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INDOOR MEETINGS 1989/90

These are held at the Museum, William Brown Street at 19.30. Council meetings are at 19.00.

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| FEBRUARY 14th, 1989 | Dr J. Edmondson - "Flowers of Oman." |
| MARCH 14th | Dr K. Watson - "Flowers of the Aegean." |
| APRIL 11th | Michael Jones of Buckley - "The Genus Orobanche." |
| OCTOBER 10th | Brenda McLean - "George Forrest and his patron Arthur K Bulley." |
| NOVEMBER 14th | Holiday Exhibits 1989 - All members are invited to contribute. |
| DECEMBER 12th | Guy Huntington - "Natural History Slides." |
| JANUARY 9th, 1990 | Annual General Meeting and Resume of 1989 Field Meetings. All members are invited to participate. |
| FEBRUARY 13th | Dr A. Gunn - "A peep behind the scenes." |

FIELD MEETINGS 1989

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| APRIL 22nd, 1989 | Caergwrle. Leader: Miss Swinney. 09.06 train from Liverpool Central to West Kirby, change at Bidston for the 09.25 train to Wrexham. Alight at Caergwrle 10.14. |
| MAY 20th | Appley Bridge and Gathurst. Leader: Mrs E. Stevenson. 09.05 train from Liverpool Central to Southport for 10.00 train to Wigan. Book return to Gathurst but alight at Appley Bridge 10.26. |
| JUNE 10th | Arnside. Leaders: Mr & Mrs Lockwood. 08.35 train from Liverpool Central to Southport, alight at Freshfield Station 09.03. Please notify of intention to come: Tel. 051 367 2008 |
| JULY 1st | Eastham. Leader: Miss J. Bentley. 09.26 train from Liverpool Central to Spital for the 09.58 bus (No. 186) to Eastham. |
| JULY 11th | Bidston Moss. Evening meeting. Leader: Dr K. Watson. 18.51 train from Liverpool Central to West Kirby, alight at Bidston Station 19.03. |
| JULY 15th | Prestwich. Leader: Miss A. Franks. 09.01 train from Liverpool Lime Street to Manchester Victoria where the leader will meet the party for the train to Prestwich. |
| AUGUST 5th | Hunts Cross. Leader: Miss V. Gordon. 10.30 train from Liverpool Central to Hunts Cross, arrive 10.45. |
| AUGUST 26th | Cherry Tree. Leader: Miss M Wilson. 08.50 train from Liverpool Lime Street to Wigan & Preston, for 10.15 train to Colne. Alight at Cherry Tree Station 10.35. |
| SEPTEMBER 16th | Rufford. Leader: Miss A. Swinney. 09.32 train from Liverpool Central to Ormskirk for 10.05 train to Preston. Alight at Rufford 10.14 |
| OCTOBER 7th | Wepre Woods. Leader: Miss Gordon. 09.06 train from Liverpool Central to West Kirby, change at Bidston for the 09.25 train to Wrexham. Alight at Shotton Station 09.55. |

23rd APRIL. GWERSYLLT to CAERGWRLE. Leader: Miss Swinney.

The usual spring woodland flowers were prolific - *Anemone nemorosa*, *Oxalis acetosella*, *Viola riviniana* and *V. reichenbachiana*, *Luzula pilosa* and *L. sylvatica*, *Adoxa moschatellina* and *Chrysosplenium alternifolium* and *C. oppositifolium*. In one woodland *Tellima grandiflora* was thriving as a naturalised plant. In wet places *Caltha palustris* made a good show mixed with *Cardamine pratensis*.

21st MAY. BORSDANE WOOD. Leader: Miss Gordon.

The party of 13 did some recording for the monitoring scheme. Among the more interesting species seen were *Equisetum sylvaticum* and *Carex pilulifera*. *Montia sibirica*, a fairly recent arrival in the woods was abundant and a reclaimed industrial area produced *Carex arenaria*, *Linum catharticum* and *Lepidium campestre*.

25th JUNE. HILLSIDE to SOUTHPORT. Leader: Mrs. Lockwood.

This was a wonderful meeting to see orchids. As well as *Dactylorhiza fuchsii* and *D. majalis* ssp. *purpurella* and ssp. *praetermissa* and *D. incarnata* and their hybrids we saw *Listera ovata* (Twayblade) and *Ophrys apifera* (Bee orchids). *Ranunculus lingua* was seen in one place and *Calystegia soldanella*, *Rhynchosinapsis monensis* and plenty of *Orobanche minor* nearer Birkdale. *Juncus balticus* was seen in a few slacks and *Cotula coronopifolia* in some car ruts on waste ground at Southport.

16th JULY. WEST KIRBY, HOYLAKE, MEOLS & MORETON. Leader: Miss Bentley.

The day after a glorious St. Swithen's Day turned out to be the wettest of the year but our party of 12 were not daunted. In pouring rain blown on a sea wind, the developing salt marsh on West Kirby shore was examined and then the recently formed dune slack where a dense colony of *Dactylorhiza* species and hybrids has developed.

After lunch on Hoylake Railway Station where we dripped, the staunch 12 in relentless rain continued through Meols to Moreton. *Sherardia arvensis* was reminiscent of sunnier days in Southern Europe. *Salsola kali* was abundant along Meols sandhills with introduced chicory with flowers of many shades of blue. In ditches of reclaimed salt marsh at Moreton, *Cotula coronopifolia* was seen not far from where it was first introduced over 100 years ago by the lighthouse men. In the same area a patch of *Ranunculus lingua* was seen, while a recent introduction was *Camelina sativa* on the recently made bank of a new car park. *Butomus umbellatus* was seen in the River Birket in plenty.

6th AUGUST. DROYLSDEN. Leader: Miss Franks.

A few members of Manchester Field Club joined the party for this walk in the Medlock Valley on a very pleasant day. Starting from Lumb Mill, Little Moss, we followed the towpath of the Droylsden Canal in the direction of Daisy Nook. In the water *Stratiotes aloides* and *Hydrocharis morsus-ranae* were in flower and *Alisma plantago-aquatica* in fruit, and there were leaves of *Sagittaria sagittifolia*. *Stachys palustris* and the hybrid *S. x ambigua* grew near the towpath, *Senecio erucifolius* was just coming into flower and *Pulicaria dysenterica* made a bright splash of colour by a wall. Recent cleaning operations had removed some of the *Glyceria maxima* and *Stratiotes* which had been choking up the canal but had nearly exterminated *Apium inundatum*, only a few leaves of which could be found. The rarer *Potamogetons* have disappeared over the years, but *P. berchtoldii*, *P. crispus* and *P. natans* remain.

We stopped for lunch on a hill overlooking the valley with the river meandering below. From there it was only a short distance to the new Visitor Centre, which has a fine display of photographs, an information desk and refreshment bar. A path then took us towards Boodle Wood, past a wall with clumps of *Asplenium ruta-muraria* and a wet patch where grew the hybrid watercress *Nasturtium microphyllum x officinale*. The wood is beautiful in springtime but in late summer only *Circaea lutetiana*, *Montia sibirica*, *Festuca gigantea* and *Bromus ramosus* were of note. We left the wood to see *Astrantia major*, a relic of planting in the grounds of Riversvale Hall, which was demolished some years ago.

The walk ended officially at Bardsley Bridge but some of the party continued to Fennyfield Pond to see *Ranunculus lingua* (said to be introduced) and *Nuphar lutea*. We returned along the Wagon Road, where a nice patch of the hybrid *Geranium endressii* x *versicolor* was well-established on a bank. Road resurfacing had fortunately not affected the *Epilobium roseum* which grows there. One of the smaller willow-herbs, it is very distinctive with its drooping white buds and pale pink flowers.

27th AUGUST. HALE. Leader: Miss Gordon.

Salt marshes in various stages of development and clay cliffs of the Mersey North Shore were examined. The most interesting of the cliff vegetation were *Picris echioides*, *Blackstonia perfoliata*, *Senecio erucifolius*, *Dipsacus fullonum*, *Angelica archangelica* and the pink variety of *Calystegia sepium*.

The sand and salt marsh species graded from *Honkenya peploides*, *Glaux maritima*, *Armeria maritima*, *Cochlearia anglica*, *Aster tripolium* and the rayless form, to *Spartina anglica* and *Salicornias* with associated species too numerous to list.

17th SEPTEMBER. THURSTASTON COMMON. Leader: Miss Wilson.

The walk began along a red sandy path from Telegraph Road bordered by *Erica cinerea* and *Calluna vulgaris*. Reaching the school, the group of 12 took the path through bracken and silver birch to climb the summit of Thurstaston Hill, 300ft. above sea level. Turning inland the party halted to look over towards Benty Farm situated on a bed of boulder clay overlying the sandstone. *Ulex gallii*, a smaller shrub than *U. europaeus*, with its deeper golden flowers and richer green foliage brightened the day. Crossing a formerly wet area the remains of cotton grass, *Eriophorum angustifolium* were seen with *Erica tetralix*, a heath which favours wetter areas. In the hollows surrounding Thor's Stone, tussocks of purple moor grass *Molinia caerulea* were found in a dried out area.

It was a delight to walk along the sandy tracks through the purple heathers and golden gorse and birch and oak woodland to the boundary wall of Royden Park. As the walled garden was unexpectedly open, the group enjoyed a visit to this habitat garden with its rich variety of plants. Returning through woodland, *Montia sibirica* was seen, still in flower.

During the day the fungi, *Amanita muscaria* (Fly agaric), *A. rubescens* (The Blusher), *Amanitopsis fulva* (Tawny Grisette), *Russula ochroleuca* with its sharp gills, the milk caps *Lactarius torminosus* and *L. rufus*, *Paxillus involutus* with its rolled rim, and *Piptoporus betulinus* (Birch Bracket) were seen though conditions were dry.

22nd OCTOBER. FRESHFIELD. Leaders: Misses Gordon & Swinney.

A warm sunny day following a mild 2 or 3 weeks produced a good display of fungi. The more notable were *Geaster triplex* (Earth Star), *Geoglossum cookeianum* (Earth Tongue), *Laccaria laccata* (The Deceiver), Sulphur Tuft, Honey Tuft, Fly Agaric and some *Russula* and *Lactarius* species.

REPORTS OF INDOOR MEETINGS 1988

JANUARY. The Annual General Meeting was followed by a resume of 1987 field meetings. Miss Davis showed slides taken at the August Birkdale meeting which included a fine specimen of *Gentianella amarella*. Miss Gordon also showed slides taken at the field meetings and a piece of tufa similar to that which we saw at Gresford. It was mainly composed of *Cratoneuron commutatum* with the tiny leaves petrified and quite distinct. Mr. Greenwood's selection of slides illustrated habitat and plants of East Anglia - wooded hills near Sheringham, shingle beach at Cley and the Broads caused by ancient peat digging and now suffering from eutrophic conditions. Associated species such as *Peucedanum palustre* were shown.

FEBRUARY. Dr. Gareth Evans gave a talk "Design & Maintenance of Small Gardens". Slides illustrated that design was closely related to maintenance and that the garden was a frame to the house. It should be an attractive and pleasant place to work and relax in as well as easy to manage. Slides showed his own garden from when it was planned 18 years ago to its present mature state. Shapes of paths, lawns and beds and styles of garden furniture were discussed and depicted as well as species planted and tools and chemicals used. Photographs were shown of professionally designed gardens. The work involved in the fruit and vegetable section of the garden was discussed. Many questions were asked, most members having rueful thoughts of their own garden.

MARCH. Dr. Hugh McAllister gave his talk "Deschampsia caespitosa - One or Five Species?" It had been assumed that the diploid species was widespread whilst on mountains the tetraploid took its place. However in 1985-86 work done by E.W. & L. Scott showed that the tetraploid plant with 52 chromosomes was the common wayside and field plant while a diploid lowland plant of ancient woodland and shaded places was a relict species. Growing tussocks of each were shown and the different characters pointed out. The diploid had been described by Hubbard as variety parviflora.

The diploid species of highland summits is morphologically difficult to distinguish from the common tetraploid which experiments had shown to be unable to produce seeds in the colder temperatures of the higher hills. Photographs were shown of viviparous deschampsias which had been called *Deschampsia alpina*. Now experiment has shown that this name can only be applied to viviparous diploids with brittle spikelets which fall easily and do not press the glumes apart. They flower after one year.

The viviparous tetraploid of Ben Cruachan and Ben More have spikelets which press the glumes apart and which take 2 years to flower. They have hooded leaf tips and can be identified as *D. laevigata*, an arctic relict growing at over 3000ft. in the north and east. The viviparous tetraploids of the mountains of S.W. Scotland, Lakeland and Snowdonia have tapering leaf tips. Hybrids with 39 chromosomes have been found on Ben Alder and Mull. Most continental *D. caespitosa* are diploid but examples were quoted of exceptions.

APRIL. Dr. Angus Gunn gave a talk on the genus *Lupinus* upon which he had done a thesis for his Ph D. at Edinburgh University. The object of the research was to investigate the genus as a possible minor crop. The seeds are rich in oils and proteins and the plant does not need expensive fertilisers. The poisonous alkaloids of the seed coat can now be removed giving rise to the "sweet" varieties.

Slides illustrated the lupin groups and some species:- European species with smooth epidermal cells, North African including Saharan and Mediterranean species with a rough seed coat, North American 200 to 800 species and still hybridising, South American from small alpiners of the Southern Andes to tropical rain forest species cultivated as far back as the Inca civilizations.

Methods of study described included scanning electron microscopy which magnified characters many thousand times and electrophoresis which showed chemical make-up. Interesting facts given about lupins are that the seeds have the longest recorded dormancy, germinating after 30,000 years in Arctic permafrost. They have the smallest chromosomes of any flowering plant and larger root nodules than any other legume.

OCTOBER. Miss Gordon showed slides illustrating her talk on some larger British Fungi. Starting with Agarics she showed the characters to be noted for identification and the difficulties encountered. The commoner and more distinctive species in various genera were shown. After the gill bearing fungi other groups treated similarly were Boleti, bracket fungi, Polyporus, toothed fungi, puffballs including Geasters and Tulostoma, cup fungi and a few clubs.

NOVEMBER. Members holiday exhibits.

Mr. Greenwood showed some Isle of Man species including *Astragalus danicus*, *Limonium binervosum* and *Crambe maritima* and a series of slides illustrating a holiday in Dorset. These included *Althaea officinalis* at Abbotsbury and a view of Abba's Giant showing lightly grazed downland with a rich flora while the enclosed area round the giant was a pure *Brachypodium pinnatum* community.

Miss Davis showed photographs of delphiniums at the RHS Chelsea Show and described the stages involved from 1952 in selection and breeding to get new colours. Photographs which were taken in Canada showed *Cornus canadensis*, orange Hawkweed and Beach Fern.

John Richardson's contribution included views of South Uist, Morrone Birkwood near Braemar and Blackwood on Loch Rannoch's southern shore.

Miss Gordon showed a specimen of *Agrostis avenacea* from a disused railway siding at Fazakerley. Some slides taken in Turkey included *Cyclamen trochopetanthum*, *Fritillaria acmopetala* and *F. carica*, *Iris unguicularis*, *Plantago cretica* and *Cephalanthera epipactoides*. Bulgarian plants included *Silene larchenfeldiana*, *Iris reichenbachiana*, *Aquilegia aurea*, *Digitalis lanata* and *Pulicaria rubra*.

DECEMBER. The President Mr. E.F. Greenwood gave a talk on "The Flora of West Lancs" liberally illustrated with transparencies. Tribute was paid to the recent "Flowering Plants and Ferns of North Lancs" by Mr. & Mrs. Livermore.

Slides of maps illustrated the geography and geology of the vice county then there were views of habitats and typical and rare species to be found: eroded blanket bog and moorland with fruiting Cloudberry and *Listera cordata*, wooded river valleys with *Trientalis* - rare so far south, millstone grit crags with Parsley Fern, *Dryopteris aemula* and *Vaccinium vitis-idaea*; limestone gorges with *Actaea spicata* and Limestone polypody; limestone pavement in the north west with Fly Orchid, *Minuartia verna*, *Galium sternerii* and *Polygonatum odoratum*. Attractive villages further down the valleys had wooded areas where *Stellaria nemorum*, *Cardamine amara* and *Chrysosplenium alternifolium* are common. Old meadows, less common than formerly, could still produce Greater Butterfly-orchids, Melancholy Thistle, *Trollius*, *Orchis morio* and *Primula farinosa*, and in limestone pastures *Spiranthes spiralis* is now less frequently seen.

Rivers Ribble, Lune and Wyre were described and two small lakes, Hawes water and Martin Mere, but the best place for water species is the Lancaster Canal with *Butomus*, *Stratiotes*, *Acorus* and Arrowhead. *Alisma* is typical in the old marl pits. Lowland peat bogs are nearly all drained but *Andromeda*, *Myrica*, Cranberry and *Narthecium* may still be found. Weed flora includes *Galeopsis speciosa* and *Chrysanthemum segetum*.

The salt marshes of the Lune and Wyre estuaries were shown with three species of *Limonium* and *Artemisia maritima* among typical species.

Lytham dune and slack plants included *Anacamptis*, *Dactylorhiza* species, *Epipactis dunensis* and *Juncus balticus* x *inflexus* and the cliffs at Heysham with *Asplenium marinum* and *Osmunda regalis*.

N.B. Members are reminded that subscriptions for 1989 are due in January and should please send them to the Hon. Treasurer, otherwise it will be assumed that the membership is terminated.
Annual subscription rate: £1.00.

Members should please note that train times for all the field trips should be verified on current time tables. Winter times only are available at the time of publication.

Food should be carried on field meetings.