Sussex Botanical Recording Society

Newsletter

No. 66 http://www.sussexflora.org.uk May 2008

Chairman's message

At this time of year, it is a real pleasure to see the spring flowers appearing. They are mostly conspicuous as well as attractive, although there are some which are hardly this but are nevertheless interesting, such as the moschatel or townhall clock *Adoxa moschatellina*. Of course many flowers are best appreciated through the X8 lens or times greater than this. Those of us who study mosses and liverworts (and perhaps lichens as well) know that in many cases plants "come to life" under a lens and often even more so under a microscope. But there are some which seem to have no redeeming features. Sometimes on field meetings we discuss what we consider is the most boring plant. My own choice for this is the Lesser Chickweed *Stellaria pallida* which I think seems to have nothing to recommend it, except perhaps that it is not particularly common. Among the bryophytes a good candidate for boredom is the Clustered Feather-moss *Rhychostegium confertum*, which I heard the late Alan Crundwell (one of our most distinguished bryologists) refer to as a "non-moss".

Nevertheless, whether they are boring or not they all need recording. It is our job to do this, but it is not as if it were a chore. I am sure that most of us feel we are lucky to be able to do it, and get real satisfaction and enjoyment from it, and perhaps even a little pride that we may be contributing in a small way to scientific knowledge. So let us get moving and give Alan Knapp the support he needs in the great job he is doing to encourage us and to control the whole recording effort, for which he deserves our particular thanks.

Rod Stern

Newsletter Editor: Frances Abraham.
The Old School House, Ebernoe, Petworth,
West Sussex, GU28 9LD

Secretary's Note

Dates for your Diary

Saturday 1st November 2008

The Autumn Get-together will be held in 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 reports of field meetings and interesting records and an illustrated talk. Please remember to bring a packed lunch; tea or coffee and biscuits will be available. Members are invited to bring digital photographs or slides to show in the afternoon, books and plants for sale and any items of interest or specimens for display.

Saturday 7th March 2009

The Annual General Meeting will be held at 2.00 p.m. at Staplefield Village Hall followed by a showing of members' photographs 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

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Obituary: Peter Hall FLS, Hon. Member of BSBI & SBRS
by Mary Briggs

With regret we report the death of Peter Hall, a month short of his 91st birthday. Peter was the BSBI Hon. Field Meetings Secretary through the years in which members were recording for the first pioneering dot-map *Atlas of the British Flora*, published in 1962. He would proudly claim that, as Field Secretary, he had not missed a single meeting arranged for *Atlas* recording throughout Britain. Later, as dot-mapping became practical for local Floras, Peter and his late wife Joan were enthusiastic helpers with local recording projects in many of the Home Counties, and further afield in Britain also.

When the first Sussex recording scheme was planned in 1966, Peter and Joan were living in Kent, but immediately crossed the county boundary to contribute their specialised experience – soon taking over the editing of field records east of the TQ00 line, and finally the whole of the Sussex *Atlas* records. Peter then evaluated the records and prepared for publication the text of the *Sussex Plant Atlas*, P.C.Hall, 1980.

Peter and Joan travelled widely in Europe as well as through Britain, looking for plants, and they had the distinction of finding *Spiranthes romanzoffiana* (Irish Lady's-tresses) in a completely new locality – S. Devon, to the west of Dartmoor. Before this it was known only from Ireland, NW Scotland and some of the islands.

Peter will be remembered as a kindly plant-lover experienced in the identification of wild plants and a very competent field recorder.

Changes in your area of Sussex
by Alan Knapp

Now that we have started to write species accounts for the new *Flora* we are noticing many changes in the distribution of species compared to those found during recording for the *Sussex Plant Atlas*. Some changes are the result of variations in recording, i.e. areas recorded better or worse than before. However some differences are real and an important cause of real differences is change in land use. In order to try to decide if changes are real it would be very useful to build up a picture of those areas of the county where there have been significant changes in land use or habitat since the *Atlas* recording in the 1960s and '70s.

We'd like your help to identify areas where there have been significant changes at any point in the last 40 years. Therefore, if you know areas which have changed, please make a note of the changes and send the information to Alan Knapp or Frances Abraham. The information we'd like is this:

1. The area affected - ideally which tetrads are affected (NB - this can be approximate, e.g. NE Crawley, generally around TQ23U, Y & Z.

2. What changes you have observed - e.g. housing development, planting of woodland, conversion of arable to grazing, draining of wet fields etc. In particular, if a type of habitat has gone or been greatly reduced, this would be very useful information. For example knowing that the vast majority of heathland in a particular area is now built over could explain why we now have no records for *Erica*/*Calluna* species (heathers) there although they were present in the *Atlas* survey.

3. If possible, a rough idea of when the changes occurred, e.g. 1990s.

Note that this request does not apply only to those of you who have known Sussex since the times of the *Atlas* recording as we'd like to hear about changes at any time in the last 40 years and there have been plenty of recent changes.

Free to a good home…

I have spare copies of *Watsonia* Vols. 11-25 and *BSBI News* Nos. 10-99. If you would like them, please let me know. You could either collect them from me at Ebernoe, or I could bring them to the Autumn Get-together, or we could make some other arrangement.

Frances Abraham
frances.a@solutions-inc.co.uk

Wanted, one vasculum

WANTED, one vasculum (of a size suitable for taking into the field over one shoulder!) Perhaps a peculiar request from a younger botanist, but I delight in my Victorian insect pots and old setting box. Reasonable funds available. Please contact Sarah Patton, house.mouse@btopenworld.com

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Phenological Notes
by Dawn Nelson

Phenology is the study of the times of recurring natural phenomena. The word is derived from the Greek *phainomai* - to appear, come into view, and indicates that phenology has been principally concerned with the dates of first occurrence of natural events in their annual cycle. Obviously what is if interest to us is the records of the early emergence of leaves and flowers. With climate change so apparent in many areas now we thought it might be opportune to record any unusually early botanical events in Sussex. This includes fruiting, autumn colour and leaf-fall too.

The following lists some unusually early events that members have already spotted:

Carduus nutans - Richard Robinson saw in flower with *Lepidium campestre* and *Tripleurospermum inodorum* on the S-facing slope of Harrow Hill on 15th Feb.
Ceratocapnos claviculata - Peter Davys reports has been flowering all winter in Abbott's Wood. Sarah Patton saw in flower near Burton Mill Pond on 2nd Feb.
Carex divulsa – Sarah Patton saw in flower in S. of Fernhurst on 11th March.
Crataegus monogyna - Sarah Patton saw in leaf at Pulborough and Burton Mill Pond on 2nd Feb. Peter Davys reports that a branch on a bush found by Janet Simes in a sheltered place bore a couple of clusters of flowers on 5th Jan. 2007 and Janet found it in flower again on 8th Dec. 2007. (There are reports from Lancashire of Hawthorn in leaf on 29th Jan, 5th and 14th Feb. and in bud on 21st Jan).
Daucus carota - Peter Davys found in flower on cliff at Holywell, Eastbourne, on 21st Feb.
Geum urbanum - Sarah Patton saw in flower at Fernhurst 7th Feb.
Heracleum sphondylium – Sarah Patton saw in flower in West Kingston on 14th March, and she reports that Patrick Roper saw it in flower in January.
Hyacinthoides non-scripta – Several people have recorded plants in flower from the first half of March.
Hypericum humifusum - Alan Knapp saw in bud in a wood N of Haywards Heath, S of Copyhold Lane (TQ32I) on 20th Feb. "Plant was well in bud with yellow petals showing between gaps in sepals."
Narcissus pseudonarcissus ssp***. pseudonarcissus*** - Several reports of plants in flower in January. Alan Knapp saw some on last day of January in woods at Pound Hill (TQ23Z) – and comments that he has never seen in them flower there earlier than mid Feb. before.
Senecio jacobaea - Sarah Patton saw in flower at Fernhurst 18th Jan.
Stachys officinalis - Sarah Patton saw in flower at Fernhurst 7th Jan.
Viola reichenbachiana - Dawn Nelson saw in flower at Bepton 17th Feb.

Please let us know of any other interesting occurrences that you spot. Send information to Alan Knapp, Paul Harmes, Frances Abraham, or Dawn Nelson.

Reminder about use of GPS
by Alan Knapp

Just to remind you that under some conditions the GPS systems we use can give grid references which are much further from the true position than the accuracy figure they show implies. This has become clear by comparing the GPS grid references of the same colony of plants given by different recorders. Most are very close (within 10-15 metres) but then the odd one may be more than 100m or more away.

Misreading the display is the commonest cause of errors but that is not the only problem. The most likely cause of a wrong reading is not waiting long enough for the GPS to stabilise after turning it on but positional errors can also occur if you are in or have just been in an area of weak signal. Another potential source of problems is electrical interference from nearby power lines or mobile phone masts etc.. So, please check your GPS grid refs carefully and wait for the readings to settle down before noting them down. If you have found something very special and want to be sure of an accurate result a good way is to note the grid reference, then walk some way away and return (hopefully remembering where the plant was) and re-check. The readings should agree to within about 10m if a reasonable number of satellites are "visible". See also notes on GPS usage in May 2006 newsletter (available on SBRS website if you don't have it).

Arthur Hoare, Hon. Member of SBRS
by Mary Briggs

At the AGM Arthur, to his surprise, was proposed as an Honorary Member. The President reminded members that Arthur had been an enthusiastic recorder, and on the Committees of both the earlier Sussex Flora Society and the SBRS. When the *Sussex Plant Atlas* was published in 1980, the cover was designed from one of Arthur's slides. Arthur, always ready to help members with plant directions and enquiries, is also well-known to all as he brings the projector and organises slides at every SBRS indoor meeting.

Now Arthur is joint BSBI and SBRS Recorder for E. Sussex (vc14) with Paul Harmes, and he is recording for the new *Flora*. When Wakehurst Place became part of RBG Kew, the plan was to leave the Loder Reserve and large areas of the gardens for wild plants, and the Society was asked to suggest a local botanist to keep records of these plants and an eye on the areas. We recommended Arthur, who gave hours to this task, and in 2004 Arthur's paper *Wild Flowers at Wakehurst* was published in the prestigious Curtis's Botanical Magazine Vol. 21 2004 pp. 88-90 (Vol. 205 of the whole work, published since 1787).

Members at the meeting approved his election unanimously, with applause.

Our Mixed-up Hawthorns
by Dr Jean Byatt

Two species of native hawthorn grow in SE England; both are diploid species 2n=34. In the absence of spatial barriers inter-specific hybridisation frequently occurs.

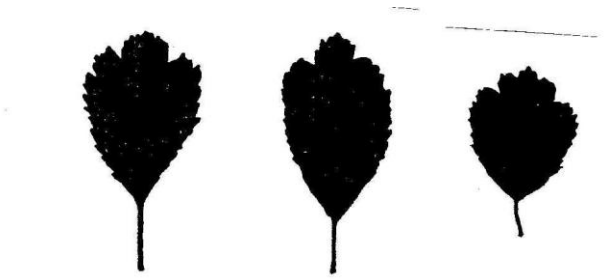
Crataegus monogyna is widespread in Europe and is very tolerant of different climatic and soil conditions. *C. laevigata* is much more habitat specific. It grows best in a temperate climate in the understorey of woodlands on clay soils. Hence, as Sussex is such a wooded county, and was more so in the past, it is perhaps more frequent here than elsewhere in England, with the possible exception of parts of adjoining counties.

Except in places where there is a very extensive area of unbroken, undisturbed woodland with a suitable soil, it is unlikely that a pure population of *C. laevigata* survives. Hence where you find *C. laevigata* you should also expect to find hybrids if you search for them. In practice it is *C. laevigata* you may need to search for, not vice versa. *C. laevigata* is not necessarily found in woodland as it may also grow in older hedgerows where it could have been planted in the past.

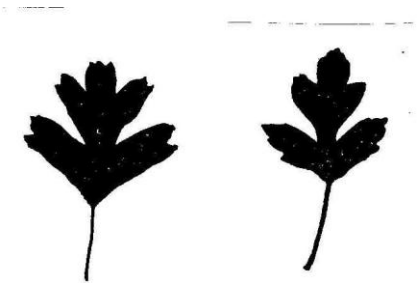
Hawthorns can be very long-lived, so once present and undisturbed they may survive for hundreds of years. There was a plant of *C. monogyna* growing in Richmond Park that I estimated could have been there since Stuart times. It was quite hollow and the surviving branches were propped up. It was on its last legs then and may well now be dead. Hence it is not surprising that where conditions remain suitable you may find *C. laevigata* in quite a small area of woodland in the remnants of what was once a large forest.

The best time to look for *C. laevigata* is in spring, as it first comes into flower about a fortnight before *C. monogyna*, sometime in May. Its flowers are larger, although less frequent than those of *C. monogyna*, and should have two to three styles. I have been surprised that in the area around Crowborough the plants of *C. laevigata* which I have found have only two styles rather than occasionally three. In case of uncertainty you can of course count the nutlets later in the year.

Hawthorn leaves are important in identification. They may very considerably in size. The surface of the leaves of *C. laevigata* is, as its name suggests, much shinier than that of *C. monogyna*, and their shape is distinctive, as shown below:



Typical leaves of *Crataegus laevigata*



Typical leaves of *Crataegus monogyna*

The leaves of *C. laevigata* are better adapted to photosynthesis in shade than those of *C. monogyna*. In contrast to *C. laevigata, C. monogyna* can grow quite tall in its preferred soil, chalk, to such a degree that it shades out all competitors, including its own lower branches, forming an almost monospecific woodland. Most other plants can then only survive near the margins, the most successful being *Mercurialis perennis* (Dog's Mercury), which has specific photosynthetic pigments enabling it to be fairly shade-tolerant. More commonly of course we encounter *C. monogyna* growing in more open habitats on a variety of soils, and forming unwelcome scrub on chalk grassland.

I append below a table to assist in distinguishing the two species, since until you are confident about the parents you cannot expect to be able to identify their hybrids. Hybrids can embody a large range of variation, but generally they will exhibit either a mixture of the characters of the parents, intermediate states, or a combination of the two. These varying states occur to a greater or lesser degree as the plants may also back-cross and form hybrid swarms.

Table showing main features of Hawthorns

	C. monogyna	***C. laevigata***
Habitat	Most	Mainly woodland on clay soils
Flowering time		Starts 2 weeks earlier than *C. monogyna*
Flower diameter	Up to c.14mm	May be over 14mm
Style number	1	2-(3)
Mature leaves	Laciniate – often 5-7 lobes	Shallowly 3-5 lobed to more or less entire
Lowest lateral leaf sinus	In lower 1/3 of leaf blade often 2/3 cut to midrib	In upper 1/2 of leaf blade cut less than 2/3 to midrib
Lowest lateral lobe	Lower margin more or less entire	Lower margin serrulate more or less to base

A note of caution

I have found plants growing near the south coast in the Pevensey and Exceat areas which have some fruits with two styles but which do not correspond with the *Crataegus* hybrids found more generally inland. For example, they often lack the finely serrulate lobe margins noted above. It is possible that in warmer times in the geological past another species of hawthorn was present in this area. There is a similar but more complex situation in the Netherlands, making identification of hybrid plants very uncertain. I think that a possible candidate for this third species is another diploid hawthorn, *C. azarolus*, which has 1-2(-3) styles and was widely cultivated in Europe in the past, although it only survives around the eastern Mediterranean and in SW Asia today.

These puzzling plants may be present on other parts of the Sussex coast and it is worth looking out for them.

Elm Notes

by Peter Davys

Following his article on Sussex elms in the May 2006 Newsletter, Peter has now kindly sorted out grid references for especially fine specimens of each species, which will be helpful to any members wishing to learn this sometimes difficult group. As follows:

Ulmus cornubiensis	Cornish Elm	By Selmeston Church	TQ510069	Good example
U. glabra	Wych Elm	Berwick car park	TQ518050	Good example
U. hollandica	Dutch Elm	By toilets, Brighton Pavilion garden	TQ311042	Two good examples
U. minor	Smooth-leaved Elm	Nr Arlington reservoir, E side of river & by car-park	TQ538070	Good examples
U. procera	English Elm	Preston Park, Brighton	TQ303063	Champion for girth
U. procera	English Elm	Cathedral Walk, Lullington	TQ524032	Champion tree for height
U. pumila	Siberian Elm	N end Cathedral Walk, Lullington		Row planted c.1975. Partially resistant to DED. Established here & suckering.
U. sarniensis	Jersey Elm	Preston Park	TQ306060	Champion tree for girth
U. sarniensis	Jersey Elm	Paradise Drive, Eastbourne	TV594983	Champion tree for height
U. vegeta	Huntingdon Elm	Grays School, Newhaven	TQ445009	Good example

Peter adds that elm pipes used to carry clean water under the streets of Chichester and some other old towns in Sussex. They were joined together by pushing a pointed end into an opposite shape to fit. There was a site at Bolney where they were made, and latterly water mills sometimes had an adaptation enabling them to be used with an auger to drill out the pipes.

Progress with the New Flora of Sussex

by Alan Knapp

We have made good progress with recording, as illustrated by the map on page 10, the total number of records at the end of April being just over 217,000 with only 14 tetrads without an effective visit (i.e. with less than 50 records). At the other end of the scale 155 tetrads have over 300 records. If we can all keep recording at this rate we should just about meet our target of getting the great bulk of the recording done by the end of 2010, but that relies on as many members as possible continuing to contribute records.

However, these numbers do not tell the whole story about our progress. Looking at individual species shows that there is still an awful lot to do. Since the last Newsletter we have written over 400 draft species accounts, and about another 70 are under way. We have also analysed which species have shown the greatest decline or are the most under-recorded compared to the *Sussex Plant Atlas* (SPA). What we have found is that many species are showing very large declines compared to the SPA. Some of the species with the greatest changes are listed below. We would like you all to help refind as many as you can. Also, if you know sites where these species occurred in the past, please go back and check to see if they are still there. If you do search an area and can't find things, please let us know, as that implies that the change is probably real in that area and not simply caused by under-recording. A more complete list of species to refind, with notes on the areas with the greatest apparent losses, is available on the downloads page of our web site. Anyone without web access who would like to help please contact Alan Knapp and say which areas or which species you would like to cover.

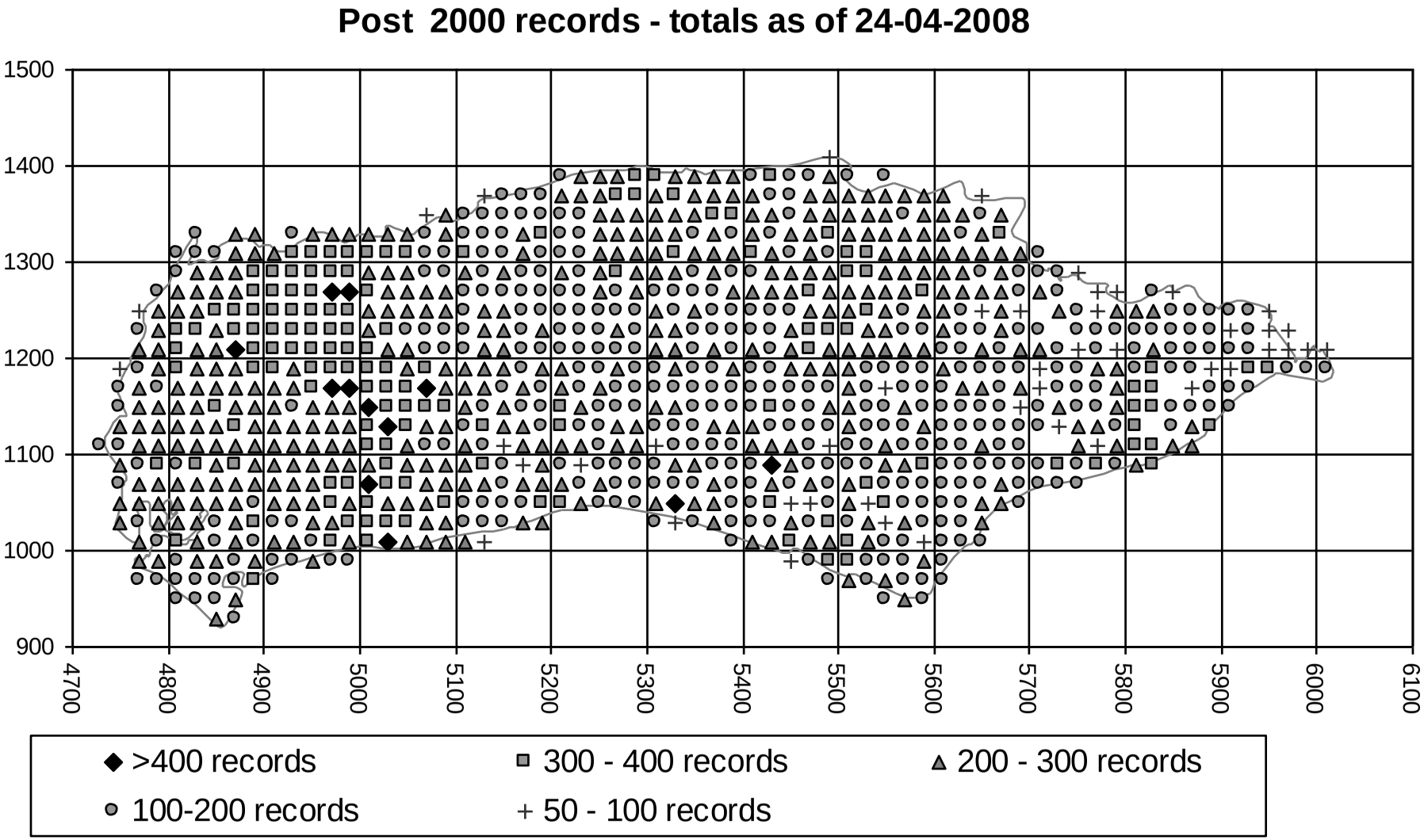
Some areas seem to have suffered a particularly severe loss of species and, once again, we would like to know if the losses are real or are due to under-recording. Examples are the Adur Valley/Henfield Brooks, Lewes Levels & Ouse valley S of Lewes (except for the Southease area), Rye/Brede/Winchelsea (other than the Rye shingle), St. Leonard's Forest and Ashdown Forest. For example, in Ashdown Forest we have no records since 2000 for either *Cuscuta epithyum* (Dodder) or *Anagallis tenella* (Bog Pimpernel), both of which were seen in over ten sites between 1993 and 1995 during the recording for the *Flora of Ashdown Forest*.

One particular problem which has come to light is that many recorders are not separating closely related species and subspecies, so they are only being recorded as aggregates. Please try to record these fully. If you have problems identifying something ask a member of the SBRS Committee to help. A few examples where this is clearly occurring: *Rorippa nasturtium-aquaticum* agg. is not being separated into the species *R. nasturtium-aquaticum* and *R. microphylla*; *Sagina apetala* subspecies are being recorded as *S. apetala* agg.; *Arenaria serpyllifolia* and *A. leptoclados* are not being separated but are recorded as *A. serpyllifolia* agg. It has become clear that our recording of *Arctium minus* and *A. nemorosum* is very poor. Most recorders take the easy way out and simply record *Arctium minus* agg. (code 2405 on the cards). If the plants are in flower, do please take time and effort to try to separate them. Collect the top part of the inflorescence and use the keys given by Stace in the big flora or the field flora. *A. nemorosum* in particular is very under-recorded in much of the county.

Listed below is a selection of species with the greatest declines since SPA, where more searching is urgently needed. The figures in the second column give the current records as a percentage of those in the SPA and they present an alarming picture. Comments on the areas with the greatest declines and possible reasons for the lack of records are also included.

Species	**Current records as % of SPA**	**Comments**
Scleranthus annuus	7	Certainly decreased but may hang on somewhere - look in all SPA tetrads, especially in TQ32/TQ40.
Ceratophyllum submersum	8	Iden/Rye/Camber, Laughton Level & Pevensey.
Rorippa microphylla	12	No recent records from E.Sussex - only a very few recorders have bothered to separate species. Please try, & if possible don't just record *R. nasturtium aquaticum* agg.

Sagina apetala subsp*. erecta*	13	Probably under-recorded because recorders are only recording *S. apetala* agg.
Tephroseris integrifolia subsp*. integrifolia*	13	Downs, especially tetrads near TQ20/21 boundary, NE corner of TQ30, TQ40, & all tetrads within 2km of the coast from Seaford to Beachy Head.
Salix aurita	13	St. Leonards Forest, TQ32, junction of TQ61/62.
Valeriana dioica	14	Most SPA sites.
Arenaria serpyllifolia subsp*. leptoclados*	14	Probably declined, but also under-recorded. Search especially in tetrads near the coast from Brighton to Eastbourne.
Lithospermum arvense	15	Arable or disturbed chalky areas in TQ40 & 50, where it was most frequent in SPA, but we have no recent records at all.
Ononis spinosa	15	Look in W edge of TQ12, S edge of TQ22 & 32, TQ31 & TQ50. NB - care with identification, presence of spines does not necessarily mean it is not *O. repens*.
Genista anglica	15	St Leonard's Forest, W.Sussex heaths, Ashdown Forest & Chailey Commons.
Anthemis cotula	16	Generally declined but probably still under-recorded.
Gnaphalium sylvaticum	16	E.Sussex SPA tetrads, especially TQ81.
Rorippa amphibia	16	Arun valley, tetrads round junction of SU92/93/TQ02/03; Adur catchment N of Henfield; Pevensey Levels.
Anagallis minima	16	Overlooked - edges of rides in woods. If you see species like *Hypericum humifusum* & *Scutellaria minor*, LOOK.
Polygala serpyllifolia	17	SU82/92, TQ22/23 boundary, TQ42, TQ53, TQ61/62, TQ71, TQ81. NB - take care with identification, key out using Stace.
Carex x boenninghausiana	17	W.Sussex: SU82/92; E.Sussex: TQ42, TQ53, TQ61/62, TQ71, TQ81.
Orobanche rapum-genistae	17	Heaths or heathy woodland, where *Cytisus scoparia* grows. Especially after woodland clearance.
Helictotrichon pratense	17	All along the chalk downs, especially in TQ01, TQ20 & TQ50
Cirsium dissectum	17	N edge TQ31, TQ32, N edge TQ42
Polygala calcarea	18	Downland, especially in W.Sussex. NB - take care with identification, key out using Stace.
Oreopteris limbosperma	18	N edge of TQ22, S part of TQ23, N part of TQ42 & eastern half of TQ53
Clinopodium acinos	18	Bare chalk - decrease probably real but may be present in a few places.
Crepis biennis	19	Almost certainly overlooked.
Cerastium arvense	20	Main decline is from chalk downs where there are almost no recent records - see records in SPA.
Agrostis canina	20	Possibly over-recorded in the past but now under-recorded - look in acid grassland. Send samples to PAH.
Serratula tinctoria	21	Tetrads near junction of TQ31/32, N & W edges of TQ42, NE corner of TQ50, S edges of TQ52 & TQ62, TQ53 & N edge of TQ61.
Apium inundatum	21	Wet areas across the county but especially Brede Valley & near Winchelsea.
Aira caryophyllea	21	Apparently decreased everywhere. Look out in any open areas on light soils across East and West Sussex.
Radiola linoides	21	Probably decreased but very easily overlooked. Look in St. Leonard's Forest area & heathy woodland rides across E.Sussex.
Isolepis setacea	22	Certainly overlooked - look very carefully at edges of any damp rides with a good flora and bare patches in woodland.


Post 2000 records - totals as of 24-04-2008
1500
1400
1300
1200
1100
1000
900
4700
4800
4900
5000
5100
5200
5300
5400
5500
5600
5700
5800
5900
6000
6100
>400 records
300 - 400 records
200 - 300 records
100-200 records
50 - 100 records

Selected records of interest received in 2007

The Recorders would like to point out that there is only space to include a small proportion of the many interesting records received, and to apologise if anyone's favourite record has not been included. Note that SBRS below means either found on SBRS meeting or by a group of more than three SBRS members recording together.

West Sussex (VC13)

Angelica archangelica	NE of Billingshurst	SBRS	1st W.Sussex record
Atriplex laciniata	Thorney Island, W side	SBRS	Many patches on beach.
Atriplex x gustafssoniana	Beeding Brooks	AGK/AS/EJC/MMS	Adur bank
Barbarea verna	Selsey	SBRS	Rare in Sussex
Brassica juncea	Ford	DMD	Rare casual, conf. TCGR
Callitriche platycarpa	Binsted Wood area	N&ES	
Capsella rubella	Middleton, Elmer Road	DMD	
Cephalanthera x schulzei	Goodwood	N&ES	40+ plants, conf. DCL
Chaenorhinum origanifolium	Warminghurst Farm	SMS/CMH	1st W.Sussex record.
Clarkia amoena	Adsdean	MMS/EJC	One of many odd plants on dumped soil.
Crassula tillaea	Littlehampton	MBE	2nd extant W.Sussex record
Crepis biennis	Bury	FA	
Cuscuta epithymum	Midhurst Cemetery	SBRS	Huge patches on *Calluna*
Eriophorum vaginatum	Fitzhall Heath	DNE	Declining species
Euphrasia pseudokerneri	Newtimber Hill	AS	Very rare in W.Sussex
Fallopia dumetorum	Cumberspark Wood	AGK	First appearance here for over 10 years
Filago minima	E of Uckfield	PR	On remnant of lichen heath
Fumaria densiflora	Trundle, Goodwood	MMS	Rare, especially so far west
Galeopsis angustifolia	Pagham	JAW	Only recent W.Sussex site
Hieracium scotostictum	East Preston	O&MH	Well established, conf. RCS
Juncus compressus	Middleton	N&ES	Only 2nd recent record
Limonium hyblaeum	Hove	AS	Still very rare in W.Sussex, but common E. of Brighton
Linaria maroccana	Northgate, Crawley	AGH/AGK	Disturbed ground
Lotus angustissimus	Coates	FA	1st recent Sussex record, 3 colonies in this area
Lotus angustissimus	Durleighmarsh Farm	SBRS	2nd area (see above)
Lotus subbiflorus	Durleighmarsh Farm	SBRS	1st Sussex record
Lycopodiella inundata	Trotton Common	Rob Free	1 plant in bare area
Lysimachia thyrsiflora	Ifold	TEG	1st Sussex record, unknown origin
Misopates orontium	Midhurst Common area	BMI	Rare & declining in Sussex
Nepeta cataria	Varncombe Hill	DB	In area cleared of scrub
Poa infirma x P.annua	Littlehampton	AS	Also elsewhere along coast, genetics being studied
Polygala calcarea	Walderton	RCS	Very rare in W.Sussex
Portulaca oleracea	Thorney Island	SBRS	Well established
Rhododendron luteum	Woolbeding Common	DNE	Rare introduction
Scleranthus annuus	Coates	FA/AGK	1 large plant
Scorpiurus muricatus	Durleighmarsh Farm	KK/AGK	1st Sussex record
Scutellaria x hybrida	Tilgate Forest	AGH	
Sedum sexangulare	Midhurst Cemetery	SBRS	1st Sussex record
Sisymbrium irio	Brighton	AS	1st Sussex record
Torilis arvensis	Stansted East Park	JRWH	Nationally rare
Trifolium squamosum	SE of Earnley	JAW/ES	Rare in W.Sussex
X *Festulolium loliaceum*	Lyminster area	O&MH	

East Sussex (VC14)

Amaranthus blitum	Eastbourne	AS	1st recent record
Amaranthus cruentus	Brighton	AS	1st recent record
Amaranthus deflexus	Brighton	AS	1st Sussex record
Anagallis minima	Beckley Woods	AGK	
Anisantha rigida	Peacehaven	AS	1st post 2000 record
Cardamine x fringsii	Near Five Ashes	EJR	Only Sussex site refound
Cerinthe major	Bulverhythe	JAR/FWI/JCLA	
Carex divisa	East of Rye	BC/JMC/ES/JAW	
Clinopodium acinos	Friston Forest	MBE	Now very rare in Sussex
Cynosurus echinatus	Norman's Bay	PGM	Unusual alien grass
Dactylorhiza x transiens	N of Crowborough Cross	JBY	1st confirmed Sussex record, conf. DCL
Dicentra formosa	Southease	JMR	On rubbish tip
Dryopteris aemula	Fore Wood	JPD	
Echium plantagineum	Near Polehill Farm	HMP	On manure heap
Epilobium lanceolatum	Battle (N part)	SBRS	Large colony on road bank
Himantoglossum hircinum	N of Southease	Reported DCL	1 plant
Hymenophyllum tunbrigense	Saxonbury Hill / Motts Mill	MBE/RPW	Refound old site
Isolepis setacea	Churches Green	N&ES	1 plant, cleared area
Myriophyllum spicatum	East of Rye	BC/JMC/ES/JAW	
Ophrys apifera var. *chlorantha*	N of Sovereign Harbour	AGK/MBE	On shingly bank
Ornithopus perpusillus	Hastings Country Park	BL	Rare in E.Sussex
Potamogeton berchtoldii	R.Cuckmere	HMP	
Radiola linoides	Battle Great Wood	SBRS	Good patch near ride
Ranunculus tripartitus	Rowland Wood	RPW	New site, nationally rare
Ranunculus hederaceus	Buxted Park	PMD	2 sites in park
Ranunculus omiophyllus	S of Jarvis Brook	JBY	Huge patch at end of lake
Ranunculus parviflorus	Seven Sisters	MBE	May be increasing in Sussex
Rosa tomentosa	Maplesden area	RAN	Rare except in a few areas of E.Sussex
Rumex maritimus	Berwick	RWE	Pond near pub, 1st record for some years
Salix aurita	N of Rotherfield	JBY	Declining but perhaps over-recorded in the past
Sibthorpia europaea	Heathfield Park	SBRS	3 colonies seen, almost certainly more present
Sinapis alba	Blackford Farm	MBE/RPW	Now very rare (often mistaken for *Raphanus*)
Stellaria pallida	Hastings	JAR	Under recorded species
Torilis arvensis	Falmer Pond	AS	Rare, normally arable weed
Trifolium resupinatum	N of Sovereign Harbour	AS	Few small plants on shingle
Veronica agrestis	Burwash	PMD	Pavement cracks in High St.
Vicia lutea	Barcombe	DCL	Rare away from the coast
Viola canina	Holman Wood Field	PR	Strongly declining species
Wolffia arrhiza	Pevensey Levels	RPW/MBE	Huge quantities

Recorders' initials

AGH	Arthur Hoare	ES	Elisabeth Sturt	MBE	Matthew Berry
AGK	Alan Knapp	FA	Frances Abraham	MMS	Mike Shaw
AS	Tony Spiers	FWI	Frances Winch	N&ES	Nick & Elisabeth Sturt
BC	Beryl Clough	HMP	Helen Proctor	O&MH	Olwen & Mike Hollings
BL	Brian Laney	JAR	Jacqueline Rose	PGM	Pam Marchant
BMI	Bruce Middleton	JAW	Judy Wilson	PMD	Pat Donovan
CMH	Carole Holt	JBY	Jean Byatt	PR	Patrick Roper
DB	David Beven	JCLA	J.Clark	RAN	Rachel Nicholson
DCL	David Lang	JMC	Jenny Clark	RCS	Rod Stern
DMD	David Donovan	JMR	J.M.Reynolds	RPW	Roy Wells
DNE	Dawn Nelson	JPD	Peter Davys	RWE	Robin Webster
EJC	Eric Clement	JRWH	R.Hollins	SMS	Silvia Simkin
EJR	Elizabeth Rich	KK	Kathryn Knapp	TEG	Theresa Greenaway