

BOTANICAL SOCIETY OF THE BRITISH ISLES

19 AUG 1971

WELSH REGION BULLETIN

*Edited by J.P.Savidge, Ph.D., F.R.Met.S.*

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Aberystwyth, March, 1966

BOTANICAL SOCIETY OF THE BRITISH ISLES

WELSH REGION

Officers for 1965 - 1966

Chairman: Dr. J.P.Savidge, Abery stwyth.

Vice-Chairman: Dr. W.S.Lacey, Bangor.

Regional Representative: Mrs. H.R.H.Vaughan, M.B.E.

Secretaries: Mrs. H.R.H.Vaughan, M.B.E., F.L.S., Nantymwyn, Rhandirmwyn,  
Llandovery, Carms.

T.A.W.Davis, Esq., South Mullock, Haverfordwest, Pembs.

D.Davies Esq., School House, Rhandirmwyn, Llandovery, Carms.

Please note: Matters relating to meetings should be sent to T.A.W.Davis:  
all other matters relating to the Welsh Region should  
be sent to Mrs. Vaughan.

Record Cards

Because of increases in cost, these are now  $\frac{1}{2}$ d. each and not 3 a 1d. as stated  
in Bulletin 6.

Bulletin 8

This will be published during May, 1966. Contributions should be sent to the  
Editor (Dr. J.P.Savidge, Dept. of Botany, U.C.W., Abery stwyth, Cards.) by  
1st May.

Subscription Rates

B.S.B.I. members resident in Wales receive the Bulletin free of charge. The  
Bulletin is available for distribution to other members at a cost of 1/- a  
copy or for a biennial subscription of 5/-. The Bulletin appears three times  
a year and may be obtained from the Editor.

## MAIN REGIONAL ACTIVITIES FOR 1966

While some of our members will be mainly concerned with enjoying the delights of seeing certain species in flower or of finding new species; other members will be mainly concerned with the collection of information for local or county floras or the Welsh Region's book on 'Plant Distribution in Wales'. For 1966 the Committee has tried to arrange activities so that all members can have a chance of both enjoying the plants and collecting useful material: from photographs - with a chance of winning a prize (see p. 9), to observing pollination (pp. 2-3), and collecting records for selected habitats (p. 7) and the 1km. "00" squares.

'Plant Distribution in Wales'. Good progress has been made on certain chapters and it is hoped to complete the manuscripts of just over half of Part 1 by the beginning of 1967 (for contents of the book see Bulletin 2). Progress on Part 2 has been rather slow and members are invited to help by making plant lists for selected habitats. For the sort of information that is required they should contact T.A.W.Davis (address p. ii) if they are interested in sand-dunes or salt-marshes; Dr. B.Seddon (address p.7) if they wish to investigate rivers, streams and canals; Dr. A.J.E.Smith (Dept. of Botany, U.C.N.W., Bangor) if they prefer woodland habitats; and Dr. J.P.Savidge for help with upland pasture and moorland bog (see p. 7).

Photographs of habitats and close-up details of individual plants or groups of plants are required for the book and the Editors would prefer these to be the work of Welsh Region members. We are aiming at a New Naturalist type of book and reference to a few of this series should show what type of photographic illustration is the most useful and informative.

"00" Survey. Records for about half the "00" squares in mid Wales have been obtained, but there are only a few "00" squares in north-west and south-east Wales for which good lists have been made. Help in these areas would be very welcome and the Editor can provide a brochure and lists to members who feel that this sort of work would be worthwhile. All that members are asked to do is to list the species present in a 1km square (about a third of a sq.mile), using similar techniques to those employed in the B.S.B.I. 10km<sup>2</sup> Survey, although it is hoped that they may also provide some idea of the frequency of each species using a 7-point scale.

County Card Indices. Fairly good progress has been made with the compilation of Card Indices for most of the Welsh counties. The County Recorders would welcome lists of species, especially rare and occasional species, to enable them to obtain a true picture of the distribution of all species. Active work is in progress in at least eight counties on the compilation of data for the publication of a Flora. Details of some of these will probably be included in the next Bulletin.

Conservation. Members are asked to note areas of particular botanical interest. If these are on Common Land they should let their local Naturalists Trust know so that they can be registered under the new 'Common Lands Act'. Members can also help by visiting areas which they think are of special interest and making sure that there are no dangers from proposed development, drainage, etc.

INSECT POLLINATORS, WITH NOTES ON BUMBLE-BEES

by T.A.W.Davis

The part played by insects in pollination is an interesting study which requires little or no special equipment. A simple way of recording observations is to mark on 'Distribution Maps Scheme' Regional Record Cards the flowers seen to be visited, a separate card being used for each species of insect. The writer would be glad to hear from anyone who keeps or proposes to keep records: they are of interest to the Biological Records Centre.

The principal groups of pollinating insects are bees, butterflies, moths and flies. Flies would require specialist knowledge for identification. Moths present difficulties as a group since there are hundreds of species, the majority of which are nocturnal, but they are of great importance. For those who are not entomologists and cannot devote much time to this study, the butterflies and social bees are not so numerous that they cannot be recognized at the cost of a little trouble in learning them.

The butterflies present few difficulties in identification; they are all described and illustrated on coloured plates in 'The Butterflies of the British Isles' by Richard South (Wayside and Woodland Series). The social bees include the honey-bee, the bumble-bees of the genus Bombus, and the closely related cuckoo-bees (Psithyrus). Only 14 species of Bombus and six of Psithyrus are likely to be seen in Wales. In Pembrokeshire I have identified 12 species of Bombus of which eight are common enough to give a useful number of observations; and five species of Psithyrus, of which four are quite common.

The cuckoo-bees are parasitic on bumble-bees in the same way that the cuckoo is parasitic on other birds; the females join nests of the appropriate species of bumble-bee when they are well advanced in worker population. The female cuckoo-bee, after a few days in the nest, is accepted by the workers and then soon kills the rightful queen: she lays her eggs in cells provided by the workers and they rear her brood which consists only of males and functional females.

Most species of bumble-bees are catholic in choice of habitat and visit a great many species of plant without showing the tendency of honey-bees to concentrate on a species which is available in abundance. For literature, 'Bumble-bees' by John Frere and Colin Butler (New Naturalist Series) gives the distribution and keys for the identification of all the British species of Bombus and Psithyrus, but they are not all figured. 'The Humble-bee' by F.W.L.Sladen (1911) gives full descriptions and all the species are figured on excellent coloured plates; but it is difficult to obtain.

The identification of a few of the commonest species of Bombus is not always possible at sight, but with practice one finds that most individuals can be recognized and that in only a few cases one cannot decide to which of two species an individual belongs. The difficulty arises because there

are pairs of species which are closely related and very similar in the pattern of their coats: there is also some variation within each species. The result is that some workers, especially when they are worn, cannot definitely be named: the queens and males can always be distinguished on close inspection. One such pair is B.lucorum and B.terrestris, black bees with one yellow band on the thorax and one on the abdomen, the former having a white, the latter a buff tail. The queens present no difficulty but in the workers the tail of B.terrestris is usually no more than off-white though most can be recognized by the thoracic band being narrow and dull. Another pair, or perhaps trio, includes B.agrorum, B.humilis and B.muscorum (which I have not seen). They are tawny to yellow-brown, rather small bees, the first usually with the fore part of the abdomen mainly black, the second with an inconspicuous dark brown band in the yellow-brown region. Some of the lighter coloured B.agrorum workers may be mistaken for B.humilis: an aid to recognition is that the former often works very quickly pausing only for a moment at each flower. B.muscorum is described as very like B.humilis but a little larger and is reputed to be very aggressive at the nest.

Another pair is B.hortorum and B.ruderatus. They are yellow-banded black bumble-bees which differ from B.lucorum in having two yellow bands on the thorax. I have not found B.ruderatus, but it is described as having yellow bands obscured in the majority of specimens and it is a little larger than B.hortorum - it is a very large bee: the queens should not be hard to recognize, so one should know whether both occur in one's own district.

Bumble-bees work a great number of species of flowers. I have records of 70 species visited by B.lapidarius, a short-tongued bee, of 70 by B.terrestris (unfailingly abundant in my district), also a short-tongued bee, and of 32 by the long-tongued B.hortorum. I have kept records since 1956 and have rather more than 120 species of plants on my lists: it could doubtless be more than doubled. An unexpected plant included is Holcus lanatus which I have twice seen worked for pollen by B.lapidarius and once by B.hortorum. B.terrestris and B.lucorum exploit some flowers with tubes too long for their short tongues by perforating the base of the tube. B.terrestris works Silene dioica very often in this way.

/ Readers interested in floral biology will find the recently published book on this subject by Dr. Percival (one of our Welsh B.S.B.I. members) of considerable value. It is published by Pergamon Press. The study of butter<sup>fly</sup> and moth food plants can also be rewarding, especially as the identification of the larvae of these insects is now fairly easy with the aid of two volumes of the Wayside and Woodland Series. Ed. /

#### REPORT OF THE 1965 WELSH ANNUAL MEETING

The 1965 Annual Meeting was held at Gregynog Hall, near Newtown, on the 25th September. The morning session was devoted to 'National Parks' and the afternoon session was on 'Experimental Taxonomy'. 22 members and visitors attended these sessions.

The session on National Parks was opened by a lecture on 'National Parks

in the United States' by Dr. W.S. Lacey who had visited numerous Parks on his visit to the States the previous year. He paid particular attention to the facilities which were available, such as information centres, good illustrated guides, the provision of Nature Trails, observation centres and spots, good roads and the provision of many sign posts which were usually well designed.

The guest speaker, Mr. W.B. Yapp (Zoology Department, University of Birmingham) also showed many very fine colour transparencies of National Parks in the United States to illustrate ways in which the management and organization was often at a higher level of development than in the Parks in England and Wales. He went on to indicate ways in which we could profitably learn from the achievements, and also mistakes, of the Americans. It was obvious that a great deal had still to be done to improve the Parks in England and Wales and to extend the National Park system to Scotland. Mr. Yapp thought the following issues were vitally important:

- i) The control of visitors to the Parks. Visitors would have to be persuaded to keep to certain regions of the Parks and to stay on or near roads and tracks. Certain points within the Park would have to be selected where most of the visitors could congregate and provision made for camping sites.
- ii) The need for the control of agricultural, industrial and building within the Parks. If possible these should be completely banned and farmers should be prevented from ploughing marginal land which was of low productivity.
- iii) The provision of information facilities. Information centres, especially at entry points to the Parks, must be provided and guides and route maps must be published. The general public had to be educated about the purpose and use of National Parks.
- iv) Efficient methods had to be found to control the public. Present procedures for running the Parks were in need of considerable improvement, but in order to develop National Parks a considerable increase in financial support was required.

The morning session ended with a full discussion on the many points that had been raised by the two lecturers. Many aspects were covered, from the use of the land within the Parks, to management, the provision of wardens, the problems of the people, especially farmers, who owned land in the Park, the rôle of the Forestry Commission and the possibility of the creation of a National Park in Central Wales.

In the afternoon session Dr. A.J.E. Smith gave a lecture on 'Experimental Taxonomy' in which he showed the value of collecting material from as many populations as possible, rather than using a few herbarium specimens (many of which were often atypical) to describe the variation found within species. Cultivation experiments, hybridizations, examination of the breeding system, examination of chromosome number and morphology and a study of the behaviour of chromosomes at meiosis were extremely valuable in studies on the variation within and between species and enabled one to obtain a good idea of the relationships between groups of species. Dr. J.P. Savidge illustrated ways in which the amateur botanist could make use of certain pictorial diagrams to show variation of characters in relation to environmental factors and the investigation of suspected hybrid plants or populations.

Secretary's Report for the year, 1964-5

It is encouraging to record a continuing small but steady enrolment of new members during the year, to give a current regional total of 77 excluding institutions.

The Welsh Region Bulletin was published in January, May and September, the latest issue being No. 6. Its popularity may be inferred from the steady growth in the number of subscribers amongst members outside the Region which has increased by 12 in the year under review. Dr. Seddon has regretfully resigned his function as alternate editor.

The development of an improved system of County Recorders has proceeded well. Several new Recorders have been invited by the Committee and now 11 of the 13 counties are served by a locally resident Recorder. A standard form of index card has been produced and will shortly be available to Recorders throughout Wales.

The "OO" Survey which was initiated a year ago is now in progress under the direction of Dr. Savidge and he has produced a descriptive and explanatory booklet for participating members and the appropriate recording sheets and cards. All of the field meetings this season have been devoted in part to work on this Survey.

Eight field meetings were held, seven of these being two-day weekend meetings and one of a week's duration at Gregynog Hall. Attendances at meetings with few exceptions have been satisfactory and the situation and accommodation at Gregynog Hall had commended it strongly as a very suitable venue for gatherings of members from all parts of Wales and with easy access from England too.

The project to prepare a book on the distribution and habitats of plants in Wales for publication in 1970 was put into effect by the Welsh Flora Sub-Committee which decided to produce three chapters for preliminary submission to possible publishers next winter.

The Welsh Region Committee met twice in Aberystwyth and once at Llandovery with attendances of 7, 7 and 5 respectively. The Terms of Reference proposed by the Welsh Region Committee as its own Constitution were submitted to the Society's Development and Rules Committee on 19th January, 1965 and were approved.

B.Seddon (Hon. Secretary)

Minutes of the 1965 Annual General Meeting

The 3rd Annual General Meeting was held at Gregynog Hall, Newtown, on 25th September, 1965, at 5.00p.m. 15 members were present.

1. The Minutes of the previous Annual General Meeting held at Bangor in 1964 were read and approved.
2. There were no matters arising from these Minutes.

3. Apologies for absence were received from Dr. B.Seddon and C.Sinker. A letter from Dr. Seddon included a request for a modification of the Welsh Region Constitution concerning the election of the Regional Representative. Dr. Seddon's motion that:

"The Regional Representative shall be elected by majority vote of the Committee from among their own number."

was approved.

4. The Secretary's Report for the 1964-5 Session (reproduced on the previous page of this Bulletin) was read by the Chairman, and accepted.
5. The Chairman (Dr. J.P.Savidge) thanked members for their support during the Session.
6. Election of Officers and Committee for the 1965-6 Session. The following were elected:

Chairman: Dr. J.P.Savidge

Vice-Chairman: Dr. W.S.Lacey

Field Secretary: T.A.W.Davis

Committee Members to serve for 1 year: J.M.Brummitt, D.Davies,  
R.F.May, Dr. B.Seddon

Committee Members to serve for 2 years: W.Condry, Miss J.Macnair,  
Dr. A.J.E.Smith, Mrs. Vaughan.

Secretary: this office was left unfilled.

7. Other Business. J.M.Brummitt asked for a progress report of the "OO" Survey and Dr. W.S.Lacey wanted to know the qualifications of those who had volunteered to undertake the recording. Mr. Brummitt thought that the Welsh Region was taking on too many tasks and that it would be more satisfactory to concentrate on one, or a few projects at the very most. He was supported by Dr. Lacey who thought that most of the present activities should be curtailed or put off for a few years until the Region had completed one or two projects that it had started on a few years ago. Dr. W.M.Mapleson pointed out some of the values of the "OO" Survey. Mr. Brummitt expressed some doubt about the way the data of the Survey would be analysed. He suggested that more should be done in the way of analysing vegetation by using quadrats and doubted if visits to some of the "OO" squares had been particularly successful. The Chairman said that arrangements had been made to analyse the "OO" Survey data in various ways. He indicated that a reasonable amount of progress had been made except in the extreme northwest and southeast of Wales.

The meeting closed at 6.00p.m.

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#### Evening Discussion, 25th September, 1965

A two hour discussion was held after the A.G.M. The topics included progress reports on the compilation of county floras, recording techniques, the use of a card index, and possible improvements to the publication of county records.

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#### Field Meeting, 26th September, 1965

A field meeting was held at Abermule where the railway, River Seven and S.U. Canal were examined in some detail.

A. Plants of Streams, Rivers and Canals.

Now that the Lake Flora Survey has been concluded, after four years' work, it would seem a natural extension to include the flora of streams, rivers and canals and so complete a survey of the aquatic flora of Wales. This will also provide essential information for a chapter on "Aquatic Habitats" for the Welsh Region's proposed publication on plant distribution in Wales.

It is intended to collect information from these additional habitats during 1966. The plan will be to visit certain points on a number of the major rivers in Wales, e.g. the Wye at, say, Builth, Glasbury and Monmouth. Other rivers which might be included are Towy, Teifi, Dovey, Conway, Clwyd, Seven - but others in the same regions of Wales could be substituted. In fact, any river can be considered as long as examples are treated from all corners of Wales. At each place visited it is best to wade into the stream to collect specimens of plants seen from the bank and to search for any less conspicuous ones on stones or in pools. Choose a stretch of about 100 yards for your observation for at any one point there are not likely to be many species. Indeed, the aquatic flora of flowing waters is not a rich one and the total number of species will not be large. Waterside plants growing on the banks should be noted.

In the case of canals, a grapnel, hook or rake, either on a handle or a cord, can be used from the bank. Again choose a stretch of 100 yards and record all the plants in it, taking specimens of any which may be difficult to determine. These could be sent to me, fresh, in polythene bags (without water) packed for posting inside an ordinary stout envelope. There are so few canals in Wales that it will be important to include parts of them all, namely, the Monmouthshire and Brecon Canal, the Swansea and Neath Canal, and the Shropshire Union Canal (Llangollen and Welshpool branches).

Anyone interested in looking at the plants of river or canal should write to let me know which stretches of water they plan to examine. I hope I may be hearing from you early in the Spring!

B. SEDDON \*

\* address: Dept. of Botany, National Museum of Wales, Cardiff.

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B. Upland pasture and moorland bogs.

During the Autumn of 1965 I started on an investigation of the main plant associations of upland pasture and moorland bogs. The main purpose is to relate the distribution of certain plant associations to various combinations of environmental factors (soil moisture, humus, pH, minerals, angle of slope, grazing, etc) in Central Wales. I should like members to note any unusual moorland plant associations, or areas where one would not normally expect to see a particular association, so I can visit the area to take soil samples and make observations. This survey will also provide data on the range of environments under which all upland species can grow and under which set (s) of conditions they thrive best of all. Members can assist on this aspect by recording areas where species appear to be growing well outside their normal altitudinal range or habitat.

J.P. SAVIDGE \*

\* address: Dept. of Botany, U.C.W., Abery stwyth.

## REPORTS OF FIELD-MEETINGS HELD IN 1965

NEWBRIDGE-ON-WYE 22nd and 23rd May. Leaders D.Davies, J.P.Savidge, Mrs Vaughan.

Both days were spent examining the species present in "00" squares. On the Saturday "00" square SO 05 near Builth Wells was explored and a total of 224 species found. Many of these showed signs of frost damage which had occurred four nights before when the air temperature fell to several degrees below freezing (see Bulletin 6 for further details). Along parts of the River Wye several clumps of globe flower, *Trollius europaeus*, were found as well as some extensive patches of *Montia (Claytonia) siberica* and a few plants of *Saxifraga granulata*. *Alchemilla vestita* and *xanthochlora* were common and a few plants of *Sanguisorba officinalis* were found. The best find of the days was of a large colony of Welsh poppy, *Meconopsis cambrica*, along the banks of a steep sided stream at the edge of a wood. Other plants of interest included the tetraploid form of lesser celandine, *Ranunculus ficaria*, cowslips and sweet woodruff.

The "00" square, SO 06 near Newbridge-on-Wye was examined and found to contain an interesting selection of habitats which produced 238 species. An area of damp heath gave *Genista anglica*, *Carum verticillatum* and *Serratula tinctoria*. *Carex pilulifera* occurred in a dry area of wood and several plants of barberry, *Berberis vulgaris*, were seen along a hedgerow. *Trollius europaeus* was found by the railway line with *Linaria repens*. *Luzula sylvatica* was completely dominant along parts of the R.Wye. One  $F_1$  hybrid of *Primula veris* x *P.vulgaris* was found.

MAESHAFN 17th July. Leader J.P.Savidge. The limestone flora between Loggerheads and Maeshafn was examined during the morning. Quadrats were thrown and soil samples taken so comparisons could be made with other limestone areas in Wales. The flora was a rich one with 30 different species being found in a series of 10  $25\text{cm}^2$  quadrats, all of which contained *Thymus drucei*, *Helianthemum chamaecistus* and *Festuca rubra*. The area was a good one for orchids, with over a 1,000 plants of *Epipactis helleborine* being found on one steep wooded slope. An interesting plant of *Thymus drucei* was found with a pink upper corolla and white lower corolla.

In the afternoon the species in the "00" square, SJ 26, were listed. With a variety of limestone habitats and some acidic millstone grit pasture and moorland, a stream and pond in the square it was possible to find 257 species. As a few parts of the square were not visited it might be possible to find up to 300 species on further visits as this appears to be one of the richest "00" squares for species. No very interesting species were recorded as new to the area, but this was because the region has been visited on numerous occasions by various societies.

LLANDOVERY 7th and 8th August. Leader Mrs. H.R.H.Vaughan and D.Davies. August is a difficult month and attendance at the Llandovery meeting was predictably small. On Saturday 6 members met for "00" square SN 72, an area mainly of farmland on red sandstone rising to about 800' and showing little influence from the proximate outcrops of limestone at Rhiw Wen and Carreg Cennen. A good acreage of bog did show however a rather surprising mixture of base-rich types with those of real acid peat. For example, *Genista anglica*, *Cirsium dissectum*, *Briza media*, *Carum verticillatum*, *Carex hostiana*, *Pinguicula vulgaris*, *Listera ovata*, *Narthecium ossifragum* and *Salix repens*. Farmland and roadside were less rewarding but yielded *Genista tinctoria*, *Alchemilla glabra*, *A.vestita*, *A.xanthochlora*, *Euphrasia brevipila*, *E.nemorosa* and four species of *Rosa*.

(continued at bottom of page 9)

WELSH REGION PHOTOGRAPHIC COMPETITION

Members of the B.S.B.I. resident in Wales are invited to take part in the following photographic competition. Three prizes will be awarded, and suitable entries may be selected for publication in the Welsh Region's book on 'Plant Distribution in Wales'.

The Rules are:

A. There are three classes:

- 1) 35mm colour transparency of a close up of part or the whole of 1 plant or a group of plants;
- 2) 10" x 8" black and white print of a close up of part or the whole of one plant or a group of plants;
- 3) 10" x 8" black and white print of a habitat or plant association.

B. Photographs must be taken in Wales and the competition is confined to B.S.B.I. members resident in Wales.

C. Transparencies and prints must be sent to Dr. B. Seddon, National Museum of Wales, Cardiff, by 1st September, 1966.

D. The entries will be exhibited at the Annual Meeting of the Welsh Region to be held at Aberystwyth on 24th September, 1966. Prizes will be awarded during this meeting.

E. The winner in each class will receive a New Naturalist Book of their own choice.

F. The Welsh Region reserves the right to publish blocks of selected entries in 'Plant Distribution in Wales', in which due acknowledgement will be made, without making any claim on the copyright of the photographs.

G. The entries will be judged by a panel drawn from the staff of the National Museum of Wales and the Cardiff Photographic Society, having regard to both photographic and botanical merit.

An entry form is included in with this copy of the Bulletin. Extra entry forms can be obtained from the Editor. The number of entries is not limited.

Llandovery Meeting (continued from p.8). On Sunday six members turned out for SN 83. This square looked a good one from the map with a variety of habitats from mountain up to 1,200' to valley streams and woodlands; but it was found to be heavily overgrazed. The mountain and small stream gave *Euphrasia confusa*, *E. brevipila*, *E. nemorosa* and *E. micrantha*; *Myosotis caespitosa* and *M. secunda*; *Pinguicula vulgaris* and a number of acidophile species of *Carex*. In the afternoon the Upper Towy was visited to see the Rhadirwlyn School Reserve. Here *Quercus petraea* woodland rises to about 1,000'. Here *Trollius europaeus*, *Geum rivale*, *Tilia cordata*, and *Wahlenbergia hederacea* were seen together with areas of *Linum catharticum*, *Pimpinella saxifraga* and *Betonica officinalis* which suggested areas where the soil might be more basic. Soil samples which were taken from these sites did show them to be more basic than the surrounding areas.

/Reports of the other 1965 field meetings will appear in Bulletin 8/.

WELSH REGION MEETINGS FOR 1966

**14th MAY (Saturday):** Moelfre, Anglesey. Leaders Drs. W.S. Lacey and A.J.E. Smith. Meet Moelfre Harbour at 1100h. If conditions are suitable a visit will be made to the "OO" square containing Ynys Dulas; but if this is not possible visits will be made to limestone and bog communities within a few miles of Moelfre.

**21st May (Saturday) :** Newcastle Emlyn, Cardiganshire. Leaders T.A.W. Davis on Saturday; Dr. J.P. Savidge on Sunday. Meet 1100h. on both days at the disused Newcastle Emlyn Railway Station.

The meeting on Saturday will be the explore little-known area in Pembrokeshire. On Sunday visits will be made to different types of lowland bog and moorland to study plant associations in relation to differences in environment.

**2nd July (Saturday):** St. David's, Dowrog Common, Pembrokeshire. Leader T.A.W. Davis. (Joint meeting with the West Wales Naturalists' Trust). Meet on Dowrog Common, St. David's (SM 777272) on an unclassified road across the common off the A 437 (St. David's - Fishguard) road at 1100h. or 1400h. or at Trefeiddan Moor (SM 735252) at 1530h.

**3rd September (Saturday):** Stanner Rocks, and associated hills, Radnorshire. Leader J.P. Savidge (Joint Meeting with the Herefordshire Botanical Society). Meet at Stanner Station at 1100h or 1430h.

**24th September (Saturday)** ANNUAL MEETING to be held in Aberystwyth. The morning session will be on 'Nature Reserves'; the afternoon session on 'The Development of the Welsh Flora since 3000B.C.'. Full details will be circulated at a later date.

ANNUAL GENERAL MEETING. This will be held after the Annual Meeting.

**25th September (Sunday)**

Aberystwyth. A meeting to various sites to see the relationships between the composition of certain plant associations in relation to local environmental factors. Details later.

Please note the following corrections to B.S.B.I. Field Meetings, 1966 and Calendar.

1. The August meeting to Gregynog has been cancelled;
2. The venue of the Annual Meeting is at Aberystwyth; not Swansea.

Additional Meeting

**18th June (Saturday):** Ddol, Flintshire. Leaders J.M. Brummitt and G. Wynne. Meet at Ddol (SJ 141711) on A 541 (Mold-Denbigh) road at 1100h.