plenty of Rosa canina (Dog-rose) and R. corymbifera (Hairy Dog-rose), while Rosa micrantha (Small-flowered Sweetbriar) proved of frequent occurrence. Ditch populations of Carex otrubae (False Fox-sedge) and Ranunculus sceleratus (Celery-leaved Buttercup) were also present here, both of these species being sparsely scattered in this region, and in hectad R6.0 generally. North of the old cemetery, the hedgebanks held planted-established material of *Populus tremula* (Aspen), *Prunus domestica* (Wild Plum) and Malus domestica (Apple), associated with a single bush of the rose cross, R. sherardii (Sherard's Downy-rose) × R. rubiginosa (Sweetbriar). From Clenor North southwards, the hedgebank flora included a large stand of Prunus cerasus (Dwarf Cherry), all of the rose taxa mentioned previously, and some bushes of Viburnum opulus (Guelder-rose). Throughout this area, *Carex divulsa* (Grey Sedge) was of locally common occurrence on roadsides.

Close to Castlekevin T-junction (R61.02) the northern margin of the N73 held the only populations of *Alliaria petiolata* (Garlic Mustard) seen in this area, while the Castlekevin byroad produced an abundance of *Euonymus europaeus* (Spindle), associated with an equal abundance of *Rosa arvensis* (Field-rose) and frequent *Rosa micrantha* (Small-flowered Sweet-briar) and *R. tomentosa* (Harsh Downy-rose).

On 14 June, I examined the section of the Blackrock Amenity Walkway (the former Cork-Crosshaven Railway Line) within 1-km square, H4, W71.70, which runs from the old Ringmahon Railway Bridge south to the Southern Ring Road Pedestrian Bridge. *Carex divulsa* (Grey Sedge) occurs commonly here, while close to the Pedestrian Bridge, populations of *Orobanche hederae* (Ivy Broomrape) and established *Epilobium tetragonum* (Square-stalked Willowherb) and *Allium triquetrum* (Three-cornered Garlic) were found. Here also, I was delighted to see vigorous scrambling mounds of *Rosa multiflora* (Many-flowered Rose) in beautiful, scented flower on the eastern embankment, associated with at least one bush of *Rosa rubiginosa* (Sweetbriar), both of these naturalized roses being known to me from this site since 1990. *Rosa stylosa* (Short-styled Field-rose) is scattered along the Walkway from the Atlantic Pond (H4, W70.71) south-eastwards to Harty's Quay (H4, W72.69), a distance of at least 3.5 km, and is a beautiful adornment to the flora of the Walkway.

On 30 June, naturalised, flowering *Vicia tetrasperma* (Smooth Tare) was found in very small quantity on the Kilnap Amenity Walkway (H5, W66.75) near the Old Mallow Road, where I originally recorded it in July 1997.

On 17 July, Gearagh Crossroads (H5, W77.89) on the R614 between Glenville and Rathcormac, was examined. The southern section of the crossroads produced an abundance of both *Rosa tomentosa* (Harsh Downy-rose) and the cross, *Rosa canina* (Dog-rose) × *R. tomentosa* (= *R.* × *scabriuscula*), in addition to *R. corymbifera* (Hairy Dog-rose) and the interspecific hybrid, *R. sherardii* (Sherard's Downy-rose) × *R. rubiginosa* (Sweet-briar). A single, tall, planted tree of *Populus tremula* (Aspen) was also present here. Shortly west of Maulane Crossroads (H5, W78.90) on the R614, populations of *Agrimonia eupatoria* (Agrimony), *Carex divulsa* (Grey Sedge), *Solanum dulcamara*

(Bittersweet) and naturalized *Melissa officinalis* (Balm) were found, the latter being new to hectad W7.9. Subsequently, the long stretch of road between Clykeel Bridge (H5, W81.90) and Learys Crossroads (H5, W85.90) was examined, and produced populations of *Rosa tomentosa* (Harsh Downy-rose), *R. × scabriuscula*, *Stachys × ambigua* (Hybrid Woundwort), and naturalized stands of *Tanacetum vulgare* (Tansy), *Prunus avium* (Wild Cherry) and *Melissa officinalis* (Balm) – this latter species being known from three sites here since 1970. The road junction (H5, W84.90) leading to Bluebell Bridge held a single naturalized *Populus tremula* (Aspen) tree, while a small area of waste ground produced a naturalized stand of *Dipsacus fullonum* (Wild Teasel) – possibly dumped from its sole known *inland* Cork locality at nearby Bridebridge (H5, W84.91) on the North Bride river, where I first recorded it in 1970.

On 20 July, a roadside embankment at Killeens (H4, W64.75), near Blarney, yielded a well-established population of *Hypericum calycinum* (Rose-of-Sharon) associated with *Linum catharticum* (Fairy Flax), while the opposite roadside embankment produced a small colony of *Sedum rupestre* (Reflexed Stonecrop), with some twelve flowering plants of *Verbena officinalis* (Vervain) on the roadside, close to a second, small colony of *Hypericum calycinum. Daucus carota* (Carrot) occurred in abundance in a field-remnant incorporated into a small, new, housing estate, with only scattered plants of this species elsewhere in the area.

On 22 July, *Rosa* work in the Cecilstown area of Mid Cork (H4, R4.0), from the village west to Castlemagner (R43.01) and thence north to Marybrook Bridge (R43.04), proved very productive. Among the *Rosa* taxa recorded were: *R. canina* (Dog-rose), *R. corymbifera* (Hairy Dog-rose), *Rosa tomentosa* (Harsh Downy-rose), *R. canina* × *R. tomentosa* (*R.* × *scabriuscula*), *R. sherardii* (Sherard's Downy-rose), *R. tomentosa* × *R. sherardii* (an extremely rare Cork hybrid, with very few known Irish sites), *R. sherardii* × *R. rubiginosa* (Sweet-briar) and *Rosa micrantha* (Small-flowered Sweet-briar) × *R. rubiginosa* (= *R.* × *bigeneris*), this latter being new to hectad R4.0. The area about Ardine Bridge (R44.01) produced a naturalized population of *Impatiens glandulifera* (Indian Balsam) and planted-established *Populus tremula* (Aspen), and an abundance of *Carex divulsa* (Grey Sedge) on the roadside between Ardine Bridge and Castlemagner Village. Ballyhass Fishery (R45.02) – flooded limestone quarries, stocked with Rainbow Trout – held small

populations of *Verbascum thapsus* (Great Mullein) and naturalized *Pastinaca sativa* (Wild Parsnip) on high ground – the latter is now also well established on the embankments of the new stretch of the Cork-Fermoy Road, about Watergrasshill (H5, W7.8), and as a roadside weed near Leitrim Street/Pope's Road junction (H4, W67.72), Cork City.

On 27 July, naturalized *Hieracium maculatum* (Spotted Hawkweed) was found in a new Cork City site, on a walltop at Convent Avenue (H4, W65.71), Sunday's Well, with *Vulpia myuros* (Rat's-tail Fescue) occurring on the jailwall, opposite. Long-naturalized populations of the pretty, and very distinctive *Sedum dasyphyllum* (Thick-leaved Stonecrop) are now known from walltops in four 1-km squares in the Sunday's Well area, viz: Well Road/Blair's Hill (H4, W66.72); base of Buxton Hill (H4, W66.71); Shanakiel Church/Daly's Bridge Lane/northern boundary-wall of River Lee near Thomas Davis Bridge (H4, W65.71); and wall by Old Waterworks, Lee Road (H4, W64.71). *Sedum dasyphyllum* was obviously a favourite wall-plant in the Sunday's Well area in the mid-1800s, from which time the species was first recorded here, and it continues to thrive.

On 7 August, morning botany in the Ballyhay area (H4/H5, R5.1) to the south of Charleville, turned up a large, clonal, hedgebank population of *Sambucus ebulus* (Dwarf Elder) in beautiful flower, adjacent to Ballyhay Cemetery (H4, R55.19). This was a totally new discovery for me in the Cork flora, though the *New atlas of the British and Irish flora* (Preston, C.D., Pearman, D.A. and Dines, T.D. (2002). *New atlas of the British and Irish flora*. Oxford University Press, Oxford) displays a tight cluster of recent hectad records to the north of Ballyhay, the majority being in Co. Limerick (H8). Large roadside populations of *Petasites hybridus* (Butterbur) lined the roadsides between Ballyhay Cemetery and the Railway Line. A hedgebank to the east of Dooley's Crossroads, Ballyhay (H5, R55.17) produced a few fruiting clumps of *Carex muricata* subsp. *lamprocarpa* (Small-fruited Prickly-sedge), an addition to hectad R5.1.

On 13 August, a morning drive to Youghal Town allowed a hasty rechecking of some plant species from the immediate vicinity of Claycastle Bank (H5, X10.76), such as *Salvia verbenaca* (Wild Clary) – known from here since c. 1815 – and a small population of naturalized (and very late-flowering!) *Medicago sativa* subsp. *sativa* (Lucerne) that was originally found here in 2004 (its only known extant Co. Cork site) and which is now nationally rare.

Further east (same 1-km square) the calcifuge cliffs by the lighthouse still held populations of naturalized *Lavatera arborea* (Tree-mallow), *Mercurialis annua* (Annual Mercury), *Symphytum* × *uplandicum* (Russian Comfrey) and *Hebe* × *franciscana* (Hedge Veronica) – all established here since the early-1960s at least, if not prior to 1900.

On 14 August, a large flowering population of *Persicaria amplexicaulis* (Red Bistort) was seen on a hilly roadside above Ballinhassig Village (H4, W63.62) - a very locally naturalized species in Co. Cork. On 17 August, the eastern section of the Lee Field inundation-meadows (H4, W63.71) bordering the Lee Road, Cork City, was briefly examined during a dry spell, and five tussocks of Carex pseudocyperus (Cyperus Sedge) were refound in a dry ditch, this beautiful sedge having last been recorded here in 1978. Here also were populations of Carex vesicaria (Bladder-sedge) and C. rostrata (Bottle Sedge), while the roadside margin still held colonies of Orobanche hederae (Ivy Broomrape) and Stachys × ambigua (Hybrid Woundwort). Further west, the humid hedgebank opposite the Marian shrine (H4, W62.71) still held a large stand of a trailing, purple-stemmed, floro pleno ('pom-pom') Rosa arvensis (Field-rose) garden hybrid (hips reddening in December and totally achenesterile), which I first recorded here in the mid-1960s, while growing intertwined with it was a female population of Humulus lupulus (Hop), an extremely local Cork species that I had previously overlooked here!

On 27 August, a return visit to Ballincollig Amenity Park (H4, W5.7) turned up two flowering plants (no fruits forming!) of the interspecific hybrid, $Persicaria\ maculosa\ (Redshank) \times P.\ hydropiper\ (Water-pepper)\ (= P. \times intercedens)\ which, as far as I can ascertain, is new to the Irish flora. The marsh habitat in which the hybrid occurred held an abundance of <math>P.\ hydropiper$, and intermixed, scattered plants of $P.\ maculosa$. The very existence of annual interspecific hybrids in the genus Persicaria in Europe is highly controversial, and most past records are almost certainly erroneous. Nevertheless, genuine hybrids do occur: for example, $P.\ maculosa\ (Redshank) \times P.\ minor\ (Small Water-pepper)\ (= P. \times brauniana)$ has been recorded sporadically on river-gravels over a large stretch of the River Lee Reservoir (H3/H4) since 1984 (see: O'Mahony, T. (1996). A report on the flora of Cork (v.cc. H3-H5), 1995. $Irish\ Botanical\ News\ 6$: 35-40). The Cork $P.\times brauniana$ is a very highly nut-sterile taxon.

On 31 August, *Calystegia* × *lucana* (Hybrid Bindweed) was added to the Cork flora from a hedgebank close to the Banduff Road/Old Youghal Road junction (H5, W70.73), Mayfield, Cork City. [Note: *C.* × *lucana* was discovered in a second Cork site – the Atlantic Pond (H4, W70.71) on 5 September.]

On 11 September, flowering populations of Calystegia pulchra (Hairy Bindweed) were rechecked from the following sites in the Mid Cork hectads W5.7 and W4.7, viz: Inniscarra T-junction (W55.72); Dripsey-Coachford Road (W47.73); and Old Dripsey Mills/Model Village junction – two sites (W48.74 and W48.75). On this visit, the R619 immediately north of Coachford Village (H4, W45.73) produced four scattered bushes of *Melissa officinalis* (Balm) in sites first recorded in 1975. Opposite the northernmost bush, occurred six fruiting tussocks of Carex muricata (Prickly Sedge) a scarce Cork sedge that was later refound (two clumps) in a 1970s site at Oak Grove (H4, W41.72) near Carrigadrohid Village. On the journey home, I was delighted to refind flowering populations of Linaria vulgaris (Common Toadflax) on roadside embankments and ditches bordering the R618 on the northern bank of the River Lee Reservoir overlooking Inniscarra Dam (H4, W54.72). I first recorded L. vulgaris in this area in 1970, the populations being scattered between Inniscarra and Lower Dripsey (H4, W50.73), a distance of just over 4 km. However, even though these populations are known to be fully selfcompatible and seed-fertile, in the interim period many of these populations have either died out or failed to flower. Elsewhere in Co. Cork Linaria vulgaris is virtually confined to coastal areas, where it is of very local occurrence.

On 18 September, I revisited Ballyfean Bridge (H5, R83.00) on the River Funshion just above its confluence with the River Blackwater, near Fermoy. On the limestone roadside banks adjacent to the bridge, I was delighted to refind my June 1975 populations of *Clinopodium ascendens* (Common Calamint), associated with *Vulpia myuros* (Rat's-tail Fescue) and *Hypericum perforatum* (Perforate St John's-wort). The surviving rushy inundation meadow here, still held colonies of *Carex rostrata* (Bottle Sedge), *Carex hirta* (Hairy Sedge), *Lythrum portula* (Water-purslane), *Apium inundatum* (Lesser Marshwort) and *Rorippa palustris* (Marsh Yellow-cress), while the ditch habitat wedged between the marsh and the road held populations of *Rorippa amphibia* (Great Yellow-cress), *Solanum dulcamara* (Bittersweet) and fruiting *Butomus umbellatus* (Flowering-rush). Fruiting bushes of *Rosa stylosa* (Shortstyled Field-rose) occurred in the roadside hedgebank above the ditch. The

road-fork near Ballyderown Castle (H5, R84.00) yielded small populations of both *Stachys* × *ambigua* (Hybrid Woundwort) and *Mentha arvensis* (Corn Mint), the latter now very scarce on roadsides or in cornfields in Co. Cork, though still locally frequent or common in paludal habitats. From here back to Ballyfean Bridge, *Polypodium cambricum* (Southern Polypody) occurred commonly, while two further stands of *Stachys* × *ambigua* were found. Roadside banks about Coolalisheen Bridge (H5, R84.00 and R85.00) still held my 1987 populations of *floro pleno Saponaria officinalis* (Soapwort), while the right bank of the River Araglin immediately north of this bridge, produced scattered bushes of the *Rosa* cross, *R. canina* × *R. tomentosa*, which I originally found here in 1994.

On 19 September, the ecologist, Dr Lesley Lewis (of Limosa Environmental, Clonakilty), informed me of a proposed waste-water treatment plant to be sited immediately north of Garrylucas Fen (H3, W61.43) at Whitestrand, Garrettstown, near Kinsale, by Cork County Council! I replied that such a deleterious development was in contravention of EU regulations for the protection of European Wetland Sites, and the County Council are now reviewing the matter – especially as this site holds the only known Cork stands of *Thelypteris palustris* (Marsh Fern) as well as a range of other rare or very local Cork plants, such as: *Juncus subnodulosus* (Blunt-flowered Rush), *Cladium mariscus* (Great Fen-sedge), *Hippuris vulgaris* (Mare's-tail), *Carex acutiformis* (Lesser Pond-sedge), *Rumex hydrolapathum* (Water Dock), *Berula erecta* (Lesser Water-parsnip), *Nymphaea alba* (White Water-lily) and, on the damp, sandy, calcareous margin of the fen, a 1970s location for *Dactylorhiza traunsteineri* (Narrow-leaved Marsh-Orchid) which needs updating.

On 20 September, I rechecked my September 2004 populations of *Geranium pusillum* (Small-flowered Crane's-bill) from the margins of the central green, in 'Woodlands' housing estate (H5, W70.72), Middle Glanmire Road, Cork City, where it cohabits with *Geranium molle* (Dove's-foot Crane's-bill). Nearby garden-borders in Inishowen Road (W70.73) still held flowering/fruiting plants of *Veronica polita* (Grey Field-speedwell).

On 28 September, St Joseph's Cemetery, Tory Top Road (H4, W67.70) Cork City was visited, as this habitat holds a wide range of plant species. The main road boundary wall (east of the main entrance) has: *Senecio squalidus* (Oxford Ragwort), white-flowered *Cymbalaria muralis* (Ivy-leaved Toadflax), *Vulpia myuros* (Rat's-tail Fescue) and tiny, remnant populations of native *Geranium*

rotundifolium (Round-leaved Crane's-bill). The inside wall-bases hold local stands of *Orobanche hederae* (Ivy Broomrape), *Arum maculatum* (Lords-and-Ladies), and at least two clumps of *Arum italicum* subsp. *italicum* (Italian Lords-and-Ladies), while some ancient grave-plots boast colonies of native *Allium vineale* (Wild Onion). Bare, disturbed ground here, holds localized, cohabiting populations of *Fumaria bastardii* (Tall Ramping-fumitory) and *F. muralis* (Common Ramping-fumitory), while the unimproved grassland contains *Carex hirta* (Hairy Sedge), *Carex divulsa* (Grey Sedge) and *Cardamine pratensis* (Cuckooflower). The inner, walled rectangle of ground, was the site of the Old Cork Botanic Garden in the period c. 1810-1820, the only surviving species from that establishment being naturalized *Veronica crista-galli* (Crested Field-speedwell), which was established in the wild from this site by 1906, and which persists here, despite regular herbicide spraying.

Up to July 2005, this site held the largest populations of *Veronica polita* (Grey Field-speedwell) in Co. Cork. However, the main gravel pathways which held the densest populations, have since been tarmacadamed, and it remains to be seen if numbers will recover in future years in the more limited habitats now available to *V. polita*. One area at the northern end of the cemetery holds longestablished adventive populations of *Erodium moschatum* (Musk Stork's-bill), which is similarly established in at least two other Cork City sites since 2000, viz: Fitz's Boreen (H4, W66.74), Commons Road; and 'Dalebrook', Ballyvolane Road (H5, W69.73).

On 4 October, my 1998 site for *Geranium purpureum* (Little-Robin) at Rathcooney (H5, W71.75), near Glanmire, was checked out. While its hedgebank habitat was found to have been brutalized by the owners of the property, I was delighted to find that numerous overwintering vegetative rosettes had sprung up here, in what is now a precarious site for this nationally rare Mediterranean annual. I also established that *fruit-fertile* F_2 plants of the interspecific hybrid, *G. purpureum* × *G. robertianum* (Herb-Robert) are now of frequent occurrence along a short stretch of nearby roadside! The mericarps of this exceedingly rare F_2 hybrid, are identical to those of its *G. robertianum* parent.

On 15 November, a single flowering plant of *Mentha pulegium* (Pennyroyal) was found as a casual weed in the grounds of a factory on Tramore Road (H4, W67.69), Cork City. This is a new 1-km square city site for this species, the inflorescences of which bore functionally female flowers, and thus were totally

nutlet-sterile. [Note: Also in November, Dr Lesley Lewis informed me that she found some ten plants of Pennyroyal on a roadside habitat at Clonakilty (H3, W39.41) in September 2005. Subsequent enquiries confirmed that this was the site where Paul Green had recorded 50+ plants of *M. pulegium* in August 1999 (Green, P. (2000). The highlights of recording for the *Atlas 2000* in SW Ireland, 1999. *Irish Botanical News* 10: 30-33). Thus, my assertion that the Clonakilty site for Pennyroyal no longer held this species, was incorrect: (see: O'Mahony, T. (2001). Putative adventive populations of *Mentha pulegium* L. (Pennyroyal) in Britain and Ireland. *Irish Botanical News* 11: 16-20).

On 16 November, a visit was made to the sole Irish site for *Carex depauperata* (Starved Wood-sedge) in the River Blackwater valley, downriver of Killavullen Village (H5, W6.9). As in June 2004, two, small, remnant vegetative tufts of this sedge were found here.

Lastly, on 21 November, I observed that my original June 1969 limestone wall site for *Geranium purpureum* (Little-Robin) at Blackrock Village (H4, W71.71) Cork City, had been destroyed by building development. However, a few *G. purpureum* seedlings had germinated in waste ground at the site, and these were transferred to a nearby, reconstituted limestone wall, where hopefully they will survive and form a substitute conservation population in future years. Thankfully, *G. purpureum* is still present in a few other locations in the immediate area, though all such sites are in danger of eventual extirpation as a consequence of ongoing building developments.

The nearby Glandore Avenue cul-de-sac (same 1-km square) holds long-established, freely-seeding, wall populations of *Campanula poscharskyana* (Trailing Bellflower) and *Linaria purpurea* (Purple Toadflax).

AZOLLA TO ZOSTERA: A REPORT ON FIELD WORK IN CO. LIMERICK (V.C. H8), 2005

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

In 2005, my main botanical objective was field work to locate and define good examples of Co. Limerick habitats. Because a Flora of the whole county is

being contemplated, sites in Co. Limerick north of the Shannon near Limerick City have been included – they are otherwise part of Co. Clare (v.c. H9), and any sites or records from there are so indicated.

Field work was carried out between June and October, with the indispensable assistance of Julian Reynolds. Some 50 days were spent in the field and over 9600 km were driven on 13 return trips from Dublin. A selection of the sites checked and species found is given below. Although the emphasis was on habitats, field work produced new records, updates of old records and an increase in range of species overlooked or not recognized in the past.

Having previously looked at Hazel and Ash woodlands, other kinds of seminatural woodlands as well as conifer plantations needed to be checked in 2005. The best examples of Oak-Birch-Holly woodland are in valleys in the northeast and south-east of the county. In woodland beside a large active quarry at Ballynacourty south of Kilfinnane (14 July, R7.1), *Quercus petraea* (Sessile Oak) was dominant, with *Betula pubescens* (Downy Birch), *Sorbus aucuparia* (Rowan), occasional *Ilex aquifolium* (Holly) and encroaching *Rhododendron ponticum* (Rhododendron). The ground was carpeted in places by *Luzula sylvatica* (Great Wood-rush), many plants of *Dryopteris dilatata* (Broad Buckler-fern), some *Vaccinium myrtillus* (Bilberry) and a few other species.

There is a lovely *Quercus petraea* woodland, with *Corylus avellana* (Hazel) in a steep-sided glen west of Castletown (20 June, R4.3), also containing *Fraxinus excelsior* (Ash), *Crataegus monogyna* (Hawthorn) as well as *Ilex aquifolium* and *Sorbus aucuparia*. The ground layer was more varied than at Ballynacourty with *Anemone nemorosa* (Wood Anemone) and other common woodland species which were mainly on the roadside banks at the wood edge. The leaves of some of the Oak trees had small auricles, showing that the trees were not all pure *Q. petraea*. Intermediates between *Q. petraea* and *Q. robur* (Pedunculate Oak) were often found in the valley Oak woods, for example, along the Bilboa River north of Doon (22 August, R8.5).

South-east of Adare, the wet Oak woodland by the road to Croom (12 June, R4.4) has *Quercus robur*, *Quercus* intermediates, *Fraxinus excelsior*, some *Ulmus glabra* (Wych Elm) and *Acer pseudoplatanus* (Sycamore). The understorey included *Crataegus monogyna*, *Ilex aquifolium* and *Viburnum opulus* (Guelder-rose). Unexpectedly there were also large old trees of planted *Quercus cerris* (Turkey Oak) and saplings of various sizes were seen near the

parent trees. Where the ground was wetter, tall *Alnus glutinosa* (Alder) was growing with *Salix cinerea* (Grey Willow). There were many tufts of *Carex pendula* (Pendulous Sedge) throughout the wood, which must have been even wetter in the past as it now has drainage ditches across it.

An extensive strip of riparian woodland along the south bank of the Shannon near the University of Limerick (11 September, R6.5) would be flooded periodically. The main tree species, some very large, were *Salix alba* (White Willow), *S. fragilis* (Crack-willow), *S. viminalis* (Osier), occasional *S.* × *sericans* (Broad-leaved Osier) and native species including *Alnus glutinosa* (Alder). The Willows were probably originally planted, but smaller trees would have arisen from broken-off pieces. *Carex pendula* (Pendulous Sedge) was again common here, and in early September the two most conspicuous species on the muddy ground under the Willows were alien *Heracleum mantegazzianum* (Giant Hogweed) and *Impatiens glandulifera* (Indian Balsam).

Conifer plantations, whether new, mature, cut-over or replanted, are such a feature of higher ground in Co. Limerick that they cannot be ignored. While young Spruce plantations are dense with virtually no ground flora, mature plantations can be quite varied. On the north-east side of the Mullaghareirk Mountains near the Mass Rock above Ashford (3 August, R2.2), the ground layer under mature *Pseudotsuga menziesii* (Douglas Fir) included many shuttlecocks of *Dryopteris affinis* (Scaly Male-fern) and *D. dilatata* (Broad Buckler-fern), with *Blechnum spicant* (Hard-fern), *Carex sylvatica* (Woodsedge), *Circaea lutetiana* (Enchanter's-nightshade) and *Hyacinthoides non-scripta* (Bluebell).

In the valley of the Attychraan River on the south side of the Galty Mountains near Galtee Castle Wood car park (2 September, R8.1), there were stands of mature *Chamaecyparis lawsoniana* (Lawson's Cypress), *Abies grandis* (Giant Fir) and *Tsuga heterophylla* (Western Hemlock-spruce) as well as *Pinus sylvestris* (Scots Pine) and more recent Spruce planting. Small self-sown *C. lawsoniana* and *A. grandis* were seen on the forest track near the parent trees, while *T. heterophylla* was freely seeding with saplings of all sizes growing on logged heathy slopes some distance away. Presumably originally planted, *Sasa palmata* (Broad-leaved Bamboo) was well established in several places along the river. *Juncus tenuis* (Slender Rush), another alien species not previously recorded in the county, was most unlikely to have been introduced

deliberately. It was growing down the middle of the forest track. In the west of the county at Bauraneag (10 June, R2.4), a forest track surfaced with shale also yielded a new record, this time of native *Spergularia rubra* (Sand Spurrey). The adjacent shale quarry was searched, without success, but it was likely to have been the source of these plants.

Much of the lowlands of the county is grassland – beautiful limestone grassland in places (previously looked at), otherwise usually improved and species-poor, but also occasional unimproved meadows. The meadows were checked in early summer before cutting. One of the best examples, showing a calcareous influence, was near the car park for the Celtic Park and Gardens at Kilcornan (27 June, R4.5) where 16 grass species were recorded including *Briza media* (Quaking-grass), *Helictotrichon pubescens* (Downy Oat-grass) and *Trisetum flavescens* (Yellow Oat-grass). There was also a lot of *Crepis biennis* (Rough Hawk's-beard) in this meadow, its status as a native or alien in Ireland not yet decided.

As the fens had mostly been covered, next on the list of habitats to check were the bogs. The raised bogs are in the north-east of the county, and none are intact. One of the best is Dromsallagh Bog near Cappamore (31 July, R7.5) which is wet and regenerating well. From the evidence of a remaining block of peat, the bog was originally 2-3 m higher. Hummocks of *Calluna vulgaris* (Heather) and patches of *Sphagnum* were conspicuous across the bog. *Andromeda polifolia* (Bog-rosemary) was quite frequent among *Sphagnum* by itself or with *Drosera rotundifolia* (Round-leaved Sundew), while *Vaccinium oxycoccos* (Cranberry) was seen in drier places. A threat to this bog is the invasion by *Betula pubescens* (Downy Birch), *Pinus* sp. (Pine) and *Rhododendron ponticum* (Rhododendron); there were numerous seedlings and saplings of each as well as mature plants.

At one edge of Dromsallagh Bog, there was a very wet and quaking transition to a swampy area on peat. There was much more variety here than in the bog, including *Carex rostrata* (Bottle Sedge), *Juncus acutiflorus* (Sharp-flowered Rush), *Potentilla palustris* (Marsh Cinquefoil), *Scutellaria galericulata* (Skullcap), viviparous *Festuca rubra* (Red Fescue) and at 75 cm, unusually tall *Poa humilis* (Spreading Meadow-grass). A Fen Raft Spider sat on the surface of a deep pool that contained *Potamogeton natans* (Broad-leaved Pondweed) and *Lemna trisulca* (Ivy-leaved Duckweed).

Blanket bogs are found on all the mountains, and they are also very much a feature of the higher ground in the west of the county which is otherwise made up of unimproved rushy fields, improved grassland (with the rushes clearly coming through after cutting) and conifer plantations. Turf is still being extracted from many of the bogs in this area, and where the bogs are no longer being cut, there is quite good regeneration, for example, on the south-east slopes of Dromada Mountain (10 September, R1.3).

Part of the bog north of Blane Bridge (21 July, R1.3) was apparently intact, with mainly low-growing *Calluna vulgaris* (Heather), *Erica tetralix* (Crossleaved Heath), *Trichophorum cespitosum* (Deergrass), much *Rhynchospora alba* (White Beak-sedge) and also some *Myrica gale* (Bog-myrtle). Nearby, *Eleocharis multicaulis* (Many-stalked Spike-rush), a new county record, was found in a wet cutting with *Potamogeton polygonifolius* (Bog Pondweed) and *Eriophorum angustifolium* (Common Cottongrass).

The best bog in this area is north-west of Carrigkerry at about 230 m (22 July, R1.3, R2.3), which is currently not being cut. It is springy with hummocks and some wet hollows, and several rare Limerick plants are found here. *Pinguicula grandiflora* (Large-flowered Butterwort), known at this site since 1935, was growing with or near *Carex limosa* (Bog-sedge), *Drosera anglica* (Great Sundew), *Rhynchospora alba* (White Beak-sedge) and small plants of *Menyanthes trifoliata* (Bogbean); *P. grandiflora* is otherwise only known near Black Rock in the Ballyhoura Mountains where it may have been introduced. *Vaccinium oxycoccos* (Cranberry) also occurs in the Carrigkerry bog.

More exploring was done in the Galtys in 2005. Blanket bog in the saddle between Galtybeg and Galtymore (27 August, R8.2) at over 700 m was dominated by *Calluna vulgaris* (Heather) and *Trichophorum cespitosum* (Deergrass), with *Juncus squarrosus* (Heath Rush), *Carex binervis* (Greenribbed Sedge) and much *Carex echinata* (Star Sedge). The summit of Galtymore, the highest point in Co. Limerick at 919 m, is badly eroded, but small, flattened plants of *Carex bigelowii* (Stiff Sedge) survive and are abundant. Poorly-growing grasses there included *Festuca vivipara* (Viviparous Sheep's-fescue), *F. ovina* (Sheep's-fescue), *Deschampsia flexuosa* (Wavy Hair-grass), *Agrostis capillaris* (Common Bent) and *A. canina* s.l. (Velvet Bent). On low outcrop near the cross, there were patches of *Sagina procumbens* (Procumbent Pearlwort) with *Poa annua* (Annual Meadow-grass)

and *Galium saxatile* (Heath Bedstraw). The nearby exciting cliffs are in South Tipperary (v.c. H7), not Limerick.

Towards the end of summer, heathland comes into its own, with varying proportions of flowering *Calluna vulgaris* (Heather), *Erica cinerea* (Bell Heather) and *Ulex gallii* (Western Gorse), as well as *Vaccinium myrtillus* (Bilberry). Heath is well seen on hills east of Kilfinnane, for example, at Palatine's Rock (29 August, R7.2) and on Carrigeenamronety to the south. On Carrigeenamronety (16 August, R6.1, R7.1), there are also large conglomerate tors, and *Trichomanes speciosum* (Killarney Fern) grows in a deep crevice exposed to rain and damp air. Conglomerate tors are a feature too on Black Rock and Seefin at the east end of the Ballyhoura Mountains (16 August, R6.1). *Hymenophyllum tunbrigense* (Tunbridge Filmy-fern) was growing in a crevice and *Huperzia selago* (Fir Clubmoss) was found under overhangs and on the tors, a new Limerick location for both species. *Cystopteris fragilis* (Brittle Bladder-fern) was also found on one tor, and with *Dryopteris aemula* (Hay-scented Buckler-fern) and *Oxalis acetosella* (Wood-sorrel) in a low crevice that was only reached by wriggling in on one's stomach!

Freshwater habitats were left until late summer and early autumn, because the identification of aquatic plants was not so dependant on flowers, which were often not produced anyway. The Shannon from O'Briensbridge to Limerick City is a beautiful stretch of river, with relatively undisturbed banks and swamp vegetation along the edge. Access is quite good, particularly at Castleconnell and between the University of Limerick and Corbally in Limerick City. *Potamogeton gramineus* (Various-leaved Pondweed) was abundant with *Elodea canadensis* (Canadian Waterweed) at Castleconnell (30 September, R6.6). Downriver, west of Lisnagry (30 September, R6.5), *E. canadensis* was found growing with *E. nuttallii* (Nuttall's Waterweed). This is a new record for Limerick, but not totally unexpected as it has been reported recently from Lough Derg. When present, its strongly recurved leaves make it distinctive. This species was found at a second site in the Shannon near Corbally, where an old swimming pool was full of *Ceratophyllum demersum* (Rigid Hornwort) (3 October, R5.5).

Apart from *Callitriche* spp. (Water-starworts) and *Lemna minor* (Common Duckweed), aquatic plants were not seen in rivers flowing west out of the county, the Galey, Oolagh, Alleghaun and Feale. One plant of *Mimulus guttatus* (Monkeyflower) was found by the Feale just south-west of

Mountcollins (18 August, R1.1); most of the plants were growing on the North Kerry side of the river. Small swift rivers flow south off the Galtys, and three larger rivers flow northwards and drain into the Shannon, namely the Mulkear, Maigue and Deel. Access was usually easiest at bridges and this is where aquatics were looked for along these three rivers and their main tributaries. The most robust and commonly found species were *Myriophyllum spicatum* (Spiked Water-milfoil), *Potamogeton pectinatus* (Fennel Pondweed) and *Ranunculus* cf. *penicillatus* (Stream Water-crowfoot), also *P. perfoliatus* (Perfoliate Pondweed) and less often *P. gramineus* (Various-leaved Pondweed).

Before 2005, *Spirodela polyrhiza* (Greater Duckweed) was apparently an uncommon plant in the county, but it now seems to have been overlooked. What alerted me was to see many patches of it among *Lemna minor* (Common Duckweed) in still water of the Maigue at Bruree (5 September, R5.3). After seeing it there, it became quite easy to pick out the larger, rounder discs with binoculars from bridges. It was always growing with *L. minor* and plants were confirmed by collection. Now known in eight 10-km squares, new sites were found at several more places on the Maigue and its tributary the Loobagh, as well as in Milltown Lake (27 June, R3.5) and at Lough Gur (4 November, R6.4) where Praeger recorded it in 1900.

Alien Azolla filiculoides (Water Fern) was first recorded in 2004, abundant in the Limerick Canal and near there at the edge of the Shannon. In 2005, it was not seen in the canal, but it was still found by the Shannon upriver from the canal near the University of Limerick (11 September, R6.5), downriver near Athlunkard Bridge and Corbally (3 October, R5.5), and in Co. Clare (H9) further west down the Shannon near Coonagh Point (3 October, R5.5) and in the pond at Westfields (21 August, R5.5). It was also seen floating, with Lemna minor (Common Duckweed) and Spirodela polyrhiza (Greater Duckweed), on rafts of broken old stems of Phragmites australis (Common Reed) on the tidal stretch of the Maigue at Adare (18 September, R4.4). Because of its reddish colouration, it is a hard species to miss and it seems to be becoming more widespread in Limerick as elsewhere in Ireland.

The tidal stretch of the Maigue is practically freshwater, with a tidal range of 2-3 m. The downriver side of Adare Bridge is a great place to botanize at the lowest spring tides because you can walk out to normally submerged and inaccessible aquatics, including *Zannichellia palustris* (Horned Pondweed)

and several *Potamogeton* spp. (Pondweeds). Most of the plants on the muddy banks are submerged regularly, including *Rorippa sylvestris* (Creeping Yellow-cress). The Greanagh River flows into the Maigue just downriver from Adare, nearly 15 km from the Shannon Estuary. It is also influenced by the tides and *Cochlearia anglica* (English Scurvygrass) thrives on its banks at Curragh Bridge (23 April, 26 June, R4.4).

There are relatively few lakes in Limerick, and a new one to me was the artificial boating lake at Glenstal Abbey near Moroe (31 July, R7.5). The surprise was to find extensive stands of *Typha angustifolia* (Lesser Bulrush), perhaps originally planted there. This rare Bulrush has long been known near the Shannon on the west side of Limerick City, but that area is rapidly being industrialized. However, there are strong populations on the north side of the Shannon near Coonagh Point (3 October, R5.5), at Westfields (21 August, R5.5) and in a number of swampy areas, all in Co. Clare (H9).

Several smaller water bodies were examined. A eutrophic field pond northwest of Doon (22 August, R8.5) contained *Myriophyllum spicatum* (Spiked Water-milfoil), with patches of *Eleocharis palustris* (Common Spike-rush) at the pond's edge. The vegetation was lush on the soft mud of the drawdown, where *Bidens tripartita* (Trifid Bur-marigold) was abundant, growing with *Alopecurus geniculatus* (Marsh Foxtail), *Rorippa palustris* (Marsh Yellowcress), *Spergula arvensis* (Corn Spurrey), *Gnaphalium uliginosum* (Marsh Cudweed), etc. Vegetative *Myriophyllum* can be hard to identify, but later in the year, if there are club-shaped turions present, they are diagnostic for *M. verticillatum* (Whorled Water-milfoil). Such plants were found in a lake at Curragh Chase (11 October, R4.4) and in Co. Clare (H9) in a ditch at Coonagh (3 October, R5.5).

A fairly large artificial pond beside Griston Bog south of Ballylanders (6 September, R7.2) was dug out about seven years ago. Apart from native *Potamogeton* spp. (Waterweeds), the alien *Lagarosiphon major* (Curly Waterweed) was abundant. We were told that it had been deliberately introduced some four years before, so that its growth would keep herons from taking the trout. It is now considered a real problem in the pond and we noticed dried plants on the low bank that had been raked out.

A walk around King's Island in Limerick City (1 October, R5.5) resulted in a satisfying update. *Lemna gibba* (Fat Duckweed) had been reported from the

City area in the first half of the 19th century and most recently about a hundred years ago. The surface of a deep ditch beside the path on the east side of the island was covered by what seemed to be just *Lemna minor* (Common Duckweed). When the Duckweed was brought up on the grab, not only was there *L. minor* and also *Spirodela polyrhiza* (Greater Duckweed), but the knobbly feel immediately indicated the presence of *L. gibba* too.

It can be difficult to distinguish between fens and swamps and marshes. The plants in Herbertstown 'Marsh'/'Fen' (9 July, R6.3) were growing in standing water over peat in July, and their habitat could be described as a tall herb swamp. At that time of year, the flowers of abundant *Valeriana officinalis* (Common Valerian) made the whole swamp look pink. Other species common there included *Equisetum fluviatile* (Water Horsetail), *Scutellaria galericulata* (Skullcap), *Potentilla palustris* (Marsh Cinquefoil), *Galium palustre* (Marshbedstraw), *Mentha aquatica* (Water Mint), *Epilobium palustre* (Marsh Willowherb) and *Menyanthes trifoliata* (Bogbean).

Another species-rich swampy area is Knockalisheen 'Marsh' (4 September, R5.5) in Co. Clare (H9) on the north side of Limerick City near Ballynanty. In the northern part near the county boundary, rarer species included *Stellaria palustris* (Marsh Stitchwort) and *Lysimachia nummularia* (Creeping-Jenny), definitely not an introduction here. The south end of the 'marsh', south of the railway, was quaking and more treacherous as it surrounded open water. Yet another Duckweed, almost certainly the alien *Lemna minuta* (Least Duckweed), was floating on water shaded by *Typha latifolia* (Bulrush). *L. minuta* was also found covering the surface of the Limerick Canal near the railway bridge (22 October, R5.5), with *L. minor* (Common Duckweed) scattered through it and occasional plants of *Spirodela polyrhiza* (Greater Duckweed).

Along the Shannon Estuary, the only known Limerick sites for *Asplenium marinum* (Sea Spleenwort) had been on an old sea wall at Mount Trenchard and in a cave at Foynes in the early 1900s. The sea wall was swept away not long after, and the fern seems to have gone from the shallow shale cave at Foynes. However, a new and healthy population was discovered growing in the cracks between the limestone blocks of the pier at Glin (11 July, R1.4), on the high west-facing wall and on the east-facing wall along the top of the pier. Most of the maritime plants on the surface of the pier had dried out by July, so

a bonus was to find another new species for Limerick, *Catapodium marinum* (Sea Fern-grass) there.

At the end of the season, a quick check was made of the built enviroment and disturbed habitats in and around Limerick City. *Buddleja davidii* (Butterflybush) is the most conspicuous woody plant on buildings in the city, and the 'weeds' were mostly as one would expect. However, *Conyza* cf. *bilbaoana* (Bilbao Fleabane) appears to be a new arrival, with many plants on waste ground off Carey's Road (2 October, R5.5) and just one plant of *Hirschfeldia incana* (Hoary Mustard), known at Foynes Port since 1992, was seen on a city roadside (22 October, R6.5). *Chaenorhinum minus* (Small Toadflax) was found on disturbed ground in the Raheen Business Park (8 October, R5.5), and hundreds of *Matricaria recutita* (Scented Mayweed) on dumped soil beside the Groody River on the east side of the city (22 October, R6.5). The latter was growing with scattered plants of *Galeopsis tetrahit* (Common Hemp-nettle), *Spergula arvensis* (Corn Spurrey) and *Vicia hirsuta* (Hairy Tare). Not too far away, the protected species *Groenlandia densa* (Opposite-leaved Pondweed) survives in a ditch only metres from a huge infill and a new main road.

Finally, while bailing a rowing boat on Foynes Island (11 October, R2.5), I noticed fresh green plants of *Zostera* (Eelgrass) floating on the estuary water. Plants were collected and checked with the microscope. In the mid-1980s, *Z. angustifolia* (Narrow-leaved Eelgrass) had been found in one place on the island's mudflats and also floating on the Robertstown River east of Foynes. This time, only a few of the plants collected were *Z. angustifolia* and most were *Z. noltei* (Dwarf Eelgrass), new to the county. The need then was to find out where they had come from. At the next opportunity and suitably low tide, we went looking, putting on extra thick socks to prevent our wellies from being sucked off by the sticky Shannon mud and taking a mountain walking stick for balance. Despite checking at several locations on the island and mainland, we did not find attached and growing *Zostera*

INTERESTING PLANTS FROM TYRONE (H36), 2004-2005

W.I. McNeill

86 Fair Hill, Cookstown, Co. Tyrone, BT80 8DE

There have been no major discoveries in Tyrone in the past couple of years, but the following plants are of some interest:

Azolla filiculoides (Water Fern)

Covering most of the surface of a mill-dam at Dyan, N of Caledon, January 2005. This little water-fern was first recorded in Tyrone on Lough Neagh in 1988, and has been seen in many subsequent years at various points on the lough-shore. The 2005 record is the first record away from L. Neagh. I was rather surprised to find it in such good heart in January, in fact 29 January, as I would expect it to succumb to the first touch of frost.

Botrychium lunaria (Moonwort)

Found by David McNeill at Meencarriga, on upland rocky ground (S of Castlederg) in 2004. The last previous Tyrone record was in 1993 at L. Doo (W of Cookstown), and historically there have never been more than a handful of widely scattered records from the county.

Cardamine corymbosa (New Zealand Bitter-cress)

Found by Ronnie Irvine growing as a weed in his own garden in Cookstown, April 2004. A week or two later I noted it in some quantity at Maghera Garden Centre (in Co. Londonderry, v.c. H40) and surmised that that might be the source of Ronnie's plant.

Chenopodium suecicum (Swedish Goosefoot)

In July 2005, I noted a lot of erect-growing *Chenopodium* with a rather straw-coloured inflorescence growing along the road in Enniskillen townland (E of Cookstown, and with no connection whatsoever to the Fermanagh town). I sent some material to the BSBI referee, Dr J.R. Akeroyd, and he determined it as *C. suecicum*. A new hedge had been planted, and either the *Chenopodium* arose from the soil-disturbance, or was introduced in soil attached to imported hawthorn quicks. Other weeds included *Senecio viscosus* (Sticky Groundsel), which smacks of an alien import, but also *Papaver dubium* (Long-headed Poppy), which often arises from disturbance of an ancient seed-bank.

There is a very old (1896) record for *C. suecicum* from Washing Bay (see Reynolds, S.C.P. (2002). *A catalogue of alien plants in Ireland*. National Botanic Gardens, Glasnevin, Dublin, p. 70).

Eruca vesicaria (Garden Rocket)

Among a crop of weeds that appeared in 2004 after a road-verge had been reseeded at Quinn's Corner, SW of Castlecaulfield. The other weeds were common: *Euphorbia helioscopia* (Sun Spurge), *Chenopodium album* (Fathen), etc. Probably an ephemeral. Identification confirmed by Tim Rich.

Galium mollugo (Hedge Bedstraw)

In 2004 I found a healthy colony of *G. mollugo* along a length of hedgerow SE of Cadian, a townland a few km S of Dungannon. The only other record in Tyrone (back in 1996) was much less satisfactory, when an isolated plant was observed on a grass verge alongside the main Caledon to Aughnacloy road.

Hirschfeldia incana (Hoary Mustard)

First found in Tyrone in 1992, when it was spotted at two separate locations, but not seen again until this year, when once again it turned up in two (new) places: waste ground at Sixmilecross and on the roadside at Parkanaur (near Castlecaulfield).

Lemna minuta (Least Duckweed)

This was first noted in Tyrone at one site in 2003. However, in 2004, I came across it four times, and, in 2005, seven times. Sites vary: ditches ('sheughs' in Ulsterspeak!), small pools (e.g. around bog-margins) and lakes, including several sightings on Lough Neagh.

Matricaria recutita (Scented Mayweed)

Found in 2005 on re-seeded ground at the new Tesco store in Cookstown. Identity confirmed by Sylvia Reynolds. No previous Tyrone record, although this record is rather unsatisfactory, as it may well be a mere ephemeral.

Schoenoplectus tabernaemontani (Grey Club-rush)

This plant is quite frequent in Tyrone along the Foyle estuary in the far NW of the county, and also by Lough Neagh, but had not been recorded elsewhere. It was therefore of some interest when John Harron and I discovered it at Glennoo Lough, SSE of Fivemiletown, in 2004.

Schoenus nigricans (Black Bog-rush)

There have been very few records of this plant in Tyrone, and the only post-1960 record was from W of Lough Lee (David McNeill c. 1984). So, when David and I were in the Lough Lee area (on high ground S of Castlederg) in May 2004, we set out to re-find the plant. It did not appear to be where he recalled having seen it, but it did turn up a few hundred metres further west. There is very interesting ground generally in the Lough Lee/Bin Mountain district, with some limestone and sandstone rock outcrops, and good flushed areas, and I imagine there could be several other potential sites for the Black Bog-rush.

Spergularia marina (Lesser Sea-spurrey)

Found in September 2005 along the track running along the Foyle flood-embankment at Desert, N of Strabane. The Foyle is tidal at this point, but I suspect that the plant was not derived from river material, but is more likely to be an example of 'inland' Sea-spurrey. There was one previous record of this plant from the county (near the Dungannon to Ballygawley road in 1992).

Trichophorum cespitosum nothosubsp. foersteri (Deergrass)

Robert Northridge has been taking an interest in the subspecies of *T. cespitosum* in Co. Fermanagh (v.c. H33), and came across the hybrid subspecies at Meenadoan Bog in Tyrone WSW of Drumquin). First Tyrone record. Robert Northridge's identification was confirmed by Clive Jermy.

I would like to add a couple of amendments to my article in *Irish Botanical News* (2004) (see: McNeill, W.I. (2004). Interesting plants from Co. Tyrone (v.c. H36), 2000-2003. *Irish Botanical News* **14**: 28-31):

Trifolium campestre (Hop Trefoil)

Although I was correct in noting that Kerr had said he had never personally seen the plant in Tyrone, this comment must have been made pre-1934, for there is a very well preserved voucher specimen in Belfast (BEL) labelled "Kerr 1934" found just a few m from the entrance to his Rectory at Ardboe!

Trifolium micranthum (Slender Trefoil)

I had not realised that there was an earlier record of this plant from Strabane Glen in 1981 (Maura Scannell on BSBI outing).

MINUTES OF THE ANNUAL GENERAL MEETING OF THE BSBI IRISH REGION 2005 HELD IN THE NATIONAL BOTANIC GARDENS, GLASNEVIN ON 15 OCTOBER 2005 (Unapproved)

ATTENDANCE

Twenty-three members were present including Gabriel Hemery, BSBI's new Development Officer.

APOLOGIES

Apologies were received from Ian McNeill, Brian Rushton, Mark Wright.

MINUTES OF THE AGM 2004 HELD IN DERRYGONNELLY FIELD STUDIES CENTRE, CO. FERMANAGH ON 28 AUGUST 2004 These were read, approved and signed by the Chair.

MATTERS ARISING

The Instructions to Vice-County Recorders were to have been circulated to all County Recorders but this had not in fact happened. The Chair will write again to David Pearman (Chair of BSBI Records Committee) about this.

CHAIR'S REPORT

Caroline Mhic Daeid gave a resumé of the activities during the year since the AGM 2004.

SECRETARY'S REPORT

Paul Hackney tabled his report at the meeting (see below).

REPORTS OF FIELD MEETINGS

Verbal reports were received from Caroline Mhic Daeid of the Killarney field meeting, and John Faulkner of the Peatlands Park meeting.

REPORTS FROM VICE-COUNTY RECORDERS

Reports were received from: Alan Hill (H32) who reported that four new species for the county had been recorded during the year; Sylvia Reynolds (H8) Limerick gave a very full account of work in the county which had included a detailed look at habitats; John Faulkner (H37); Micheline Sheehy-Skeffington (H15); and Caroline Mhic Daeid (H1/H2).

ELECTION OF NEW MEMBERS OF COMMITTEE

There were two vacancies. David Nash proposed and Gerry Sharkey seconded both Declan Doogue and John Faulkner. There being no other nominations both were declared elected (see below for a full list of the Committee).

Following the formal business of the meeting, members received presentations from Dr Gabriel Hemery who introduced himself to the Irish membership and explained his role as BSBI's Development Officer, Dr Matthew Jebb who reported on the recent consultations on a national plant conservation strategy for the Republic of Ireland and Mr Brendan Sayers on Irish orchids and the proposal for a survey of Ireland's wild orchids.

P. Hackney, Hon. Secretary, BSBI Committee for Ireland

SECRETARY'S REPORT 2004-2005

CFI has met formally twice since the last AGM (August 2004) on 12 March and 21 May 2005.

The principal items of business discussed or transacted were:

REPUBLIC OF IRELAND PLANT RECORDS AND PROPOSALS FOR NEW RECORDS CENTRE

The Committee has discussed various options for handling Irish plant records within BSBI itself.

RARE PLANT SURVEILLANCE PROJECT (NORTHERN IRELAND)

A CEDaR initiative that seeks to gather together extant information on rare vascular plants and encourage regular visits to rare plant sites.

A possible Ireland-wide survey of rare plant species was discussed.

ORCHID SURVEY

This had originated also as a proposed CEDaR initiative that should extend to the whole of Ireland. BSBI's involvement was discussed at the Committee meeting of 21 May where it was formally endorsed as a BSBI project for Ireland. The Committee is mindful that, at present, the Irish membership are not involved in any of BSBI's major projects. The *Epipactis palustris* (Marsh

Helleborine) survey which had been proposed a few years previously, and which had been put on hold, would be subsumed within this project.

BSBI WEB SITE

This has been revamped and now holds no regional information as far as I can see. However, the Committee had approved a suggestion from Brian Rushton, Editor of *Irish Botanical News*, that older editions of *IBN* be scanned and put on the web site.

CHANGES IN VICE-COUNTY RECORDERS

Co. Sligo (v.c. H28) – Michael Archer and Don Cotton are now joint recorders.

GUIDELINES FOR VICE-COUNTY RECORDERS

To be circulated to Irish vice-county recorders.

FIELD MEETINGS

Pressure of other commitments caused Graham Day to resign as Field Meetings Secretary at the last AGM, but he kindly put together the 2005 Field Excursions Programme.

The 2006 Programme is currently being arranged by P. Hackney, but the new Committee will need to appoint a proper Field Meetings Secretary.

STAN BEESLEY

Stan, who was the Recorder for Co. Antrim (v.c. H39) for many years, died somewhat unexpectedly on 1 August 2005. He left a partly completed *Rare Plant Register* for Co. Antrim that is being completed by P. Hackney. It is hoped to formally launch this in Belfast in December.

P. Hackney, Hon. Secretary, BSBI Committee for Ireland and Representative on BSBI Council

Committee for Ireland, BSBI for year 2005 – 2006 (with year of election)

Elected

2003	Chair and RoI Rep on Records Committee
2003	
2003	
2004	
2004	
2005	
2005	Field Meetings Secretary
	2003 2003 2004 2004 2005

Co-opted

Dr B.S. Rushton Hon. Editor Irish Botanical News

Mr M. Wright Environment and Heritage Service (NI) Representative
Dr M.B. Wyse Jackson National Parks and Wildlife Service, Republic of Ireland
Mr A.G. Hill Northern Ireland Representative on Records Committee
Mr P. Hackney Secretary to Committee and Representative on BSBI

Council