

FIELD MEETINGS, 1958*

JANUARY 4th, 1958. HERBARIUM AND ROYAL BOTANIC GARDENS, KEW

This Junior Meeting was attended by a party of 64, representing 13 schools in the London Area, and was arranged by kind permission of the Director, Dr. G. Taylor.

Mr. R. A. Graham acted as guide and showed some exhibits from the herbarium; he also outlined the work carried out there and, in particular, the methods used in naming the plants sent for identification.

Mr. H. S. Marshall, the Librarian, had arranged a special exhibit of books from the library ranging from early herbals to present-day works. Many of the books contained beautifully hand-coloured illustrations and some of the plants thus pictured were later shown to us in flower in the glasshouses in the Gardens by Mr. G. Preston.—A. W. WESTRUP.

APRIL 7th to 20th, 1958. BANYULS-sur-MER, PYRENEES-ORIENTALES.

Leader: JOHN OUNSTED

The Junior Membership Committee continued to lead the Society in studying the British flora by comparison with that of the Continent when, after Easter, it held its second European Junior Residential Meeting on the shores of the Mediterranean, with coach visits to the Pyrenees. The party numbered 29. The centre chosen proved extremely suitable, particularly for the time of year. The climate is so favourable that, although the local people said the weather was unprecedentedly bad, there was only one day on which we were prevented from making an excursion, though very high winds prevented us from becoming too hot. The flora is so rich that even in an exceptionally retarded April we were able to identify over 300 species in flower (indeed the *Département* of Pyrénées-Orientales is said to have a richer flora than any area of comparable size in Europe, and later in the season we should have been overwhelmed by it). The accommodation available was very well suited to botany students.

Travel and accommodation arrangements all went very smoothly, thanks to the careful planning of our Secretary, Mr. Westrup. The second week was spent at the Laboratoire Arago, a research station for Marine Biology, maintained by the University of Paris. Here, we were made very welcome by the Sous-Directeur, M. Delamare-Deboutteville, and were provided with comfortable bedrooms and the sole use of

*Field Meetings arranged by the Committee for the study of the Scottish flora are indicated by †.

a spacious and well-equipped laboratory. In the previous week, owing to the late date of Easter, the Laboratoire was still in use by Paris students and we were accommodated in a nearby hotel which specialises in students. We continued to take our evening meals at this hotel in the second week, when we were providing for our own *petit déjeuner* and picnic lunch. The French students, who dined at an adjoining table, greeted us with a prolonged speech which was wholly unintelligible and turned out not to be in any known language, but in 'mumbo-jumbo'. We were fortunate in having as a member Miss Rita Daunoras who replied with an eloquent speech in her native language; this is believed to be the first formal public speech on behalf of the B.S.B.I. to have been made in Lithuanian.

The one handicap, as compared with our 1956 excursion to the Austrian Alps, was that there was no local botanist to help us with identifications of plants, and we had to do this from first principles using our Floras. In this connection we were enormously helped by Dr. C. T. Prime's presence during the first week, and greatly missed him when he had to leave for other duties. We had, however, received useful assistance from M. Cl. Leredde of the University of Toulouse who indicated suitable places to visit and provided a bibliography. Thanks to him we discovered the very full reports published after the *Société Botanique de France* held a Field Meeting in the area at the end of May 1891: and to a large extent we simply followed their footsteps, finding a good proportion of the plants they had seen fit to record.

From the floristic point of view our botanising was done in four regions:

(1) BANYULS AND NEIGHBOURHOOD

This consisted of waysides, cliffs, dry rocky scrub, masses of extremely well-weeded vineyards, and one or two cork-woods rising to a height of about 1,500 feet. In this region, which is typically "Mediterranean", most of our work was done. Here we were interested to find many common English weeds such as *Capsella bursa-pastoris*, *Poa annua*, *Cardaria draba*, *Stellaria media*, *Parietaria diffusa*, *Urtica urens* and *U. dioica*, mixed with many much less common ones such as *Marrubium vulgare*, *Mercurialis annua*, *Smyrnium olusatrum*, *Foeniculum vulgare*, *Antirrhinum orontium*, *Lobularia maritima* (ascending far from the sea), *Chrysanthemum segetum*, *Stachys arvensis*, *Oxalis corniculata*, *Polygonum tetraphyllum*, *Anagallis foemina* and *Urtica pilulifera*. *Chenopodium murale* was plentiful growing typically on walls and not, as with us, on rubbish tips. (The most interesting local rubbish-tip feature seemed to be the Squirting Cucumber, *Ecballium elaterium*.) It was interesting to find *Sisymbrium orientale*, *S. officinale* and *S. altissimum*, but commoner than all, *S. irio*. Similarly in other habitats *Asplenium trichomanes* and *A. adiantum-nigrum* were accompanied by *A. septentrionale*, clearly not the northern plant the trivial suggests. It was instructive to us in this region to note the way in which familiar species were supplemented or replaced by non-British congeners, as *Senecio vulgaris* by *S. lividus*, *Lamium album* by *L. flexuosum* and *Raphanistrum* by *Raphanus landra*. In each of these cases we had our

attention caught by "something wrong" in the appearance of the plant even though when we settled down with the flora the specific differences were quite hard to determine. Moreover our conception of what an oak tree was much widened by the rarity of our own oaks and the frequency of *Q. suber*, *Q. pubescens*, *Q. ilex* and *Q. coccifera*; and our conception of a plantain was widened by adding to three British species six exotic ones including two of such unfamiliar habit as *P. cynops* and *P. indica*. It was instructive, too, to note the obvious specific differences there were in an obviously homogeneous group of spurges, where we could add 7 foreign species to the six British ones we identified. In particular, it was helpful for those brought up on "Bentham and Hooker" to see how Mediterranean *Euphorbia segetalis* differs from our *E. portlandica*.

Other interesting 'British' plants found in this region included *Allium roseum*, *A. triquetrum*, *Linaria supina*, *Reseda alba*, *Briza maxima*, *Cephalanthera ensifolia*, *Trifolium stellatum* (very abundant), *Poa bulbosa* (with the viviparous form exhibited last November by John Hodgson from Frensham), *Bromus madritensis*, *Scirpus holoschoenus*, *Muscari atlanticum* (abundant), *Vicia lutea*, *Anogramma leptophyllum*, *Adiantum capillus-veneris*, *Daucus carota* subsp. *gummifer*, *Orobanche rapum-genistae*, and *Anchusa officinalis*.

(2) THE SAND-DUNES AT ARGELES-PLAGE

We spent half a day here finding many of the plants wholly strange but discovering, as well as a number of common British ones, *Silene conica*, *Tuberaria guttata*, *Herniaria glabra* and *Corrigiola litoralis*. Our notions of the genus *Medicago* were changed here by the abundance and beauty of *M. marina*, but perhaps the most salutary experience was to be faced with determining a plant so thoroughly un-British as to belong to the Gnetales, namely *Ephedra distachya*.

(3) THE CALCAREOUS HILLS OF THE CORBIÈRES

We spent half a day botanising these in somewhat unfavourable weather conditions, finding mostly large numbers of wholly exotic plants. Nobody succeeded in placing in its family *Bupleurum fruticosum*—until one removed the hand concealing the inflorescence. Good training in using the Flora from first principles was here provided by three wholly exotic families, the *Cneoraceae* (*Cneorum tricoccum*), *Coriariaceae* (*Coriaria myrtifolia*) and *Globulariaceae* (three species of *Globularia*). Here, too, our ideas of Mercury were much extended by meeting the shrubby *Mercurialis tomentosa*. In a neighbouring place we were surprised by a wood holding a fairly typical ground flora of Cowslips, Spurge Laurel, Box and Juniper (with the familiar garden Hepatica) but the dominant tree being unexpectedly Pine. The most interesting British rarity found was *Orchis purpurea*.

(4) THE PYRENEES NEAR MONT LOUIS AND VERNET, AT 4,000-5,000 FT.

We deliberately put off our visits to the higher places until the end of our stay as we knew the season was backward, but there were heavy snowfalls and sharp frosts even as late as April 14-16 and our first visit, however exciting touristically, was useless botanically except

for our almost certainly having created a record by being the first Field Meeting of the Society to have been delayed for two hours through being stuck in a snowdrift. Vernet was more sheltered and here we found a much more British appearance, but with conditions like a fine day in late February. *Doronicum pardalianches*, which was common in the chesnut woods, was not yet in flower, but the earlier *Helleborus foetidus* was plentiful and in good form.

Mention must also be made of the excursion on our last day to the Massane reserve, a most remarkable valley only 3 miles from the Mediterranean and less than 2,000 feet above sea level, which does not fit in with any of the regions described and is scheduled as a reserve for this reason. On the exposed (seaward) side of a sharp ridge is a typical Mediterranean *garrigue* with three species of *Cistus*, Rosemary, Lavender, spiny shrubs such as *Calycotome* and so on. On the other is a moist sheltered valley filled with an ancient beechwood and occasional Holly and Durmast-oak with Mercury, Wood-sorrel and in general an aspect such as we might have found in any of a hundred places at home. On this day we were rewarded with *Lilium martagon* and *Polygonatum odoratum*.

This report is not the place to write of the local rarities, which were not anyhow a main aim of the excursion, though we did succeed in hunting down and resisting the temptation to pick the heavily protected and rather dull *Myosotis rusciniensis*, and we took some splendid photographs of *Sarcoenoplos encucphylla* on the 13th century walls of Villefranche-de-Confuent. It ought, however, to go on record that on our first morning out we happened to come across a strange and very shaggy fern which we identified as *Nothochlaena vellea*. Later we had a brief encounter with a French botanist who asked us if we had managed to find this plant while at Banyuls. We told him that we had, and gave him the precise spot, only to be horrified by his reply that it was heavily protected as this was its only station in France!--

JOHN OUNSTED.

MAY 17th, 1958. RICHMOND, YORKS

This Junior Field Meeting, led by Miss M. E. Bradshaw and Miss C. M. Rob, was attended by 27 young people. The party walked through mixed beech woodland near the Swale, and noted in particular the herb-layer in the more recently planted woodland, which included *Ribes alpinum*, *Ranunculus auricomus*, *Equisetum telmateia*, *Viola riviniana*, *V. reichenbachiana* and *Chrysosplenium oppositifolium*.

Base-rich soil about Round Howe provided interesting grassland and hawthorn scrub with such characteristic species as *Plantago media*, *Poterium sanguisorba*, *Ranunculus bulbosus*, *Hypochaeris radicata*, *Leontodon hispidus* and *Primula veris*.

During the day several fine trees of *Tilia platyphyllos* were seen.--

M. E. BRADSHAW.

†MAY 17th and 18th. 1958. PERTH

Leader: Miss E. P. BEATTIE

At 8 p.m. on Friday evening, May 16th, the party met at Perth Art Gallery and Museum, for the use of which on this and on a subsequent evening, we were indebted to the Director, Mr. Davidson. The party were the Misses E. P. Beattie, M. McCallum Webster, U. K. Duncan, Mrs. Harris, and Messrs. Robson and Davidson.

We discussed our plans for the next day, and decided that the gentlemen should concentrate on square 37/02 (Moneydie) while, as Mrs. Harris could not join us until mid-day, the ladies would concentrate on square 37/13 (Stanley). After lunch, when joined by Mrs. Harris, the party divided, Miss McCallum Webster and Mrs. Harris working the southern part of square 37/03 (Bankfoot) while Miss Duncan and myself did the northern half. In mid afternoon this party united and then divided to tackle 27/93 (Logicalmond) and 27/92 (Harrietfield) respectively. In the evening the combined party met at the Art Gallery to compare notes.

So rich is the flora of the valley of the Tay that in less than three hours 300 species were recorded. Several interesting species were seen during the course of the day. Many young plants of *Lupinus noolatensis* were growing in the shingle on an island in the Tay. Here, too, *Silene maritima* was seen. *Petasites albus* was colonising roadside verges bordering woods and, it may be that, in time, this will be a commoner species in this area than the native *P. hybridus*. We came across a very fine patch of *Ranunculus auricomus* with perfect petals. It would appear that *R. auricomus* is not only more plentiful than it was once thought but that the apetalous form is common only in England. The large leaves of *Rumex alpinus* made it quite clear that in Scotland its strongholds are Perthshire and Angus. Near Moneydie, we came across an extensive colony of the true *Fragaria moschata*, which was formerly grown for its fruit in gardens but, like *Rumex alpinus*, its use has passed and it too has become a relic of bygone days. To the fore were other introductions or escapes which are now common, namely *Veronica filiformis*, *Polygonum cuspidatum*, *Symphoricarpos rivularis*, *Heracleum mantegazzianum*, *Myosotis sylvatica*, *Sambucus racemosa* and others.

On Sunday, as Mrs. Harris could not join us and as Mr. Robson's car had broken down and as we had to meet Mr. Davidson at mid-day at Bridge of Cally, the party spent the morning mapping square 37/15 (Bridge of Cally). Here was found growing on the rocks in the river Shee, *Trollius europaeus* and *Galium boreale* while, to our astonishment, we came across a small patch of *Alchemilla alpina* growing happily on the roadside bank. In the afternoon, we did squares 37/06 (Kirk-michael) and 37/05 (Strathardle). It was interesting to note the absence of *Lamium album* and *Cruciata chersonensis* from these semi-highland areas.

On Monday, the party was reduced to Miss Duncan and myself. In the forenoon we went westward and finished mapping a square we had

already tackled on the previous Saturday and in the afternoon, on the way home, we mapped square 37/22 (Pitroddie).

It was a grand party and we had a splendid total, namely:—

<i>Grid Ref.</i>		<i>No. of Species</i>
37/02	(Moneydie)	219
37/03	(Bankfoot)	301
37/05	(Strathardle)	239
37/06	(Kirkmichael)	161
37/13	(Stanley)	255
37/15	(Bridge of Cally)	273
37/22	(Pitroddie)	250
27/92	(Harrietfield)	242
27/93	(Logieatmond)	164

—E. P. BENTIE.

†MAY 24th to 26th, 1958. ISLAND OF BUTE

Leader: R. MACKECHNIE

This excursion was well attended, with a total of 27 recorders in the field at its peak. The week-end began unpromisingly in a storm of wind and rain, but weather conditions improved, and while they never reached the high level of the 1957 meeting at Hunter's Quay, they remained no worse than cool and showery while we were on the island.

Bute is spread over seven kilometre squares; most of these it shares with parts of the coasts of Ayr and Argyll, and only two belong entirely to v.c. 100. Two easterly squares, containing the most visited—and most accessible—parts of the island, and for which a sufficiency of records existed, we ignored, spending all our time in the central and western districts. We were fortunate in being independent of public transport, having enough in the way of private vehicles to carry the entire party. Thus we were able to have records made in the more remote parts of the island, and, indeed, the main problem became that of efficient dispersal of the more experienced recorders.

The final, and very satisfactory, result of our labours was to almost double the number of species recorded for the squares we visited; the average was raised from 137 to 271 per square. While most of these records were made during the May week-end, it should be mentioned that a return visit to the island by Mrs. Mallinson, later in the summer, added some interesting species: a day visit by members of the Andersonian Naturalists of Glasgow in September brought in a few more.

It would be difficult to over-estimate the help we had from members of the Buteshire Natural History Society, and especially from Miss Marshall, Mr. Malinski, Dr. Morrison, Dr. Patterson and Mr. Somerville. In addition to giving us free use of their museum premises for our evening meetings, cars were made available to take us wherever we wanted to go, without reference to time or cost. Indeed, the service went so far as to lay on hot coffee in the field for at least one recorder—a consideration much appreciated on a bleak day, and one which may set a new standard in local hospitality on a recording trip.—R. MACKECHNIE.

MAY 31st, 1958. BROWNDOWN, GOSPORT, HANTS.

Mr. A. W. Westrup was assisted by Mr. L. Marchant of the Portsmouth and District Natural History Society in conducting a party of 57 over the shingle beach and heathland by the Army firing-ranges at Browndown.

A dozen different clovers, including *Trifolium ornithopodioides*, were found on the grassy patches near the shore. Plants noted on the shingle included *Rosa pimpinellifolia*, *Sedum anglicum*, *Corydalis claviculata* and *Geranium purpureum* subsp. *forsteri*, the last being a re-discovery near to a site described by Borrer in 1830. About an acre of shingle was thickly covered with *Silene nutans*.

The old Gomer Pond, much visited by botanists in former times, is now a large shallow depression, parts of which are being filled-in. In an arm of this depression remains of the former extensive marsh flora were found and included good stands of *Cladium mariscus*, *Calamagrostis canescens* and *Myrica gale*.—A. W. WESTRUP.

MAY 31st, 1958. HADLEY WOOD, HERTS

25 young persons attended this Junior Field Meeting led by Dr. J. G. Dony. Heathy land on the edge of the wood with some ponds provided plant associations worthy of study and much material which could be identified only on vegetative characters. The wood itself was unrewarding.

I wish to thank Mr. J. Ounsted for coming to the meeting and helping to make an assemblage of comparatively commonplace plants having some significance to those who attended.—J. G. DONY.

JUNE 7th and 8th, 1958. DONCASTER, YORKS.

Leader: Dr. F. H. PERRING

Although at one time it seemed likely that owing to lack of response it would be necessary to cancel this meeting, volunteers came forward at the last minute, and at least twelve members and friends joined in the fray during the week-end. No one could suggest that on the face of it this would be an attractive venue and our purpose was not favoured by an unfortunate clash with a meeting of the Yorkshire Naturalists' Union near Rievaulx. Nevertheless, when we parted on the Sunday evening all felt that the experience had been well worth while, though we were still wondering how we had managed to get everyone to the right place at the right time and whether anyone had been left stranded in the middle of Thorne Waste.

The meeting had been planned to bring up to the average level all the 10-kilometre squares in the Doncaster area. There were nine of these still below 250 and success or failure depended upon whether or not the target was reached. We succeeded, even though it meant some parties covering two squares in a day.

And the meeting was not without its interesting plants. *Helleborus viridis* thoroughly established on the moat of Conisbrough Castle and nearby grassland on the magnesian limestone, with *Bromus erectus* and *Brachypodium pinnatum* as co-dominants and a number of other calcicole species. By the side of a stream in Conisbrough a plant of *Barbarea intermedia* was found which somewhat resembled *B. stricta* and may account for the record of the latter species from that town in Lees's *Flora of West Yorkshire*.

East of Conisbrough off the limestone and on to the Bunter Sandstones there are some good mixed oak woods with *Quercus petraea* predominant but with *Q. robur* and the hybrid also present. *Galeobdolon luteum* was much in evidence in the ground layer. An interesting pond preserved for anglers in the area produced *Oenanthe aquatica* and *O. fistulosa*, besides a substantial fringing stand of *Rorippa amphibia*.

To the north of Doncaster we were in the Warplands adjacent to the Humber estuary—and one or two nice finds were made. *Stratiotes aloides* near Snaith and *Allium scorodopisum* on the banks of the Humber near Swinefleet. Here, also, we found *Oenanthe crocata* in great quantity. As this species is no longer known from Lincolnshire and the East Anglian counties, this locality may represent the furthest south before the long gap which exists north of the river Thames in eastern England.

It is perhaps not surprising in such an area where known disturbance is so much in evidence that aliens were very much to the fore. On Goole town dump we were rewarded by a magnificent display of *Hyoscyamus niger* in full flower, and *Sisymbrium altissimum* in great abundance. *Impatiens glandulifera* is well established in many localities and *Euphorbia wulensis* was seen twice. *Polygonum cuspidatum* was widespread as are those two other railroad plants *Senecio squulidus* and *Tanacetum vulgare*. The former quite the most colourful sight at Doncaster.

I shall always remember this meeting with affection. It all turned out so much better than we dared expect. No area of Britain is really dull and these industrial areas often have some surprising pockets which seem more exciting through being set in such hopeless surroundings. Thanks to all those who answered the call and helped the Scheme so much.—F. H. PERRING.

JUNE 28th to JULY 5th, 1958. MORPETH, NORTHUMBERLAND

Leader: Dr. F. H. PERRING

We arrived at the Queen's Head Hotel on one of the wettest days in a wet summer and then, as if to order, the sky became clear and we had no more than a ten minutes shower in the next eight days. Besides admirable weather, we were well provided with transport and were able to put five parties into the field on most days. Morpeth proved an ideal centre for our task, which was to bring all the Northumberland squares north of the South Tyne up to the adequate

level for the Maps Scheme. Some squares were already in the 450 + class thanks to the previous attentions of Dr. and Mrs. G. A. Swan, whilst others had hardly been touched. Thus the area was an unusually large one and the most distant squares about fifty miles away. Dr. and Mrs. Swan were able to join us on most days, and with their example before us we were soon striving for target numbers. These varied from 250 inland to 350 or more on the coast. Yet despite the increase in numbers towards the sea there can be no doubt that we all found the inland areas the more attractive.

Most of this area was underlaid by carboniferous limestone and though outcrops were rare there was always the possibility that in following a stream one would hit upon an exposure which would produce *Poterium sanguisorba*, *Plantago media*, *Helictotrichon pratensis*, *Koeleria gracilis*, *Pimpinella saxifraga*, *Polygala vulgaris*, *Ranunculus bulbosus*, *Thymus drucei* and *Helianthemum chamaecistus*.

The upland hay meadows were a delight both botanically and aesthetically. Obviously a product of fertilisation and management yet very uniform in their appearance and a riot of colour at the end of June. Here we found a great abundance of *Cirsium heterophyllum*, *Geum rivale*, *Geranium sylvaticum*, *Sanguisorba officinalis*, *Alchemilla* spp., *Rhinanthus minor*, *Dactylorhiza fuchsii* and *D. purpurella*. Some of the most impressive of these were seen on the Cumberland/Northumberland border north of Gilsland. A gentle slope down to the river Irthing was covered with *Trollius europaeus*, *Leucorchis alba* and *Dactylorhiza incarnata*. The river too was interesting with *Galium boreale*, *Salix phylicifolia* and hybrids, and *Lysimachia vulgaris* on gravel banks, whilst *Scirpus lacustris* and *Potamogeton nitens* were discovered in the river at 900'. One of the most surprising finds of the week was made on cliffs overhanging the river—a large clump of *Saxifraga hirsuta* for which there was no obvious garden source for several miles in any direction. The bogs in the area are as a whole duller even than those elsewhere, being too far east for a number of species—for example, *Drosera anglica*, *Anagallis tenella* and *Rhynchospora alba* were not seen but in the upper Irthing area we did record *Carex paupercula* in what we later discovered to be a well known locality.

Once again the inland upland areas produced a list of "did-not-see's" and some of these species were noted as behaving similarly around Moffat last year. *Rumex crispus* was absent and was replaced at the highest altitudes by *Rumex longifolius*. The three species of *Sonchus* were all very scarce inland but *S. asper* was the most frequent. Of the three 'common' umbellifers, *Anthriscus sylvestris* was the most persistent; *Torilis japonica* was abundant in the lowlands, whereas *Chaerophyllum* was only occasional. *Crepis paludosa* was much more common than *Crepis capillaris* near the Cumberland border and all species of *Lemna* were absent; there were many more examples.

The most important geobotanical feature of Northumberland apart from the umbra of Cheviot which had already been well recorded, is the series of basalt intrusions which cross the country from south-west to north-east. Whenever one of these occurred in a square an effort

was made to find it. At its worst it produced a dusty hillside covered in Gorse and Foxglove, at its best some of the most attractive plants of our stay. Bavington Crag was one such spot. The crags themselves are dry and not particularly rich (*Dianthus deltoides* was sought for in vain), but the gentle north-east slope where the drainage seems poor provides perfect conditions for the growth of *Sedum cillosum* which is the dominant plant over several acres. It is particularly abundant on bare slabs and on some of these *Allium schoenoprasum* occurs with it, the two together forming a unique and simple community. Nearby, on a south-west slope, a piece of typical limestone grassland occurred; this yielded *Scabiosa columbaria* after a brief search. Crag elsewhere could be relied upon for a number of species, particularly xerophytes such as *Trifolium striatum*, *Filago germanica*, *Helianthemum chamaeristus*, *Vulpia bromoides*, *Koeleria gracilis*, *Sagina ciliata*, *Leontodon taraxacoides*, *Scleranthus annuus* and *Trifolium campestre*.

Two features of the lowlands stood out against a background of pit shafts and slag heaps—the woods and the dunes. The valleys of the Coquet and the Wansbeck cut through the millstone grit and the coal measures on their way to the sea, and the steep north and south facing slopes are clothed in the most awe-inspiring oak-ash woodland strong with the smell of Ramsons and full of ferns reaching almost tropical dimensions. Despite warnings to the contrary there can be little doubt that *Carex pendula* is native here. *Equisetum sylvaticum* and *E. telmateia* were frequent, whilst *Polystichum lobatum* was the shield fern most commonly found. The dunes were a magnificent sight at this time of the year—a tangle of yellow, white, blue and purple. Sheets of *Astragalus danicus*, *Geranium sanguineum*, *Galium verum*, *Lotus corniculatus*, *Ononis repens*, *Rosa pimpinellifolia*, *Taraxacum laevigatum*, *Thalictrum minus*, *Thymus drucei*, whilst more occasionally *Anthyllis* and *Echium* were recorded.

Altogether about 660 different species were recorded in the eight days. Some of these were very occasional and the following which were seen only once seem worthy of mention:—*Sisyrinchium bermudiana* on a roadside far from habitation but presumably of garden origin; *Oenanthe aquatica* in a roadside pond near W. Lilburn; *Acinos arvensis* by a disused railway track in Middleton Hall parish; *Vicia sylvatica* in Roddam Dene; *Chrysosplenium alternifolium* and *Melica nutans* up the Tarsset Burn; *Filipendula vulgaris* on the basalt near Barrasford; *Genista tinctoria* at Seaton Burn; *Juniperus communis* near Chillingham; *Pyrola minor* at Rothley; *Ranunculus lingua*, perhaps of garden origin at Hart Burn; *Saxifraga granulata* near Chillingham; *Symphytum asperum* east of Morpeth. Two other species were seen more frequently than might have been expected—*Trientalis europaea* showing up in young Forestry Commission plantations, and *Ranunculus baudotii* in ponds and dune slacks near the coast.

In every way this was a most successful meeting. We covered 26 squares in the week and never failed to reach a target. I would like to thank all those who took part for helping to make this one of the smoothest meetings I can remember and especially Dr. and Mrs. Swan

who gave so much of their time and knowledge. Finally I wish to thank Professor J. W. Heslop-Harrison for his advice and criticism before the week began—we were thereby made aware of some of the possible pitfalls and hope that we avoided most of them.—F. H. PERRING.

†JULY 5th to 12th, 1958. NORTH-WESTERN SKYE

Leader: Miss C. W. MUIRHEAD

The Dunvegan field meeting was arranged primarily for the purpose of recording for the Distribution Maps Scheme in an area of Skye which was known to be very underworked. The party consisted of eight members and three visitors from Skye who joined us at intervals and whom we were delighted to welcome, and although the numbers were small the enthusiasm, knowledge and energy of its members gave us a most enjoyable meeting with some very creditable results. Altogether thirteen 10 kilometre grid squares were visited, nine of these apparently blank and four with less than 150 records. Of these, nine squares were covered to the extent of 200-300 species and four to 100-200. Only the Dunvegan square gave well over 300 species owing to a particularly varied terrain and the number could certainly be increased.

The north-western part of Skye is a region of low basaltic plateaux deeply indented by sea lochs, with magnificent lines of cliff rising sometimes to 1,000 ft. from the sea and split by basic or acidic dykes, often clearly shown by changes in the flora. In contrast to the better known Cuillins and the Trotternish, the hills are low with flattened tops and grassy slopes and sheer basalt terraces.

The party met in Dunvegan Hotel on Saturday evening to discuss plans for the week, and as no one could be said to have a really close acquaintance with the area, the meeting took on a distinctly exploratory tone which stayed with us throughout the week. Late in the evening as we walked outside the hotel, we gazed in some astonishment at *Scrophularia aquatica* apparently at home in a drystone wall and reminded ourselves that this was Skye.

On Sunday morning, July 6th, we explored the neighbourhood of Dunvegan, visiting the Castle and the grounds. The sheltered wooded bay with its rank vegetation comes as a surprise to the visitor after crossing the miles of wild moorland which separate the Cuillins from the western shores and many plants long cultivated in the Castle grounds have acquired an air of possession which is slightly disconcerting. *Rubus spectabilis* has the appearance of a native plant surrounded by beds of *Cirsium heterophyllum* and *Inula helenium*. Oak and beech ferns carpeted the wooded ravine with *Saxifraga geum*, Asiatic primulas, *Rodgersia* and *Gunnera* in great luxuriance and on the rock on which the Castle stands *Ligusticum scoticum*, *Centranthus ruber* and *Hieracium shoobredii* were seen. A small very sheer basalt gully near the sawmill showed us *Vicia orobus* for the first time and *Arctostaphylos uva-ursi* which appears to be comparatively rare in this area. In the afternoon we divided into two parties to investigate 18/25, the square due north of Dunvegan, comprising the very lovely western shores of

Loch Dunvegan. One party concentrated on the lochans and rocky moorland of An Dubh Aird while the others went on to Coral Bay just south of the Lampay Islands, as far as the only road would take us, and worked round to Lovaig Bay and Rubha nam Both. It was a clear, sunny day and the Isay Islands with Dunvegan Head across the bay looked very inviting. On a small rocky hillock by the track to Coral Bay we saw *Vicia orobus* in fine flower, hordes of *Platanthera chlorantha*—the commonest butterfly orchid in this area, and *Leucorchis albida* in considerable quantity but at the end of its flowering. *Botrychium lunaria* was in short turf by the sea with *Euphrasia brevipila*, *E. scotica* and *E. micrantha*, and in rocky outcrops *Galium boreale*, *Sedum roseum*, *Orobanche alba* and *Hieracium uiginskyense*. In cliffs above the sea *Allium ursinum* grew with *Cochlearia scotica*, *Armeria maritima*, *Salix repens* subsp. *arenaria* and *Asplenium marinum*. Unfortunately, time was short and we were not able to see much of the basalt cliffs on Lovaig Bay although an interesting scramble on rocks facing N.W. gave us *Saxifraga hypnoides*, *Hieracium duriceps*, *Rubus saxatilis*, with *Circaea intermedia* nearby. In the lochans between Dunvegan and Claigan *Potamogeton praelongus*, *P. perfoliatus* and *P. natans* were seen with *Sparganium angustifolium* and *Utricularia minor*.

The next day, Monday, July 7th, it was obvious that wherever we went we should be undoubtedly extremely damp, to say the least. Cloud was as low as possible on MacLeod's Table, but it occurred to no-one to attempt to cancel a rather optimistic programme. The 10 kilometer square 18/23 containing Idrigill Point was completely blank with no evidence that any botanist had ever been there. Likewise 18/13, which only held Loch an Fridhein and a fragment of wild coast five or six miles from any semblance of a road, and that, evidently, was quite enough. This time we divided into three parties, separating at Varkasaig, regardless of consequence. The resulting 170 species recorded for 18/23, bearing in mind the deplorable visibility, pouring rain and rather monotonous moorland coast was a most useful piece of work. *Pinguicula lusitanica* was seen on the way to Idrigill Point (the only record during the week). *Drosera anglica*, *D. rotundifolia*, *Vicia orobus*, and *Thelypteris phegopteris*, while on the cliffs of Greep *Solidago virgaurea* was very fine and *Orobanche alba* occurred sporadically on the roots of *Thymus* and *Lotus corniculatus*. In certain areas *Vicia orobus* grew in solid sheets down the cliff face in beautiful flower. At Orhost several species of willows were seen along a streamside—introduced, no doubt—*Salix pentandra*, *S. triandra*, *S. purpurea*, *S. alba*, and *S. viminalis* and, on the roadside outside Orhost Farm, *Rubus laciniatus*, *R. spectabilis* and *Montia sibirica*. When we all met once more at Varkasaig (surprisingly enough, at the appointed time), we found that for the time being Loch an Fridhein must still be regarded as unvisited, but MacLeod's Table South had been inadvertently circuited instead!

On Tuesday we again set out in rain and mist with little hope of better things, to explore the peninsula south of Loch Harport and two squares 18/32 and 18/33 both with less than 50 existing records. One party went to Glen Eynort, another was deposited at Fiskavaig to look at

the bay and then walk over the beach to Talisker Bay, while the others examined the hills to the south of Talisker. It is an area which would repay a much closer investigation. Set with quite small hills rising sheer from sea level, it has a wild rugged coast which can only be described as magnificent. Boswell has remarked that in a quarter of an hour he saw no less than fifteen waterfalls near Talisker—there must be more. At Fiskavaig the shore is rocky but not precipitous and it was here that a heavily blotched form of *Mimulus guttatus* was found in several places and on sheltered dripping rocks by the edge of the sea a fine colony of *Listera orata* was seen with *Trollius europaeus*, *Dryopteris aemula* and *Hieracium rubiginosum* and *Zostera marina* on the shore. The walk over to Talisker was uneventful, but the bay with its sheer cliffs and enormous boulders was perhaps the most interesting of all. *Eupatorium cannabinum* was here in quantity with scattered plants of *Carlina vulgaris* and *Orobanché alba* and rather unexpectedly *Agrimonia eupatoria*. The raised beach of large, rounded, rather agonising stones contained few species mainly *Scutellaria galericulata* and *Geranium robertianum* and *Myrrhis odorata* was seen at Talisker Farm.

The next day, Wednesday, 9th July, as the weather was still uncertain, we decided to visit the Edinbain district and 18/34, the square north of Bracadale instead of Waterstein as originally planned. The latter area which appeared to consist mainly of moorland intersected by streams with very little coast in actual fact yielded more than 250 species and some interesting salt marsh plants. *Carex atrubae* appeared here, *Lycopodium europaeus*, both probably new records, *Lobelia dortmanna* and *Schoenus nigricans*. The other party visited the promontory of Greshornish to the west of Loch Greshornish and at Greshornish House, *Phyllitis scolopendrium* was seen on the walls round the garden. In the loch near the house *Sparganium angustifolium*, *Callitriche intermedia* were seen with *Veronica scutellata* in the marsh at the eastern outlet. Later we went on to the village of Edinbain and saw *Veronica filiformis* on the river banks and *Galium boreale* and *Cystopteris fragilis* on the bridge. By this time a cold rain was again descending and the salt marsh at the head of the loch not very exciting. The sight of *Cacloglossum viride* in a roadside was cheering, but the prospect of tea even more so, and we all thoroughly enjoyed the tea to which Mr. Murray, the Provost of Portree, so kindly entertained us.

On Thursday morning, July 10th, the clouds were lifting from MacLeod's Tables, and we set out to explore the long series of basalt cliffs which extend from Dunvegan Head and Waterstein to Idrigill Point in a practically unbroken line. Again we divided into three parties, one determined to reach the elusive Loch an Fhridhein by way of Lorgill, another to explore the Ramasaig Bay and Cliff, while the third visited Loch Mor at Waterstein and the cliffs between the Neist Lighthouse and Oisgill Bay. It was a quite unforgettable sight. At Dunvegan Head the cliffs reach a thousand feet and only slightly less at Waterstein and, consequently, access is exceedingly difficult. At Waterstein, however, we were able to see species we normally consider alpine growing in cliffs directly above the sea. *Silene acaulis* formed

huge mats and hummocks clinging to the basalt and must have been a wonderful sight in full flower with *Saxifraga oppositifolia* and *Sedum rosea*. In 1868 Professor M. A. Lawson of Oxford visited Dunvegan Head and Waterstein, and it was interesting to find again plants which he recorded then. *Ribes spicatum* was seen in abundant but unripe fruit with *Chamaenerion angustifolium* and *Dryopteris aemula* while a dwarf form of *Plantago maritima* with minute glabrous leaves was carpeting the cliff tops in places. An interesting hybrid was seen at Lorgill, *Cirsium heterophyllum* \times *palustre*, growing with both parents and at Loch an Fridhein *Lobelia dortmanna* was found with *Carex paniculata*. At Milovaig Pier on Loch Pooltiel *Carex serotina* was also collected in a saltmarsh.

Friday, July 11th, was our last day, and on this we scattered even more widely in an endeavour to visit as many unworked squares as possible. One party visited the Storr and Loch Leathan and collected a curious form of *Equisetum telmateia* in which the normally sterile stems were fertile, also *Hieracium chloranthum* and *Potamogeton* \times *nitens* a new record for Skye. The others were divided between Dunvegan Head and Vaternish, where *Euphrasia marshallii*, *Vicia sylvatica*, *Rhinanthus spadicus* and *Hieracium uiginskyense* were seen. Dunvegan Head presented a very considerable and enjoyable problem but a convenient gully showed us part at least of its very interesting flora. *Dryas octopetala* was growing on ledges just below the cliff top with *Juniperus communis* subsp. *nana* and the gully was hanging with *Silene acaulis*, *Saxifraga oppositifolia* and *S. hypnoides*. Husabost Loch was visited on the return journey, a small moorland loch with *Isoetes echinospora* and *Utricularia intermedia*, and *Galeopsis speciosa* was seen in a cultivated field nearby.

All together, more than 400 species were recorded from the Dunvegan area and the two squares north of Portree, and, excluding critical material it seems probable that at least 20 of these are new to v.c. 104. Eleven species of *Hieracium* were collected, and there is still critical material to be identified, which should add to the number of records. The interest of the work lies in the fact that hitherto the area has been almost entirely neglected by botanists, owing to the difficulty of access and perhaps to the fact that it has suffered in comparison with the more mountainous areas of Skye.

I should like here to thank all who took part in the excursion for their absolutely unflinching enthusiasm and energy under all circumstances and in particular our drivers, whose feelings at times must have been too deep for words! Mr. Young, of Peinmore, for his most valuable assistance in planning the meeting and Dr. West and Mr. Sell for the identification of *Hieracium* specimens.—C. W. MUIRHEAD.

JULY 11th to 13th, 1958. LUDLOW, SHROPSHIRE

Leaders: Miss C. M. GOODMAN and Mr. J. W. PRICE

This meeting was attended by eleven members and one visitor, and was for the purpose of studying and listing the flora of underworked areas in Shropshire and the western borders of Worcestershire for the

Distribution Maps Scheme. Headquarters were at the Kingfisher Hotel, Ludlow, where meetings were held on Friday and Saturday evenings.

With members working in pairs, six squares were visited on Saturday, 12th—in the areas of Craven Arms, Church Stretton, Brown Clee, Cleobury Mortimer and the Stiperstones in v.c. 40 (Shropshire), and one in v.c. 37 (Wores.) at Highley in the Severn Valley.

On Sunday, 13th, records were again made in six squares—at Ditton Priors, Church Stretton, Cleobury Mortimer and the Stiperstones in Shropshire, one in Worcestershire at Bewdley, and another in v.c. 36 (Hereford) in the Bromyard district.

The weather on both days was very poor and most of the work was done in continuous rain, but in spite of this some useful data were collected for the Distribution Maps Scheme. The following are some of the plants seen during the weekend which are infrequently recorded for Shropshire:—

Agropyron caninum, *Aphanes arvensis*, *A. microcarpa*, *Artemisia absinthium*, *Catabrosa aquatica*, *Carex curta*, *C. binervis*, *C. muricata*, *C. strigosa*, *Cichorium intybus*, *Cirsium eriophorum*, *Ceterach officinarum*, *Conyza canadensis*, *Empetrum nigrum*, *Equisetum telmateia*, *Festulolium loliaceum*, *Galium uliginosum*, *Geranium phaeum*, *G. sylvaticum*, *Helianthemum chamaecistus*, *Hypericum montanum*, *Impatiens parviflora*, *Milium effusum*, *Pinguicula vulgaris*, *Sedum anglicum*, *S. forsterianum*, *S. dasyphyllum*, *Scrophularia umbrosa*, *Stachys* \times *ambigua*, *S. arvensis*, *Thelypteris oreopteris*, *Teesdalia nudicaulis*, *Trifolium striatum*, *Veronica filiformis*, *Vicia sylvatica*, *Vaccinium vitis-idaea* and *Vulpia myuros*.—C. M. GOODMAN.

JULY 12th, 1958. ABERTHAW, GLAMORGAN

Mr. B. Miles, assisted by Mr. A. E. Wade, led a party of 18, representing 6 schools, to see the flowers of the limestone cliffs, salt marsh and shingle. Among the more interesting plants found were *Adiantum capillus-veneris*, *Trifolium squamosum*, *Petroselinum segetum*, *Glaucium flavum*, *Eryngium maritimum* and *Parapholis strigosa*. A new vice-county record—*Agropyron junceiforme* \times *pungens*—was made, and *Parapholis incurva* was a welcome discovery as it has recently been eradicated in its only previously known Welsh locality by the erection of a power station.—B. MILES.

JULY 12th, 1958. ARNSIDE, WESTMORLAND

After a night and early morning of torrential rain only a small party, mainly from Kendal Grammar School for Boys, including their Biology Master, left Arnside for Arnside Knott.

The route led over limestone pasture over the hill known as Arnside Knott. Many hollows showed leaching and communities of *Calluna vulgaris*, *Erica tetralix* and *Vaccinium myrtillus* had become established.

The lower slopes covered in *Sesleria caerulea* produced large clumps of *Helianthemum chamaecistus*, *Asperula cynanchica*, *Filipendula*

vulgaris and *Teucrium scorodonia*. *Listera ovata* was common, and here and there were a few spikes of *Ophrys insectifera* still in bloom.

One serec on the Knott produced two or three hundred spikes in full bloom of *Epipactis atrorubens*. Normally, this colony seldom provides a single perfect spike as the area is so overrun by rabbits. It would seem, however, that this is one place where rabbits have not yet re-established themselves.

The woods were uneventful: *Listera ovata* and *Epipactis helleborine* were common, along with *Hypericum androsaemum* and *Rubus saxatilis*.

By this time the weather had changed and we were rewarded with a beautiful afternoon for our walk round Arnside Point. The low limestone cliffs and the scrub immediately above them provided a rich and varied flora, including *Potentilla tabernaemontani*, *Verbena officinalis*, *Hippocrepis comosa*, *Crithmum maritimum*, *Helianthemum chamaecistus*, *Adiantum capillus-veneris*, *Inula conyza*, *Agrimonia odorata*, *Lithospermum officinale*, *Melica nutans*, *Frangula alnus* and *Rhamnus catharticus*. The gems of the afternoon, however, were *Veronica spicata* subsp. *hybrida* (thought to be extinct in this locality) and *Actaea spicata* (in flower).—G. WILSON.

+JULY 12th to July 19th, 1958. LAIRG

Leader: I. C. HEDGE

When the party of five assembled in the lounge of the Sutherland Arms Hotel to discuss the programme for the week, it was a shock to learn that our expected private transport had not materialised. The outlook was gloomy, and we imagined ourselves having to bicycle long distances across bleak moorland to reach our destinations. But fortune smiled. Mr. Ribbons, who came from the Dunvegan meeting, was with the party for two days and kindly put his car at our disposal; then, quite unexpectedly, two local enthusiasts, one lady from Durness and another from near Tain wrote offering to join the meeting for a day with their cars. So, with these kind offers and a car which was hired on another day our transport problems were solved.

The object of the meeting was to cover several of the underworked 10 kilometer squares in Sutherland for the Distribution Maps Scheme. Most of them lay to the east and west of Loch Shin: others were among the mountains north-east of the head of the loch: one lay in the Ben Clibreck range and another near Tongue on the north coast. It was towards these last two that we headed when we left Lairg on Sunday. Messrs. Hedge and Woods were dropped off at the Crask Inn and headed for the foggy slopes of Ben Clibreck. Mr. Ribbons, Mrs. Elder and Mrs. Montgomery drove on, passing on the way *Carex magellanica*, to the interesting terrain west of the Kyle of Tongue. The mountain party were soon delighted to see many beautiful plants of *Betula nana* growing completely prostrate among *Calluna*, *Eriophorum* and *Narthecium ossifragum*. It is interesting to note that both here and at several other places where this lovely shrub was seen later in the

week, the altitude was only between 750 and 900 feet. In the bogs, the unsuitably named English Sundew was very common. Leaving the peat bogs and ascending into the higher corries, the *Rhacomitrium* heath and the fog, the number of alpine species rose. In one spectacular corrie, *Saxifraga stellaris*, *S. aizoides*, *S. hypnoides*, *S. oppositifolia*, *Sedum rosea*, *Silene acaulis*, *Galium boreale* and *Trollius europaeus* were all very common. On the slopes *Vaccinium uliginosum*, *Listera cordata*, *Rubus chamaemorus*, *Chamaepericlymenum succicum*, *Arctuous alpina* and *Loiseleuria procumbens* were pleasingly frequent. It was unfortunate that time was so restricted and the fog so dense since doubtless there are plenty interesting plants throughout the corries and ridges of Ben Clibreck. Although much of the mountain is covered with blankets of peat, there are several mica-schist outcrops. With the aid of a compass and, to a lesser extent, a map, we eventually reached the main road, tired and wet, to be picked up by the Tongue trio who had had a pleasant day of sunshine among *Primula scotica*, *Gentianella amarella*, *Linguisticum scoticum*, *Platanthera* spp. and *Scilla verna*. This square on the coast (29/56) was by far the richest square covered during the week, the total of more than 250 species far exceeding the average total for the inland squares near Lairg.

Monday, July 13th, was spent working on the 10 kilometre squares 29/51, 29/41 and 29/42, the party splitting up into two groups. Much of the ground in these squares is acidic moorland and poor in species. The shores of Loch Shin lie within all three squares but with the raising of the level of the loch by about 30 feet three years ago in connection with the hydro-electric scheme, there is, as yet, no littoral flora. It will be interesting to observe how long it will be before a littoral and aquatic vegetation develops on the shores of the new Loch Shin. A few choice plants compensated us for the paucity of species numbers. Mrs. Flora Elder found the elusive *Hammarbya paludosa* and Mr. Lewis, *Tridentalis europaea*. *Pinguicula lusitanica* was noted in all these squares.

The following day, the party headed towards Loch a'Ghriama and split up into two groups to cover the 10 kilometre squares 29/32 and 29/42. Although the latter was the richer area and *Betula nana* and *Carex pauciflora* were not infrequent, the number of species recorded for each square was only about the 150 mark and, even with ample time to cover the ground thoroughly, it is doubtful if these totals would be much augmented.

Ben Hee was climbed on July 16th. Despite bad weather early in the day, everybody was happy to stand in the rain and admire *Chamaepericlymenum succica* in full flower. Higher up, *Cherleria sedoides*, *Luzula spicata*, *Silbaldia procumbens*, *Juncus trifidus* and *Salix herbacea* were common. The numerous red deer on the lower slopes and a fine flock of ptarmigan which flew over us near the summit, still dressed not inappropriately for the day in winter plumage, added to the interests of the day. After lunch, taken huddled round the summit cairn, the weather improved but, unfortunately, the cliffs and screes on the north and east of the mountain were disappointingly poor in plants. On the descent of the north slopes, *Vaccinium*

uliginosum, *Lycopodium annotinum* and *Tridentalis europaea* were seen. *Saussurea alpina* and *Cardaminopsis petraea* were unexpected absentees.

After our strenuous exertions of the previous day, Thursday was a quiet day spent in the peat and lochan square 29/61, within walking distance of Lairg. *Carex limosa*, *C. lasiocarpa* and *Dactylorhiza incarnata* were found in an interesting marsh also colonised by various large and multi-coloured dragon-flies. With little variety in habitats, the total number of species recorded was only 106.

On the final day we went to the squares 29/31 and the west side of 29/41 which lie to the east of Ben More Assynt. This brought the total number of 10 kilometre squares covered during the week to nine. That as many were covered was due to the enthusiasm, ability and agility of everyone who took part. IAN C. HEDGE.

JULY 17th, 1958. EPPING FOREST, ESSEX

This Junior Field Meeting was led by Mr. B. T. Ward.

Assembling at Chingford Station the party proceeded to the Warren Pond where the flora was studied in some detail. Here were found *Hippuris vulgaris* and *Typha latifolia* in some quantity. On this pond, because of rapidly changing water levels caused by a perforated bank to the pond, it was found that often clumps of the reed-mace broke away and floated free as miniature islands in the pond, until the lowering of the water level caused them to ground at the spot to which they had floated. The consequent spread of the reed-mace in this pond by this vegetative means was clearly demonstrated.

The party then proceeded to the course of the adjacent brook where various plants were seen, including a large stand of *Conium maculatum* which differed from the usual form of this plant in that it lacked the purple blotches on the stem. Other waterside plants were noted, including *Oenanthe crocata* and *Petasites hybridus*, and close by the stream were found some patches of *Genista tinctoria*.

After a luncheon time, which was somewhat protracted because of the pleasant conditions, the party proceeded across Chingford Plain studying the grasses, sedges and rushes of this stretch of acidic grassland. The opportunity was also taken of demonstrating the seral changes in the form of this grassland by the intrusion of scrub bush and sapling growths from the adjacent woodland, the various stages of which were clearly seen.

Entering the woodland the leader gave a short history of Epping Forest, the party then adjourned to an area where considerable lopping had been carried out by the Conservators as an experiment to see the effect not only of the lopping but also to discover the possibility of securing the return in a small way to the original condition of this part of the forest. Unfortunately, a subsequent forest fire in the area had done much harm to the experiment, and a further area had been lopped to repeat the experiment in a slightly different form. The opportunity was also taken of studying the natural regeneration of the woodland in this portion of the forest and to show the steps taken by the Conservators to encourage and protect such regeneration.

Proceeding thence by way of Sewardstonebury, the party climbed to the top of Yardley Hill, where the London clay and glacial gravels of this area are overlain by a thin trace of chalky boulder clay, and the changes induced in the flora by the influence of this different soil were shown. Also from this high viewpoint the opportunity was taken of showing the topography and vegetation of the Lee Valley, which could be seen almost from Hertford right down to the mouth of the river at Bow.

We returned to Chingford Station, and the dispersal of the party to their various homes was completed by five o'clock.—B. T. WARD.

JULY 19th, 1958. CEFN, DENBIGH

Thirty-six persons attended this Junior Meeting to study the flora of the limestone. The party travelled by bus from Rhyl through Rhuddlan and St. Asaph to Cefn Meiriadog, a small village lying between Denbigh and Abergelle.

Limestone plant communities were studied. The limestone pavement supporting vegetation in the hollows and crevices provided *Inula conyzs*, *Geranium lucidum*, *Linum catharticum* and *Thymus drucei*. Limestone outcrops supported a rich flora, including *Poterium sanguisorba*, *Saxifraga tridactylites*, *Aphanes arvensis*, and *Helianthemum chamaecistus*. Limestone grassland produced *Briza media*, *Festuca ovina*, *Trisetum flavescens*, *Helictotrichon pubescens* and *Trifolium micranthum*. The latter habitat was quantitatively studied by use of the quadrat.

About 200 taxa, including *Veronica spicata* subsp. *hybrida*, were recorded during the day.

The method of investigating the flora allowed the party not only to learn how to identify plant species, but also to see very clearly successional stages in the colonisation of limestone outcrops.

A visit to Cefn caves ended a very successful day.—W. B. H. SOWERBY.

JULY 27th to AUGUST 3rd, 1958. TRALEE, CO. KERRY

Leaders: Drs. F. H. PERRING and S. M. WALTERS

The concerted attack on the unrecorded squares of Ireland, which was obviously necessary this year, could be said to have reached its climax with the Tralee Meeting and the six 'flying columns' which succeeded it. Tralee was an ideal centre for such a meeting, and Benner's Hotel the ideal place to stay. It is a pleasure to recall how comfortable the management strove to make all its guests (and botanists who are apt to come in late and wet for meals are not the easiest of clients to cater for), and with what unfailing good humour the staff looked after us.

The party at full strength numbered twenty, of whom all but four were ladies. This extraordinary sex ratio proved no small advantage—as, for example, in giving us *de facto* sole occupation of the 'Commercial Room' for our evening work—and I, as one of the mere males, must

record my admiration of the energy, determination and ability of the 'weaker sex' in this matter of covering 10-kilometre squares.

The blank areas of north Kerry were sufficient to provide roughly one square per day per car. Our mettle was tested on the first day, which was fairly persistently wet, but everyone came through with flying colours and at least 150 species. The 'good' and 'bad' areas soon became apparent as the week's recording proceeded; but we all received our share of the inland upland squares and tackled them with good grace, whilst naturally welcoming a happy browse on the coast, where the cream of the squares (Killorgkin district) yielded a total of 364 species to the delighted recorders. Recording, in fact, went so well that Thursday was declared entirely free, and many and varied uses were made of it. For myself, it was a day I shall long remember, when I fulfilled a long-standing engagement with *Alchemilla alpina* on that finest of the southern Irish mountains, Brandon—and when, on treating the mountain with rather less respect than it deserves, I received severe cuts on the shins which were somewhat reluctant to heal for several weeks!

The evening assessment and identification sessions were delightful, if at times a trifle exhausting. It was fascinating to find how often the picture which we were gradually acquiring of the distribution of particular species in north Kerry fitted the generalised statement to be found in that excellent book, Scully's *Flora of Kerry*. Indeed, we were only able to find, during the week, one clear case of a really big discrepancy between our findings and those of Scully—this was with respect to the grass *Trisetum flavescens*, which to us was distinctly rare, but considered as 'rather common' by Scully. By the end of the week we had a profound respect for the ability of this great Irish botanist, for, though one or other party had seen quite a proportion of the rarer plants of the region, they were with very few exceptions in localities indicated more or less precisely in the Flora. Indeed, a study of the Flora produced very useful hints about particular places to visit in one's square—an exceptionally successful case was a fine locality for *Eriophorum latifolium*, *Epipactis palustris* and *Gymnadenia conopsea* probably last visited by botanists in 1904, when Scully was there.

Whilst the week produced no botanical discoveries of outstanding interest, the total number of species seen was impressively high (670), and the floristic variety and general charm of the countryside impressed us all enormously. For those to whom this was their first acquaintance with Irish botany, I feel that the week must be an unforgettable experience; for those, like myself, who had some little previous experience of the richness and beauty of Kerry, it was a delightful opportunity to renew and extend their acquaintance; and for the four resident Irish botanists, I hope and believe it was a meeting well worth while. Certainly Professor Webb, who was able to join us for the last day, seemed well satisfied with the results of Anglo-Irish co-operation.

There are several impressions, all without exception pleasant ones, which will remain with me from the Tralee meeting. But one in particular will outlive the others. We were, towards the end of the

day's recording, nearing the limits of one square; and, as our lists seemed to be deficient in a few common wall-top plants and weeds, we stopped the car by a level-crossing where there was a wall and the prospect of some railway weeds. The level-crossing keeper and his wife came out to welcome us and pass the time of day. We strolled along the lane and poked at plants, then returned to the crossing. As we again approached, the crossing-keeper emerged from his garden-gate with an armful of red roses, which he presented to the ladies, hoping that they would accept this little gift which would, perhaps, in some measure, make up for the deficiencies in wild flowers along his lane. Is there anywhere else in Europe—or, indeed, in the world—where this could have happened?—S. M. WALTERS.

AUGUST 23rd and 24th, 1958. NEWCASTLE EMLYN,
CARMARTHEN

Leader: Dr. F. H. PERRING

The location of the last official mapping meeting was Newcastle Emllyn in the quiet valley of the Tyfi on the border between Cardigan and Carmarthen. It was a sad occasion for me that this should be the final gathering after five happy summers spent in all parts of the British Isles, but perhaps sadness induces tolerance for it seemed to me the easiest I had ever organised. The only disappointment was that the Cawdor Hotel could not hold all twelve of us. However, ten could be fitted round the large central table of the dining room and the others joined us for light refreshments in the evening.

The transport problem did not exist—at one time I thought we had more cars than people—and so we were able to put six parties in the field each day. Having come straight from the Irish jamboree I could not resist the temptation to suggest two squares a day for each, but in fact it suited the situation rather well. Very few squares in the area were below the 150 level, but on the other hand only a few exceeded 250. Our task was to bring as many squares as possible up to the "satisfactory" level and try to ensure that no common species had been omitted in error. No one failed to achieve their target and in many cases it was well exceeded: 17 squares were covered in the two days.

Saturday was a ridge of high pressure between two depressions and in ideal conditions we were dispersed within a twenty-mile radius. Botanically this part of the country is not outstanding. There are modest acid hills which reach over 1,000' and there are steep wooded valleys. The coast here boasts no extensive dune systems and the carboniferous limestone outcrop was twenty miles to the south. We were, so to speak, always on the fringe of great things, *Gentianella uliginosa* near Tenby, *Centaurium portense* near Newport, *Limonium transwallianum* at Giltar Point, and all the temptations of the magnificent Laugharne Burrows: but for all this we were not in poor country—species were rich in numbers if not distinguished for their rarity. *Carum verticillatum* was extremely frequent and *Anaphalis margaritacea* seems to thrive in this part of Wales better than in any other parts of Britain which I have visited (I was similarly impressed by it in the

east Carmarthen two years ago). *Laburnum anagyroides* is another naturalised species which does well here and is an abundant hedgerow plant. A new county record for Carmarthen (v.c. 44) was the discovery of *Galium uliginosum* north-east of Llanboidy in a marshy meadow, and another interesting discovery was *Callitriche intermedia* on the margin of a pond at Glan-dwr. One of the most exciting finds was *Sibthorpia europaea* near Abergorlech, one of the few Welsh localities. *Melittis melissophyllum* was recorded from near Llechryd in Cardiganshire—another very local species.

By Sunday, however, the sky had clouded over and for most of the morning we were subjected to continuous and penetrating rain, and though from the Maps Scheme point of view it was perhaps no longer necessary to live to fight another day, discretion suggested retirement in favour of dry clothes and warmth. So with 1958 bidding farewell to field meetings in all too familiar fashion, the leader boarded the train for London at Carmarthen at 3.10 in the afternoon. Whereupon the sky immediately cleared and he hoped others had not been similarly dissuaded. Results showed that they had not.

Our thanks to all those who took part and stuck it out so bravely. I hope we are given more time and better conditions in which to take another look at this area, so full of possibilities, in the future.—F. H. PERRING.