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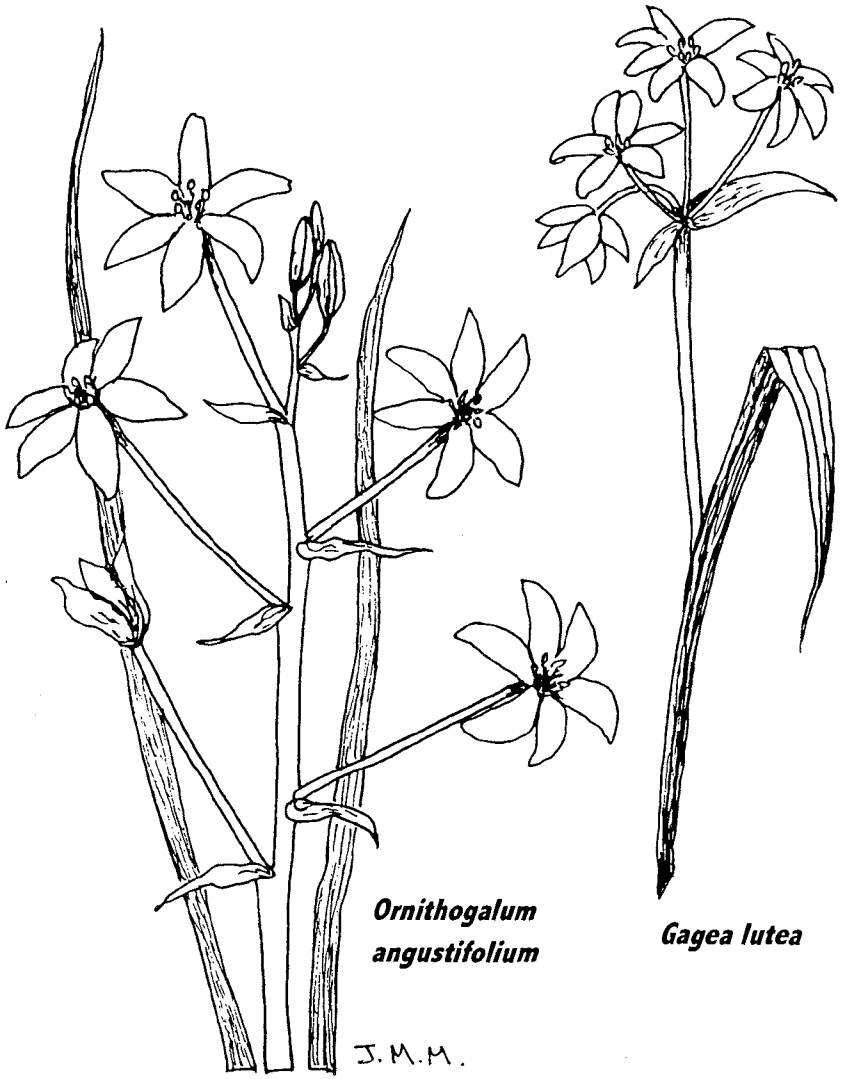

BSBI SCOTTISH NEWSLETTER

Number 21 **Spring 1999**

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Editorial

It seems no time at all since we were embarking on the Atlas 2000 recording project and now the final big push is on to have all the completed mastercards submitted by the end of October this year. A sobering thought! The importance of adhering to this timetable for the success of the scheme cannot be too strongly emphasised. Our pay-masters monitor the progress very strictly and it is hoped that Scotland, in spite of its more difficult terrain and manning problems, will not be found to be deficient in response. To this end, we exhort the Scottish Recorders to make a final effort and other members to contact their local recorder with a view to providing assistance in under-recorded areas.

The Editors take much satisfaction in the on-going success and indeed, yearly improvement, of the *Scottish Newsletter*. The contributions continue to be of excellent quality and quantity, in spite of the calls on members' time imposed by Atlas 2000. Sadly since our last publication we have lost our cover illustrator of many years, Olga Stewart, who will continue to be greatly missed. We encourage other members with an artistic bent to offer illustrations for the *Newsletter*. These need not necessarily be for the front cover, but could illustrate an article. Our thanks are extended to Mrs Jean Millar for drawing the illustration for this year's cover.

We wish an enjoyable and successful 1999 season for all our readers.

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Chairman's Remarks

PETER MACPHERSON

We were much saddened by the death in July 1998 of Mrs Olga Stewart. An appreciation is given elsewhere in this issue and a full obituary will be published in *Watsonia*.

At the AGM in November 1998, I pointed out that the BSBI Committee for Scotland had "come of age" having been constituted in 1977. Congratulations were extended to Mrs Joan Clark who had recently celebrated her **90 th** birthday.

The Committee for Scotland has met on four occasions during the past year. Of prime concern has been our wish to ensure a satisfactory input from Scotland to the BSBI project Atlas 2000. In relation to this, the Committee made certain that any vacancies for vice-county recorders were filled timeously and all our recorders were contacted to ask whether they wished to lead a field meeting in this, the last year of Atlas 2000 recording.

Four Scottish Natural Heritage grant-aided computers and printers have been allocated to Scottish recorders and we are grateful to SNH for this initiative.

Many recorders will now have received Verification and Discrepancy Lists in relation to their submitted Master Booklets (Cards). I have found very little wrong with the Verification Lists for VC 77 (2-10 errors per hectad) but have been most surprised by the number of taxa, listed by Monkswood, which are not in my card index. They are, of course, mainly from the past but I thought that I had copies of all the known records!

After due deliberation, the Committee responded to the SNH *National Parks for Scotland - A consultation paper* and replied to the Countryside and Natural Heritage Unit, SOAEFD on the draft *People and Nature - A New Approach to SSSI Designation in Scotland*. The Land Reform Policy Group documents were obtained but as they did not seem relevant to botanical conservation we did not think it appropriate to submit any comments.

As indicated in *BSBI News*, at the 1998 Scottish Annual Meeting one of the vice-county recorders asked whether a source was known from which herbarium mounting paper could be obtained. During the discussion it was suggested that there might be other members wishing a supply and if that were the case, could BSBI make a bulk purchase. Douglas McKean kindly arranged to make paper available from the Royal Botanic Garden, Edinburgh. We have had orders from 13 members (five of whom reside on islands). Those ordering have expressed appreciation of the Scottish initiative in this connection.

Scottish Annual Meeting 1998

EDNA STEWART

Introduction

The Scottish Annual Meeting for 1998 was held on November 7th in the Graham Kerr Building (the old zoology building) of the University of Glasgow. This is a very suitable venue, with a spacious laboratory for exhibits (although so many exhibits were offered that every available inch was occupied), the agreeable surroundings of the zoology museum for tea and coffee and packed lunches, and the refurbished lecture theatre. The exhibits were of a high standard, but I wonder if I was the only one not to get a proper look at them - there are so many friends to catch up on and questions to ask and answer. I must make more effort next year to study them while they are being set up - the only time there is comparative peace and quiet. The evening supper was held in the College Club and was followed by the usual show of members' slides.

Scottish VC Recorders Meeting

Peter Macpherson was in the chair. Gwynn Ellis, the General Secretary attended. There was a total attendance of 41 which included 27 Scottish VC Recorders. David Pearman told us that BSBI had a new contract with JNCC, for the Threatened Plants Data Base. Chris Preston mentioned the Date Classes which would be acceptable in the Highlands. Trevor Dines gave a report on the progress of Atlas 2000. The contract with JNCC had to be met, so he encouraged all Recorders who had not handed in records to do so ASAP, and add updates during 1999. The last date for submitting the records is 1st November 1999. Sarah Whild talked about the uses to which the information in Recorder can be put. David McCosh gave an update of the VC Census Catalogue.

BSBI Scottish Regional Meeting

The AGM of the BSBI membership resident in Scotland had an attendance of 54. Peter Macpherson (Chairman) paid tribute to Alfred Slack, Olga Stewart and Camilla Dickson who had died during the past year and those attending stood for a period of silent remembrance. The chairman then gave a report on the deliberations and activities of the Committee for Scotland. Keith Watson gave a report of the Field Meetings held during the current year and future venues were listed. The members were reminded that the Scottish Annual Meeting 1999 would be held in Stirling.

Lecture

Michael Braithwaite, Recorder for VC 81, gave an illustrated talk entitled "The Botanist in Berwickshire". The talk was a celebration of the wild flowers of Berwickshire and of the botanists who had worked there over three centuries. Berwick has a link with John Ray who found *Tofeldia pusilla*, new to science about two miles north of the city in 1671. It has not been seen since though it was searched for by George Johnston who wrote a full Flora in 1829 and founded the Berwickshire Naturalists Club in 1831. Among many leading naturalists who visited Johnston, Professor CC Babington was most frequent and he helped Johnston found the Ray Society in 1844. Berwickshire traditionally has three districts; Lammermuir, Lauderdale and Merse to which should be added the splendidly rugged coast line. The celebration of its flora focused on those species, interesting to the botanist, which have fine populations in the county, with due consideration being given to the aliens that are now well established. On the coast *Scilla verna* and *Glaucium flavum* are still found while several *Cotoneaster* species are now established. To the *Stellaria nemorum* and *Symphytum tuberosum* of the woods are added *Allium paradoxum* and *Doronicum pardalianches* in great plenty. The diversity of taxa of Batrachian *Ranunculus* and *Potamogeton* continues in the River Tweed with *Berula erecta* and *Ranunculus circinatus* reaching 200 m on Greenlaw Moor. Several colonies of *Diathus deltoides* prosper on base-rich knowes but apparently only one of the formerly more widespread *Crepis mollis*. The moorlands boast many colonies of *Sedum villosum*. *Artemisia absinthum* flowers near where it was introduced by the monks of Coldingham Priory and *Cardamine corymbosa* has arrived as a weed from New Zealand via the Royal Botanic Garden and rock garden enthusiasts. The recent field records of the county are now being computerised by the local record centre. Tribute was paid to the contribution of the late Olga Stewart.

Abstracts of Exhibits

Some Fife Grasses GH Ballantyne & W Hay

First and second county records were Various-leaved Fescue (*Festuca heterophylla)* and Soft Brome (*Bromus hordeaceus* ssp *ferroni* and ssp *thominei*). Formerly rare species now spreading especially in waste and disturbed ground included Black-grass (*Alopecurus myosuroides*), Rat's-tail Fescue (*Vulpia myuros)*, Foxtail Barley (*Hordeum jubatum*) and Giant Fescue (*Agrostis gigantea*). Sea side plants of note were Sea Fern-grass (*Catapodium marinum*), Fern-grass (*C.rigidum*) and Reflexed Saltmarsh- grass

(*Puccinellia distans* ssp. *distans* and ssp. *borealis (P. capillaris)*. Other featured grasses were Broad-leaved Meadowgrass (*Poa chaixii*), increasing in old policy woodland and Whorl-grass (*Catabrosa aquatica*), also apparently becoming more frequent. The opportunity was taken to display Frog Rush (*Juncus ambiguus*), an NCR.

The British Oak - One Species and Other Hybrids — E Blake

A series of sheets to show:

A. Hybrids between *Quercus robur* and *Q. petraea* from up to 1,400ft in the Ochil Hills, aiming to show that these are actually the same species.
B. Hybrids between *Carex nigra* and *C. bigelowii* from Feddal Hill in Glen Turret to show that the alpine form is actually C. *nigra* ssp. *bigelowii*.
C. *Festuca rubra* ssp. *arctica* and a new hybrid, *F. rubra* x ssp. *arctica* from upper Glen Turret.
D. *Salix* x *coriacea (S. aurita* x *S. myrsinifolia)* from 1,520ft on Kings Seat in the Ochil Hills.

Some Ayrshire (VC 75) Records 1998 — John Blane

The exhibit consisted of records made by SWT - Ayrshire Survey Team.
Grass Vetchling (*Lathyrus nissolia*) was found on a bank of the A77(T) near Hansel Village (NCR). The bank remained uncut until early October.
Yellow Bartsia (*Parentucellia viscosa*) recorded at the SWT Gailes Marsh Reserve is another NCR although I subsequently came across a 1982/83 record, in SWT files, from the Gailes area.
Other species displayed were Horse Radish (*Armoracia rusticana*) from Greenan Shore, Ayr; Trailing Bellflower (*Campanula poscharskyana*) from a wall in Maybole; Broadleaved Pondweed (*Potamogeton natans*) and Linton's Pondweed? (*Potamogeton* x *lintonii* ?) from the River Irvine near Riccarton Mill.
Photographic records included Blue Globe-Thistle (*Echinops bannaticus*) and Common Evening-primrose (*Oenothera biennis*) at SWT Shewalton Sandpits Reserve; Soapwort (*Saponaria officinalis 'Flore Pleno'*) at Gailes Marsh Reserve; Large-flowered Evening-primrose (*Oenothera glazioviana*) at Heathfield Ind.Est.Ayr and six salices from the disused railway at Allanton.

Berwickshire 1998 — M. Braithwaite

Notable field records in 1998 were exhibited. Matters of general interest included:-
* **Epilobium roseum**, Pale Willowherb, had been found in four hectads in

VCs 80 and 81 and one in VC 97 suggesting that this species has fairly recently extended its range in Scotland and is under-recorded. (MEM and L. Gaskell).
***Atriplex littoralis**, Grass-leaved Orache, had been found on an inland road verge in VC 81. Experience in Yorkshire suggests that this species will soon become widespread in Scotland along road verges salted in winter. (L. Gaskell).
***Laburnum anagyroides**, Laburnum, had been found extensively naturalised/ established on a sandstone riverside cliff. This, and less spectacular colonies, suggested that this species is under-recorded in Scotland as "Established". (MEB).
A further exhibit related to difficulties with historical records. For example, the name **Prunus cerasus** has been used **sensu lato** to include **Prunus avium,** both in a local Flora 1829 and in a Wild Flower Society Diary published 1939 and in use to 1952. In consequence there are erroneous records for this species in the historical card index for VC 81 that relate to **Prunus avium.**

Caithness and East Sutherland — K. Butler

Interesting specimens - *Potamogeton filiformis, Festuca gigantea.*
New to East Sutherland - *Carex paniculata*, *Dactylorhiza incarnata* ssp. *pulchella*
Two recent remote sites for *Goodyera repens* growing in open peat moor among *Calluna*.
Recording - only 6% of Caithness records are now pre-1970, but more than 50% of East Sutherland records are pre-1970.

Plant Records from Selkirk and Roxburghshire (VCs 79 & 80) — RWM Corner

The following plants were exhibited at Glasgow in November 1998
New to VC 79 were *Epilobium alsinefolium* and *Equisetum* x *rothmaleri*.
New to VC 80 were the following: *Bromus benekenii* found by David Wood and is also new to South East Scotland; *Callitriche platycarpa; Carex nigra x bigelowii* - this would appear to be the first report from outside the Scottish Highlands- it was confirmed by Chater and Jermy and the identification based partly on the distribution of the leaf stomata; *Epilobium roseum* was found by David Wood - it has been overlooked in the past; *Epilobium ciliatum x palustre*; *Ornithopus perpusillus* - the forestry track habitat was similar to that at its only VC 79 site.
Other notable records for VC 80 were as follows: *Geranium sanguineum* was re-instated as a native species after 130 years and *Molinia caerulea* ssp

arundinacea was refound at its previously known locality after 60 years. *Hieracium umbellatum* had not been seen since 1876. *Scrophularia verna* was seen again by Mrs Jean Murray not far from a previous site after 39 years. *Salix triandra* was found in two new sites.

Can We Conserve Welsh Groundsel in Scotland? C Dixon & C Sydes

Senecio cambrensis had been recorded in Leith since 1974 but it has not been seen since 1993. A survey sponsored by SNH in 1996 failed to locate it at the six known locations and twenty other similar habitats. A further survey in 1998 revealed that only three of the habitats surveyed in 1996 had survived intact, emphasising the rapid rate of loss of sites to redevelopment. It is worth looking out for this taxon which might well still occur elsewhere or could conceivably arise again. A collection of seed from the last known population made by St Andrews University raises the possibility of reintroducing the species to Leith under the Edinburgh Local Biodiversity Action Plan. *S. cambrensis* is only known from the UK and it is a hybrid involving the introduced *S. squalidus*. Those members at the Exhibition Meeting who expressed an opinion voted 100% in favour of its conservation in Scotland.

Atlas 2000 - Progress Nationally and in Scotland TD Dines

Maps were given showing the 772 British and 130 Irish Republic squares for which Atlas records had been submitted. The British total represents 27% of the total squares; 53% of the data has been submitted on Mastercard and 47% on disc. At BRC, the computerisation of the 1962 *Atlas* data has been completed with the addition of 410,000 records to the database. Atlas 2000 data is now being processed; data for 501 squares (some 275,000 records) has been added to date. The increase in records of *Agrostis gigantea* was shown using a series of maps (from the 1962 *Atlas*, from before Atlas 2000 data arrived, and the current map including Atlas 2000 data submitted so far). A county-by-county account and overall summary of progress in the Scottish Vice-counties was given.

Banffshire (VC 94) Exhibits J Edelsten

Catapodium rigidum - new VC record - found on gravel on shore at Strathlene NJ46 by Jonathan Winn on 14th June 1998 - associated with *Catapodium marinum.*
Trifolium micranthum - second VC record - found on lawn at Colleonard Sculpture Garden, Banff, on 11th June by J. Edelsten.
Hieracium sabaudum - second VC record - on gravel drive at the home of VC

recorder, J. Edelsten, 10 plants, thought to have been brought back on car tyres from botanical outing to Aberchirder, where the first VC record was found.

Flora of Assynt 1998 P& I Evans

In this, our 11th season, we mopped up the remaining marginal tetrads and most of the necessary revisits. There remain, for 1999, revisits to some of the high tops, any obvious gaps in distribution maps and continuing attention to critical groups such as *Euphrasia* and *Hieracium.*
Visiting friends have furnished some of the highlights of the season, including the discovery of *Dactylorhiza incarnata* ssp. *cruenta* (new to VC 108) and new localities for *Luzula arcuata* and *Poa glauca*. We located and mapped our large population of *Diphasiatrum complanatum* ssp. *issleri,* and confirmed the presence of *Puccinellia maritima* in the parish.

The Treshnish Isles 1-5 June 1998 L Farrell

Four BSBI members visited these islands off the NW coast of Mull. The main base was Lunga, where camp was struck, as the boatman could land us or take us off in any weather. A different island was visited each day, in better botanical coverage than ever before for this part of VC 103. Islands recorded included Fladda, Lunga, Sgeir a' Chaisteil, both parts of the Dutchman's Cap, and Cairn na Burgh More. The total numbers of records was 575, with at least 161 of these being new. A new site was found for *Ophioglossum vulgatum* on the Dutchman's Cap and on Lunga, *Orobanche alba* was reconfirmed from Bac Mor, *Mertensia maritima* counted on Sgeir a' Chaisteil and a new site found on Fladda.

Botanical Friends - Alf Slack and Olga Stewart. L Farrell

Both these active botanists died during 1998, and this display was a small tribute to their contributions over the years. Alf rediscovered *Homogyne alpina* in the Clova area, and wrote accounts of several mountain plants for journals and the Nationally Scarce Plants book. He was a very active mountain botanist and added considerably to the records in the west of Scotland.
Olga was a lady of many talents, and so a selection of her illustrations from botanical journals, papers and for her and other's own pleasure were displayed, to carry on her tradition of always providing an exhibit.

Lime Tree Regeneration in NW Glasgow R Gray

The exhibit consisted of three parts:

1. Maps showing a) the location of recognised sites of Small-leaved Lime (*Tilia cordata*) and Large-leaved Lime (*Tilia platyphyllos*) in the NW of Glasgow, and b) the observed locations of natural lime regeneration in the same area in 1997 and 1998 as well as likely lime regeneration from the last decade. Regeneration of Large-leaved and Hybrid (*T.* x *vulgaris*) Limes was copious but that of Small-leaved Lime was very rare in 1997 and 1998. Thanks are due to Mogens Hansen for showing us many of the sites, especially in the Milngavie area.
2. Specimens and photographs, courtesy of Prof. N.R. Grist, showing pressed lime seedlings and their development over a one year period. Pot grown one and two year old Large-leaved and Hybrid Lime seedlings.
3. A table of the summer monthly mean temperature maxima going back to 1959. Noteworthy were the high temperatures of July and August 1995, allowing successful fertilisation to take place, followed by 18 months to germination.

Some Cumbrian Aliens G Halliday

The following were exhibited : *Acaena ovalifolia* (new to Cumbria), *Calla palustris, Hirschfeldia incana* and *Brassica juncea* (2nd records for Westmorland), *Onoclea sensibilis* and *Lemna minuta* (new to Cumbria). Fresh material was exhibited of the last from the Lancaster-Kendal canal together with associated specimens of *L. gibba, L.* trisulca, *L. minor* and *Azolla filiculoides*.

***Carex depauperata* in Scotland** RA Jones & TCG Rich

Two specimens recently found in the Dublin Herbarium

***Lycopodiella inundata* (L) Holub in Scotland** P Lusby & C Sydes
Scottish Rare Plants Project

This poster described the results of a survey of *L. inundata* in Scotland. The main conclusions were that the plant does seem to be at most of its sites but populations tend to be small and widely scattered. The scarcity of the right combination of conditions appear to be a limiting factor in its occurence. It is probably under-recorded.

Some rare and local plants mainly from Midlothian D. McKean

Alnus hirsuta - not in 'Stace'.
Rorippa amphibia - introduced with grass seed.
Calamagrostis canescens - long thought to be extinct in Midlothian.
Festuca heterophylla - NCR
Erigeron acer - NCR
Glyceria fluitans x declinata - new Scottish record
Agrostis castellana - new to the Edinburgh Herbarium, apparently widespread in Britain.

Danish Scurvygrass — P & AC Macpherson
Another Seaside - Roadside Plant in Lanarkshire

The base map exhibited had blue stickers showing the sites at which we have recorded Lesser Sea-spurrey (*Spergularia marina*). At the time of the 1997 Exhibition we had 81 x 1km square records. A further 14 have been added in 1998 bringing the total to 95. Recording of this species is most easily done from mid-summer to autumn.
Danish Scurvygrass (*Cochlearia danica*) is most easily detected from spring to early summer, when the clumps form patches of pale lilac that can be detected from a moving vehicle. The first record for VC 77 was made from a roadside at Flemington by Alan Silverside and other records have been submitted by Graeme Walker, Allan Stirling and Roderick Corner. We now have 17 x 1km square records, 14 of which were made in 1998, the sites being shown by the red stickers. One site was at a roadside as above, two were at vehicle parks and the others along the M8 (one), M73 (three) and the M74 (ten). With one exception the motorway sites are on the central reservations.

Botanical Books from Oundle M Perring

On display, for sale, were a large number of botanical books and some botanical equipment.

Some Recent Records of Ayrshire Plants Allan Stirling

It has been interesting to note how the more intense recording of the Ayrshire flora during the years leading up to Atlas 2000 has highlighted the comparison with the results produced by the original Atlas project in the late 1950s.
The exhibit shows herbarium material of species representative of taxa which had no record or only one record for Ayrshire in the first Atlas.
Species with no record were:- *Trifolium micranthum* (now two recent

records); *Carex spicata* (now five recent) *Veronica peregrina* (see recent record exhibited): and *Sagina maritima* (perhaps the most surprising as it is in most coastal squares!).
Species with only one record in the first Atlas were :- *Atriplex littoralis* (now four squares) ; *Coronopus didymus* (now six squares, four coastal and two inland) and *Malva neglecta* (now three places).

Some Spiraeas Allan Stirling

As we seem to have collected quite a number of established *Spiraea* species and hybrids during recording for the new Atlas, we thought it worth showing some of these to compare with Alan Silverside's excellent descriptions in the "Plant Crib".
The most important thing to remember when recording this group is to ignore older references to *salicifolia* as this is unlikely to have occurred. The most frequently recorded taxon seems to be the hybrid *S.* x *pseudosalicifolia.* The easiest one to recognise is *S. douglasii* ssp. *douglasii.*

Days at the Coast Alison Rutherford

An exhibit of plants discovered during the UK's longest beach-clean (?). Some species were a first record for VC 99 – *Artemisia abrotanum,* while *Allium viviparum* may be a second British record and *Physalis peruviana* may be a first for Scotland.

***Glyceria canadensis* at Loch Lomond** K Watson

Exhibited was a specimen of *Glyceria canadensis,* an alien grass new to the British Isles, from the shore of Loch Lomond.

Supper and slides

At the close of the exhibition, we moved up the hill to the College Club, where after drinks at the bar, we enjoyed an excellent cold buffet. After supper slides were shown by seven members, some of BSBI field meetings held during the past year, with others from as far apart as Greenland and South Africa — the latter showing the amazing diversity of heathers from around the Cape. The following is a brief survey of the contributions:

E Blake	-	South African heathers
RWM Corner	-	Sutherland and Roxburgh plants
L Farrell	-	Outer Hebrides Field Meeting, Barra

H Lang	-	Coastal plants of W. Mull & Scottish alpines from E. Greenland
P Macpherson	-	Mountain desiderata; Cuillins, Coire Ardair, & Uplands of South Lanarkshire!
CW Murray	-	BSBI Strontian Field Meeting; a second site for *Arabis alpina* and tribute to Olga Stewart
FH Perring	-	Some interesting Shetland plants

In Memoriam - Olga M Stewart 1920-98 P MACPHERSON & L FARRELL

Scottish and indeed British botany suffered a great loss by the sudden death, in August, of Mrs Olga Stewart.

Her interest in wild plants began in 1947 when she and her husband Frank were at Aviemore on their first holiday together. She wrote later, " While climbing a hill, rather slowly and rather pregnant I collected flowers on the way and sat down to draw them. So began my collection of drawings of practically every plant, wild or established, that I have seen since". Her collection of drawings includes more than 2,000 British plants, mostly in watercolour. She also drew black and white illustration for books and journals, a highlight being *My Book of Flowers* by the late Princess Grace of Monaco.

The most recent major contribution in this respect was that of producing the illustrations for the BSBI Handbook No 9, 1997 *Dandelions of Great Britain and Ireland.* She drew an illustration for the front cover of every edition of the *BSBI Scottish Newsletter* (1979 - 1998).

She became a member of the BSBI in 1967 and in 1972 was appointed as recorder for Kirkcudbrightshire (VC 73). She performed the duties of that post with great enthusiasm, recording in all parts of the vice-county and making many new records in the process. She was a meticulous recorder and in 1990 published *Flowering Plants of Kirkcudbrightshire.* She contributed at least one article relating to the VC 73 flora for practically every issue of the *Scottish Newsletter.* She was the first of all the 152 recorders in the British Isles to submit a complete set of Master Booklets for the Atlas 2000 project.

However, her knowledge of plants was not limited to the one vice-county. She travelled widely and in the process became known to and respected by

others with similar interests. She was certainly one of the best field botanists in Scotland.

A member of the BSBI Committee for Scotland for 11 years, she was the representative on the BSBI Conservation Committee.

The lasting impressions that most of us have are two-fold. Firstly, from a botanical point of view, a great enthusiasm and determination to reach a desired site, even if this entailed great difficulty. Secondly, the boundless hospitality that she and her husband extended to local and visiting botanists. In addition she hosted many of the meetings of the Committee for Scotland, thinking nothing of coming up from New Abbey to open up the house in Edinburgh, just for the meeting.

A full obituary will be published in *Watsonia*.

Some overlooked specimens of *Potamogeton* × *suecicus*

CD PRESTON

I have recently been preparing, with Peter Hollingsworth and Richard Gornall, an account of the distribution and habitat of the uncommon hybrid *Potamogeton* × *suecicus* K. Richt. (*P. filiformis* Pers. × *P. pectinatus* L.) in the British Isles (Preston *et al.* 1999). The two parents are the only species in Subgenus *Coleogeton* in Britain. They hybridise with each other but not with species in the larger Subgenus *Potamogeton*. The main differences between the species are the richly branched habit of *P. pectinatus*, its open (as opposed to tubular) sheaths and its stigmas, which are borne on a short stylar neck (rather than sessile). The hybrid is sterile.

In the course of work on the distribution of the hybrid I have come across a number of herbarium specimens from the Western and Northern Isles which have hitherto been overlooked, as they have been identified as one or other of the parent species. The details of these are listed below, with the grid reference of the site and any associated publications.

Outer Hebrides (VC 110)

Loch nam Budh, Monach Island, NF/63.61. F.H. Perring, 29 August 1949, **CGE**. Initially identified as *P. pectinatus* but determined as *P. filiformis* by J. E. Dandy in 1968 with the note 'Leaf sheaths tubular!' and published as the latter species by Perring & Randall (1972). Determined as *P.* × *suecicus* by

C.D.P. in 1998. This is the only record of a species in Subgenus *Coleogeton* from this site.

Baleshare, North Uist, approx. NF/7.6. W.A. Clark, August 1942, **BM**. Clark initially identified the plant as *suecicus*, crossed this name out and replaced it by *filiformis* then crossed this out, adding *suecicus* again. Clark (1943) reported that *P.* × *suecicus* was "just as common as the last species [*P. pectinatus*] in the same lochans, Baleshare", noting that he had not been able to find *P. filiformis* in these sites. "Further attempts to demonstrate the presence of *P. filiformis*, made in 1947, were baffled by profusion of algae in the lochans" (Heslop Harrison 1949). However, the voucher specimen was determined as *P. filiformis* by Dandy & Taylor in 1947. I accepted their determination when preparing the account of *Potamogeton* for the *Flora of the Outer Hebrides* (Pankhurst & Mullin 1991). I have now examined the specimen for myself and find that the habit of the plant is branched. Although it is impossible to identify the material with absolute certainty, I agree with Clark's view that it is *P.* × *suecicus*. Pete Hollingsworth and I have found the hybrid in two sites on Baleshare, Loch Mor and Loch na Paisg.

[In addition to these specimens there is material from Loch na Doirlinn, Barra, NF/64.00., collected by A.J. Wilmott (no. 380718La) on 18 July 1938 at **BM** which was determined as *P. filiformis* by Dandy & Taylor in 1938 but later queried as possible *P.* × *suecicus* by Dandy on his index card. The specimens are vegetative plants and although their habit suggests *P.* × *suecicus* they are inadequate for certain determination. The population at this site needs re-examination in the field.]

Orkney (VC 111)

Loch of Rummie, Sanday, HY/7.4. Shell-sandy mud at bottom of water, about 1 foot deep, in a loch at 10 feet altitude. H.H. Johnson (no. 971), 27 August 1920, **E** (two specimens, one of them in **herb. H.H.J.**). Johnston notes on the sheet were "Native. Common. Plants in full flower." Named as *P. filiformis* by the collector, and this identification confirmed by A. Bennett in 1920 (as *P. marinus* L. forma *alpinus* Blytt) and published by Johnston (1922). Determined as *P. pectinatus* by Dandy & Taylor in 1939 and as *P.* × *suecicus* by C.D.P. in 1998.

Loch of Langamay, Sanday, HY/74.44. E.R. Bullard, 21 August 1963, **BM**. Determined as *P. pectinatus* by Dandy in 1964 and *P.* × *suecicus* by C.D.P. in 1998.

Loch Gretchen, North Ronaldsay, HY/74.52. Mud at bottom of water, 2 inches deep, in a loch at 8 feet altitude. H.H. Johnson (no. 941), 23 August 1920, **E (herb. H.H.J.)**. Johnston notes on the sheet were "Native. Common. Plants in full flower." Named as *P. filiformis* by the collector, and this identification confirmed by A. Bennett in 1920 (as a form between the type and the forma *luxuriosus* Hagstr.). Determined as *P.* × *suecicus* by C.D.P. in 1998.

Shetland (VC 112)

Loch of Clickimin, Lerwick, HU/4.4. In scummy water 2 ft deep with *P.* × *nitens*, *Zannichellia*, etc.; plant spreading like a fan. On the south side of the loch between Clickimin Road and the broch, R.C. Palmer (no. S1980/152), 16 August 1980, **herb. R.C.P. & SLBI**. Determined as *P. pectinatus* by A.C. Jermy and published as this species by Scott & Palmer (1987). Determined as *P.* × *suecicus* by C.D.P. in 1996.

Discussion

Characteristically *Potamogeton* × *suecicus* has the habit of *P. pectinatus*, and it therefore tends to be recorded as that species in the field. However, dissection of its sheaths under the microscope reveals that at least some are tubular, like those of *P. filiformis*. The plant from Loch nam Budh, VC 110, caught my eye when I was looking though specimens in **CGE**, as it looks like *P. pectinatus* but it was renamed *P. filiformis* by Dandy on the grounds that the leaf sheaths were tubular. This combination of habitat and tubular sheaths is typical of *P.* × *suecicus* in the Outer Hebrides, where it is now known to be frequent.

My interest in the plants from Sanday arose when Nick Stewart visited the island in 1994 and found the hybrid in three lochs. He was unable to detect *P. pectinatus* at any of these sites, though there were earlier records from two of them, Loch of Langamay and Loch of Rummie. When Nick and I wrote up our account of the hybrid in Orkney (Preston & Stewart 1995) we accepted these records of *P. pectinatus*, as both were based on determinations made by J. E. Dandy. However, I was later able to examine the relevant voucher specimens. To my surprise I found that both are undoubtedly *P.* × *suecicus*, combining the habit of *P. pectinatus* with sheaths which are consistently tubular. The specimen from North Ronaldsay is similar. (This is the first record of the hybrid from North Ronaldsay, although Loch Gretchen is only 8 km north of the nearest site on the adjacent island of Sanday). All the Orkney specimens are flowering but none have any developing fruit. Johnson

noted the plants he collected were in full flower when he collected them and the absence of fruit is therefore significant: Johnston was a careful collector who gathered extra inflorescences to include in a capsule on his herbarium sheets and who would certainly have collected fruit had he been able to do so.

In view of the fact that I have redetermined several Orkney specimens named by Dandy, or Dandy & Taylor, I should say that I have also examined the specimens in **herb. H.H. Johnston (E)** from Loch of Boardhouse (H.H. Johnston, 29 September 1913) and from Loch of Stenness (M. Spence, October 1908) which were determined as *P.* × *suecicus* by Arthur Bennett but which Dandy & Taylor redetermined as *P. pectinatus*. I agree with Dandy & Taylor's view that these specimens are indeed *P. pectinatus*.

The herbarium specimens from Shetland were also investigated after fieldwork resulted in the discovery of *P.* × *suecicus*. When we visited the Loch of Clickimin in 1996, Pete Hollingsworth and I were only able to find *P.* × *suecicus* and *P. filiformis*, although the loch was not easy to search thoroughly. The specimens collected by Richard Palmer are similar to our material of *P.* × *suecicus* from the same site, with some open and some tubular sheaths. However, the SNH Loch Survey visited this site in 1997 and collected fruiting *P. pectinatus*, demonstrating that this species is present in the loch in addition to *P. filiformis* and their hybrid.

Conclusion

The presence of a number of significant specimens of *P.* × *suecicus* lying unrecognised in major herbaria is not surprising. Like many hybrids, it is much easier to recognise populations in the field than fragments in the herbarium (and even in the field this is a difficult hybrid to recognise). Although there are doubtless more specimens of *P.* × *suecicus* undetected in herbaria, they are more likely to be recognised by detailed field survey at particular sites followed by an examination of herbarium material in the light of this experience, rather than by simply working through piles of herbarium specimens.

Acknowledgements

I thank Nick Stewart, Pete Hollingsworth and Richard Gornall, whose role in this study is outlined above, Richard Palmer and Doug McKean for arranging for the loan of herbarium material and Olivia Lassière of the SNH Loch Survey for access to their collections.

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Roses in the Herbarium, Royal Botanic Garden, Edinburgh

DJ McCOSH

The following Scottish specimens from the herbarium of the Royal Botanic Garden, Edinburgh have been identified by either AL Primavesi or R Maskew. The records are published for the benefit of the recorders. Unfortunately the majority are pre-1970.

Rosa arvensis	VCC	73, 76, 81, 83, 85, 89, 106
R. arvensis x *canina*		73
R. caesia ssp.*caesia*		72, 75, 79, 80, 81, 83, 85, 86, 87, 88, 90, 91, 92, 95, 96, 98, 101, 106, 111
R. caesia ssp.*vosagiaca*		73, 77, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 91, 94, 95, 96, 98, 100, 101, 102, 106, 107, 108, 109, 110
R. caesia x *canina*		73, 77, 79, 80, 81, 83, 85, 86, 88, 95, 96, 98, 100, 101
R. caesia x *mollis*		77, 82, 83, 95, 111

R. caesia x *rubiginosa*	94, 95, 96
R.caesia x *sherardii*	72, 80, 82, 84, 85, 88, 92, 103, 106, 107
R. canina ' Dumales'	73, 79, 81, 82, 85, 95, 96, 99, 100, 101, 102, 111
R. canina 'Lutetianae'	83, 84, 85, 90, 95, 96, 100, 101, 102, 108
R. canina 'Pubescentes'	82, 83, 85, 95, 96, 99
R. canina 'Transitoreae'	73, 79, 80, 82, 83, 84, 85, 94, 95, 96, 99, 100, 102, 108
R. canina x *sherardii*	82
R. micrantha	80
R. mollis	73, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 94, 95, 96, 98, 104, 106, 108, 110, 111,
R. mollis x *rubiginosa*	82, 88, 86,
R. mollis x *sherardii*	73, 82, 83, 89, 04, 95, 96, 100, 101, 106, 108, 111,
R. pimpinellifolia x *caesia*	82, 83, 107,
R. pimpinellifolia x *mollis*	75, 78, 79, 81, 83, 88, 90, 92, 94, 96, 100, 101, 104, 111
R. pimpinellifolia x *rubiginosa*	77, 79, 82, 88, 89
R. pimpinellifolia x *sherardii*	81, 82, 83, 84, 88, 89, 90, 93, 96, 100, 106, 108, 110
R. rubiginosa	73, 78, 79, 81?, 82, 83, 84, 85, 86, 87, 88, 89, 90, 95, 96, 97, 101, 102, 103, 106, 107
R. rugosa	82, 83, 96, 112
R. sherardii	73, 74, 77, 78, 79, 80, 81, 82, 83, 84, 85, 87, 88, 90, 91, 92, 94, 95, 96, 97, 98, 99, 100, 101, 102, 104, 105, 106, 107, 108, 110, 111
R. sherardii x *rubiginosa*	82, 96, 106

Raasay - 1998 Update

STEPHEN J BUNGARD

The Round-leaved Wintergreen (*Pyrola rotundifolia*) on Raasay's eastern cliffs flowered again during 1998 and it was possible to confirm last year's "virtually certain" identification. Single flowers sent to Henry Noltie at RBG Edinburgh & Peter Macpherson in Glasgow produced a unanimity of opinion.

A review of conifers near the sawmill led to the addition of Western Red-cedar (*Thuja plicata*) and Leyland Cypress (*X Cupressocyparis leylandii*) to the Raasay list.
The only other first was Ground-ivy (*Glechoma hederacea*), noted in woodland in Raasay House grounds.
Small Adder's-tongue (*Ophioglossum azoricum*) was found at two sites on Raasay itself, to add to previous records on Eilean Tigh and Fladday. The first was near the far north of the island in 18/65, the second near Manish Island in 18/54.
In 18/54, Adder's-tongue (*Ophioglossum vulgatum*) was found in good numbers on the eastern cliffs in a site rather similar to the previously known site in 18/53.
Another colony of Squirrel-tail Fescue (*Vulpia bromoides*) was found this year, near the ferry slip.
Lesser Bladderwort (*Utricularia minor*) was spotted in flower on Raasay this year for the first time since the BSBI meeting in 1969.

Arabis alpina — A second site!

KATHLEEN FALLOWFIELD

John Raven, in his book on Mountain Flowers, said he knew of *Arabis alpina* (Alpine Rock-cress) in one spot only in the Cuillins, where it was originally discovered by a climber, HC Hart. Raven thought it "highly desirable" that it should also be found in another accessible locality and that something else of interest should be found with it to repay a stiff and gloomy walk.

In June 1990 Elizabeth Norman and I visited the corrie where it was recorded, with written directions from the late John Fisher, who had been there with a camera and some friends in 1989. Although we both looked extensively in what we thought was the correct area all we found was lots of *Arabis petraea* (Northern Rock-cress).

In July 1990, John Fisher and his friends visited me in Braemar and I happened to show them my photographs of the corrie taken the previous month. One of them pointed out exactly where the plants had been found, well above where we had been looking in June.

In September 1993 my husband and I went back to look for the *Arabis alpina* and armed with the very clear directions I'd been given, went straight to the site. I recorded over 30 rosettes with the remains of the seed heads still present in two separate but adjacent areas, and took several photographs.

A year or two ago I showed the photographs to Catriona Murray (CWM), the Recorder for Skye and we agreed that it was a botanically boring corrie, apart from the *Arabis*. In 1998 CWM visited me in Braemar and we happened to be looking at shots of the *Arabis alpina* yet again, but this time also the site. This led to the discovery that the plants I'd been looking at were NOT the ones she and many others had seen. Obviously she was delighted to have another record for the species and when we were in Skye in October CWM and I went yet again, in marvellous weather, into the corrie.

Even though it was so late in the year the rosettes were in good condition with the remains of the seed heads still attached, although they were virtually empty. The number of rosettes was over 40. The plants were in a luxuriant growth of the mosses *Tortella tortuosa* and *Ctenidium molluscum* (kindly identified by Andy McMullen). The rhizomes running to the smallest rosettes were exposed on the surface of the moss and there was a constant drip of water down the rock at the back. The surface of some slightly higher rocks was covered by a large expanse of the orange cyanobacterium, *Trentepohlia aurea*. The only other notable plant nearby at this late date was *Rubus saxatilis* (Stone Bramble). Sadly, the lower but adjacent site seen in 1993, appeared to have been covered by loose rocks, probably washed down by snow and ice. Comparing the photographs taken at an interval of five years seems to show that there is a possibility that the moss could take over the site. There were many more tiny rosettes and far fewer large ones this year. However there are other factors to consider, weather being the main one, light intensity another, as the rocks in the stone chute build up.

Having ascertained that there was indeed a second site, there remained the problem of who had found it in 1989. I did not remember the names of John Fisher's friends, only that they were keen botanists from the South. I asked several people with no results, but eventually remembered that their visits to Caenlochan in 1990 had been eventful, if unlucky and managed to trace their names through the Mountain Rescue Team who air-lifted one of them to hospital after a bad fall. Letters were sent to all three, and it transpires that the credit for the find goes to Peter Lawson of Ledbury who visited the corrie with John Fisher and friends armed only with directions from John Raven's book. They split up to cover the corrie and Peter Lawson was successful in finding what now is a second record for *Arabis alpina*.

The grass is always greener in someone else's vice-county! It took several years to get this pink card filled in but the end justified the means. CWM and I look forward to visiting the new site when the plants are flowering next year.
I am very grateful to Peter Lawson for his prompt reply to my letter and for all the information he gave.

Barbara's Bugbear = Ballantyne's Boon? GH BALLANTYNE

In the late 1980s I compiled an annotated list (Ballantyne 1991) of the past and present flora of Balmerino Parish, which lies on the north shore of Fife about opposite Dundee. At the time, when searching the literature of the relevant 10 km square (N032), I noted several plants which were unfamiliar and which I was pretty sure did not occur in that part of Fife. It wasn't until the spring of 1997 that I twigged what the answer was: the plants were not in Fife but across the Tay in Dundee. N032 is one of those wretched squares that lies not in one, not in two but in three vice-counties. The NW part is in VC 89, the top NE section is in VC 90, leaving the major portion in VC 85 and so the whole as my responsibility for the new Atlas. Normally I might have been content to accept the relevant Recorder's lists for the two smaller bits, but as it happened, my wife had to attend Ninewells Hospital in Dundee for outpatient treatment during both 1997 and 1998 and so, rather than sit in stuffy, crowded waiting rooms, on most days I hied myself down the short road to the shore to do my bit for the Atlas - to the very "area of land 'claimed' from the Tay Estuary" mentioned by Barbara Hogarth (1998), as being only a few hundred yards from her house. The reclaimed area is in fact the Ninewells Tip which features frequently in the *Flora of Angus*.(Ingram and Noltie 1981).

This, I gather, has changed much since the publication of that book. At first, I didn't visit the actual tip area (or Civic Amenity Site as it is now grandiosely termed) but concentrated on nearby waste ground and the railway/airfield sides. One of the first plants I saw stumped me - a white-flowered almost shrub-like species, I guessed it was a *Polygonum* but couldn't be sure which one, until I checked the *Flora*, and sure enough, Henry Noltie had found *P. alpinum* there as an escape in 1980, a good start. The nearby roadside banks were decidedly showy so I gravitated to them but in this case it was immediately obvious that the masses of large Common Bird's-foot-trefoil (*Lotus corniculatus* var. *sativus*), Wild Carrot (*Daucus carota*), Musk Mallow (*Malva moschata*), Viper's-Bugloss (*Echium vulgare*), Mignonette (*Reseda lutea*), etc. had been deliberately sown. My initial thought was to admire and ignore, until it became equally apparent that some had spread to other grassy/waste ground in the vicinity and could not be discounted. Later, I found *Daucus carota* to be all over this part of Dundee and very much part of its flora.

In addition to Ninewells, the name Magdalene Green crops up often in the *Flora*. Further east, it is more or less opposite the Tay Rail Bridge and much of it was formerly the heart of the rail industry in Dundee, with extensive yards, sidings and loco sheds. These were largely cleared away a few years

ago and the land has lain derelict since - ideal for alien colonisation. Again, one of the first plants I came across was a virtual stranger, Canadian Fleabane (*Conyza canadensis*), still where it had been observed by the railway in 1980 and by no means merely casual. Members of the pea family dominated the ground, in the shape of Hare's-foot Clover (*Trifolium arvense*), Red Clover (*T pratense*), Black Medick (*Medicago lupinula*) and Kidney Vetch (*Anthyllis vulneraria*) and there was a scattering of other weeds, notably Fiddleneck (*Amsinckia micrantha*), Wall Barley (*Hordeum murinum*), various poppies and an unexpected find, Caper Spurge (*Euphorbia lathyris*). Here and there were some shrubs, a few fairly obviously planted but others bird-sown such as *Cotoneaster rehderi*, *C. simonsii* and *C.* x *watereri*. Now Barbara Hogarth has a point here about ephemerality, the land is eventually due to be built on and so most of the plants will disappear. But for Atlas recording purposes, they were there in the 1990, and a few will probably survive.

For my 1998 visits I concentrated on the Ninewells Tip, where there seems to be little if any actual dumping now. The area mostly comprises large stretches of barish, undulating ground and mounds, rapidly being colonised, interspersed with frequent small copses. Next to the shore, however, an undisturbed portion has abundant Butterfly-bush (*Buddleia davidii*) accompanied by a lot of Great Lettuce (*Lactuca virosa*) (could this have come down the Tay from Newburgh, where it has been known since 1836?),together with Japanese Rose (*Rosa rugosa*), Tumbling and Eastern Rockets (*Sisymbrium altissimum* and *S orientale*), White and Tall Melilots (*Melilotus alba* and *M. altissima*), Purple Toadflax (*Linaria purpurea*), Rat's-tail Fescue (*Vulpia myuros*) and others. Elsewhere, odd plants of Fennel (*Foeniculum vulgare*), Ternate Cinquefoil (*Potentilla norvegica*), Purple Mullein (*Verbascum phoeniceum*) and, oddly, some Cowslips (*Primula veris*) were encountered. And as a batalogical bonus, three brambles new to VC 90 were found: *Rubus elegantispinosus* (in quantity), *R. echinatoides* and *R. subinermoides* only the second east coast record).

The small copses, along with a long narrow stretch by the railway (and other areas off Riverside Drive) have been planted with a mixture of shrubs, mainly hazel, two alders, various willows, viburnums, cherries, etc. None appear as yet to have seeded themselves, but it will only be a matter of time before a few will sprout up elsewhere. Roses abound, especially by the railway, most apparently the true Dog Rose (*Rosa canina*) but also with a sprinkling of Sweet Briar (*R. rubiginosa*) - and one or two hybrids, arising spontaneously. R. rugosa is also present and likely to increase, along with beds of a handsome taxon that may be *R.* 'Eye Paint', fruiting well; an (appropriate) eye should be kept on it to see if it spreads by itself. On walking back to the car, I crossed the railway bridge at Ninewells and looked over, to be greeted with

the sight of a bank full of cast-outs/escapes including quite a lot of well-established Mediterranean Spurge (*Euphorbia characias*). This is certainly new to the VC and proved an apposite end to my Angus endeavours.

I can sympathise with Barbara Hogarth's view that one should focus "on existing natural habitats and learn more about the requirements of Scotland's native plants [rather] than ... try to keep up with the array of unfamiliar aliens that crop up in artificial habitats". But although many of the non-natives mentioned in the *Flora of Angus* have disappeared, the fact is that some are still extant and extending their range while others are becoming established, and all are decidedly part of the VC's flora. The Recorder in fifty years time (probably less) will have much difficulty in distinguishing what appeared where and when if we don't take note of them now.

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One person's Poison? ALISON RUTHERFORD

I find it difficult to agree with Barbara Hogarth's views (1998) on two accounts.

Firstly. She comments on the loss of the element of discovery among our native plants! So many recent varieties and subspecies are raised to specific rank and many have been divided into subspecies - the Red Fescues (*Festuca rubra*) or Heath Wood-rush (*Luzula multiflora*) for example. Also, if one is minded to grapple with them, there are the willows, roses and brambles, not to mention possible hybrids. However, perhaps Mrs Hogarth is braver with these groups than I am and has got to grips with them.

Secondly, she considers aliens to be a bugbear. I consider that they add an extra dimension to local recording. It is true that in Dunbartonshire VC 99 more southern species usually found in England or in areas of less rainfall, have in some cases faded almost away, and there are others, grain store/ballast plants which have gone due to lack of replenishment or being

'stirred up'. Robust garden species like Dark Mullein (*Verbascum nigrum*), noted as established in 1899, is still there, and has spread into the next lkm square, and a clump of Astrantia (*Astrantia major*) west of Helensburgh first recorded in the early 1920s is still present.

If garden escapes are omitted or not taken much into account, what does the flora writer do when they hybridise with native species? Our commonest bluebell in populated areas is the cross with Spanish Hyacinth, and very fine some of these are too, with bells of a great range of size, colours and shapes. *Hyacinthoides* x *variabilis* lives up to its name. It is mild enough here for the bedding *Senecio cineraria* (Silver Ragweed) to cross with *S. jacobaea* (Common Ragwort) and produce *S.*x *albescens*.

I do agree that one can't tell what may happen with dumping, building, draining or tree planting. I suspect that the, until recent, comparative 'poverty' of Scottish non-natives, has not been because we do not have them but that they were rather overlooked. In built-up areas it is pleasing to find traces of former landscapes, e.g. Ramsons (*Allium ursinum*) in a town garden or a solitary Great Wood-rush (*Luzula sylvatica*), evidence of a former woodland. In Helensburgh however, our Lesser Celandines (*Ranunculus ficaria*) are almost all the invasive subsp.*bulbifer* Our local flora is greatly enriched by garden escapes and a few non-native grasses, including the population exploding Early Pampas-grass (*Cortaderia richardii*). We even have perennial potatoes and, thanks to sewage-borne seeds, an annual crop of tomatoes on the shore. Last summer they were accompanied by several plants of *Physalis peruviana* (Cape Gooseberry), perhaps a first for Scotland.

Casuals can be annoying, but they are either 'no longer there' or pop up more or less frequently here and there. For example, *Myosotis sylvatica* the garden Forget-me-not can be 'there', but not every year.

So the local flora in progress is going to be as thorough as possible in the treatment of every category of plant.

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Botanising in Moray (VC 95) in March 1998 IAN GREEN

Living in Somerset in southern Britain but being the BSBI recorder for Morayshire (VC 95) means I can only spend a few weeks a year recording in the vice-county. So, to catch plants of all seasons I have to make visits at all times of the year apart from the very winter months (December, January and February). Everyone down here thought I was mad when I decided to spend the last two and a half weeks of March 1998 recording in VC 95. I arrived just as the snow was disappearing, even so it was surprising what one could find in flower. There was a great abundance of leaves and the odd dainty yellow flower of the *Gagea lutea* (Yellow Star-of-Bethlehem) in several places on the banks of the River Findhorn near Forres and one large patch on the west bank of the River Spey just north of Boat o' Brig. Further north by the River Spey is the town of Fochabers which has the Burn of Fochabers running through it into the River Spey. The banks of this burn are well treed in places and this seems to make it the ideal dumping ground for garden rubbish. Here many of the early garden species seem to be thriving; *Galanthus elwesii* (Greater Snowdrop), *Pulmonaria officinalis* (Lungwort) and *Scilla lilio-hyacinthus* (Pyrenean Squill) were just a few of the many spring flowering species that gave a splash of colour to the area. The almost pure white flowers of *Prunus cerasifera* (Cherry Plum) was a delightful sight of several hedgerows especially around Forres and Urquhart. A complete contrast to the Cherry was the deep red of *Ribes sanguineum* (Flowering Currant) which is becoming a pest in places. One pine wood at Roseisle has this as almost the sole under shrub, but I must say the solid red mass did look rather stunning and just to give that little extra touch there was a single albino bush. Brodie Castle had a healthy population of *Scrophularia vernalis* (Yellow Figwort). It has been established on the walls since 1961. In a pine plantation near the Castle I stumbled across a solitary bush of *Daphne mezereum* (Mezereon) which was rather inconspicuous with just three purple flowers. This was an exciting find even if it is only a garden escape in this area of Britain.

My favourite discovery was to come upon by chance a colony of *Equisetum hyemale* (Dutch Rush) in a damp area by the River Findhorn near Forres as I hadn't seen this horsetail before. The above are just a few of the thrilling encounters I had during that visit. This just shows how worth while and rewarding botanising can be at a time of year when most of us have hardly started to venture out after our winter hibernation.

SNH Survey of Ayrshire Lochs ALLAN STIRLING

During July and August 1996 an SNH team under the direction of Dr Olivia Lassière carried out a survey of around 50 Ayrshire (VC 75) water-bodies. The results have now reached the VC Recorder and have proved to be of considerable interest. In addition to providing many new records for the Atlas 2000 Project, the species lists include a number of new vice-county records, and several confirmations of species scarce in the local context.

Pride of place must go to the discovery of *Potamogeton* x *griffithii*, the hybrid between *P.alpinus* (Red Pondweed) and *P.praelongus* (Long-stalked Pondweed in Linfern Loch, near Straiton. This hybrid is known only from the British Isles; from two other lochs in Scotland, one in Wales and one in Ireland. One of the parent species, *P. alpinus* was found in the same loch, but *P. praelongus* was not recorded.

Of the other NCRs the most interesting was *Elatine hydropiper* (Six-stamened Waterwort), found in Martnaham Loch near Ayr, in two hectads. Near Dalmellington, Loch Muck and Bogton Loch both yielded *Isoetes echinospora* (Spring Quillwort) and the Black Loch and Long Loch south of Barrhill produced *Utricularia stygia* (Nordic Bladderwort) and *Carex lasiocarpa* (Slender Sedge). Useful confirmations were made for *Baldellia ranunculoides* (Lesser Water-plantain), *Butomus umbellatus* (Flowering-rush) and *Zannichellia palustris* (Horned Pondweed), all from Martnaham Loch, and *Cicuta virosa* (Cowbane) was found to be still at Ashgrove Loch near Stevenston. Additional sites were recorded for, among others, *Persicaria minor* (Small Water-pepper), *Sparganium angustifolium* (Floating Bur-reed), *Carex aquatilis* (Water Sedge) and *Elatine hexandra* (Eight-stamened Waterwort).

This survey was particularly useful for the records of aquatic plants which, without the use of a boat or some competence in skin-diving on the part of the recorder, are difficult to record adequately. One is usually reduced to examining scraps washed ashore by wind and wave!

Tufted Loosetrife in West Lothian

J MUSCOTT

Tufted Loosetrife (*Lysimachia thyrsiflora*) is one of the few "Scarce Plants" to be found in West Lothian (VC 84) where it grows at intervals along the Union Canal. When I first started botanising in the vice-county some 11 years ago I had difficulty finding it as it never seemed to flower. However I did eventually get the "jiz" of the plant, and was able to see the not-very-conspicuous dark glands on the leaves.

During Botany of the Lothians surveys we managed to identify it, still without flowers, in a marsh at Cobbinshaw Reservoir, and some years later (1995) a friend took me to a loch in Perthshire where she had once seen it in flower. Still no luck. Though as compensation we were lucky enough to see Coralroot Orchid (*Corallorrhiza trifida*) and Scandinavian Small-reed (*Calamagrostis purpurea*)

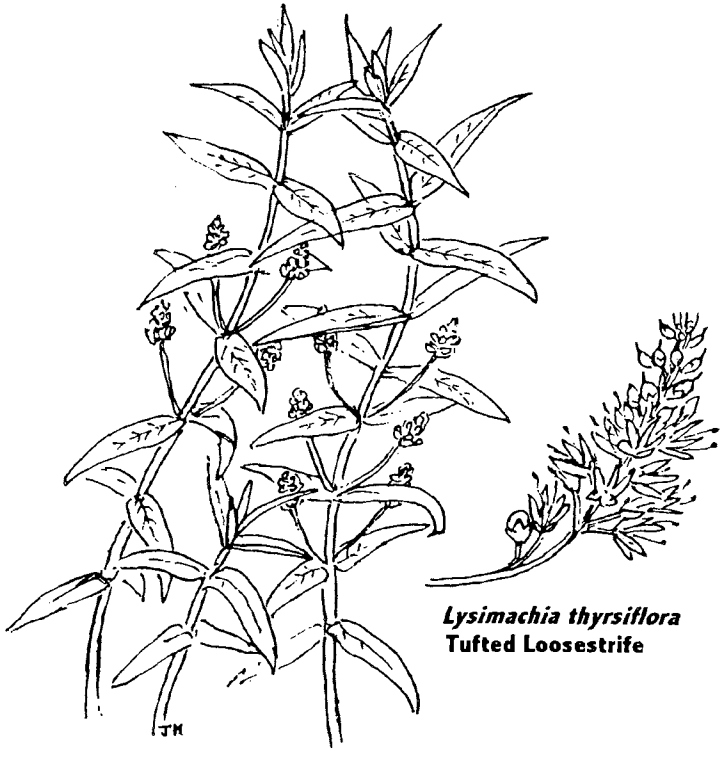

Fig. 1 Tufted Loosestrife drawn from West Lothian material

So imagine my surprise when I happened along the Union Canal in May 1997 and noticed (a) there seemed to be more Tufted Loosetrife than I remembered (b) it was in bud! Needless to say I was back in a couple of weeks time to get my first glimpse of the small yellow flowers growing in clusters out of the middle leaf axils (Fig 1). It flowered prolifically wherever it occurred along the canal, and when the Edinburgh Natural History Society paid a visit to the Glen Moss Nature Reserve near Glasgow soon afterwards, we found it in flower there also.

In 1998 I took a friend to see it along the canal, and after some searching we found just one plant in flower, though there were plenty of spikes. Back to normal, in other words. So what triggers flowering, and why does it do so so infrequently? I feel climate may have something to do with it, and wish I had visited the canal during the warm summer of 1996. Can anyone offer any further information - or an explanation?

Afterthought: The plant also occurs on the Forth-Clyde Canal. These two canals are to be reunited and reopened with millennium funding, and I can't help feeling the canal vegetation will be affected. It will be a shame if this scarce but shy-flowering plant were to suffer - partly because few people recognise it or know it's there.

VC 102 — Request for Plant Records

R GULLIVER

Islay, Jura and Colonsay (VC 102) have a rich floral interest and fascinating scenery; but there has not been a great deal of plant recording undertaken on these islands. Perhaps many botanists decided that the wilder and more interesting areas started further north and west in Scotland! Hence material available for inclusion in the Atlas 2000 is very sparse. The vice-county recorder does hold a) any material submitted to him, b) all known material from surveys conducted by Scottish Natural Heritage and its predecessors, c) all material submitted to The Islay Natural History Trust and / or submitted to Dr Malcolm Ogilvie, d) material from the 1991 BSBI field meeting on Jura. Hence if anyone has data which has been submitted to any other individual or organisation over the last 20 years, would they please send a copy of it to me, Dr Richard Gulliver, Carraig Mhor, Imeravale, Port Ellen, Isle of Islay, Argyll PA42 7AL, Tel 01496 302432. This request includes published data if the date of the plant record(s) has been omitted in publication and /or the material can not be allocated to the relevant hectad. If anyone has still not planned a summer holiday do bear the area in mind. On Islay for example, we are currently finding between one and four new species every year, so there is plenty of scope for making a major contribution to our botanical knowledge of the three islands.

An Unexpected Site for Bird-Seed Aliens P MACPHERSON

Conscious that as an amateur field botanist I was in danger of giving my grandchildren a limited view of natural history, in July 1998 I took them to Drumpellier Country Park, north of Coatbridge, Lanarkshire (VC 77). Lochend Loch is part of the complex and is noted for the abundance of waterfowl. We took books with illustrations of ducks and geese and made some progress with the identification of these families.

However, as we walked round the loch we became aware of unexpected plants growing just in from the water's edge. Round the western periphery, in varying degrees of abundance were the following species.

Two-rowed barley (*Hordeum distichon*), Buckwheat (*Fagopyrum esculentum* - det. EJ Clement), Canary-grass (*Phalaris canariensis*), Flax (*Linum usitatissimum*) and Wild Radish (*Raphanus raphanistrum*).

All the individuals that we saw feeding the birds were doing so with pieces of bread or other bakery material but we presume that at least most of the plants mentioned above came from scattered bird-seed.

So, despite good intentions, we ended up as always, concentrating on the plants!

Recording in VC 104 for Atlas 2000 CW MURRAY

The Atlas 2000 progress report in the January edition of the BSBI News listed those vice-counties for which complete mastercards had been submitted. Only the Outer Hebrides and one other VC have more "squares" than 104 (N. Ebudes). The computer indicates that we have 48, but one of these is nothing but sea. Several tiny pieces were "linked" for the 1962 Atlas and were left that way in the Skye Checklist. Rum, Eigg and Scalpay were not divided in the 1930s. Muck is now in four tiny bits with the rest of the square in either Eigg or Ardmamurchan!

As the 1980 edition of the Skye checklist was out of print (and out of date), revision of the vice-county had already begun with a visit to Rum and Eigg in 1992. The next edition will include the major islands (not divided). The Rum checklist dates from 1965, Muck 1985 and other islands were in Heslop Harrison's lists from the 1930s. Some of the best Skye records were made in the 1960s and early 1970s by John and Hilary Birks and it was with them that we reached Soay and other, smaller, offshore islands in 1987 (just into

1987+). In the 1990s south Skye has been revised by Mrs Margaret Gregory, and Raasay by Dr Stephen Bungard (many Heslop Harrison records refound). Others, but not as many as expected, have contributed useful lists from short visits.

We can still raise NCRs - *Ophioglossum azoricum* (Small Adder's -tongue) in 1996 and *Pyrola rotundifolia* (Round-leaved Wintergreen) in 1997; both in Raasay *Dactylorhiza incarnata* ssp.*coccinea* was a first for Eigg in 1995 and for Muck in 1996

From all this recording a pattern is emerging. Pre-1970 records not re-found are mainly arable weeds e.g. Corn Marigold (*Chrysanthemum segetum*), Bugloss (*Anchusa arvensis*) and species of poppy. This because crofters are giving up growing patches of oats, grass for hay and even potatoes. Sheep are easier to work than cattle and the sheep population has increased to the detriment of vegetation, even on the hills. Some mountain plants also suffer as hill walking is "marketed". Sibbaldia (*Sibbaldia procumbens*) used to grow at the Trig point on Ben Edra - now tramped bare.

However, sometimes sheep are removed completely, as they were over ten years ago from the Kyleakin hills, now afforested on the lower slopes. This surely accounts for the appearance, high up (often visited previously) of at least two species of alpine hawkweed.

More forestry and more sheep mean more fencing, some electrified. Removing grazing completely is not always good botanically. A small wooded gorge near Drynoch is now impassable in summer as is Dalavil wood in Sleat apart from the path. The sheep end up on the salt marshes where the vegetation is now unrecordable, even if one remembers what one saw there 20 years ago.

Other records can be missing due to natural causes. The tiny brackish pool in my home square (18/45) has gone and with it the *Ruppia* (Tasselweed) recorded in the 1970s. Hazel (Corylus avellana) has spread and eliminated a Small-white Orchid (*Pseudorchis albida*) that appeared off and on for at least ten years.

Do urban and semi-urban botanists realise the distances involved in areas like VC 104? To reach South Rona from Raasay means a two hour walk from the end of "Calum's Road" to meet the fish farm boat - and again at the end of the day. However, this is a safe enough passage, unlike the crossing to Eilean nan Each, off Muck, where in spite of careful calculations of tide times we were "well over our boots" on the return journey. To check the 1983 record of *Juncus triglumis* (Three-flowered Rush) in Fionn Coire, the only Cuillin record, takes all day now (it wouldn't have 30 years ago!) and so does a visit to *Arabis alpina* (Alpine Rock-cress) in Coire na Creiche.

The above is not a complaint. When the Recorder plus support team are crossing yet again between Mallaig and Eigg on a good day with all the islands clearly visible, the best of the 112 vice-counties can only be VC 104!

The Flora of Ben Lomond

EDNA STEWART

Glasgow botanists who are interested in alpine species are extremely lucky in having a mountain like Ben Lomond (974m), the most southerly Munro, practically on their doorstep. Because of its accessability, it is ascended by hordes of walkers in all weathers who, over the years, have churned the route over the plateau into mud – resulting in the spending of thousands by the owners, the National Trust for Scotland (NTS), on path repair. It is fortunate, therefore, that its botanical treasures lie hidden away from the multitudes, and need to be sought out in gullies, cliffs and remote corries.

When I became Recorder for VC 86 (Stirlingshire) and was asked to arrange a field meeting for 1995, I immediately thought of Ben Lomond. With the help of the NTS ranger Alastair Eckersall, we obtained permission to drive up the private road to the farm of Comer, on the north side. This made the ascent to the northern corrie, just below the summit, very straight forward. At least, I hope it did, because I was stricken with arthritis at that time, and had to stay on the lower slopes. However, many excellent botanists reached the corrie and recorded a number of interesting alpines. Purple Saxifrage (*Saxifraga oppositifolia*), Alpine Mouse-ear (*Cerastium alpinum*), Alpine Meadow-grass, (*Poa alpina*), Black Alpine-sedge (*Carex atrata*), Holly Fern (*Polystichum lonchitis*), Common Scurvy-grass (*Cochlearia officinalis*) and Alpine Saw-wort (*Saussarea alpina)* were all seen on the cliffs, and Sibbaldia (*Sibbaldia procumbens*) by the path to the summit. The lower slopes were not without interest, having abundant Yellow Mountain Saxifrage (*Saxifraga azoides*) on rocks in the burns, and Green Spleenwort (*Asplenium viride*), Alpine Meadow-rue (*Thalictrum alpinum*) and Oak Fern (*Gymnocarpium dryopteris*) on damp rock walls.

An alternative route to the summit from Rowardennan used to be by a path which led up past the spectacular waterfall above the Youth Hostel. This path has been moved so that it lies outside and to the north of the exclosure with which the NTS have surrounded the remains of the native woodland of the Bealach Buidhe Burn. However access to the gorge can be gained by climbing a stile, and fighting one's way through the now ungrazed vegetation. I went there in 1995 with Ro Fitzgerald, who was carrying out a contract to search for Small Cow-wheat (*Melampyrum sylvaticum*). There was plenty of Common Cow-wheat (*M. pratense*), but RF decided that the conditions were

not quite right for her plant and it was possible that the old record had been a mistake. But the expedition was by no means a failure, since RF managed to spot Wood Fescue (*Festuca altissima*), a new grass to me, Common Wintergreen (*Pyrola minor*), Wood Melick (*Melica uniflora*) and Mountain Melick (*M. nutans*).

Continuing up the path outside the exclosure one comes to an outlying peak below the main summit, known as Ptarmigan. Drop below this to the west and one comes to a series of cliffs which are never seen by those on top of the Ptarmigan ridge. At a height of about 650m. these cliffs support a good selection of alpines, of most interest being two which had not been seen in the north corrie – Alpine Cinquefoil (*Potentilla cranzii*) and Spring Sandwort (*Minuartia verna*), both in flower in early July.

Ben Lomond has been visited by naturalists in the past. The Andersonian Naturalists were there in 1900 and recorded Alpine Saxifrage (*Saxifraga nivalis*) – seen a few years ago by John Mitchell. Hennedy (1891) mentions Interrupted Clubmoss (*Lycopodium annotinum*), and Marsh Clubmoss (*Lycopodiella inundata*) as occurring on the Ben, and Lee, in 1933 has Mountain Bladder-fern (*Cystopteris montana*). Other alpine plants previously recorded, but not seen since about 1950, include Arctic Mouse-ear (*Cerastium arcticum*), Scottish Asphodel (*Tofieldia pusilla*), Lesser Twayblade (*Listera cordata*), Mountain Azalea (*Loiseleuria procumbens*), and Blue Moor-grass (*Sesleria caerulea*).

However it is possible that some of these plants may again be found on Ben Lomond, due to the management plans of the NTS. They have been working for some years now to improve the natural habitats. I have already mentioned the fence round the gorge of the Bealach Buidh Burn. Another exclosure has been completed around the Eas Snegan gorge on the west flank of Ptarmigan at a height of 400m to protect the remnants of native woodland. Bracken control within the exclosures is planned for next year, hopefully not relying on spraying, but trialing a new machine developed at Barony Agricultural College.

An important step has been taken in reducing grazing levels from 950 ewes to 550 in Autumn 1997. In order to prevent sheep from the neighbouring farm of Comer spreading on to this ground, a 7km. stock fence has been placed round the northern slopes of Ben Lomond. An intensive monitoring scheme has been set up to assess the effects that grazing reductions have on the upland heath habitats.

Scottish Field Meetings 1999

The following have been arranged. Full details will be found in the Year Book.

June 5	Berwick-Upon-Tweed. ME Braithwaite
June 17-19	Kintyre. P Batty
June 20-23	Mull. L Farrell
June 26-27	Peebles. DJ McCosh
July 23-25	Braemar. TD Dines
July 26-28	Edzell. TD Dines & BG Hogarth
July 30-Aug1	Strathpeffer. TD Dines
Aug 3-8	Golspie. TD Dines & K Butler

BSBI Committee for Scotland

The following is the composition of the Committee from Nov 1998-Nov 1999 Chairman - Dr P Macpherson: Secretary/Treasurer - Miss L Farrell: Field Meetings Secretary - K Watson: Minutes Secretary - Mrs BG Hogarth: Meetings Secretary - Mrs EW Stewart: Members of Committee - JR Edelsten, J MacIntosh, Dr C Miles and GP Rothero.

Representing SNH - Dr C Sydes: Representing BSS - Dr N Cowie.

At the AGM on 6th Nov 1999 Miss L Farrell and Mrs BG Hogarth retire, Miss Farrell being eligible for re-election. There will be a further vacancy (temporarily being filled by Dr Miles) as a result of the death of Mrs OM Stewart.

Nominations for the vacancies, signed by two members of the Society normally resident in Scotland, or who are recorders for a vice-county in Scotland, although not resident there, and with written consent of the candidate, who must also qualify as above, should reach the undernoted at Scottish Natural Heritage, Kilmory Estate, Kilmory Lochgilphead, Argyll PA31 9RR by 30th September 1999.

L Farrell Honorary Secretary.

Stars-of-Bethlehem

P MACPHERSON

Mention of Yellow Star-of-Bethlehem (*Gagea lutea*) in the article by Ian Green reminded me that this was the first rarity shown to me in Lanarkshire (VC 77) by my co-editor after I became recorder for the vice-county. The plant grows in abundance on the alluvial sand on the wooded bank of the River Clyde upstream from Waygateshaw.

At the north end of the colony there is one clump of Star-of-Bethlehem (*Ornithogalum angustifolium*). While the former is undoubtedly a native, the latter is probably a migrant from the Falls of Clyde where it was presumably planted many years ago in the neighbourhood of Corra Castle.

Further reminiscing brought to mind the fact that Star-of-Bethlehem was a prized find when I boarded at Keil School, Dumbarton. This was long before the days when Alf Slack taught biology at Keil. Botany consisted of bringing in specimens from the Sunday afternoon walks in May and June. No master was ever involved, the boy in the senior class with the most knowledge of plants being put in charge and he was responsible for naming the specimens for each pupil. The names were entered into a notebook and the plants then consigned to the wastepaper basket. Each entry was worth a point, with the exception of Star-of-Bethlehem which was awarded two. Presumably this was because one of the seniors in the past had taken a fancy to the plant and considered it ultra special.

I still have my first notebook — dating from 1938. The entries began on 7th May when I had 31 accepted or identified by the senior pupil in charge. The first five are "Colt's Foot, Dandylion, Blue Dog Violet, White Dog Violet and Daisy" The recorder for Dunbartonshire (VC 99) may be interested to learn that subsequent entries included Aniseed, True Bedstraw, Spotted Cat's-ear, Unspotted Cat's-ear, Dog's Parsley, Sage, Mountain Speedwell, Cypress Spurge, Carline Thistle and Cooking Valerian ! And yes, I did find Star-of-Bethlehem, at the edge of a side road into a housing estate.

As there were few pupils with any real interest it was not difficult to achieve the highest total. I was recorded as having 173, made up of 169 named specimens plus credit for four in respect of plants that could not be identified and my bonus point for Star-of-Bethlehem; ie 174 but minus one for lack of neatness!

To have Stars-of-Bethlehem on the front cover seems appropriate in the issue leading up to AD 2000.