

PROCEEDINGS
OF THE
Liverpool Botanical Society



**Fourteenth to Seventeenth Sessions
For the Years 1919-1922 inclusive**

ARBROATH :
PRINTED BY T. BUNCLE & CO., MARKET PLACE

September 1927



ARTHUR HORATIO DUDLEY.
PRESIDENT 1920.



ETHEL WARHURST, L.L.A.
PRESIDENT, 1921-1922.

PROCEEDINGS
OF THE
Liverpool Botanical Society

HEADQUARTERS:
HARTLEY BOTANICAL LABORATORIES, UNIVERSITY OF
LIVERPOOL.

FOURTEENTH TO SEVENTEENTH
SESSIONS.

For the Years 1919-1922 inclusive.

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Fourteenth to Seventeenth Sessions, 1919 to 1922.

SUMMARY OF COUNCIL'S REPORTS.

The activities of the Society have been well sustained on the lines followed in previous years. Regret is expressed in the Council's report for 1921 that too large a share of the Society's work is left to a small number of members, and an appeal is made for more active participation in various ways from a wider circle of members.

The membership has continued steady, but unfortunately a marked decline is noted in the attendance at field-meetings, as well as indoor meetings, as compared with the immediately preceding years.

The usual monthly meetings have been held throughout the winter months, but in 1921 and 1922 indoor meetings were discontinued during the summer months. The original papers and communications read at the meetings have been of a varied and instructive character. Some of these papers embody the results of valuable original work relating to the local flora and former local botanists. Many of the papers read before the Society have been published in the official organ of the Society, "The Lancashire and Cheshire Naturalist," and to the same journal we are indebted for publishing accounts of the Society's meetings.

The Society sustained a severe loss, in 1921, by the death of its late President, Mr A. H. Dudley, and also, in 1922, by the death of Mr J. C. Healey.

In October 1922 a cordial invitation was received from Prof. J. M'Lean Thompson, D.Sc., for the Society to make its headquarters at the Botanical Department of the Liverpool University. Consideration of this question was deferred until the annual business meeting early in the following year.

SUMMARY OF SOUTH LANCASHIRE FLORA COMMITTEE'S REPORTS (1919-1922).

The following summary of the progress of this investigation is compiled from the Flora Committee's Reports for the years 1919-1922:—

Phanerogamia.—The following additions to our lists refer to plants collected years ago, but only recently determined:—*Euphrasia Kernerii* Wettst., *Viola Riviniana* Reichb. $\times$ *canina* L., *Artemisia scoparia* W. & K., *Chenopodium album*, var. *subficifolium* Murr., and var. *lanceolatum* (Muehl.), *Sinapis turgida* Del. and *Medicago praecox* DC. Many interesting alien and adventive species have been noted in the period under review, including *Trigonella Foeniculum-graecum* L., *Nepeta Cataria* L., *Rumex salicifolius* Wein.,

Lepidium densiflorum Schrad., *Bidens frondosa* L., *Axyris amaran-toides* L., *Trifolium echinatum* Bréb., and *Lythrum Hyssopifolium* L. A number of these plants were collected by Mr F. Collier at Stalybridge. Among several uncommon species reported in 1921 from the Southport district by Mr F. W. Holder was *Allium vineale* L. from Marshside. Mr W. H. Western reported that the dwarf cornel (*Cornus suecica* L.) flowered exceptionally well in 1922 in its only known Lancashire station, and the plant appears to be slowly increasing its area.

Cryptogamia.—Two collections of mosses, formerly belonging respectively to Thomas Palgrave and F. P. Marrat, and now preserved in the Liverpool Museums, have been examined by Messrs Lee, Travis and Wheldon, and numerous interesting local specimens were found in these collections. The moss, *Archidium alternifolium* Schp., was found, in 1920, in a dune slack at Hightown, and the hepatic, *Plagiochila asplenoides*, var. *humilis* Lindb., on the Formby sandhills. *Petalophyllum Ralfsii* Gottsche was also found in dune hollows at Hightown. *Nitella opaca* Ag. was sent from the Rochdale district by Mr J. C. Healey. A list of fresh-water algae collected in a pond at Didsbury was contributed by Miss Annie Dixon.

A number of micro-fungi collected by Mr W. G. Travis are reported to be additions to the South Lancashire fungus flora. Among these may be mentioned *Psammia Boemmeriae* R. & S., on marram grass, a species not hitherto recorded for England.

The following papers have been published:—"Two by-gone Liverpool Bryologists—Frederick Price Marrat and Thomas Palgrave," by Miss A. Lee (*Lanc. and Cheshire Nat.*, vol. xiii.); "The Liverpool Botanic Gardens," by Miss E. Warhurst (*Lanc. and Cheshire Nat.*, vol. xii.); "The Rev. Henry Hugh Higgins," by Miss A. Lee, and "The First Liverpool Flora and its Author (Thomas Batt Hall)," by Mr A. A. Dallman (*Lanc. and Cheshire Nat.*, vol. xiv.); "The Clay Bank Vegetation of the Mersey Estuary," by Mr W. G. Travis (*Lanc. and Cheshire Nat.*, vol. xiii., February 1921). A paper by Mr F. Taylor in the *Lanc. and Cheshire Nat.*, October-November 1922, gives some old and new records of *Acorus Calamus* L. for Lancashire and Cheshire.

The Flora Committee regret to hear of the death of Mr J. C. Healey, of Rochdale, who for many years actively investigated the flora of the Rochdale district and generously placed his results at their disposal. They have also to regret the death of Mr George Holt, who contributed numerous records for the Manchester district, especially in connection with grasses.

The Flora Committee are particularly indebted for specimens and information to the following contributors:—Miss Annie Dixon, Mr F. Collier, Mr J. C. Healey, Mr C. R. Ritchings, Mr H. Robinson, Rev. M. Toohey, S.J., and Mr W. H. Western; and also to the following botanists for assistance with critical plants:—Mr A. Bennett, A.L.S.; Dr G. C. Druce; Mr W. B. Grove, M.A.; Mr Thomas Hebden; Mr W. H. Pearson, A.L.S., and Miss A. L. Smith, F.L.S.

SYNOPSIS OF PAPERS, 1919 to 1922.

ORDINARY MEETINGS, 1919.

- January 22nd—Annual Meeting.
 February 21st—"The Significance of Autumn," by Miss F. Swift, B.Sc.
 March 27th—"Madeira and its Flora," by Miss Eleanora Armitage.
 April 29th—"Abraham Stansfield, Poet and Naturalist," by J. S. Rowse.
 May 16th—"The Flowering Plants of the Sussex Downs," by E. F. Payne, B.Sc.
 July 21st—"The Muscineae of the Wirral," by Dr W. A. Lee, M.A.
 August 27th—"The Liverpool Botanic Gardens," by Miss E. Warhurst, L.L.A.
 September 29th—"The Lesser Celandine (*Ranunculus Ficaria* L.), Some Further Notes and Observations (1917-1919)," by A. A. Dallman, F.C.S.
 October 28th—"The Minute Side of Vegetable Life," by Hesketh Walker.
 November 11th—"Variegation," by Prof. L. Doncaster.
 December 10th—"Biological Symmetry" (Part I.), by A. H. Dudley.

ORDINARY MEETINGS, 1920.

- January 21st—Annual Meeting.
 January 28th—"The Transmission of Stimuli in Plants," by Miss M. Knight, M.Sc.
 February 18th—"Biological Symmetry" (Part II.), by A. H. Dudley.
 March 22nd—"Notes on the Flora of Åbersoch," by Miss A. C. Griffiths.
 "A Corner of Wirral, from Personal Observations," by Miss J. V. Jones.
 April 26th—Lantern Lecture—"Seedlings," by A. A. Dallman, F.C.S.
 May 17th—"The Vegetation of the Clay Banks of the Mersey," by W. G. Travis.
 June 22nd—"Two By-gone Liverpool Bryologists—Frederick Price Marrat and Thomas Palgrave," by Miss A. Lee, L.L.A.
 September 14th—"The Moss Flora of Rochdale," by J. C. Healey.
 October 21st—"Some Observations on *Arum maculatum*," by Miss Eleanora Armitage.
 "The Identification of Mosses," by Dr W. A. Lee, M.A.
 November 23rd—"Symbiosis in Plants and Animals," by Miss O. R. Bangham, B.Sc.
 December 7th—"Some Forms of Fresh-Water Algae," by W. Naramore, F.L.S. (Lantern Lecture).

ORDINARY MEETINGS, 1921.

- January 18th—Annual Meeting.
 February 25th—"Linnaeus and His Life's Work," by Miss E. Lind.

- March 16th—"The Work of the Early Botanists," by Miss E. Warhurst, L.L.A.
 April 12th—"Some Botanical Notes on a Holiday in East Anglia," by E. F. Payne, B.Sc.
 September 22nd—"The Lichens of Wirral," by W. G. Travis.
 October 6th—"The Life and Work of the Rev. Henry Hugh Higgins, a Liverpool Naturalist," by Miss A. Lee, L.L.A.
 December 14th—"Botanical Poetry," by Dr W. A. Lee, M.A.

ORDINARY MEETINGS, 1922.

- January 11th—Annual Meeting.
 February 22nd—"Ecological Studies," by W. J. Hopkinson, B.Sc.
 March 22nd—"Liverworts," by Miss E. Armitage.
 April 26th—"Notes on the Mosaic Cosmogony," by Rev. M. Toohey, S.J.
 May 18th—"The Work of Sir Jagadis C. Bose, the Indian Scientist," by Miss E. Warhurst, L.L.A.
 September 28th—"Notes on Colour in Wild-Flowers," by Miss E. Warhurst, L.L.A.
 October 25th—"Botanizing in the Isle of Man," by J. A. Wheldon, F.L.S.
 November 29th—"The Relative Importance of the Several Branches of Botany," by Dr W. A. Lee, M.A.
 December 18th—"Alien Plants," by W. G. Travis.

BALANCE-SHEETS, 1921-1922.

Dr.

Cr.

	1919.	1920.	1921.	1922.		1919.	1920.	1921.	1922.
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AUDITORS:—

Jan. 1920 } O. R. BANGHAM,
M. BOWEN.

Jan. 1921 } O. R. BANGHAM,
I. HANNAH.

Jan. 1922 } Mrs E. SMITH,
EVA MORGAN.

Jan. 1923 } F. H. GREEN,
H. E. GREEN.

W. A. LEE, Hon. Treasurer.

cidium on the burnet rose, and due to the gall wasp, *Rhodites spinosissimae*, being especially conspicuous. After tea at West Kirby, an interesting and enjoyable excursion was terminated by a visit to Grange Hill.

SATURDAY, 10th SEPTEMBER 1921.

Ainsdale.

The party proceeded inland, and investigated the flora of the streams and ditches which occur on this low-lying land. A feature in the ditches was the Nodding Bur-Marigold (*Bidens cernua* L.), which was very plentiful, and the rarer, handsome radiate form was also seen. This area was formerly a peat-moss, and *Myrica Gale* L. still exists by many of the ditches. *Rumex maritimus* L., *Lysimachia vulgaris* L., and many other marsh species were noted. Afterwards, a visit was made to the sand-dunes.

Amongst various cecidia noted at Ainsdale were the following:—*Aulacidea hieracii* Bouché, *Aphis atriplicis* L., *Eriophyes galii* Karp, *E. Thomasi* Nalepa, *Perrisia persicariae* L., *P. plicatrix* H. Loew., *P. ulmariae* Bremi, *P. urticae* Perris, *P. crataegi* Winn., *P. viciae* Kieff., *Pontania proxima* Lepel. and *Perrisia terminalis* H. Loew on *Salix fragilis* L., *Cryptocampus* sp. (galling the petioles of *Salix viminalis* L.), and *Pontania salicis* Christ, on *S. purpurea* L.

General Meetings.

WEDNESDAY, 11th JANUARY 1922.

Annual Meeting. The President in the chair.

Miss WARHURST gave an account of negotiations regarding the federation of local scientific societies.

The Council's report for 1921 was read and adopted, and the Treasurer then presented his statement.

The South Lancashire Flora Committee reported several interesting new records.

The following Officers were elected for 1922:—

President—Miss E. Warhurst, L.L.A. (re-elected).

Vice-Presidents—Mr J. A. Wheldon and Mr W. G. Travis.

Hon. Secretaries—Miss O. R. Bangham and Mr E. F. Payne, B.Sc.

Hon. Treasurer—Dr W. A. Lee.

Recorders—Miss Cooke and Miss Hannah.

Council—Miss Adamson, Mrs Bangham, Miss L. R. Cooke, W. Chesher, M.A., Mrs A. A. Dallman, A. A. Dallman, F.C.S., Miss F. Hamilton, Miss I. Hannah, W. Lind, Miss A. Lee, H. S. Marsh, and Mrs E. Smith.

WEDNESDAY, 22nd FEBRUARY 1922.

The President, Miss E. Warhurst, in the chair.

Mr J. A. WHELDON showed (a) specimens of *Sphagnum fimbriatum*, var. *concinnum* (Berggn.) Warnst., collected in 1921 by the Oxford University Spitzbergen expedition. This species is a characteristic arctic and sub-arctic plant of Europe and North America,

and a critical species. (b) *Tillaea aquatica* L., a new British flowering plant, collected by Mr R. W. Butcher at Adel, near Leeds, in September 1921.

Mr W. G. TRAVIS showed a micro-fungus, found on horse droppings, not previously recorded for the district, namely, *Coemansiel-la alabastrina* Sacc.

Mr W. J. HOPKINSON, B.Sc., read a paper "Ecological Studies," dealing with the flowering plants of various districts in Somerset. The great variety of geological formations, and high rainfall, produce a varied flora with a large proportion of lichens and mosses.

The river plains, formerly salt-marsh, are now low-moor, with reed swamps. *Utricularia* spp. are abundant, but seldom found in flower. The Snowdrop and Daffodil are abundant in places. On the uplands, Ash-Oak-Hazel copse is the characteristic vegetation of the Marl, on the clay, *Scilla nutans* and *Stellaria Holostea* are prominent in the woods. The chalk re-appears higher up, where beech dominates and calcicole plants are plentiful. Many excellent photographic illustrations were shown.

WEDNESDAY, 22nd MARCH 1922.

The President, Miss E. Warhurst, in the chair.

The death of Mr J. C. Healey, of Rochdale, a foundation member of the Society, was reported, and a vote of condolence to his sister, Miss Healey, was carried.

Miss BRAY, of Hailsham, Sussex, forwarded some notes on the Lesser Celandine, with specimens showing a difference in form of leaves of plants grown from tubers, compared with those from achenes.

Dr W. LEE exhibited holly leaves from Raby Mere showing ravages of a leaf-mining Dipteran fly (Holly fly).

Certain arrangements for the British Association Meeting in Liverpool, in 1923, were discussed.

A paper by Miss E. ARMITAGE, of Ross, on "Liverworts," was read by Mr W. G. Travis. The writer dealt with the differences between mosses and liverworts in structure, appearance, reproductive organs, and habitat, and 62 representative specimens, beautifully preserved and mounted, were used in illustration.

WEDNESDAY, 26th APRIL 1922.

The President, Miss E. Warhurst, in the chair.

Mr E. F. PAYNE showed a pressed specimen of one of the rarest of British wild flowers, the Spring Snowflake (*Leucojum vernal* L.), from Dorset.

Father M. TOOHEY, S.J., read a paper, "Notes on the Mosaic Cosmogony."

THURSDAY, 18th MAY 1922.

Dr W. A. Lee in the chair.

A paper was read by the President, Miss E. Warhurst, L.L.A., entitled, "The work of Sir Jagadis C. Bose, the Indian scientist."

THURSDAY, 28th SEPTEMBER 1922.

Mr J. A. Wheldon in the chair.

Mr J. A. WHELDON showed *Anthoceros punctatus* L. and *Pottia recta* Mitt. and *P. minutula* Fühnr., from Ballaboggan Glen, and new to the Isle of Man.

Mr E. F. PAYNE exhibited an album of photographs of coastal scenery and specimens of plants from Dorset, and the south of England, including *Crithmum maritimum* L., *Inula crithmoides* L., *Erica ciliaris* L. (from Egdon Heath), *Althaea officinalis* L., *Inula Helenium* L., and *Lathyrus maritimus* Big., from Chesil Beach.

Miss E. WARHURST read a paper, "Notes on Colour in Wild-Flowers," in which the preponderance of white flowers in certain families was discussed, and the increased proportion of blue and purple colours in more highly developed forms in more advanced groups. It was suggested that the high proportion of white and yellow flowers in this country might be due to the large number of night-flying moths bringing about fertilisation. It was noticeable that at high altitudes and latitudes there was a tendency for brighter colours to develop. In the Cruciferae white and yellow are predominant, in Geraniaceae rose colour, in Leguminosae yellow, while in Boraginaceae the colour ranges from purple to blue, while grasses, which are mainly wind-fertilised, remain green.

Mr Wheldon, in seconding a vote of thanks to the lecturer, remarked that white and bright colours were not always associated with insect visits, and mentioned protective colouring in mosses where the reds found at high altitudes shielded the chlorophyll from strong light rich in ultra-violet rays

WEDNESDAY, 25th OCTOBER 1922.

The President, Miss E. Warhurst, in the chair.

Dr W. A. LEE showed *Euphorbia Peplis* L. and cones of the Douglas Fir, from Bristol.

Mr J. A. WHELDON showed some alien plants, sent by Dr Haynes Thomas, of Chester, including *Hemizonia Kelloggii* Greene and *Senecio squalidus* L., and then proceeded to read his paper on "Botanizing in the Isle of Man." One flowering plant, *Euphrasia brevipila* Burnat & Gremli, was noted as new to the Manx flora. In the paper particular attention was devoted to the lichen flora, and the distribution of lichens on the various geological formations was discussed. The paper was published in the *Lanc. and Cheshire Nat.*, vol. xv., p. 109, et seq.

WEDNESDAY, 29th NOVEMBER 1922.

The President, Miss E. Warhurst, in the chair.

A letter was read from Prof. J. McLean Thompson, extending a cordial invitation to the Liverpool Botanical Society to make its headquarters at the University.

Mr J. A. WHELDON exhibited the hepatic, *Anthoceros laevis* L., found in association with *A. punctatus* L., from Ballavodda Glen, Isle of Man, also *Sphagnum Russowii*, var. *Girgensohnoides*, f. *virescens* Russ. from Edale, Derbyshire, found by Mr John H. Payne. This was a new county record.

Mr E. F. PAYNE exhibited four rare plants from Dorsetshire, namely, *Malaxis paludosa* Sw., the smallest British species of orchid, the Cornish Heath, *Erica vagans* L. (naturalised in Dorset), *Cyperus longus* L., and *Scorzonera humilis* L., a very rare British composite, only recently found growing in damp meadows near Wareham.

Dr W. A. LEE read a paper on "The Relative Importance of the several Branches of Botany." He stated that plants were first studied in their medicinal aspect; classification followed, involving the development of a terminology, and the active discovery and re-

cording of species and stations. The invention of the microscope gave new directions and great impetus to the science on the laboratory side, while a modern development, Ecology, has again brought field-work to the front. Relative importance was shown to be dependent on (1) the stage of progress reached in any particular branch, (2) the special problems calling for solution at a given time, (3) for the individual the opportunities offered by circumstances for study. The paper was published in the *Lanc. and Cheshire Nat.*, vol. xv., p. 113, et seq.

MONDAY, 18th DECEMBER 1922.

Mr J. A. Wheldon in the chair.

Dr W. A. LEE, in a short communication, referred to the use of extract of broom as a cure for dropsy, a use now almost obsolete but still practised locally.

Mr W. G. TRAVIS called attention to the spread of the Indian balsam, *Impatiens glandulifera* Royle, now established in quantity along the banks of the River Alt between Aintree and Melling. Mr Travis also showed a micro-fungus, *Psammia Bommeriae* R. & S., found by him growing on decaying marram-grass in the sandhills at Freshfield. This was the second time only that the species had been met with in Britain, it having been collected previously in Scotland.

Mr J. A. WHELDON exhibited some lichens sent from China by Miss Wheldon, also specimens of a new variety of moss, *Cratoneuron commutatum*, var. *subirrigatum* Wheldon, collected near Genoa.

A paper, entitled "Alien Plants," was then read by Mr W. G. TRAVIS, in which, *inter alia*, the method of treating "alien" plants in published lists and floras was discussed. It was considered by the writer that undue importance was attached now-a-days by many botanists to publishing records of the occurrence of adventive species which, in the vast majority of cases, were quite impermanent in their recorded habitats; and published lists were swelled also by the inclusion of garden outcasts, planted trees and shrubs, and even of species like the orange and date found merely as seedlings on town-refuse tips. The inclusion in local floras of alien species which had really become established, or showed signs of becoming so, in any district was, however, quite a different matter.

The discussion which followed turned largely on the question of "status." Dr Lee remarked that the assertion of status might be true only for a particular period. Man was only one biological entity; and it was difficult to see why plants introduced by man should be put in a different class from those introduced by, say, birds. Mr Wheldon said that some claimed that plants growing on edifices erected by man were "aliens," but this in his opinion was carrying the argument too far. He pointed out, also, that by a sort of convention it was generally considered that plants introduced into this country during the last few centuries should be regarded as aliens, whilst those of earlier introduction, if well established, were given the benefit of the doubt.

Field Meetings.

SATURDAY, 25th MARCH 1922.

Raby Mere. *Leaders*—Mr J. A. WHELDON and Dr W. A. LEE.

From New Ferry the party walked through Bebington village and Poulton Lancelyn to Raby Mere. By kind permission of H. F. Fernie, Esq., the woods bordering the Mere were examined. The weather conditions were good, but it was found that the season was exceptionally late and but few vernal flowers were in evidence. The bryologists found *Bryum murale* on a wall at Poulton Lancelyn, *Polytrichum formosum*, and some of the commoner hepatics. The lichens *Buellia canescens*, *Parmelia saxatilis*, *Lecanora dispersa* and *Lecanora citrina* were found on walls, and *Parmelia physodes*, *Cladonia flabelliformis* and *C. macilenta* were also seen. The orange-coloured gelatinous patches of the discomycete, *Cylindrocolla urticae* Bon., were observed on decaying nettle stems, and *Uromyces Poae* was noted on *Ranunculus Ficaria*.

SATURDAY, 29th APRIL 1922.

Gresford. *Leader*—Miss H. JACKSON, B.Sc.

SATURDAY, 20th MAY 1922.

Skelmersdale and Orrell. Joint meeting with the Liverpool Geological Society. *Leader*—Mr C. H. Cox, B.Sc.

The party journeyed to Skelmersdale, and then walked to Orrell. Botanically, not much of interest was observed, the flora being typical of the Coal-Measure sandstone of the district. By the hospitality of the leader, tea was taken at Upholland Grammar School.

SATURDAY, 27th MAY 1922.

Kirkby and Simmonswood. *Leaders*—Mr W. G. TRAVIS and Mr J. A. WHELDON.

SATURDAY, 10th JUNE 1922.

Ellesmere Port and Capenhurst. Joint meeting with the Liverpool Naturalists' Field Club.

SATURDAY, 24th JUNE, 1922.

Ince and Elton. *Leader*—Dr W. A. LEE.

The quaint village of Ince is rich in historical associations and relics. The party visited the Church and had the benefit of an excellent historical survey by the Rev. F. G. Slater, M.A. An inspection of the remains of the monastic buildings was made and the party, by the courtesy of Mrs Park Yates, then made a tour of the Ince Hall gardens and grounds, which were of exceptional beauty, and yielded many items of botanical interest. An exploration of the heathland adjoining the Ship Canal, the Greenway, and Marsh Lane completed the expedition. Among the species gathered were *Campanula latifolia* L., *Cornus sanguinea* L., *Humulus Lupulus* L., *Valeriana dioica* L., *Centranthus ruber* DC. (in masses of colour on sandstone rock), *Lemna trisulca* L., *L. polyrhiza* L., and *Asplen*

ium Ruta-Muraria L. The bryophytic gatherings were not numerous, and there is evidence of the prejudicial effect of smoke. The following mosses were noted:—*Dicranoweisia cirrata* Lindb. (on bark), *Leptobryum pyriforme* Wils., *Racomitrium fasciculare* Brid. (stunted specimens), *Webera prolifera* Bryhn, *Bryum argenteum*, var. *lanatum* B. & S., *Aulacomnium androgynum* Schwaeg., *Barbula fallax* Hedw., *B. convoluta* Hedw., and *Mnium rostratum* Schrad.

SATURDAY, 22nd JULY 1922.

Thurstaston Common and Dawpool. *Leader*—Miss A. LEE, L.L.A.

On arrival at Irby, an inspection was made of Irby Hall. This survival from the 16th century is one of the four fortified manor-houses of the Abbey of St Werburgh, of Chester, and is therefore connected with the monastic foundation at Ince, visited by the Society in the preceding month. The house has a timber and plaster front, and the moat and bank have been maintained remarkably well. On sycamores here the following lichens were found, namely, *Opegrapha herpetica*, *O. atra*, var. *denigrata*, *Buellia myriocarpa*, *Lecanora chlarona* and *L. effusa*, all, except *B. myriocarpa*, being additions to the published lichen-list of the district. *Sedum acre* was noted on walls at Irby, and the moss, *Grimmia Stirtoni*, on sandstone walls near the village. On Thurstaston Common, *Listera ovata*, *Scutellaria minor* and *Gentiana Pneumonanthe* were found. *Hypericum pulchrum* and *Agrimonia Eupatoria* were observed. *Scirpus caespitosus* and *Juncus squarrosus* were well in evidence, and the *Droseras*, *D. rotundifolia* and *intermedia* occurred in some of the damper hollows. *Carex binervis* was noted in one spot. On the north-western slopes of the hill the Rosebay, *Epilobium angustifolium*, occurred in extraordinary abundance and luxuriance. In the evening, the atmosphere was unusually transparent, and extensive views were obtained from the crest of the hill. To the north, a long stretch of the Lancashire coast and Blackpool Tower were clearly seen, and in the far distance the Cumberland hills, including Black Coombe.

SATURDAY, 26th AUGUST 1922.

Arrowe Park. *Leader*—Mr H. S. MARSH.

By the courtesy of Mr Stewart Johnston, a field-meeting was held in Arrowe Park. Perhaps the most interesting discovery of the day was *Epipactis latifolia* All., a rare species in Wirral. Among other phanerogams observed were *Arenaria trinervia* L., the alien *Arenaria balearica* L. (on a wall), *Caucalis Anthriscus* Huds., *Scrophularia nodosa* L. and *Lemna trisulca* L. The discomycetes, *Lachnea scutellata* (on moss on a tree stump) and *Dasyscypha leuconica* (on dead fir cones) were noted. *Xylaria hypoxylon* Grev. was common on dead stumps. The plasmodium of a myxomycete, found on moss, developed sporangia, and proved to be *Stemonites flavogenita*. The following pyrenomycetes were also reported:—*Erysibe communis*, parasitic on leaves of the marsh-marigold, *Melanomma pulvis-pyreus*, on dead wood, and *Ophiobolus porphyrogonus* on decaying herbaceous stems. One representative of the puff-balls, *Lycoperdon pyriforme* Schaef., was seen.

SATURDAY, 23rd SEPTEMBER 1922.

Little Crosby and Ince Blundell. *Leader*—Mr BELL.

his own wish, these simple words are inscribed on his tombstone: "A friend of boys and girls."

John Campbell Healey (1843-1922).

Mr J. C. Healey, who had been in failing health for some time before his death, passed away on March 14, 1922. Born in Rochdale, in June 1843, he was well-known in his native town and district, where he had passed all his life.

The late Mr Healey commenced his business career in the cotton trade with a Mr Haigh, of Rochdale, a cotton spinner, but later in life transferred his activities to an insurance agency, and an agency for a firm dealing in worsted warps.

He was a member of the Church of England, and was for a time a churchwarden at All Saints' Church, Hamer, and for about twenty years he was the treasurer of All Saints' Day School.

Taking up botany as a hobby, he pursued its study with ardour. He was keenly interested in systematic and floristic botany, and continued to take an interest in botanical matters right up to the end of his life. He had been a member of the Liverpool Botanical Society for many years. Mr Healey knew the flora of his native district intimately and generously placed his knowledge at the disposal of the committee undertaking the investigation of the flora of South Lancashire when that scheme was initiated. He had a good collection of local plants. Some years ago, he contributed articles to the Rochdale press dealing with the botany of the district. In his later years cryptogamic plants became his special study and he devoted much attention to mosses. He corresponded frequently with the late Mr J. A. Wheldon and the writer in regard to the specimens he collected. He contributed to the Liverpool Botanical Society a paper on "The Moss Flora of Rochdale," in 1920.

The deceased was for some years a foot member of the Rochdale Hunt, and in 1910 he published a book, entitled "Hare Hunting in the Pennines." In his younger days he was fond of sports, and played cricket. He was also a very good runner, and in the "eighties" used to compete successfully in foot races held under the auspices of the Rochdale Sports' Society.

The late Mr Healey was interred in the burial-ground of St John's Church, Smallbridge, Rochdale.

W. G. T.

Donations and Additions to the Library

(1919 to 1922).

BY PRESENTATION.

- BOTANICAL SOCIETY AND EXCHANGE CLUB OF BRITISH ISLES—Report for 1917, presented by C. Waterfall; Report for 1921, presented by W. G. Travis.
- PLANT GALLS OF GREAT BRITAIN (E. Connold), presented by Miss E. Bray.
- SOME ZOOCECIDIA (A. A. Dallman), presented by the Author.
- FLORAL DEVELOPMENT AND EMBRYOGENY IN WHEAT (A. H. Dudley), presented by the Author.
- FLORA OF LIVERPOOL (T. B. Hall), presented by A. A. Dallman.
- THE MUSCINEAE OF THE WIRRAL (W. A. Lee and W. G. Travis), presented by the Authors.
- LIVERPOOL MICROSCOPICAL SOCIETY—Report (1914), presented by A. H. Dudley.
- NATURALIST, THE (1912), presented by W. A. Lee.
- VAN RIJK'S HERBARIUM—Report 1919-1921.
- POEMS, SONNETS AND TRANSLATIONS (A. Stansfield), presented by J. S. Rowse.

BY EXCHANGE.

- BOTANICAL SOCIETY OF EDINBURGH—Trans. and Proc. 1916-1919.
- BRITISH ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE—Report for 1918, and Report of Corresponding Societies' Committee.
- BRISTOL NATURALISTS' SOCIETY—Report and Proc., vol. 5, Pts. 1 and 2.
- CHESTER SOCIETY OF NATURAL SCIENCE, &c.—49th Annual Report.
- CONNECTICUT ACADEMY OF ARTS AND SCIENCES.—Transactions—"Russia's Contribution to Science," by A. Petrunkovitch; Studies in the Calcite Group, by W. E. Ford.
- NEW YORK BOTANICAL GARDEN—Bulletin, April-September 1921.
- UNITED STATES NATIONAL HERBARIUM, CONTRIBUTIONS FROM—"Flora of the Glacier National Park, Montana;" "North American Grasses."
- UNITED STATES, DEPARTMENT OF AGRICULTURE—Yearbook (1918).
- WISCONSIN ACADEMY OF SCIENCE, ARTS AND LETTERS—Transactions, vol. 18, Part 2.

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