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Newsletter for BSBI County Recorders

March 2006



R.M. Stokes



R.M. Stokes

× *Asplenophyllitis confluens*, a rare intergeneric (at present) hybrid. This one was discovered by Steve & Elise O'Donnell at Leek in Staffordshire in 2000, but the plant was subsequently stolen. Only half a dozen plants have ever been found, but could it be more common than we know?

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Recorder Newsletter

David Pearman

Welcome to this year's newsletter, and the end of one major project, Local Change, for which the coverage was far better than any of us expected. Thank you!

The major publication to go with the project (220+ pages) will be available free, of course, to all Recorders after the launch on 26th April. This has been co-ordinated by the team of Michael Braithwaite, Bob Ellis and Chris Preston & Pete Rothery from CEH, Monks Wood. A 12 page 'glossy' by Plantlife and ourselves will be issued to a much wider audience at or before the same date.

The hybrid project is going steadily, and by now all the v.c. recorders will have received their details from Alex to check and return, with the option of submitting anything new. Meanwhile Clive Stace is forging ahead with the text and Alan Forrest in Edinburgh is handling the loans and learning *Salix*, *Mentha* etc. We have a lot of extra records, but hope to include a note in April News of priorities for fieldwork in the summer - if you can do such a thing for hybrids.

Gabriel Hemery's major task was to explore both the concept and start on the funding for the proposed Plant Unit, and to that end we (the de facto shoestring Unit of myself, Alex, Bob, Quentin Groom and Mike Porter) have been taking stock of what we have initiated since the Atlas. There has been an attempt at a major sea-change in how we handle our society's plant data.

Since the 1960's we have relied on BRC to process all of our data, not only for big schemes such as the Monitoring Scheme, the Atlas etc, where we were able to employ special help, but also for the routing ongoing collection - pink cards, Watsonia and the like. But after the Atlas, in common with other societies such as Butterfly Conservation and the British Dragonfly Society, we have quietly begun to try and handle our own data, for all sorts of reasons. This has of course been made possible because of the huge growth in the use of personal computers. Records Committee has just adopted the work plan I prepared for their last month's meeting, which sets out as clearly as possible where our data comes from, how we are collecting, storing it and passing it on to BRC and the NBN, and what sort of outputs we are aiming for. I would have liked to have included an abridged version in this newsletter, but Alex said it was too dry! I wanted to show you all how we were handling things, but if anybody is interested please ask for an electronic copy.

What I have also done is to try and remind VCRs of how we use the records submitted by you. It is probably high time this was done, as computers are allowing so much to be disseminated much faster.

With this newsletter comes a revised, longer but simpler Annual Report. About 70% of the v.c. recorders have taken the time to complete this in past years, and we thank them very much for doing so. It enables those who try to man the centre to receive really valuable feedback which is of great help in the imprecise science of trying to manage and entirely voluntary network of 150 or so people with different aims, abilities and time. Please find a few minutes to complete this, and those who have not done so before, please give it another chance!

Finally local journals. The late Duggie Kent used to access as many as possible and these formed the basis of Abstracts, all of which is on the Leicester database. Since he died we have struggled to fill the gap, and the paid researcher at the Natural History Museum has now moved on. John Swindells has offered to fill the gap up to date, but we really could do with help from you from now on, for you must know what is published in your patch. If you can supply us with copies of the journals so much the better, but a copy of the title page of any publication that includes plant records or articles would be of real use. We have a list of local

journals, compiled a year or so back, which we can make available if in any doubt - or to see if we have them all.

All the best and have an enjoyable summer.

DAP

VCRs and the use of Records

David Pearman

The growth in the use of computers has revolutionised the dissemination of plant records. As far as the BSBI is concerned almost none for the Monitoring Scheme were submitted electronically, about 10% for Scarce Plants, 50% for the Atlas and over 90% for Local Change. We now hold a copy of the BRC database and that same advance in technology means that we can use it in a way that meets many of our needs.

With this growth has come the growth of Local Record Centres, consultants and the increasing ability of the Country Agencies to handle data, and the NBN has been set up to service all these people.

None of this has changed the BSBI's basic position. Our wishes are to encourage our members to collect records in as much detail as appropriate and convenient; to channel them via the VCR network, and for the makers of the records, the VCRs or the BSBI itself to make to make them available to the various users at the resolution that matches their needs. We want all those users to have the records, especially users who might influence conservation or research action, and we are the best and the main source, though we might make less noise than others!

I hear comments on sensitivity and plagiarism, but in reality I cannot recall any problems on either of those issues though they are often mentioned, and through our control of access to the NBN, we can filter access accordingly.

We have never attempted to say that we as a Society own records. That is a legal minefield that I think is irrelevant and we steer completely clear of. You, the recorder, own records. We use them.

Our position has always been that records made available to us are available for dissemination to whomsoever we judge appropriate. This was the policy followed by BRC for the last 40 years, and one we are glad to continue. VCRs are welcome to attach conditions; we will abide by those, of course, but we will try and persuade you they are usually unnecessary!

The society is just about to adopt a data access policy - we were told to have one, but it will contain only what I have said above and what we do anyway.

Particular scenarios

Local Record Centres (LRCs). We have a new model agreement, we encourage you to co-operate with common sense, bearing in mind that you are our representative and access to the records collected for and in the name of the Society is paramount. We never want to find that records handed over for whatever reason are not returned to us, and we would like to think that if the LRC computerises them, or whatever, that we get a copy of that as a quid pro quo.

National Biodiversity Network (NBN). All of our records at BRC are made available to this, and any other new ones we collect. Access to these is password controlled, and BSBI controls the access. Basically the Agencies have full access, we would be happy if Plantlife did too, and that is it at the moment.

Consultants. We have given advice to you in our VCR Guidelines (May2002). We find it extraordinarily difficult to get records or money out of them, and we can offer no magic

wand. If I had energy I would take this up with their Institute, I.E.E.M, but they would hide behind all sorts of barriers and ...

Wildlife Trusts. Many VCRs work with them, and /or through the LRC, and nothing needs to be added.

Other People who want significant numbers of Records. In the last year we have had requests for very large datasets, of course much more possible these days with better computers. Our policy is to deal with these on a case by case basis, balancing trying to make data available with the scenario of recipients setting up their own datasets.

Environmental Information regulations (EIR). We do not think this applies to our VCRs, but it will to the LRC and others. There is guidance in our model agreement, above, but frankly, it seems a low-key matter at this stage.

Naturalised Rhododendrons - a request for specimens

Arthur Chater

It has long been known that many of the Rhododendrons naturalised in Britain and usually recorded as *R. ponticum* are in fact hybrids involving North American species such as *R. maximum*, *R. catawbiense* and *R. macrophyllum*. Although this has been proved by molecular studies, no records of actual hybrids ever seem to have been made in the wild, and nothing is known of their abundance and distribution. Dr James Cullen of Cambridge is keen to investigate the problem, and is willing to try to identify, or at least to comment on, any material that can be collected for him. If you or any of your colleagues are able to help with this, it would provide valuable records for the BSBI Hybrid Project, it would provide new records for your VC, and it should also advance the understanding of the invasive nature of Rhododendrons that is such a headache for conservationists (it has, for example, been suggested that hybridisation with the North American species has produced plants much more frost-tolerant than *R. ponticum* itself).

The survey should be restricted to *R. ponticum*-like plants (not *R. luteum*), and we suggest that you try to collect naturalised material showing the range of variation (or lack of it) in your area. The main variation will be in leaf shape and size, in length of sepals (from almost 0 to c. 6mm), in hairiness (presence or absence of reddish or whitish hairs) and glandulosity of the ovary, and in size and colour of the corolla.

Generally speaking, one typical flowering twig, complete with leaves, should be pressed. A couple of flowers should be detached and pressed separately with the corollas removed, to show the ovary characters, as well as a well-grown leaf from a vegetative shoot. The label should be written with a view to permanence in a herbarium, and along with all the usual details it should give the flower colour, especially the colour of the spots. Each specimen should be given a unique number, e.g. Bloggs 06/29. Keep a copy of the label details (and a duplicate specimen if you want), as this will save having to return the specimens, at least the more interesting of which will be put into the Cambridge Herbarium (CGE). Send the dried specimens, unmounted, with a s.a.e., to Dr. James Cullen, Stanley Smith (UK) Horticultural Trust, Cory Lodge, PO Box 365, Cambridge CB2 1HR. He will then send you a list of your numbers with his determinations. It is difficult to suggest how many specimens you should collect, as we have no idea what the response, and thus the work-load will be, but anything up to ten or twenty specimens, or more if you are keen and think there is sufficient variation, would be reasonable. May is the month over much of the country, and the collecting should be done this year and the specimens sent in as soon as convenient.

Alex Lockton

The purpose of the Atlas Updating Project is to produce a set of 10km square maps for all species in Britain & Ireland. That is all it does. It is not a large central database or anything like that – it is just a set of distribution maps generated from data supplied by county recorders and referees. Being such a simple concept, it has two key advantages over any big database: it is easy to update, and it is easy to correct errors.

The reason we wanted to have our own set of distribution maps was because there is no other way we can correct or update the national maps. With published Atlases, it could be decades before there is any chance to make new ones. The NBN Gateway, meanwhile, is burdened with erroneous records and, as they accept data from hundreds of contributors, there is no realistic chance that we could correct them. The AUP, by contrast, is completely under the control of the v.c. recorders. If you don't want a dot on the map, then we will remove it immediately. These are your maps. If you want to add some new dots, then please go ahead.

The AUP database only stores four items of information: species, v.c., hectad and date class, in a simple table of data that looks as follows:

- Example of the structure of the AUP

Species	v.c.	Hectad	Date class
<i>Calamagrostis canescens</i>	40	SJ52	4
<i>Bunium bulbocastanum</i>	30	TL51	3
<i>Bunium bulbocastanum</i>	30	TL51	4
<i>Campanula patula</i>	43	SO13	2

The key to date classes is as follows:

- 1 = any time up to 1969
- 2 = 1970 – 1986
- 3 = 1987 – 1999
- 4 = 2000 – 2009

Date class 5 will be 2010 – 2019, for those who think that far ahead. It would be nice if we could aim to get all records identifiable to within one decade in future. It may even be possible to produce distribution maps for some species every decade.

What do we want you to do?

There are two things we need from recorders:-

1. New records, in any format you like. If you send us your database, we will extract the data and put it into the correct format. Anyone using Mapmate need only sync their data to Bob Ellis and we will do the rest.
2. Notify us when you spot a duff record. This only applies when a dot on the map is completely wrong, and needs to be deleted. Such notifications go into the **Errors Database**, which is exactly the same in structure to the AUP, but instead of plotting the dots, it prevents dots in those squares from appearing.

We hope to be able to produce some new maps of Britain & Ireland in 2010. That will, of course, depend on the level of recording, which is shown in the following table. Some counties already have better coverage in the new date class than they did in the Atlas. Others have not yet sent in any records, but this is the first time we have formally asked for them, so please do send us some data soon, and make plans to cover as many hectads as possible in the next four years.

County recording statistics

This analysis comes from the AUP. For the first time, perhaps, it gives us a reasonably true picture of the level of recording that takes place. The report shows the number of dots for each county in each date class. So a score of 10 could mean ten species in one square, or one species in ten squares; but if there were ten records of one species within a single 10km square the score would only be one. The nice thing about this table is that it recognises both taxonomic and geographical coverage, so a combination of hard work and good identification skills gets the best results. Bigger counties, of course, should get higher scores, as should southerly ones, because they are more species-rich.

For example, the table shows that there were 14,412 dots in West Cornwall & Scilly in the current date class in the New Atlas. Or there would have been, if all taxa (including some aggregates) had been mapped. Since the Atlas 9,705 dots have been added, giving a re-recording score of 67%. That is in just 5 years, compared to the 12 years for the Atlas, so West Cornwall is well on the way to being completely resurveyed. It is interesting to see that four counties are already better surveyed since the Atlas than they were during the Atlas: they have totals over 100%. John Hawksford's efforts in Staffordshire (v.c. 39) are particularly noticeable. However, it should be noted that we haven't formally asked for records yet, so counties with low scores are not necessarily badly recorded. Please don't be offended if you have a low score: this is only the first time we have produced this analysis. Anyone who has not yet contributed, please do send us your records soon, and next year we will see how well your recording is going.

Date Class					
v.c.	-1970	-1987	-1999	2000+	
1	13412	11130	14412	9705	67%
2	10023	6396	17443	9845	56%
3	4697	537	28698	2443	9%
4	4646	982	22351	1537	7%
5	1465	500	16413	8096	49%
6	1691	593	21210	6910	33%
7	728	74	3129	2031	65%
8	1974	200	12194	1179	10%
9	3892	575	29692	1823	6%
10	704	1878	6471	4329	67%
11	2373	660	20354	14319	70%
12	2406	987	13707	7533	55%
13	2637	255	11599	1812	16%
14	4052	670	13083	9166	70%
15	3972	1327	18062	1088	6%
16	3232	2179	13726	3427	25%
17	7138	6896	24974	12622	51%
18	3202	1543	9978	2717	27%
19	3237	1165	14412	1476	10%
20	1636	887	9492	2017	21%
21	4677	2151	11870	3495	29%
22	1309	305	11507	2095	18%
23	1635	2949	12963	1310	10%
24	2441	2977	17198	2410	14%
25	3783	1823	12523	15887	127%
26	2906	977	8577	11310	132%
27	2422	388	20690	1937	9%
28	3135	570	26209	2485	9%
29	3798	2008	14602	1500	10%
30	1730	1787	10687	10079	94%
31	1085	1704	5370	401	7%
32	1969	1852	16179	1530	9%
33	1422	1688	7869	1182	15%
34	2571	2164	13738	830	6%
35	790	803	8956	913	10%
36	1471	521	11213	2541	23%
37	2069	1040	16608	1565	9%
38	3777	1502	17688	1750	10%
39	2941	943	14264	23319	163%
40	3125	3921	18958	11829	62%
41	2832	1909	19426	1092	6%
42	666	2381	11281	338	3%
43	580	1074	6702	717	11%
44	624	267	11952	12316	103%
45	1530	999	14379	1011	7%
46	1167	680	17321	1726	10%
47	1181	1526	13467	1277	9%
48	1798	1074	8780	869	10%
49	1298	553	15072	1019	7%
50	995	1369	10563	1421	13%

v.c.	-1970	-1987	-1999	2000+		v.c.	-1970	-1987	-1999	2000+	
51	792	1420	5641	413	7%	103	3397	788	9319	608	7%
52	928	797	8247	440	5%	104	2794	1781	13192	3611	27%
53	1704	1096	13153	1129	9%	105	3372	625	8228	1293	16%
54	3320	2098	21981	2866	13%	106	3269	2043	13304	4233	32%
55	3765	1785	15747	1322	8%	107	2229	1066	6742	943	14%
56	1989	600	16449	1810	11%	108	2455	741	13144	3842	29%
57	3629	1886	18322	15748	86%	109	818	4282	4445	493	11%
58	3744	1366	20434	3564	17%	110	4927	1456	14526	1170	8%
59	4452	435	16994	8538	50%	111	2865	1444	7858	3342	43%
60	1609	1036	8652	1112	13%	112	2262	2011	9611	2390	25%
61	2527	2681	13041	1121	9%	113	2468	888	8041	41	1%
62	3126	1211	17460	239	1%	H01	1429	78	6842	1	0%
63	3132	3445	17206	700	4%	H02	2500	368	13235	15	0%
64	3601	1144	25415	1469	6%	H03	1956	40	11300	3	0%
65	2848	481	10749	1143	11%	H04	856	79	7447	0	0%
66	2011	4354	13430	1092	8%	H05	1049	102	8972	0	0%
67	2729	4110	13239	1407	11%	H06	1456	94	12273	4233	35%
68	2503	2773	10104	918	9%	H07	870	9	5526	0	0%
69	1533	3316	17622	1565	9%	H08	1064	109	10156	3	0%
70	2744	6558	27592	2192	8%	H09	1871	312	8155	1	0%
71	1576	498	7796	0	0%	H10	1252	1109	13255	15	0%
72	1201	1206	8526	1558	18%	H11	1214	43	4124	0	0%
73	1505	1729	12621	682	5%	H12	2286	314	13106	29	0%
74	1824	1000	7901	634	8%	H13	185	24	357	0	0%
75	2409	577	13388	147	1%	H14	1957	158	3969	0	0%
76	353	244	2997	225	8%	H15	1184	113	4084	0	0%
77	1481	396	10185	918	9%	H16	997	332	6958	16	0%
78	418	431	2749	260	9%	H17	1746	79	5124	0	0%
79	282	359	2057	488	24%	H18	1318	24	5443	12	0%
80	1283	727	9419	667	7%	H19	431	106	2309	0	0%
81	1924	757	8091	707	9%	H20	2415	267	10810	1	0%
82	1136	800	6361	641	10%	H21	261	242	3450	1	0%
83	1787	881	8653	421	5%	H22	1085	249	10912	0	0%
84	230	199	2248	381	17%	H23	1514	1319	9285	21	0%
85	2010	988	9730	1151	12%	H24	547	92	3266	0	0%
86	441	208	3900	1528	39%	H25	2548	100	9015	1	0%
87	1017	849	7561	860	11%	H26	937	151	4054	0	0%
88	2278	1827	10404	1675	16%	H27	6484	183	12084	6	0%
89	1148	999	7384	439	6%	H28	2586	105	9937	0	0%
90	2363	1112	10623	772	7%	H29	1675	256	8416	0	0%
91	1023	207	4417	4181	95%	H30	483	51	2320	0	0%
92	2742	549	9603	1347	14%	H31	444	80	3350	0	0%
93	937	792	9541	5310	56%	H32	615	251	7535	0	0%
94	6447	8559	9068	4268	47%	H33	186	122	1557	4	0%
95	1520	1267	11336	4316	38%	H34	430	84	6700	0	0%
96	1995	4483	13858	1009	7%	H35	3428	139	12764	0	0%
97	2316	3395	13263	2226	17%	H36	1389	1009	21844	0	0%
98	2241	591	17474	1431	8%	H37	331	286	2283	1	0%
99	806	742	7970	189	2%	H38	2697	1174	15493	1	0%
100	818	247	6192	186	3%	H39	1722	1047	12842	0	0%
101	1563	937	10377	667	6%	H40	762	680	8130	0	0%
102	1475	638	10757	429	4%						

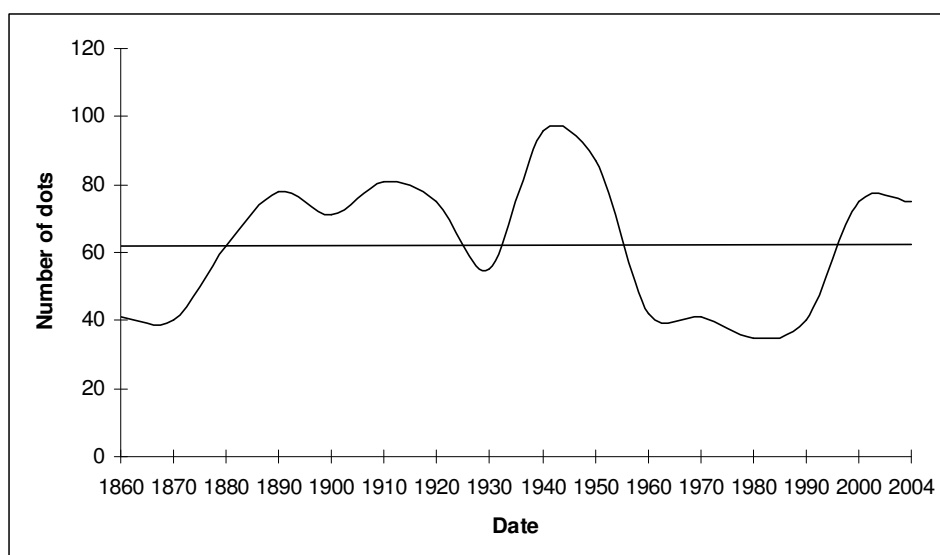
Acknowledgements are due to Quentin Groom and Bob Ellis for running the databases and performing the analyses; Alan Hale for constructing the web site; David Pearman for managing the project; and, of course, everyone who has sent in records. Your names are all listed on the web site.

Species mobility and distribution maps

David Pearman & Alex Lockton

Traditional methods of measuring changes in species distribution are based on a highly simplified model of plant occurrence. In essence, we assume that a plant will always be in the same place and is always recordable. Thus, if a plant is not found in a site where it once occurred, this is a ‘loss.’ Similarly, if a plant is found in a new site, this is a ‘gain’ – although we often dismiss gains as under-recording in the past, or as introductions that are not to be counted.

Clearly this system works well for some plants but less well for others. Some ancient woodland trees, for instance, are easily recorded at any time of the year and are extremely unlikely to spread to new sites without a bit of deliberate human intervention. But for other plants, such as naturally occurring casuals, it does not work at all. Survey for a winter annual in late summer, for example, and you may conclude that the species is extinct. In reality, all plants occur somewhere in between the state of ‘totally immobile and always seen’ and ‘flittingly elusive.’ For the New Atlas, we compensated statistically for varying levels of human recording activity by using the Change Index, but so-one has yet tackled the influence of plant behaviour.



The rolling average number of ‘current’ sites (equated here to tetrads) that would have been given for *M. pulegium* if Atlases had been produced every ten years since 1860 (using data since 1840). The lowest number of sites is 35 (in 1980) and the highest is 96 (1940). The trend line shows that, although the population fluctuates, there has been no overall change over the last 164 years.

Take, for example, Pennyroyal, *Mentha pulegium*. It occurs in seasonally inundated wetlands—a transient habitat type that is found on rutted tracks, village greens, river floodplains, trampled heaths and gravel pits. It is unlikely that any such wetland will remain suitable for more than a few years at a time, so the plant is adapted to produce large quantities of seed, which enable it to disperse widely and to wait patiently until suitable conditions return. Over a five or ten year period, therefore, any one population of Pennyroyal might appear to have died out, only to be replaced by an apparently new population in a completely different place. Although there has been no overall change, the conclusion from our simplified model of plant distribution is that there has been a dramatic decline of ‘native’ populations coupled with a terrible profusion of ‘alien’ ones. This is precisely what is seen in the maps in the New Atlas.

So is there a better way to interpret the data? One mechanism is to 'time-slice' the maps to see how much a species has changed from decade to decade. The graph above shows this for Pennyroyal, which suggests that in the long term there has not really been a decline at all.

How many species behave in this way, and how much does this affect our perception of them? One plant that we investigated last year was Curved Sedge *Carex maritima*. This occurs on coastal dunes, mostly where there is freshwater movement across the sand from a small stream or fluctuating lake surface. This is less obviously a transient habitat than that of Pennyroyal, but over the long term it does seem that the precise habitat conditions come and go. As a consequence, the plant has long-lived seeds and it shows a readiness to colonise new sites. One problem for us in plotting distribution maps is that it tends to crop up in inland places, where sand has been dumped by a roadside or used in construction projects. These populations presumably do not survive long, and we tend to dismiss them as introductions, but the spread of roadside halophytes has shown us how dangerous it is to assume too much.

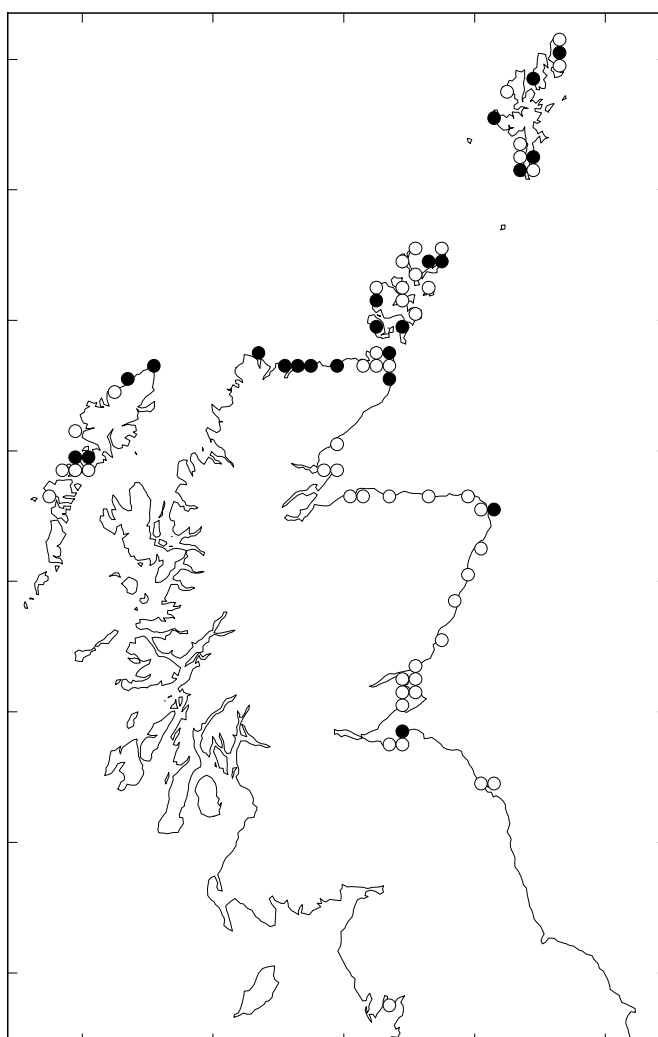
The map appears to show a huge

decline, as there are many open circles where it has been seen in the past but not recently.

However, there are more current dots now than there were in either the 1962 Atlas or the New Atlas. One interpretation, of course, is that it had not yet been discovered in many of its sites back in the 1960s, and that it has been declining all along. Another is that it is a mobile species that could just as easily be increasing as declining in distribution and abundance.

As yet we do not have enough historical data to address this question scientifically. The timescale of any fluctuations in its population must be measured in decades, if not centuries. If we can extract full biological records from herbaria and old literature sources, we might be able to get a reasonably good data set, as we have for Pennyroyal; but that work is yet to be done for the majority of species.

We would like to thank Richard Pankhurst, John Crossley, Walter Scott, Ken Butler, Paul Harvey, Elaine Bullard, Pat & Ian Evans, Sarah Whild, Lynne Farrell, Jim McIntosh, Jackie Muscott & Charles Gimingham for supplying records. Please continue to record this species, and anything else on the rare plants list, in full detail so we can perform more of these sorts of analyses in future.



Curved sedge *Carex maritima* in Britain. Black dots are for current sites (post 2000).

The BSBI Library

Sarah Whild

The BSBI now has the use of a library in the University of Birmingham's offices in Shrewsbury where we can keep books, journals and paper files. Some of you will have visited this during the Recorders Conference last September. The library was formed from the collections of three of the University of Birmingham's libraries that decided that they didn't need botany books any more(!), and the facilities are provided for us by the university at no charge.

Books and journals donated to the Society will be labelled as such and retained in perpetuity. We have had donations this year of Sowerby & Smith's *English Flora*, *Flora Europaea*, *Journal of Ecology*, *Journal of Applied Ecology* and almost complete runs of *Watsonia*, *Proceedings* and *Abstracts*. We also store local journals and items of interest including, for example, a complete set of the Common Land surveys conducted by the University of Aberystwyth in the 1980s and 1990s, and generously donated to the BSBI by Karl Crowther; and a complete run of *Botanical Cornwall*. We do not currently have a purchasing policy or budget, so we are largely reliant on donations.

If you would like to use the library, contact me at s.j.whild@bham.ac.uk. It is located in the Gateway Arts & Education Centre, which is almost opposite Shrewsbury train station, in the middle of town. It has a café, and rooms are available for booking by BSBI committees free of charge.

- The library at The Gateway.



The postal address of the Gateway is:-

University of Birmingham, The Gateway Arts & Education Centre, Chester Street, Shrewsbury, SY1 1NB.

The BSBI is enormously grateful to Don Lambert and Bill Quinton for arranging the donations from the estates of the late Alice Lambert and John Lavender respectively. We hope the books and journals will be appreciated by many future generations of botanists.

Recording for the hybrids project

David Pearman & Alex Lockton

By now all Recorders should have received a listing of all records of hybrids for their vice county. The majority of these have gone out by email and, as far as possible, the entire project is being done electronically. Recorders have been sent Excel tables containing all records on either the VPDB or the Mapmate Hub, plus a listing from the Vice County Census Catalogue of any taxa for which there seem to be no detailed records.

For those recorders not on email, a shorter listing has been sent out on paper.

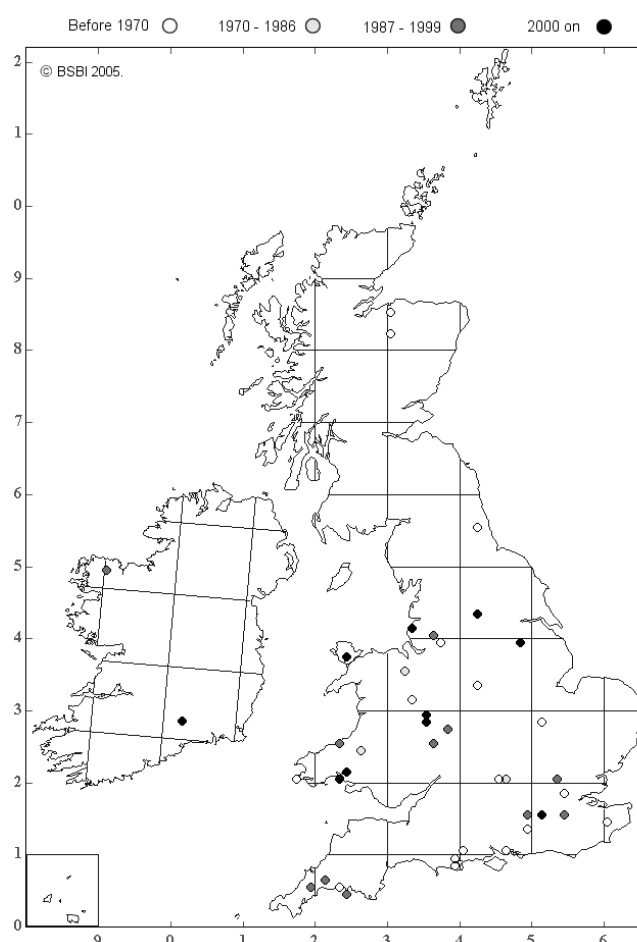
This emphasis on email is no accident. A large and dispersed organisation like the BSBI can reap huge benefits from the use of information technology, and we need to keep up to date with it. Of course there are little problems such as getting files to Apple users, and making sure everyone can open Zip files and Excel. But such glitches are only discovered when we try to do things, and they can always be solved.

There are two things we need recorders to do for the project:-

1. Make new records (or find old ones) and send them in.
2. Tell us if you spot any serious errors.

There is also one thing we do not want recorders to do, and that is to attempt to tidy the existing records. Please do not spend your time making long lists of records that are duplicated or slightly wrong in some way. The first time anyone sees a database, their instinctive reaction is always to tidy it up; but that is incredibly time-consuming and distracts from the more important task of getting new records. So please feel free to compile a nice tidy database on your own copy of Mapmate. Eventually, if every county recorder does compile such a comprehensive database then these will become the definitive source of information. But don't tell us about it yet: we couldn't possibly cope.

Recorders can view the maps of hybrids as the records come in on the Atlas Updating Project web site. We will try to update this approximately at monthly intervals. We shall also focus on some of the more interesting taxa and contact people with special knowledge.



Epilobium × *dacicum* in Britain

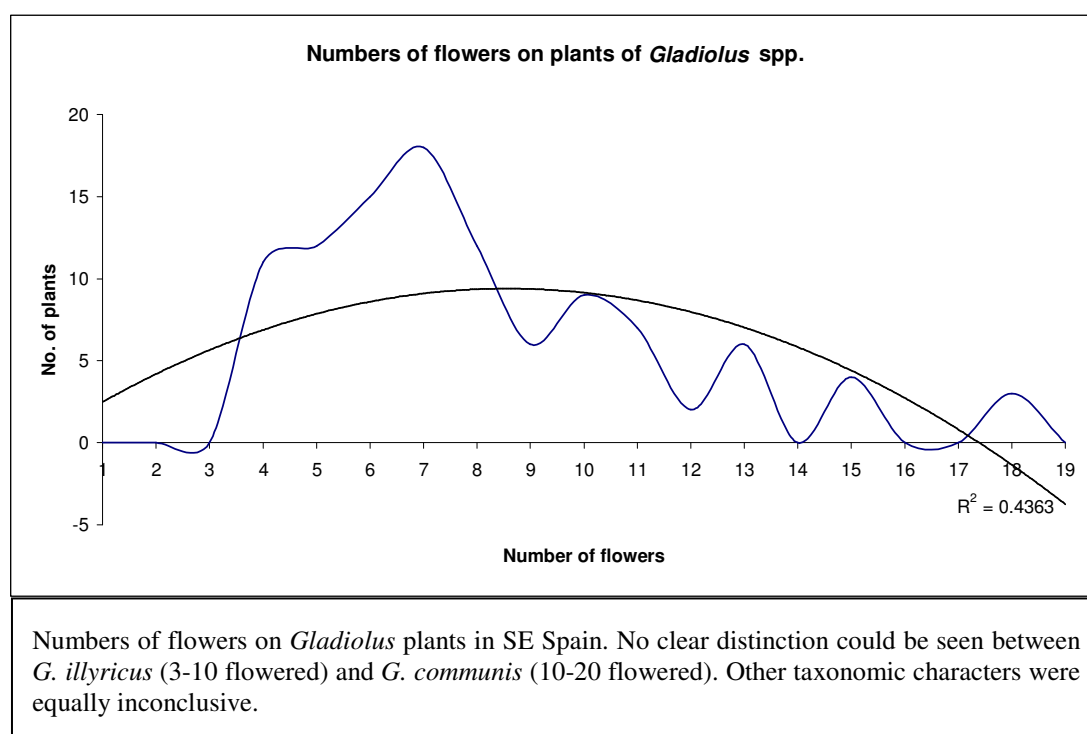
European gladioli

Alex Lockton

The debate about the nativity of *Gladiolus illyricus* Koch in the New Forest has raged since it was discovered there in 1856. On the one hand there are those who laugh it off as an obvious introduction, as it was widely grown in gardens and even naturalised in arable fields for centuries before then. On the other hand, there are many who argue that it could be native there, as the plant is smaller (sometimes dubbed *G. illyricus* ssp. *britannicus*) than those on the near continent and because it deserves the benefit of the doubt, for conservation reasons.

It is difficult to prove or disprove the nativity of any plant. Its ecology has been briefly studied by Hampshire botanists, but found not to be conclusive. This line of enquiry merely highlights the highly modified nature of much of the vegetation in the New Forest, which is often unclassifiable in the NVC. The argument is then about whether the Forest itself is essentially artificial or natural and unique.

Another possible line of enquiry is classical taxonomy. We can compare the phenotypes of the British plants with those abroad to see if this suggests any likely scenarios for colonisation. For example, if British plants were found to be most closely related to Spanish and French gladioli, that would tend to support the native argument; whereas if they had clearly come from Middle Eastern populations, that would rather dash such hopes.



In 2005 I had an opportunity to start such a study. Four students from the University of Birmingham were given a project to study the gladioli in the Cabo de Gata-Nijar region of south eastern Spain. At first glance, the *Chamaerops* garrigue and abandoned arable fields that occur in this desert region seem to harbour large populations of both *Gladiolus illyricus* and *G. communis*. However, using the characters given in the key in Flora Europaea (Tutin *et al.*, 1980, vol. 5, p. 101), it soon became apparent that it was impossible to make such a distinction in the field.

The relevant couplet, which divides *G. illyricus* from *G. communis*, reads as follows:

1. Plant 25-50cm; leaves 10-40cm x 4-10mm; spike 3- to 10- flowered, rarely branched; perianth segments 25-40 x 6-16mm... *illyricus*.
2. Plant 50-100cm; leaves 30-70cm x 5-22mm; spike 10- to 20- flowered, frequently branched; perianth segments 30-45 x 10-25mm... *communis*.

Some of the characters display a considerable overlap, but the number of flowers and the branching of the spikes seems particularly clear. The students counted these and measured the maximum width of the largest leaf and the total height of the plant in 109 specimens found in two sites near Agua Amarga (c. 36° 56.5' N 1° 56.6 W) and Carboneras (c. 37° 00.6' N 1° 56.7 W). The plants were studied between 15th and 17th April 2005. Full results are given on the following page.

The graph above shows the results for the numbers of flowers. Although the sample is not huge, and there are some interesting troughs and peaks, the outcome is certainly not a clear distinction between two different taxa. Similar results were obtained for all the other key characters. The students were of the opinion that *Gladiolus communis* was nothing more than a mature state of *G. illyricus*.

It is interesting to trace how the taxonomy and ecology of the gladioli have become complex over the years. Linnaeus held that there was just *Gladiolus communis*, and would surely have been very comfortable with the idea of it being introduced to Britain as a garden escape. The German botanist Wilhelm Koch split this taxon to include *G. illyricus* in 1817. Is it possible he was simply describing two extremes of form? It would be an easy mistake to make if one were working from a limited herbarium collection.

The only way to prove, conclusively, that there is a species of gladiolus native to Britain would be to study the genotypes of a wide range of European and Asian plants. We need to be able to demonstrate a genetic gradation from east to west that can be correlated to natural dispersal rates. We also need to demonstrate speciation within that gradation, to the extent that the British plant is sufficiently distinct to be considered a separate taxon. Finally, to justify a high nature conservation status, we need to be able to identify a distinctive semi-natural vegetation habitat in which the plant belongs. That would be a very interesting exercise, whatever the outcome. Either these things can all be demonstrated and it can be shown to be a native; or the results will be less conclusive, and it will turn out to be a speciating archaeophyte (which itself would be a fascinating discovery and possibly a first for Britain); or it is simply a garden escape of no intrinsic importance (which would be of interest in understanding the processes of invasion and naturalisation by alien taxa).

There are plenty of opportunities to follow up on this research. Further morphometric studies would certainly be useful, especially from other parts of the Mediterranean region and Asia Minor. Similar measurements of plants in the New Forest would be invaluable. The one chromosome count that has apparently been undertaken has been confused in various publications, and needs to be supported by a larger sample size. Ultimately, of course, more detailed genetic studies are needed, but these will need to be backed up by better information about both the phenotypes and the distribution of this intriguing genus.

I would like to thank Claire Harper, Louise Maltby, Megan Robinson & Tamsin Wilkins for their conscientious fieldwork.

Gladiolus data

Ht. = height (cm) Fl. = number of flowers Lvs. = number of leaves
 Wd. = max. width of leaves (mm) Br. = number of branches on stem

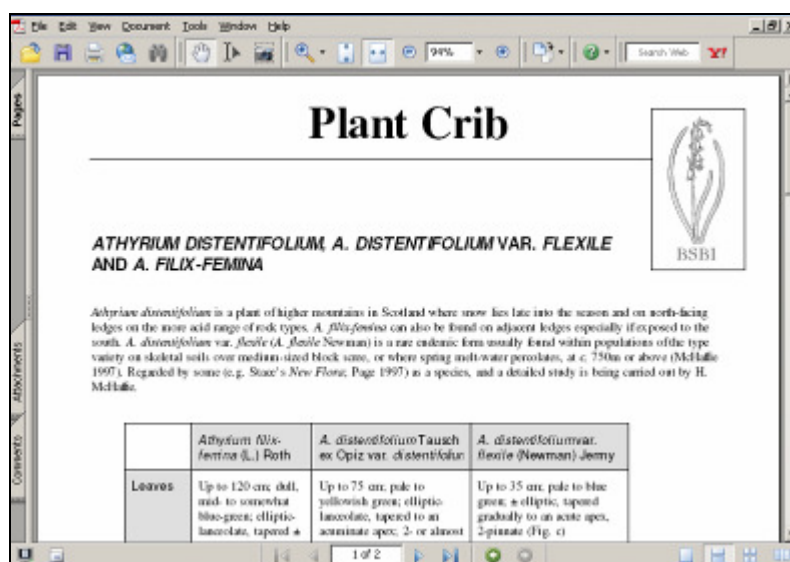
Location	Ht.	Fl.	Lvs.	Wd.	Br.	Location	Ht.	Fl.	Lvs.	Wd.	Br.
N36 57.758 W001 59.095	21.7	3	3	4	0	N36 56.517 W001 56.778	39.2	9	4	6	0
N36 57.758 W001 59.095	31.8	7	4	5	0	N36 56.517 W001 56.778	28.4	5	3	6	0
N36 57.794 W001 59.061	39	17	5	9	1	N36 56.517 W001 56.778	24.4	5	3	4	0
N36 57.794 W001 59.049	21.4	5	4	4	0	N36 56.517 W001 56.773	31.2	6	3	6	0
N36 57.799 W001 59.054	42	12	4	7	1	N36 56.517 W001 56.773	23.3	6	3	4	0
N36 57.798 W001 59.046	50.2	11	4	7	0	N36 56.517 W001 56.773	19.4	3	4	4	0
N36 57.793 W001 59.029	47.8	17	4	8	1	N36 56.517 W001 56.773	17.7	4	3	4	0
N36 57.800 W001 59.048	27.1	6	4	6	0	N36 56.517 W001 56.773	31.4	7	4	4	0
N36 57.800 W001 59.048	20.2	3	3	5	0	N36 56.517 W001 56.773	25.5	7	4	6	0
N36 56.520 W001 56.767	35	9	3	5	0	N36 56.520 W001 56.778	19	3	3	4	0
N36 56.514 W001 56.769	28.2	7	3	6	0	N36 56.520 W001 56.778	18.3	3	3	4	0
N36 56.514 W001 56.769	36.6	7	3	5	0	N36 56.517 W001 56.777	27.7	7	3	5	0
N36 56.514 W001 56.769	47.4	9	3	8	0	N36 56.517 W001 56.777	20.4	3	3	4	0
N36 56.514 W001 56.769	36.7	12	4	5	0	N36 56.517 W001 56.777	25.5	5	3	5	0
N36 56.517 W001 56.767	35.3	7	3	6	0	N36 56.517 W001 56.777	22.8	5	4	3	0
N36 56.517 W001 56.767	36.6	6	3	5	0	N36 56.514 W001 56.777	26	5	4	5	0
N36 56.522 W001 56.767	49.5	17	5	8	1	N36 56.514 W001 56.777	29.6	4	4	5	0
N36 56.514 W001 56.769	32.1	6	3	5	0	N36 56.514 W001 56.777	33	9	4	5	0
N36 56.480 W001 56.751	49	9	3	8	1	N36 56.514 W001 56.777	31.6	6	4	5	0
N36 56.477 W001 56.755	52.4	6	3	6	0	N36 56.514 W001 56.777	30.4	6	4	5	0
N36 56.515 W001 56.764	31.3	10	3	7	0	N36 56.486 W001 56.785	20.1	4	3	5	0
N36 56.515 W001 56.764	48.1	12	4	8	1	N36 56.486 W001 56.785	26.7	5	3	6	0
N36 56.515 W001 56.764	33.1	6	3	9	0	N36 56.486 W001 56.785	50.4	10	4	7	0
N36 56.515 W001 56.764	27.6	6	3	7	0	N36 56.479 W001 56.783	24.3	5	4	5	0
N36 56.510 W001 56.757	43	4	3	6	0	N36 56.479 W001 56.783	31.6	5	4	6	0
N36 56.510 W001 56.757	39	8	3	7	0	N36 56.479 W001 56.783	28.9	6	3	8	0
N36 56.510 W001 56.757	34.5	7	3	6	0	N36 56.479 W001 56.783	38.5	7	4	5	0
N36 56.506 W001 56.749	34.1	10	5	7	1	N36 56.479 W001 56.783	26	5	3	5	0
N36 56.506 W001 56.749	33.5	10	5	6	1	N36 56.479 W001 56.783	28.4	6	4	6	0
N36 56.506 W001 56.749	30.5	7	5	8	0	N36 56.476 W001 56.788	31.2	9	4	6	0
N36 56.514 W001 56.774	28.6	4	5	5	0	N36 56.476 W001 56.788	43.3	8	4	7	0
N36 56.514 W001 56.774	22.6	4	4	5	0	N36 56.476 W001 56.788	22.6	4	4	4	0
N36 56.514 W001 56.774	35.6	7	4	5	0	N36 56.513 W001 56.767	22.3	4	2	5	0
N36 56.514 W001 56.774	30.8	5	3	5	0	N36 56.513 W001 56.767	33.4	4	3	4	0
N36 56.508 W001 56.771	33.7	11	5	7	0	N36 56.513 W001 56.767	35.2	6	3	6	0
N36 56.500 W001 36.764	39.2	12	5	9	0	N36 56.513 W001 56.767	35.5	3	4	4	0
N36 56.500 W001 36.764	22.2	8	4	5	0	N36 56.513 W001 56.767	33.7	6	3	7	0
N36 56.497 W001 56.761	57.5	12	5	7	0	N36 56.513 W001 56.767	28.4	5	4	7	0
N36 56.497 W001 56.761	56.3	14	4	7	1	N36 56.513 W001 56.767	33.2	7	4	7	0
N36 56.480 W001 56.770	35.5	10	4	6	0	N36 56.513 W001 56.767	18.2	6	3	4	0
N36 56.480 W001 56.770	30.24	10	4	6	1	N36 56.511 W001 56.769	30	5	3	4	0
N36 56.480 W001 56.770	39.4	9	4	7	0	N36 56.511 W001 56.769	18.7	3	3	5	0
N36 56.516 W001 56.772	36.6	14	4	7	1	N36 56.508 W001 56.765	20.6	4	3	6	0
N36 56.516 W001 56.772	46.3	14	4	7	1	N36 56.508 W001 56.765	18.3	3	3	3	0
N36 56.516 W001 56.772	56.9	14	3	7	0	N36 56.508 W001 56.765	28.2	6	3	5	0
N36 56.516 W001 56.772	45	12	4	6	0	N36 56.508 W001 56.765	23.2	8	4	6	0
N36 56.516 W001 56.772	26.9	9	3	5	0	N36 56.506 W001 56.727	34.2	5	4	6	0
N36 56.519 W001 56.773	37.5	8	3	5	0	N36 56.506 W001 56.727	20.5	4	4	5	0
N36 56.519 W001 56.773	36.1	9	3	5	0	N36 56.506 W001 56.727	36.3	6	4	7	0
N36 56.519 W001 56.773	45.5	8	4	5	0	N36 56.506 W001 56.727	39.5	4	4	7	0
N36 56.519 W001 56.774	38.1	10	4	5	0	N37 00.769 W001 53.232	42.5	14	6	7	1
N36 56.519 W001 56.774	27.9	6	3	6	0	N37 00.769 W001 53.232	37.5	11	4	6	0
N36 56.519 W001 56.774	31.2	5	3	5	0	N37 00.763 W001 53.253	30	7	4	6	0
N36 56.519 W001 56.779	21.5	3	3	4	0	N37 00.757 W001 53.261	35.4	8	4	7	0
N36 56.519 W001 56.779	21	3	4	5	0						

Updating the Plant Crib

Tim Rich

One of the great advantages of the *Plant Crib* is that it has the ability to integrate the expertise of so many people into one place. Whilst we were compiling the first edition of the *Plant Crib* during the BSBI Monitoring Scheme 1987-1988 I thought it would be useful to have a 'loose-leaf' flora that could be regularly updated with individual sheets of paper, rather than having to wait for a whole new edition of a book to be published. The internet has now made this possible with the ability to rapidly disseminate new or updated accounts of particular plant groups, as well as being able to select accounts of taxa relevant to a particular area.

We have begun the process of putting accounts from the *Plant Crib 1998* onto the BSBI website (some accounts are already posted). Several stages are involved. First, we are scanning the illustrations and re-integrating them into the text to produce electronic versions, and adding the corrections (this stage is nearly complete). The accounts will be as A4-sized pdf files, organised by genus or group so they can be downloaded in small parts as required. The pagination often does not work as well as for the paper version which you can open to see two pages at a time, and the quality of the printing depends to some extent on the quality of the printer you use, though they usually look fine on screen.



Second, we will revise the accounts in consultation with the original authors and produce new accounts. These may include abstracts of recently published papers, accounts of hybrids as work towards updating Stace's *Hybridization* book, vegetative identification hints, etc., and aim to complement rather than duplicate things adequately published elsewhere. I have about twenty ideas for new accounts, and have written half of them already. We may be able to add links to useful information elsewhere on the web, include colour photographs, and updated maps.

Third, we aim to publish a 3rd edition of the Crib in 2008 on paper, as I still think a book in the hand is worth ten on the web.

So I would welcome any corrections to *Plant Crib 1998*, new accounts (preferably in electronic format) and help proof reading.

Tim Rich, National Museum Wales, Cardiff CF10 3NP. Email: tim.rich@nmgw.ac.uk

Watsonia records report January 2006

Mike Porter

In the August 2005 *Watsonia* (25 Part 4) and the *Watsonia* to be published in February 2006 (26 Part 1) there are approximately 1200 Plant Records. These are mainly for 2004, but include a number from various other years. They have come from 60 different vice-counties and vary in number from a single record to nearly 200. Large numbers such as this occur when the Vice-County Recorder is bringing VCCC records up to date and, although the VCR concerned may feel rather apologetic about the ordinariness of the records being published, their publication is undoubtedly one of the main purposes of Plant Records. I am very happy to deal with such large blocks of records and hope VCRs will not feel any reluctance in sending them in for publication.

Pink Cards or Electronic Data?

Sometimes I receive records on submission forms via the internet, sometimes on pink cards, sometimes as printed lists. In whatever form the records arrive I am happy to transform them into Plant Records. If the number of records is small (up to 10) it does not matter in what form I receive them and there is very little difference in the time needed to compile them. If, however, there are many records, then having the records in electronic form is very much quicker. Additionally, there is less likelihood of error on my part since there will be less manual transference of data – grid references, Kent numbers etc. I check the records several times before sending them for publication but mistakes still occur.

Two small innovations

After consultation with David Pearman and Gwynn Ellis, I have made two small additions to the information available in Plant Records. I felt it was important to show which established taxa are new to the VCCC and have therefore added the symbol \emptyset at the end of the entry to indicate this. There are also a small number of records submitted where the established taxa concerned do not appear to have been recorded before in Great Britain and Ireland. My key works of reference are the Vice-County Census

Catalogue, The New Atlas, Alien Plants of the British Isles (Clement & Foster), Alien Grasses of the British Isles (Ryves, Clement & Foster), the updated Kent List on the BSBI website and other lists available on the internet. If there is no mention of the taxon concerned in these works I have added to the entry: 'Apparently new to Britain and Ireland.'

Proposed innovation

In the August 2005 Plant Records I followed a request from David Allen to make small but significant changes to the way *Rubus* records were shown. If a determination was made before a plant went to an institutional herbarium the det. or conf. are shown before the herbarium name; but if the determination was made on a plant that had already been deposited in an institutional herbarium the det/conf. appear after the herbarium. This seems to me to give useful additional information so I would like to adopt this approach for all records. In practice it would give very little extra work to VCRs. The normal position for det. or conf. would thus be before the herbarium instead of after, as it is at present. I would only place det. or conf. after the herbarium if the VCR indicated that the specimen concerned had been in an institutional herbarium, possibly for some time, before the determination was made. I would be interested to know if any VCRs see a problem in this.

Concerns

While entering records on the Plant Records database I often encounter minor problems which worry me at the time but are soon pushed to the back of my mind by other concerns. Some of these I list below. I would very much appreciate VCRs' comments on any of these:

- Vice-county names. I try to be consistent in this and use the abbreviations in the Year Book. However, complications are caused by double names such as Westmorland & Furness (69), Fife & Kinross (85), Easternness & Nairns. (96). In the latest batch of Plant Records I have used just one of these double

names, depending on where in the vice-county the record occurs (the vice-county number is always given, of course, and ensures there is no confusion about which vice-county is involved). Thus I might give one record as occurring in 85 Fife and another in 85 Kinross. Does this method meet with the approval of the VCRs concerned?

- For Kent Numbers I obviously rely on List of Vascular Plants of the British Isles, D.H. Kent (1992) and the supplements. However, updating has taken place on the BSBI website and sometimes, usually for new taxa, I have to use the numbers given there. This facility is not available to those VCRs who do not have access to the internet. The situation is made more difficult by the revision of numbering that has taken place for certain critical taxa – *Hieracium*, *Rubus* and *Taraxacum* for instance. My problem is whether I should use updated information which is not readily available to all and may not even be available to the acknowledged expert in the field.
- Finally and related to the previous point, much revision of orchid taxonomy has

recently occurred. I would like to use the new names and numbers as soon as they have been published but am aware that, once again, not everybody will be able to access this information (perhaps until the updating of the List of Vascular Plants of the British Isles). Nevertheless, I feel I should use the most up to date information available.

Records for 2005

I expect to submit records for 2005 for publication in *Watsonia* 26 Parts 2 & 3 but this will depend on how many records are sent to me. If I receive fewer than 600 I will aim to publish them in one issue only (Part 3), if substantially more than 600, in both parts. Please try to send your records to me before the end of March 2006 if at all possible.

Mike Porter, 5 West Avenue, Wigton,
Cumbria, CA7 9LG

Email: catchall@mikesporter.co.uk

Tel: 016973 43086

Recorder 2005: Scottish Officer's Contribution

Jim McIntosh

Computerisation project: the current project to computerise records from four Scottish vice-counties is going well, and I am beginning to think about the next project. It would be great to complete the computerisation of all Scottish BSBI VCR records over the next few years. Let's aim high! I have been invited to make a pitch to SNH for money for this project at the beginning of March. I am proposing a three year grant application to SNH to enable the work to proceed. Again we would use contractors selected from the BSBI membership, as this has been particularly successful. Of course public money does not come without strings, the main one being that the records are made available on the NBN Gateway and to SNH, which allows them to carry out their plant conservation work and their day to day casework. Which is exactly what we want – to make our records count! I'd like to digitise data from four of five VCs each winter of the three year period (to avoid interfering with valuable field season time).

BSBI Scottish Webpages: the BSBI Scottish Webpages have just been launched thanks to my RBGE colleague, Dr Jane Squirrell. Look out for the link from the BSBI (national) home page! It features monthly Scottish news updates and details of Scottish projects, meetings and workshops. There is a page on the Scottish Annual Meeting complete with exhibit abstracts and links to the corresponding full versions. There is even a whole page about the Scottish Officer if you'd like to find out more about what I'm up to!

County roundup

Alex Lockton

England

ERosemary Parslow is running a gentle campaign to have the **Isles of Scilly** declared a separate vice county. I must confess to some support for this: botanically, they really have very little to do with west Cornwall or any other part of the British Isles. The main problem, of course, is finding a suitable number between 0 and 1. Alternatively, I suppose, 114 is still available. Rosemary reports that she has changed from Recorder 3 to Mapmate in the last year or two but finds the latter a more restrictive program. This is perfectly understandable, but the secret to MM is the power of the SQL queries that can be run. If you know enough about them, most databases are effectively equal. But I can understand the disappointment of Old Recorder users who find that they have to learn programming when they could previously just select from menus. This is the price of progress. We shall respond by running another MM workshop and offering to do complex analyses for you.

In **West Cornwall** Colin French is basking in the praise he gets for his new 'Erica for Windows' database program. It is by all accounts the easiest computer program to use for biological recording, and it has been widely welcomed by Cornish botanists, who all have copies. The big task now is to get rid of the duplicates: Colin reports that there are some 800,000 records on the database, but this seems to include most records at least twice, so there is a huge job to be done in tidying up. Rose Murphy has retired as recorder for v.c. 2, **East Cornwall**, but remains active helping her successor, Ian Bennallick, and they both use 'Erica.' One of the current projects in Cornwall is a forthcoming Rare Plant Register.

Last year the BSBI had a small contract with English Nature to assess the state of rare plant recording in each county in England. The only note I have on file from Roger Smith in **South Devon** is a heartfelt complaint that this would be extremely hard

to do. Apparently there are vast numbers of file cards to work through. By contrast Bob Hodgson, in **North Devon**, reports that he is already 80% computerised, and will be completing the task soon.

In **South Somerset**, Paul Green and Steve Parker report that they are working towards a rare plant register for the county. Paul reports that some Somerset recorders have started using a new recording unit that consists of a quarter of a 1km square – i.e. a 500m square. It is not possible to store this on Mapmate or any other database that I know of.

Fortunately, there are straightforward ways around this sort of problem. The best is to use a sampling system: record one 100m square accurately, and then just make records of additional species in the other 24 such squares in your recording unit. That is barely any more effort than making just the one list, and the resulting maps look exactly the same. Alternatively, you can keep your data in whatever format you like, but then aggregate the lists into 1km squares before sending them to us. However, all recorders should please try not to send in records which contain grid references that are not correct.

From **North Somerset**, Ian Green reports that he is also thinking about a Rare Plants Register, and he has been joined by Rob Randall as joint v.c. recorder. Among the botanical finds reported were new sites for *Poa infirma* and *Ophrys apifera* × *insectifera*.

Wiltshire has seen something of a resurgence in recent years. Sharon Pilkington has proven herself more than capable of coping with two vice counties in one of the most species-rich corners of the British Isles, and seems to be making great progress. A rare plant register is under way; all records are apparently on Mapmate; and recording and training events are at an all-time high. I love the personal ambitions inserted into some of the annual reports: 'get better at digital photography,' she writes. Later in the year I noticed a superb photo of Sharon's of

Sphagnum pulchrum on the Bryological Society's web site, so I guess that was an ambition fulfilled.

Dorset is currently a rather quiet place: the after effects, perhaps, of some highly active years with a County Flora and a Rare Plant Register. With just 6% re-recording since 2000, it is in the minor league when it comes to southern counties. By contrast the **Isle of Wight** seems a very lively place just now. Colin Pope's recent Flora has prompted a flurry of recording, and we have had the first exchange of data between local and national databases. Local recorder Geoff Toone has appointed himself unofficial photographer for the BSBI and has contributed some excellent images to the web site.

In the last year Martin Rand and Tony Mundell have created a web site and database for **Hampshire** and are progressing well with computerisation on Mapmate. In the autumn of this year a major conference on biological recording was held at Southampton University, with many high profile speakers from the intelligentsia and aristocracy. It was held in honour of Gilbert White and had a distinctly voluntary emphasis – a curious alliance of natural history buffs and the landed gentry joining forces. Very strange but rather fun.

Sussex was one of the few counties that was sufficiently well computerised to answer English Nature's question about how many records they hold. Everything was in Excel and was in the process of transfer to Mapmate, which I believe has now been done. The group has a web site, but you have to be a member to log on. In **Kent** Eric Philp is concentrating on his new Flora.

It is a little known fact that **Surrey** is the most botanically rich county in Britain, as revealed by our interesting new analysis from the AUP. In her report, Ann Sankey asks what are the chances are of receiving some funding from the BSBI, in order to get help with all this work. That is something we are always working on and discussing, but to be honest it is unlikely that the BSBI will ever be able to directly fund much local activity. Whatever we spend would have to be multiplied by 150 counties, and that makes even modest support into a major initiative.

We can find some small contracts that will bring some income to v.c. recorders, and each year we have a few initiatives, adding up to a few tens of thousands of pounds, that benefit county recorders. But the obvious source of cash is the data that you collect. In rough terms, it would cost the government about £5 to collect a record in the field. If county recorders can extract even a fraction of that from local records centres, consultants, etc., then they can have quite a substantial income, either for themselves or for their local flora projects. As long as recorders continue to send us the data we need for national projects, we are more than happy for them to operate commercially. Do remember that you are recorders for the BSBI, not for anyone else.

Ken Adams, in **Essex**, reports that he is beginning to get his pink cards computerised on Mapmate. He has written a series of reports in the Essex Naturalist on rare plants of the county, and considers that this will have to suffice for an RPR (Ken, if you can supply them to me electronically, I could put them on the web site). There are long term plans for a new Atlas and Flora of the county. Trevor James, in **Hertfordshire**, reports that he has transferred all his data to Recorder 2002, but was unable to give English Nature an estimate of how many rare plant records there are. Apparently they are all going to be on the NBN Gateway at some stage in the future.

Rodney Burton is producing a Rare Plant Register for London, which includes **Middlesex** and parts of neighbouring counties. Fortunately, he is highly computerised and it does not seem to create any difficulties dividing the records up by vice county and modern metropolitan borough.

The Flora of **Berkshire** was probably the biggest event for the BSBI in 2005. When Mick Crawley released his rare plant register – a digest from the Flora – as a free download from our web site, our hit rate nearly doubled. A thousand people a week have been downloading it. I guess this was clever marketing at least as much as a gesture of philanthropy, as the book costs nearly £50 to buy. It is widely regarded as the most original county Flora since Ronald

Good's Fl. Dorset in 1948. There are hardly any distribution maps, but instead it is loaded with stories and analysis.

John Killick is working on an RPR for **Oxfordshire**, and reports that his column in the Oxford Times has now been running for seven years, and has covered 350 species. His data is being computerised by the local records centre. Roy Maycock, in **Buckinghamshire**, reports that he regularly visits his LRC to work on the data. He also has datasets on Mapmate and Aditsite, and he gets consultants to make donations to the BSBI when he provides them with information.

Gillian Beckett reports that **Norfolk** has had its usual programme of field meetings. In **Cambridgeshire**, Alan Leslie reports that Gigi Crompton has published the latest version of her Flora on the web. This really is a most remarkable web site – well worth taking a look, in order to get some ideas about managing old records. Not that I would necessarily recommend copying it: it is a purists database, and as eclectic as Mick Crawley's Fl. Berkshire, but as such it adds a lot to the diversity and interest of botany.

Chris Boon reports that 2004 was the last field season for his forthcoming Flora of **Bedfordshire**, and so far he has got to Abies in the text. He doesn't say whether this is taxonomic or alphabetical order, but I guess it is at an early stage whichever. Chris has also been scouring herbaria for voucher specimens, and it looks like being an exceptionally thorough new Flora. Chris's approach to recording is a site-based system, using the techniques developed by Derek Ratcliffe and others for nature conservation purposes. I have a lot of sympathy for this system, as I use it for the Threatened Plants Database. You get some remarkable discoveries: for example, it transpired that hardly anything is known about Knocking Hoe, which is arguably Bedfordshire's best site. Everyone has taken it for granted that someone else would have been monitoring it, whereas it turns out that most records are no more than 'twitches' of the rarities. There must be data 'out there' – for example, Frank Perring did his PhD on the site – but, if so, it is quite urgent that we find these old records and curate them properly so analyses will be

possible in future. There must be hundreds of sites with similar stories around the country.

Terry Wells of course published his Fl. **Huntingdonshire** at the beginning of 2004 (well, 31st December 2003, actually) and reported that 400 of the 500 copies had already been sold by the time of his report. He writes that, due to illness, he is looking to encourage someone younger to take over the recordership. Happily, Kevin Walker seems to be stepping into that rôle now; many readers will know him from his work at the Biological Records Centre and his interest in rare plants. He is also a member of our Science & Research Committee. In **Northamptonshire**, Gill Gent shares the recordership with Rob Wilson. Gill reports that their Rare Plant Register is in press, but says that they planned a quiet year for 2005. Rob has set himself the task of bringing all the botanical records for the county together, using Mapmate.

Mark & Clare Kitchen report that things in **Gloucestershire** are pretty much the same as last year, which is exceedingly busy. They seem to be involved in all sorts of natural history and conservation groups, and somehow have found the time to increase the number of computerised records from 65,000 in 2004 to 306,000 last year. I understand that the task is not yet completed. Personally, I am delighted to see such huge numbers of records going into Mapmate, because it proves the software really can cope. The main problem we seem to get when dealing with six-figure data sets is that sync files can take some time to run; but otherwise it seems to work fine. There is a way to get around this: send us copies or backups of an entire data set once a year rather than frequent sync files.

Trevor Evans, in **Monmouthshire**, reports that he provided information to consultancies but they failed to pay the agreed fee. This is slightly alarming, and I have not come across it myself. If recorders are going to provide commercial services, it might be worthwhile for us to provide a bit of training in business practice – such as tax status of any such fee, how to invoice (for example, some businesses don't even think of paying until they've been sent a reminder) and to ensure that the service being provided meets the

required standards. If anyone thinks such advice would be useful, please let me know (and any offers to run such a workshop would also be welcomed).

Stephanie Thomson, in **Herefordshire**, is working on a rare plant register. John Day (**Worcestershire**) reports that the recording period for the forthcoming Flora has come to an end, and that they are now writing up. James Partridge is getting to grips with **Warwickshire** and has been conducting arable weed surveys. John Hawksford produced the fourth edition of the Rare Plant Register for **Staffordshire** in 2005, and is still energetically recording for his forthcoming Flora.

Here in **Shropshire** we released the third edition of our County Rare Plant Register in January 2005. We have a Botanical Society with about 120 members who pay subs of £10 a year but our main income is from sales of data. Whenever a consultant or records centre wants to know something, they can buy our records for 10p each. This brings in about £2k a year, which is vital for us, and gives our clients access to data at a tiny fraction of the cost of collecting it themselves. We've had some very interesting work from this, including a £500 contract from Defra for a Twinspan analysis of the landscape with John Rodwell, and £400 from the County Council and Forestry Commission to identify hotspots of biodiversity using habitat indicator species.

We have used the money from this to revive some of the county's herbaria. We sent a collection of very old and fragile fumitories from the Shrewsbury School herbarium to Cardiff Museum and paid to have them restored and re-mounted. Tim Rich checked the identifications and discovered a lectotype of Painter's Fumitory *Fumaria painteri* among them. We have also hired a local botanist to database the Shrewsbury Museum herbarium, which has important collections from William Leighton, Thomas Butler, J.E. Bowman and others.

Richard Pryce reported another busy year in **Carmarthenshire**, including the much celebrated rainy week at Glynhir Mansion. Arthur Chater is now deeply submerged in his forthcoming Flora of **Cardiganshire**, and is always looking out for the best examples

from existing county Floras. I was delighted to be able to point him in the direction of the recent Fl. of Norfolk, which is undoubtedly the best for distribution maps although, to be fair, the fad for maps is now fading. Arthur only intends to include them where they have something interesting to add to the text.

Wendy McCarthy is the county recorder for **Caernernvonshire** (sorry Wendy, not Carmarthen, as I put in the last newsletter) and writes, very charmingly, 'I'm happy with my lot!' Two years ago she asked for a Mapmate workshop, and we organised one. We shall arrange more, and please note we can also offer other help to Mapmate users, including the transfer of data. Goronwy Wynne seems equally happy with recording in **Flintshire**, and reports that he is working mainly on a rare plant register. Ian Bonner's report for **Anglesey** is the same: rare plant registers and Mapmate.

Paul Kirby's report on **Lincolnshire** is alarming. They've just finished computerising their existing data, and found that 13% of tetrads in the county have no records at all. That's 147 tetrads, although it sounds as if many of them are partial ones along the coast. Michael Jeeves reported that the 3rd edition of his Rare Plant Register for **Leicestershire** was about to be distributed. Can I make a plea here? We can always use donations of such things for the BSBI library. We can also put them on the web for you if they are available in electronic format.

David Wood said simply that recording in **Nottinghamshire** is in a bit of a mess, and he is hoping to get a joint recorder who uses Mapmate, shortly. Alan Willmot reports that they had nine field meetings in **Derbyshire** and are writing species accounts for their forthcoming Flora. I was sent a curious Access database that is the equivalent of a Rare Plant Register for Derbyshire, and in return contributed the records from the Threatened Plants Database, which added several species to their list. Graeme Kay has a similar programme of field meetings and is working on a rare plant register for **Cheshire**. Dave Earl is currently trying to pull together the results of ten years of fieldwork for the planned Flora of **South Lancashire**, but reports that the records are

scattered across several databases and their ownership is fiercely fought over.

Eric Greenwood's report mentions, several times, that he could use a bit of help with his various databases relating to **West Lancashire**. Send them along, then; if I can't solve the problems myself, I'm sure I know someone who can. Geoffrey Wilmore is working on a Flora and thinking about a rare plants register for **S. Yorks**.

Phyl Abbott's Plant Atlas of **Mid-West Yorkshire** came out in time for the Recorders' Conference in 2005, and Phyl gave me an electronic copy for safekeeping. That raises interesting possibilities about publications on the web in future years. Very few county Floras are commercial productions, and most sell out quite quickly. If we keep them as eBooks, then it might nicely fill a gap. Anyone planning a Flora or who has produced one recently might like to bear this in mind: dissemination over the internet is essentially free, and it can reach a very large audience.

Deborah Millward had a mixed report on **NW Yorks**. The proposed rare plant register of the whole of Yorkshire seems to have stalled, but she has various small projects on the go, including much work for the local records centre and other local governmental bodies. She was disappointed that a volunteer had failed to record one of the Local Change tetrads, which left a blank on the map. George Swan also had problems with Local Change in **Northumberland**, particularly with a sizeable number of aliens and curiosities that have been recorded without voucher specimens. It can be a tricky job to decide what to believe under such circumstances, and there is no easy answer.

Geoffrey Halliday writes: 'how people... manage to keep up with data processing beats me.' Actually, Geoffrey, it is all a bit of a myth. As far as I can see, there aren't any county recorders who really do have all their data nicely and neatly on computer. What the competent ones do is make sure that they have the ability to compile what they need for particular purposes, and then check it very carefully when the time comes for publication. Anyone who has read the Fl. of **Cumbria** knows that Geoffrey is as good at this as anyone. OK, the grid references are a

bit idiosyncratic – not wrong, as such, but rather unusually presented. However, the taxonomy and records are always spot on, and that's what matters.

Scotland

David Hawker reported a quiet year in **Kirkcudbrightshire**, mostly undertaking consultancy jobs. Peter Macpherson also had a quiet year in **Lanarkshire**, although he raised £125 for the BSBI from data enquiries. Rod Corner had a much more interesting year in **Selkirk & Roxburghshire**. A new site was found for *Calamagrostis stricta* in a Local Change tetrad; *Crepis mollis* seems to have been accidentally exterminated from v.c. 80 by a Community Forest planting scheme; and a reintroduction of *Lychnis viscaria* seems to be failing. Apparently there is also an issue about the dumping of sewage sludge in woodlands in the Borders. Do people know about this? Has anyone thought about the consequences for the environment? Apparently it is seen as an agricultural practice, so it doesn't need an impact assessment or planning permission; but is it really anything of the sort, or is it just a form of unlicensed waste disposal?

Michael Braithwaite launched his Rare Plant Register of **Berwickshire** in 2005. This is an impressive hardback book, privately published and not available to the public. It contains a wealth of information about the county and its changes over the years. Apart from being treasurer to the BSBI and manager of the Local Change Project, Michael is also president of the Berwickshire Naturalists. Jackie Muscott managed to undertake Local Change but was ill in 2004, so had a quiet year, botanically, in **West Lothian**. She is now looking for a successor. For **Mid-Perthshire**, Jim McIntosh reported on an exploratory meeting with Perth Museum and confesses that there are just 8,000 computerized records for the county. Plenty of opportunity for useful work, then...

In **East Perthshire**, Martin Robinson was also unable to do much botanizing. In both these counties records are held at the 5km x 5km level, which is a unit I hope we can move away from in 2010. If you use a computer, it is easy enough to record at a

higher level (2km squares, perhaps) and still produce maps at this lower resolution if that would give a better impression of coverage.

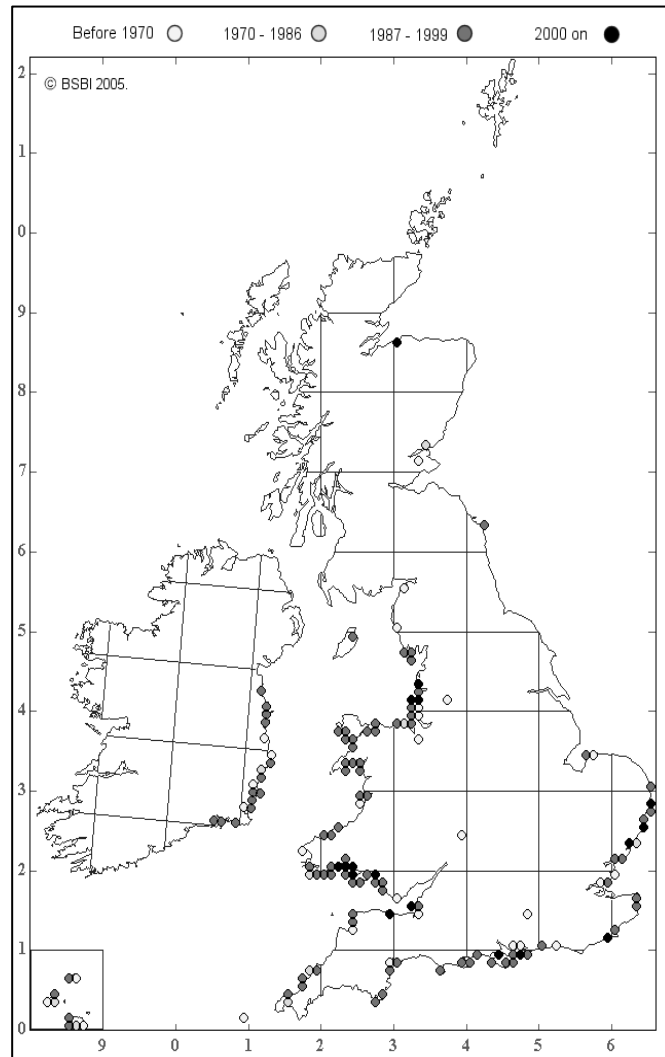
Barbara Hogarth's forthcoming rare plant register of **Angus** has 250 species listed, and all records are being transferred into Mapmate. She runs ID classes at Dundee, but reports no significant events in the county and said she found Local Change 'very boring,' which is a good point to raise.

In all honesty, most scientific data gathering is less than exciting, and the only thing that motivates scientists to do the work is that they are interested in the results. The dilemma facing county recorders is: do we want to be scientists making a valid contribution to human knowledge, or just amateurs enjoying a walk in the countryside but not really doing anything of any consequence?

This is not a frivolous question – most do the job not just for free, but often at considerable personal expense. For all our benefit, it is essential (and greatly appreciated) that everyone joins in with these national projects, because that is what turns pootling about into real science. But recorders must tell us if they don't like participating in a project, and there needs to be a consensus about what activities the society should engage in. If they become too boring and onerous, our projects will fail.

David Welch covers both **Kincardines & North Aberdeenshire**, both of which he seems to manage admirably. His local records centre computerised a load of his records and then collapsed, so he is cautious about being too generous to its new incarnation. There are several initiatives under way, including a roadside verge conservation scheme for butterflies, recording roses, and starting a CRPR. Ruth Mitchell has only been recorder for **South**

Aberdeenshire for one year, during which time the main activity has been Local Change, which generated 13,000 records in Mapmate.



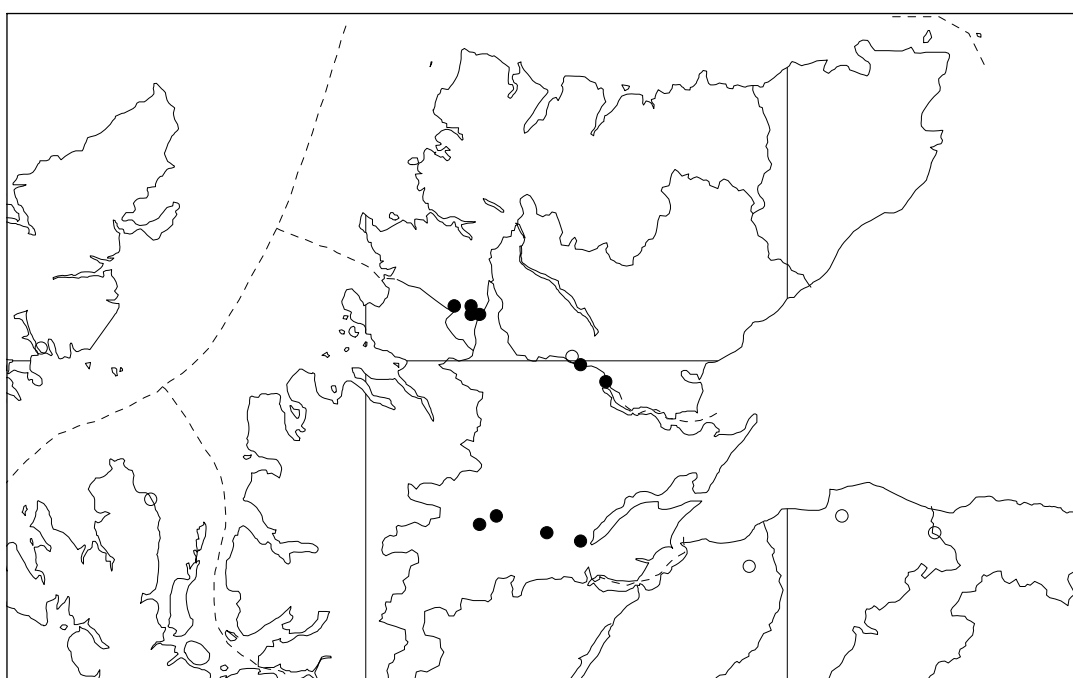
Vulpia fasciculata (Dune Fescue) on the AUP

Andy Amphlett's main activity recently in **Banffshire** seems to have been computerisation of the existing records into Mapmate, which is progressing at the rate of 25,000 a year – good progress by anyone's standards. There are apparently just two active botanists in the county, and between them they make 4,000 new records each year, so clearly the backlog will soon be dealt with. Andy says 'presumably the situation is similar in many other vice counties,' which is an interesting question. I think it is not so different. Here in Shropshire, which is probably typical for a populous lowland county, you find if you analyse the data collected each year that no

more than three or four people will have contributed serious quantities of worthwhile data. About 200 people do make records in a year, but most of them send in just one or two (although those are sometimes very interesting ones). A typical year's recording is about 20,000 records. The bottom line, however, is that if you want anything specific done, such as Local Change or searching for rare plants, you pretty much have to do it yourself.

Ian Green says he gets on really well with Mapmate, and he took the Somerset Rare Plants Group out for a week's recording in

Using the table of recording statistics from the AUP (see the article above) I divided the number of records for each county by the size of the county. This gives a reasonable assessment of recording effort that each county recorder made in each time period. For the New Atlas, it turns out that Banffshire ranks 33rd out of the British counties, with 770 species per hectad. This is considerably higher than would be expected for such a northerly county, so either it was well recorded or it just happens to be a very species-rich part of Scotland. Looking at the raw data on the VPDB, I see that there are also many detailed records, so I can only



Above: a recent discovery is that *Pilularia globulifera* is distributed along river systems in the north of Scotland, whereas in England it is usually found in isolated water bodies.

Moray. He also does week-long Wild Flower Society excursions. The main botanical discovery in 2004 was *Vulpia fasciculata* (Dune Fescue) at Findhorn - the most northerly site for it in the world. Margaret Barron attended a *Fumaria purpurea* workshop run by Heather McHaffie, and the group promptly found a new site for this species in **Easternness**. In her report, she gives me a hard time for describing Banffshire as under-recorded in the last edition of Recorder. I don't want to unfairly criticise John Edelsten, so I checked to see whether the evidence supports my perception.

conclude that I was wrong, and John was in fact a better than average recorder.

(For those who just have to know, Middlesex (v.c. 21) has the highest species density with 2,129 taxa per square, which is exactly what would be expected. North Wiltshire (v.c. 7) came lowest, with just 204, which was due to a hiatus in recording as the v.c. recorder had retired.)

Alison Rutherford reports that she is unable to get out and about in **Dumbarton** now, so is concentrating on organising her records, and those of the late Allan Stirling. Pat Batty reports on the establishment of a botany group in **Kintyre** and several exciting

discoveries, including a new site for *Mertensia maritima*. Lynne Farrell made three recording trips to the **Mid Ebudes** to look at various rarities, including the colony of *Tuberaria guttata* on Coll that was found by Simon Wellock.

Publication of the third edition of *The Botanist in Skye*, by John Birks and Catriona Murray was the main event in v.c. 104, and Stephen Bungard reported on interesting discoveries on **Raasay**, including the hybrids \times *Dactylodenia st-quintinii* and *Dryopteris* \times *complexa* – all good stuff for the forthcoming hybrids book. Brian & Barbara Ballinger's report is about how they are getting to know the flora of **Easter Ross** better, and are working on a rare plant register. One of their discoveries in 2004 was of Pillwort *Pilularia globulifera* in the tidal reaches of the Kyle of Sutherland. This drew our attention to the fact that it is distributed along river systems in the north of Scotland – which is completely different to the situation in the south, where it is mostly found in isolated water bodies.

Pat Evan's report for **West Sutherland** includes a long list of seemingly trivial events that are the routine activities of county recorders. Advising an embroideress (sic) about winter-flowering montane plants is certainly a new one on me. But if the BSBI won't do that sort of thing, who would? More seriously, she and Ian did loads of Local Change squares, as well as site monitoring for SNH, and are starting on an RPR. Paul Smith and Richard Pankhurst report that they have started recording the **Outer Hebrides** 'in earnest' in 2004 – presumably for a new Flora?

In **Orkney**, Elaine Bullard has recently acquired Mapmate and is busy computerising her records. She was a bit miffed that BSBI was not invited to contribute towards SNH's site condition monitoring exercises, but confessed that there were very few members in Orkney who could spare the time. Meanwhile, in **Shetland**, Walter Scott points out that he already has a perfectly good Flora and Rare Plant Register, and the main event of 2004 was the establishment of a horticultural unit to cultivate the endemic hawkweeds of the county – one of which was

subsequently wiped out in the wild by a landslip.

Channel Isles

Roger Veall always sends me lists of interesting finds in **Sark** each year. This time his report is mostly about the death of Marcia Marsden in 2004. Marcia had kept the records for Sark jointly with Roger since 1995, and maintained a herbarium which is now housed by La Société Sercquaise in their visitors' centre in the old Girls School. Among the good botanical discoveries were *Atriplex glabriuscula* and *Osmunda regalis*.

Brian Bonnard is pleased to report that one in every eight residents of **Alderney** are now members of the island's Wildlife Trust, and 10% of the land area (200 acres) has now been designated as nature reserve. The government of Alderney is also introducing its first wildlife law, and applying to have the western shoreline designated a Ramsar site.

Ireland

Matthew Jebb, of the National Botanic Gardens in Glasnevin, emailed me to say they were thinking of establishing a records centre there. I forwarded his email to the Irish Committee, who have since reported that they are very pleased with developments. I suggested that they should start by databasing their own herbarium in order to establish a sound basis for expanding their data management operations, and to that end sent the records we hold on the Threatened Plants Database that are based on specimens in DBN. I understand that they had already started on such a databasing initiative, although I've not yet seen any products.

Apparently there are now open days in the herbarium, where recorders meet and bring specimens for identification. Personally, I love the web site, also maintained by Matthew, which is loaded with useful information including, for example, the entire text of the Irish Red Data Book by Curtis & McGough. The best bits of the web site are not easy to find, so here's the current url: www.botanicgardens.ie/herb/census/flora.htm.

Meanwhile, Caroline MacDaeid has been busy scouring the southern half of **Co. Kerry** for plants that were recorded by Reginald Scully in his Flora of 1916. She was delighted by the discovery of large quantities of *Erica* × *stuartii* (*E. mackaiana* × *tetralix*) in the county, but is troubled by the difficulties of surveying remote areas. Ireland does not have a good network of rights of way like England & Wales, and walkers have very little right to roam. The problem includes the shoreline, which is not public property in Ireland as it is in Britain.

Paul Green has now visited every tetrad in **Co. Waterford** and this year (2006) will be the last one for recording for his planned new Flora. His records are fully computerised on Mapmate. Among his targets for 2005 was to identify the varieties of *Viola odorata* and visit every tetrad that had no records yet of *Ranunculus ficaria*. Perhaps we will find out next year if these were accomplished. Sylvia Reynolds, among others, reported that there is no records centre yet in Ireland. Her own records for **Co. Limerick** are on card, and she is also working towards a County Flora.

I had an email from someone in **Co. Clare** asking for all the BSBI's records so they could establish a Local Records Centre. This is also mentioned in Fiona Devery's report, although it is not obvious whether she is involved or not. Our policy is not to pass on records to LRCs, but only to county recorders. Fiona reports that she is getting to grips with Mapmate and is trying to re-find plants at old sites.

Evelyn Moorkens puts 'computerisation' as her main activity in **Co. Laois**, as does Margaret Norton for **Co. Meath**. Both asked for copies of whatever records the BSBI holds. The most convenient way to supply these, for me, is to email them. I need to know if you can open Excel files (not always easy if you use an Apple computer) or, if not, that you know how to open csv or text files. If we can establish email communication, it makes it much easier to deal with these questions and send alternative versions of the data. Some people have trouble sending emails to me, especially those using eircom.net addresses, so sometimes they have to send them through an intermediary. If this affects you, please do persist.

Margaret attended the BSBI weekend at Derrygonnelly, which was apparently a great success, and we are thinking about having a recorders' conference there soon.

John Earley asked for all the data for **Co. Roscommon**, and he is currently transferring everything into Mapmate format. Gerry Sharkey is also computerising records for **Co. Mayo** on Mapmate and studying *Spiranthes romanzoffiana*. Sharon Parr has now resigned as recorder for **Co. Sligo**, because her work was keeping her away from the county too much. Don Cotton complained that he had asked for the records for **Co. Leitrim** but had no response, which is not fair because he had not asked me! I've now sent them. Don also had news about *S. romanzoffiana*, which seems to be turning up everywhere. Is it on the increase as a result of global warming, I wonder?

Paddy Reilly reported no activity in **Co. Cavan**, but Alan Hill had a better year in **Co. Monaghan**, with a number of new county records, including *Stellaria palustris* and *Salix* × *reichardtii*. Good, more hybrids, please, but don't forget to keep specimens wherever possible. Robert Northridge reports that he has found *Trichophorum cespitosum* nothosp. *foersteri* 'almost everywhere' in **Fermanagh**. This is the hybrid between *T. cespitosum* ssp. *cespitosum* and *T. cespitosum* ssp. *germanicum*. In Britain, the former seems restricted to northern peat bogs in the process of formation and active growth, whereas the latter is a southern species, often occurring on heathland and drying mires. It might be one of the most sensitive taxa for detecting climate change, and it would be good to have more records from around Ireland. He also refound, last year, an old site for *Trichomanes speciosum* sporophyte, which was persisting in a rather dry state in a wood – the only site for it in Fermanagh. With his joint recorder, Ralph Forbes, they have collected 200,000 records for the county and are working on a Flora.

Ian McNeill is also working on a Flora of **Co. Tyrone**, and has reached the stage of scouring for old records and targeting under-recorded areas. Mr G. Day, in **Co. Down**, writes simply that his Rare Plant Register was published in 2004. Wesley Semple & Neville McKee, in Co. Antrim, have

acquired a computer and set themselves the objective of getting computerised.

Referees

Mary Clare Sheahan, who is responsible for managing the list of referees, summarises:- 'the main theme from those that replied was of pleasure at being included in the BSBI Recorder mailing list, and many had informative comments about the method of recording they currently use. A common gripe was that enquirers often didn't give sufficient site details, in spite of the clear instructions at the beginning of the Referees Section in the Yearbook. However we were disappointed that there wasn't a greater response to the letter, and would welcome further feedback about whether referees would like to be sent supplies of recording cards to that they can send in records of their determinations.'

Margaret Bradshaw (*Alchemilla*) requested the proffered copy of Mapmate and an Excel table for storing records, and reported that she has started an evening class and runs recording sessions. Pat Acock (*Equisetum*) also offered to submit records, but reported that he only receives 10-20 specimens a year, and most of those turn out to be *E. arvense*. Worse still, many of them have insufficient details, such as no grid reference.

In all honesty, there is no point getting a database for this amount of information. I would say that for 100 – 1000 records a year an Excel table is best. It is only when you start dealing with tens of thousands of records that you really need a database. For fewer than 100 records a year one could fill in pink cards or simply send me the details of the more interesting finds in an email.

David Allen questioned whether he should have been included in the mailing, as he is referee for biographies, and his botanical interests are centred on *Rubus* – which, he points out, is not normally covered by traditional BSBI recording. My answer to that is that the times are changing. Now that most people have computers and email, the scope of our databases is increasing constantly. Both the Leicester Database and the TPDB store extensive biographical information, and the database managers for

critical taxa such as *Rubus* (Rob Randall) and *Taraxacum* (Bert Reid) are now treated exactly like county recorders. I accept that our systems are not perfect at all, but we are working to integrate these things, and are making progress. Do, please, all feel free to report on activities and let us know if there is any way we can help.

Hugh Dawson deals with general aquatics, and reports that this leaves him with a rather eclectic mix of leftovers, many of which are unidentifiable. The better botanists tend to send material straight to the taxonomic specialists. This is an interesting point, because Clare Coleman has just volunteered to be a 'general beginners' referee, and it remains to be seen whether this idea works and is worthwhile. There are, of course, two sides to the question: firstly, do the members appreciate it and, secondly, do the referees get anything out of it? I can imagine that refereeing a specialist group always stands the chance of getting something really interesting, or at least improving one's experience of the speciality in question. But being a general referee is pure altruism, so there isn't exactly a queue of people waiting to do it.

Eric Clement is one referee who regularly contacts me, both to contribute interesting snippets and to ask for data. Please note that this is part of the service! I am happy to provide data sets to referees and authors of species accounts. Although I would much rather do this in electronic form, please. I had to print out 100 pages of records for one referee last year, and that is a bit tedious (although not unreasonable, on occasion).

Eric reported that he enjoyed the scientific side of this newsletter, especially Geoff Toone's piece on *Gladiolus illyricus*. I confess we've had a very quiet year in the BSBI, with the focus on administration. This current edition is not so strong on science, but perhaps we can do better next time.

Brenda Harold, our resident *Potentilla* expert reported that receiving Recorder was worthwhile, as she had some photomicrographs of sterile pollen in *Viola* hybrids that she could send to Clare Coleman for the forthcoming mini-Handbook. Brenda later attended the Recorders' Conference and

gave an inspiring talk and workshop on pollen staining.

Other referees at the conference included Anthony Pigott on the *Dryopteris affinis* complex; Alan Silverside on hybridization in *Mimulus* and *Euphrasia*; Ray Harley on *Mentha*; Mike Porter on *Carex*; Fred Rumsey on *Asplenium* and Chris Preston on *Potamogeton*. Roger Maskew ran a short ID session on *Rosa* and is planning to do so again this year.

I would welcome offers of workshops and talks for this year, either on tricky taxonomic issues or on techniques such as pollen staining and microscopy. Last year Martin Godfrey ran a popular session on chromosome counting. Please note that most of these were in response to requests that people sent in, so please keep them coming.

Activities for 2006

With this newsletter you should find a flyer for the Recorders Conference in 2006. The last one was so well-received that I have taken a risk by attempting to repeat the success again in Shrewsbury. If this goes well, then I would like to consider a different venue for 2007 – Derrygonnelly in Co. Fermanagh has been suggested as a possible venue. It's only about £30 to fly there and we might be able to help with travel arrangements.

Please note in your diary the 14th – 16th September 2006. Places at Preston Montford are quite limited. I don't like to book in more than 50 people (although one v.c. recorder told me 'I've just come back from Siberia and I'm not worried about creature comforts. Just squeeze me in!'). Thanks, everyone, for being so tolerant and cheerful. I shall make sure that residential places are reserved for v.c. recorders and referees first, and only open the conference to hoi polloi later on. There are plenty of places at local B&Bs for those who can't fit into the field centre, and the cost is about the same.

As last year, there is a dual theme. We shall have talks by taxonomists on identification and recording issues, but there will also be a

general topic on introductions. This is a long-running debate, but one which the pure scientific argument has firmly lost. There can hardly be a nature reserve in Britain where rare plants have not been planted out – often repeatedly and over many years. But what is the effect of all this? The process is usually secretive and nearly always unsuccessful. Extraordinary amounts of resources are spent on introductions, but where are the results? Even failures should yield some sort of benefit in understanding what does not work.

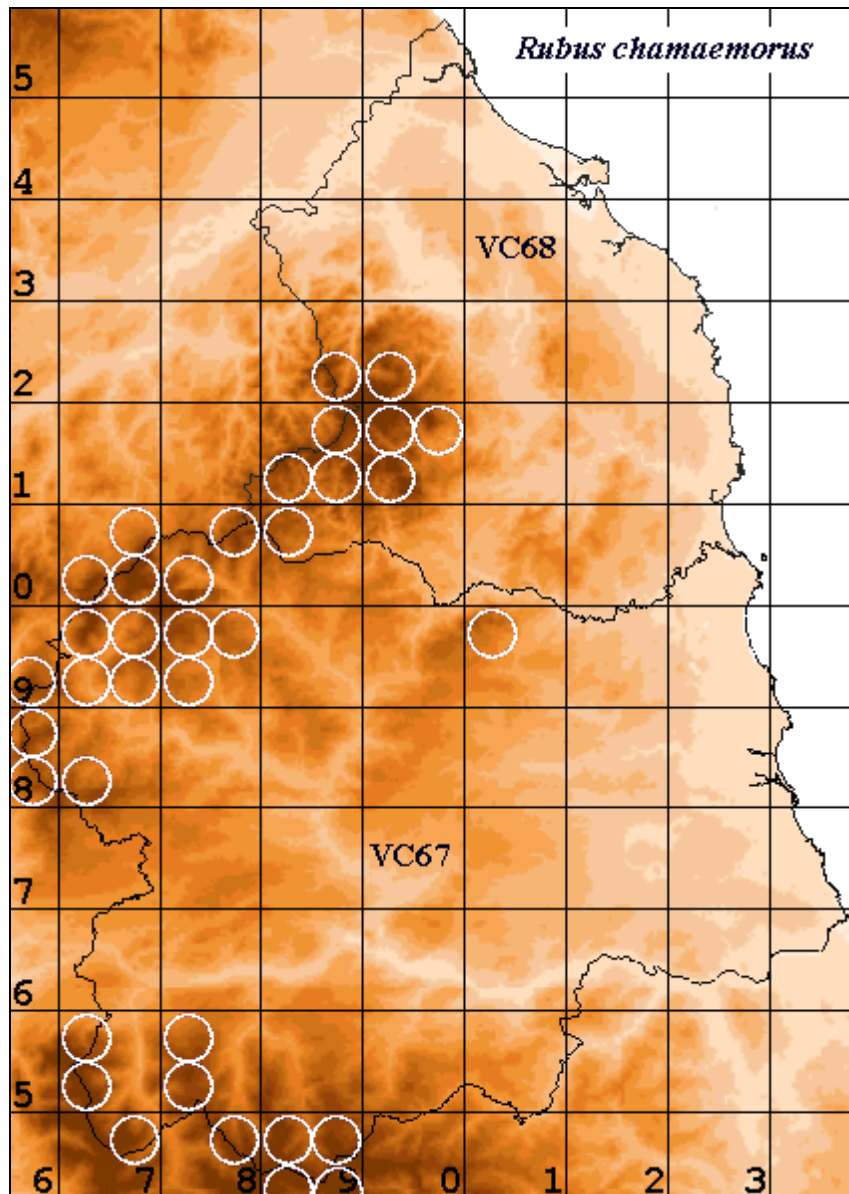
Also with this newsletter is the annual feedback form, which ideally should be downloaded from the web site and sent to me electronically. Nearly all v.c. recorders now have email and we are getting close to the point where all data exchange is electronic. This is a great thing for the BSBI, as we are so widely dispersed and rarely get to meet.

Have a look at the web site soon if you have not done so already. We are planning a major expansion of the resources available on it, including publishing all our journals electronically. There is a section for v.c. recorders (you'll find it under the Records Committee section) with useful items such as a table showing the sizes of the vice counties. I'd welcome suggestions (and offers) of other resources that might come in useful.

Finally, do all please keep in touch, whether you are coming to the conference or not. A few people have taken up my offer to supply data sets for their county, and I can also do that for taxonomic groups, etc. But the raw data, you will discover, is not always the wondrous resource that people imagine it to be. There is a huge amount of research and work to be done on practically every species and county in Britain & Ireland, and we can help you do that. We can give advice on subjects like mapping, analysing, collecting and storing records. You can waste a lot of time by inventing your own systems and working in isolation from others. There are good and bad ways of doing all these jobs, and talking to people and sharing experiences is the best way to find them out.

...Alex

The picture was constructed from Shuttle Radar Topography Mission data available free at the United States Geological Service website (srtm.usgs.gov). The data was transformed to the Ordnance Survey projection and overlaid with the Watsonian Vice County boundaries from the National Biodiversity Network. The distribution for *Rubus chamaemorus* was taken from the Flora of Northumberland (Swan, 1993). The map was put together using a program called OpenEV, an open source Geographic Information System. The annotations and the distribution circles were added after using Paint Shop Pro.



Digitised Watsonian Vice County Boundary Data, © National Biodiversity Network Trust and Crown Copyright 2003.

If anyone is interested in getting maps like this, I can help. However, the Shuttle Radar Topography Mission data doesn't go further the 60° North i.e. it doesn't cover Shetland.

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