## MONTGOMERYSHIRE FIELD SOCIETY



M. G. Williams.

# ANNUAL REPORT AND NOTES 1983

### **MONTGOMERYSHIRE FIELD SOCIETY**



#### OBSERVE

#### PRESERVE

1946

RECORD

A.D. 604

President: Mr. Ion Trant

Vice-Presidents: Mr. W. M. Condry, M.A., M.Sc.; Mr. Langshaw Rowland, O.B.E.

#### COUNCIL:

Miss M. Hignett (Chairman) Mrs. M. Bowen Mrs. J. W. Brown Rev. J. W. Burford Mr. R. Edwards Mr. G. Linhard Mr. R. Lovegrove Mrs. M. Lowe Mrs. A. Markwick Mr. R. W. Parr Miss D. Pugh Mrs. M. Richards Mr. & Mrs. Trant Mrs. M. Williams Mr. E. H. Wolfe Mr. Wyndham Evans

#### HONORARY ADVISERS:

 

 Geology: Miss E. M. Hignett, B.Sc.,
 Ornithology: Mr. W. M. Condry, M.A., M.Sc.

 Lepidoptera: Mr. F. C. Best, O.B.E., M.A.
 Local Adviser: Mr. Herbert Webster,

 Botany: Miss D. Pugh,
 Zoology: Miss Ruth M. Badcock, M.Sc., Senior Lecturer in Biology, Keele Univ., N. Staffs.

 Hon. Treasurer: Mr. David Moore,
 Hon. Secretary: Mrs. M. Richards,

 Report Editor: Wyndham Evans.
 Lexursions Sec.: Mrs. M. G. Williams,

Minimum annual subscription: £1.50; family subscription: £2.50; junior members: 50p

#### CHAIRMAN'S REPORT

#### MEMBERSHIP

Membership, 186 in April, has fallen a little this year through the loss of several who find that they are now unable to join our excursions. Perhaps our saddest loss, however, has been that of Mrs. Peggy Goodman, who disappeared mysteriously from her home in Corwen in December 1982, since when no trace of her has been found.

Members will also be sad to hear of the death, in December, of Mr. B.O. Lloyd who, as reported in our last issue, led us on many delightful expeditions in the Machynlleth area before retiring because of ill health last year.

In spite of a lower membership, attendance has been well maintained at our monthly meetings of lectures and excursions. We extend a cordial welcome to newcomers, Mrs. Baker, Miss Benbow, Mrs. Hamer, Mr., Mrs. and Miss Parsonage, Mrs. Pickstock and Camella and Mr. Colin Small and hope that they will find much to interest them in our 1984 programme.

We would remind all members that payment by Bankers' Order, or promptly by cash at the Annual General Meeting, considerably eases the work of our honorary treasurer as well as making necessary cash available to start the season's meetings. This is particularly important now that the Welsh Church Acts grant towards publication of the annual report has been so much reduced.

#### MEETINGS

During 1983 a programme to cover each month except December included 7 field excursions, which are described following this report, and 4 indoor meetings, as follows:---

#### 15th January-Nature Photography by Mike Leach.

Mr. Leach is a professional naturalist who writes for television and The Observer newspaper, but wildlife photography is also an important part of his work. He showed slides depicting birds and animals in natural surroundings or intimate detail. These were accompanied by an entertaining account of the hazards encountered and the patience required to obtain results fine enough to be acceptable in the commercial world of films, books and calendars.

#### 19th February—Annual General Meeting.

The meeting was chaired by our President, Mr. Ion Trant. A proposition that the society should continue in its present form, and not amalgamate with the Montgomery Trust for Nature Conservation, was carried unanimously. It was agreed to revise the society's constitution, as suggested by the Inland Revenue, to make it more acceptable to the Charity Commissioners for tax relief purposes. The balance sheet was adopted and all officers and council members re-elected, after which slides were shown by Mrs. M. G. Williams, Mr. T. Edye, Mr. I. Trant and Mr. E. Wolfe.

#### 26th March—Flower Recognition by Mary Hignett.

Regréttably, Mrs. P. Parr who was to have given this lecture was prevented by illness from doing so. At short notice, Miss Hignett deputised and helped to make the floras on display more intelligible through a description of the parts of the flower and their characteristic arrangement in some of the more easily recognised families. Illustrations, in the form of slides and text books, were provided by Miss Doris Pugh and Mrs. Marjorie Wainwright.

**12th November**—A Survey of Ecological Sites in Montgomery by Michelle Young.

Miss Young described the methods used by teams, financed by the Manpower Services Commission, in surveying sites of wildlife interest in Montgomery, including mountain heaths, woodlands, unimproved grasslands,

wetlands and open water. The lecture was illustrated by beautiful slides of the flowers to be found in these habitats, and afterwards members discussed how the best of these sites may be preserved for future generations to enjoy.

A meeting of the Council was held in the new library on 6th June, and the Excursions Committee met at the Old Post Office, Guilsfield on 23rd November. We are much indebted to Mr. and Mrs. Roy Edwards for their hospitality on this occasion, and also to Miss M. Pryce who has continued to make her home available for the preparation of excursion notices.

#### MONTGOMERY FLORA

Miss Doris Pugh, Botanical Society of the British Isles, recorder for Montgomery, has made good progress with the organisation of recording on a 2Km. basis, for a comprehensive Montgomery flora. On 30th July a recording expedition was held in the Llangadfan area, led by Mr. and Mrs. Eyres and Michael, who afterwards entertained the recorders to a superb tea at Gwaelody-wern. Local recorders were joined on this occasion by our two advisers, Mr. Peter Benoit, B.S.B.I. recorder for Merioneth and Dr. Ian Trueman, of the Wolverhampton Polytechnic, where much of the organisation of the project and co-ordination of results is being carried out.

#### CONGRATULATIONS

The society was pleased to learn that Mr. Bret Jehu, our Chairman from 1955 to 1964, and Mrs. Jehu celebrated their Golden Wedding in 1983, and we record our congratulations with good wishes for their future.

#### MEETING

On 7th November, Mr. and Mrs. Simon represented the Society at a meeting, in Newtown, of bodies interested in the countryside including The Montgomery Trust for Nature Conservation, The Council for the Protection of Rural Wales, The National Farmers' Union, The Young Farmers' Clubs, The County Landowners' Association and the Montgomeryshire Field Society.

While conservationists expressed concern over the continued disappearance of old hay meadows and oak woods from large farms, the farmers stressed that they were conservationists at heart, but deplore the constraints which could be placed on economic farming by the introduction of controls drawn up by amateurs without full knowledge of all the problems to be faced.

#### THANKS

The continued successful running of the Montgomeryshire Field Club is a tribute to the dedication and sterling work of our officers and council, to whom I express thanks for their loyal support.

This year, too, has seen an innovation with groups in the various areas, each being responsible for organising a summer expedition. We greatly appreciate the skill and hard work put into these arrangements which resulted in an outstanding series of excursions.

Teas, provided at our indoor meetings, add an extra dimension as social occasions, and we are much indebted to the many ladies who provided and served it under the able organisation of Mrs. Roy Edwards and Mrs. Muriel Richards.

Thanks are also tendered to Mr. E. V. Harper, Headmaster, and the Local Education Authority for the use of a room at Welshpool High School for winter meetings for a modest fee, and to the Powys County Council for a grant from the Welsh Church Acts Fund towards the cost of producing our Annual Report.

Our thanks are due to Mrs. Betty Jones for looking after Miss Macnair's grave since 1975 and placing wild flowers there.

#### TALK ON BOTANY

A talk on botany was given at Welshpool High School on Saturday, 2nd April, 1983.

The talk was given by Miss M. Hignett and related to the flora count the Society has embarked upon.

She was assisted by Miss D. Pugh, Mrs. Wainwright and Mr. R. Edwards, who operated the slide projector. Mr. D. Jones thanked the contributors on behalf of the members.

Many questions were asked about the scheme and volunteers offered help. Tea was provided afterwards by Mrs. D. Edwards and helpers.

#### **EXCURSIONS 1983**

#### Dolforwyn Castle and Montgomery.

The Montgomeryshire Field Society held their first outing of the year on Saturday, 30th April.

The leader was Mrs. Molly Bowen of Churchstoke and about 50 members parked their cars in a field near the Dolforwyn Castle at Abermule and had a picnic lunch.

The weather was ideal, a bright sunny day for the entire outing; the days before and after being very wet with cold north and easterly winds.

On the climb to the Dolforwyn Castle members identified many wild flowers. At the Castle, Mr. Clarke, a semi permanent worker on the site, pointed out many interesting features and explained the construction and the detective work involved in trying to determine the original plan. This was made more difficult as there was evidence of alterations having been carried out during its life — one example being a stone staircase passing in front of an opening in an internal wall. There was no trace of roofing material, it would probably have been a stone roof — not slate. One theory is that roofing stone could have been removed to build or repair farms in the area.

An Archaeological party from Leeds University are due to start digging again in the Summer, and will continue their investigations for some years. The position of the well is known but it has not yet been opened up.

From Dolforwyn the members proceeded in their cars to Montgomery. Mr. Clarke had also worked on the Montgomery Castle restoration and he gave another interesting and amusing guided tour, pointing out many interesting features showing where soil had been excavated and revealed the old ovens — only their bases remain — there being no trace of the original domed tops.

The culmination of the very interesting and enjoyable day was a set tea taken at the Plas Robin.

#### KEITH HOLDEN Birds seen at Dolforwyn, 30th April, 1983:

Buzzard; Chaffinch; Whitethroat; Willow Warbler; Dunnock; Pheasant; Wren; Yellowhammer; Nuthatch; Mistle Thrush; House Martin; Swallow; Redstart; Song Thrush; Blue Tit; Blackbird; Green Woodpecker; Starling; Robin; Great Tit.

HERBERT WEBSTER

#### Ynys Hir R.S.P.B. Reserve, May 14th, 1983.

Members of the Montgomeryshire Field Society, who visited Ynys Hir R.S.P.B. Reserve on Saturday, 14th May, felt there could be no better time to do so, as from their tree-top hide, they looked down on a sunlit carpet of bluebells through a golden tracery of tiny oak leaves, and the sky was full of bird song. Pied flycatchers, wood warblers and blackcaps, pinpointed by their lovely song, were identified amongst the branches. A little yellow siskin in a tree top seemed in strange company amongst these summer visitors.

After walking through oak woods to a fine viewpoint overlooking the Dyfi Estuary, the party made their way down to the saltings. Here, from another hide,

they watched a heron fishing with the endless patience of its kind, several shelduck resting on the shore awaiting the tide's retreat, and a mallard and duckling swimming in a lagoon where an oystercatcher foraged, delighting the watchers with its piping call. As a squall of hail drove in from the sea a pair of mergansers hurried past on fast beating wings. This, essentially Scottish, duck is steadily extending its range southwards and may now be seen regularly at Ynys Hir.

Perhaps the most notable sighting of the day was that of a Greenland wheatear, larger and more colourful than our breeding population, resting on his long journey from Africa to Greenland, or maybe in view of the weather, thinking he had arrived.

Thanks were expressed by the Chairman to Mr. Graham Williams of the R.S.P.B. Wales Office in Newtown, who planned and led the excursion, and to Mr. Dick Squires of Ynys Hir who also acted as guide.

#### E.M. HIGNETT

Birds heard and/or seen at Ynys Hir on 14th May, 1983.

Cormorant; Heron; Mallard; Red-breasted Merganser; Shelduck; Buzzard; Kestrel; Coot; Lapwing; Herring Gull; Black-headed Gull; Collared Turtle Dove; Cuckoo; Swift; Swallow; House Martin; Great Tit; Blue Tit; Nuthatch; Mistle Thrush; Song Thrush; Blackbird; Wheatear; Redstart; Robin; Blackcap; Garden Warbler; Willow Warbler; Chiffchaff; Wood Warbler; Spotted Flycatcher; Pied Flycatcher; Meadow Pipit; Tree Pipit; Pied Wagtail; Starling; Chaffinch; Yellow Hammer.

#### A Flora Recording Meeting at Newtown, 27th May, 1983.

On 27th May, 1983, Dr. Ian Trueman had an unexpected free day and decided he would like to come and do some botanical recording in Montgomeryshire. At short notice we were unable to contact many helpers, so only a small but eager group—lon Trant, Colin Small, Ann Markwick and Doris Pugh — joined Dr. Trueman and found their way to the home of Mr. and Mrs. Simon in Newtown. They then led us on an interesting walk, which took us along lanes and through a beautiful wooded dingle, where Early Purple Orchids bloomed profusely amid other less showy species such as Moschatel, Ground Ivy, Crosswort, Enchanter's Nightshade and Wood Sanicle.

In fields, hedgerows and roadside verges, a large variety of plants were seen, resulting in an approximate total of 109 'A' species and 58 'B' species.

Our thanks are due to Mr. and Mrs. Simon and Mr. and Mrs. Small for their leadership and hospitality when introducing us to their local part of Montgomeryshire. We look forward to exploring other areas in 1984.

#### Visit to Cefn Coch Area, June 18th, 1983.

The coach driver took us through leafy lanes, with views of sunny valleys, and in one field passed we saw a magnificent whitebeam tree in full bloom. At Bwlch-y-ffridd nestling in a valley we heard about Gregynog Hall, and this onetime entrance to it, and at Llanllugan we passed a farm which had been a nunnery in mediaeval times. After a picnic lunch at Cefn Coch, the society set off round the upper part of the Rhiw valley, between Capel Horeb and a peaceful timbered farmhouse called Drain. The laburnum hedges, common around there, blazed yellow in brilliant sunshine. These hedges were planted as simple hedges, as hawthorns are, and do not seem to have been poisonous to stock, as they are sometimes feared to be.

The buzzard was seen, and among songbirds tree pipit, meadow pipit, linnet, whitethroat and spotted flycatcher.

The beautiful bay willow, with shining leaves and twigs, grows all along the river Rhiw; other trees noted were aspen, hornbeam and wild pear. A bank of the little crucifer, Smith's cress, close relative of garden cress, was in flower, and little pools on both sides of the valley had round-leaved crowfoot, Ranunculus

omiophyllus, an uncommon plant. Ladies' mantle was on a bank and mountain pansy, last but not least among flowers, at the top of the hill.

Cefn Coch Hotel provided a welcome tea.

This most successful visit to the upper reaches of the North arm of the River Rhiw was organised by the Newtown members, Freda Sanders, Margery R. Jones, Nora Morgan, Sybil Jones and Arthur Shann.

JOYCE ROPER

Birds heard and/or seen at Cefn Coch, June 18th, 1983: Buzzard; Carrion Crow; Wood Pigeon; Lapwing; Chaffinch; Blackbird; Spotted Flycatcher; Wren; Swallow; House Sparrow; House Martin; Willow Warbler; Curlew; Great Tit; Whitethroat; Tree Pipit; Skylark; Meadow Pipit; Linnet; Pied Wagtail.

Flora List on Walk from Cefn Coch, June 18th, 1983:

Heath Bedstraw; Horse Chestnut; Marsh ragwort; Beech; Holly; Black curant; Dogwood; Goat willow; Common lousewort; Carnation sedge (panicea); Mat grass; Gorse (European); Ivyleaved water crowfoot; Common milkwort; Sneezewort; Common sedge; Oval sedge; Blinks; Wild apple; Bay willow (hybrid willow?); Star sedge; Common valerian; Water horsetail; Heath speedwell; Laburnum; Smith's cress; Wood groundsel; Hoary ragwort; Sheeps fescue; Parsley piert; Horse chestnut; Common polypody; Whinberry; Wild apple; European gorse; Narrow leaved bitter vetch (blathyrus montanus var. tenuifolius); Beech; Golden-scaled male fern; White milkwort; Pill sedge; Round-leaved crowfoot (Ranunculus omiophyllus); Hard fern; Aspen; Wild pear; Elegant St. John's wort; Hornbeam; Round-leaved crowfoot; Raspberry; Wych elm; Oval sedge; Ladies mantle (vestita); Bitter vetch; Lemon-scented fern; Heath rush; Whinberry; Sheeps bit; Heather (Calluna vulgaris); Betony; Self heat: Downy rose: Burnet saxifrage; Hard fern; Mountain pansy.

#### Llynclys Common, Saturday, July 9th, 1983.

Members of the Montgomeryshire Field Society, who approached Llynclys Common from different access points, on their July excursion, met at a place where there are ample signs of recent clearance work by members of the Shropshire Conservation Corps.

Here, Miss Mary Hignett, outlining the history of the area, showed how the exercise of grazing rights by surrounding commoners had kept the turf short during the first half of this century. Now, with the cessation of grazing, natural succession is proceeding rapidly, most of the 100 acres being already covered with bracken and bramble scrub, while in places birch and hawthorn trees are well-established amongst it. The area is now leased by the Shropshire Trust for Nature Conservation as a County Nature Reserve, and problems of management were discussed. The chief aim is to halt the natural return to woodland by maintaining as much open grassland as possible, for this is where the unusual plants thrive.

Mrs. Marjorie Wainwright pointed out such typical lime-loving plants as fairy flax, quaking grass, salad burnet and wild thyme. Then the party, accompanied by Miss Doris Pugh, Botanical Society of the British Isles recorder for Montgomery, made a circuit of the Reserve to look for some of the rarer plant species.

Amongst those found were, rock-rose, 6 varieties of wild orchid, including pyramid, frog, butterfly, fragrant, twayblade and common spotted, and also the tiny fern, adder's tongue.

#### Botanical Survey — Llangadfan-Foel Area, July 30th, 1983.

On Saturday, July 30th, members of the Montgomeryshire Field Society met at Llangadfan to conduct a botanical survey of the hilly region across Afon Banwy from the village of Foel — in the Ffridd Goch-Gwrachen area. The

expedition was part of the projected botanical map of Montgomeryshire which is being prepared by the Montgomeryshire Field Society. The leaders were Dr. Ian Trueman, Wolverhampton and Mr. Peter Benoit, Barmouth.

A variety of interesting and rare plants indigenous to the boggy area was recorded, the dry conditions of the day making it possible to approach the plants quite safely. Among them were the bog forget-me-not; bog stitchwort; marsh St. John's wort; bog pondweed; carnation sedge; star sedge; common yellow sedge; ivy-leaved bell-flower; lesser spearwort; marsh lousewort; bog asphodel; marsh thistle; bog pimpernel; marsh speedwell.

A wheatear was an interesting bird recorded, while among the lichens, the rare beard lichen was also noted.

Members were guests for tea at the home of Mr. and Mrs. Eyres, of Gwaelof-y-Wern, Foel, and Bedford. They were thanked by Miss Hignett. WYNDHAM EVANS

#### Guilsfield Area, October 8th, 1983. What Makes an Oak Tree Grow?

When you fell a stand of fine oak trees, and don't immediately replant, what happens to the site where the trees were growing? This is a question of particular relevance to Montgomeryshire where oak woods are such a prominent feature of our landscape; and, on October 8th, members of the Montgomeryshire Field Society braved the continuous rain and took the opportunity to see for themselves what does happen, when they were invited by Mrs. Prudence Williams to walk through such a wood on the Trawscoed estate near Guilsfield.

Coed Cochion is a steep, south-facing site just west of Groes Lwyd; it was felled six years ago, and a decision taken to encourage natural regeneration. Sir Gerald Trevor, Mrs. Williams' father, was an internationally recognised expert on this aspect of forestry, and Mr. and Mrs. Williams have built on his experience in their management of the woods at Trawscoed.

Immediately after felling, there will be a free-for-all with all sorts of weeds and saplings trying for a foothold. After a hundred years or so, you will probably end up with a predominantly oak wood; but what can be done to speed up the process and produce best quality oak?

Some of the strongest growers after felling will be the stool growths, and up to a dozen or more may grow from each cut stump. But these will make only second class timber; they must be gradually thinned out to leave one or two per stump, and their chief use is as a nurse crop for the maiden saplings growing from acorns, leaving them to mature only if there is nothing else nearby.

Young oak are able to withstand a certain amount of shade in their early years, and so some of the other unwanted species may also be used for protection; but anything which threatens the growth of an oak sapling is cut out.

The really interesting point about natural regeneration concerns the acorns themselves. You are not likely to find them growing under mature oak trees where most of them fall; but you may well find them on your lawn, in hedgerows or in a mixed wood. And yet, when you fell an oakwood, they spring up right away! Apart from that, birds and animals are some of the best carriers for spreading them around the countrysde. Jays may bury them and forget where to look for them; pigeons take a cropful and spill out one or two when they perch to digest them, and, in days gone by, the rooting pigs in the woods were some of the best acorn planters. But, even without the pigs, Mr. and Mrs. Williams are going to see to it that there will eventually be another fine stand of oak on Coed Cochion — by hard work and determination.

On the way back to Groes Lwyd, members examined the Powis Castle conglomerate rock in a small quarry; and Mr. Roy Edwards pointed out the remains of an orchard which once supplied a jam factory at the bottom of New Street in Welshpool.

ION TRANT

#### REPORT OF BIRDS SEEN AT OLD POST OFFICE, GUILSFIELD

1983 Jan. - March: 3 Blackcaps overwintered; Mistle Thrush regularly seen; Magpie regularly seen.

April: Coal Tit; Raven overflying village regularly. April 13: Swallow arrived. April 20: Willow Warbler. May 5: Heard Cuckoo. May 8: Swifts arrived. May 12: Spotted Flycatcher at nesting box. June 5: Buzzard overhead. July 8: Young Spotted Flycatcher left nest. August 3: Blackcap (female) dead under window.

August 12: Spotted Flycatchers second hatch flying

Nuthatches - regularly throughout year.

Wrens - regularly throughout year.

Average numbers of the common garden birds but no Tree Creepers this time. W. ROY EDWARDS

P.S.: A new rookery started at Varchoel Hall; Two families of Yellow Hammer at Varchoel Hall.

#### BIRD COUNT IN THE AREA OF CEFN, TREWERN

Wren, October onwards 1983; Owls calling October onwards 1983; Many Goldfinch, August 1983, January 1984; Tree Creeper, September-October 1983; Jay, 1983, 1984; Blackcap, December 1983; Female Bullfinch, January 1984.

M. RICHARDS

Suggestions of a Polecat in the area. Dead Polecat seen by Mr. Len Lewis at Crew Green, August 4th, 1983; and 2 others in the area.

January 15th - Little Auk sighted at Old Churchstoke by Mr. Wolfe.

#### BIRDS SEEN OR HEARD AT BROOKSIDE, LLANYMYNECH DURING 1983

Heron, Mallard, Buzzard, Sparrowhawk, Kestrel, Pheasant, Moorhen, Lapwing, Black-headed gull, Woodpigeon, Collared dove, Cuckoo, Little owl, Tawny owl, Swift, Green woodpecker, Great spotted woodpecker, Swallow, House martin, Raven, Carrion crow, Rook, Jackdaw, Magpie, Jay, Greattit, Blue tit, Coal tit, Marsh tit, Long-tailed tit, Nuthatch, Treecreeper, Wren, Mistle thrush, Song thrush, Blackbird, Robin, Blackcap, Garden warbler, Lesser whitethroat, Chiffchaff, Goldcrest, Spotted flycatcher, Dunnock, Pied wagtail, Starling, Greenfinch, Goldfinch, Bullfinch, Chaffinch, House sparrow, Willow warbler.

#### Birds Seen or Heard during 1983 other than those above:

Great crested grebe: Llyndu Pool. Little grebe: Llansantffraid. Cormorant: Pool Quay. Wigeon: Llandrinio. Tufted duck: Llyndu Pool. Canada goose: Bryngwyn. Mute swan: Llanymynech. Partridge: Carreghofa. Coot: Llanymynech. Snipe: Melin-y-Ddol. Curlew: Carreghofa. Stock dove: Llanymynech. Barn owl: Arddleen. Kingfisher: Wern, Pool Quay. Skylark: Carreghofa. Sand martin: Meifod. Dipper: Pontllogel. Fieldfare: ^rddleen. Redwing: Llandysilio. Wheatear: Llanymynech. Whinchat: Dolanog. Redstart: Dolforwyn. Nightingale: Middletown. Sedge warbler: Wern, Pool Quay. Whitethroat: Pont Robert. Wood warbler: Pendugwm. Meadow pipit: Llanymynech. Tree pipit: Dolforwyn. Grey wagtail: Pendugwm. Yellow wagtail: Llandysilio. Reed bunting: Wern, Pool Quay. Linnet; Meifod. Yellowhammer: Arddleen. Tree sparrow: Sarnau.

HERBERT WEBSTER

#### NATURE NOTES 1983

#### Birds

17th February: A hen blackcap on our bird-table. 7th April: 7 tufted duck and 1 great-crested grebe on Llyndu Pool. 16th June: A sedge warbler feeding young near the canal at Wern, Pool Quay. 23rd June: A yellow wagtail at Llandysilio. 18th July: A pair of green woodpeckers feasting on ants on our lawn. September and October: More than the usual number of jays were observed in open country during these months; the apparent result of the poor crop of acorns this year, for these birds which habitually collect and store acorns during the autumn have to forage further afield during times of scarcity.

#### Fauna

27th February: A water shrew and a pigmy shrew at Brookside.

#### Butterflies

30th April: Brimstone at Brookside. 9th July: Pearl-bordered fritillary on Llanymynech Rocks. 17th July: 9 red admirals on buddlea at Brookside. 6th August: Silver-washed fritillary at Pontllogel. 17th September: Comma at Brookside.

#### Moths

17th July: A garden tiger-moth at Brookside.

Weather

Three records were mentioned on the radio during the Christmas period: Parts of the U.S.A. had the coldest Christmas within living memory, parts of Australia the hottest and parts of Britain the mildest.

HERBERT WEBSTER

#### ENTOMOLOGICAL NOTES FROM LOWER GARTH 1983 Lepidoptera

The event of the year was the sighting in early September of what looked, from a distance of 15 yards or so, to be a female Pale Clouded Yellow *(Colia hyale)*. The attribution cannot be certain as it was seen on the one occasion only but the very rapid flight put one in mind of the species at once. Incidentally it had been seen in abundance the previous month while holidaying in Western France.

Earlier visitors have included:

1) The Orange-tip (*Euchloe cardimines*). Fairly frequent around the garden. 2) The Peacock (*Vanessa io*), both imagines and a colony of the black prickly caterpillars. As often they were on a rather poor patch as against the more flourishing areas elsewhere.

 Small Tortoiseshell (Aglais urticae). One of them is still in residence at Lower Garth, having decided to hibernate on a white ceiling just outside a rear hall doorway.

4) Red Admiral (*Pyrameis atalanta*). Only a few seen perhaps because the plentiful diet of rotten apples in the orchard was lacking this year.

5) The Comma (Polygonia c-album).

#### Heterocera

A full grown caterpillar of the Elephant Hawk-moth (Chaerocampa elpenor) found wandering in our front field. Its food plant, the Rose-bay Willow-herb flourishes there. Put down for a minute to go and find a collecting box. On return found to have wisely departed.

Two findings of caterpillars of the Grey Dagger (Acronycta psi).

One specimen of the Red Underwing (Catocala nupta) found resting by day just inside the front hall-way.

#### CLOUDED YELLOWS

A feature of the fine summer of 1983 was a general invasion of Britain by Clouded Yellow butterflies. Five were seen at the same time flying backwards and forwards over a sunny bank at the upper edge of a field, above the River Vyrnwy, at Melyniog Farm, Llansantffraid-ym-Mechain, SJ.2219 on the 29th July, 1983. They did not settle long enough to note the food plant, but among the flowers growing on this sunny bank were Creeping Thistle, Centaury, Common Toadflax, Sheep's Sorrel and Bird'sfoot Trefoil.

P. M. BENOIT and E. D. PUGH

# BUTTERFLIES IN MONTGOMERYSHIRE — WHERE ARE THEY?

#### by Robert Petley-Jones

Among the many facets of Nature Watching, looking at butterflies must be one of the most rewarding. Being mostly brightly coloured and easy to see, they surely rank with birds and flowers in popularity and the fact that they occur in a wide variety of habitats enhances any outside expedition, be it in the depths of the countryside or only to the back of the garden. The only problem for the dedicated butterfly watcher is what to do in the winter!

It is possible to see about 70 species of butterfly in the British Isles although a good number of these are restricted to certain specialised habitats or to certain parts of the country, while some are only very rare visitors from other countries. However about half the British species are fairly common and widespread, although numbers do vary from year to year, depending on a number of factors, such as the weather.

As with other forms of wildlife, the threat of disturbance or removal of habitat on which butterflies depend is very great today, especially for those species that are restricted to only a few colonies in an area, or those that require particularly specialised habitats in which to live.

If butterfly populations are to be actively conserved, it is essential to gather as much information about the sites where they occur, in order to be in a position to advise on sympathetic management and retention of sites.

At the moment there is very little information about the distribution of butterflies in Montgomeryshire, so this year the Montgomery Trust for Nature Conservation is going to establish a Butterfly Site Register which will initially identify sites where butterflies occur in significant numbers, or where particularly important or rare species occur.

This project is open not only to Trust members, but to anybody who wishes to take part. If any member of the Montgomeryshire Field Society is interested in helping with the work, I would be delighted to hear from them.

The 'work' will not require any regular commitment on the part of helpers — perhaps just a couple of visits to a site, or sites, so that its value can be assessed. This can then be followed up with more detailed observations by expert butterfly watchers, when the precise value of a site can be found.

A specific knowledge of every species of butterfly is therefore *not* required, so even if you have only a rudimentary knowledge or interest please try to help. Write to me at Bryn Awel Llanwddyn, via Oswestry, Shropshire (S.A.E. please) or phone Llanwddyn 278.

#### A NEW MONTGOMERYSHIRE MOSS

Calliergon giganteum (Acrocladium giganteum, Hypnum giganteum). SH90. Nant y Nodwydd, Llangadfan. Alt. 950ft./290m. Basic flush on mountain slope, with Scorpidium scorpioides, Campylium stellatum and Bryum pseudotriquetrum. P. M. Benoit, 30.7.1983 (specimen Herb. Brit.Bry.Soc.). A rather local robust species of calcareous fens and flushes, discovered during the M.F.S. expedition to Gwaelod-y-wern. First record for vice-county 47, Montgomeryshire.

P. M. BENOIT

#### AN INTERESTING LICHEN RECORD

Parmelia tiliacea sens.str. SO29. Lymore, Montgomery.Alt. 460ft./140m. On the trunk of a sycamore. P. M. Benoit, 12.10.1983 (specimen). The second Montgomeryshire record of the true P. tiliacea as distinct from P. pastillifera. P. tiliacea is a more eastern species mostly replaced in Wales by the similar P. pastillifera: see M.F.S. Ann. Rept. & Notes 1982, p.20 (1983).

P. M. BENOIT

#### MORE WELSH AND NEIGHBOURING ORCHIDS

Last year, in my short article on Montgomeryshire orchids, I made brief reference to some neighbouring species, which may, or may not, have crossed the border. I have no further evidence that they have done so.

Montgomeryshre, as shown in my article last year, is generously supplied with many varieties of orchid, but there is an interesting selection of species and sub-species to be found across its boundaries in many directions. It is these which I propose to describe now.

I have previously referred to some of these, such as the Green-winged Orchid (Orchis morio), and the Marsh Fragrant Orchid (Gymnadenia conopsea subsp. densiflora) which are tantalisingly close, and may well have crossed over without my knowledge.

Close to its borders are a number of vicinities which present themselves as orchid habitats, harbouring many rare and unusual species. These areas include the following: The Great Orme, where the Dark-red Helleborine (*Epipactis atroribens*) can be found; Anglesey and North Wales with many other unusual species and hybrids. some of which, such as the Narrow-leaved Marsh-orchid (*Dactylorhiza traunsteineri*) may have spread from Ireland; and next in importance is Morfa Harlech, with its many thousands of Marsh Helleborines (*Epipactis palustris*) and the glorious dark crimson dune subspecies of the Early Marsh-orchid (*Dacylorhiza incarnata s.sp. coccinea*). There are several coastal sites for many of these, including Ynys Las nature reserve at the mouth of the Dovey. The latter is of special interest as the home of a unique mauve shaded Marsh-orchid, on which I will dwell later in this article.

A further fertile source of orchids lies in the extreme South of Wales, including the Gower Peninsula, and the coastal Burrows, which I am planning to visit this summer. Somewhere in this area is recorded a broad-leaved form of the East Anglian Fen Orchid (*Liparis loeselii var. ovata*) which I claim is the only Welsh species of orchid not on my slides. Hence, my high hopes for this year's holiday!

The foot-hills of Cader Idris are also a well-known locality for orchids, including the Lesser Butterfly-orchid (*Platanthera bifolia*), and the rare Small White Orchid (*Pseudorchis albida*) has also been reported from that area.

Neighbouring Shropshire boasts some twenty-five species, including the Violet Helleborine (*Epipactis purpurata*) and the rare Pendulous-flowered

Helleborine (*Epipactis phyllanthes*). There are also reports of the Narrow-lipped Helleborine (*Epipactis leptochila*) but those are, in my opinion, suspect!

The latest rumour regarding Shropshire/Herefordshire rarities is the occurrence of the Spurred Coralroot or Ghost Orchid (*Epipogium aphyllum*) which occurs rarely in Oxfordshire, but has not been seen in Shropshire since 1891. It remains to be seen whether it appears again this year, or if, in fact, the rumour is correct.

The appearance in West Wales of one, or more Irish species of Marsh-Orchid (Dactylorhiza s.sp. praetermissa and D. s.sp. occidentalis and D. traunsteineri) have led to the theory that these have spread from Ireland. Is it not more likely that at least one of these has come in direct from the continent, where the species D. majalis is widespread and very variable in colour and habit?

The names of many species continue to vary and some experts are now lumping all Marsh Orchids under the main species D. majalis, which is somewhat misleading as there are many wide differences between the various categories of Marsh Orchids, hence my preference for English names!

E. H. WOLFE

#### THE GARDEN AT "BRYNHYFRYD," CORRIS

As most of you will know, when we came here the whole area was a wild mountainside. Only the patch below the house had ever been cultivated and that not for over 30 years. The only evidence left were old fruit trees at the lower end — most of these we removed.

Being very poor stony acid soil we did not have to battle with rank weeds such as would be foud on a rich lowland soil. In fact most of the plants growing here were attractive.

There was of course a good deal of grass, but not the coarser kinds, so reasonably easy to control — we do have dandelions, only the occasional dock. chickweed only in the kitchen garden and no groundsel now. But Hairy Bitter Cress can be troublesome. I thought it might be interesting to list the plants which we welcome even though some of them have to be controlled. The most obvious one is Heather, both Ling and Bell heather and a small amount of Cross-leaved heather. This does have to be controlled as it is a great seeder especially in paths and steps and also overhands the paths. Amongst the heather we will get the little Sheeps Bit; it looks like a scabious but in fact belongs to the campanula family. Also in this mountain area we get the Trailing St. John's Wort and the Elegant St. John's Wort, The Heath Bedstraw and a little plant I am particularly fond of is the Heath Milkwort and I am very pleased that it has now been seeding freely amongst my rock plants - The little Tormentil (Potentilla erecta) and Barren Strawberry everywhere as is Golden Rod and Woodsage, Foxglove, Yellow Wood Pimpernel, Bilberry, Common Dogviolet, Climbing Corydalis, Wallpennywort and I'm sorry to say Gorse, both kinds.

In the lower part of the garden Primroses seed everywhere (there was one plant when we came). Herb Robert, Ivy-leaved Toadflax, New Zealand Willowherb, Orpine, Yellow Meadow Pea, Bush Vetch, Celandine, Mouse-eared Hawkweed and Greater Birdsfoot Trefoil.

Wood Sorrel is spreading, the little pink English Stonecrop is all over the place. There are usually a few plants of Round-leaved Sundew in the Sphagnum Moss, in a small bit of bog at the top, some Bog Pimpernel and several Sedges and Butterwort. Also right at the top there are two self-seeded Larch Trees. They both appeared the same year and are about 3 or 4 feet apart. One grew much faster than the other. Nearby is a very old European Larch and we have planted Japanese Larch. We have been advised by an expert in the Forestry that the faster growing one is a hybrid between these two different Larch Trees. Unusual in nature but being grown in Scotland now.

I think I must mention Ferns as they are quite a feature in the garden. Beautiful as they are, like Heather they have to be classed as weeds. They are marvellous in the right place, but retaining walls and in steps and by paths, is not the right place. This applies only to the large growing ones. The Male Fern (Borroriform), Lady Fern, Broad Buckler and the Lemon scented, which I hate to have to include in this category as it is so beautiful. Hard Fern can also be troublesome, but not so much as the others.

The little Maidenhair Spleenwort is however very welcome and has spread in the walls in quantity. There are a few plants of Black Spleenwort which is rather unexpected, but strange to say, no polypody — it is in walls by the roadside but none in the garden. There is one very precious patch of Beech Fern near the top of the garden.

I think I had better mention some wild plants that I have introduced and are happy here. Hartstongue Fern, which is now seeding, Oak Fern, a large patch, given to us years ago by one of our original members Mrs. Laura Sproston. Royai Fern, enormous now and freely seeding (not always where it is wanted!).

The four Cranesbills, Meadow, Dusky, Wood and Pyrenean, Marsh Violet, Bogbean, Welsh Poppy, Woodruff, Woodsanicle, Stinking Hellebore, Sea Campion, Sweet Cicely, Bearberry and Cowberry. I also introduced the tall Drooping Sedge some years ago but have regretted it ever since! Seedlings everywhere. As well as the wild plants in the garden there are Slow Worms and Lizards and of course Frog Spawn in the pond. This year it was not until the end of February; usually it is about the 7th or 8th. We have had Newts, but I haven't seen any for some years. We have occasionally had Glow Worms. Three years ago we were delighted to see Holly Blue Butterflies. There is plenty of Holly and Ivy in the garden, so there is every reason why they should be here. Peacock, Tortoiseshell, Orange Tip, Small Copper, Wall, Speckled Wood, Red Admiral are regulars; occasionally Painted Lady, Pearl Bordered Fritillary and Humming Bird Hawk Moth. About 7 or 8 years ago a friend brought his moth trap here for a night in July and trapped 50 different kinds.

The birds have been very busy with the peanuts this winter, quantities of Tits, Blue and Great; also Coal Tits and for several weeks in January and early February a Willow Tit. But the real surprise were 4 Green Finches which are uncommon in this part of Wales. They are still here and have been to other gardens in the road too.

Until last year we had Pied Flycatchers nesting in the box on a Beech tree. I hope they will return again. Goldcrests are always with us. Last year I found one killed by flying into the garage window; it had nesting material in its beak. Magpies and Jays are always about and usually Green Woodpeckers. For the last 3 years there have been Chiffchaffs presumably nesting here; before that they only passed through for a day or two in April. But the Willow Warblers are very faithful; also Garden Warblers.

So one way and another life is never dull at Brynhyfryd.

DOROTHY PAISH

#### THE WHOOPER SWANS ARE HERE AGAIN

Every year these great majestic birds fly thousands of miles from ther icy breeding grounds around the Arctic circle to find feeding places in Scandinavia and in this country and every winter a number of them come to the same damp pastures by the River Severn at Aberhafesp near Newtown. Last year they arrived as usual in the late autumn and will remain until early April. We have counted over 25 of them congregated together as they feed near the Festival Bridge and when disturbed they rise effortlessly all together, honking in unison, to fly off to another field. There are several of our native mute swans in the same area, on the river and ponds, but they keep their distance and seem to want nothing to do with the visitors. It's worth a visit to see these lovely birds before they fly off once again for home. ANNE SIMON

#### WILD SWANS BY THE SEVERN

I was studying W. B. Yeats on my Open University course and was puzzled by his 'Wild Swans at Coole', wondering whether the swans flying in 'broken rings' was farfetched Yeatsian imagery or plain observation. I went to the R.S.P.B. to ask Roger Lovegrove about it, and after a moment's thought he said that is just how the whooper swans up the Severn fly, they rise into the wind and then turn into the direction they want to go, Precisely in a broken ring, a spiral. In February 1984 I was taken to see the swans; we drove up the road on the Aberhafesp side of the river till we saw, through a gateway, a very bitty view of some white things. I walked across the field, which was remarkably dry and bouncy underfoot, and saw clearly twenty or thirty whooper swans walking along poking at the grass on the far side of a watecourse bordered by bushes and small trees. I hoped the bushes would hide me and went closer; the great birds are a very smooth and beautiful shape, not perky and self-important like mute swans. They walk in pairs, 'lover by lover' as Yeats says. They certainly mate for life. But they did see me, rose into the air in a north-easterly direction, and letting me hear the 'bell-beat of their wings', flew down river and then turned in a 'broken ring' to go in the Caersws direction. I saw very well the huge smooth spread of their wings.

Among what rushes will they build,

By what lake's edge or pool

Delight men's eyes when I awake some day

To find they have flown away?

They leave us around the end of March or beginning of April, just go. We know from ornithologists that they nest in Iceland, but the impact of the poem, and of the swans, is the suggestion, or fact, that love is continued after death. JOYCE ROPER

#### ZONES OF INFLUENCE

Perhaps it needed a French eye to see it. The great changes of vegetation in a small compass are something that we in Mid-Wales take for granted. But the Chusan palms at Glandyfi Castle . . . and then just 400-foot up, only heather, moss and mollinia. My companion gasped. Such changes would need a 4000-foot climb, perhaps more in France.

We in the West expect a half-hour's walk to lead us from sunny glades of oak to bleak peat moor and nardus. The vegetation zones are packed tight as the contours, the isohyets themselves, on the storm moorland edge of West Wales. In the days when the fields harvested oats, there could be ten days difference between the ripening at the top and at the bottom of one small, tilted field.

Which, of course, is another way of saying that in Montgomeryshire, we are at the Northerly limit of growth of many species, both wild and cultivated. What latitude does not achieve, altitude very rapidly does. To speak personally, the northern limit of runner-beans runs about 50-foot below my garden. Neighbours, only 150-foot lower, always have splendid crops. We get tiny, twisted things, if any. Show me a local runner-bean, and I can tell you to within 50-foot the contour-line it was grown on.

The same knife-edge on which growth depends applies, of course, to natural species. Gean, oak, birch, rowan, all have their cut-off point some way up the mountain. In the West, every successive 100-foot contour line rejects some struggling species.

But the prime cause is not perhaps the lapse-rate — the temperature fall with altitude — or even exposure to wind, but the rainfall itself. Rhododendrons may like 400 rainy days a year, and spruce thrive on a daily dose, but for frailer species, especially grass, excess rain can be the great inhibitor of growth. Rainfall soars with height. My Machynlleth 60.32in annual average rose to 100.44in five miles away at Corris. A further 3 miles into the mountains and the Cwm Cau gauge on Cader Idris is working out at about 165 annual inches.

The chill factor on growth is enormous, to which must be added less sun and limited horizons. Further adverse factors are the acid soil and the leaching out of the sparse nutrients. The lot builds up into . . . not a disaster, but a magnificent change of landscape in an hour's stroll.

Inland, all these adverse factors diminish. We, the whipping-boys of the West, have received most of the rain. Guilsfield, Bryn Frochas, record merely a third of our rainfall. So growth limits run much higher up the hills. Timothy, a doubtful subject above 300-foot in the West, can produce 1,500-foot up on Corndon Hill a magnificent haycrop. Figs that would need the sunniest low-level wall in the West, do well almost 1000foot up at the Old Rectory at Llanfihangel yng Ngwynfa.

But the West is also very sensitive to local climates. Opposite me, the natural oak climbs to 1,200-foot, sheltered in a great semi-bowl of rock. On the West, weather side, it would struggle to reach 300-foot. Further South, in Ceredigion, where rainfall eases, it goes higher. The same sensitivity is shown in shallow upland cwms, where the South-facing slope supports mollinia, but the North only rush. To add to the complications, the mountains divert the prevailing winds, so that our own weather wall faces North, as all the local slate-hung gables show.

Species after species — gean, birch, rowan — reaches its altitude limit on the mountains of the West. Unhappily that of Norway spruce or sitka is about 8000-foot in Wales, meaning that weatherwise, the whole area is plantable.

But this does mean that native species, be it tree or shrub, grass or even bracken, provide a kind of weather map of the uplands. They show the best spots for the art of survival; draw in their high green lines on the hill, the limit of the possible.

And, of course, they provide a constantly changing variety which, to equal in France my companion assured me, would require a very long tramp up the flanks of Mont Dore.

#### MARK BOURNE

#### A FIRST LOOK AT GEOLOGY with particular reference to the scenery of Montgomeryshire

The old county of Montgomeryshire, now the northern part of Powys, is one of the lesser known parts of Wales, yet one held in high regard by those familiar with it. Its moorlands are not on the grand scale of Snowdonia, but its sharp wooded escarpments and fertile valleys provide attractive country which is peaceful and undisturbed, even in the height of summer. The land is kind but not rich, and though the population is sparse, there is scarcely a spot in the county where one is out of sight of habitation. There being little industry, the people live close to the land, farming each valley or fertile hollow with an independence born of isolation.

The evolution of Montgomeryshire's characteristic scenery has been a long and complicated process conditioned, like most things, by the material used, the skill of the craftsmen and the subsequent usage. The raw material is, of course, the basic rocks, and the craftsmen are the elements which have carved them out over the centuries. Thus was set the stage across which man has trodden for 5,000 years and by his activities brought modifications conditioned by, but far outstripping, the primeval forces in their effect.

#### THE BASIC ROCKS

Although geology may seem, at first sight, an abstruse academic study, it is essentially a series of deductions which can be as fascinating as a detective novel.

Textbooks will tell you that rocks may be divided into 3 classes, sedimentary, igneous and metamorphic; but igneous rocks represent the earth's interior stuffing, leaked out during infrequent accidents and metamorphic rocks may be sedimentary or igneous ones so mutilated by some cataclysmic upheaval as to be unrecognisable. Both these types, though interesting, are unusual and by far the greatest bulk of rocks, through geological time, are sedimentaries.

These represent the litter continually accumulating on all low-lyng surfaces, added to layer by layer until their very weight breaks the crust causing an orogeny which thrusts them up into mountain chains. These, through the action of weather and gravity, are re-cycled into more litter and again accumulate on the low ground of valleys and seas bordering the new mountains. There is, in fact, no new material on the earth's surface, except where igneous magma spills out. The vast majority is just resorted.

At any time in the geological column, deposits will accumulate in various places and their composition, or lithology, is controlled by the conditions of deposition. Thus, in desert basins and where waves break on the shoreline winds or waves remove the finer particles, while the larger silica fragments are left as layers of sand, later to be compressed into sandstones. The finer clay particles are deposited further out to sea, or on the floors of lakes, as mud which will compress into clays, mudstones or shales. Far out to sea, beyond the reach of land derived detritus, the only litter will be the broken shells and bones of dead sea creatures, and these give rise to such calcareous rocks as chalk and limestone. Swamps, particularly in tropical regions, may preserve enough plant litter to build up layers of peat, which will gradually be compressed into coal.

All the conditions of deposition will probably occur somewhere on earth at any one point in geological time, so a limestone, sandstone or clay may be of any age. The lithology, though important in controlling present topography and fertility, tells us little about the geological history of the area.

To unravel this one needs to be able to date the rocks, or place them in age relation to each other. This study of stratigraphy may be understood by likening the rock layers to a pile of newspapers built up over a long period of time.

To obtain a comprehensive history the complete series, in order, must be known, but such a coverage would be impossible to find in any one place. Inevitably gaps would occur where the papers were not bought (i.e. the area lay at a high level and received no litter), or were subsequently destroyed (the rocks being at a high level were attacked by the forces of erosion). Such gaps in the succession are known as unconformities and, as fortunately they occur at different levels in different areas, a complete succession can be made out if enough regions are studied and compared.

So, in our analogy of newspapers, as people would not all be on holiday at once, a complete series could be built up by taking the piles from enough houses. Papers of the same day may not be identical from two houses whose taste in news coverage differs, but they will contain the same news. The various productions will parallel the different lithology of sandstone, clay or limestone, but remains of contemporaneous life, i.e. fossils, will match.

Rock strata are not date-stamped like papers, so the geologist is thrown back on those processes of deduction which add so much to the fascination of the subject. In the exposure of level or gently tilted rocks, bed M may be clearly seen to lie beneath O, while in another it may be found resting on L, so the succession, O

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is established.

This reasoning is straightforward near the top of the pile where there has been little disturbance, but low down, where several upheavals have contorted them into complicated folds, or caused them to slip along cracks, the deductions become difficult.

Even in the most favourable circumstances it is essential to be able to

recognise band M unequivocally in both exposures, and fortunately its date can be fixed precisely by the pictures in the paper, i.e. its fossil content.

Only 2 centuries ago, William Smith, a canal engineer, noticed that when excavating along a certain band of rock all the remains of plant or animal life preserved in it as fossils belonged in a definite group or association. In beds, both above and below, the assemblage was different, yet remained constant in its own horizon. Thus was born the science of stratigraphy, and fossils were recognised as dating agencies. Previously they had been thought of as relics of The Flood, or to have grown in the rocks, but now it is realised that they demonstrate the whole history of evolution over ages of time previously unimagined.

Using this data, the whole of geological time can be summarised in the following table, the oldest rocks being shown at the bottom.

GEOLOGICAL PER Quaternary Tertiary		Approximate duration (million years) 65	MAIN FORMS OF LIFE Man Mammals
Alpine Orogeny		00	
Cretaceou	IS	55	Sea urchins
Jurassic		40	Birds
Triassic		30	Reptiles
Permian		30	
Hercynian Oroger	iy		
Carbonife	rous	60	Plants and corals.
Devonian		40	Fish
Caledonian Oroge	eny		
Silurian	-	30	Graptolites, corals and brachiopods.
Ordoviciar	า	50	Graptolites and trilobites.
Cambrian		100	Trilobites and worm casts.
Pre-Camb	rian		None preserved.

In subsequent reports it is hoped to include an account of the fossils to be found in Montgomeryshire and the stories they tell, an assessment of the work of weathering forces in carving out its landforms, and the final evolution of the scenery as effected by the activities of man. MARY HIGNETT

#### PRE-WAR WANDERINGS IN MID-WALES

Pre-war wanderings in mid-Wales endeared me to empty uplands where, perhaps, a single Great Crested Grebe might be the sole occupant of a lonely Teifi pool in a wild area for which I had made up a name from the four counties of Cardigan, Carmarthen, Brecknock and Radnor — Carthenecknor. It was not until after the war, however, that I was fortunate enough to be asked to Montgomeryshire to show my films of the islands of Skokholm and Grassholm, and on a second visit, one of Pembrokeshire itself. This was through the courtesy of the Montgomeryshire Field Society and of Mrs. and Miss Macnair, who looked after me so well at Lower Garth, extending my visit to allow expeditions, for instance, to the hills beyond Caersws to look for Black-headed Gull nesting areas. The hospitality at Lower Garth was most kind and generous, and I loved every minute of my stay there.

Mrs. Macnair was then driving her Austin Seven, and never lost patience with me however many times I checked and re-checked my film gear with its separate sound equipment. Once in a tremendous gale I heard something which went bump in the night but there was such howling and shrieking of wind that I didn't take all that much notice. Only the next morning was it discovered that a beech tree had crashed right onto the end of the house that I was in! The pigeons



had lost their attached quarters completely, but the main house with its sturdy timbers had taken the shock magnificently, just as wooden piles "give" slightly when a ship bumps a pier or guayside.

Miss Macnair showed me her special blackbird known as "Goofy" who performed his party piece perfectly. Called into the drawing-room from the garden, he would arrive at the French windows with something of a twinkle in his eye. About a dozen old envelopes had been placed on the floor, and under some of them, sultanas had been hidden. Goofy went to all the envelopes with sultanas underneath, and never investigated any of the others. Unfortunately he got caught by a Tawny Owl a year or two later.

At breakfast Mrs. Macnair had a fine domed egg-boiler which could hold up to six eggs. These were done as soon as the methylated spirit, lit below the dome to steam a small amount of water in it, had extinguished. Simple and eminently practical. I also learned from Mrs. Macnair how to pronounce "Shroosbury" which she had known for nearly a century. The drawing-room had a particularly peaceful atmosphere. Though full of papers of all descriptions everywhere in the room, Miss Macnair had not the slightest difficulty in locating at once any paper, letter or journal she needed. She had a very keen eye for detail, and this I think was why she was so successful as a field naturalist, combined as it was with tireless and smiling enthusiasm.

For botanists I have always had great admiration, and for people who have studied flowers intensely. It is true that, unlike birds, flowers do not fly off suddenly, or turn the wrong way for guick identification before disappearing. As with birds, I love their colours, their shapes, whether singly or en masse. They sway and sigh, but they do not sing. In Pembrokeshire I was privileged to know the late Dr. Charles L. Walton who wrote "The Flora of the St. David's Peninsula" published by The West Wales Field Society in 1951. By good fortune I also knew the late T. A. Warren Davies F.L.S. who wrote "Plants of Pembrokeshire" published by The West Wales Naturalists' Trust, 1970. At Porth Mynawyd I was introduced to Osmunda regalis by Dr. Ebdon of Oxford, which was followed almost immediately by the fine sight of three Choughs buoyant in a stiff coastal breeze. It was my godfather, the late W. R. Taylor, a friend of Dr. Harrison Matthews F.R.S., who taught me bird song, Woodlark in particular, during my school holidays at Hunstrete in North Somerset. Interest may also have come through a relation on my paternal grandmother's side, D. S. W. Nicholl of Llantwit Major who published "A List of the Birds of Glamorganshire" in 1886, and from a cousin in Cornwall, F. Rodd of Trebartha, who wrote "The Birds of Cornwall". So I am extremely grateful to Miss D. Pugh for kindly sending me a copy of "Plants of Montgomeryshire" by Janet Macnair, a work which I will study and greatly treasure. It will remind me of the unspoiled countryside, the

woods and hills of Montgomeryshire with its rich plant life so ably recorded in the county for which Miss Macnair was such a resolute defender.

Mid-Wales is indeed rich in memories. After staying at Ponterwyd with Mr. and Mrs. Condry, I drove Bill to Cwm Ystwyth so that he could walk back over the hills while I continued to Llynhilyn, Radnor. But first we climbed up some old lead mines, where a fox suddenly appeared, thence up to a pool Llynfryddonfach, which Bill renamed Llynfursdonfach for the day. At Rhandyrmwyn I had met the late Capt. H. R. H. Vaughan R.N. welcoming a party of Dale Fort students who asked him where they could see a Red Kite, to which he instantly replied: "Well, if you raise your heads you will see one soaring above you now". Later on, walking with Capt. and Mrs. Vaughan in the upper Towy valley, with excellent visibility, we saw two tough men approaching an oakwood opposite, so Captain Vaughan asked me to investigate. After I had crossed the rough terrain, including the river, and had climbed the hill, I asked them if they needed any help. Indeed, they said, they were completely lost. It turned out they were R.A.F. cadets on a training exercise. Captain Vaughan R.N. thoroughly enjoyed ringing up the Air Officer Commanding later that evening with apt comments.

At St. David's in 1949, when searching and later proving the first breeding of Black-headed Gull and Fulmar Petrel in Pembrokeshire, I got to know the late Canon Phillips whose sister lived at Llangurig, Montgomeryshire. The only way for the Canon to get there in one day by train, as it was part L.M.S. and part G.W.R., was for him to give the guard half-a-crown to speed up the steam-train, which had a hard job up the Llanwrtyd incline, so that it reached Builth Wells L.M.S. station in time for the Canon to get a taxi to Builth G.W.R. station before the Llangurig train left, which it otherwise took a delight in doing five minutes before his train from Llandeilo arrived. I am glad to say that the "steaming halfcrown" did the trick on the Canon's annual visits.

At their lovely home in Montgomeryshire, Mr. and Mrs. Trant very kindly allowed friends of mine from Zurich to ride their horses one July afternoon, when the Swiss couple and I were staying close to Lower Garth. They said that their day in Montgomeryshire was the best in their two month tour of England, Wales, Ireland and Scotland, and that Switzerland had nothing whatever like the landscape of Montgomeryshire which had charmed them.

For me too, Lower Garth and the late Mrs. and Miss Macnair hold a very special place whenever I think of my wanderings in Wales.

G. H. JOHN FURSDON

Devon,

May, 1983.

#### MRS. PEGGY GOODMAN

Members of our Society were all saddened by the news of Mrs. Peggy Goodman's mysterious disappearance in December 1982, since when nothing has been heard of her. She was an active and generous member of the M.F.S.

Before 1975 she worked with Miss Macnair to arrange outings in the Pennant Melangell area, which she loved. It was typical of her generosity that, seeing some expensive silver hares in Paris, she bought them to present to the little church.

She was ever eager to take us round the countrysde near Corwen, and would readily loan us her home, Tyddyn Angharad, with every facility for our needs. Her ietters always have several ideas for walks, with alternatives for wet weather.

We recall our visit to the Iron Age fort in April 1976, and the speed with which 40 members, under her energetic leadership, completely disappeared from sight during the 2 minutes when I was catering for a non-walking member.

Our visit to the North Wales Naturalists' Trust reserve at Cilgroesllwyd Woods in 1978 will be remembered for the beautiful variety of spring flowers,

and in May 1982, after telling us that her family had lived in the area since the early 18th century, she took us up a sharp ascent on the other side of the valley to look down on Corwen and the River Dee meandering across flat fields beyond which rose the mountains behind Tyddyn Angharad. Although advanced in years, she made nothing of the steep climb.

Mrs. Goodman was a patron of many good causes and advertised these by using envelopes exhorting us to save trees, use recycled paper or care for old donkeys.

#### M. G. WILLIAMS and MARY HIGNETT

The family of Mrs. Peggy Goodman have a long history of farming in the Upper Banwy Valley, both at Neuaddwen and at Coedtalog, Llanerfyl. Ellis Jones, of Neuaddwen (b. 1 Jan 1788) married Mary Griffiths and went to live at Coedtalog. Ellis Jones died on 1 Feb 1829. They had 11 children—the youngest, Gwen, was born in 1828. She married John Jones, Tyddyn Angharad. There were 5 children. Gwen Jones of Tyddyn Angharad was Mrs. Peggy Goodman's grandmother. Mrs. Pauline Phillips is a blood relation — (Ed.)

#### SUMMARY

#### The Weather at Tynewydd, Cwm Goleu, Welshpool, 1983

January was probably the fourth mildest of the century with mean temperatures more than 3°C above normal. The rainfall total was about normal. Very strong south-west to west winds dominated the month's weather. There were six days with gale force winds in this area. This mild spell was followed by colder weather with mainly easterly winds in February and mean temperatures were well below normal, but it was a dry month. Then March was a wet, dull month. It was mild for the first half with mean temperatures above normal and rainfall was also above normal. The wind was predominantly from the west. April was mostly cold, dull and wet with a warm spell in the middle of the month. The mean temperatures were about 1.5°C below normal, and the rainfall total was about 150% of normal. May was cold, dull and wet with frequent thunderstorms especially around the middle of the month. The mean maximum temperature was well below normal but the mean minimum temperature was about normal, and the rainfall total was again about 150% of normal. This meant that the Spring of 1983 was colder, wetter and less sunny than normal which handicapped agricultural and horticultural activities.

June was mostly cloudy and cool with mean temperatures about normal and it was mainly dry except for the severe thunderstorms on June 7th, which caused heavy flooding in this area. 44.2mm (1.75 inches) of rain were recorded at Tynewydd. Large hail stones also caused damage in some places on this day. Shawbury in Shropshire had the driest June since records began in 1945. July was mostly hot, dry and sunny with five thunderstorms, none of which produced any appreciable amounts of rain. According to the Meteorological Office the mean temperature for July was the highest this century. The maximum temperature was above 26.7°C (80°F) on ten days here at Tynewydd. August started cooler with a north-westerly airstream but then as pressure rose the wind turned easterly and temperatures began to rise. The month was mostly warm, dry and sunny but there were two days (16th and 23rd) with heavy showers. According to the Meteorological Office the mean temperature for the Summer as a whole was about 2°C above normal for this part of the British Isles. The sunshine total was above normal being about 120% of average. It was the sixth warmest and the second driest Summer this century, only 1976 being drier.

The warm anticyclonic weather which dominated July and August ended at the start of September. Heavy rain and gale force westerly winds came on the 3rd. The month was generallyt unsettled, dull and wet with mean maximum temperature below normal and rainfall total above normal. October was mainly mild until the 19th when it became colder with ground frost on nine nights and air frost on three nights. There was a thunderstorm and a gale force Westerly wind on the 16th. The mean maximum temperature was rather below normal, and the rainfall total was about normal. November started with high pressure and the month in general had mostly anticyclonic weather with marked variations in temperature although the mean maximum and mean minimum temperatures were rather above normal. It was generally a dry month and the rainfall total was about 50% of normal. The Autumn of 1983 had temperatures mostly near normal and it was drier but less sunny than usual.

December started mostly mild but it turned cold by the 10th and snow fell on two days. Then it turned warmer again by Christmas when there was a mild spell with westerly winds. The mean maximum and mean minimum temperatures were well above normal. It was, however, a wet month with rainfall total well above normal.

#### **COMPARISON OF RAINFALL FIGURES FOR 1983 (inches)**

	Corris 550ft	Tynewydd 800ft
January	19.14	5.23
February	5.17	1.54
March	10.20	2.26
April	4.18	5.83
Mav	6.63	4.67
June	3.00	2.51
July	2.20	0.52
August	4.30	2.31
September	14.06	5.53
October	14.45	3.25
November	5.13	1.51
December	13.30	4.92
Total	101.76	40.08
cf 1982	99.94	40.34

#### **COMPARISON OF RAINFALL FIGURES FOR 1983 (mm)**

	Tynewydd Cwm Golau	Bryn Frochas	Guilsfiel
	800ft	700ft	282ft
January	132.8	116.4	135.6
February	39.2	33.4	22.2
March	57.3	60.6	63.5
April	148.0	132.1	148.5
May	118.5	128.1	116.2
June	63.8	34.5	20.1
July	13.2	46.5	23.7
August	58.7	66.0	57.3
September	140.3	110.5	90.5
October	82.6	68.0	58.7
November	38.3	38.1	39.2
December	125.1	109.9	108.6
Total	1017.8	944.1	884.1
 C/f 1982	1030.1	915.7	875.2

#### **RAINFALL FIGURES FOR THE PLYNLIMON AREA FOR 1983(mm)**

	Dolydd 308m or 1000ft	Moel Gynnedd 358m or 1164ft	Carreg Wen 580m or 1885ft
February	436.0 106.1	530.0 123.9	694.8 199.0
March	143.8	208.7	271.5
April	117.2	146.8	149.5
May	133.7	138.7	139.6
June	95.2	90.1	114.0
July	49.9	41.5	48.0
August	63.2	77.5	89.0
September	283.1	329.8	390.5
October	287.8	363.4	431.0
November	134.2	182.1	221.5
December	282.0	323.3	374.0
Total	2132.2	2555.8	3122.4
C/f 1982	1953.5	2286.7	2806.9

These figures supplied by Dr. M. Newson and his staff from the Institute of Hydrology, Staylittle, Llanbrynmair.

#### COMPARISON OF TEMPERATURES FOR 1983 (°F)

		rris Oft		yn Oft		sfield 2ft		wydd Oft
-	Mean	Range	Mean	Range	Mean	Range	Mean	Range
January	43.2	28-53	44.1	31-60	41.5	20-56	43.1	30-55
February	35.2	24-48	35.6	26-47	38.7	15-54	35.5	23-50
March	42.8	28-50	45.5	31-58	43.9	26-56	43.6	29-53
April	42.7	28-59	46.0	35-59	43.9	22-66	43.0	29-60
May	49.4	37-67	52.0	41-64	51.1	28-76	49.6	37-67
June	56.7	44-77	60.0	48-76	58.7	36-87	56.8	42-77
July	66.8	42-87	69.1	54-87	68.0	41-96	66.0	44-86
August	62.2	42-81	65.1	48-84	62.7	36-86	62.4	42-81
September	54.9	40-69	56.5	44-71	55.3	34-76	55.7	42-69
October	47.5	27-65	50.3	32-64	43.9	20-68	49.8	28-64
November	44.7	23-57	44.9	27-56	41.0	14-58	44.6	23-58
December	41.8	27.53	42.6	30-52	47.8	18-55	42.5	27-54
<i>Average</i> Mean for								
year	49.0		51.0		49.7		49.4	
Yearly range		23-87	_	26-87		14-96		23-86
C/f 1982	48.8	15-81	49.0	4-79	48.9	*-88	48.9	7-80

\*Minimum temperature below the lowest temperature registered by this thermometer.

EARTH TEMPERATURE 1 FOOT DOWN FOR 1983
RECORDED AT CWM GOLEU

			<b>C/f</b> 1	982
	°C	°F	°C	°F
January	6.0	43	3.6	38
February	3.4	38	4.9	41
March	5.6	42	5.3	42
April	6.5	44	7.8	46
May	10.3	50	11.1	52
June	14.5	58	15.6	60
July	18.7	66	17.1	63
August	17.7	64	16.6	62
September	14.4	58	14.4	58
October	11.7	53	11.3	52
November	8.6	47	9.2	49
December	6.5	44	5.5	42
Average mean	10.3	50	10.2	50

#### RAINFALL 1983

	, Cemmaes (mm)	Newtown (mm)
January	287	82
February	87	501/2
March	121	43
April	103	941/2
May	98	761/2
June	49	33
July	42	20
August	67	<b>24</b> ½
September	213	107
	263	70
November	83	36
December	254	91
Total	1667	728

#### INSTITUTE OF HYDROLOGY, LLANBRYNMAIR Mild, wet Christmas period ends warmest year on record

The sixteenth Christmas enjoyed by the met. observers of the Institute of Hydrology at Staylittle turned out to be typically warm, ending a year in which an unusually warm July, together with mild January, December and August produced the highest overall mean temperature of the whole record: 7.8°C.

The year was also wet, with almost exactly 100 inches of rain in Hafren Forest. January 1983 produced the wettest single month since records began at the site in 1967. With such a start one might have forecast a poor summer, but the three summer months produced less than half the rain of January and the warm sunshine, especially of July brought a record warm monthly mean even though the 1976 record for afternoon maximum temperature still stands. The year lacked a notable cold spell, although minimum temperatures reached  $-8.2^{\circ}$ C in both February and, more surprisingly, in November. Days of snow were only half of the average; frosts were also reduced. It was one of the less windy years on record but nevertheless the total run of wind at this upland site would have carried a speck of dust almost round the world in the year!

#### PLANT RECORDS FOR 1983

- 25/aus. *Polypodium australe.* Fee (Polypody) Crevices in S. facing dolerite cliff Roundton Hill SO.29. P. M. Benoit. 2nd record.
- 79/1. Lepidium sativum (Garden Cress). Behind Lower Garth Cottage, Guilsfield. SJ 21. I. C. Trueman and E. D. Pugh — New 10km square record.
- 225/8X12. Rosa canina LXR sherardii Davies (a hybrid Rose). Laneside hedge near Hillington Farm on the E. side of Corndon Hill. S.O. 39. P. M. Benoit, M. Wainwright and E. D. Pugh. 1st record.
- 227/5. Cotoneaster frigidus Wall ex Lindl. Roadside hedge near entrance to farm drive, Pont Llyfnant on the A487, S.N.79. H. M. Williams. 1st record.
- 287/1. Sison amomum (Stone Parsley). One plant on laneside and several plants on both sides of a field hedge opposite Great Hem SO. 29. J. Roper.
- 341/2. *Quercus ilex. L.* (Evergreen Oak). Near the entrnace to car park opposite the Church, Welshpool. SJ, 20. E. D. Pugh, 1982.
- 430/20. Veronica hederifolia subsp hederifolia (Ivy-leaved Speedwell). Roadside, Gaerfawr Hill, Guilsfield, SJ 21. P. M. Benoit and E. D. Pugh. 1st record.
- 539/1. Carduus tenuifolius (Slender Thistle). One plant on roadside verge, Cwm Bychan, opposite Golomen Dingle. SJ2607. P. M. Benoit.
- 605/fol. Juncus foliosus Desf. (a Toad Rush). Boggy edge of stream S.W. side of Corndon Hill, SJ39. P. M. Benoit, 2nd record.
- 663/33. Carex Iasiocarpa (Slender Sedge). In quantity at Coethlyn Bog. SJ01. P. M. Benoit and I. C. Trueman, 3rd record.
- 670/4. Festuca altissima (Wood Fescue). On ledges in a wooded rocky gorge. Nant Cwmdu. S. of Bryndam. SN89. A. J. Morton — This could possibly be a re-discovery of Salter's record of 1926 — "We have Salter's specimen of Festuca altissima and the label reads "Wet rocks by Waterfall — Cwm Dulas (6mls S.E. of Machynlleth). Montgomery. 1926" — It could very well be that the two sites are the same." Gwynn Ellis, National Museum of Wales.

DORIS PUGH

#### Erratum - 1982 Report p. /.

24/5. *Gymnocarpium robertianum* (Hoffm) Newm. Limestone Fern). Breidden Hill. SJ21 recorded by A. R. Busby and a Fern Study Group 20/981 proved to be an error for Gymnocarpium dryopteris (Oak Fern). A look at the ten days of holiday period from Christmas Eve onwards shows that Christmas 1983 was the mildest ever, without a drop of 'white'. Snow has in fact fallen during this period on 9 of the 16 years of record, although the only notably white Christmas was in 1981. There is no telling what these conditions bespeak for the weather in 1984; however, the wet and windy start to January is almost identical with that in 1983, so perhaps we can expect another good summer, much as 1976 followed the sunshine of 1975!

Dr. M. D. Newson, Head of Institute of Hydrology, Staylittle, Llanbrynmair, . Powys.

Editor: A similar note to this one was printed on page 22 of the 1978 Annual Report.

#### MEMBERS

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