Newsletter 8

Autumn 1995

WILTSHIRE BOTANICAL SOCIETY

WINTER CALENDAR

1995/6

Saturday 2 December 2.00pm
Talk and slide show: Peter Marren
'RARE PLANTS'
Marlborough College Science Laboratories
There will be a tea interval for discussion
See below for directions

Saturday 13 January **1996** 2.00pm
Talk and slide show: Barbara Last
'DEATH VALLEY
AND THE MOJAVE DESERT'
Marlborough College Science Laboratories
There will be a tea interval for discussion
See below for directions

Saturday 17 February 2.00pm
Talk and slide show: John Presland
'MORE PLANTS OF WINSLEY
AND SOME RARITIES'
Marlborough College Science Laboratories
There will be a tea interval for discussion
See below for directions

ANNUAL GENERAL MEETING
Saturday 16 March 2.00pm
The Museum, Long Street, Devizes
After official business we will have a tea interval and a short quizlslide show by Maureen Ponting

How to find science labs at Marlborough College.....

Turn SOUTH off A4 100m WEST of the College bridge, just WEST of the Memorial Hall, Continue for 200m past science labs and park in the parade ground, The main entrance is between the labs and the Memorial Hall

We welcome members and their friends to our meetings, whether they are beginners or more experienced botanists.
If you have any comments, contributions or criticisms, please contact any committee member.

IN THIS ISSUE

A New Alien

Some of you may have seen a most striking and unusual plant along a field edge near Burbage, where Rita Grose saw it first, It is Phacelea tanacetifolia, a native of California.

It was growing in fair profusion along the edge of a wheat crop, out onto the verge and even on the other side of the road. A hedge had been removed from the site last year, giving rise to various suppositions about the plant's origin, But in fact it had been planted by the farmer himself !

Apparently, it is 'allowed' as a set-aside plant, being of no food value. However, it is strongly perfumed and attractive to bees, hoverflies and other pollenlnectar feeders, It is consequently valuable for beekeepers, and its attraction for hoverflies makes it valuable in combatting aphids, as it is the diet of many of their larvae,

Phacelea tanecetifolia belongs to the Hydrophylaceae or Waterleaf family, which is close to Boraginaceae, It has a distinctive coiled cyme,

Although generally one may deplore the introduction of aliens, this seems to be a felicitous addition, if it ever becomes established in our flora,

Barbara Last

Walkers Hill, Pewsey Down NNR
Saturday 27 May, Leader Dave Green

Fifteen members met in the car park on an overcast, breezy day, We intended walking over Walkers Hill and along the ridge to Milk Hill, Our task was to count all thye Orchids and Early Gentians (Gentianella anglica) that we found,

We had some efficient recorders and the final totals were:

Gentianella anglica (Early Gentian)	378+
Orchis ustulata (Burnt-tip Orchid)	34+
Platanthera bifolia (Lesser Butterfly Orchid)	+

We also felt bound to record Senecio integrifolius (Field Fleawort) 295+

There was serious discussion on the recognition of Common and Chalk Milkwort (Polygala vulgaris and P, calcarea, Dave was able to settle all our doubts, The most frequent was Polygala calcarea,

We passed two badger setts, roused a skylark and found its nest, complete with five eggs,

Lunch was eaten at our turn-round point, Nearby, Poa subcaerulea-humilis (Spreading Meadow-grass) was found and Glyceria declinata (Small Sweet-grass) in a dew pond, On the clay cap of the hill Dave found Aira praecox (Early Hair-grass), Saxifraga granulata (Meadow Saxifrage) occurred in an old pit on Walkers Hill,

A most enjoyable meeting,

Eileen Rollo

PEWSEY DOWN NATURE RESERVE
Knap Hill, 18th July 1995

Eight members enjoyed a morning's visit to this downland reserve overlooking the Pewsey Vale, with its fields of ripening corn stretching across to Salisbury Plain,

It was dry and breezy, but although there were plenty of Marbled Whites and a single Chalkhill Blue, there was not enough sunshine to attract more butterflies,

However, the flowers made up for the lack of butterflies. Purples and blues are prominent at this time of year, and we saw three species of Scabious, as well as the Greater Knapweed, Round-headed Rampion, a scattering of Harebells and several species of thistle, The clear pink of the Spiny Restharrow stood out, as did the pinky-white Squinancy Wort.

The only yellow flowers were a few Rockroses and Potentilla species; some Agrimony and an unexpected stand of Yellow-wort on a badly eroded bank.

A single yellowhammer kept us company as we descended the lower path of the reserve, but otherwise there were few birds to be seen, apart from swifts overhead and a pair of skylarks by the car park.

Moira Robertson

SPECIES UPDATE AT SMALLBROOK MEADOWS
14 June 1995

Seven members met Ann Sawyer, warden of this lovely Wiltshire Wildlife Trust reserve near Warminster.

The site is a Local Nature Reserve, one of very few in the country, leased to WWT by West Wilts District Council. Our purpose was to update the species list compiled by the MSC team over ten years ago, while, of course, enjoying a good morning of botanising,

There are several different meadows, each with a distinct species composition, plus streams, ditches, a small wood and a pond. This range of habitats provided a healthy list of plants, including a surprising amount of Potamogeton crispus growing in one stream as well as Elodea canadensis and Lagarosiphon major.

The old water-meadows were delightful, with good numbers of Southern Marsh Orchid, Yellow Flag, Water Avens, Kingcups and many other species. One unusual find was a single plant of Salsify, We were unable to decide between Tragopogon hybridus and T, porrifolius in the absence of achenes, but hope to rectify this in due course.

Our investigation of the pond was limited, both by time and the emergence of thousands of tiny toads, It was impossible not to tread on them and retreat was the only solution,

Towards the end of the morning, a particularly interesting grass was noted: Lolium perenne var. cristata, with spikelets spreading out from the stem almost at right-angles.

A final look at our lists suggested that we had added about 30 species to our existing records.

Pat Woodruffe

Outing to Sidbury Hill - 28th June

On a very hot morning, Audrey Summers led a small group of us to look at a particularly fine sward of chalk grassland up Sidbury Hill on MOD land.

This hill is an Iron Age fort with typical ring rampart, which had been allowed to become scrubbed over, However, through the valiant efforts of Audrey and her team, much of the scrub has been cleared, restoring the ditch to its original condition.

Unfortunately, in recent years the MOD has planted the slopes with timber, much of which is depauperate and chlorotic on the impoverished chalk soil.

However, there was a pleasing strip of a rich flora left, looking most colourful and visited by numerous butterflies. The disturbed soil near the surrounding tank-tracks was bright with Bugloss, Weld and Nodding Thistle,

Barbara Last

SAVERNAKE FOREST ARBORETUM

4 April 1995

[NOTE: This was our second visit to Savernake's interesting arboretum, originally established in 1954 by a former Marquess of Ailesbury. Until recently, it had been allowed to fall into disuse, but the Forestry Commission has begun to take an interest., Ed.]

On a fine sunny morning, Jack Oliver and Maureen Pouting led a select group of five members through this arboretum. Their enthusiasm infected us completely, and their knowledge answered all our questions,

First, Jack showed us a young conifer, demonstrating the three stages in growth of a Cupressus torulosa (Bhutan Cypress) - from immature to secondary to mature needles. He explained the differences between true and false cypresses and described significant features of thujas, firs, spruces, tsugas, pseudo-tsugas and pines.

During the next two hours, we compared Abies procera (Noble Fir) with Abies grandis (Grand Fir), smelling surprisingly of grapefruit,

We found Pseudotsuga menziesii (Douglas Fir), with its distinctive cone, In passing, we noted that the cone scales of Larix europae (European Larch) curve inwards, while those of Larix kaempferi (Japanese Larch) curve outwards, We saw the tall and slender Picea omorika (Serbian Spruce); Pinus strobus (Weymouth Pine) with its very sticky, resinous cone; and Pinus rigida (Northern Pitch Pine), which sprouts from its bole, Those who wished could punch the corky, fire-resistant bark of Sequoidendron gigantea (Giant Sequoia) and Sequoia sempervirens (Coast Redwood), We also saw the Leyland Cypress and both its parents, Cupressus macrocarpa and Charnae-cyparis nootkatensis.

On our way back to the cars we were of fered specimens of the trees we had seen, plus labels and string, so we could study them further at home,

Rita Grose

Trip to the Avon Gorge

Fifteen members and friends assembled in the Avon Gorge on Sunday 9 April, Our leaders, Mark and Claire Kitchen, showed us lots of interesting plants, including some of the Gorge specials. To general surprise, this was all accomplished with virtually no rock scrambling --- further tribute to the local knowledge of our leaders,

Our finds included: Orobanche hederae (Ivy Broomrape) - old flower spikes on Hedera helix ssp, hibernica (Atlantic Ivy); Daphne laureola (Spurge Laurel); various Alliums in leaf-- A. vineale, A. carinatum and A. roseum.

On ledges close to the suspension bridge we were shown Hornungia petraea (Hutchinsia) and Cerastium pumilum (Dwarf Mouse-ear), Next we came to Geraneum purpureum (Little Robin) and two umbellifers, Smyrnium olustratum (Alexanders) and Petroselinum crispum (Garden Parsley), quickly followed by Pentaglottis sempervirens (Green Alkanet), Rubia peregrina (Wild Madder) and three sedges, Carex riparia, C, humilis and C, digitata, Then, two more specials: Arabis scabra (Bristol Rock-cress) and Potentilla neumanniana (Spring Cinquefoil),

A few clambered down a bank to see two scurvygrasses, Cochlearia anglica and C, danica, Sorbus eminens, a Red Data Book subspecies of Whitebeam, was noted in bud, The awful fate of Sorbus wilmottiana was described. It was possibly lost to the gorge, thanks to the efforts of English Nature and the local council, who between them contrived to destroy both the type tree and a fine specimen tree,

Malcolm Hardstaff

Bryophytes in Pewsey Churchyard

A group of seven members, led by Rod Stern of the British Bryological Society assembled at Pewsey on April 29 to observe the bryophytes in Pewsey churchyard,

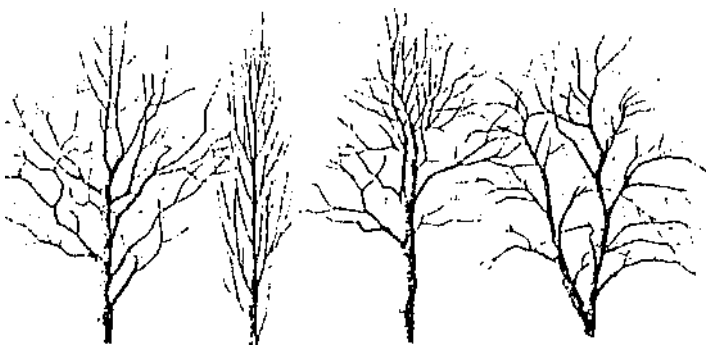
Despite an overcast day, it remained dry all morning and an amazing 35 species of moss were recorded in the various habitats, which included tombs, paving slabs, grass and trees,

Among the mosses seen were Homalothecium. sericeum (on the church walls), Hygrohypnum luridum, Barbula rigidula, Schistidium. apocarpum., Funeria hygrometrica, Tortula intermedia and Orthotrichum cupulatum,

The day continued with an interesting afternoon at Marlborough College looking at our specimens under the microscope. Thanks to Malcolm Hardstaff for arranging this,

We are very grateful to Rod for once again giving his time and talents to help us,

Jean Wall



Exploring Kenfig's Dunes

Before exploring Kenfig's extensive sand dunes we were briefed by the local conservation officer, who suggested the best areas to search for the 500 species reputed to exist locally, He also bemoaned the lack of floral surveys for the area, apart from a thirty year-old work by undergraduates of Swansea University,

As good luck would have it, Pat Woodruffe, in our party, had been one of the students who produced the original survey, Much excitement all round....

Before lunch we found: Dactylorhiza incarnata subsp, coccinea (Early Marsh Orchid); Dactylorhiza praetermissa (Southern Marsh Orchid); Anacamptis pyramidalis (Pyramidal Orchid); Lysimachia vulgaris (Yellow Loosestrife) ; Isolepis cernua (Slender Club-rush); Centaurium pulchellum (Lesser Centaury) and a Euphrasia sp,

After lunch we saw: Veronica scutellata (Marsh Speedwell); Anagallis tenella (Bog Pimpernel); Pyrola rotundifolia (Round-leaved Wintergreen)...but we didn't find Liparis loeselii (Fen Orchid),

Later, close to the sea, we saw: Eryngium maritimum (Sea Holly) and Cakile maritima (Sea Rocket), though not, unfortunately, Matthiola sinuata (Sea Stock)

Altogether, the dunes had provided some memorable specimens - and a happy reunion.

John Harry

SOMERFORD COMMON 12th July

Our leader was to have been the voluntary warden, but he had to cope with a sudden crisis concerning his mother, However, he had provided a plan of the Common, with blocks of woodland and rides marked out.

He had asked us to help provide a flora list, which three of us did- reminiscent Flora Mapping days.

We found no new rarities, but plenty of Juncus conglomeratus, some Carex pallescens and Carex ovalis, all in the wide rides, However, we are investigating a curious aberrant Tor grass (see article in this issue),

A sight of a White Admiral butterfly was a pleasant finale to the morning,

Joy Newton

ABERRANT BRACHYPODIUM

At the WBS meeting on 12th July at Somerford Common, Joy Newton, Rita Grose and I were puzzled by some big, vigorous clumped patches of grass.

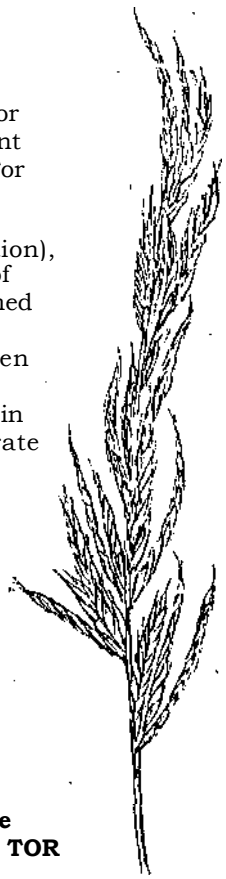
We felt that the species was Tor grass, but it was nevertheless different from the familiar Chalk False-BromelTor grass of downlands.

Closer examination showed complex inflorescences (see illustration), with groups of 2-3 spikelets (instead of the normal one) per mode. There seemed to be a number of separate plants, spread over 15m or more, Dave Green has since confirmed the species,

If the inflorescences are normal in July 1996, this might imply invertebrate infestation, or infe c tion of the inflorescences, However, if they reappear similarly or generally,

genetic variance becomes more likely.

Jack Oliver



Inflorescence of the SOMERFORD COMMON TOR GRASS by Katy J Oliver

SOME COWPATS.

'ARE FLOWER KILLERS'

Long-life cowpats are being blamed for destroying wild flowers, says Roger Martin of the Somerset Wildlife Trust.

Flowers including Squinancywort and Cowslip are apparently at risk because an anti-parasite drug, Ivermectin, used to kill worms in cattle, is also killing the beetles and bugs which eventually break down cowpats, As a result, they last two or three times longer, presenting a serious threat to the flora underneath.

The Somerset Trust, which owns or manages 63 reserves on 3500 acres, has now banned cattle treated with the drug from grazing on its land,

Perhaps predictably, the National Office of Animal Health, which represents the animal medicines industry, dismisses the claim as 'an old chestnut', blaming the dry summer. The Trust demurs, and the debate continues.

MULTIPLE-ROWED DAISIES

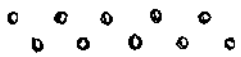
The illustration shows a naturally occurring large Lockeridge lawn daisy with 4½ rows of ray florets, a ridged scape, pentagonal in cross-section, with 2 stem (scape?) leaves 1 cm up from the basal rosette. Large numbers of intermediates between this and the normal wild daisies also occurred nearby. These big daisies, seen in April and May rather than high summer were all probably throwbacks, showing some genetic features of two Bellis perennis 'Monstrosa' plants, grown about 40 yards away and a quarter-century earlier. Some have magenta-pink rather than white ray florets,

Vera Scott, formerly of Lockeridge, had also noted B.p Monstrosa crossing freely and naturally with lawn daisies, Some dealers have ceased stocking Monstrosa on account of its vigorous seeding and likelihood of becoming a lawn weed.

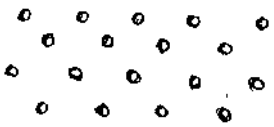
The floras CTW (1962) and CTM (1987) simply credit the genus Bellis with one row of ray florets, but Stace (1991) refers to the Fiore Pleno tendency in B, perennis,

Martin Cragg-Barber (That Plant's Odd, n°3, Nov '94) notes the failure to find one single-row daisy in 2 natural Welsh habitats, mountain and rough coastal grassland, On the Wiltshire Downs, 1½ -2½ rowed daisies seem commoner than single- -rowed, even in dry conditions.

Certainly, the insertion points of the ray florets of lawn, village and downland daisies always show the last two rows of the receptacular spiral:



Some of the Lockeridge daisies had 3, 4 or even 5 rows of ray insertion points, especially in wet early summers..,



B.p. 'Pomponette' can have 8-13 rows of ray floret insertion points, but this modern cultivar has much reduced fertility,

I have tried 12 horticultural dealers so far in 1995, but none stocks B.p, 'Monstrosa' which derives from selections made from the 15th Century onwards.

I would welcome a Monstrosa from a WBS member or any other source to compare it with these highly fertile, naturally-reproducing multi-rowed daisies which occur where lawns are not cut too closely.

As well as Lockeridge, these daisies have been seen at Clatford, to the north of Cricklade and at Padstow in Cornwall, They can also spread into the wild.

Bellis perennis is seldom single-rowed (as described in standard floras), perhaps because it has been influenced by continuous gene flow from vigorous, highly-fertile ancient cultivars.

Jack Oliver

COUNTY WILDLIFE SITES PROJECT

I would like to take this chance, on behalf of the Wiltshire Wildlife Trust and myself, to thank those of you who have again given their time generously in carrying out site surveys in various parts of the county,

Generally, there has been greater emphasis on woodlands than in 1994. Some were included that had never been surveyed on a site basis before; some had never been surveyed at all.

The results are helping the Project determine more accurately which sites are of high nature conservation value in a county context.

The Project may also provide important new species records for the Society, for BSBI and the Biological Records Centre.

We hope to confirm this work next season. What is apparent is the enjoyment the volunteers get out of their work, I include myself in this !

Paul Darby

THE FLORA OF WILTSHIRE RIVERS —preliminary Survey

Most publications on the botany of rivers are concerned with characteristic aquatic species or plants indicative of the health or otherwise of the water, Some plants may disappear, increase or become overgrown as a consequence of chemical enrichment with dissolved nitrates and phosphates or certain pollutants. Other aquatics indicate the natural chemistry or flow of the water, For instance, Water Forget-me-not (Myosotis scorpioides) and Stream Water-crowfoot (Ranunculus penicillatus ssp pseudofluitans) are characteristic of chalkstreams,

The 1992-5 project by the Society was not designed to focus on such 'indicator' aquatics, but was an overall study of the dominant vegetation alongside and within Wiltshire rivers, including channels of upper reaches with diminished flows, The images of riverside and riverbank plants in popular nature books: sedges, rushes, reeds, Reed mace, Irises, Marsh Marigolds and willows, may be idealised, for some of these plants in reality may be as infrequent as the kingfisher shown perched in the foreground. We were concerned mainly with the 'higher' (in evolutionary terms) plants, but we noted overgrowths of algae and some other conspicuous plants such as the water moss (Fontinalis antipyretica),

Quantitative scoring for the sloping or vertical bankside, river edge and channel plants per species was simple and based on Grose's scheme: P = Present (1), 0=Occasional(3), F=Frequent(6), A=abundant(10), This scheme did not work well for trees which were noted on top of (as well as on the sloping sides) of river banks. In consequence these were scored simply per species as P=present or M= more than one, The basic lengths studied were about 50m, If longer sections were surveyed at one site, these were split into subsites. Thus 50m to the east and west of a bridge, on north and south banksand including the upstream and downstream channels, could count as 4 bank and 2 channel subsites at the one main site, The maximum score for any one species at such a complex site could be 60 (10+10+10+10 for each of the 4 bankside stretches, and 10+10 for the 2 channel lengths), However, many sites were only scored, per species, as out of 10 (banks) and 10 (channel),

Rigidity of method would have made this project stillborn, Amateurs do not want to be rebuffed by riparian owners forbidding access, and may not wish to be directed to dangerous edges. Struggling over barbed wire barriers in deep mud which traps wellingtons needs commitment. Waders are easily punctured by underwater barbed wire. Requests to survey 'interesting' sites were sympathetically received, provided that a difficult or 'uninteresting' site was also scored. Some sites were abandoned as 'impenetrable' on account of barbed wire concealed by nettles above eye-level in height. However, I completed three of these.

Biases were inevitable, but mitigated to some extent by the large numbers of sites & subsites investigated overall, To date, 126 sites incorporating 471 subsites from all the main river systems in Wiltshire have been scored. One main inadequacy of the survey has been for submerged aquatics, For instance Nuttall's waterweed (Elodea nuttallii)was infrequently recorded. Brian Wurzell of B5131 says that this plant is mostly overlooked because it is usually too far below the water surface to be seen. However, parts of the Thames in Wiltshire were dredged in 1991-2 and huge piles of E, nuttallii were dumped on the banks, In winter 1994-5, the floodwaters of the Bristol Avon festooned lower branches of riverside trees with E. nuttallii in great quantity at Melksham and Chippenham. Little or no signs of this plant had been seen at or above these sites in the previous spring, summer or autumn.

The recording forms required different seasonal measures, and here we did more than Grose in the 1950s, and more than many professional surveys. The different seasonal scoring reduced problems in identification and also helped redress over-emphasis of some species at the expense of others. In late winter and early spring, for instance, Celandine was apparent at most sites and sometimes was abundant. It disappeared completely in other seasons. This requirement for separate seasonal scoring especially applied to stretches of river with fluctuating water levels,

Taking part in the survey were the following: Jennifer Acornley, David Blackford, Brenda Chadwick, Tony and Stella Dale, Daphne Graiff, Malcolm Hardstaff, Diana Hodgson, Barbara Last, Christine McQuitty, Jack Oliver, Philippa Parker, Maureen Ponting, Judith Robinson, Mary Robinson, Jean Wall, Winifred White, Civil Williamson and Gwyneth Yerrington. These names cover a good geographical spread in Wiltshire except Swindon/Thamesdown which only has 1-2 WBS members. I surveyed some extra Thames sites, but there were no Thames tributaries in Wiltshire studied. This was the main gap in representation.

RESULTS

The results were organised by division into 4 groups, as follows:

1 Winterbournes, small tributaries, ditches, watermeadow streams which dry out (apart from the occasional muddy retaining pond) for more than half the year, A total of 20 sites and 91 subsites. Channels usually invaded by agricultural weeds, grasses, climbers, scramblers and other terrestrial herbaceous species.

continued .....

Wiltshire River Flora (continued).....

2 Small rivers, tributaries, brooks, usually with running water throughout the year, A total of 62 sites and 196 subsites, Narrowing of the water flow can permit invasion by terrestrial species into parts of the channel. Reeds and Reedmace can be festooned with scramblers and climbers such as Cleavers (Galium aparine) and Hedge Bindweed (Calystegia sepium) from bank to bank across the channel in summer and autumn, even with moderate year-round flows.

3 Substantial river sites with channels 10m or more across. Water levels may fall down sharply sloping banks in summer months, with slowing of current but little narrowing of water widths, 44 sites and 184 subsites.

4 Combined scores for emergent and fringing aquatic plants, as well as some invading terrestrial species, overwhelmed many of the less commonly recorded floating and submerged aquatic species, These are therefore tabled additionally and separately on their own (Table 2) (Mainly channel sites and subsites of the preceding groups 2 and 3)

Well over 400 herbaceous, climbing or small shrubby species were recorded in all, including ferns and horsetails, 76 of these had total frequency scores (banks andlor channels) of 100 or more, suggesting that these 76 species are reasonably commonly associated with rivers or riverbanks, They comprised 2 common reed and 19 grass species, 2 duckweeds, 2 sedges, 6 other monocots and 45 dicots, but no one fern or horsetail species was commonly found, Table 1 shows the repeated dominance of stinging nettles, grasses and other agricultural weeds and scramblerslclimbers by Wiltshire rivers,

Over 50 riverbank tree species, including conifers, were found, These are not included in the tables, The commonest, as measured by presence at sites and subsites, was Hawthorn (145 subsites), but it was sometimes shrubby, or hedged, or even occurred as seedlings in dried-out channels. Next in order of frequency came Crack-Willow, Ash, Elder and Sycamore, English Elm, which according to numerous articles, had been eliminated by Dutch Elm disease, nevertheless has persisted as suckers, hedging and young trees at 54 subsites, making it the 6th commonest riverbank tree, its suckers sometimes invading the channels, At 7th= came Alder and White Willow, each at 52 subsites, followed by Sloe(45 subsites) at 9th and Hazel (37 subsites) at 10th,

Notes on Tables

Table 1 shows the domination of Wiltshire riverbanks by the Common stinging Nettle, which tends to be present amongst other vegetation fringing river margins even when it is not abundant. The nettle domination also applies for dried river channels, although these are also much invaded by common grasses (see column 2). The second commonest plant overall (col. 12) was Cleavers (Galium aparine), one of three climbers and of 8 agricultural weeds in column 12, According to Grose (1957), the picture was very different in the 1950s, with only 8 of his 12 riverside front-runners holding up in the 1990s (Great Willowherb was Grose's N°1, and the stinging nettle did not appear in the top 30 for any of Grose's water-side lists), 18% of the 144 entries on Table 1 are for climbers or scramblers; 35% are for one family (Grasses, Poacaceae), and 53% for agricultural weeds and grasses (excluding reeds) which thrive on' enriched soils, Columns 5, 8 and 11 show the most common emergent or true aquatic species, but Reed Canary-Grass (Phalaris arundinacea) was the most successful plant in wet channels which also did very well in dry channels and oh banks, It appeared in all 12 columns, often near the top,

28 of the 36 entries in (wet) channel columns were either emergent edge-rooted aquatics, or invading terrestrial plants colonising mud. Table 2 gives the top 12 floating and submerged aquatics. Only the top 9 of these each was recorded at more than 10% of the total channel subsites; but in all there were records of 15 submerged and 15 floating aquatic species. This total of 30 is good, considering this was a quantitative survey rather than a search. However, only 4 true Pondweed (Potamogeton) species were noted, and all in very small quantities. Two of the top 12 true aquatics on Table 2 (Least Duckweed and Nuttall's Waterweed) were unknown in Wiltshire before 1980.

Jack Oliver

Tables overleaf.....

Table 1. Orders of commonness of the top 12 species by and in Wiltshire rivers, and frequency scores (Grose, 1957)

	I — **Small Tributaries,** often dry			II — **Rivers < 10 metres across**			HI — **Rivers > 10 metres across**			**Combined Totals**		
	Banks	Channels	Totals	**Banks**	Channels	**Totals**	**Banks**	Channels	Totals	**Banks**	**Channels**	Totals
	1	**2**	**3**	**4**	**5**	6	7	8	**9**	**10**	**11**	**12**
1St	Nettle 562	Nettle 237	Nettle 799	Nettle 795	Watercress 276	Nettle 912	Nettle 954	W Starwort 273	Nettle 1002	Nettle 2311	Reed C-g 583	Nettle 2713
2nd	Cleavers 423	Rough M-g 164	Cleavers 563	Cleavers 352	Stream W-cr 254	Reed C-g 574	Gt Willowhb 479	Reed S-g 252	Gt Willowhb 674	Cleavers 1246	Watercress 496	Cleavers 1408
3rd	False Oat g 358	Cleavers 140	False oat g 432	Gt Willowhb 350	Reed C-g 241	Gt Willowhb 469	Cleavers 471	Stream W-cr 226	Reed C-g 558	Gt Willowhb 931	Stream W-cr 480	Reed C-g 1402
4th	Cow Parsley 226	Reed C-g 126	Rough M-g 369	Reed C-g 333	Fools W-crs 205	Watercress 393	Celandine 390	Reed C-g 216	Reed S-g 484	Rough M-g 895	W Starwort 450	Gt Willowhb 1316
5rh	Couch g 221	Cr Bent g 119	Bellbind 294	Rough M-g 319	Watermint 177	Rough M-g 387	Rough M-g 371	Watercress 201	Cleavers 479	False Oat g 851	Nettle 402	Rough M-g 1179
6th	Rough M-g 205	Br-lvd Dock 102	Couch g 284	Rye-g 301	W Starwort 160	Cleavers 366	Ivy 370	W F-me-not 199	Rough M-g 423	Reed C-g 819	Fools W-crs 388	False Oat g 938
7th	Bellbind 204	Bittersweet 91	Reed C-g 270	Ivy 292	W F-me-not 141	Cr Bent g 358	Reed C-g 342	Gt Willowhb 195	Celandine 394	Cow Parsley 775	Gt Willowhb 384	Cr Bent g 923
8th	Br-lvd Dock 149	Bellbind 90	Br-lvd Dock 251	Bramble 271	Reed S-g 130	Rye-g 335	Cow Parsley 335	Watermint 161	Ivy 371	Ivy 747	Reed S-g 383	Cow Parsley 794
9th	Reed Cig 144	False Oat g 74	Cow Parsley 244	Cr Buttercup 256	Cr Bent g 128	Cr Buttercup 316	Rye-g 270	Brooklime 155	Cr Bent g 349	Celandine 713	Watermint 359	Bellbind 791
10th	Wh D-Nettle 133	Gt Willowhb 71	Cr Bent g 216	False Oat g 250	C Duckweed 127	Fools W-crs 310	Bramble 266	Fools W-crs 138	Cow Parsley 336	Bellbind 674	Cr Bent g 349	Celandine 782
11th	Cr Thistle 128	Celandine 69	Bittersweet 207	Cr Bent g 230	Flote g 120	Watermint 300	Bellbind 264	C Club-rush 135	W F-me-not 322	Rye-g 635	W F-me-not 344	Ivy 757
12th	Cocksfoot g 128	Couch g 63	Celandine 177	Cr Thistle 221	Gt Willowhb 119	H W D'wort 296	Cr Bent g 247	C Duckweed 134	Bittersweet 318	Bramble 582	Rough M-g 284	Br-lvd Dock 751

All reeds and grasses indicated by g, Trees not here included.

Stream W-cr = Stream Water Crowfoot, *Ranunculus penicillalus ssp pseudofluitans;* W Starwort = *Callitriche stagnalis;*
H W D'wort = Hemlock Water Dropwort; Reed C-g *Phalaris arundinacea;* Reed S-g = *Glyceria maxima;* Flote g = *G notata.*

TABLE 2

Order of Commonness of the top 12 Floating and Submerged Aquatic Plants in Wiltshire Rivers

		Frequency Scores	Subsites 170 poss. all-year wet sites	Growth For ms
1st	Stream Water-Crowfoot	481	88	S(F)
2nd	Common water Starwort	450	86	SF
3rd	Common Duckweed	269	80	F
4th	Flote(sweet)grass (Glyceria notata)	158	38	F(E)T
5th	Yellow Waterlily	137	22	SF
6th	Least Duckweed*	136+	35+	F
7th	Amphibious Bistort	111	34	FT
8th	Pond Water-crowfoot	106	21	SF(T)
9th	Flote(sweet)grass (Glyceria fluitans)	92	27	F(E)T
10th	Nuttall's Waterweed*	62+	12+	S
11th	Flote(sweet)grass (G. x pedicellata)	57	11	F(E)T
12th	Canadian Waterweed*	52	6	S

F = Floating
S = Submerged
T & E = also capable of Terrestrial or Emergent aquatic growth
= Non-natives
= Probably much under-recorded

Native Plant Aberrations

'That Plant's Odd' Day Course: **19** August

In the morning session of this course, held at Hullavington the history of form aberrations was looked at, including excerpts from early herbals and Victorian literature on plant teratology, Some basic categories to be looked for were portrayed, including peloria, fasciation, spiralling and proliferation,

In the afternoon session, variegation on leaves was examined, A brief history of the chimera hypothesis was given and certain problems pointed out.

Participants reported these aberrations: second flowering of Marsh Marigold (Caltha palustris) forms and Goat Willow (Salix caprea); discovery of a dark pink Hemp

Agri mony (Eupatorium cannabinum); a double-headed dandelion from the Forest of Dean; a curious inflorescence on rye (Lolium perenne) with curved spikelets; corkscrewing shoots on Scirpus and horsetails (Equisetum) and refinding in the wild (in Hampshire) the Rose Plantain (Plantago major rosularis),

Perhaps the most curious report concerned a phyllodic clover (with flowers replaced by small leaves), This condition is believed to be caused by a virus. Nearby, a Geranium cinereum copied the same condition, replacing flowers with a number of small leaves and then dying, It was assumed that the virus had infected the geranium, causing phyllody and then death, This is the first reported example of phyllody in clover infecting other unrelated plants,

To follow up this approximately successful day, we are holding a second day course entitled 'The Strangeness of Plants', We will look at the misbehaviour of plants (sports, mutations, virus-induced forms, etc.). We will give an historical perspective to spotting such aberrations, with excerpts from the 17th Century English Herbals and a review of this year's discoveries,

This course will be held at Sheldon Manor near Chippenham on Saturday, 4 November and some forms unique to Sheldon will be examined,
Cost: £25.00, including lunch,

Martin Cragg-Barber (01666)837369

CHURCHYARDS FOR NATURE CONSERVATION

The Bishop's Award for Nature Conservation in Churchyards has been going since 1991, This year, 23 Wiltshire churchyards were entered, and after 4 years we can look back and evaluate its success,

One of the greatest achievements has been to make people aware of the great potential in churchyards for wildlife. As a result, a great deal of thought and effort has been devoted to preserving and encouraging it,

To give a few interesting examples: Aldbourne has concentrated on their grassland management, With experimental mowing, a large patch of downland turf is nov,'

And this is in spite of a certain amount of opposition from the 'tidy churchyard' brigade, Yellow Rattle is now being introduced, though presenting some difficulty because of its semi-parasitic nature, Large compost heaps and wood piles have encouraged numbers of slow worms -- welcome, though inconvenient when mowing !

St Katharines, Savernake also has an advanced grassland management plan, They arrange mowing after flowering and seeding though this can be difficult with their diverse flora. The heather Caluna vulgaris and Heath Milkwort which had been dwindling are now making a healthy comeback.

Woodborough churchyard is grazed by a rare breed of sheep, Wiltshire Shorthorns, providing a different kind of conservation,

Netheravon, a remote church on the banks of the Wiltshire Avon, retains the grass on the banks of the river to encourage a colony of newts,

These are just a few examples which I know about, We would welcome further information and examples of good conservation practice, and about successes and failures, because it is obviously important that those responsible for churchyards share their information,

Maureen Ponting

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STOP PRESS

FUNGUS FORAY IN SAVERNAKE FOREST STARTS THE NEW SEASON

About twenty members and friends gathered in Savernake Forest on the morning of 8th October to sample its fungal delights, We explored the Hen Wood under the excellent tuition of Peter Marren,

Peter began with a general introduction to fungi: what they are, where they grow, edibility and the major groups: toadstools, boletes, puffballs, brackets and cup fungi. He pointed out that conditions that day were ideal for our purpose: lots of rain to make the fungi grow, followed by bright sunshine to look for them.

A constant flow of finds kept the party moving at a snail's pace it took an hour to cover the first I 00 metres. Peter described the significant characteristics of each find and we learnt the distinguishing features of the genera, Surprisingly, very few Russula or Lactarius were seen,

As well as fungi, the party enjoyed seeing a number of caterpillars of the Pale Tussock Moth and a Slowworm,

The more interesting finds included: Coprinus phlyctidosporus growing on dumped rotted grass clippings, This small toadstool is described as growing on bonfire sites, but this is the third year it has been found at
Savernake on this substrate, Apart from Savernake, it has only been found once in the UK, on burnt ground in Worcestershire. Grifola frondosa infrequent
Lentinellus cochleatus infrequent
Lepiota ignivolvata a speciality of Savernake Forest; it has been known here for many years (Provisional Red Data List: Rare) Melanophyllum echinatum infrequent
Pleurotellus acerosus infrequent
Tephrocybe ellisii status unknown: only described in the last few years and not yet in the textbooks. I find it to be not uncommon,
Malcolm Storey

NOTE
Anyone wanting a full list of the fungi found should contact Joy Newton or Maureen Ponting