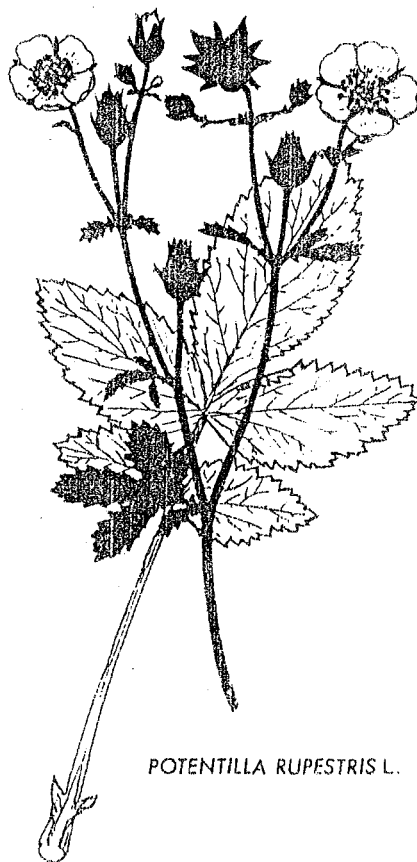


BOTANICAL SOCIETY OF THE BRITISH ISLES

# WELSH BULLETIN

*Editor: I.K. Morgan*

No. 46, SPRING 1988



POTENTILLA RUPESTRIS L.

BASED ON THE ILLUSTRATION IN ENGLISH BOTANY, THIRD EDN. PL. 2058

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\* Note New Address

\*\* Note New Recorder

## EDITORIAL

It is pleasing to record, in this Editorial, that there has been a positive response to my appeals for articles and short notes for the Welsh Bulletin. I am sure that many BSBI members would be able to emulate the excellent note on **Potentilla rupestris** on the Breidden Hill, by writing about a local scarce plant in their area, though bearing in mind that detailed descriptions of sensitive localities or threatened species should be avoided. Even so, there must be many interesting localities or localised species that would merit a short note in the Welsh Bulletin.

As our readers will by now realise, the annual contribution by Richard Pryce on progress in the recording of the Carmarthenshire flora is, by now, an established, regular and welcome feature of these pages. Richard deserves congratulations, not only for his work on the flora itself but also for giving us - including his faithful helpers - regular updates on interesting species and sites found in the vice-county.

Related to this it is most gratifying to note the informative and readable article by Arthur Chater on recent discoveries in Ceredigion (VC 46). Perhaps other vice-county recorders in Wales would like to follow this lead and provide the readership with similar notes?. Small contributions would be eagerly welcomed by the Editor.

My sincere thanks to those who have produced material for this issue and to the continued support given by Gwynn Ellis in the actual production of the Bulletin.

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## HON. SECRETARY'S REPORT

### Annual General Meeting, 1987

The Twenty-fifth Annual General Meeting and Fifth Exhibition Meeting of the BSBI Wales was held at the Usk Agricultural College, Gwent on July 11th, 1987.

The Saturday morning was spent tetrad recording in the vicinity of the College. After lunch, the members and guests attending were welcomed to Usk by the Chairman Mrs Jean Green, who introduced the guest speaker Mr Trevor Evans, recorder for v.c. 35, who gave a comprehensive and fascinating talk on 'The Flora of Gwent', illustrated by slides of a high quality. (See page 9 for an abstract of this talk).

The Chairman then opened the Annual General Meeting. Apologies for absence were received from R.G. Ellis, S.B. Evans and I.K. Morgan. The minutes of the last meeting, published in the Welsh Bulletin No. 44, Winter 1986, were taken as read. The Chairman expressed her regret at the absence of the Hon. Secretary, Gwynn Ellis, who was recuperating after an operation, and thanked him for the efficient running of the Society in Wales. The meeting sent him their good wishes for a speedy recovery. She then thanked Trevor Evans for arranging the meeting in Usk, and read out the Secretary's report of the year's activities.

Tim Blackstock had, for personal reasons, been forced to resign from the Committee for Wales after several years membership. Best wishes were sent to him and his wife, who had been unwell for some time. The vacancy thus created on the Committee would hopefully be filled at the forthcoming election.

The Committee had discussed several issues during the past year, perhaps the most important had been on the problems of opencast mining and subsequent land restoration.

The Monitoring Scheme had got off to a good start in Wales. All field meetings organised in the Principality were based in Monitoring Scheme squares and it would be interesting to compare attendances at these meetings with those at the 'normal' meetings held in previous years. All leaders of field meetings were thanked for all the hard work they had put in on behalf of the Society in Wales.

Only one issue of the Welsh Bulletin had appeared since the last AGM. The delay in publication was due mainly to administrative problems at the National Museum of Wales, but the usual shortage or almost complete lack of contributions from members was also a contributory factor. Members were urged to 'put pen to paper' so that the Bulletin could continue. It was hoped to publish two more issues in 1987 but this would depend to a large extent on the contributions received. The Editor of the Welsh Bulletin, Mr Ian Morgan, was thanked for his efforts in attempting to procure papers, especially as he had been busy settling in as a new NCC ARO, moving house, preparing for marriage, and appearing on Radio and Television!

The Officers of Usk College of Agriculture were then thanked for their hospitality. Special thanks were due to Trevor Evans who had, in the enforced absence of the Secretary, shouldered all the responsibilities for the AGM. Thanks were also expressed to the NCC for allowing the Committee for Wales to use their offices at Plas Gogerddan, Aberystwyth and Llandrindod Wells for Committee Meetings.

Members were then reminded that there was a field meeting on the following day led by the indefatigable Trevor Evans, and several other meetings were arranged for the coming months including two residential meetings based in Carmarthenshire for which Richard Pryce would be pleased to take bookings.

Finally members were reminded of the exhibition of specimens and slides that would take place after the AGM and continue into the evening and it was hoped that all would attend and enjoy themselves.

## ELECTIONS

### Officers

The Hon. Secretary, R.G. Ellis and Hon. Treasurer, R.D. Pryce, were both nominated for re-election to their respective posts and, in the absence of any other nominations from the floor, were duly elected.

### Committee Members

T. Blackstock, N. Brown, R.G. Woods and M. Porter were due to retire under Rule 5 of the constitution and were eligible for immediate re-election. Mr T. Blackstock had decided not to seek

re-election and was warmly thanked for his services to the BSBI in Wales. The other three retiring members had indicated their willingness to stand again, and Mr Paul Day was nominated by the Committee for Wales to fill the vacancy. In the absence of any other nominations from the floor, N. Brown, M Porter and R.G. Woods were re-elected and P. Day elected to serve on the Committee for Wales for a period of two years.

There being no further business, the Chairman declared the AGM closed and invited members and guests to look at the various exhibits on show.

### EXHIBITS

T.G. Evans : Herbarium specimens of Monmouthshire plants,  
especially grasses

Miss A.P. Conolly : Dryopteris species

Mrs J.A. Green : Stellaria graminea variants

Slides were shown by Miss A.P. Conolly, G. Wynne, T.G. Evans, R.D. Pryce and Mrs J.A. Green.

### COMMITTEE FOR WALES, 1987-1988

Following the election of Officers and members at the Annual General Meeting, the composition of the Committee for Wales is as follows.

#### Officers:

Chairman	Mrs J.A. Green
Vice-chairman	Mr T.G. Evans
Secretary	Mr R.G. Ellis
Treasurer	Mr R.D. Pryce

#### Committee members:

Mr S.B. Evans*	Mr N. Brown
Dr Q.O.N. Kay*	Mr P. Day
Mr I.K. Morgan*	Mr M. Porter
Mr G. Wynne*	Mr R.G. Woods

\*Members due to retire in 1988

## A SECOND WELSH BRAMBLE IN IRELAND

For anyone with a taste for neat-looking patterns in plant geography there can have been few more pleasing events in recent years than the discovery that an unnamed bramble widespread in South-west Wales is identical with one long believed restricted to the corner of Ireland situated directly opposite. It was subsequently described by Alan Newton as *Rubus aequalidens* (and has since been detected in one or two places in South-west England as well).

There is now an exactly parallel case to report - but this time involving the north of Wales and the part of Ireland opposite to that. In the summer of 1987, while investigating the *Rubus* flora of County Dublin as the guest of the Dublin Naturalists' Field Club, I came across a distinct-looking bramble in several places with which I was unfamiliar. Its characters suggested that its parentage may have been the common (and freely-crossing) *R. ulmifolius* Schott and some strongly glandular-ariculate species, though it did not have the 'feel' of a hybrid of merely recent origin.

On later riffling through the folders at the British Museum, in an attempt to find matches for some of my very many Irish specimens I had been unable to put a name to, I was startled to discover that the Dublin plant seemed identical with *R. ordovicum*, described by Newton in 1972, known from the neighbourhood of Bangor since as early as 1826, and hitherto believed endemic to a block of North Welsh vice-counties. On submitting my material to Newton, I was gratified to have this determination confirmed.

Time will tell whether the distribution of the species in Ireland is more extensive. For the moment it looks more probable that it has been carried to Ireland from Wales rather than vice versa, perhaps by those same





migrating thrushes which have presumably been responsible for transporting other characteristically Welsh brambles north to the Isle of Man (Allen, 1974).

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D.E. Allen, Lesney Cottage, Middle Road, Winchester  
SO22 5EJ.

### THE FLORA OF GWENT

Abstract of talk given at the Welsh A.G.M., July 11th  
1987

To vary his approach, Trevor Evans related the finds of the present survey to historical records. Starting with the earliest records of John Parkinson in his "Theatrum Botanicum" in 1640, Mr Evans showed a slide of the Denny, an island in mid-Severn Channel, crowned with *Lavatera arborea* persisting in its original site. As wet sites at Chepstow had been drained or built over he had been unable to find *Chrysplenium oppositifolium* in its former site. John Ray's records in 1662 of *Vicia sylvatica* and *Rubia peregrina*, though no longer to be found at Crick, occur in the nearby St. Pierre Great Woods. His Tintern records of *Paris quadrifolia* and *Gymnocarpium dryopteris* are still valid for nearby woods. The Father of Welsh Natural History, Edward Llwyd found *Anaphalis margaritacea* growing for 12 miles along the R. Rhymney in the same century. Today, the same plant has colonised the nearby (disused) railway tracks, and inspite of raising the river bank to avert flooding, patches can still be found where Llwyd saw

them. Sun. 27th June 1773 saw Rev. John Lightfoot and Sir Joseph Banks cross the Severn and near New Passage House observe *Alopecurus bulbosus*, it is still quite plentiful not far away. They saw *Brassica oleracea* on Chepstow Castle and Mr Evans' slide showed it in its position high above the Wye near the dungeon 'windows'. Of the other plants observed in Castle Woods, *Hordelymus europaeus*, *Melica nutans*, *Ophrys apifera*, *O. insectifera*, *Cephalanthera longifolia* and *Geranium sanguineum*, 14 spikes of *Ophrys apifera* came up in St Kingsmark playing fields above the woods only a few years ago; *Geranium sanguineum* and *Ophrys insectifera* have been lost to the county and the rest occur higher up the valley. Their sighting of *Euphorbia serrulata* and *Mentha suaveolens* in the Angiddy Valley (Tintern) was not far from their current positions above the Wye. Mr Evans quickly passed over other famous contributors such as Hewett Cottrell Watson who added 75 new VC records believed to be based largely on Charles Conway's work at Pontnewydd Works, J.H. Clark a printer in Usk who published 'Sketches of Monmouthshire' with an appendix later reprinted separately as "The Flora of Monmouthshire" which contained 671 flowering plants and 22 ferns etc. Others mentioned included C.C. Babington, Revs. Augustin Ley, W.H. Purchas and H.J. Riddelsdell and Dr G.C. Druce all of whom had added to the known Monmouthshire flora. Mr Evans displayed the "Flora of Monmouthshire" by Samuel Hamilton published in 1909, "The Flora of Chepstow" by Dr Shoolbred published in 1920 and finally the last published county flora by A.E. Wade in 1970. He then referred to new county records that had come to light since the tetrad-mapping began in 1985, these included *Wolffia arrhiza*, *Carex elata*, *Oenanthe pimpinelloides*, *Potentilla argentea*, *Zostera noltii*, *Z. marina*, the second occurrence of *Festuca heterophylla*, 80 tufts of which were counted in July, sites for *Dactylorhiza incarnata* were raised from two to four, a new site for *Epipactis palustris*, which contained 1686 flowering

spikes (plants) easily the best county site, *Epilobium lanceolatum*, though by no means common, is more frequent than expected, another rare county plant, *Marrubium vulgare* turned up as single plants in three separate sites after an apparent long absence and one of the schemes participants discovered a large stand of broom parasitised by hundreds of *Orobanche rapum-genistae* at Gilwern just across the VC boundary in VC 42. The talk was concluded with the showing of slides of some of the county rarities.

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#### RECORDING IN VC 46 DURING 1986 AND 1987

Most of the species recording in VC 46 during 1986 was a by-product of the site recording for conservation purposes that has been the main activity of local botanists for the last decade or so. In 1987, so far as the BSBI Recorder was concerned, this gave way almost entirely to the requirements of the BSBI Monitoring Scheme, for which there are all or part of four 10 km squares and ten tetrads in the vice-county. Two main groups of records are outstanding, firstly those of a series of mesotrophic fen species, and secondly those of a rich crop of arable weed species.

Ceredigion has always been considered a very acidic county with few calcicoles, and the only extensive base-rich and mesotrophic fens known were those in the Ynyslas dune slacks and alongside tributaries of the Afon Dyfi, all of which are partly brackish and strongly influenced by salt-water incursions. In 1986 A.O. Chater and A.P. Fowles, on later visits joined by D. Glyn Jones, discovered a series of extensive base-rich soligenous mires along more than a kilometre of the banks of the Afon Mwldan north of Cardigan at 60 m. a.s.l. and well inland. These are fed by water

seeping through the sandy glaciofluvial drift that is so conspicuously quarried for sand nearby. *Carex lepidocarpa* was abundant in two areas, the first confirmed record for the county. *Carex acutiformis*, previously known only from a brackish site, influenced by tidal incursions, adjacent to the Afon Ddu (a tributary of the Dyfi), and *Epipactis palustris*, known only from the Ynys-las dune slacks, were also abundant. *Eriophorum latifolium* was another second record, and additional rare species included *Carex dioica*, *Dactylorhiza incarnata* subsp. *incarnata*, *Gymnadenia conopsea* and *Eleocharis quinqueflora*. Then in 1987 APF found *Cladium mariscus* in abundance in another hitherto unknown and at least in part mesotrophic fen near Ciliau Aeron, again inland and at 100 m asl, and on showing the site to AOC a few days after the latter found a single plant of *Carex pseudocyperus*. (*Cladium* is otherwise only known in Dyfed from one site in Pembrokeshire, and *Carex pseudocyperus* only from one site in Carmarthenshire). These two fen sites give Ceredigion a much more complete spectrum of wetland habitats than was previously suspected.

The BSBI/NCC Arable Weeds Network Survey prompted some investigation in 1987 of the fields on the coast between Mwnt and Gwbert, long known as a refuge for many rare weeds. They proved rich beyond all expectation, and AOC and APF, joined on one day by J.R. Akeroyd and C.D. Preston, found *Misopates orontium* in half a dozen barley fields, along with considerable quantities of *Kickxia elatine*, *Euphorbia exigua*, *Silene alba*, *Stachys arvensis* and *Sherardia arvensis*. *Misopates* was also found on waste ground in Llanarth (AOC) and on river shingle by the Afon Ystwyth above Llanfarian (APF). Also in 1987, AOC and W.M. Condry found over 500 plants of *Silene gallica* (apparently not recorded in the county since 1941) along with *Scleranthus annuus*, *Sherardia* and many other weeds in a potato field near Pen-y-graig, Llandysiliogogo. There

must be considerable reserves of buried arable weed seeds in this south-west coastal part of the county; this particular potato field had been a hay meadow for many years until it was ploughed in 1985.

Several very interesting rediscoveries of species believed extinct have been made. J. Harvey refound *Antennaria dioica* on a rocky hillside near Strata Florida in 1986, a plant last seen in the county in 1960 not far away near Ty'n-y-cwm. The stimulus of the visit in July 1987 by JRA and CDP led to the refinding of *Limonium binervosum* agg (it is still uncertain to which of the segregates it belongs) in considerable quantity in two sites near Gwbert, where it had been known from 1954 to 1975; and to the refinding of *Orobanche minor* in the gardens of the UCW Chemistry Department at Aberystwyth (one of the richest and most rewarding sites floristically in the county, having remained remarkably unweeded yet not too overgrown for many years) near where it was last recorded by Salter in 1938. *Polygonum oxyspermum* subsp. *raii* (of fairly regular occurrence at Ynys-las) was refound on Tan-y-bwlch beach, and on a shingle bank 250m up the Afon Ystwyth, in September 1987 by APF, not having appeared at this well-watched site since 1968. He also refound *Baldellia ranunculoides* at Cors Ty-llwyd, Rhydyfelin, in 1986, where it had been recorded by Salter in 1903.

After many years of searching, the species being widespread in Merioneth, *Juncus foliosus* was found in Ceredigion, in a Monitoring tetrad near Soar y Mynydd, in 1987 by AOC and D. Davies. *Ranunculus calcareus*, now more properly named *R. penicillatus* subsp. *pseudofluitans*, previously thought to be confined in the Teifi catchment to the more mesotrophic Cych, was found in the main river above Henllan, new to Ceredigion, in 1986 (AOC). Three other first records, all of species of somewhat uncertain status, were of

*Trifolium incarnatum* in a turnip field near Llanerchaeron (AOC), of *Lactuca serriola* by the road near Cardigan market (AOC et al), and of *Verbascum nigrum* in an abandoned field near Comins Coch (APF). The most unwelcome first record was of *Crassula helmsii*, found by M. Wainwright in an artificial pool in the Dyfi NNR dune slacks at Ynys-las in 1986 and now spreading rapidly and causing considerable concern.

Three species, again of uncertain status, were recorded for the first time for several decades, in new sites in 1987: *Geranium pyrenaicum* on a hedgebank in Llanbadarn Fawr (M. Chater), *Hypericum hirsutum* on the river bank by the A44 bridge in Ponterwyd (BSBI Field Meeting), and *Cruciata laevipes* on the A44 verge at Cwmergyr (AOC).

Several national rarities, disproportionately frequent in Ceredigion (and therefore plants that we should feel particularly responsible for conserving) have been found in new localities, notably *Asplenium trichomanes* subsp. *trichomanes* (the calcifuge subspecies) in five new sites, *Andromeda polifolia* in two (by the Nant Bryn-Maen, APF et al, and Cors Caranod, D. Reed), and *Vicia orobus* in two (Ysbyty Cynfyn, APF, and Brynambor on the Pysgotwr, AOC).

On the negative side, repeated searches in recent years have failed to relocate *Paris quadrifolia* in Coed Nant Llwlwyn, Llanfarian; it was last seen in 1974 and must now be considered extinct.

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## POTENTILLA RUPESTRIS IN WALES

The rock cinquefoil (*Potentilla rupestris* L.), a perennial plant of basic rock-ledges, is a member of the Rosaceae and grows to a height of 20-50 cm. In Continental Europe its range extends from south Scandinavia to Spain; it also occurs along the Mediterranean, and in the western hemisphere in the mountains of Canada and the USA. For many years the Breiddin Hill in the former county of Montgomery (vc 47) was its only known British station, but it was subsequently reported from Radnorshire (vc 43), and from south-west Sutherland in Scotland. *P. rupestris* is unusual in that its five petals are white and bear a close resemblance to those of the strawberry, whereas most cinquefoils have yellow flowers.

The Radnorshire colony, in the upper reaches of the River Wye below Builth Wells, occupies a rocky outcrop which is liable to periodic flooding. The plants' continued survival at this site may indicate a preference for damp situations, although high floods in recent years have given cause for concern, and have prevented flowering. Details of the history of the rock cinquefoil in vc 43 are somewhat meagre, particularly in respect of the period between Augustin Ley's discovery in July, 1887, and the plant's subsequent appearance on the banks of the Wye during the present century. The understandable reticence of the early botanists to give precise details of the sites of rare plants has also made the tasks of later research workers more difficult. One thing is certain, however: the place where Ley saw the *Potentilla* was not the site of the present riverside colony. Ley had no doubts as to the identity of his plants, although at the time, they were past flowering. He described their situation as "occupying the sides and summit of a range of rocks of the Llandeilo series in the south-west of the county". The nearest locality to the present site

fitting this description would be among the rocky outcrops near Builth Wells, but although extensive searches have been made in the area no evidence has come to light to support the view that these rocks were Ley's original station, and the suggestion is now discounted by some botanists. Earlier reports of its existence at Stanner Rocks on the Herefordshire border, have likewise never been confirmed.

One theory is that Ley's plants eventually became extinct, but that seeds from the site found their way into the Wye via tributary streams, to establish the present colony on the river bank. If this is what happened, one would have expected the process to be repeated, and seeds from the present plants to be carried by flood-waters, and deposited downstream, but so far, no fresh river bank sites have been reported.

The history of *Potentilla rupestris* in its Montgomeryshire station is better documented, mainly because of the site's importance and its attraction for the pioneer botanists.

The range of hills usually referred to collectively as "The Breiddins" straddles the Shropshire border about 20km to the west of Shrewsbury, and consists of three main summits composed of Ordovician strata. The precipitous northern and western faces rise to a height of 300 metres above the flood-plain of the River Severn and this ridge, which is somewhat isolated from the rest of the range, is known as the Breiddin Hill. A feature of its summit is the pillar erected in 1792, to commemorate Admiral Rodney's victories over the French. It is the rocky south-western end of the hill, often referred to by botanists as Craig Breiddin, which today carries most of the important plant species.



In 1689, some 200 years before Ley's Radnorshire discovery, Edward Lhwyd, botanist and antiquary, wrote a letter to John Ray the celebrated naturalist, in which he listed some rare plants he had seen on Breiddin Hill, including *P. rupestris*. Many noted botanists, among whom were several of the local clergy, followed in Lhwyd's footsteps, but the majority of records relating to the Breiddin plants date from the 19th century. In The Phytologist for 1851 Edwin Lees wrote:- "Craig Breiddin still maintains its position in all our floras as the peculiar locality for *Potentilla rupestris*". Eight years later in the same Journal, the Rev. W.W. How declared:- "To the botanist the Breiddin is an unrivalled mine of wealth". He described *P. rupestris* as "plentiful" and "growing where it is not likely to suffer from the ravages of unprincipled collectors".

Breiddin Hill is justly famous for its botanical rarities among which are the rock stonecrop (*Sedum forsteranum*), the western spiked speedwell (*Veronica hybrida*), the red catchfly (*Lychnis viscaria*), bloody cranesbill (*Geranium sanguineum*) and the rock cinquefoil (*Potentilla rupestris*). It is also of special interest because of its unusual assemblages of plants where calcicoles and calcifuges can be found growing side by side.

Breiddin Hill itself consists of a mass of dolerite, a basic rock of igneous origin, which is in much demand for use in road construction. Extensive quarrying has taken place at the south-western end and botanists have for some time, been concerned about the threat to the important flora. In addition to the quarrying activities plantations of the Forestry Commission now cover much of the hill, and although both these operations have undoubtedly had their effect on the plants and their habitats, most of the blame for the

losses can be placed on the early botanists and collectors. At one time there were said to be more *P. rupestris* plants in local gardens, than on the hill.

In 1878, James Cosmo Melvill, the distinguished botanist, reported that *P. rupestris* had become scarce on the hill and restricted to almost inaccessible places. Following a period of considerable botanical activity there came a time, between the two World Wars, when interest in the site declined, and few reports were received. By the beginning of the Second World War the rock cinquefoil was thought to be extinct at this station, but "a few" plants were later reported to have been seen.

It was not until the post-war years that attention was once again turned to the urgent need to protect the surviving flora. The creation of the Nature Conservancy in 1949, and the establishment of Field Centres under the Field Studies Council, gave added impetus to the conservation movement, and the formation of county trusts brought together amateur and professional naturalists.

In 1954, the Breiddin range of hills was designated a Site of Special Scientific Interest, and although this afforded the flora some protection, the designation was mainly for geological reasons. Nevertheless, this prompted the Nature Conservancy to take action to protect the Breiddin flora and led to agreements being made with the quarry company and the Forestry Commission. It will be recalled that the River Wye was also declared a Site of Special Interest and like Breiddin Hill, was not granted this status specifically for botanical reasons.

The outcome of the agreement with the Forestry Commission was the establishment of a small Reserve on the northern side of the hill, to be managed by the

North Wales Naturalists' Trust. There were various reasons for the choice of the site. It has been observed that some botanical rarities prefer north facing situations, where they are not exposed to the full effect of the hot summer sun. In addition, information provided by local residents and the early botanical records confirmed that the area selected for the Reserve was one of the original sites for the *Potentilla*, before the depredations of collectors eliminated it from this part of the hill. Furthermore, the site was well away from the quarry, and would not be subjected to disturbance. Garden-reared seedlings obtained from plants of Breiddin stock were transplanted in the Reserve, but mainly because of the encroachment of the adjoining Forestry plantation the operation met only with limited success, and the site was abandoned. As a result it was decided to concentrate efforts on another known site for the plant, at the south-west end of the hill. This is within the quarry area, but the quarry management (Amey Roadstone Corporation) have been exceptionally cooperative, and have agreed to leave undisturbed a large rock-face where the surviving *Potentilla* plants and other rarities may have a chance to re-establish themselves. the quarry company have also very generously financed a four-year research project for the purpose of conservation and restoration in the quarry area.

This research programme is now nearing completion, and its outcome is awaited with interest. It will undoubtedly make a major contribution to the conservation of this famous botanical site, and also provide valuable information to all those concerned with the survival of this important member of the Welsh flora, in both its stations in the Principality.

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## **BSBI MONITORING SCHEME IN WALES - 1987**

The progress made in Wales in the first year on the BSBI's Monitoring Scheme has been very encouraging. All 10km squares have been recorded in, as have most of the 3 designated tetrads per square. There is however a lot of work still to be done this year. ALL MEMBERS are urged to help the vice-county recorders complete the survey satisfactorily. Please contact the recorder for the vice-county in which you live and/or the recorder for any other vice-county you may wish to visit and offer to help. Why not attend one of the Welsh field meetings, with so many on offer there must be one near you. Please remember that the success of the Monitoring Scheme depends every bit as much upon you the 'ordinary' member as on the vice-county recorders, so do your bit and get out into the field, all help will be gratefully received from novice and advanced amateur or professional alike.

The Welsh vice-county Recorders are listed on page 2.

Gwynn Ellis, Welsh Co-ordinator for BSBI Monitoring Scheme.

## B.S.B.I. RUBUS MEETING, CARMARTHEN, 1987.

The small but enthusiastic party met for evening dinner at Trinity College, Carmarthen on Friday 31st July. Led by Mr Alan Newton, other experienced batologists included Mr Mike Porter and wife Chris (from Brecon, having local knowledge) and Mr. David Marshall (Herts.), while "novices" were Dr George Hutchinson (Carms. and National Museum of Wales, in charge of collecting and preserving specimens), Mr Richard Pryce (BSBI Recorder and itinerary compiler!), Master Mathew Pryce (Hawk-eye), and Mr Trevor Crosby (Carms.).

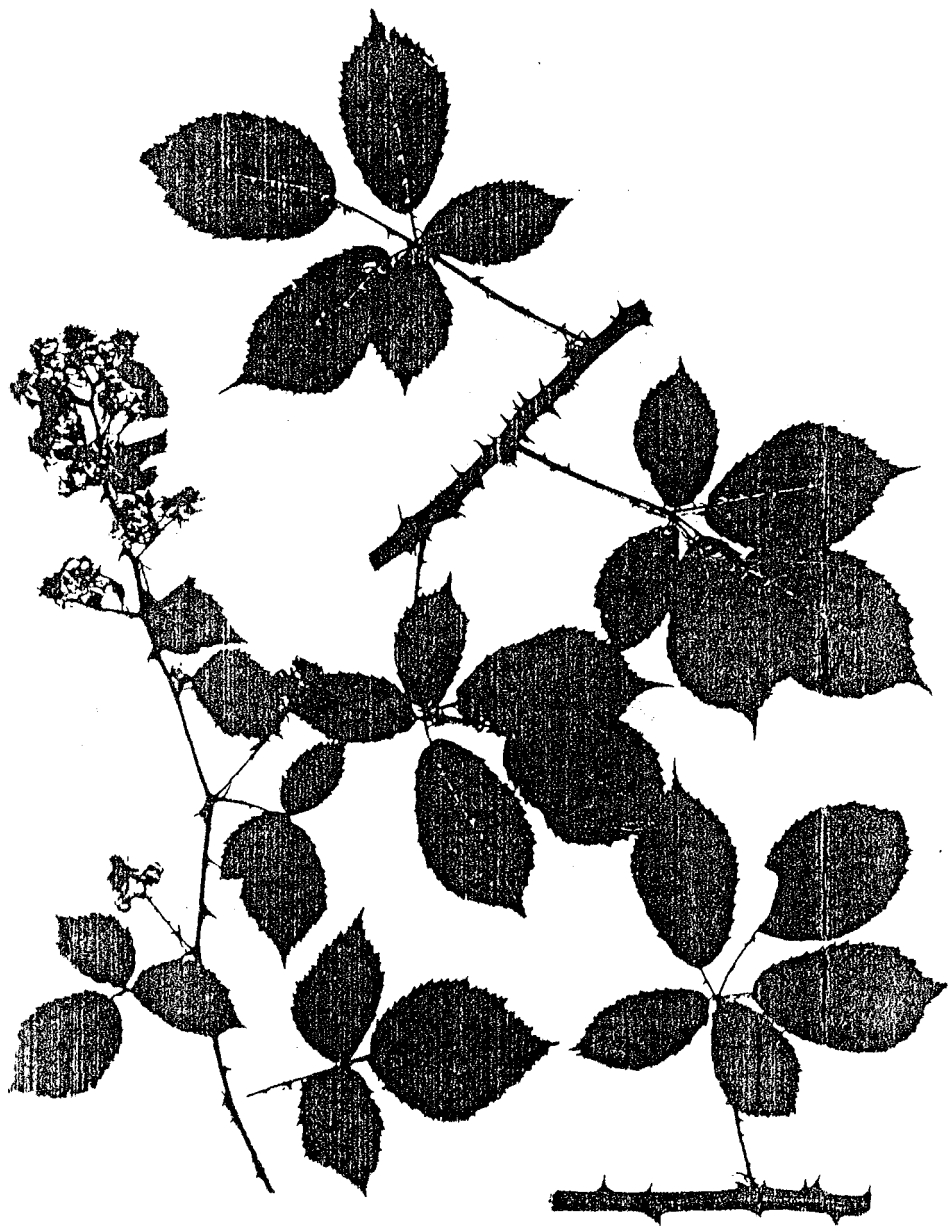
The following symbols have been used throughout the text: \* to indicate a new vice-county record, \*\* to indicate a second vc record and + to indicate a new 10Km square record, but are only applied to records of named micro-species.

After the meal, an initial foray was made into the wilds of Carmarthen town where, on the old railway cutting below The Esplanade (SN416201), the first bramble records were made: *Rubus rubritinctus*, +*R. ulmifolius*, *R. ulmifolius* x *R. caesius*, +*R. aequalidens*, +*R. tuberculatus*, \*\**R. rufescens*, +*R. leyanus*, *R. idaeus* and escaped \**Loganberry* (*R. loganobaccus*). In addition, on the railway ballast were *Hirschfeldia incana*, *Arenaria leptoclados*, *Ononis repens*, *Vulpia myuros* and *Chaenorhinum minus*. The group then moved on to the old Cwmoernant Reservoirs, now an amenity area for the local people (SN418212). A hasty walk around the upper lake (in the advancing dusk) yielded: *Rubus rubritinctus*, *R. tuberculatus*, *R. leyanus*, +*R. longus*, +*R. prolongatus*, and several hybrids including a putative *R. vestitus* x *R. ulmifolius*.

### SATURDAY

On Saturday morning, Mark and Clare Kitchen (Glos.) joined the party before it moved off to Beacon Bog, Llangynog (SN355165). Noted growing in the roadside hedges east of the old quarry were: +*Rubus aequalidens*, +*R. leyanus*, +*R. altiarquatus*, +*R. rubritinctus*, +*R. nemoralis*, +*R. prolongatus* and +*R. polyanthemus*. In the quarry *Verbena officinalis* was in flower. Through the village on the Bancyfelin road (SN352163), a short stop produced +*Rubus perdigitatus*. The convoy rested briefly at Laugharne to buy refreshments, where, on the car park wall below the castle, *Rubus ulmifolius* was growing.

The next stop was made at Marros Church (SN207089), from where a leisurely walk was made along the bridle-way over



Rubus villicauliformis A. Newton  
Hedgebank nr. Talley Lakes.  
Coll. G. Hutchinson 3. 8. 1987. det. A. Newton.

Marros Mountain towards Pwll Farm (SN210096). Along the route, often associated with gorse, were the following: +*Rubus aequalidens*, +*R. altiarquatus*, \**R. cardiophyllus*, \**R. insectifolius*, +*R. leyanus*, +*R. longus*, +*R. nemoralis*, \**R. plicatus*, +*R. polyanthemus*, +*R. pyramidalis*, +*R. rubritinctus*, +*R. ulmifolius* and +*R. sect. corylifolii*. Another distinctive species has since been determined as \**R. villicauliformis*, a predominantly Cornubian species only recently recorded from Wales.

Lunch was taken on returning to the cars before moving off in the direction of Whitland. Roadside hedges near Yet-wen (SN191138) yielded: *R. aequalidens*, \*\**R. insectifolius*, +*R. longus*, +*R. prolongatus*, \**R. rossensis*, *R. rubritinctus* and *R. sect. corylifolii*; also *Thlaspi arvense*. Near Cwmfelin Boeth, a roadside ash/hazel woodland edge (SN193188) had *Rubus aequalidens*, *R. leyanus*, *R. prolongatus* and *R. rubritinctus*. In the roadside hedges near Penlan (SN173209), +*Rubus longus*, *R. rubritinctus* and +*R. prolongatus* were growing, whilst a mile further on, near Cwm Miles (SN163222), were *Rubus prolongatus* and *R. rubritinctus*.

At Login, by the River Taf below the chapel (SN166234), brambles included: *Rubus rubritinctus*, +*R. aequalidens*, *R. prolongatus* and *R. leyanus*, and roadside hedgerows in the village had *Rubus longus*, *R. altiarquatus* and *R. perdigitatus*. On a short walk north along the old railway line from the level crossing, including a meadow by the Taf (SN167236), the species recorded were *Rubus perdigitatus* and +*R. silurum*. Roadsides near Cilhernin (SN173253) had *Rubus silurum*, *R. perdigitatus*, *R. leyanus* and *R. longus*, and near Dolwilym Church (SN174267) was *Rubus dasphyllus*.

At Pengawsau (SN168271), in addition to examining the roadsides, the party sheepishly looked-on as the leader, in pursuit of a particularly interesting specimen, was taunted for straying into the adjoining field by the shouts of the farmer's children! But it was a very good site yielding: *Rubus incurvatus*, +*R. lanaticaulis* (in field), *R. dasphyllus*, *R. leyanus*, *R. rubritinctus*, *R. silurum*, *R. perdigitatus*, *R. prolongatus* and *R. sect. corylifolii*.

The group now started ascending the lower slopes of the Presceli Mountains, where near Min yr Awal (SN168280) the following were recorded on rather disturbed, poached heathland, often amongst gorse with *Anaphalis margaritacea* abundantly colonizing in the vicinity: *Rubus altiarquatus*,

+*R. dumnoni*ensis, *R. perdigitatus*, +*R. polyanthemus* and *R. silurum*. The final stop of the afternoon was at Carn Wen Quarry (SN167287). After somewhat unnecessarily protracted discussions between the Carms. Recorder and the keyholder regarding access, during which the other members of the party were recording the brambles on the roadbanks, the site proved to be rather disappointing with only *Rubus altiarcuatus*, *R. dasphyllus*, *R. leyanus*, *R. perdigitatus* and *R. silurum* being recorded.

A rapid journey back to Trinity College for the evening meal was followed by a walk from the campus along Ty-newydd Road to Tre-fechan-fach Farm and Trevaughan Wood. Growing along the roadsides between the college and Ty-newydd (SN396205) were: +*Rubus ulmifolius*, +*R. rubritinctus*, +*R. longus* and +*R. prolongatus*. By the kissing-gate at the bridge over the Tawelan Brook (SN395207) were +*Rubus leyanus* and \**R. scaber*. The latter species is a local plant, only recorded elsewhere in Wales at one locality in Mons. but was subsequently seen at several sites in the central part of Carms. Continuing through the farm (SN395209), where a single plant of *Conium maculatum* was seen growing in the slurry pit, and up into Trevaughan Wood, the party was treated to an authoritative guide to all the local landmarks and sites of interest from an elevated view-point (SN397212) by Dr Hutchinson. Also seen were: *Rubus leyanus*, *R. prolongatus*, *R. scaber* and, in the opinion of the leader, the putative hybrid *Rubus ulmifolius* x *scaber*. The party then returned to the college and completed the preparation work and setting of specimens in time to retire at midnight!

## SUNDAY

Following an early Sunday-morning start, the small convoy of cars left Carmarthen on the Swansea road turning to the right before Nant-y-caws. Lanesides around Bwlchymynydd (SN449173) contained: +*Rubus prolongatus*, *R. rubritinctus*, *R. ulmifolius* and +*R. longus* and a short stop at the entrance to Groesasgwrn Farm (SN463168) yielded: +*Rubus leyanus*, +*R. tuberculatus*, +*R. altiarcuatus* and *R. rubritinctus*. The group continued on through Cwmisfael to rejoin the Swansea road at Llanddarog and thence to Cefneithin where, opposite Maesyryrfa School (SN559137), +*Rubus tuberculatus* was growing.

Pant-cae-melyn, Gorslas was next visited. The party was led along the track to the derelict farmstead (SN577138) and the



following brambles were noted: *Rubus tuberculatus*, *R. rubritinctus*, +*R. altiarcuatus*, +*R. leyanus*, +*R. perdigitatus* and +*R. prolongatus*. Beyond the farm, the line of the old Rock Castle Colliery tramway was followed (SN577140) and growing on the low embankments and cuttings were: *Rubus perdigitatus*, *R. leyanus*, +*R. polyanthemus*, *R. prolongatus*, +*R. longus* and \**R. micans*, here atypically bearing white flowers, although Mr Porter commented that Breconshire plants are also often white flowered. Returning to the cars, at the gateway from the road (SN576137), a single bush was found of *Rubus vestitus*.

The next locality visited was the basin mire at the crest of the Millstone Grit outcrop above Glyn-yr-henllan (SN593156) where on the wet acid roadsides and bog margin grew: *Rubus leyanus*, *R. altiarcuatus*, *R. rossensis*, *R. vestitus*, +*R. dasyphyllus*, +*R. silurum*, *R. altiarcuatus*, \**R. flexuosus*, *R. idaeus* and *R. aff. pyramidalis* (provisionally christened the Glyn-yr-henllan Bramble). *Osmunda regalis* and *Carum verticillatum* were seen on the bog as the group walked to the wooded cwm to the south (SN593154) where, abundant in the shrub layer, were *Rubus leyanus*, *R. tuberculatus* and *R. altiarcuatus*. As the cars passed the now demolished Blaenau Lodge (SN601130), growing on the roadside was +*Rubus tuberculatus*. Continuing on through Saron, Ammanford and Bettws, growing in the hedge opposite the Jet filling-station (SN633118) was *Rubus ulmifolius* and during a brief stop on the roadside near the Ty-coch Country Club (SN641123) species noted were: *Rubus tuberculatus*, +*R. rossensis* and +*R. wirralensis*. Across the road, on a piece of waste ground below the Bettws Colliery, labelled "Trespassers will be Prosecuted", were *Rubus leyanus* and *R. tuberculatus*.

Lunch was eaten in a convenient car park in the centre of Glanamman (SN676136) below the now reclaimed Gelliceidrim Colliery tip. On the nearby disturbed ground grew *Verbena officinalis*, *Symphytum x uplandicum* and also \**Rubus procerus* cv. Himalayan Giant, *R. rubritinctus*, *R. leyanus* and *R. tuberculatus*. Ever onward, the roadside cutting by Garnant railway bridge (SN695129), largely clothed in gorse also had *Rubus tuberculatus* and *R. rubritinctus*. Turning towards Brynamman, the next halt was made at the entrance to the disused Amman Colliery (SN702141). Here in the hedgerows, as well as *Sanguisorba officinalis* grew *Rubus leyanus*, *R. rubritinctus*, *R. altiarcuatus*, +*R. rossensis*, *R. silurum* and

the "Glyn-yr-henllan Bramble". This may be the same as a plant from Penrhos in the Swansea Valley, dubbed "The Hairy Plant Of Gwaun-Cae-Gurwen" by Mr Porter!

The party continued over the Black Mountain and beyond the New Inn (SN735203), brambles recorded in the roadside hedges were: *Rubus silurum*, *R. altiarcuatus*, +*R. tuberculatus* and *R. vestitus*. On entering the Sawdde Gorge, the convoy was delayed for forty minutes by a large flock of sheep being driven along the road ahead. The slow progress provided an ideal opportunity for the experienced batologists to record the roadside hedges and woodland margins on passing. Motorists behind looked in consternation on more than one occasion whilst the leader jumped out of the car, secateurs in hand, and proceeded to stride across the road in order to reach a particular plant and snip off a specimen for closer examination! Near Pontbren (SN735220) were *Rubus vestitus* and +*R. leyanus*, around Pont Aber (SN738227) were *Rubus dasyphyllus*, *R. idaeus*, +*R. rossensis*, *R. vestitus*, *R. altiarcuatus* and +*R. rubritinctus*, near Pont Newydd (SN738232) were +*Rubus lindleianus*, +*R. polyanthemus*, *R. rubritinctus* and *R. silurum*, near Turkey Cottage (SN733237) were *Rubus rossensis*, *R. silurum* and +*R. wirralensis*, and near Pont Crynfau (SN728243) were +*Rubus hylocharis*, *R. dasyphyllus* and *R. vestitus*.

The party at last reached Pont-ar-llechau (SN728245) where a short break was taken for ice-cream. On crossing the bridge, the following species were recorded near the road junction: *Rubus dasyphyllus*, *R. hylocharis*, *R. vestitus*, *R. rossensis*, *R. altiarcuatus*, +*R. lanaticaulis*, +*R. ulmifolius*, "R. koehleri (of Carmarthenshire)" and the so-called "Glyn-yr-Henllan Bramble". Whilst returning to the cars a Silver-washed Fritillary butterfly flew by and obligingly settled on a nearby leaf as if inviting examination.

South of Llangadog, brambles seen on Carreg Sawdde Common (SN699276) were +*Rubus lindleianus* and *R. ulmifolius*, and continuing beyond Devanah Farm to the bank of the Towy (SN688268), the following were recorded growing in the laneside hedgerows: +*Rubus caesius*, +*R. rubritinctus*, +*R. dasyphyllus*, +*R. lindleianus*, \**R. lanaticaulis*, \**R. amplificatus*, the so-called "Glyn-yr-Henllan Bramble" and *R. sect. corylifolii*. Taking the Bethlehem road, east of the village (SN692257) +*Rubus leyanus* was seen, near Glan Towy (SN673247) +*Rubus vestitus*, and near Pont Bren Araeth (SN658237) *Rubus*

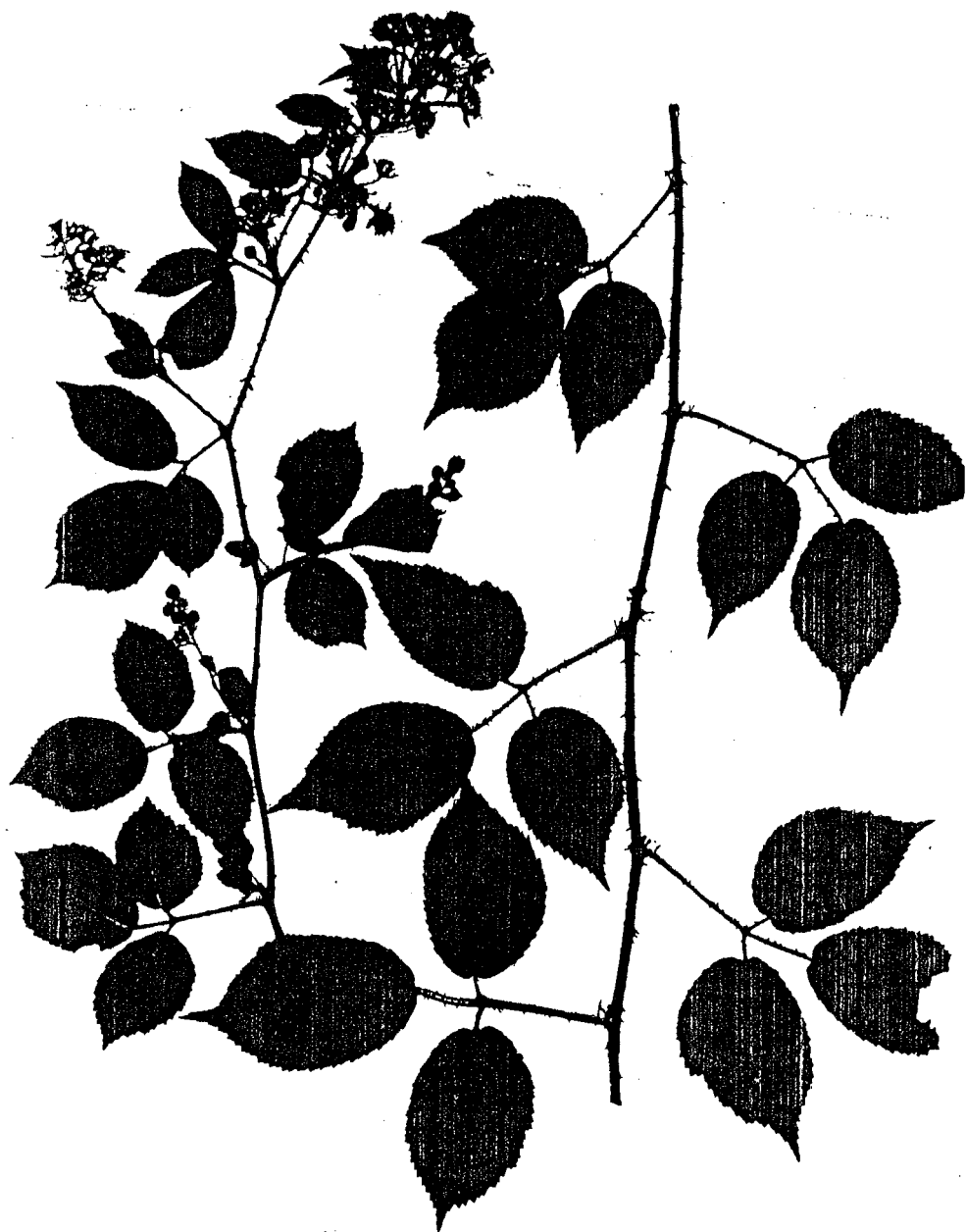
*dasyphyllus*. Continuing along the south side of the Towy valley a short detour was made over Cilsan Bridge (SN589212) where in the hedges grew *Rubus rubritinctus* and *R. ulmifolius*. Seen on the edge of the track to Allt y Wern (SN585215) were +*Rubus leyanus*, *R. rubritinctus*, +*R. tuberculatus* and *R. vestitus*. The return, through Llanarthney, to Trinity College was then resumed.

The defunct railway line at Cynwyl Elfed was visited after dinner. In the old station car park (SN385263) were +*Rubus tuberculatus* and \*\**R. scaber*. Crossing the bridge over the river (SN385264), *Vulpia myuros*, *Linaria repens* and *Juncus tenuis* were seen in fair quantity. Rubi recorded were: +*Rubus idaeus*, *R. prolongatus*, *R. longus*, +*R. albionis*, *R. leyanus* and *R. scaber*. Walking north along the old trackbed as far as SN385273, the following additional species were recorded: +*Rubus dasyphyllus*, +*R. silurum* and +*R. rossensis*. On the return trip to Carmarthen a short stop was made at Bronwydd Arms Station (SN417239), the headquarters of the preserved Gwili Railway. Brambles seen were: *Rubus tuberculatus*, *R. leyanus*, +*R. scaber*, *R. rubritinctus* and *R. prolongatus*.

On return to the college, before the day's specimens were dealt with, the Carms. Recorder produced some material which he had collected earlier in the day at his home, Rhyd Deg, Maesybont (SN545177). The leader duly identified the following: *Rubus altiarcuratus*, *R. leyanus*, \*\**R. rossensis*, *R. tuberculatus* and *R. sect. corylifolii* as well as a *R. ulmifolius* hybrid.

## MONDAY

The final day had been reserved to visit some unworked 10km squares in the centre and north of the county. Leaving Carmarthen on the Llanybydder road the first stop was south of Pencader, at Dolgran (SN430344). Walking from the village towards Crosslane Farm to ask permission for access to the old railway, a small field was passed dominated by *Stachys palustris* in full flower, and hedgerow brambles included: +*Rubus silurum*, +*R. dasyphyllus*, +*R. rubritinctus*, +*R. perdigitatus*, +*R. leyanus*, an unnamed plant first recognised by Mr Porter at Alltffillo Abbey in Brecks. and referred to by him as the "Alltffillo Bramble" and also *R. idaeus*. Species noted whilst walking northwards along the old track as far as Cwm Dafydd (SN434345) included: *Chaenorhinum minus*, *Sedum telephium*, *Linaria repens*, *Arenaria serpyllifolia*, *Geranium columbinum*, *Carex muricata* subsp.



Rubus scaber Weihe & Nees

Hedgebank. Carmarthen.

Coll. G. Hutchinson 1. 8. 1987. det. A. Newton.

lamprocarpa and *Potentilla anglica*. Rubi recorded were: +*Rubus bartonii*, +*R. albionis* and +*R. nemoralis*. Back in the village was a solitary unnamed plant, intermediate between *R. leyanus* and *R. scaber* which the leader dubbed the "Dolgran Puzzler"! This was probably of recent origin.

Returning towards the Llanybydder road, a short halt was made near Graigfryn (SN427333) where the leader had spotted, on the exposed hedgebank, some rather wind-blown plants of +*Rubus scissus*, also recorded here was +*Rubus polyanthemus*. Continuing through Llanllwni and Brechfa, the convoy took the Gwernogle road to Lletty'r Aderyn (SN533317) where adjacent to the Lawson's Cypress plantation was +*Rubus scissus*. The roadside banks had *Myrrhis odorata*, *Helleborus viridis*, *Epipactis helleborine* and several *Hieracia*. Also noted were: +*Rubus dentatifolius*, +*R. pyramidalis*, +*R. rubritinctus*, +*R. prolongatus*, +*R. vestitus*, +*R. leyanus*, +*R. silurum*, +*R. tuberculatus* and +*R. dasyphyllus*.

Lunch was taken at the Forestry Commission's Picnic Site at Abergorlech (SN587338) where growing by the side of the picnic table was +*Rubus rufescens* and nearby along the edges of the forest ride were: *Rubus leyanus*, +*R. lindleyanus*, "*R. koehleri* (of Carmarthenshire)" and *R. idaeus*. Before returning to the cars, some members were treated to the sight of a Comma butterfly, quite notable away from the coast in the county. On the roadside near Pantlatau (SN603349) was +*Rubus altiarquatus* and continuing through Llansawel, along the lane to the north of Talley Lakes (SN626339 to SN631339) were: +*Rubus leyanus*, +*R. prolongatus*, *R. altiarquatus*, +*R. rubritinctus* and +*R. dasyphyllus*. A Red Admiral butterfly was seen flying along the laneside hedges west of the Upper Talley Lake, in which *Nymphaea alba* was in full flower (SN629333), and brambles included: *Rubus rubritinctus*, +*R. silurum*, *R. dasyphyllus*, *R. leyanus*, the so-called "Alltffillo Bramble" and *R. villicauliformis* as seen at Marros two days previously. By the Abbey (SN632328) was +*Rubus tuberculatus*.

At the bridge over the Cothi near Edwinsford (SN634345), new road embankments had created a very rich "Bramble Reserve". Species recorded were: +*Rubus pyramidalis*, *R. leyanus*, +*R. nemoralis*, *R. tuberculatus*, +*R. polyanthemus*, +*R. longus*, *R. silurum*, *R. aff. dentatifolius* (christened the "Edwinsford Bramble" by the leader), the so-called "Alltffillo Bramble" and *R. idaeus*. Another Comma butterfly and a Large Skipper were observed feeding at the bramble flowers.

Heading north through Crug-y-bar the final locality visited was the Dolaucothi Gold Mines at Pumpsaint (SN663403). In the car park and near the visitor centre were: +*Rubus silurum*, +*R. lindlieanus*, +*R. tuberculatus*, +*R. dasphyllus*, +*R. rubritinctus*, +*R. longus*, "*R. koehleri* (of Carmarthenshire)" and the so-called "Alltfillo Bramble". Another Red Admiral butterfly was seen whilst climbing the stepped footpath to the north which took the party above the Main opencast pit and onto the miner's track between the Middle and Mitchell Adits on which *Juncus tenuis* was locally abundant; on the banks was +*Rubus leyanus*. On the laneside opposite the entrance to Penlanwen Farm (SN664402) were: *Rubus dasphyllus*, *R. rubritinctus*, +*R. polyanthemus*, *R. longus* and the so-called "Alltfillo Bramble". Continuing down the lane for 100m or so beyond the rock-cutting on the south side were: *Rubus silurum*, \**R. moylei* and +*R. pyramidalis* and further on, on the the north side, +*Rubus bartonii*. Turning right, down the steps back into the Main opencast pit, the party observed a thick tangle of brambles and included amongst them was *Rubus idaeus*. It was, by now, mid-afternoon and members having long distances to travel were becoming anxious to depart. After exchanging farewells, accompanied by the calls of the Buzzard, Sparrowhawk and Ravens circling above, the group dispersed, having enjoyed a most fruitful and stimulating weekend.

A total of 280 *Rubus* records were added to the vice-county files, 255 of which were "good" microspecies or *R. caesius*, *R. idaeus* or *R. loganobaccus*, the remainder being undescribed taxa, hybrids or forms. Twelve new vice-county records were made, viz: *Rubus amplificatus*, *R. cardiophyllus*, *R. flexuosus*, *R. insectifolius*, *R. loganobaccus* (first Welsh record), *R. micans*, *R. moylei*, *R. plicatus*, *R. procerus* cv. Himalayan Giant, *R. rossensis*, *R. scaber* and *R. villicauliformis*. There were, in addition, five second vice-county records and 126 new 10km square records and the total number of *Rubus* records was more than doubled.

The success of the meeting was due, in no small part, to the efficiency of the leader and other "hardened batologists", the "specimen collector" and the learners who played their part by acting as "scribes". A very significant contribution to the flora of Carmarthenshire was made. My sincere thanks go to all involved.

R.D.PRYCE, Trevethin, School Road, Pwll, LLANELLI, Dyfed  
SA15 4AL

# ANNUAL GENERAL MEETING

AND

## WELSH EXHIBITION MEETING, 1988

The 26th AGM and 6th Welsh Exhibition Meeting will be held at the Welsh College of Horticulture, Northop, near Mold, Clwyd on Friday 22nd July - Sunday 24th July.

Grid Ref.: SJ237687, half a mile W of Northop on A55

CARE!! This is a very busy main road, with a dangerous entrance to the College. Be prepared for traffic jams.

### Programme

Friday: 6pm Supper  
7pm A member of the College staff will show us around the gardens. The traditional phrase is : 'A perambulation of the gardens'.

Saturday: 10am Meet at the College for Field Meetings

- A) A rich mixed wood within walking distance. Leader Jean Green
- B) For beginners: Grass without tears. Come and learn a dozen species before lunch. No previous knowledge expected - this will be 'an idiot's guide to grasses'. Leader Goronwy Wynne.

1pm Meet at the College for afternoon Field Meetings

Again a choice:

- A) Salt-marsh at Flint
- B) Limestone Grassland on Halkyn Mountain

4pm Tea (and meeting of the Committee for Wales)

5pm Annual General Meeting

6pm Dinner

7pm Talk: Dr Bruce Ing 'A Botanist's View of History'

8pm Exhibition and slides

Sunday: 10am Meet at College for Field Meeting to Connah's Quay. A large Nature Reserve established by agreement between the Deeside Naturalists and the CEEB. A very varied area of grassland, scrub and salt-marsh that is under-recorded. Also good for birds (and rabbits!).

Disperse at will!!

Advance notice would be appreciated of any exhibits or slides but they will be accepted on the day.

Single room accommodation is available at the College at £10 per night B & B from 22-24 July. Packed lunches and Dinner at the College are also available for non-residents. All BSBI members and their guests are welcome.

Further details and booking forms are available from: R.G. Ellis, Department of Botany, National Museum of Wales, Cathays Park, Cardiff, South Glamorgan CF1 3NP. Please apply before July 1st.

## BSBI WALES FIELD MEETINGS 1988

Please note that full details of meeting place etc. are given for most meetings in the programme below. If you wish to book for these meetings, please write to: R.G. Ellis, Department of Botany, National Museum of Wales, Cathays Park, CARDIFF CF1 3NP, and not to the leaders.

### SATURDAY 30th APRIL - SUNDAY 1st MAY

WEST WALES MONITORING WEEKEND, (v.cc. 44/45/46), DYFED

Leaders : Mr S.B. Evans & Mr R.D. Pryce.

Tetrau and 10km square recording in Monitoring Scheme squares SN12 and SN15. A variety of habitats will be visited including wet heath, streamside, woodland and coastal, as well as roadsides on the edge of the Pembrokeshire Coast National Park. Meet on the Saturday at access gate to Gors Fawr stone circle (map ref. SN/135293) on a minor road 2.5km W of A478. Free or highly subsidised self-catering accommodation will be available from Friday to Sunday night, at attractive locations within the Pembrokeshire Coast National Park.

### SUNDAY 22nd MAY

PLAS LLANDDYFNAN (v.c. 52), ANGLESEY

Leaders : Mr N.H. Brown & Mr R.H. Roberts

A meeting to record in 10km square SH(23)/47 for the BSBI Monitoring scheme. The morning will be spent in the limestone woodland and lanes near Plas Llanddyfnan and the afternoon in the fen, Cors-y-farl. Wellingtons recommended. Meet at Talwrn cross-roads (map ref. SH/488775; O.S. 1:50,000 Sheet No. 114), at 11a.m.; bring packed lunch.

### SATURDAY 28th MAY

LLANGADOG (v.c. 44), DYFED

Leader : Mr R.D. Pryce

A meeting to record in monitoring scheme square SN72. Meet near bridge over Afon Sawdde, Garreg Sawdde Common, Llangadog (map ref. SN705277), at 10.30am; bring packed lunch.

### SUNDAY 29th MAY

GOWER CLIFFS, GLAMORGAN (v.c. 41)

Leader : Dr Q.O.N. Kay

A meeting to look at the Gower specialities on the cliffs between Mewslade and Rhossili, including the recently discovered *Trifolium occidentale*. Meet at Pitton Farm car park (map ref. SS/428875), just south of B4247 in Pitton village, at 11a.m.; bring packed lunch; stout footwear advised.

### SATURDAY 11th JUNE

LLANELWEDD (v.c. 43), POWYS

Leaders : Miss A.C. Powell & Mr R.G. Woods

We have saved the most interesting habitats in Monitoring scheme square SO(23)/05 for this recording meeting, viz south-facing base-rich volcanic cliffs/scree with many annuals, wetland areas beside the River Wye, and possibly woodlands and ornamental lakes. Meet in the lay-by beside the A470 just west of the Island at the entrance to the Royal Welsh showground, Llanelwedd, Bullth Wells (map ref. SO/040515), at 11a.m.; bring packed lunch.



#### SUNDAY 12th JUNE

LLANDINAM (v.c. 47), POWYS

Leader : Mrs M. Walnwright

A meeting to record in 10km SO(23)/08 for the BSBI Monitoring scheme. Habitats include the banks of the River Severn, old railway, and deciduous woodland as well as upland pasture and deep valleys.

Meet at Village Institute, Llandinam (map ref. SO/025884) at 10.30a.m. Turn off A470 opposite 'The George'; bring packed lunch; waterproof footwear advised.

#### SUNDAY 19th JUNE

LAKE VYRNWY (v.c. 47), POWYS

Leader : Mrs M. Walnwright

A meeting to record in 10km SJ(33)/08 for the BSBI Monitoring scheme. Habitats include River Vyrnwy, tracks through mixed woodland and forestry, and hill pasture, mostly in an RSPB Reserve.

Meet at RSPB Visitor Centre car park (map ref. SJ/016191) just S & W of Dam; bring packed lunch; waterproof footwear advised.

#### SATURDAY 2nd JULY

CALDEY ISLAND (v.c. 45), DYFED

Leader : Mr S.B. Evans

A meeting to record in monitoring scheme square SS19, mainly limestone and dune flora.

Meet at Tenby pier (map ref. SN/135005) for boat to Caldey Island at 9.30am. (In the event of bad weather preventing boat access to the Island, a visit will be made to mainland parts of the square, again recording mainly on limestone and dunes.) Bring packed lunch; stout footwear recommended.

#### SUNDAY 3rd JULY

PORTH (v.c. 41), GLAMORGAN

Leader : Mr J.P. Curtis

Monitoring scheme meeting in ST(31)/09 to record particularly in the many interesting habitats, natural and man-made, in this part of the Rhondda.

Meet in the lay-by outside A & B Electronics (map ref. ST/010918), on the B4278 between Porth and Trelaw (beware, new roads not on O.S. maps) at 11.00am. Bring packed lunch; stout waterproof footwear advised.

#### SATURDAY 16th JULY

GLAN DWYFACH (v.c. 49), GWYNEDD

Leader : Mr N.H. Brown

Monitoring Scheme meeting to record in square SH(23)/44.

Meet at 11.00am. at the Goat Inn at Glan Dwyfach (map ref. SH/483438), 5 miles north-west of Porthmadog. A variety of habitats on offer here, including *Myrica* meadows alongside the afon Dwyfach. Bring packed lunch; stout waterproof footwear advised.

#### SUNDAY 17th JULY

TALGARREG, (v.c. 46), DYFED

Leader : Mr A. O. Chater

Monitoring scheme meeting to record 'pingo' sites in SN(22)/45.

Meet in farmyard of Llawr-cwrt Farm, (map ref. SN/415501) c. 1km SW of Talgarreg village (access road to farmyard is from the east); at 11a.m.; bring packed lunch; waterproof footwear advised.

**FRIDAY 22nd to SUNDAY 24th JULY**

NORTHOP, MOLD (v.c.'s 50/51), CLWYD  
(In conjunction with the BSBI Wales AGM)  
Leaders : Mrs J.A. Green & Mr G. Wynne

See page 31 for full details

**SUNDAY 7th AUGUST**

MAESNANT, PURLUMON FAWR (v.c. 46/47), DYFED/POWYS  
Leaders : Mr A.O. Chater & Mrs M. Wainwright

Monitoring scheme meeting to record upland moorland in square SN(22)/78 (may be fairly strenuous).

Meet at Maesnant near Nant-y-moch Reservoir (map ref. SN/775879), on unclassified road, c. 7km NNE of Ponterwyd, at 11a.m.; bring packed lunch; waterproof footwear advised.

**SATURDAY 13th AUGUST**

NORTH WEST GWENT (v.c. 35), GWENT  
Leader : Mr T.G. Evans

A meeting to assist with recording for the 'Flora of Gwent' concentrating on varied habitats in botanically unworked tetrads.

Meet at 11.00am at the Aneurin Bevan Memorial between Sirhowy and Waun y Pound (map ref. SO/150105). Bring packed lunch; stout waterproof footwear advised.

**SUNDAY 14th AUGUST**

BRECON BEACONS (v.c. 42), POWYS  
Leader : Mr M. Porter

A meeting in monitoring scheme square SO02 to record in one or two of the small valleys running north from the Brecon Beacons. The route will involve a walk of 5-6 miles over fairly rough open terrain, damp in places.

Meet at 10.30am at Christ College car park (map ref. SO/042284) in Brecon town, just south & west of the river; bring packed lunch, stout waterproof footwear advised.

**FRIDAY 19th - SUNDAY 21st AUGUST**

CARMARTHENSHIRE RECORDING WEEKEND (v.c.44), DYFED  
Leader : Mr R.D. Pryce

A Flora of Carmarthenshire recording weekend to concentrate on Monitoring Scheme squares SN42 and SN72, and to focus on any problem or under-worked areas as the Scheme approaches its end.

Single room accommodation (c. £15 per day) will be available at Lliwyndewl Farm Guest House, Trapp, near Llandello. Numbers are limited to about 6 residents and it is essential to book early and in any case before July 25th.

**SATURDAY 10th SEPTEMBER**

MANOD MAWR, BLAENAU FFESTINIOG (v.c. 48/49), GWYNEDD  
Leaders : Mr P.M. Benoit & Mr N.H. Brown

Monitoring Scheme meeting to record in square SH(23)/74.

Meet at 11.00am. at the Chapel (map ref. SH/715431) near Pont y pandy, 1 mile north-east of Ffestiniog. A fern rich area dominated by a mountain of slate and volcanic rock. Bring packed lunch; stout footwear advised.

**SUNDAY 11th SEPTEMBER**

RHAEADR FAWR, FFESTINIOG (v.c. 48/49), GWYNEDD

Leaders : Mr P.M. Benoit & Mr N.H. Brown

A monitoring Scheme meeting to continue recording in square SH(23)/74.

Meet at 11.00am. in car park in Ffestinlog (map ref. SH/700420). A variety of habitats will be recorded including Rhaeadr Cynfal, a notable fern rich gorge. Bring packed lunch; stout footwear advised.

**SATURDAY 17th SEPTEMBER**

ST ASAPH (v.c. 50/51), CLWYD

Leader: Mr G. Wynne

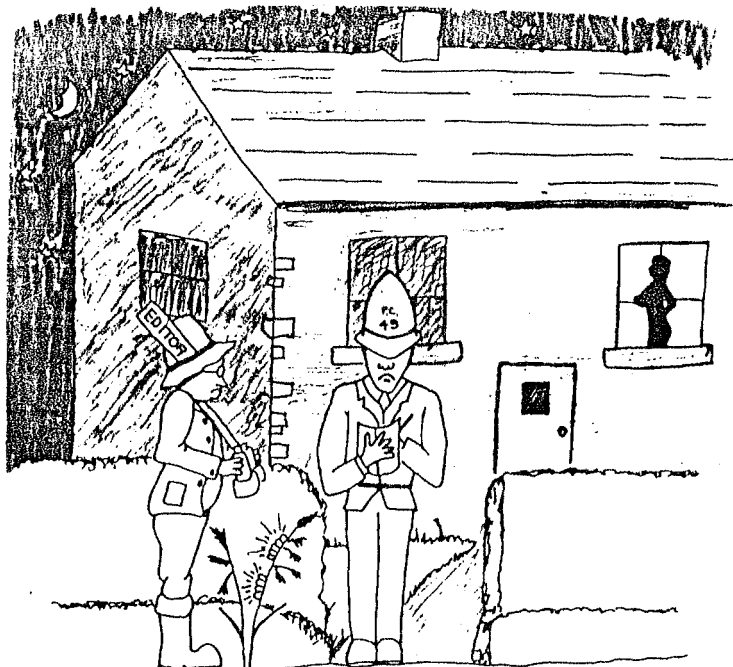
A meeting to record in 10km square SJ(33)/07 for the BSBI Monitoring Scheme. This is a rich square with a tidal estuary, wooded river valleys and extensive limestone escarpments. Meet at lay-by on the east side of the A525 St Asaph - Rhuddlan road (map ref. approx. SJ/030760; O.S. 1:50,000 Sheet No. 116), at 10.30a.m.; bring packed lunch.

**SUNDAY 18th SEPTEMBER**

TAL-Y-CAFN (v.c. 49/50), GWYNEDD/CLWYD

Leader: Mrs J.A. Green

A meeting to record in 10km square SH(23)/77 for the BSBI Monitoring Scheme. Many varied habitats present including mountain to 641 metres, woodland, tidal river banks and sand dunes. Meet at Tal-y-cafn bridge, east side (map ref. SH/787717; O.S. 1:50,000 Sheet No. 116), at 10.30a.m.; bring packed lunch.



"STUDYING THE MATING HABITS OF GLOW WORMS ON DACTYLIS  
GLOMERATA ARE WE SIR? WOULD YOU CARE TO ACCOMPANY ME  
TO THE STATION SIR?"

