

BOTANICAL SOCIETY OF THE BRITISH ISLES

# WELSH REGION BULLETIN

*Editor:* S. G. Harrison, B.Sc., F.L.S.

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*Cardiff, January, 1970*

WELSH REGION  
PROGRAMME OF MEETINGS FOR 1970

- June 13th - KIDWELLY & PEMBREY. Visit to Moat Farm, Kidwelly (a proposed Trust reserve) combined possibly with a visit to Pembrey.  
Leader : Mrs. I.M. Vaughan
- July 4th - SHROPSHIRE UNION CANAL. Meet at main car park, off Church Street, Welshpool, at 11 a.m.  
Leader : Miss V.J. Macnair
- Sept. 5th - NATIONAL MUSEUM OF WALES, CARDIFF. To see the 'Man and the Countryside' Exhibition and the associated Kodak/Nature Conservancy exhibition. Meet at the Museum entrance, at 11 a.m.  
Guide : S.G. Harrison
- Sept. 26th-27th - A.G.M. Gregynog Hall.

For confirmation and further details of meetings, apply to the Welsh Region Secretary : Mrs. I.M. Vaughan, M.B.E., F.L.S., Tal Eboilion, Cilycwm, nr. Llandovery, Carmarthenshire.

## FLORA OF GLAMORGAN

by S.G.Harrison

A committee has been formed by the Cardiff Naturalists' Society to organize work on a new Flora of Glamorgan. Recording will be on the basis of 5 km. squares plus grid references. Any offers of help in recording or in providing existing records will be greatly appreciated. Further details, such as instructions to field workers, lists of critical taxa, rare species which should not be collected, recording cards, etc., may be obtained from either of the two Recorders: Mr.G.Ellis, Department of Botany, National Museum of Wales, Cardiff, and Dr.Q.O.N.Kay, Department of Botany, University College, Singleton Park, Swansea.

Lists of plants found in Glamorgan were compiled by several early botanists, notably John Ray (1627-1705), Edward Llwyd (1660-1704) and the Rev.John Lightfoot (1735-1788), amongst others. In 1848, L.W.Dillwyn published 'Materials for a fauna and flora of Swansea and the neighbourhood'. In 1886, the Cardiff Naturalists' Society published the Flora of Cardiff by John Storrie, Curator of Cardiff Museum, a work which had a wider scope than its name implied, covering an area of about 530 sq. miles. Glamorgan had to wait until the turn of the century for a County Flora and then two were published at the same time. The Rev.H.J. Riddelsdell published 'A Flora of Glamorgan' as an 88-page Supplement to the 1907 Journal of Botany. By this time, the Cardiff Naturalists' Society had already started to publish their 'Flora of Glamorgan', edited by Professor A.H.Trow, as a series of five Supplements to their Transactions, between 1906 and 1910, and then as a single bound volume in 1911. The latter was termed 'Volume 1' and consisted of lists of records of the vascular plants of the county. Certain critical genera were only dealt with superficially. For instance, the Blackberries were treated as a single species, Rubus fruticosus, with the comment that about 60 of the segregate species have been observed in Glamorgan. Hieracium was restricted to 4 species (in Dandy's list of British Vascular Plants, 1959, there are 379 species). It was intended that a second volume should be published, which would deal with geographical distribution and ecology and in which "critical" genera, species and varieties would receive fuller treatment than was possible in Volume 1. Unfortunately, this second volume was never published, so Glamorgan has never had a really complete County Flora.

A leading local naturalist, Miss Eleanor Vachell, who died in 1948, bequeathed her annotated copies of Glamorgan Flowering Plants and Ferns (her own contribution to the Glamorgan County History) and the Flora of Glamorgan to the Cardiff Naturalists' Society, with the request that they "should form a nucleus for a future Flora of Glamorgan, and also a sum of Five hundred pounds, to form a fund to assist Amateur Botanical Research, and to meet the expenses of the above-mentioned Flora whensoever it should be needed PROVIDED that my name and notes are associated with such publication."

The C.T. & E.Vachell Herbarium of more than 7,000 vascular plants and stoneworts was started by Miss Vachell's father, Dr. C.T. Vachell (1848-1914). It passed to the National Museum of Wales, together with Miss Vachell's books, diaries and notes.

The possibility of compiling a new 'Flora of Glamorgan' was mooted by Mr. Gwynn Ellis in the autumn of 1968 and the suggestion was put before the Biological and Geological Section of the Cardiff Naturalists' Society at a meeting on November 7th. It was not a large meeting - only about 20 members attended - but all expressed their enthusiasm for the project and their willingness to help. The Council of the Cardiff Naturalists' Society and Miss Vachell's residuary legatees and relatives agreed that at least part of the Vachell bequest should be made available. The Council asked three of its members - Messrs. Harrison and Wade and Dr. Hyde - to initiate the project - which they did by forming a working Flora of Glamorgan Committee comprised of the following members :

Chairman	- Mr. S.G. Harrison
Secretary	- Mrs. A.B. Pinkard
Treasurer	- Mr. A.E. Wade
Recorders	- Mr. G. Ellis and Dr. Q.O.N. Kay
Members	- Prof. G.F. Asprey, Dr. K. Benson-Evans, Mrs. K.I. Collings, Dr. M.E. Gillham, Mr. R. Harvey, Dr. H.A. Hyde, Dr. M.S. Percival, Prof. P.J. Syrett.

The Committee met four times in 1969. The Recorders report that record cards, lists of rare and critical species, habitat and frequency symbols, etc. and instructions to field workers have been printed and distributed. More are available, on request. Some recording has already been done by Committee members, but large-scale recording cannot be expected to start before the Spring of this year. On 12th November, in the Department of Botany, University College,

Cardiff, Professor J.G.Hawkes of Birmingham University, gave a lecture on "The Problems of Planning a County Flora". Based on the work done by the Flora of Warwickshire Committee, this lecture was of considerable interest to the nine members of the Flora of Glamorgan Committee who were present in the audience of about 50 people. Although work on this new Flora of Glamorgan has been initiated by the Cardiff Naturalists' Society, it is hoped that interest and offers of assistance will be forthcoming from many non-members and indeed non-residents who are able to visit the County of Glamorgan and take an interest in its Flora. Anyone who is interested and would like to have details is invited to write to one of the Recorders, whose addresses were given in the first paragraph of this note.

#### FIELD MEETING REPORTS, 1968-1969

Only one field meeting report for 1968 was received by the present editor. A summary of the four field meetings held in 1969 has been sent to the editor of 'Proceedings'. One report in each year was too long for publication in full in the 'Proceedings'. These two accounts are reproduced below.

Leaders of field meetings are reminded that they should send their reports to the General Secretary, Mrs. I.M. Vaughan, who will forward them to the appropriate editor for publication in the Bulletin. (Editorship is now shared by Mr.T.A.W.Davis and Mr.S.G.Harrison).

1968

#### A CALCAREOUS HEATH IN PEMBROKESHIRE

During the field meeting held at Bosherton on 30th June 1968 a steep NW-facing slope on the side of a small valley behind the Broad Haven dunes attracted attention because of the abundance all over it of Twayblade (Listera ovata) in full flower, fine robust plants up to 19 inches (47 cm.) tall. The area over which they were distributed is about 3 acres (1.21 ha.). On 28th August I examined the hillside in more detail and confirmed that it was a calcareous heath. The soil is sandy peat more than six inches (15 cm.) deep overlying carboniferous limestone.

Purple Moor Grass (Molinia caerulea) is dominant with Red Fescue (Festuca rubra) and Common Bent (Agrostis tenuis) abundant also. Below (ignoring a single Senecio jacobaea) the thirty six species listed, all perennials, are grouped in five classes according to their soil preferences :

CALCAREOUS

Viola hirta (Hairy Violet) O  
Poterium sanguisorba (Salad Burnet) A  
Pimpinella saxifraga (Burnet Saxifrage) F  
Primula veris (Cowslip) F  
Ligustrum vulgare (Privet) O  
Lithospermum officinale (Common Gromwell) O  
Brachypodium pinnatum (Tor-grass) LA

BASIC/NEUTRAL

Rubus ulmifolius (Bramble) F  
Agrimonia eupatoria (Agrimony) R  
Rosa pimpinellifolia (Burnet Rose) F  
Galium verum (Lady's Bedstraw) F  
Plantago lanceolata (Ribwort Plantain) F  
Eupatorium cannabinum (Hemp Agrimony) O  
Centaurea nemoralis (Slender Knapweed) O  
Listera ovata (Twayblade) A  
Dactylorhiza fuchsii (Common Spotted-orchid) O  
Brachypodium sylvaticum (Slender False-brome) F

ACID

Pteridium aquilinum (Bracken) F  
Hypericum pulchrum (Slender St. John's-wort) F  
Ulex europaeus (Gorse) A  
Potentilla erecta (Tormentil) A  
Calluna vulgaris (Heather) A  
Erica cinerea (Bell Heather) O  
Pedicularis sylvatica (Lousewort) O  
Succisa pratensis (Devilsbit Scabious) O  
Sieglingia decumbens (Heath-grass) F

NEUTRAL/ACID

Betonica officinalis (Betony) F  
Teucrium scorodonia (Woodsage) F  
Molinia caerulea (Purple Moor-grass) A

NO MARKED PREFERENCE

Viola riviniana (Common Dog-Violet) O  
Rubus altiarcuatus (Bramble) F  
Crataegus monogyna (Hawthorn) F  
Prunella vulgaris (Selfheal) O  
Carex flacca (Glaucous Sedge) F  
Festuca rubra (Red Fescue) A  
Agrostis tenuis (Common Bent) A

There had evidently been a heath fire in 1967, probably in the autumn, and in consequence the Gorse and Hawthorn had been killed back to ground level so that in 1968 they had only the current season's shoots. The condition of neighbouring areas suggests that without this control of encroaching scrub the succession would lead eventually to Ash (Fraxinus excelsior) woodland.

T.A.W. DAVIS

1969

PEMBROKESHIRE, 16th & 17th AUGUST. A JOINT MEETING WITH THE W.W.N.T.

Brynberian Moor. On 16th August about eighteen came to see this very interesting moorland. It is a gently undulating plain dissected by numerous small streams, at an altitude of about 450 feet at the foot of the northern slopes of the Prescelly Hills. The soil is a layer of peat, rather thin over most of the area, overlying boulder clay with many boggy patches associated with the streams: though acid it is not uniformly base-deficient. Several plants occur here in some quantity which are very local or rare in the county, including Bog Myrtle (Myrica gale), Long-leaved Sundew (Drosera intermedia) and White Beaksedge (Rhynchospora alba). Marsh Clubmoss (Lycopodium inundatum) was found in sites where it had not been seen before, perhaps an indication that it is spreading since the plants were very small. It is well distributed in this its only Pembrokeshire locality and one of the very few in Wales. Bog Orchids (Hammarbya paludosa) were found at a known and at a new site and a colony of Western Butterwort (Pinguicula lusitanica) in full flower was also seen. Fen Bedstraw (Galium uliginosum), in the county known only in two other places, gave a record for this 10km square. On the banks of streams the commonest fern is the Mountain Fern (Thelypteris oreopteris). Some of the commoner species that aroused interest were Bog St. John's-wort (Hypericum elodes), Common Sundew (Drosera rotundifolia), Common Butterwort (Pinguicula vulgaris), Ivy-leaved Bellflower (Wahlenbergia hederifolia) and Many-stalked Spikerush (Eleocharis multicaulis). The moor is grazed by sheep and ponies, one effect being seen in the great scarcity of flowering and fruiting stems of the very common Bog Asphodel (Narthecium ossifragum). It is, however, probable that without this it would become overgrown by the coarser species and such rarities as Bog Orchid

and Western Butterwort might be lost were there no ponies to graze the bogs.

Ambleston Common, Wallis Moor and Trerhos Common. On the 17th about twelve met at Ambleston to see these mid-Pembrokeshire moors. Ambleston Common does not appear to be grazed at all now and in consequence is dominated by tussocky Purple Moor-grass (Molinia caerulea). A hybrid rush Juncus conglomeratus x effusus was found. An unusually strong plant of the Heath Spotted Orchid (Dactylorhiza maculata ssp. ericetorum) growing in a Molinia tussock was taller than usual and had thirteen fruiting stems. A stream in Wallis Moor had an aquatic flora which included the hybrid watercress Rorippa x sterilis. Alternate-flowered Water-milfoil (Myriophyllum alterniflorum) and the aquatic form of the Bulbous Rush (Juncus bulbosus) with long trailing viviparous red stems. Trerhos Common is part of an extensive moorland and is richer botanically than the other two but it is at its best earlier in the season when orchids and sedges can be appreciated. Two uncommon species, Wavy St. John's-wort (Hypericum undulatum) and Lesser Cicendia (Cicendia filiformis) had not been found here before and Long-leaved Sundew (Drosera intermedia) was also seen. As on Brynberian Moor the soil of these moors is peat overlying boulder clay.

T.A.W. DAVIS

## ANNUAL GENERAL MEETING, 1969

### Secretary's Report

The Seventh Annual General Meeting of the Welsh Region was held on September 27th in the School of Plant Biology, Bangor by kind permission of Professor Harper. Chairman (Mr. T.A. Warren Davis).

In the morning, Dr. W.S. Lacey of the School of Plant Biology, and Dr. D.F. Ball of the Nature Conservancy gave talks on the Calcicole-Calcifuge Concept; these were the more illuminative because they were designedly co-ordinated to show the interdependence of the vegetational and the geological-pedological aspects of the whole theme.

Dr. Lacey gave examples of plants usually accepted as calcium indicators but showed how indeterminate was this distinction and how factors, other than chemical, could influence distribution and glacial or volcanic action could produce highly local conditions. He also instanced the



reactions of plants to concentrations of iron or aluminium ions in relation to the pH. of the soil.

Dr. Ball emphasised the importance of soil structure as well as its constituent rock origins: the differences between sedimentary and volcanic limestone; the varying solubility and the importance of the fabric of the soil, whether closely compacted or loosely aggregated. Detailed accounts of these two talks will appear in the next Bulletin.

In the afternoon Mr. R.H. Roberts gave a most meticulous and stimulating account of work done on Current Problems in Fern Species with particular reference to Polypodium australe and Dryopteris abbreviata. The flow of questions testified to the interest and appreciation aroused by these talks.

The business part of the meeting followed.

The following names had been recommended by the Committee for election as officers and as no other names had been received, they were duly declared elected.

Chairman	-	Mr. T.A. Warren Davis
General Secretary	-	Mrs. I.M. Vaughan
Minutes Secretary	-	Mr. D. Davies

The Chairman gave a report on decisions and policies of the Council. It was the feeling of the meeting that increased membership was needed so that (1) botanical work such as surveys could be carried out effectively and (2) so that our status as a pressure group would be enhanced at Public Enquiries, etc. At present the opposing barrister always makes capital out of the fact that we represent so inconsiderable a number.

The General Secretary, Dr. Savidge, reported that membership of the Welsh Region had declined slightly over the past 4 - 5 years.

The projects for a Flora of Central Wales and an 'OO' square survey were progressing reasonably well.

The Meetings Secretary gave a short account of four successful Field Meetings in 1969.

It was proposed, seconded, and carried with acclamation that the name of Mr. A.E. Wade should go forward as the Welsh Region Nomination for Vice Presidency of the B.S.B.I. for 1970-1974.

Proposals for activities for E.C.Y. and for Field Meetings in 1970 were considered and will be decided at the November Committee Meeting.

The Meeting closed with thanks to the Speakers and to Professor Harper.

On the 28th September twelve members were led to Cors Goch and neighbouring areas by Mr. R.H. Roberts and Dr. W.S. Lacey. Here the theme of the previous days talks was perfectly illustrated by the fluidity of habitat and association of plants with usually specialised affinities. Amongst many other interesting plants were seen Gentiana pneumonanthe, Gentianella amarella, Parnassia palustris, Viola lactea and the hybrid Equisetum x litorale. We have to be most grateful to Mr. Roberts and Dr. Lacey for their expert guidance.

Local Flora Writer's Conference, Aberystwyth, 6th-8th, September, 1968.

Details of this Conference were published in October, 1969, in the form of a duplicated report. There were forty nine participants - an encouraging number for such a specialized subject. Twenty exhibits were staged and the following papers were presented -

The Balance of subjects in Local Floras, 1948-1968.	(J.G.Dony)
Handling the Data	(F.Perring)
Problems of Status	(D.E.Allen)
Collecting Local Information for a Local Flora	(J.E.Lousley)
Micro- and Macro- climatology	(J.P.Savidge)
Some soil Determinations of Value to the Field Ecologist	(W.A.Adams)
Information on soils: Where to find it and to whom to write	(V.I.Stewart)

An evening discussion meeting started with a talk on botanical illustrations by Mrs. B.H.S.Russell. This and other topics arising from the business of the Conference stimulated a lengthy and enthusiastic discussion.

Other Conference activities included a visit to the University Botanic Garden, to see the recently constructed Phylogenetic Beds, and excursions to two sites of botanical interest on the Sunday. In the morning, Bryn Bras, near Ponterwyd - an area of varied topography where the effects of different climates and soil types were most obvious. In the afternoon, the well-known Tregaron Bog, where micro-climatic differences in the pool and hummock complex were seen.



