

Sussex Botanical Recording Society

Newsletter

No. 60

May 2005

Chairman's Message

by Rod Stern

For the next few years, our main study will be recording for the new Flora. A talk on this was given at the Autumn Get-together last November and a summary given in the last newsletter. More details are in this newsletter, which is No. 60. It is likely that many members will have already been "bashing" one or more tetrads and indeed the SBRS Committee very much hopes that there will be an enthusiastic response to the request from the sub-group of the Committee for as much recording as possible. Although some tetrads at first sight look uninteresting, almost always new and/or important records turn up in them.

Noting that this is newsletter No. 60 reminds me that I have had to dispose of many papers and documents which I have accumulated in order to make some more space in our house. Among these were seven bulky files of SBRS business. With the Committee's agreement I "weeded" these to one file of papers from 1976-2001. These papers comprise newsletters, copies of minutes of committees and AGMs, programmes of field visits and membership lists. They do not include botanical records because these are held by the four BSBI vice-county recorders – Mary Briggs and Alan Knap for v.c.13, Paul Harmes and Arthur Hoare for v.c.14. The committee also agreed that I should ask the West Sussex Record Office whether it would accept our donation of these papers. The Record Office was pleased to do this so this file is now deposited at the office in Chichester.

Pat Donovan was the Secretary of the Sussex Flora Society and has papers going back before 1976. The SBRS newsletters follow on the numbering started by the Flora Society. Pat is looking through the copies of the older papers and will also be in touch with the East Sussex Record Office so that it has a reference as to where the records are held.

It is all very interesting to look at these papers, especially to see how the SBRS continued from the Flora Society without a break. However, it is time to get out and do our job with regard to the 'R' in our initials.

Newsletter Editor: Frances Abraham
The Old School, Ebernoe, Petworth, GU28 9LD

Secretary's Notes

Dates for your diary

Saturday 5th November 2005

The Autumn Get-together will be held at Staplefield Village Hall. The doors will be open from 10.00 a.m. and the meeting will start at 10.30 a.m. There will be a short report on the Local Change Project and an illustrated talk on spring bulbs with particular emphasis on snowdrops. There will also be reports of field meetings and interesting records. Please remember to bring a packed lunch; tea or coffee will be available. Members are invited to bring slides to show in the afternoon, books and plants for sale and any items of interest or specimens for display.

Saturday 11th March 2006

The Annual General Meeting will be held at 2.00 p.m. at Staplefield Village Hall followed by a showing of members' slides and finishing with tea and biscuits. The hall will be available from 1.30 p.m. Nominations for new committee members or officers, agreed by the nominee, should be sent to the Secretary a week before the A.G.M.

Rita Hemsley

In This Issue

Chairman's Message	1
Secretary's Notes	1
Date of Field Meeting to the Mens	2
Genista: a Botanical Puzzle	2
Curtis's Botanical Magazine	2
Book Review - Britain's Orchids	3
Obituary – Richard Palmer	3
SBRS Website	3
Plant Notes:	3
Zostera marina	3
Irish Ivy	4
Nitella syncarpa new to UK	4
Sussex Bryophytes	4
Anthemis austriaca at Pulborough	5
Treasurer's Note	5
Introduction to the New Sussex Flora	6
Selected 2004 records - VC13	9
Selected 2004 records - VC14	12
Recorders' Initials	13
Officers of the Society	13

**FIELD MEETING TO THE
MENS
ON MAY 21st**

**PLEASE NOTE THAT THE GRID
REFERENCE FOR THE MEETING
PLACE WAS OMITTED FROM THE
LIST OF FIELD MEETINGS IN THE
JANUARY NEWSLETTER. WE WILL
MEET IN THE SUSSEX WILDLIFE
TRUST CAR PARK AT TQ023236**

Genista: a Botanical Puzzle
by Rachel Nicholson

Have you ever wondered why whole plants of *Genista tinctoria* (Dyer's Greenweed) sometimes produce no flowers? A chance remark set off an investigation into this phenomenon.

On examination of blind plants, shoots and leaves were found to be stunted, distorted, brown and with piercing marks on them. Many of the buds were brown. This was typical of the sucking damage done by mirid bugs. Invertebrates seen on the plants were noted and the most common was found to be one of these bugs, later determined to be *Heterocordylus genistae*. This active, black hemipterous bug, half a centimetre long, was seen on populations of *Genista tinctoria* at nine sites in E. Sussex. It is also said to occur on *Cytisus scoparius* (Broom).

Mirid bugs feed by injecting saliva into parts of plants which are actively growing, that is the young flowers or fruit and the growing tips of shoots, as well as young leaves (Strong *et al.* 1984, Hodgkinson & Hughes 1982). The saliva acts as an enzyme, breaking down the starch in the sap. This causes the browning of the tissues, which may then dry up (Miller 1956).

Heterocordylus genistae females lay their eggs three or four at a time, at right angles with the ivory-coloured tops exposed, in slits in the lower stems of the shoots. This position for the eggs, which will take nine months over winter to mature, helps to protect them from desiccation, mowing or predators. When the new buds begin to shoot, the nymphs are in exactly the right place to move up the stem and start feeding. It also explains how the insect can survive the annual cutting of the plant, formerly for use as a dye plant, nowadays as a component of a hayfield or verge. The nymphs hatch in late May or early June (Southwood & Leston 1954) and it is these which cause the early damage, preventing flower formation. They are adult by mid-June and can then fly to a new food source, for example the flowers on neighbouring undamaged

bushes. The males die before the females, which lay their eggs in mid-July and may survive until August.

This almost complete dependence of an insect on a single host plant brings up the question of its future existence. We worry about what will happen to several moths and butterflies if ragwort is eliminated, but perhaps we should also think about what would happen to this, admittedly less charismatic, species, if *Genista tinctoria*, already rapidly disappearing, goes for good.

References

- Hodgkinson, I.D. & Hughes, M.K. (1982) *Insect Herbivory*. Chapman & Hall.
Miller, N.C.E. (1956). *The biology of the Hemiptera*. Leonard Hill (Books) Ltd.
Southwood, T.R.E. & Leston, D. (1959). *Land and water bugs of the British Isles*. Frederick Warne & Co. Ltd.
Strong, D.R, Lawton, J.H. & Southwood, R (1984) *Insects on plants*. Blackwell Scientific Publications.

Curtis's Botanical Magazine
by Mary Briggs

Congratulations to two members of the SBRS for the papers published in 2004 in one of the most prestigious journals of the botanical world. Arthur Hoare's paper *Wild Flowers at Wakehurst* was written by request for a special issue of *Curtis's Botanical Magazine*. Tim Rich was joint author with Fred Rumsey of a paper on *Hymenophyllum tunbridgense* in the same issue. This part has been devoted to plants, both wild and cultivated, which have special associations with the garden at Wakehurst Place, Kew's Country Annexe in West Sussex.

In the 1960s Wakehurst was given to the National Trust and leased to RBG Kew. The BSBI held a field meeting to record wild plants on the property, and soon after we were asked for a local botanist with the time, interest and knowledge to monitor and record the wild areas. Large parts beyond the gardens were to be (and are now) managed to encourage native wild flowers. Arthur took this on and has since spent many hours on this task.

The *Botanical Magazine* was founded in 1787 by William Curtis, to be a work 'in which Botany and Gardening might happily be combined'. Coloured botanical paintings have been a feature of the volumes through the centuries, and this part is Volume 205 of the whole work.

New book: *Britain's Orchids* by David Lang - reviewed by Trevor Lording

WILD Guides' *Britain's Orchids*, by our member David Lang, surely must rank as his best book so far. The format is clear and attractive and, in the species section, the inset close-up photographs of the flowers of most species are very useful. The book starts with introductory sections which deal with the biology of orchids and the habitats in which they occur, the latter being illustrated with well-chosen photographs.

The choice of photographs throughout the book is very good, and most are well reproduced, although one or two in the species section (eg the large pictures of *Spiranthes romanzoffiana* and *Herminium monorchis*) are not as sharp as the majority. Many of the others, however, are superb - culminating for me in the finest picture I have ever seen of *Epipogium aphyllum*, which reawakened my regret at not yet having had the privilege of seeing this plant!

I have few bones of contention with the book - the main one being that the distribution maps for each species are small and appear to add nothing to the verbal distribution details. I do, also, wonder about the accuracy of the title, since while the island of Ireland is part of the British Isles, I do not think that it ranks as part of Britain.

My minor reservations, however, cause no hesitation in my exhortation to anyone liking plants to go out and buy this visual and erudite delight. Congratulations, David!

Richard Palmer obituary – by Mary Briggs

As we go to press we are sorry to learn of the death of Richard Palmer, lexicographer and botanist, who worked for the Oxford University Press on the *Oxford English Dictionary*. Richard had grown up in mid-Sussex, and recorded there for the *Sussex Plant Atlas*, coming from Oxford to visit his parents, who were at that time living in Lindfield.

Richard was a very observant and reliable recorder, keeping meticulous notes, so that long after he no longer had a base in Sussex he was able to supply helpful localities and precise details of records, especially from the Haywards Heath area. He also visited the Shetlands, and was joint author of *The flowering plants and ferns of the Shetland Islands*.

SBRs website by Alan Knapp

The SBRs will soon have a website - www.sussexflora.org.uk. The site should be operational at some point during May and is designed mainly for use by SBRs members or those who might like to join the Society in the future. Part of the site is accessible to all and will include information about the SBRs, with things like contact email addresses for people wishing to join us, and a sample newsletter. There will also be a page with links to sites of potential interest to members, such as the BSBI, Plantlife, Sussex Wildlife Trust etc..

Some of the pages will only be accessible to SBRs members. To access these pages you will need a user name and password. To set this up please email me (aknapp2000@btinternet.com) after the beginning of May with the user name and password you wish to use (NB: they can only contain letters and numbers so AlanKnapp would be OK but Alan Knapp would not). In order to ensure that user names are unique I suggest you use your initials and surname or christian name plus surname.

The most important feature is a page which will enable you to track the progress of recording for the new Sussex Flora. It will show a map indicating the number of records for each tetrad and, by clicking on any tetrad, you will be able to download a text file containing the number of species recorded, a list of all species recorded so far, the months of the year in which the tetrad has been visited, and the date of the last known visit. This will, we hope, help you to target tetrads which have not yet been well recorded.

Other pages accessible only to members will include a list of the current year's field meetings, a page where you can download past newsletters, a page to download various files, including the *Hieracium* key, the text of the booklet "Notes for Members on Botanical Recording in Sussex", and files in Excel and Word format containing the preferred format for submitting records electronically. There will also be a News page where we will put any important recent information of interest or requests for specific recording information.

Plant Notes

Zostera marina

Pat Donovan has found a fascinating item in a magazine. A house dating from 1905 in Yalding, Kent, was being restored recently and all the under-floor areas were packed with organic material. It was found to be *Zostera marina*, which is thought to have been extinct in British waters for many years. Experiments showed the material to have flame-retardant properties.

Irish Ivy

Paul Harmes requests that members should check their records for Ivy carefully, since he has been finding a lot of Irish Ivy *Hedera helix* ssp. *hibernica* in the Brighton area. Irish Ivy often has larger leaves (over 8cm), lobed less than halfway to the base, but it is necessary to check the stellate hairs on the undersides and on the petioles of fresh leaves. The hairs of *H. ssp. hibernica* are often pale yellowish brown, and nearly all lie parallel to the leaf surface. Those of *H. ssp. helix* are whitish, and some project away from the leaf surface.

Nitella syncarpa new to UK

In 2001 Alan Knapp found a mysterious stonewort in a pond a Warnham. We sent it to the Charophyte referee, Nick Stewart, who was also flummoxed. A few months ago Nick came back with the exciting news that he has, with the help of a Dutch expert, at last confirmed it at *Nitella syncarpa* - for which this is the first UK record. *N. syncarpa* is apparently rare in Europe. It occurs sporadically in the Netherlands, but seldom appears in the same place twice. It is similar to *N. capillaris* (Slimy-fruited stonewort), which has itself always been very rare in the UK and has not been seen since 1959.

Sussex Bryophytes by Howard Matcham

Are you sitting comfortably? Then I'll begin.

Long, long ago: Monday 13th April 1964, to be precise, Swedish bryologist Gillis Een left Portsmouth docks for a leisurely journey by car back to London; accompanying him were two giants of 20th century British bryology, the late Eustace Jones and the late Ted Wallace. Many of you will have fond memories of Ted, who was a member of the SBRS.

The three of them had spent the previous week attending the British Bryological Society spring meeting held on the Isle of Wight. (Perry 1965). To break the journey and to show their Swedish guest Sussex bryophytes, Ted had suggested (Een 2004) a stop off at Kingley Vale, which has the reputation of being one of the finest yew woods in Europe. Duly arriving at Kingley Vale they set off to collect a few bryophytes.

Returning to Sweden, Gillis, with a busy professional career, put the Kingley Vale collection of bryophytes to one side to look at them at a later date.

Ten years elapsed! During 1974 this collection was resurrected and one bryophyte was found to be unfamiliar and again it was put to one side.

Thirty further years elapsed!! Last year, 2004, the puzzling moss was finally identified as *Sematophyllum substrumulosum* (Hampe) E. Britton (Bark Signal-moss) a new record for mainland Britain!

This species had first been reported in the British Isles (Holyoak 1996) from Tresco in the Isles of Scilly, growing on the dead trunk of a Monterey Pine (*Pinus radiata*). Evergreen trees are a habitat favoured by this species, and it was subsequently found in further localities in the Isles of Scilly, mostly growing on the bark of pines.

Church *et al.*, (2001) included this species in the British Red Data moss and liverwort book, on the basis that it is found in southern Europe, the Azores, the Canary Islands and Madeira and that its "occurrence in the Isles of Scilly might be a natural range extension" and "it is certainly a rarity in Britain and the case for its status as a native plant is at least credible".

With this in mind I decided to try and re-locate this moss at Kingley Vale even though 41 years had elapsed since the original chance discovery!

On the 17th February 2005, in company with Brian O'Shea, a friend and fellow bryologist who works at BM (Natural History) and has a special interest in members of the Sematophyllaceae worldwide. Hampe's type specimen of *S. substrumulosum* is housed at the BM. We travelled to the car park at the village of West Stoke and headed for the southern entrance of the National Nature Reserve. On reflection this was probably not where Ted and the others had entered Kingley Vale as the original collection was made at Bow Hill, where it would have been easier to have parked the car by the side of the B2141 and walked along the footpath that leads up to Bow Hill; because of the number of years that have elapsed Gillis is understandably not able to recall the route taken (pers. comm.).

Brian and I walked into Yew Tree Grove.

Have you been to Kingley Vale? Under yew trees that are reputedly 700 years old? (Tansley 1939). Ancient history is wrapped in a blanket of time around you. The temperature plummets, devoid of ground flora, a place of goblins and ghosts, tawny owls stare through wide black eyes, nervously shifting their feet, mournfully hooting on silent wings. I would not come here alone!

Shivering, we nervously made our silent way to a fallen yew, once majestic but felled by the vicious fleeting storm of 16th October 1987. Of those that survived, many later succumbed to an equally vicious blow during the winter of 1990 and it was to these that we made our way.

Two common mosses resemble *S. substrumulosum*: *Hypnum resupinatum* (Supine Plait-moss) and

Rhynchostegium confertum (Clustered Feather-moss) could both be expected to be found here. However, within fifteen minutes we had found candidates for the *Sematophyllum* which, when looked at under a x20 hand lens, had a leaf that was devoid of a midrib or nerve. Could we really have found the *Sematophyllum*? The more we looked the more we found, and on some boughs and twigs it was the dominant moss. Subsequent microscopic examination confirmed that we had indeed found the species. In all we walked about two thirds of a mile and of the thirty two small gatherings that we made between us, all but two were of the *Sematophyllum*.

Absolutely incredible! A fabulous re-discovery, especially as such a long time has elapsed after the original chance collection. Stimulated by the extent of the discovery, which, some three weeks later, Rod and Vanessa Stern were able to further increase, Brian and I have approached the Conservation Committee of the British Bryological Society with a view to re-assessing the status of this moss in Britain. How wonderful to have this beautiful moss in Sussex.

English Nature are going to conduct a survey of Kingley Vale at the beginning of April to ascertain the number of colonies and the extent of this species along Yew Tree Grove and up onto Bow Hill. Rod Stern and I are intending to visit yew woods on the Sussex/Hampshire border in the hope of finding this species elsewhere.

NB: On Monday 13th April 1964 I relaxed at my parents' home at Poling on leave from the Royal Navy where I had just spent eighteen months in the Far East serving on HMS Caesar.

Where were you?

References

- Church, J.M., Hodgetts, N.G., Preston, C.D. & Stewart, N.F. (2001). *British Red Data Books mosses and liverworts*. JNCC Peterborough.
- Een, G. (2004). *Sematophyllum substrumulosum* new to mainland Britain. *Field Bryology* **84**: 6-7.
- Holyoak, D.T. (1996). *Sematophyllum substrumulosum* (Hampe) Britt. in the Isles of Scilly: a moss new to Britain. *Journal of Bryology* **19**: 341-345.
- Perry, A.R. (1965). The annual meeting 1964. *Transactions of the British Bryological Society* **4**: 893-895.
- Tansley, A.G. (1939). *The British Islands and their Vegetation*. Cambridge University Press.

Anthemis austriaca at Pulborough by Mary Briggs

For some years now a field in Pulborough has been sown with wildflower seed. This extensive 7 acre field can be viewed from the public footpath south of

Broomershill Farm at TQ064193. In 2004 it was again ploughed and resown with seed from the National Wild Flower Centre, Warrington, and one species was clearly dominant over the field as the seeds germinated.

Early in the year a non-flowering specimen was brought to me for identification – a robust, somewhat hairy plant with a ‘chamomile’ leaf – but which species? Help was requested from Eric Clement, who at that stage thought from the shape and colours of the scales of the very young unopened flower bud that the plant could be *Anacyclus clavatus*. However as the plants grew to c.70cm tall and branched, and finally flowered with many rather small ‘mayweed’ flowers, Eric could name them as *Anthemis austriaca*, a casual from Eastern Europe. This was confirmed in late summer when in fruit there were no winged outer achenes.

By the summer the plants covered c.98% of the field, closely packed to give an almost unbroken sea of white flowers, with fewer plants of the other species which had been sown, such as *Agrostemma githago* (Corn Cockle), *Centaurea cyanus* (Cornflower), and only occasional *Papaver rhoeas* (Common Poppy), of which extra seed had been sown. These were probably unable to germinate in the dense ground cover of the young *Anthemis* plants?

The possibility of the mystery Mayweed being *Anthemis arvensis* (Corn Chamomile) was discussed when looking at non-flowering plants, but we were very interested to learn from Eric that he had not seen true *A. arvensis* for many years - specimens sent to him as *A. arvensis* had proved to be the introduced *A. austriaca*. We were also interested to discover that Frances Abraham had found *A. arvensis* at East Lavant - a specimen sent to Eric was confirmed and is the first that Eric has seen since the early 1960s!

It would surely be remarkable if some stray plants of *A. austriaca* had not seeded in Pulborough hedgerows or verges - one was found this year by nearby outbuildings. So, members, please look out in 2005 for tall hairy mayweeds, especially in the Pulborough area.

Ed.'s note: this is a cautionary tale – the *Anthemis* had been sold by the seed company as *A. arvensis*. How many other strange things are being sold by these firms with the wrong names and introduced to the countryside under false pretences?

Treasurer's Note by Trevor Lording

Subscriptions for 2005 remain at the same rate as for 2004 (individual £3, and joint at one address £4.50) and may be paid at the Autumn Get-together in November, or direct to me. If anyone has not paid their subscription for 2004, would they please now send a cheque to me, or pay two years' subscriptions at the Get-together. Thank you.

Introduction to the New Sussex Flora

(Summary of the presentation given to the SBRS at the 2004 Autumn Get-together)

by Paul Harmes & Alan Knapp

1. Introduction to the New Flora

1.1 Why a new Flora?

- There has been no full account of the Sussex flora published since the *Flora of Sussex* by Wolley-Dod in 1937. The *Sussex Plant Atlas* (SPA), which was published in 1980, covered distribution but contained no detailed species accounts.
- No supplementary account has been published since the SPA supplement in 1990, which covered only "significant new records from 1979 to end of 1988"
- The most recent account is the *Sussex Rare Plant Register* in 2001, which only covers rare and scarce native species.
- Our neighbouring counties have either recently published (Hampshire & IOW) or are preparing (Kent) new Floras.
- We already have a large amount of data from:
 - Last part of *Atlas 2000*
 - Local Change
 - General recording (mainly from SBRS members)
- *Atlas 2000* gave useful pointers to changes, new species (aliens) & under-recorded/overlooked species
- We have native species which were thought to have been lost but have been refound e.g.
 - VC13: *Dryopteris aemula*
 - VC14: *Jasione montana*, *Vulpia fasciculata*
 - VC13 & 14: *Salvia pratensis*, *Polygonum maritimum*
- Many more alien records which have never been published

1.2 How the idea matured?

- During the *Atlas 2000* recording period Paul Harmes began to feel that the time for a new Sussex Flora was fast approaching. The subsequent preparation of the *Sussex Rare Plant Register* highlighted the value of writing more detailed species accounts.
- In the winter of 2003/4, Paul raised the idea of a new Flora with Alan Knapp who agreed that the time was right.
- During early 2004 initial thoughts were documented and discussed with other members of the SBRS committee, who were also in favour. The idea was put to the full SBRS committee in mid-2004.
- Following the committee's acceptance of the project a working group was formed to take it forward.

1.3 New Flora working group

A working group has been set up to organise the recording and preparation of the new Flora. It consists of the following people: Paul Harmes, Alan Knapp, Frances Abraham, Mary Briggs, Arthur Hoare and Nick Sturt.

1.4 Form of the New Flora

- It will be a true Flora (not simply an Atlas) covering all Vascular Plant and Charophyte species occurring as natives or introductions, but not Bryophytes and Lichens.
- It is envisaged that it will contain:
 - Full species accounts
 - Distribution maps where necessary
 - Changes in the flora
 - History of plant recording in Sussex including profiles of prominent botanists (e.g. Arnold, Coleman, Marshall, Roper, Wolley-Dod.....)
 - Geology, topography & soils
 - Meteorology
 - Transportation & conurbations

- Favourite places to botanise
- Gazetteer
- Bibliography

1.5 Proposed programme

- Recording will cover the period January 2000 to December 2010.
- We aim to publish as soon as possible after 2010 as we can (ideally within 2 years).
- Recording will be on a tetrad basis which will allow comparison with previous work e.g.
 - SPA & Supplement
 - Local Change in 1987/8 and 2003/4
 - Flora of Ashdown Forest in 1994/6
- Records will be collected by Alan (West Sussex) and Paul (East Sussex) as usual.
- Preparation of guidelines for species accounts is already under way.

1.6 The size of the task

- There are 1022 tetrads in East & West Sussex of which 17 have been well recorded in the BSBI Local Change recording, which leaves 1005 tetrads, and we would like to visit each tetrad at least twice, and preferably 3 times, at different times of the year.
- In round numbers this means between 2000 & 3000 tetrad recording sessions!
- Based on Local Change we may expect 300 - 350 records from a well-recorded complete tetrad - giving a total of around 300,000 records.
- Paul Harmes and Alan Knapp will be collecting these records and putting them on computer - ultimately into a system called Mapmate.

1.7 Your role in this project

- The basis of a high quality Flora is high quality records.
- Given the size of the project we need the involvement of as many SBRS members as possible in the recording process.
- During the course of the project we will be asking you to record more specific locations, habitats and species as we gather information and the gaps become apparent.
- We will be happy to help with any queries such as recording tetrads, or assistance in identification of the more difficult species. You can also refer to blue booklet, "Notes for Members on Botanical Recording in Sussex", which contains much useful information which is relevant for this project.
- The first SBRS field meeting in 2005 will be aimed specifically at introducing tetrad recording to those members who have not previously recorded in this way.

2. Recording for the new Flora

2.1 Basics of recording

What to record

All native and introduced species (including hybrids). Also planted species in natural surroundings, but not planted trees and shrubs in streets, gardens, parks etc. or crops.

Where

Recording will be in tetrads (2km x 2km squares).

When

Our target is to complete recording by the end of 2010.

We will include all records for 2000 onwards for which the tetrad is clearly defined.

Who

YOU - we need the help of as many SBRS members as possible to get the data for a high quality Flora.

2.2 Recording unit - the Tetrad

A tetrad is a 2km x 2km square arranged in a 5 x 5 array within each 10km square:

E	J	P	U	Z
D	I	N	T	Y
C	H	M	S	X
B	G	L	R	W
A	F	K	Q	V

This means that the boundaries of a tetrad are always on even numbered grid lines - e.g. within TQ12 a tetrad can start at TQ12 - 24 -, TQ16 - 20 - etc. but not at TQ13 - 22 - or TQ18 - 29 -. Tetrads are identified by letters (A-Z, omitting "O") arranged as shown above and on the front of our recording cards.

Very important: If you are unsure about tetrads it is absolutely vital that you ask - if you get it wrong we will not be able to use your data for the Flora and all your efforts will be wasted.

2.3 Where should I record?

- The answer for 2005 is pretty much anywhere you want except the Local Change Tetrads.
- However please let Paul or Alan know where you are recording so we can keep track of what is happening. If you would like some guidance please ask us.
- VERY IMPORTANT - if you have told us you will record an area and find you cannot do it please let us know as soon as possible.
- For 2006 onwards we will see how the recording is going and will be asking people to visit different areas or visit areas already recorded but at different times of the year.
- We will also be asking those who are willing to search for sites of scarce species which have not been recorded since 2000.

2.4 Information needed

- The basic information needed is a list of records for a defined tetrad for a single date or set of dates. All records MUST be dateable to a known year as a minimum (+ month(s) & day(s) if possible) i.e. it is no good sending in records covering 2004 and 2005 all mixed together.
- Rare and "plus" plants should be treated as we have always done - i.e. use the front of the card to write give at least a 6 figure grid reference, a specific locality, a specific date and preferably some comments on no. of plants etc.. If you have a GPS please give more accurate GPS grid refs.
- We MUST have a status for anything where the status can vary. For example:
 - *Quercus ilex* - is it planted or self seeding
 - *Myosotis sylvatica* - is it native, casual or an established escape
- The preferred approach for giving this information for species which you are crossing off on the back of the card is to simply write the status letter (C, E, P or S) next to the species name on the recording cards when you cross that record off.

2.5 When to send in records

- If you have recorded somewhere and are unlikely to return to it that year then send in the records as soon as you can after your visit.
- If more than one visit is made then send the records immediately after your last visit - please DO NOT save up records for several years before sending them in. This is to allow us to keep track of what has and has not been recorded.
- If you record something rare or unusual PLEASE tell one of the recorders (or other committee member) IMMEDIATELY.
- We continue to get records every year which we have to reject because we cannot confirm them by the time they come in.
- If you have adopted a tetrad or group of tetrads then it is a good idea to keep a master card of your own for each tetrad as it will be far easier if you only send in new records for common species if you re-visit in another year.

2.6 Electronic submission of records

- Sending in records electronically is very helpful if you can follow some basic rules regarding format and content. Although this may take you a bit longer please bear with us - you only have to deal with your own records, we have to deal with all of them!
- Unfortunately records submitted electronically in the wrong format can take almost as much time and effort to enter as records on paper.
- The most important point is to contact Paul Harmes (for East Sussex records) or Alan Knapp (for West Sussex) so we can let you have a note describing what we want and agree an appropriate format etc..

2.7 Master Cards

- If you are aiming to do a full recording of a tetrad(s) over a period you may find it a good idea to keep a Master Card for each of those tetrads.

If you keep a master card then it is vital to be able to do 2 things:

1. Distinguish which year (at the very least) each record was recorded in.
 2. Know which records have been sent to the recorders and which have not been sent so that you only need send us the extra records each time.
- For the scarce species of which the details are written on the front of the card you may need to add extra sheets if it is rich in scarce species.
 - Please remember that we want **all records** for scarce species no matter how many sites there are in the tetrad or if you have already sent some records for that species for that tetrad.

2.8 New Recording Card

There is a new recording card aimed at helping with the tetrad recording for the Flora. The back of the card (with the species list) has some minor changes:

- Removed 6 species which are hardly ever crossed off and replaced them with 6 new species (all aliens) for which we are getting more records
- Changed some of the species which are marked with a plus sign (meaning we want full information for them written on the card front)
- Removed one minor error (there was a spurious bracket in the name *Quercus x ros*)

The front of the card does look a bit different. As well as the normal cards (which are easier to use in the field) we have some paper "cards" available which those of you keeping master cards may find easier to use. If you use these in the field remember that they will not do well in wet conditions.

Note: If you have a stock of the previous cards (dated 2002) please use them up - they are fine. However if you have any cards with earlier dates throw them away as some have a few errors in the numeric species codes.

2.9 Do I send records to Paul or Alan?

Please send records for any tetrads in 10km squares west of the line running along the boundary between TQ20/TQ30 in the south up to the TQ23/TQ33 boundary in the north to Alan Knapp and those to the east of this line to Paul Harmes. If in any doubt send it to either of us and we will sort it out.

3.0 Final points

- The new Sussex Flora is a big, long-term project and success depends largely on the records we collect so we need continuing help over the course of the next 6 years from as many SBRS members as possible.
- It will certainly be a challenge, but also an enjoyable experience for all involved - we feel sure that we will all learn a lot. Who knows what new & interesting things are out there waiting to be discovered!
- If you are intending to participate and have any queries at all please ask anyone in the organising group - Paul Harmes, Alan Knapp, Arthur Hoare, Frances Abraham, Nick Sturt or Mary Briggs.
- For anything connected with the details of record submission ask Paul or Alan.

Selected Records in 2004

The Recorders received an enormous number of records in 2004, and would like to thank all those members who have put in so much work. If we had space we could fill many more pages with records of interest.

VC13 West Sussex

Compiled and selected by Alan Knapp

Of particular interest this year were a number of new vice county records, mainly of aliens but including 2 native hybrids (*Rosa canina x obtusifolia* & *Salicornia pusilla x ramosissima*). In addition we have what appears to be a first UK record for a charophyte (*Nitella syncarpa*). It was also very pleasing to have records for 2 species (*Dryopteris aemula* & *Juncus compressus*) which were thought to have disappeared from West Sussex.

Species	Locality	Status	Comments	Recorder
<i>Anthemis austriaca</i>	Broomershill Farm	P	In field planted with wild flower mixture. Det. EJC. This species may be mistaken for <i>Anthemis arvensis</i> and may well occur in other places where in wild flower mixtures are sown.	MB/FA
<i>Aponogeton distachyos</i>	Shoreham Cement Works	E	Abandoned ornamental pond.	PAH
<i>Beta vulgaris</i> subsp. <i>maritima</i>	Drungewick	E	On newly built banks by canal - unusual habitat.	SMS/CMH
<i>Cotula coronopifolia</i>	Bognor Regis	C	Border of car park, Chalcraft Nurseries.	MMS
<i>Dryopteris aemula</i>	Bexley Hill	N	Previously thought to have gone from W.Sussex	FA
<i>Echium pininana</i>	Brighton	E	Garden escape. 1st VC13 record	AS
<i>Eruca vesicaria</i>	Findon	C	Road verge in Stable Lane, 1 plant	BC/JMC
<i>Fumaria densiflora</i>	West Itchenor	C	1 plant in young maize, furthest W record in Sussex by a long way	AGK/ADP
<i>Helleborus viridis</i>	Selden Farm, Patching	N	Found here originally by P.& R.Folkerd but not seen for some time despite searches. c. 12 plants in 8 patches.	AGK
<i>Hieracium calcaricola</i>	Handcross	N	A few plants on hedge bank.	AGH
<i>Hieracium subleptoides</i>	Uppark	N	A patch about 20m long. Det. RCS	MMS
<i>Hypochaeris glabra</i>	Heyshott Green	N	Several plants on sandy bank	AGK
<i>Juncus compressus</i>	Heyshott Green	N	Previously thought to have gone. 2 large patches on verge	N&ES
<i>Leersia oryzoides</i>	Stopham	N	On bank of Arun & on island. Found as part of major survey by FA of this species which showed W.Sussex probably has the only remaining native sites in the UK.	FA
<i>Mirabilis jalapa</i>	Summer Down	C	1st VC13 record. One of many introductions on dumped soil by	AGH

			road.	
<i>Myosurus minimus</i>	SW of Itchenor	N	4 plants, field corner	ADP
<i>Myosurus minimus</i>	NE of Henfield	N	Huge colony near field gateway with scattered plants in the area.	DBB
<i>Myosurus minimus</i>	Littlehampton	N	Wickbourne Swan pub gardens	PHJ
<i>Nepeta x faassenii</i>	Beggars Bush	C	Several plants on top of bank by road. 1st VC13 record	AGK/BC
<i>Nitella syncarpa</i>	Wineham	U	Apparently the first UK record. Status not clear. A 2001 record but only determined in 2004 by Joop van Raam & Nick Stewart	AGK
<i>Panicum capillare</i>	Summer Down	C	One of many introductions on dumped soil by road.	PAH/AS
<i>Parentucellia viscosa</i>	Handcross	C	One plant on grassy are by track. Conf. AGH.	MWL
<i>Petunia x hybrida</i>	Summer Down	C	1st VC13 record. One of many introductions on dumped soil by road.	AGH
<i>Polygonum rurivagum</i>	Burton Down	N	Corner of flax field	O&MH
<i>Polygonum rurivagum</i>	Amberley Mount	N	Edge of arable by track	O&MH/AGK
<i>Polypogon monspeliensis</i>	Thornham Marina	C	Rough ground near car-park, sparingly	SBRS
<i>Potentilla argentea</i>	Forest Mere	N	Disturbed area by road. First record from this area for many years.	SBRS
<i>Ranunculus arvensis</i>	Slinfold	N	1 plant on edge of barish trodden path in grassy field.	AGK
<i>Rosa canina x obtusifolia</i>	Lancing Beach	N	1 bush on beach, 1st VC13 record. Determined by Roger Maskew.	EB
<i>Salicornia pusilla x ramosissima</i>	Cobnor	N	Scattered thinly by bare path through top of saltmarsh	AS/PAH/AGK
<i>Salicornia pusilla x ramosissima</i>	Bosham Ferry	N	Local change recording	N&ES
<i>Schoenoplectus x kuekenthalianus</i>	Houghton Bridge	N	Bank of Arun, probably the hybrid but plants are very close to <i>S.triqueter</i> .	FA
<i>Sisyrinchium californicum</i>	Ferring Rife	E	2 large patches at edge of small pond.	O&MH
<i>Stellaria neglecta</i>	Rogate	N	Wet alder wood, one of many new sites found by FA near the Western Rother	FA
<i>Veronica agrestis</i>	Stoke Downs	N	Edge of arable field, first record for some time in VC13	RCS

VC14 East Sussex

Compiled and selected by Paul Harnes

Species	Locality	Status	Comments	Recorder
<i>Allium subhirsutum</i>	Hollingbury, Brighton	E	End of skateboarding ramp	AS
<i>Alopecurus bulbosus</i>	Lewes to Newhaven	N	River bank of the Ouse	AS
<i>Alopecurus x pletkii</i>	Southeast	N	Ditch, W side of River Ouse	AGK
<i>Cardamine amara</i>	Balcombe	N	Spring stream	AGH
<i>Cardamine amara</i>	Mayfield	N	Rocks Wood & Lake Street Wood	RAN
<i>Ceratophyllum submersum</i>	Southeast	N	Drainage ditch	DJS
<i>Crataegus laevigata</i>	Broadwater Forest	N	Woodlands south of T.Wells	JBY
<i>Festuca altissima</i>	Ashurstwood	N	Sandstone outcrop, Mills Rocks	PAH/LHU/PGL
<i>Festuca altissima</i>	Dallington	N	Steep scrubby stream bank	PAH/LHU/PGL
<i>Festuca brevipila</i>	Camber	E	Camber golf Course	AS (Det. ACO)
<i>Festuca rubra</i> subsp <i>juncea</i>	Peacehaven	N	Car park margin	PAH/AS
<i>Galium parisiense</i>	Brighton	E	Margin of old car park	AS
<i>Gnaphalium luteoalbum</i>	Hastings	E	Pavement cracks	JAR
<i>Hieracium acuminatum</i>	Paddockhurst	N	Road verge	AGH (Det. RCS)
<i>Hordeum vulgare</i>	Camber	C	Golf Course margin & dunes	SBRS
<i>Hymenophyllum tunbrigense</i>	Cow Wood	N	Sandstone rocks	AGH et.al
<i>Hymenophyllum tunbrigense</i>	Wakehurst Place	N	Sandstone rocks	AGH
<i>Lagurus ovatus</i>	Eastbourne	C	Station Car Park	JPD
<i>Oenothera fallax</i>	Southerham	E	Old Quarry	JMR
<i>Ophrys apifera</i> var. <i>chlorantha</i>	Seaford Head	N	Cliff top chalk grassland	LTU (Det. DCL)
<i>Oxalis stricta</i>	Bexhill	C	Wayside	PGM
<i>Parentucella viscosa</i>	Hadlow Down	C	Stocklands Farm	CMPR
<i>Potamogeton trichoides</i>	Pevensey Levels	N	Drainage ditches	AGK/FA
<i>Ranunculus auricomis</i>	Arlington	N	Winham Copse	HMP
<i>Ranunculus auricomis</i>	Jarvis Brook	N	Marlpits wood	JBY
<i>Ranunculus auricomis</i>	Westfield	N	Verge	PGM
<i>Rosa pimpinelliodos</i>	Blackstone Down	N	Chalk grassland	NKM/BNL
<i>Ruppia cirrhosa</i>	Cuckmere Haven	N	Ox bow lakes	NJS/AGK
<i>Trifolium resupinatum</i>	Falmer	C	Edge of Hay field	AS
<i>Trifolium squamosum</i>	Southeast	N	River bank	AGK
<i>Veronica perigrina</i>	Wakehurst Place	C	Flowerbed Weed	AGH
<i>Viola palustris</i>	Worthlodge Forest	N	Woodland	AGH
<i>Viola tricolor</i>	Camber	N	Golf course and dunes	SBRS
<i>Wolffia arrhiza</i>	Glynleigh	N	Drainage ditch	FA/FPP

Recorders' initials for selected records in 2004

ACO	Arthur Copping	JMR	J.M.Reynolds
ADP	Anne de Potier	JPD	Peter Davys
AGH	Arthur Hoare	LHU	Louise Hutchby
AGK	Alan Knapp	LTU	Len Tucknott
AS	Tony Spiers	MB	Mary Briggs
BC	Beryl Clough	MMS	Mike Shaw
BNL	Brian Livingstone	MWL	Martyn Waller
CMH	C.M.Holt	N&ES	Nick & Elizabeth Sturt
CMPR	Kate Ryland	NJS	Nick Sturt
DBB	David Batchelor	NKM	Keith Maybury
DCL	David Lang	O&MH	Olwen & Mike Hollings
DTS	David Streeter	PAH	Paul Harmes
EB	Betty Bishop	PGL	Philip Glynn
FA	Frances Abraham	PGM	Pam Marchant
FPP	Frank Penfold	PHJ	P.H.Jones
HMP	Helen Proctor	RAN	Rachel Nicholson
JAR	Jacquerline Rose	RCS	Rod Stern
JBV	Jean Byatt	SBRS	Sussex Botanical Recording Society
JMC	Jenny Clark	SMS	Silvia Simkin
