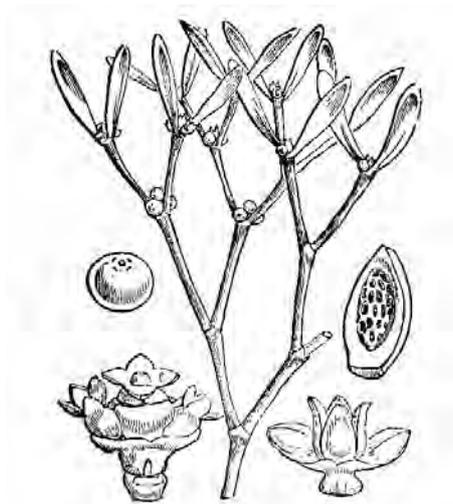


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Viscum album

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COMMITTEE FOR IRELAND, 2006-2007
BOTANICAL SOCIETY OF THE BRITISH ISLES

In line with the Rules, three new committee members were elected at the Annual General Meeting held in Cultra Manor, Co. Down, on 14 October 2006. Office Bearers were subsequently elected at the first Committee Meeting. The Committee is now:

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Mr P.R. Green (retiring Irish AGM 2007)
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The cover illustration shows *Viscum album* (Mistletoe) (taken from Fitch, W.H. and Smith, W.G. (1908). *Illustrations of the British flora*. Lovell Reeve and Co., Ltd, London, p. 109).

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	4
Articles	
Is <i>Fraxinus angustifolia</i> Vahl (Narrow-leaved Ash) naturalised in Ireland? Mary J.P. Scannell	5
A new key to Couch Grass hybrids (<i>Elytrigia</i> Desv.) (Poaceae) in the Irish flora, a review of distribution patterns and comments on nomenclature, morphology and ecology T. O'Mahony	15
A review of Mistletoe (<i>Viscum album</i>) records from Ireland: an interim vice- county report E.C. Nelson	27
<i>Erica mackayana</i> – Y? Oh! Why? E.C. Nelson	30
Searching for × <i>Festulopia hubbardii</i> a new hybrid for Ireland P.R. Green	31
Wildflowers of the Laune, North Kerry (v.c. 2) M. O'Sullivan	32
Vice-county report for 2006	
A report on the flora of Cork (vcc. H3-H5), 2006 T. O'Mahony	34
Request: Aquatic plants – M. Wilcox	46
Notices: Removal and temporary closure of the Ulster Museum Herbarium (BEL) – P. Hackney	47
Roscommon meeting on 28-29 July 2007 – John Faulkner	48
Meeting of BSBI Vice-County Recorders and Local Authority Heritage Officers, 27 January 2007	48
Annual General Meeting, 2006	
Minutes of the Annual General Meeting of the BSBI Irish Regional Branch 2006 held in Cultra Manor, Co. Down, on 14 October 2006 (unapproved)	50
Honorary Secretary's Report 2005-2006 P. Hackney	53

EDITORIAL

Those of you who use the 'Ireland' part of the BSBI website regularly will have noticed that *Irish Botanical News* is now available at this address: <http://www.bsbi.org.uk/html/ireland.html>. I have currently mounted seven issues (Nos 10-16, 2000 to 2006) and these are available as pdf files so that they can be downloaded as required. I already had these available in Word format and so it was relatively painless to format them but the backlog (Nos 1-9) which I do not have electronically is proving a more lengthy process as each has to be scanned in, converted into Word format and then checked for errors. However, I am slowly working my way through these and I hope to have another batch ready in late summer. This current issue will be placed on the website in August/September and that will then continue to be the annual sequence – publication in hard copy format to Irish members and subscribers in March/April and publication on the web in August/September. Please let me know if you find these web files a useful resource.

January this year saw the opening of the Irish National Biodiversity Data Centre at the Carriganore Campus of Waterford Institute of Technology by the Minister for Transport, Martin Cullen TD. In his opening address, Professor Kieran R. Byrne, Director, Waterford Institute of Technology said that: "This Centre will be of tremendous importance in ensuring that all Irish biological records of value are properly and expertly chronicled to facilitate ongoing analysis and audit at a single repository." He highlighted potential collaboration: "The expert personnel at the Irish National Biodiversity Data Centre will interact with their peers overseas and their work will stimulate additional interest in Ireland, our environment, flora and fauna – historical and current" and he recognised the importance of "countless collectors, observers, watchers and guardians who have helped sustain and record our rich natural environment to date".

This development can only be good for Ireland's flora and fauna but let us hope that these fine words are not drowned in politics and that the organisms themselves are put at the top of all agendas.

Have a good field season,

Brian S. Rushton, *Irish Botanical News*

IS *FRAXINUS ANGUSTIFOLIA* VAHL (NARROW-LEAVED ASH)
NATURALISED IN IRELAND?

Mary J. P. Scannell
Raglan Road, Dublin 4

The Common Ash, *Fraxinus excelsior* L., is of frequent occurrence throughout Ireland particularly on limestone soils. The name in Irish, Fuinnseog or Fuinnse, is found in place-names (see *Index to the townlands, parishes and baronies of Ireland*, 1851, reprinted 1984). The tree is valued for its timber and is in demand for the making of hurleys. For this purpose it must be fast-grown, "... fast-grown ash is much harder, stronger, heavier and tougher, because its annual rings have a greater proportion of structural fibres" (Edlin, 1956).

A second species, closely resembling *F. excelsior*, occurs. *F. angustifolia* Vahl, a native of southern Europe, North Africa and western Asia, is grown in parks and gardens in Ireland and Britain. The species is not included as an established alien in standard Floras nor in regional species-lists. Stace (1997) provides a brief description but Stace *et al.* (2003) omits it from the census of species of Great Britain. Two recent works, Reynolds (2002) and Clement and Foster (1994), do not list *F. angustifolia* as an established species. *Flora Europaea* (Tutin *et al.*, 1964-1980) include "aliens only when they appear to be effectively naturalised" and does not signal the species for either Br or Hb – the geographic information being derived from the literature of the respective regions. The abbreviations refer to Great Britain and to Ireland – "... the island of Ireland is treated as a single territory".

Extensive planting of demesne-land in Ireland took place in the 1800s. In the wider literature and in archives there are reports of the movements of trees to Ireland at earlier dates. In 1601 a 'fraudulent' attempt was made to import Tulip trees through the port of Dublin in order "to avoid customs" (Donovan and Edwards, 1997). In 1746, Abel Ram, a landowner of Gorey, Co. Wexford wrote to John Ellis, London, seeking to purchase "2 Oleasters, 1 Virgin Tulip, 1 Arbor Judea ... 1 double Flow. Almond, 2 scarlet Horse Chestnut ...", etc. (Scannell, 1978).

Some 25 species of *Fraxinus* are in cultivation in Irish Heritage Gardens (Forrest, 1988). In 1980 the Heritage Gardens Committee of An Taisce

sponsored an inventory to establish the range of woody plants growing in both public and private gardens and parks. The report lists *F. angustifolia* from Birr Castle (Offaly), Kildangan (Kildare) and the John F. Kennedy Arboretum (Wexford); with cultivar 'Raywood' noted from Castlewellan (Co. Down), Inacullin (Co. Cork) and Malahide (Dublin). To these records can be added those listed by H.M. Fitzpatrick at the Daisy Hill garden (Co. Down) and the National Botanic Gardens at Glasnevin (Fitzpatrick, 1933); the species is still in cultivation at Glasnevin. Evidence that the tree was grown in the Trinity College Botanic Garden, then at Ballsbridge, in the 19th century is provided by a specimen in the Augustine Henry Forestry Herbarium in the National herbarium. It is labelled in the handwriting of Augustine Henry, "*Fraxinus angustifolia* v. *lentiscifolia*, Trinity Coll. Gardens 8/8/05". In 1960 the site was sold to developers and many plants were transferred to a new location at Dartry at the rear of Trinity Hall (Wyse Jackson, 1987).

The genus *Fraxinus* (Oleaceae) is represented in western Europe by a single species, *F. excelsior* L. The flowers which are without petals, "*floribus nudis*" Linnaeus, are produced in terminal panicles before the leaves emerge. A description in Mitchell (1976) is followed by the remark, "total sexual confusion" which may be true also regarding *F. angustifolia*.

An interest in the Common Ash developed in the course of fieldwork over the years when it was observed that there appeared to be two forms; in one, the leaflets were ovate and somewhat drooping, in the other they were lanceolate and were stiffly attached to the rachis. The trees of the latter type were seen on the shore of Lough Neagh at Selshan (Co. Antrim) (Scannell, 1977), in the former demesne-land at Belvedere and on the shore and eiscirs about Lough Ennell (Co. Westmeath), by the roadside near Rathcormack (East Cork) and along a length of road between Castlemartyr and Mogeely (East Cork). A preliminary survey in the literature suggested that the trees in question were referable to *F. angustifolia* Vahl (Narrow-leaved Ash).

More recently, attention was paid to a variety of trees in Ballsbridge, suburb of Dublin City. Several trees of ash were noted, many with fine-cut leaves and lanceolate leaflets, and since they matched those seen over the years in the open countryside, the description of *F. angustifolia* in Elwes and Henry (4: 1906) was consulted. It reads as follows:

“A tree attaining 70-90 feet [21-27 m] in height. Shoots glabrous, green, slender. Leaflets seven to thirteen, 1½ to 3 inches [3.5-7.5 cm] long, smooth and slightly coriaceous, shining above, usually pretty uniform in size, subsessile, lanceolate, base cuneate, apex acuminate, glabrous on both surfaces; coarsely and sharply serrate except near the base; serrations few, spreading, often with incurved points (occasionally deeply serrate with long bristle points). Rachis of leaf glabrous, strongly winged, the wings meeting above and only showing a groove opposite the insertions of the leaflets. Flowers ... few in erect racemes, arising from the axils of the leaf-scars of the preceding year's shoots. Fruit lanceolate, obliquely truncate and entire at the apex, but apparently variable. This species is distinguished from all forms of the common ash by its absolutely glabrous leaflets ...”.

The fine-leaved ash trees in the Ballsbridge area accord well with the description above apart from the character of the underside of the leaflets, which agree with the description given by P.S. Green (Kew) in the *European garden flora* (5: 1997: 588) – “hairless except beside the lower part of the midrib beneath ...”. The hairs are faintly rust coloured and the adjacent lamina and veins are less hairy than in *F. excelsior* which are white and more robust.

Authorities differ as to whether the underside of the leaflets in *F. angustifolia* is altogether glabrous. Mitchell (1976) is in agreement with Elwes and Henry (1906) on the matter but Humphries, Press and Sutton (1989) describe the leaflets as “glabrous or hairy at the base of the midrib below”. In *Flora Europaea* (3: 1972) two subspecies are recognised by do Amaral Franco and da Rocha Afonso – *angustifolia* with “leaflets always glabrous” and *oxycarpa* with “leaflets pubescent along the proximal part of the midrib beneath”. From this, it would appear that the name of the ash with fine-cut leaves seen in the wild in Ireland is *F. angustifolia* subsp. *oxycarpa* (Bieb. ex Willd.) Rocha Afonso. In *Arbores fruticesque Europae* – a dictionary based on the botanical system and nomenclature of *Flora Europaea*, Priszter (1983) refers *F. oxycarpa* to *F. angustifolia* which he calls “the accepted name” and without further comment. Forest (loc. cit.) does not list *F. oxycarpa* as a species in cultivation in the Heritage Gardens. Webb (1966), who compiled from published sources a list of vascular plants recorded from that part of Turkey that lies in Europe, notes *F. oxycarpa* from two localities in the region. The study was a by-product of the writing and editing of *Flora Europaea*.

In a recent publication, *The European garden Flora* (Cullen *et al.*, 5: 1997) – a six-volume work described as “the definitive manual for the accurate identification of cultivated ornamental plants” – the authority for *Fraxinus* is P.S. Green (Royal Botanic Gardens, Kew). Green provides descriptions of 28 species of the genus. Concerning the leaflets of *F. excelsior* he states: “hairless except beside the lower part of the midrib beneath”; concerning *F. angustifolia*, the statement is: “hairless except beside the base of the midrib beneath”. The current accepted name for the fine-leaved ash is *F. angustifolia* Vahl. A further note is added (by P.S. Green):

“*F. angustifolia* is the earliest name in a complex not fully resolved which includes *F. oxycarpa* Willdenow, *F. oblique* Tausch, *F. syriaca* Boissier, *F. sogdiana* Bunge, *F. elonza* Kirschner, *F. holotricha* Koehne, and *F. pallisiae* Willmott, all of which have been recorded as being in cultivation. A number of cultivars have been selected in this species ... The best known is perhaps ‘Raywood’ grown for its autumnal colour. ‘Veltheimii’ (*F. veltheimii* Dieck.), with its leaf reduced to a single leaflet is a synonym of ‘Monophylla’.”

Field botanists examine with care the vegetation they traverse. When involved in an inventory of the native flora special attention is paid to closely related species. In the words of Jacques Maritain (1961): “The fact remains that the prime incentive of the scientist is the urge to know reality ...” and continues “... reconstruction of the observable and measurable aspects of nature taken in their inexhaustible detail”. The date of introduction to Ireland of *F. angustifolia* is not known; Mitchell (1976) suggests 1800 for Britain. Since the species may have been planted in Ireland at much the same period there would have been ample time for its samaras to spread from gardens and parks and become established in the wild. The question arises as to why the species has been overlooked.

The study in *The European garden Flora* in 1997 sets out clearly the diagnostic characters which separate the species *F. excelsior* and *F. angustifolia* – a reversal of the statements made by Elwes and Henry (1906) and Mitchell (1976). The study has established that the correct name for the ash with fine, slightly coriaceous leaflets is *F. angustifolia* Vahl.

Observations by the present writer revealed that the fringe of hairs on the underside of the leaflet of *F. angustifolia* is not conspicuous being partially hidden by the curved rim of the (raised) midrib, and could be easily missed by

botanists in the field. The account by earlier botanists might have shaded opinion when species descriptions were drawn up for standard Floras, which, in the case of *Fraxinus excelsior*, provide no hint of variation to alert the systematic botanist. Illustrated works can also be misleading. Frequently line-drawings and colour plates show leaflets with distinctly serrate leaflets on images labelled '*F. excelsior*' showing that the plant depicted is clearly *F. angustifolia* Vahl (Fig. 1).

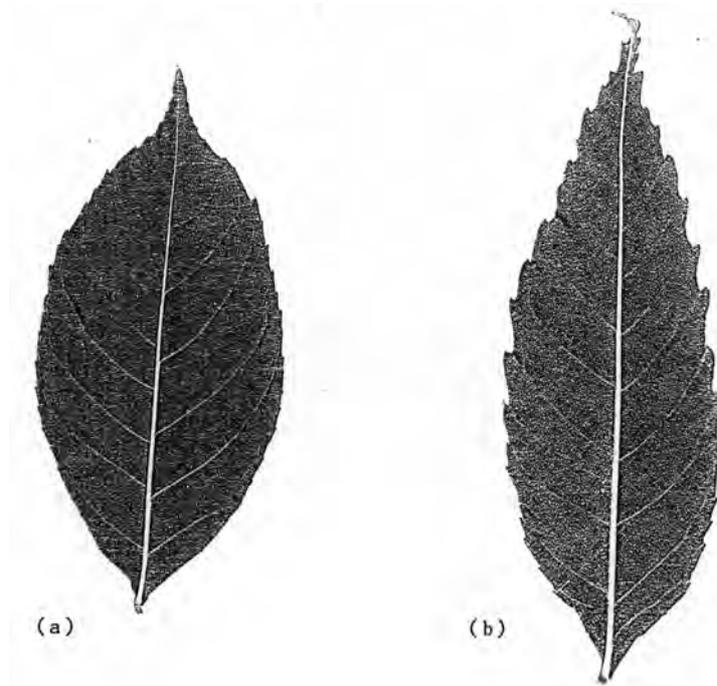


Figure 1. Silhouettes of leaves of: a. *Fraxinus excelsior* (leaflet with crenate margin, teeth more numerous than the lateral veins); and b. *Fraxinus angustifolia* (leaflet with serrate margin, teeth prominent, each lateral vein matches a marginal tooth). Both specimens taken from trees on Clyde Road, Dublin. Photocopies courtesy Herbarium, National Botanic Garden.

It helps too to 'read' binomials that serve to store data; *angusti* – (L.) in a compound word means 'narrow'.

However, it must also be said that trees themselves present problems. They are lofty. Characteristics necessary to give certitude to identification are frequently outside human reach.

Is *F. angustifolia* naturalised in Ireland? Only fieldwork can provide the necessary evidence. In a study by Heuertz (2003) it is noted that the two species, *F. excelsior* and *F. angustifolia*, have been reported to commonly hybridise in south-eastern France.

Goldstein, Simonetti and Watschinger (1984: 46), following a description of *F. angustifolia*, characterise it as “unmistakable”.

ACKNOWLEDGEMENTS

At the Herbarium, National Botanic Gardens I received much help. I thank Dr Matthew Jebb for discussion on *Fraxinus* and for looking over an early draft of the paper, Mr Howard Fox for drawing my attention to *Fraxinus* in the Augustine Henry Forestry Herbarium and to Ms Grace Pasley and Ms Bernie Shine for tabling specimens and the relevant literature.

I thank the late Catherine Veronica Sheehan (Cork) who had much knowledge of the Common Ash.

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APPENDIX 1

A guide to some field characters to help distinguish *F. angustifolia* (FA) and *F. excelsior* (FE).

FA: Tree, irregular dome, sparsely branched.

FE: Tree domed, many branched.

FA: Winter buds, brown.

FE: Winter buds, dark brown (blackish).

FA: At vernation, the tightly packed leaves bear a rust-brown tomentum that is thrown off as growth proceeds.

FE: At vernation, a rust-brown tomentum was not observed.

FA: Leaves compound, leaflets 7-13 (generally nine in this survey).

FE: Leaves compound, leaflets 9-13.

FA: Leaflets, lanceolate, coarsely to sharply serrate, acuminate, slightly coriaceous, shining above, stiffly attached.

FE: Leaflets, ovate, margin crenate, lamina thinner, drooping.

FA: Lateral veins match the number of marginal teeth.

FE: Lateral veins less in number than marginal teeth.

FA: Leaflets beneath, glabrous but with a fringe of hairs (light orange in colour) at base of midrib.

FE: Leaflets beneath, glabrous but with white hairs at base of midrib and on lamina and lesser veins.

FA: Leaf-axis with two wings forming a groove, open except where leaflets attached.

FE: Leaf-axis furrowed.

FA: Young fruits borne upright, shiny, green.

FE: Young fruits dull, borne pendant.

FA: Beneath the tree the view upwards shows much sky, and the leaves present a pectinate pattern.

FE: Beneath the tree the view upwards shows little sky.

FA: Fruits, “graines occupant toujours plus de la moitié de la longueur de la samara” (des Abbayes, 1971) – translation: seeds occupy more than half the length of the samara.

FE: Fruits, “graines occupant moins de la moitié de la longueur de la samara” (des Abbayes, 1971) – translation: seeds occupy less than half the length of the samara.

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APPENDIX 2

The trees listed below were observed over a period of three-four years in the general area of Ballsbridge, a suburb on the south side of Dublin city.

Fraxinus angustifolia Vahl

1. Tree by pedestrian gate to garden, grounds at the rear of St Mary's Church (Haddington Road) and suspended over St Mary's Road; foliage and fruit.
2. Large tree in the centre of the lawn of the previous garden; foliage.
3. Tree inside the main gate of the walled reserve, The Grove (managed by An Taisce, the National Trust), at the junction of Morehampton Road and Clyde Road; foliage.
4. Large tree in the forecourt of 53 Pembroke Road (root in no. 51); foliage and fruit.
5. Large tree on the pavement outside the entrance gate to St Bartholomew's Church, Clyde Road; foliage and fruit (in 2004). [The only ash tree on a public thoroughfare in the area of study.]
6. Large tree in the forecourt of 31 Pembroke Road; foliage and fruit.

7. Large tree in the front garden of 32 Morehampton Road; foliage.
8. Large tree at the side of 28 Fitzwilliam Place and overlooking Leeson Street; foliage and fruit.
9. St Stephen's Green, a public park, large tree by the Leeson Street gate; foliage.
10. St Stephen's Green, large tree by the Grafton Street gate; foliage and fruit. [This specimen may be a hybrid.]

Fraxinus excelsior L.

1. A tree at the junction of Clyde Road and Wellington Road; foliage.
2. Large tree in the forecourt of 13 Pembroke Road; foliage and fruit.
3. Large tree in the grounds of the Berkley Court Hotel (until 1987 the Botanic Gardens of Trinity College); foliage and fruit.

Notes:

In the course of this work many young ash trees were observed but were too immature for naming. The Ballsbridge trees may have derived from the former Botanic Garden of Trinity College, which was sited at the junction of Merrion Road and Lansdowne Road (and now Jury's Hotel). A tree stump near the Geological Survey with basal shoots may be *F. angustifolia* with brown winter buds and the character of the foliage. St Stephen's Green was originally a commonage and was planted up as a public park in 1880. Trees seen from afar in the forecourt and side of the Rotunda Hospital (Dublin 1) appear to be *F. angustifolia*. The site was formerly a garden established by Bartholomew Mosse (1712-1759).

A NEW KEY TO COUCH GRASS HYBRIDS (*ELYTRIGIA* DESV.)
(POACEAE) IN THE IRISH FLORA, A REVIEW OF
DISTRIBUTION PATTERNS AND COMMENTS ON
NOMENCLATURE, MORPHOLOGY AND ECOLOGY

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ABSTRACT

The Couch Grass genus *Elytrigia* Desv. (Poaceae) is represented in Britain and Ireland by seven rhizomatous (predominantly maritime) taxa, of which three are pollen-/caryopsis-sterile interspecific hybrids. While all three hybrids are of widespread occurrence on our coasts, their individual distributions and frequencies have never been systematically worked out, and consequently all are greatly under-recorded. In an attempt to catalyse interest in this fascinating, yet neglected genus, a new key is provided to the three current-known interspecific hybrids, which hopefully will allow a more confident and accurate determination of these. To date, no hybrids between *E. repens* subsp. *maritima* and the other fertile taxa have been recorded, but they may yet be found. A brief account of the phytogeography and history of recording of the three Irish hybrids is given. Finally, attention is drawn to an overlooked phenomenon – the fact that many populations of *E. atherica* (Sea Couch) are *caryopsis-sterile*. It is suggested that such populations (which bear normal, dehiscent anthers and perfect pollen) are *self-incompatible*. These populations effectively behave as sterile clones in the absence of a nearby, compatible, pollen-source and, late in the year (September-November), might all too easily be mis-determined as *E. × drucei*.

INTRODUCTION

Down the years, the Couch Grass species of Britain and Ireland have been variously assigned to the genera *Triticum* L., *Agropyron* auct. non Gaertn., *Roegneria* K. Koch, or *Elymus* L., much to the chagrin of field botanists. Currently, the single, tufted, woodland species is placed in the genus *Elymus*, as *E. caninus* (L.) L. (Bearded Couch), while the four rhizomatous taxa of open (often maritime) habitats are placed in the genus *Elytrigia* Desv. This latter taxonomic arrangement is clearly justified, bearing in mind the intersterility barriers between the two genera, and given the well-known differences between *Elymus caninus* and the four *Elytrigia* taxa in autecology,

growth-habit, anther-size, disarticulation of the fruiting spikelets and caryopsis morphology (cf. Hubbard, 1968).

However, it seems that nomenclatural changes are an inevitability where Couch Grasses are concerned, for Stace (2001) has recently reviewed the nomenclature of the British and Irish taxa and highlighted the fact that two of the three known *Elytrigia* interspecific hybrids require binomial changes. Moreover, it seems that the maritime taxon currently known as *Elytrigia repens* subsp. *arenosa* (Spenn.) Á. Löve, must now be called *Elytrigia repens* subsp. *maritima* Tzvelev, and might ultimately be placed under a different species, as *E. campestris* subsp. *maritima* (Tzvelev) H. Scholz! Following Stace (2001) therefore, the correct nomenclature for the British and Irish *Elytrigia* taxa at the present time is as follows:

Species

Elytrigia atherica (Link) Kerguélen (Sea Couch)

Elytrigia juncea (L.) Nevski subsp. *boreoatlantica* (Simonet & Guin.)
Hyl. (Sand Couch)

Elytrigia repens subsp. *maritima* Tzvelev

Elytrigia repens (L.) Desv. ex Nevski subsp. *repens* (Common Couch)

Interspecific hybrids

E. atherica × *E. juncea* subsp. *boreoatlantica* (= *E. × acuta* (DC.)
Tzvelev nothosubsp. *obtusiuscula* (Lange) Kerguélen)

E. atherica × *E. repens* (= *E. × drucei* Stace, hybr. nov.)

E. juncea × *E. repens* (= *E. × laxa* (Fr.) Kerguélen)

ELYTRIGIA INTERSPECIFIC HYBRIDS IN BRITAIN AND IRELAND

While *Elytrigia repens* subsp. *repens* (Common Couch) occurs abundantly inland in Britain and Ireland (both in native grassland habitats and as a pernicious weed of arable sites) it is also a common component of coastal sand-dunes and of the uppermost reaches of saltmarshes. In these latter maritime habitats it can prove subdominant and frequently cohabits with equally dense stands of both *E. atherica* (Sea Couch) and *E. juncea* (Sand Couch). Not surprisingly therefore, all three possible hybrid combinations between these species are of scattered occurrence around our coasts in these dynamic habitats, though their individual distribution patterns have yet to be accurately detailed. Leach (2002) in his account of *Elytrigia* hybrids for the *New atlas of the British and Irish flora* (Preston, Pearman and Dines, 2002)

states that there is no reliable information on trends in the distribution of either *E. × laxa* or *E. × acuta*, while he cautions that both hybrids may be confused, and notes that they are under-recorded, as many fieldworkers overlook them.

Nevertheless, recent work in north-western England is providing some enlightening insights. For example, in *A Flora of Cumbria*, Halliday (1997) states that *E. × drucei* is the dominant taxon in Cumbrian saltmarshes, to the virtual or total exclusion of *E. atherica*. Moreover, Greenwood (2004) expands on Halliday's observations, stating that *E. × drucei* replaces *E. atherica* throughout much of coastal north-western Britain, where both *E. × laxa* and *E. × acuta* are also of locally abundant occurrence. Recently, some *adventive*, *inland* populations of *E. atherica* and *E. × drucei* have been discovered in Britain! For example, Cox (2003) reports the occurrence of a well established *E. × drucei* colony along an old Dorset (v.c. 9) tramway, some 2-3 km from the coast, while Cook (2006) draws attention to the presence of *E. atherica* and *E. × drucei* populations occurring as adventive roadside halophytes in Cambridgeshire (v.c. 29) – a phenomenon that is likely to become more prevalent in Britain in future years, as a direct consequence of road-saltings.

Relatively few interspecific hybrids have ever been systematically recorded in the Irish flora, and this certainly applies to our three *Elytrigia* hybrids, whose recording has always been piecemeal and generally tentative. As a result, they remain grossly under-recorded, while (as outlined later in this paper) *E. × laxa* and *E. × acuta* have frequently been confused in the past, or the wrong epithets have been applied to various recorded finds. In the most recent edition of *An Irish Flora*, Webb, Parnell and Doogue (1996) provide the following terse data on the Irish distributions and frequencies of all three *Elytrigia* hybrids. “*Elymus × obtuscula* [sic] often forms large stands on the east coast.” “*E. repens × E. juncea* (*E. × laxa*) is also occasional close to the sea.” “*E. repens × E. atherica* also occurs.” However, their comments on the Irish distribution of *Elytrigia × acuta* are *plainly at odds* with the Irish map of this hybrid in the *New atlas of the British and Irish flora* (Preston, Pearman and Dines, 2002).

These three interspecific hybrids may display prominently exerted stamens in the inflorescences at anthesis, but the *anthers are always shrunken and indehiscent*, while the pollen grains are hyaline, *devoid of contents* and *frequently malformed*. While these interspecific hybrids never develop fruit, it is vital to realize that caryopsis-sterility in itself is *not* conclusive proof that

one is dealing with a hybrid, for many populations of both *E. atherica* and *E. repens* subsp. *repens*, while bearing perfect pollen, are actually *self-sterile* (Hubbard, 1968; O'Mahony observations in this paper) and thus do not produce caryopses, unless a compatible pollen-source is available in the area. Even early in the year (April-June), my field experience emphatically shows that *E. × laxa* and *E. × acuta* can be distinguished with confidence from each other, from their respective parents and from *E. × drucei*, purely on vegetative characters alone. (Of course the initial, tentative determinations must always be rechecked later in the year.)

However, the situation with regard to *E. × drucei* and its parents is more problematic. While the presence of leaf-sheath cilia in *E. × drucei* will always allow a confident separation from its *E. repens* subsp. *repens* parent (which latter *lacks* leaf-sheath cilia) I have found the vegetative features of *E. × drucei* and *E. atherica* to hopelessly overlap. This situation is attributable to three factors:

1. There are *no* qualitative vegetative differences between these two taxa.
2. *Elytrigia atherica*, throughout its Irish range, exhibits considerable variation in the prominence (or otherwise) of adaxial leaf-ribbing; therefore populations of this species displaying low, smooth, leaf-ribbing, are indistinguishable from corresponding vegetative material of *E. × drucei*.
3. As already highlighted, many Irish populations of *E. atherica* are *self-incompatible*, and consequently effectively behave as sterile clones in the absence of a nearby, compatible, pollen-source. Should such populations *also* exhibit low, smooth adaxial leaf-ribbing, then they can only be distinguished from *E. × drucei* on *fertility* criteria (see further notes under the account of *E. × drucei*). A word of warning, therefore: material of *E. atherica* collected late in the year (September-November) and exhibiting the above characteristics, could very easily be *misdetermined* as *E. × drucei*!

[Note: Of the seven British and Irish *Elytrigia* taxa, only *E. juncea* *lacks* leaf-sheath auricles. Such auricles are best examined in young material, as they tend to break off the sheath with age.]

Brief descriptions of all three hybrids are provided by Melderis (1975) and Stace (1997), and for *Elytrigia × acuta* (as *Agropyron acutum* auct.) by Tutin (1962) and Webb, Parnell and Doogue (1996). Moreover, Hubbard (1968)

provides a detailed illustration and description of *Elytrigia* × *acuta* (as *Agropyron* × *obtusiusculum* Lange), while Melderis (1980: 196) gives a reasonably detailed description of *Elytrigia* × *drucei* (as *Agropyron* × *oliveri* Druce), which taxon he states occurs commonly on the west coast of Europe, and as an occasional casual in the Baltic region and Central Russia. A tentative key for the hybrids is given by Hubbard (1968: 38) and Wigginton and Graham (1981), this latter account subsequently being updated by Trist (1998).

The following key is based on my own long-term observations of these three interspecific hybrids in the Irish flora, which bear out, and expand upon, the literature data.

A DETAILED KEY TO IRISH *ELYTRIGIA* HYBRIDS

[Notes: 1. All three hybrids may display exerted stamens at anthesis, but the indehiscent anthers are shrunken and flattened, and bear sparse, hyaline, empty, often malformed pollen grains. 2. Leaf-sheath cilia may rub off with age (check carefully!) and in any event they may be absent from the distal sheaths.]

1a. Habitat: Specially characteristic of the margins of saltmarshes. Stems tall, erect; suprafoliar leaf-face glabrous (occasionally pilose) with variably prominent ribs, the rib-crests usually bearing 1-2 rows of minute aculeolae; margin of outer (overlapping) leaf-sheath ciliate, the cilia c. 0.4-0.8 (-1) mm long; inflorescence straight and compact, the spikelets (15-20 mm long) 1/5-1/2 their own length apart (and equalling 3-4 rhachis-internodes); inflorescence-rhachis tough, the internodes glabrous, evenly spinescent on the margins; anthers c. 3.5-4.5 mm long. Lemma-apex acute or acuminate; lodicules ± lanceolate, acute or acuminate, c. 1.5-1.75 mm long
 *Elytrigia* × *drucei*

1b. Habitat: Specially characteristic of sand-dunes and the ecotone between saltmarsh and sand-dune. Stems often procumbent proximally, then arcuate-ascending; suprafoliar leaf-face densely minute-pubescent all over, the ribs very prominent; inflorescence lax, often curved, the spikelets (15-25 mm long) 1/2-1 times their own length apart (and equalling 1-2.5 rhachis-internodes); inflorescence-rhachis sometimes fragile and disarticulating, its internode-margins smooth, or irregularly and sparsely spinescent; anthers c. 4.5-5.5 (-

6.5) mm long; lemma-apex often retuse, with a central, mucronate, tooth; lodicules frequently bifid apically, the divaricate lobes pointed 2

2a. Suprafoliar leaf-face frequently pubescent, the hairs c. 0.25-0.8 mm long; leaf-sheath margins always glabrous; inflorescence rhachis-internodes often puberulent on one or both faces; lodicules c. 1.75-2 mm long *Elytrigia* × *laxa*

2b. Suprafoliar leaf-face lacking macro-hairs; margin of outer (overlapping) leaf-sheath ciliate, the cilia c. 0.5-1 mm long; inflorescence-rhachis always glabrous; lodicules frequently 2-2.4 mm long *Elytrigia* × *acuta*

THE DISTRIBUTION OF *ELYTRIGIA* HYBRIDS ON THE IRISH COAST

1. *Elytrigia* × *laxa* (*E. juncea* × *E. repens*)

In the work, *Cybele Hibernica*, Moore and More (1866) provided the first reasonably detailed distributional account of the maritime grass hybrid, *Elytrigia* × *laxa*, reporting it as frequent on seashores in ‘Botanical Districts’ 1 [Kerry & Cork], 2 [Cork & Waterford], 4 [Wexford & Wicklow], 5 [Dublin, Meath & Louth], 9 [Sligo], 11 [Donegal] and 12 [Down, Antrim & Derry] – a vast phytogeographical area, encompassing most of the Irish coastline, save that on the west coast from Limerick to West Mayo. Unfortunately, however, they erroneously attributed the name *Triticum acutum* DC. to this hybrid (though it properly belonged to the hybrid currently named *Elytrigia* × *acuta*) and thus unwittingly set in motion a legacy of nomenclatural confusion that was to filter down through subsequent Irish botanical literature. Yet it is crystal clear that their phytogeographical account *was* of the hybrid *Elytrigia juncea* × *E. repens* for, in parentheses, they gave the synonym *Triticum laxum* Fries and commented that this taxon “... has often been mistaken for *T. junceum*, but its character and appearance are more nearly those of *T. repens*.” They also stated that a large and very glaucous form of this hybrid “... grows on the Murrough of Wicklow [H20] and at the mouth of the Boyne, near Drogheda [H31].” Hart (1898), in his *Flora of the County Donegal*, stated that *E. × laxa* is of frequent occurrence along most of the Donegal coastline. Quite clearly, however, this observation needs corroboration, given the *total exclusion* of these records from the *New atlas of the British and Irish flora* (Preston, Pearman and Dines, 2002), and bearing in mind the current dearth of Irish records for *E. × laxa*.

In his accounts of *Elytrigia* × *laxa* in *Irish topographical botany*, and the 3rd supplement of that work, Praeger (1901, 1934) also misapplied the name *Agropyron acutum* R. & S. (or *A. acutum* auct.) to this hybrid, while he compounded the error by unknowingly including in these vice-county lists – and in Praeger (1951) – a mix of records for *E. × laxa* and *E. × acuta*! (For example, Praeger’s Murrough, Co. Wicklow (H20) record is attributed to Moore and More (1866), and thus is certainly *E. × laxa*, but his two West Cork (H3) records, viz.: Castlefreke, 1890 – R.A. Phillips; Rosscarbery – Allin (1883), are actually stations for *E. × acuta* only (Farragher, 1975; Scannell and Synnott, 1989; O’Mahony, 1995, 2007). Scannell and Synnott (1987), in the 2nd edition of the *Census catalogue of the flora of Ireland*, summarized the known vice-county distribution of *Elytrigia* × *laxa* (as *Elymus* × *laxa*) thus: 1, 3, 5, 8, 20-21, 27, 31, 34-35, 38-39. However, this census list does *not* represent a real advance in knowledge: rather these data are copied verbatim from Praeger’s (1951) paper entitled: ‘Hybrids in the Irish flora: a tentative list’. The above West Cork entry is based on a Hare Island (Inishdriscol) (H3) record by Oleg Polunin and determined by C.E. Hubbard (Polunin, 1950), which was updated in 1995 (Akeroyd, 1996).

New or updated Irish records for *Elytrigia* × *laxa* are as follows:

- H3. W0.2. South-east end of Hare Island (Inishdriscol), 1995 (Akeroyd, 1996).
- H6. X27.90. On the narrow ‘neck’ of the Cunnigar, south side of Dungarvan Bay, 1983, 1995, 2006 – T. O’Mahony. An addition to the Waterford flora.
- H21. O20.47. By the Broad Meadow Estuary, in a saltmarsh near Prospect Point, 1994 – D. Doogue (Doogue *et al.*, 1998).
- H38. J59.42. Ballyhornan Bay, 1894 – S.A. Stewart, confirmed P.J.O. Trist (Hackney, 1992). J59.45. Beach near Kilclief Castle, 1981 – P. Hackney, confirmed P.J.O. Trist (Hackney, 1992).

The Irish map of *Elytrigia* × *laxa* in the *New atlas of the British and Irish flora* (Preston, Pearman and Dines, 2002) is *totally at variance* with the recorded history of this hybrid in Ireland, providing only a single hectad record for the period 1987-1999; only two hectad records for the period 1970-1986; and only six hectad records for the extensive pre-1970 period.

2. *Elytrigia* × *acuta* (*E. atherica* × *E. juncea*)

E. × acuta was apparently first recorded in Ireland by the Rev. Thomas Allin in the 1870s, from the coastal sands of the Warren (Creggane Strand) (H3, W29.35) near Rosscarbery, West Cork (Allin, 1883). However, as highlighted earlier, this record was erroneously incorporated into the vice-county lists for *E. × laxa* in Praeger (1901, 1934). Subsequently, *E. × acuta* populations were recorded from the nearby Castlefreke Dunes (H3, W3.3) – by R.A. Phillips in 1890 (Praeger, 1901); by M.J.P. Scannell on 24 June 1969 (Scannell and Synnott, 1990); and by M.A. Farragher in the early-1970s (Farragher, 1975). While *E. × acuta* was *not* included in the 1st edition of the *Census catalogue of the flora of Ireland* (Scannell and Synnott, 1972), the 2nd edition of that work (Scannell and Synnott, 1987) listed it from West Cork (on the basis of the above records), and from Mid Cork (on the basis of data supplied by T. O'Mahony – see below). Between 1981 and 2006, *E. × acuta* was recorded from a long stretch of Co. Cork coastline (H3-H4), extending from Weaver's Point, Cork Harbour (H4, W80.60) westwards to Owenahincha Beach (H3, W3.3) and Rosscarbery Warren (H3, W29.35), the latter find being an update and confirmation of the Rev. Allin's 1870s record for *E. × acuta*! (O'Mahony, 1995, 2000, 2007). The Irish map of *Elytrigia × acuta* in the *New atlas of the British and Irish flora* (Preston, Pearman and Dines, 2002) gives only eight hectad records for the period 1987-1999 (which correspond with the known Co. Cork distribution of this hybrid); *no* hectad records for the period 1970-1986; and only a single pre-1970s hectad record (from the NE coast). This latter Co. Antrim (H39) record is based on a specimen collected by a ditchside at Carnlough Bay (C74.07) in August 1910, by C.H. Waddell (undetermined). This voucher was subsequently determined by P. Hackney as *E. × acuta* – a determination corroborated by P.J.O. Trist in 1989 (Hackney, 1991). There is little doubt, however, that *Elytrigia × acuta* is greatly under-recorded in Ireland, witness the following recent records:

H6 (Dungarvan Bay). 1. X27.93 and X28.94. Common over a c. 900 m stretch of the northern shoreline (fronting the defunct railway line and the R675) from Skehacrine eastwards to Duckspool Bridge, 2001/2005 – T. O'Mahony. 2. X27.90. South side of Dungarvan Bay, on the narrow southern 'neck' of the Cunnigar sand-and-shingle bar, July 2006 – T. O'Mahony. Cohabiting with *Elytrigia × laxa*, which latter hybrid I first added to the Waterford flora from here in July 1983. [Note: Paul Green, the Waterford Vice-county Recorder, has also recorded *E. × acuta* from the extreme eastern section of H6.]

H21. While *E. × acuta* is not officially recorded in the *Flora of County Dublin* (Doogue *et al.*, 1998), putative populations of this hybrid are reported in this work to form extensive stands on the coast just south of the county boundary with Co. Meath (H22). Moreover, a putative hybrid collected by W.B. Bruce at Skerries (O25.60) in 1905 (voucher in **DBN**) is stated to certainly have *E. juncea* in its parentage, and to *bear cilia* on the leaf-sheath margin.

3. *Elytrigia × drucei* (*E. atherica* × *E. repens* subsp. *repens*)

E. × drucei is *not* mapped in Preston, Pearman and Dines (2002), and was only added to the Irish flora in July 1979, when discovered in a small tidal lagoon in Monkstown Creek (H4, W75.64) in Cork Harbour (O'Mahony, 1996). Subsequent work (O'Mahony, 1996, 1997, 1998) has established that *E. × drucei* is of widespread occurrence on the SW and NW sides of Cork Harbour. However, its reported occurrence in East Cork and Co. Waterford (O'Mahony, 1999, 2000) needs confirmation. Such material was collected late in the season (September-November), and thus the possibility of confusion with self-incompatible, caryopsis-sterile *E. atherica* populations exists, as mentioned previously. To reiterate:

1. *Elytrigia atherica* and *E. × drucei* are very similar in vegetative and inflorescence characters (while both possess leaf-sheath cilia) and consequently can only be distinguished with absolute confidence on the basis of *fertility* criteria, namely, the presence of fertile anthers and fully developed caryopses in *E. atherica* (but see note below) *or* the presence of *indehiscent* anthers and *sparse, sterile, aborted* pollen grains in *E. × drucei*.

2. The identification problem between *E. atherica* and *E. × drucei* is greatly compounded by the fact that my long-term observations of *E. atherica* in southern Ireland, strongly indicate that many populations of this species (while bearing dehiscent anthers with perfect pollen) are actually *self-incompatible*, and thus effectively behave as fruit-sterile clones in the absence of a nearby, compatible, pollen-source. [Note: Most interestingly, Greenwood (2004) has recently reported this phenomenon from north-western England, where all recorded populations of *E. atherica* are pollen-fertile, yet fruit-sterile! While he expressed puzzlement as to the reason for such caryopsis-sterility, he apparently overlooked the most likely cause – self-incompatibility.]

3. In view of the above cautionary observations, it is suggested that the determination of putative hybrids collected late in the year (September-November) *should always be regarded as tentative*, until such time as these plants can be examined *in situ* during the main flowering period for *Elytrigia* taxa (i.e. mid-July to early-August), to ascertain that their anthers are indeed indehiscent, and their pollen sparse and sterile.

While the Irish distribution of *Elytrigia* × *drucei* is still largely unknown at the present time, there is every reason to believe that this hybrid will ultimately prove widespread on our coasts. Indeed, this hybrid may well occur in sites where the rarer *Elytrigia atherica* parent is now absent, but possibly formerly occurred. For example, Hackney (1991) has determined as *E. × drucei*, a putative specimen of *E. repens*, collected by S.A. Stewart on the coast south of Newcastle, Co. Down (H38, J3.3) on 31 August 1890. This re-determination was confirmed by P.J.O. Trist in 1989.

More recently, Reynolds (2005) has reported the occurrence of a population of *E. × drucei* in upper saltmarsh, at the Breeches, south of Kilcoole station (O314.062), Co. Wicklow (H20). The determination was confirmed by Dr T.A. Cope.

Hopefully, future, concerted, detailed work on *Elytrigia* hybrids in the Irish flora, will greatly improve our knowledge of this most interesting genus.

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A REVIEW OF MISTLETOE (*VISCUM ALBUM*) RECORDS FROM IRELAND: AN INTERIM VICE-COUNTY REPORT

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It is universally accepted that European mistletoe, *Viscum album* L., is not a native Irish species, but a relatively recent importation; there is no entry for *Viscum album* in either *An Irish Flora* (Webb, Parnell and Doogue, 1996) or *Census catalogue of the flora of Ireland* (Scannell and Synnott, 1987). The *New atlas of the flora of Britain and Ireland* (Preston, Pearman and Dines, 2002) has what might be regarded as an up-to-date map of the occurrence of mistletoe in Ireland; six 10-km squares are indicated, five in Northern Ireland and a single one for the Dublin area. Referring to the on-line *Flora of Northern Ireland* (<http://www.habitas.org.uk/flora/species.asp?item=3624>, accessed 10 October 2006) there are two additional records (squares) in the Province, and consulting other publications, especially Sylvia Reynolds' *A catalogue of alien plants in Ireland* (2002), there are at least another half dozen published records for the rest of Ireland.

The 'problem' with *Viscum album* in Ireland is that records may have been discounted because they were reckoned to have been planted, in other words garden records, rather than established populations, naturalized outside the confines of parks and gardens. Some may also have been excluded because they were old and no recent confirmation could be obtained. A single plant on an old apple tree reported in the late 1700s is not likely to exist today.

In this note I do not exclude the old or the garden records; all are summarized and arranged by vice-county. My thanks are due to numerous correspondents who responded to appeals published in the press and on radio, and particularly to Sylvia Reynolds, Paul Green, Jonathan Briggs, Dominic Berridge, C.

Galloway, J. McNeill, Mary Davies, Seamus O'Brien and Michael Viney. A more comprehensive account with details for each record is in preparation. Table 1 summarises the current information.

TABLE 1. THE CURRENT STATUS OF *VISCUM ALBUM* IN IRELAND

(‘naturalised’, a plant that cannot have been deliberately planted; + = at least one live plant known; × = historic record)

Vice-county	Garden		Naturalised		Comment
	Living	Record	Living	Record	
H3	+				
H4				×	1916 (Reynolds, 2002); no recent confirmation.
H6	+	×	+		
H8	+				
H12	+	×	+		
H13	+		+		
H18	+				
H20	+	×	+		
H21	+	×	+	×	
H22	+				
H25		×			
H35	+				
H36		×			Pre-1939; no recent record.
H37		×			Only vague reports without localities.
H38	+	×			
H39	+	×	+	×	
H40	+				Not confirmed.

Host trees include: *Acer platanoides* (Norway Maple) and *A. pseudoplatanus* (Sycamore); *Aesculus* cf. *× carnea* (Red Horse-chestnut); *Betula* sp. (Birch);

Cotoneaster cf. horizontalis (Wall Cotoneaster); *Crataegus* spp. and cultivars (Hawthorns); *Malus* cultivars including 'Bramley Seedling' and 'Lord Lamborne' (Apples); *Malus cf. sylvestris* (Crab Apple); *Populus × canadensis*; *P. nigra* (Black-poplar); *Salix* spp. (Willow); *Sorbus aucuparia* (Rowan); *Tilia* spp. or cultivars (Lime).

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ERICA MACKAYANA – Y? OH! WHY?

E. Charles Nelson

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The unfamiliar name in the title is the correct name for Mackay's Heath – henceforth we must not use *Erica mackaiana*! The 'i' must be replaced by a 'y', because James Townsend's surname was Mackay with a terminal 'y'.

But why must the name be changed after 170 years of complete, rock-solid stability? Isn't this making a nonsense of plant nomenclature? I can answer the first question, and refrain from a comment on the second.

Why? In brief, the *International code of botanical nomenclature (Vienna Code) adopted by the Seventeenth International Botanical Congress Vienna, Austria, July 2005*, published during the Autumn 2006, contains a revised Article 60.7 that lays out new guidelines for the formation of names from personal names (eponyms) where implicit Latinization of those names occurred. The opinion hitherto held was that C.C. Babington when coining *mackaiana* had implicitly Latinized the surname Mackay. The revised rule states (and it is the exception that is significant): "When changes in spelling by authors who adopt personal, geographic, or vernacular names in nomenclature are intentional Latinizations, they are to be preserved, except when they concern (a) only the termination of the epithets ... or (b) changes to personal names involving (1) omissions of a final vowel or final consonant or (2) conversion of a final vowel to a different vowel, for which the final letter of the name is to be restored." One example given which is relevant to the case of *Erica mackaiana* is as follows: "... *Hypericum* "buckleii" ... commemorate[s] ... S.B. Buckley. The implicit Latinization ... Buckleius ... [is] not acceptable under Art 60.7. The name [is] correctly ... *H. buckleyi*"

Thus in *Erica*, *E.* 'mackaiana', after J.T. Mackay, must be changed to *E. mackayana*, and (a Cape heath) *E.* 'harveiana', after the Limerick-born botanist W.H. Harvey, must be changed to *E. harveyana*.

Of course, this change is annoying – books and nurserymen's catalogues, labels in gardens and garden centres, international registers and databases, all have to be amended, although probably at small expense beyond great

irritation. We have to follow the rules too – the *RHS plant finder* has used the spelling *mackayana* for some time.

SEARCHING FOR \times *FESTULPIA HUBBARDII* A NEW HYBRID FOR IRELAND

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I was awarded a BSBI Science and Research grant to search for the hybrid between *Vulpia fasciculata* (Dune Fescue) and *Festuca rubra* (Red Fescue) during 2006, which had not previously been recorded from Ireland. I wanted to find it for either Cos Waterford (H6) or Wexford (H12) first. I started my search on the 29 May at Tramore Burrow (S60.00), the most westerly site for *V. fasciculata* in Ireland where it was first found by Keith Ferguson on the 2 July 1973. After a couple of hours searching I gave up, heading home feeling defeated, but as I had looked here on a number of occasions since 1998 I was not surprised that I did not find it. I was joined a few days later by John Wallace and we searched the other two known sites for *V. fasciculata* in Co. Waterford. Starting at Woodstown (S69.04), to my disbelief there was no sign of the grass. The Marram (*Ammophila arenaria*), being much coarser than in previous years, may have swamped it out. Fornaght Strand (S70.03) was not looking good either; the ridge of dune that the grass had grown on had done a disappearing act since my last visit there the previous year. I am sure it was not because of storms as the rest of the strand was untouched. More than likely the sand had been removed by human activities. There were a handful of plants of *V. fasciculata*; hopefully these will be enough to replenish stocks.

Becoming very disheartened by now, I headed to Ballyteige Burrow (S96.03) in Co. Wexford the following day; these dunes stretch for 10 km. After six hours of hunting I was starting to think: “What on earth have I let myself in for.” A couple more days were spent searching dunes in Co. Wexford. Never giving up on a project I headed off to Co. Wicklow on 7 June – and there it was!

Below are listed the sites at which I found the hybrid:

Arklow, Co. Wicklow (H20), 7 June, T2538.7258. Five clumps were found. There was a small bare depression in the grass about the size of a large car between the two car parks on the sea front. This was the smallest population with less than one hundred plants of *Vulpia fasciculata*.

The Raven, Co. Wexford (H12), 14 June, T1113.2644. After looking at hundreds of thousands of plants of *Vulpia fasciculata* and walking for four hours and within ten minutes of being back at the car I came to a bare area covered in a little sand. Here there were over 50 clumps of the hybrid. Some clumps were large with over 30 heads.

Baltray, Co. Louth (H31), 19 June, O1494.7732. After a short walk I could see a bare area with very little sand amongst the dunes; I headed for this and found three clumps of the hybrid. The largest clump had 23 flowering heads.

Rosslare Harbour, Co. Wexford (H12), 13 July, T1386.1229. As I could see the ferry far out to sea I knew I was going to have a long wait before my friend arrived. Walking over the dunes, *Vulpia fasciculata* seemed to be everywhere, a new species for the 10-km square. Here I found two clumps of the hybrid growing amongst Marram, the only site where it was growing on loose sand.

The hybrid grows as a perennial like *Festuca rubra* and has heads that look much closer to *Vulpia fasciculata*. Searches were also made in Cos Dublin (H21) and Meath (H22). Specimens from each site have been placed in **DBN**.

I would like to thank the BSBI for the grant that enabled me to go looking for this hybrid grass on the east and south coasts of Ireland.

WILDFLOWERS OF THE LAUNE, NORTH KERRY (V.C. 2)

M. O'Sullivan
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In recent times, a song composed by a local emigrant has become the proud anthem of the residents of the Laune-side town of Killorglin. The title of the song 'My wildflower of the Laune' does not refer to any particular species but

to the fairer sex of *Homo sapiens*. Nevertheless, the composer must have had more than a passing interest in the botanical wonders of his native Laune as he traversed its banks in his youthful days.

There are quite a few interesting species of plant life along the banks of this great fishing river and its attendant narrow strip of tidal marsh stretching from the landmark iron bridge below the town to the townland of Steelroe (2 km east). Trees are scattered and typical of the habitat – *Alnus glutinosa* (Alder) and *Salix* spp. (Willows), including the largest of the genus, *S. fragilis* (Crack-willow). At various intervals the river is fringed by stands of *Phragmites australis* (Common Reed) and by that vigorous coloniser *Fallopia japonica* (Japanese Knotweed).

Allium triquetrum (Three-cornered Garlic) can be found in conspicuous bunches near the water's edge and forms a colourful contrast with the brilliant gold of *Caltha palustris* (Marsh-marigold) in late spring. This is an ideal haven for *Arum maculatum* (Lords-and-ladies) and the delicate *Lychnis flos-cuculi* (Ragged-Robin) that is abundant throughout. *Lycopus europaeus* (Gypsywort) is prominent close to the iron bridge. *Buddleja davidii* (Butterfly-bush) can be encountered close to the town, its purple plumes highlighted by the back-drop of the shimmering water.

The narrow strip of marsh along by the river with its network of tidal drains is a perfect home to the reclusive water rail as well as playing host to a diverse variety of flowering plants, including rushes, sedges and grasses. *Equisetum palustre* (Marsh Horsetail) can be found in dense stands. *Carex viridula* subsp. *brachyrrhyncha* (Yellow-sedge) is ever present as is *Deschampsia cespitosa* (Tufted Hair-grass). Exotic *Sasa palmata* (Broad-leaved Bamboo) can be seen growing with garden escapee *Hemerocallis flava* (Day-lily). The eye-catching *Mimulus guttatus* (Monkeyflower) enriches the marsh during mid-summer as does *Iris pseudacorus* (Yellow Iris). There is no shortage of umbellifers with *Conium maculatum* (Hemlock), *Angelica sylvestris* (Wild Angelica) and *Berula erecta* (Lesser Water-parsnip) towering over all the other plants. Widespread in habitats such as this are *Ranunculus flammula* (Lesser Spearwort) and *Mentha aquatica* (Water Mint) which grow in profusion close to the water's edge. In the many back drains grow the sprawling *Apium nodiflorum* (Fool's-water-cress) and the creeping *Veronica beccabunga* (Brooklime).

Finally, in early autumn, it is *Lythrum salicaria* (Purple-loosestrife) with its attractive inflorescence that enlivens the marsh with a blaze of colour and signals the end of another year's growth.

A REPORT ON THE FLORA OF CORK (V.CC. H3-H5), 2006

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2006 has proved an extremely busy and very productive year botanically. The highlight of the year was Dr Tom Gittings' inadvertent and fortuitous collection of *Puccinellia fasciculata* (Borrer's Saltmarsh-grass) from the margin of Commoge Tidal Lagoon (H4, W63.49) near Kinsale, in July – a reinstatement to this site and to the Cork flora after a gap of some 40 years! Equally satisfying, however, was the discovery that the *Mibora minima* (Early Sand-grass) population in its only present-known Irish site at Cannawee Dunes, Barley Cove, West Cork (H3, V76.25), consists of over 100,000 individual plants. An account is provided of the Co. Cork BSBI (Irish Branch) Field Meeting of the 10-11 June, as are updates for many city and county populations of both *Veronica polita* (Grey Field-speedwell) and *Veronica crista-galli* (Crested Field-speedwell). Moreover, new adventive populations of *Erodium moschatum* (Musk Stork's-bill) and *Geranium pusillum* (Small-flowered Crane's-bill) are being discovered about Cork City with increasing frequency since 2000 and, far from being transient, such populations are tenaciously establishing themselves! Lastly, a brief account of ongoing *Rosa* recording work in Co. Cork is given.

On 29 March, a survey of the roadside flora of the 'back' Cork Airport road from Liss Crossroads (H4, W66.64) southwards to Fivemilebridge, showed naturalized *Veronica crista-galli* (Crested Field-speedwell) populations to still be locally common here, where I first recorded this species in the 1970s. About this crossroads occurred small populations of *Fumaria bastardii* (Tall Ramping-fumitory), *Allium ursinum* (Ramsons) and *Lamiastrum galeobdolon* subsp. *argentatum* (Yellow Archangel). Later work from Crossnacroha T-junction (H4, W64.66) to Knockalisheen valley-bridge produced further stands of *Veronica crista-galli*, associated with *Veronica hederifolia* subsp. *hederifolia* (Ivy-leaved Speedwell), while the stream-valley itself held dense

populations of cohabiting *Ranunculus ficaria* subsp. *bulbilifer* (Bulbiliferous Lesser Celandine) and *R. ficaria* subsp. *ficaria* (Lesser Celandine), together with equal quantities of *Hyacinthoides non-scripta* (Bluebell) and *Luzula sylvatica* (Great Wood-rush). *Carex remota* (Remote Sedge) occurred commonly in damp ground, while occasional clumps of *Carex laevigata* (Smooth-stalked Sedge) were also present.

On 3 April, putative leaf-rosettes of the nationally rare annual, *Geranium pusillum* (Small-flowered Crane's-bill) were found on a green in Glenthorn Estate (H5, W68.74), Dublin Hill, Cork City. The determination was confirmed later in the year, when both flowering and fruiting material became available. [Note: The initial tentative *G. pusillum* determination was based solely on leaf-petiole indumentum characters, which in this species consist of minute, subequal, subretorse, eglandular hairs that appear to the naked eye as a very fine 'down', and which, in my experience to date, are absolutely diagnostic for *G. pusillum*.] Within the same week, a naturalized stand of *Erodium moschatum* (Musk Stork's-bill) was found on a green-margin at the junction of Dublin Hill and Delaney Park cul-de-sac (H5, W67.73), cohabiting with a flowering population of *Veronica polita* (Grey Field-speedwell).

On 6 April, work on the Douglas Road allowed dinnertime botanizing in the immediate area. Among the refinds were: *Veronica polita* (Grey Field-speedwell) populations at the junction of Douglas Road/Eglantine Park (H4, W69.70) and also at Endsleigh Park in the same 1-km square; a tiny, relict population of *Orobancha hederæ* (Ivy Broomrape) in a railed front garden adjacent to the Briar Rose Hotel, and an equally relict population of *Geranium rotundifolium* (Round-leaved Crane's-bill) on a limestone wall on the Rhodaville/Rathmore Road. Some tiny, precariously existing populations of *Geranium purpureum* (Little-Robin) were also rechecked nearby, where I originally recorded them in 1974. Most Cork City populations of both *Geranium purpureum* and *G. rotundifolium* are now very small and disjunct, as major infrastructural developments about the city since the late 1970s have largely eliminated their habitats. On 7 April, cohabiting stands of *Veronica crista-galli* and *Valerianella carinata* (Keeled-fruited Cornsalad) were reseen about a limestone wall in Beaumont Avenue (H4, W70.71), Cork City, while both *Anemone nemorosa* (Wood Anemone) and *Allium triquetrum* (Three-cornered Garlic) were seen on the green flanking Beaumont limestone quarry, which latter habitat still holds tiny populations of *Geranium purpureum* (Little-Robin), *Linum bienne* (Pale Flax), *Orobancha minor* (Common

Broomrape), *Trisetum flavescens* (Yellow Oat-grass) and *Helictotrichon pubescens* (Downy Oat-grass), etc.

On 14 April, I revisited my *Mibora minima* (Early Sand-grass) site at Cannawee Dunes (H3, V76.25), Barley Cove, West Cork. I was accompanied by Michael Troy, who wished to photograph this nationally rare grass species. Thankfully, the weather proved dry and sunny, and the grass was in full flower. To my delight, I extended the known range of *M. minima* by some 200 m, and we conservatively estimated its metapopulation size at some 100,000 individual clumps. *Mibora minima* was most conspicuous on sloping sandblowouts, but *absent* from adjacent sites where moss carpets dominated. [Note: At anthesis, *M. minima*'s very long, straight filaments are well-exserted from the florets, while the basifixed anthers are held in the same plane as the filaments. However, the spent stamens become pendulous and droop over the sides of the spikelets.]

On the journey home, a brief stop at Rock Island Bridge (H3, V81.26) showed the seawall to still hold an abundance of *Erodium moschatum* (Musk Stork's-bill) together with tiny populations of *Erodium maritimum* (Sea Stork's-bill). Sadly, the tiny quarry nearby had been reworked, resulting in the loss of *Cicendia filiformis* (Yellow Centaury) that was first recorded here in 1993. On the present visit, the sloping rocky outcrops adjacent to the western turret on Rocky Island (same 1-km square) produced only a few flowering plants of *Orchis morio* (Green-winged Orchid), associated with scattered leaf-rosettes of *Tuberaria guttata* (Spotted Rock-rose).

On 24 April, relict Cork City populations of *Geranium rotundifolium* (Round-leaved Crane's-bill) and *Allium vineale* (Wild Onion) were rechecked in their sites at Lough Villas and Croghtamore Gardens (H4, W66.70), while the western pathway margin and laneways bordering the adjacent Cork Lough itself, still held populations of *Veronica crista-galli* (Crested Field-speedwell) (known since 1980), *Veronica polita* (Grey Field-speedwell) and *Vulpia myuros* (Rat's-tail Fescue).

On 13 May, a late-evening visit to picturesque Tibbotstown Reservoir (H5, W81.76) near Carrigtwohill, produced a few flowering clumps of *Primula veris* (Cowslip) in scrubwood on its eastern shore (an addition to the flora of this site), while the sheer, southern wall of the Reservoir is bedecked with a *Parthenocissus* species (Virginia-creeper). Although I have made sporadic

visits to Tibbotstown Reservoir since the 1970s, I have yet to make a thorough inventory of its flora, which includes: *Euphorbia hyberna* (Irish Spurge), *Equisetum sylvaticum* (Wood Horsetail), *Carex hirta* (Hairy Sedge), *Mentha × verticillata* (Whorled Mint), *Apium inundatum* (Lesser Marshwort), *Littorella uniflora* (Shoreweed) and *Salix purpurea* (Purple Willow).

On 28 May, examination of the hedgebank on the southeastern branch of Pounds Crossroads (H4, W58.73) near Cloghroe on the R579, produced an abundance of flowering *Geranium lucidum* (Shining Crane's-bill), associated with scattered populations of *Pimpinella major* (Greater Burnet-saxifrage), *Ranunculus ficaria* subsp. *bulbilifer* (Bulbiliferous Lesser Celandine), *Euonymus europaeus* (Spindle), *Hyacinthoides non-scripta* (Bluebell), *Allium triquetrum* (Three-cornered Garlic), *Rosa arvensis* (Field Rose), *R. canina* s. st. (Dog-rose), *R. corymbifera* (Hairy Dog-rose), *R. micrantha* (Small-flowered Sweet-briar), and the interspecific hybrids, *Rosa × bigeneris* (Hybrid Sweet-briar) and *R. sherardii* (Sherard's Downy-rose) × *R. rubiginosa* (Sweet-briar). [Note: The identity of both *Rosa* hybrids was confirmed on 27 August 2006.] Moreover, the eastern branch of the crossroads held plenty of *Carex divulsa* subsp. *divulsa* (Grey Sedge) on the roadside margins, a small hedgebank population of *Convolvulus arvensis* (Field Bindweed) on a roadside bend, and a naturalized stand of *Persicaria campanulata* (Lesser Knotweed) bordering a roadside stream, this latter species being new to hectad W5.7. Large, long-established stands of *Veronica crista-galli* (Crested Field-speedwell) bordered both sides of the roadway, close to its junction with the Cloghroe Road (the R579), which latter holds a stand of naturalized *Lamium galeobdolon* subsp. *argentatum* (Yellow Archangel), while nearby Healy's Bridge (H4, W60.73) produced a tiny population of *Valerianella locusta* (Common Cornsalad) on its western parapet – an extremely localized species about Cork City, despite the abundance of apparently suitable habitats for it.

On 7 June, populations of *Veronica crista-galli* (Crested Field-speedwell) were rechecked in the Amenity Park on the left bank of the River Sullane, immediately below Macroom Town bridge (H3, W33.73). *Carex divulsa* subsp. *divulsa* (Grey Sedge) was still common here, but *C. muricata* subsp. *lamprocarpa* (Small-fruited Prickly-sedge) was not seen on this visit. The stream at the northern end of the Park (which discharges into the R. Sullane) still held a small population of *Geum rivale* (Water Avens), its lovely, pendulous, salmon-pink flowers now being evident. Upriver of Macroom

Bridge, beds of *Nuphar lutea* (Yellow Water-lily) occur, while *Geum rivale* (Water Avens) is of locally frequent occurrence on the left bank of the river. [Note: Both *Nuphar lutea* and *Nymphaea alba* (White Water-lily) are considerably under-recorded in Co. Cork. The same applies to many smaller aquatic genera and species – a situation that is partly attributable to my aversion for collecting aquatic material in general.] Walls about Macroom Town held populations of *Vulpia myuros* (Rat's-tail Fescue), while flowerbeds within the castle grounds yielded *Fumaria bastardii* (Tall Ramping-fumitory), *F. muralis* (Common Ramping-fumitory) and *Veronica polita* (Grey Field-speedwell).

The 10 and 11 June were earmarked for a BSBI (Irish Branch) Field Meeting, which I was leading. On 10 June, the group met at Inchydoney Hotel carpark (H3, W40.38), at Inchydoney Beach, where two, tiny populations of *Inula crithmoides* (Golden Samphire) were pointed out. This 1-km square is bounded on its southern side by the beach and calcareous dunes, which support populations of *Calystegia soldanella* (Sea Bindweed), *Euphorbia paralias* (Sea Spurge), *E. portlandica* (Portland Spurge), *Ophrys apifera* (Bee Orchid), *Anacamptis pyramidalis* (Pyramidal Orchid), *Dactylorhiza incarnata* (Early Marsh-orchid), *Crepis vesicaria* (Beaked Hawk's-beard) and the only known native Cork populations of *Echium vulgare* (Viper's-bugloss), which I first recorded here in July 1971. The cliffs fronting the beach by the hotel support populations of *Anagallis tenella* (Bog Pimpernel), *Dipsacus fullonum* (Wild Teasel) and long-established *Armoracia rusticana* (Horse-radish), while the stabilized dunes yield *Verbascum thapsus* (Great Mullein) and *Rosa pimpinellifolia* (Burnet Rose).

Our next stop was at Greggane Strand (The Warren) (H3, W29.35), near Ross Carbery, where we saw the speciality of the day – a single clonal stand of *Lathyrus japonicus* (Sea Vetch) in early-flower. This spectacular species was first recorded here in 1992 by Dan and Nancy Minchin, and has maintained itself in the interim period and gradually extended its area by rhizome-spread. Some fine colonies of the stately plant, *Juncus acutus* (Sharp Rush) are also present here – a very local maritime species in both Ireland and Britain. Colourful mounds of *Raphanus raphanistrum* subsp. *maritimus* (Sea Radish) were locally common here, associated with equally frequent stands of *Euphorbia paralias* (Sea Spurge), *Eryngium maritimum* (Sea-holly), *Viola tricolor* subsp. *curtisii* (Seaside Pansy) and *Calystegia soldanella* (Sea Bindweed), etc. The maritime grass-hybrid, *Elytrigia atherica* (Sea Couch) ×

E. juncea (Sand Couch) is also present on the beach (where it was first recorded by Rev. Thomas Allin in the 1870s), but *Cichorium intybus* (Chicory) was not seen at this early date.

The final outing of the day was a visit to the calcareous dunes behind Dirk Bay (H3, W35.33). In dull and very blustery conditions, the party refound many flowering plants of the distinctive *Salvia verbenaca* (Wild Clary), which was originally recorded here by the Rev. T. Allin in 1870. Regrettably, it seems that only small, cleistogamous flowers are borne by this population, the more showy chasmogamous flowers having never been observed here. Associated species included: *Viola tricolor* subsp. *curtisii* (Seaside Pansy), *Anacamptis pyramidalis* (Pyramidal Orchid), *Ononis repens* (Common Restharrow) and *Primula veris* (Cowslip). *Spiranthes spiralis* (Autumn Lady's-tresses) and *Cuscuta epithimum* (Dodder) also occur here, but were not seen at this early date.

On 11 June, the party met at the small carpark adjacent to Kinsale Bridge (H4, W63.49), on the tidal River Bandon, where the shoreline provided cohabiting, flowering stands of *Brassica nigra* (Black Mustard) and *Malva sylvestris* (Common Mallow), while prostrate, purple-flowered beds of *Erodium moschatum* (Musk Stork's-bill) studded the turf. The grassy river-wall bore populations of *Rubia peregrina* (Wild Madder) and *Linaria vulgaris* (Common Toadflax), while the small boat-quarry added *Clinopodium ascendens* (Common Calamint), *Verbena officinalis* (Vervain), *Lepidium heterophyllum* (Smith's Pepperwort) and *Sedum album* (White Stonecrop), etc. Neither *Oxalis incarnata* (Pale Pink-sorrel) or *Medicago arabica* (Spotted Medick) were seen on this occasion, though the latter species has been known from this site for many years.

Our next stop was Jarley's Cove (H3, W64.49), at the back of Sandycove, where the party was shown a clonal population of the very distinctive *Lepidium latifolium* (Dittander or Broad-leaved Pepperwort), which was established here prior to 1872. This is the only known *extant* West Cork site for Dittander. In sunny conditions, we subsequently visited Garrylucas Fen (H3, W61.43), behind White Strand, Garretstown. This very important Cork habitat holds our only known populations of *Thelypteris palustris* (Marsh Fern) and *Juncus subnodulosus* (Blunt-flowered Rush), in addition to such rare/locally rare Cork species as: *Dactylorhiza traunsteineri* (Narrow-leaved Marsh-orchid), *Cladium mariscus* (Great Fen-sedge), *Carex acutiformis*

(Lesser Pond-sedge), *Carex lasiocarpa* (Slender Sedge), *Rumex hydrolapathum* (Water Dock), *Hippuris vulgaris* (Mare's-tail), *Berula erecta* (Lesser Water-parsnip), *Nymphaea alba* (White Water-lily) and a *Dactylorhiza fuchsii* (Common Spotted-orchid) × *D. majalis* agg. (Marsh Orchid) interspecific hybrid, this latter a beautiful plant, known from here since at least 1994.

Subsequently, we visited Dunderrow Wood (H4, W58.52) on the left bank of the tidal River Bandon, below Inishannon Village. Our primary objective was to recheck the population of the nationally rare *Euphorbia amygdaloides* subsp. *amygdaloides* (Wood Spurge) that was first recorded here by the Rev. T. Allin in 1874, in addition to a population of *Millium effusum* (Wood Millet). To our delight, the Wood Spurge was in full flower, and occurred in some abundance along the main pathway of this now coniferized woodland. Photographs were taken. Once again, however, there was no sign of the Wood Millet. The disturbed pathway here held naturalized populations of *Juncus tenuis* (Slender Rush) and *Acaena* agg. (Pirri-pirri-bur), the former being new to this woodland, while the latter was first recorded by me in 1974. The base-demanding species, *Allium ursinum* (Ramsons) is of locally frequent occurrence along the pathway of this essentially calcifuge woodland. The shoreline at the base of the woodland bordering Doon Creek (1-km square, W58.51) bears a halophytic flora, including stands of *Elytrigia atherica* (Sea Couch). A small stand of *Dipsacus fullonum* (Wild Teasel) was seen on a field-margin close to the pathway entrance to the woodland, a very local Cork species.

Our final stop was on the right bank of the tidal River Bandon, opposite Inishannon Village (H3, W54.56), where I hoped to show the party long-naturalized stands of *Selaginella kraussiana* (Krauss's Clubmoss) and *Cystopteris diaphana* (Diaphanous Bladder-fern). *S. kraussiana* was first recorded here by D.P. Young in the 1950s, while the *Cystopteris* was found by me in May 1984, when I assumed it to be only naturalized *C. fragilis* (Brittle Bladder-fern), given its very untypical riverine habitat and association with *S. kraussiana* and *Soleirolia soleirolii* (Mind-your-own-business) – all three taxa presumably established here by means of wind-borne spores from a postulated long-defunct fernery nearby. On the present visit, however, a river-spate put paid to any examination of the habitat, and we brought the weekend outing to a close. I express my gratitude to all who attended the outings, and who proved such good company!

On 13 June, a short visit to Clogheenmilcon Nature Reserve (H4, W62.75) close to Blarney Village, resulted in the refinding of my 1995 populations of both *Carex pseudocyperus* (Cyperus Sedge) and *Azolla filiculoides* (Water Fern) on the margin of the pond, shortly east of the central carpark here. On this occasion, the only flowering material of *Catabrosa aquatica* (Whorl-grass) seen occurred in the short stretch of the Blarney River just above Gothic Bridge (H4, W61.75), though this beautiful aquatic grass was formerly more widespread in this area, where I first recorded it in 1984. The roadside wall to the south of Gothic Bridge once more produced populations of *Geranium lucidum* (Shining Crane's-bill), *Geranium rotundifolium* (Round-leaved Crane's-bill), *Vulpia myuros* (Rat's-tail Fescue) and *Veronica crista-galli* (Crested Field-speedwell), while the roadside hedgebank opposite (H4, W61.74) held a surprise in a single bush of *Rosa stylosa* (Short-styled Field-rose), which latter I have not previously recorded in the Blarney area.

On 19 June, the right bank of the River Sullane was accessed from the Macroom-Ballyvourney road at Poulubro Bridge (H3, W22.75). Shortly below the bridge, naturalized populations of *Spiraea* agg. (Bridewort) grew on the riverbank, while further downriver a few established populations of *Fallopia sachalinensis* (Giant Knotweed) grew on the right bank – a spectacular species, of extremely local occurrence in Co. Cork.

On 2 July, an impromptu stop at the Gearagh Carpark (H3, W32.71) on the R584 near Toon Bridge resulted in the rediscovery of a beautiful pink-flowered population of putative *Calystegia sepium* subsp. *sepium* (Hedge Bindweed) × *C. pulchra* (Hairy Bindweed) (= *C. × scanica*), which I originally found here in September 1995 – an apparent addition to the Irish flora! A subsequent stop at Killinardrish (H4, W41.71) refound scattered hedgebank populations of *Carex muricata* (Prickly Sedge) in its 1973 site, occurring southwards to the school/church road junction. A most unexpected find was a small bush of *Rosa rubiginosa* (Sweet-briar), which is of widely scattered but very rare occurrence in the Cork flora. *Prunus cerasus* (Dwarf Cherry) was well established and frequent here, as it is in hedgebanks over much of Co. Cork.

On 13 July, botanical work about Glenmore Crossroads (H5, W77.76) to the south of Knockraha, produced scattered hedgebank bushes of fruiting *Rosa sherardii* (Sherard's Downy-rose) and *R. rubiginosa* (Sweet-briar) on both the

west and east branches of this crossroads, in addition to naturalized stands of *Spiraea* agg. (Bridewort) and *Prunus cerasus* (Dwarf Cherry).

On 22 July, Dr Tom Gittings presented me with a bag of plant material for checking, which he had collected that day from the margins of Commoge Lagoon (H4, W63.49), a brackish backwater of the tidal River Bandon, slightly west of Kinsale Town. This material included a putative clump of *Puccinellia fasciculata* (Borrer's Saltmarsh-grass), which had been added to the Cork flora from this site in the 1950s by the British botanist D.P. Young, and subsequently lost sight of! On 23 July, following T. Gittings' directions to his collection site, I refound some eight clumps of *P. fasciculata* on the eastern shore of Commoge Lagoon – all clustered in one small area. This species proved a total novelty for me, and I found it to be visually very distinct from its ally, *P. distans* subsp. *distans* (Reflexed Saltmarsh-grass). The reinstatement of the *Irish red data book* species, *Puccinellia fasciculata*, to the Cork flora, is definitely the highlight of recording work in 2006!

Most regrettably, the recently built bridge-causeway to the new housing estates close to Commoge Lagoon has impounded and thus effectively destroyed the ecology of the tiny section of shoreline which in the years 1997/1998 yielded such regional plant rarities as: *Carex punctata* (Dotted Sedge), *Parentucellia viscosa* (Yellow Bartsia), *Juncus ambiguus* (Frog Rush) and *Anagallis minima* (Chaffweed). While a careful search here refound a single fine clump of *Carex punctata*, all of the rare annual species had been eliminated by the spread of colonies of *Bolboschoenus maritimus* (Sea Club-rush) and *Schoenoplectus tabernaemontani* (Grey Club-rush). The discovery of *Carex punctata* (Dotted Sedge) here in 1997, was a reinstatement to the Mid Cork flora, the species having last been recorded in H4 in 1892.

After leaving Commoge Lagoon, I subsequently parked at the laneway entrance (H4, W61.49) to Ballywilliam House, which latter overlooks the tidal River Bandon. In 1994, this long cul-de-sac (W60.49) yielded *eight* *Rosa* species on its hedgebanked northern margin, viz: *Rosa pimpinellifolia* (Burnet Rose), *R. arvensis* (Field-rose), *R. micrantha* (Small-flowered Sweet-briar), *R. stylosa* (Short-styled Field-rose), *R. canina* s. st. (Dog-rose), *R. corymbifera* (Hairy Dog-rose), *R. tomentosa* (Harsh Downy-rose) and *R. sherardii* (Sherard's Downy-rose). In the interim twelve-year period, however, further housing developments and hedgebank removal had taken place, while the remaining section of hedgebank had been severely cut, to the detriment of its

rose-flora. Yet the extreme western end of the laneway overlooking the coast, produced a few bushes of *Rosa micrantha* (Small-flowered Sweet-briar), at least one bush of *Rosa × bigeneris* (Hybrid Sweet-briar), fruiting plants of *Brassica nigra* (Black Mustard) and naturalized *Epilobium tetragonum* (Square-stalked Willowherb) and *Geranium × oxonianum* (Druce's Crane's-bill).

Finally, I entered the marshy scrubwood flanking the estuary by the pathway, and re-found one of the two clumps of *Carex × boeninghausiana* (Hybrid Tussock-sedge) that I had first recorded in this site in 1982. Other May 1982 finds not seen on the present visit were: *Lysimachia nummularia* (Creeping Jenny) and naturalized *Leucojum aestivum* (Summer Snowflake), *Viola odorata* (Sweet Violet), *Allium scorodoprasum* (Sand Leek) and *Allium triquetrum* (Three-cornered Garlic).

On 27 July, the small, exposed area of limestone outcrop flanking the N22 shortly west of the Carrigrohane junction (H4, W61.71), Cork City produced a fine flowering stand of *Origanum vulgare* (Wild Marjoram)! – a herb of extremely local occurrence in Co. Cork, despite the availability of apparently eminently suitable habitat for it. However, on subsequent perusal of the relevant botanical literature, I was even more surprised to find that this Carrigrohane site for *O. vulgare* had first been discovered in 1898 by R.A. Phillips! The opposite roadside to the *Origanum vulgare* colony held a small stand of flowering *Clinopodium ascendens* (Common Calamint), an equally attractive calcicole, that is very locally frequent in Co. Cork.

On 3 August, a tiny walltop population of *Poa compressa* (Flattened Meadow-grass) was found in a cul-de-sac (H4, W67.72) off St Mary's Road, near Cork's North Cathedral. This is the second Cork City site since 2000, for an exceedingly rare Cork grass.

On 12 August, I collected fruiting material of the nationally rare interspecific cross, *Rosa corymbifera* (Hairy Dog-rose) × *R. sherardii* (Sherard's Downy-rose) from a hedgebank northwest of Ballyvolane Cross (H5, W69.74), Cork City. This site was first found in 2003 and represents only the second Irish locality for this hybrid, which I originally discovered near Keam Bridge (H5, W71.88), Glenville, in 1977, and which still survives. Bushes of this hybrid, from both sites, are almost identical in vegetative and sepal-morphology, while the sepals (very like those of *R. sherardii*) are erecto-patent and tardily

deciduous on the ripening hips; the styler orifice is at least 1.5 mm wide, and the hips themselves bear only 2-4 developed achenes, the remainder being aborted and blackened.

On 25 August, I received an e-mail from Pascal Sweeney, to the effect that he had found *Populus tremula* (Aspen) growing in remnant deciduous woodland on steep outcrops in the Borlin Valley (H3, W0416.6462) in mid-August. In my experience, *P. tremula* is of doubtful status in the majority of its Cork sites, therefore data on a genuine native site such as this is always welcome.

The 30 August was earmarked for *Rosa* recording in NW Cork (H4). The route taken was the by-road from Roskeen T-junction (H4, W44.98) on the N72, northwards to Holy's T-junction (H4, R47.02) close to Cecilstown Crossroads, and including some five 1-km squares. The hedgebanks in this hectad are generally rose-rich and among the taxa which occurred frequently or commonly were: *Rosa arvensis* (Field Rose), *Rosa corymbifera* (Hairy Dog-rose), *R. canina* s. st. (Dog-rose), associated with more local populations of *Rosa micrantha* (Small-flowered Sweet-briar), *Rosa sherardii* (Sherard's Downy-rose), *R. tomentosa* (Harsh Downy-rose), and the interspecific hybrids, *Rosa canina* × *R. tomentosa* (*R. × scabriuscula*) and *R. stylosa* (Columnar-styled Dog-rose) × *R. canina* (*Rosa* × *andegavensis*), etc.

On 10 September, further *Rosa* work was undertaken in the Mid Cork hectad, H4, R4.0, the eastern branch of Coolnamagh Crossroads (H4, R46.00) producing the interspecific hybrid, *R. stylosa* × *R. canina* (*R. × andegavensis*), while the western branch held a few scattered populations of the cross, *Rosa tomentosa* × *R. sherardii* – extending the known range within hectad R4.0 of this exceedingly rare Irish interspecific hybrid.

On 8 October, early-morning botany was undertaken about Rosslague T-junction (H5, W811.696), to the east of Belvelly Bridge, Great Island, Cork Harbour. The minor, hilly road running southwards from here, supports many apparently long-established clumps of *Melissa officinalis* (Balm) over a c. 400 m stretch of its eastern hedgebank. Lemon Balm seems to have a stronghold in this area, as further populations occur along the coastal road, to the west and east of Rosslague T-junction. In 1-km square W83.69, I was fortunate to attain one of my prime objectives – the collection of a living clump of late-fruiting *Puccinellia distans* subsp. *distans* (Reflexed Saltmarsh-grass), for later, critical

morphological comparison with *P. fasciculata* (Borrer's Saltmarsh-grass). Indeed, the reinstatement of *P. fasciculata* to the Cork flora has rekindled in me a fresh appreciation of the coastal genus *Puccinellia*, and a desire to update the surprisingly few Cork records for *P. distans*. To my absolute delight, the other main objective of this trip was also fulfilled – the refinding of a ‘needle in a haystack’ – a 4 m long coastal wall population of *Sagina nodosa* (Knotted Pearlwort) at c. H5, W819.615. I originally found this tiny population in September 2003, but then quickly lost it, as I failed to note its precise location along this roughly 3 km length of coastal wall. *Sagina nodosa* is virtually absent from the flora of Mid Cork and East Cork, and this dry, porous, wall site should, by all accounts, be *edaphically* unsuitable for it!

On 15 October, Harper's Island (H5, W78.72) near Glounthaune Village, Cork Harbour was visited, to hopefully refind populations of *Puccinellia distans* (Reflexed Saltmarsh-grass). Immediately south of the island-bridge, this distinctive grass was seen in abundance in the saltpans bordering a brackish ditch. To my surprise, many clumps bore *fresh* basal leaves and, in addition to having late-fruiting culms, the tussocks also bore *fresh, flowering inflorescences with exerted, dehiscent anthers!* Some clumps of this rare Cork grass were collected for cultivation at home – and ongoing comparison with Tom Gittings' inadvertently collected clump of *P. fasciculata* (Borrer's Saltmarsh-grass), which is also thriving and producing many flowering and fruiting stems in a *freshwater*-pot! Harper's Island Bridge still held tiny populations of *Blackstonia perfoliata* (Yellow-wort), *Linum bienne* (Pale Flax), *Dipsacus fullonum* (Wild Teasel), *Hypericum perforatum* (Perforate St John's-wort) and *Veronica crista-galli* (Crested Field-speedwell).

On 14 November, fieldwork along the Bishopstown-Waterfall Road, Cork City (in 1-km squares: H4, W63.69; W63.68; W62.68), confirmed that the long-known populations of *Carex divulsa* (Grey Sedge), *Pimpinella major* (Greater Burnet-saxifrage) and *Veronica crista-galli* (Crested Field-speedwell) still occurred commonly along this roughly 2 km length of roadway. Moreover, the hilly stretch of road SW of Twopot Bridge (W62.68) still supports small populations of *Mentha arvensis* (Corn Mint), *Mentha × verticillata* (Whorled Mint), *Mentha suaveolens* (Round-leaved Mint), etc., while a remnant portion of inundation-meadow in 1-km square W63.69 still contains a subdominant colony of *Carex riparia* (Greater Pond-sedge), originally found here in c. 1998 by Ger Morgan and myself. This is one of the very few extant Cork City sites for *Carex riparia*.

Finally, between October and November 2006, both recently established and new *adventive* populations of *Geranium pusillum* (Small-flowered Crane's-bill) and *Erodium moschatum* (Musk Stork's-bill) were seen on grassy roadside verges in the following sites.

Geranium pusillum: Frequent and spreading in its recently-discovered sites at Douglas Hall Lawn Roundabout (H4, W69.70), Well Road, Douglas; and on the Skehard Road, Blackrock, between Bessboro Road junction and the defunct Railway Bridge over the nearby Amenity Walkway (H4, W71.70). New populations were seen on a grassy roadside-verge opposite Ballinlough Park (H4, W69.71) and in a similar habitat facing Ring Mahon Strand, Blackrock (H4, W72.71), where *G. pusillum* cohabits with equally *adventive* populations of *Erodium moschatum* (Musk Stork's-bill).

Similarly, *Erodium moschatum* was found in new sites at Douglas Hall Lawn cul-de-sac (H4, W69.69); at the Wilton Roundabout and adjacent Lynch Park (H4, W65.70); and facing Ring Mahon Strand, Blackrock (H4, W72.71) with *Geranium pusillum*, as mentioned above.

REQUEST

AQUATIC PLANTS

In order to gain experience for a small study on *Utricularia* (Bladderwort), I would be grateful to receive live material (sent in sealable bag, damp, between newspaper or kitchen towel). Flowering material would be very useful in relation to identification but I would welcome vegetative material (live) in order to carry out a growing trial. Also, for general experience in aquatic and sub-aquatic plants in any genus, if you have any spare material preferably fresh, this would be gratefully received. Send usual recording details and material ASAP to the address below; postage can be paid if required. Anyone in Europe knowing *U. bremii* (*U. minor*) would be welcome to send material also.

Michael Wilcox, 32 Shawbridge St, Clitheroe, BB7 1LZ.
E-mail: michaelpw22@hotmail.com

NOTICES

REMOVAL AND TEMPORARY CLOSURE OF THE ULSTER MUSEUM HERBARIUM (**BEL**)

The Ulster Museum on Stranmillis Road, Belfast, is currently closed pending a complete internal re-modelling of the building on the ground floor and the design and construction of new exhibitions. The scheduled date for re-opening is spring 2009.

During this period of closure both the staff and the collections will be removed to temporary accommodation. From about April or May 2007, staff, including the botany curators Paul Hackney, Osborne Morton and Catherine Tyrie will be based in offices at the Ulster Folk and Transport Museum at Cultra, Holywood, Co. Down (near to the Administration Building on the Folk Museum site), which is one of the other museums within the umbrella organisation of the National Museums and Galleries of Northern Ireland. Our 2006 AGM was held at this site last October.

The staff of CEDaR (Centre for Environmental Data and Recording) which holds the Vascular Plant Database for Northern Ireland (VPDNI) compiled during the BSBI *Atlas* project with subsequent updates, will also be moving with us to the Ulster Folk and Transport Museum. The herbarium, together with most of the other collections of the Ulster Museum, will be housed temporarily from January 2007 in an off-site store not far from the Ulster Folk and Transport Museum, probably for a period of about five years. These collections will be unpacked and made available for consultation by prior appointment at this temporary store during this period.

Progress on the project and how to contact Botany or CEDaR staff during the temporary arrangements will be available on the Ulster Museum web site at: <http://www.ulstermuseum.org.uk/>

From this web site you can also access an account of the history of the herbarium collection, its component collections and lists of the principal collectors, or go direct to:

http://www.ulstermuseum.org.uk/filestore/documents/natural_history_factsheets/umherbarium.pdf

Paul Hackney, Department of Botany, Ulster Museum

ROSCOMMON MEETING ON 28-29 JULY 2007

Would members please note that details relating to the venue on the second day of this meeting were inadvertently omitted from *BSBI News*, but they are shown correctly on the separate Irish Programme enclosed with this edition of *Irish Botanical News*? If you need further information about this excursion, contact John Earley.

John Faulkner, Field Meetings Secretary

SUMMARY OF MEETING OF BSBI VICE-COUNTY RECORDERS AND LOCAL AUTHORITY HERITAGE OFFICERS, 27 JANUARY 2007 AT THE NATIONAL BOTANIC GARDENS, GLASNEVIN

ATTENDANCE

Vice-county Recorders, representing over 30 vice-counties, attended together with at least twelve Heritage Officers, in addition to the main speakers.

INTRODUCTION

This meeting had been arranged by the Committee for Ireland for the purpose of establishing communication between the BSBI and the Heritage Officers so that both parties would be better informed of the role of each and to discuss and explore how each could best assist the other in progressing their common aims. Matthew Jebb welcomed those present and outlined the programme for the day.

ROLE OF BSBI

Caroline Mhic Daeid, the Chairperson of the BSBI Committee for Ireland, welcomed those present and expressed her delight at the excellent attendance from all parts of the country. Caroline said that she saw this gathering as being an important start towards the BSBI and the Local Authority Heritage Officers establishing co-operation into the future that would better protect our natural heritage.

THE FLORA OF IRELAND

Matthew Jebb outlined the activities of the National Botanic Gardens, Glasnevin and the importance and historic significance of the herbarium. A

huge number of records and specimens were held and were a unique and invaluable source of accumulated knowledge dating back centuries. The *Census Catalogue*, the *Red Data Book* and the *New Atlas* have all contributed significantly to our knowledge of the location and rarity of species, but there are still knowledge gaps and there is a need to more effectively disseminate what knowledge we now have so that it can be channelled to best effect.

HERITAGE OFFICERS' ROLE

Loreto Guinan, the Heritage Officer for County Meath outlined the role of the Local Authority Heritage Officers. They are responsible for advising the County Council Executives on aspects of a broad range of subjects under the heading of 'Heritage'. Heritage Officers in different counties networked to share their specialist knowledge and by doing so were able to provide a more comprehensive service to the County Councils.

OPPORTUNITIES FOR CO-OPERATION

Gerry Claby, Heritage Officer, outlined some of the areas where the expert local knowledge of botanists was of extreme importance but generally not readily available. Local Authorities had to prepare forward looking County Development Plans which included projected road building designs, the laying of new water service networks, the zoning of lands for different uses, the issuing of waste management licences.

Declan Doogue stated that the BSBI through the efforts of the Vice-county Recorders, over a long period, had accumulated a vast fund of specialist knowledge and that he was quite confident to commend the BSBI to the Heritage Officers. Declan stressed the importance of not only knowing where there were rare species and what obviously needed protecting, but also how important it was to study the habitats of rare species and to work towards generating a national site inventory.

NATIONAL BIODIVERSITY DATA CENTRE

Liam Lysaght, Centre Director, advised the meeting that the National Biodiversity Data Centre was now established and would be based in Waterford. The centre is at present at an early stage of development, and it is anticipated that the centre will be up and running in the very near future. Such a repository of Biodiversity Data is a facility which has been long overdue in the Republic and it will be a vital service to store and disseminate important and high quality data to decision makers.

CO-OPERATION CASE STUDIES

After a lunch break, under the chairmanship of Liam Scott two examples of recent co-operation between the County Heritage Officers and Vice-county Recorders were examined.

Deborah Tiernan and Declan Doogue had worked together in Fingal and Deirdre Burns and Catriona Brady in Wicklow. In both of these examples of co-operation, success was based on comprehensive and accurate field data, establishing and maintaining good lines of communication, including cross connecting IT.

SUMMING UP

There was a very definite expression of the usefulness of the contributions and discussion throughout the day. It was agreed that we should go forward from the meeting to formulate a programme to set up regular means of communicating and co-operation between BSBI and Heritage Officers.

CLOSE

Matthew Jebb closed the meeting on an optimistic note, and thanked all the participants who had contributed to a fruitful discussion and set out a challenge for the future.

Michael Archer, Honorary Secretary, BSBI Committee for Ireland

MINUTES OF THE ANNUAL GENERAL MEETING OF THE BSBI IRISH REGIONAL BRANCH 2006 HELD IN CULTRA MANOR, CO. DOWN, ON 14 OCTOBER 2006 (unapproved)

ATTENDANCE

Fourteen members attended including the Chair of the BSBI Committee for Scotland, Richard Pankhurst.

APOLOGIES

Apologies from Sharon Parr, Steven Ward, Fiona Devery, Wesley Semple (for the morning only), Con Breen, Mark Wright, Mike Wyse Jackson were received.

MINUTES OF THE 2005 AGM HELD AT GLASNEVIN 15 OCTOBER 2005

These were read, approved and signed by the Chair.

MATTERS ARISING

Vice-county recorders' guidelines are to be given to John Faulkner by the Chair.

CHAIR'S REPORT

Launch of the *Antrim rare plant register* and associated tree-planting ceremony in memory of Stan Beesley at the Ulster Museum 18 March 2006 were mentioned.

The Chair had attended the launch of the new Environmental Records Centre at Waterford at which Declan Doogue had given an overview of the work involved in the BSBI *Atlas* mapping scheme. No vascular plant work seems likely for at least 2-3 years. Attention will be focussed on incorporating data already in existence into a computerised database.

Meetings for BSBI members at the weekend in the Glasnevin Herbarium have commenced. At the first, Matthew Jebb and Peter Wyse Jackson outlined what they believed they could do for the Society.

ORCHIDIRELAND

The Chair reported on the two meetings of this ad hoc committee which had been held in 2006. BSBI's contribution this coming year will be to give an orchid theme to many of our field meetings.

ATLAS UPDATE

This is ongoing. One problem is that there are three separate databases held by BSBI, and there are difficulties in correcting errors in the existing data.

HYBRID BOOK

This goes to press in April 2007.

CENSUS CATALOGUE

Matthew Jebb has firmed up what he requires for this.

HONORARY SECRETARY'S REPORT

This was available at the meeting and is attached to these minutes.

DISCUSSION

Following on the Chair's and Honorary Secretary's reports, several points were raised and discussed, including the proposed new date classes for plant records which seems to be based on classifying data into decades; Ian McNeill raised this as an example of circulars which come to members or vice-county recorders from 'Head Office' which are received out of the blue with no prior discussion.

Also discussed was the relative merit of publishing new records in *Irish Naturalists' Journal* versus *Watsonia*. The new committee was asked to look at this issue again.

Alan Hill reported that Bob Ellis (BSBI Volunteers Officer) was prepared to come over to Dublin to do training in Mapmate.

Alan Hill also reported that Bob Ellis had queried the content of the *Antrim* and *Down rare plant registers* at a recent Records Committee meeting, but had apparently not seen copies. The Honorary Secretary agreed to see if copies still existed and if so these could be sent on to him. Apparently there have been a total of 19 registers completed for various counties so far (including the N. Ireland pair).

FIELD MEETINGS

Verbal reports were given on 2006 meetings held in Kerry, Tyrone, Wexford and Armagh.

John Faulkner (Field Meetings Secretary) read out the draft of the 2007 field programme.

REPORTS BY VICE-COUNTY RECORDERS

Caroline Mhic Daeid reported on the discovery by Toby Hodd of *Draba incana* (Hoary Whitlow-grass) in Magillicuddy's Reeks and the extent of *Hieracium scullyi* in Kerry. Ian McNeill reported on his finding of *Pimpinella major* (Greater Burnet-saxifrage) in Tyrone – the first county record.

ELECTIONS TO COMMITTEE

Three elected members retired at this meeting: C. Mhic Daeid, J.W.D. Semple and G. Sharkey. In addition P. Hackney, Honorary Secretary, was retiring as a co-opted member.

Three members were elected:

Ian McNeill proposed by P. Hackney, seconded by M.D.B. Allen.

Alan Hill, proposed by Brian Rushton, seconded by Michael Archer.

Brian Rushton, proposed by Ian McNeill, seconded by Alan Hill.

REPRESENTATIVE ON COUNCIL

Following the completion of his four-year term by Paul Hackney, Brian Rushton was elected, proposed by M.D.B. Allen, seconded by John Faulkner.

Paul Hackney, Honorary Secretary, BSBI Committee for Ireland

HONORARY SECRETARY'S REPORT FOR 2005-2006

The Committee for Ireland has met on three occasions: 26 November 2005, 28 January 2006 and 23 September 2006.

Matters discussed and business transacted included the following.

VICE-COUNTY RECORDERS' MATTERS

Appointment of Don Cotton and Michael Archer as joint Recorders for Co. Sligo.

Fiona Devery is to take over Offaly from Aideen Austin.

Sharon Parr and partner are to take over Co. Clare from Fiona Devery.

Decision to send out *Vice-county recorders' guidelines* to all Irish vice-county recorders.

ORCHIDIRELAND

This had been discussed at the 2005 AGM in Glasnevin. For a variety of reasons this did not formally launch in the 2006 field season as hoped. There have been a number of meetings of the OrchidIreland Steering group on which both Paul Hackney and Caroline Mhic Daeid sit to discuss funding and

progressing this. At present funding is being sought from sources outside BSBI.

The BSBI Committee for Ireland has also continued to discuss this project at its meetings.

HYBRIDS' PROJECT

Members in Ireland are being asked to support this major project to revise Stace's work.

RECORDS

Vice-county recorders are reminded that Mapmate is available from BSBI.

BSBI members are asked to co-operate with the National Herbarium at Glasnevin in plans to revise and up-date the *Census catalogue*. Members are reminded that the proper place of publication of new records is the *Irish Naturalists' Journal*.

The Herbarium at Glasnevin is to organise open days on Saturdays for members – this could become a useful Dublin focus for members to meet.

There should be encouragement to compile rare Plant Registers for the ROI vice-counties. Such registers have now been published for two Northern Ireland counties.

Members are encouraged to look for 'holes' in the *Atlas* distribution and seek to remedy data deficiencies that these reveal.

BSBI's relationship with the new Irish Biological Records Centre at Waterford was discussed at several meetings. Broadly speaking, a 'wait and see' approach has developed.

HERITAGE OFFICERS

In the Republic of Ireland, Declan Doogue has begun to explore developing mutually beneficial links between local authority Heritage Officers and BSBI.

FIELD MEETINGS

A total of twelve meetings had been organised for the 2006 summer season. The 2007 programme is in active preparation.

TALKS

Following the meeting, Declan Doogue gave a talk on how he felt that BSBI should cooperate with the local authority Heritage Officers in the Republic. Richard Pankhurst, Chair of the BSBI Committee for Scotland, gave an account of the work of the BSBI's Scottish Officer.

Paul Hackney, Honorary Secretary, BSBI Committee for Ireland