

Some Flowering Plants of the Leigh Area of Lancashire

By T. EDMONDSON, A.R.I.C.

SECTION 1: SELECTED PLANT RECORDS.

INTRODUCTION.

For some eight years I have taken casual note of the more conspicuous plants found in the Leigh district. Although the limitations of leisure time have prevented my acquiring the knowledge or ability of the active field botanist, I was prompted to make this minor contribution, having failed to discover literature referring to any previous studies of this nature made hereabouts. Since compiling this paper, Mr J. D. Gifford, F.L.A., of the Leigh Public Library, has kindly drawn my attention to a pamphlet, printed locally, which lists the plants gathered in 1907 by members of the Grammar School Natural History Society (1); the society is now non-existent. There are no indications of the extent of the survey, nor are plant stations or distribution described. The list is fairly comprehensive and it seems reasonable to assume that types prevalent in 1907 are completely listed. My individual local list is, as one may expect, not as lengthy and changes in the status of individual species cannot be completely described. Some idea of these changes is, however, conveyed by marking with an asterisk (throughout the whole of this paper) those species which do not appear in the 1907 list. Their non-inclusion there is due to a variety of reasons, such as their being overlooked (e.g., *Lycopus europaeus*), their rarity here (e.g., *Lysimachia Nummularia*) or because they have been introduced since then. Some species, such as *Impatiens glandulifera*, *Galeopsis speciosa*, and *Acorus Calamus*, have increased quickly since their introduction within the last forty years.

The quadrangle lying between Leigh, Wigan, Bolton and Manchester is one of the major scars of Britain, lacking beauty and extensive areas of natural countryside. Especially near Leigh and Wigan extensive coal mining is carried out and slag heaps and flashes are prominent. Woodlands are exceptional, and the majority of the private estates are but relics of the past.

In the vicinity of Leigh, the soil is heavy and impervious; consequently, since the land is low lying, natural drainage is poor. There are many tracts of poor grassland, which are not drained, tilled or grazed, and ponds—known locally as "pits"—are frequent. Flashes, stretches of water resulting from mining subsidence—varying in size are frequent and those which are not grossly contaminated by colliery waste enjoy no mean ornithological value. A few miles to the south of Leigh, towards Kenyon and Newton-le-Willows, the soil assumes a lighter texture. To the south east, we come to Astley Moss and Chat Moss, now well cultivated, but with isolated portions still retaining their primitive [P 385] character. The soil on Chat Moss was at one time enriched by sewage from the Manchester district and, here and there, along the rutted tracks the original bogey lines are visible.

Despite the unattractive nature of the Leigh area, there is much scope for ecological studies. An attempt by the writer to give a comprehensive account of this industrial flora would be premature. In selecting a few records for comment, reference is sometimes made to the first edition of Green (2), where comparison with a neighbouring area seems of interest. Where it has been considered relevant, records have been given for localities other than Leigh, but it is stressed that the distributions given are not necessarily absolute, but merely the results of the writer's own experience.

The nomenclature and sequence of species used is that given in Hayward's Botanist's Pocket-Book (1939 Ed. Revised by G. C. Druce).

SYSTEMATIC LIST.

**Hesperis matronalis* L.

Alien. Wrightington Hall Wood, near Wigan, 1944.

**Reseda alba* L.

Den. Waste ground by the canal at Gathurst, plentiful, 1947.

Geranium dissectum L.

Native. Scarce. Cultivated ground, Byrom Hall, Lowton and at Landside near Leigh.

**G. Robertianum* L.

Nat. Rare at Leigh—by path leading from Oughton Coats Bridge, Lowton.

Frequent at Gathurst and common in the Chorley District.

**Impatiens glandulifera* Royle (not mentioned by Green).

Alien. Abundant by sluggish rivers and brooks. The distribution known by the writer is as follows: River Croal, from Blackrod to Bolton; River Douglas, from Hoscar to Wigan; River Irwell, from Ringley to Salford; River Glaze, from Westleigh to Glazebury. By the brook Which flows between the Astley Flashes.

Genista tinctoria L.

Cas. Few plants on heavy, clay soil at Byrom Hall in 1938-39.

Potentilla palustris L.

Nat. Abundant in most of the ponds in the Leigh area.

**Poterium officinale* A. Gray.

Nat. Sewage farm between Hoscar and Parbold—frequent by the brook there in 1944.

Described as very rare by Green (2).

**Circaea lutetiana* L.

Nat. Frequent in Dean Wood, Mill Wood and Wrightington Hall Wood—all to the west of Wigan.

Viburnum Opulus L.

Nat. Frequent in hedgerows and copses at Leigh, Lowton and Newchurch.

Lonicera Periclymenum L.

Nat. Rare at Leigh—a flowering plant. near the Beech Walk was shewn to me by Miss A. M.

Peters in 1947. Non-flowering clumps in a copse at Byrom Hall and also in the Haydock Park wood. Cuttings from the latter two sites now bloom in a hothouse.

Valeriana sambucifolia Mik.

Nat. Common in ditches in the Pennington district. Frequent at Chorley.

Petasites ovatus Hill.

Nat. Common by brooks and in other wet places. Frequent along the Leeds and Liverpool Canal, being abundant in some places, such as Appley Bridge, Gathurst and Dover. Along the brook through Borsdane Wood, Hindley. Common at Leigh, Astley Moss and Little Lever, Bolton. Described by Green as rare.

**Lysimachia vulgaris* L.

Nat. Rare at Leigh—luxuriant patch in the Common Lane ditch.

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**L. Nummularia* L.

Nat. Rare—along the ditch by a field path near the Beech Walk, Leigh

L. nemorum L.

Nat. Unknown at Leigh. Frequent in woods near Gathurst.

Symphytum officinale L.

Nat. Very common by the wayside over a wide area of Astley Moss and Chat. Moss.

**Lycium chinense* Mill.

Alien. Frequent in gardens in Leigh and Glazehury; as an escape on waste land by Oughton Coats Bridge, Lowton.

Veronica Chamaedrys L.

Nat. Rare near Leigh—one patch at Byrom Hall. More frequent near Wigan, e.g., Haigh Hall and Wroughtington Hall grounds.

Euphrasia officinalis L.

Nat. Unknown at Leigh. On heathy ground near Kenyon Station.

Bartsia Odontites Huds.

Nat. Rare at Leigh—poor ground at. Lightshaw Hall farm.

**Lycopus europaeus* L.

Nat. Common by the canal at Gathurst and Platt Bridge: frequent near Leigh, e.g., Byrom Hall ponds and Newton Mere.

Scutellaria galericulata L.

Nat. Scarce—by a pond at Abram, Newton Mere and also canal at Gathurst.

**Galeopsis speciosa* Mill.

Col. Commonly established by waysides at Newchurch. Very common on cultivated ground of Chat Moss. A little by Astley and Wigan Sewage Farms and in the Golborne district. I found it to be abundant in a potato field at Appleton, near Warrington in 1944. Described by Green as rare.

Lamium album L.

Nat. Very frequent in Leigh and Gathurst districts: common at Euxton near Chorley.

Ajuga reptans L.

Nat. Scarce—Golborne Park and Winstanley Hall.

Polygonum Bistorta L.

Nat. Frequent at Leigh, e.g., several large "carpets" by the base of the embankment to the east of Leigh Flash.

P. amphibium L.

Nat. Common in the reed bed and in the "bays" along the south shore of Leigh Flash.

**Acorus Calamus* L.

Col. Common by the flashes—very extensive colonies at Leigh Flash and Diggle's Flash.

Sagittaria sagittifolia L.

Col. Locally plentiful in the Leeds and Liverpool Canal, e.g. Gathurst, Platt Bridge and Leigh.

SECTION 2: THE FLORA OF AN INDUSTRIAL ASH TIP. INTRODUCTION.

The waste ground to the north east of Pennington Flash, Leigh, has a far greater concentration of plants than in more natural habitats in the area. The portion surveyed here comprises the two ash tips in the vicinity of Davenport and Higher Allanson's Farms (covering some two acres), the disused mineral line and the broad cutting and the railway line which traverses the flash. The tips and embankments were laid down many years ago and the plant life is now constant save for casuals introduced by anglers, freight waggons, birds, etc. The surface soil is shallow and the lower layer of ashes, fused cinders, etc., contains little humus. On the other hand porosity is high and owing to the [P. 387] physical process of adsorption a concentration of nitrogen, oxygen and inorganic compounds will be maintained. Capillary action will be a factor conducive to the development of plants in the immediate vicinity of the water.

Leguminous plants are prominent and several members of the flora now described, although colonists here, are native on chalk—at least on the northern tip of the Chiltern Hills, where I used to live.

ASSOCIATED FAUNA.

Hedgehogs are sometimes met with but a colony of rabbits was exterminated by loafers, an undesirable but very prevalent type in the neighbourhood.

The thick vegetation attracts many birds but with some species the primary attraction is the nearby flash. Sedge Warblers, Reed Buntings, Meadow Pipits, Whitethroats, Yellow Wagtails, Common Sandpipers, and Mallard nest annually and the nests of Redshank and Lapwing have also been found in the bare places; flocks of Linnets are common in the autumn.

Butterflies are poorly represented in the area. In the locality now considered the Whites (*Pieris* sp.) and the Small Copper are common. The Peacock and Red Admiral are conspicuous in autumn, but the Painted Lady is less frequent. In recent years the Large Elephant Hawk Moth has increased.

SYSTEMATIC LIST.

This is confined to the Dicotyledones, but the species which have been overlooked are believed to be few in number.

Ranunculus repens L. Nat.. Common.

**Papaver somniferum*. L. Alien. Casual—little in 1944.

**P. Rhoeas* L. Cas. 1944 and 1947.

**P. dubium* L. Col. Scarce.

Fumaria Bastardii Bor. Cas. 1944.

Radicula islandica Bruce. Nat. Abundant. by the water and frequent in much drier situations.

R. sylvestris Druce. Col. Common on a grassy portion of Allanson's Tip, well above the water.

**Sisymbrium altissimum*. L. Alien. Common.

S. officinale Scop. Nat. Scarce.

**Brassica alba* Boiss. Col. Infrequent.

**Reseda lutea* L. Col. A little on Davenport. Tip.

**R. Luteola* L. Col. Very common.

Silene inflata Sm. Col. Abundant. Described as rare by A.H.S. (1).

Lychnis alba Mill., *L. dioica* L. Nat. Common.

**Geranium pratense* L. Col. A little near Pennington Station.

Cytisus scoparius Link. Col. Many healthy shrubs on a sandy embankment.

Medicago lupulina L. Nat. Common.

Melilotus ofjlcinalts Lam. Col. Abundant.

N.B. In 1947 I also noticed profuse growth on waste ground near the canal at Gathurst and on certain earthworks at the R.O.F., Risley, which was built at the outbreak of the recent war.

M. alba Desr. Col. Abundant.

Trifolium. pratense L. *T. repens* L. Nat. Common.

Anthyllis Vulneraria L. Col. Davenport, Tip.

Lotus corniculatus L. Nat. Very common.

Vicia Cracca L. *V. Sepium?* L. Nat. Common.

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**V. angustifolia* L.

b. *segetalis* Koch. Colonist. Frequent along the railway over the flash until the line was raised.

V. hirsuta Gray. Cas. Large clump on Allanson's Tip. 1941-45, now gone

A little on Davenport Tip in 1945.

Lathyrus pratensis L. Nat. Very common.

**Lathyrus montanus* Bernh. A little on Davenport Tip. (It is plentiful by the small reservoir at Adlington, near Chorley).

Rubus sp. Nat. Common.

Potentilla Anserina L. Nat. Frequent.

P. reptans L. Nat. Scarce.

P. procumbens Sibth. Nat. Very common.

**P. Norvegica* L. Alien. Frequent.

**Ribes Uva-crispa* L. Den. Two shrubs.

**Sedum, acre* L. Col. Grows extensively in the cutting.

Epilobium angustifolium. L. Nat. Abundant.

**Oenothera biennis* L. Den. Very common. Has lately suffered by the destructive habits of local children.

**Conium maculatum* L. Col. Grows plentifully on a certain portion of Allanson's Tip and very often attains a height of six feet. With it is associated very little *Epilobium* but much *Artemisia*.

Heracleum Spondylium L. Nat. Frequent.

**Daucus Carota* L. Col. Frequent on Davenport Tip.

**Dipsacus fullonum* L. Cas. Little in 1939.

Solidago Virgaurea L. Scarce.

Bellis perennis L. Nat. Frequent.

Achillea Millefolium L. Nat. Common.

Chrysanthemum. Leucanthemum L. Nat. Common.

Matricaria inodora L. Nat. Very common. .

**Artemisia vulgaris* L. Nat. Abundant.

Tussilago Farfara L. Nat. Very common.

Senecio Jacobaea L. **erucifolius* L. Nat. Scarce.

[**S. squalidus* L. Alien. None at Leigh. Plentiful on a tip by the canal at Platt Bridge.]

S. viscosus L. Very common in the more barren situations and along the permanent way. Also frequent along the mineral line from Golborne to Dover Locks, by Westleigh Collieries and on colliery tips at Platt Bridge Green (2) described it as a very rare casual.

S. sylvaticus L. Nat. Frequent.

S. vulgaris L. Nat. Common.

b. *radiates* Koch. Nat. Common.

Cirsium lanceolatum Scop., *C. arvense* Scop. Nat. Frequent.

Centaurea nigra L. Nat. Common.

**C. Scabiosa* L. Col. Rare.

**Cichorium Intybus* L. Col. Several plants are found annually in one particular situation.

**Hieracium murorum* L. Nat. Abundant on mossy soil in the cutting.

**H. boreale* Fr. Nat. Very common.

Hypochaeris radicata L. Nat. Common.

Taraxacum vulgare Lam. Nat. Common.
Sonchus arvensis L. Nat. Frequent.
 b. glabrescens G. G.W. Also frequent.
Tragopogon pratensis L. Nat. Frequent.
Calluna vulgaris Hull. Col. A little.
Calystegia sepium Br. Nat. Common.
Convolvulus arvensis L. Nat. Common.
Solanum Dulcamara L. Nat. Very common.
Linaria vulgaris Mill. Nat. Very common.
Digitalis purpurea L. Nat. Uncommon.
Prunella vulgaris L. Nat. Common. •
Lamium purpureum L. Nat. Infrequent.
Teucrium Scorodonia L. Nat. A little by Pennington Station.

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The remaining plants are all common natives :—

Plantago lanceolata L. *P. major* L. *Polygonum Convolvulus* L. *Rumex*
crispus L. *R. obtusifolius* L. *B. Acetosa* L. *B. Acetosella* L. *Urtica dioica* L.
U. urens L.

THE HISTORY OF A SAND DEPOSIT.

In 1942 spontaneous combustion occurred on Allanson's Tip and later in the year this was quelled by the cutting of a trench and the sealing off of the smouldering area with sand. I have not been able to discover from where the sand was obtained. Only a cursory examination was made in 1943 when most of the introduced species were found, the remainder being noticed the following year. A list of the newcomers is given with an account of their histories in this inland district.

**Diplotaxis muralis* (L.) DC.

A thriving colony in 1943; slight increase in 1944, marked decrease in 1945 and only one diminutive plant in 1947.

**Cakile maritima* Scop.

Plentiful in 1943, marked decrease in 1944 and only four or five sickly-looking plants in 1947, each one or two inches tall.

Saponaria officinalis L. (Described as rare in the 1907 list).

Steady increase and now plentiful, despite being gathered.

**Silene maritima* With.

Four healthy perennial plants, exhibiting no perceptible variation in size over three years.

**Erodium cicutarium* L'Her.

Steady increase until plentiful in 1945. It seemed unable to establish itself away from the sand and consequently suffered when the deposit was found by children. Nevertheless, I found half a dozen healthy plants during 1947, one being in full bloom as late as October 12th.

**Ononis repens* L.

Rapid increase, now well established on the nearby ashes.

**Anthyllis Vulneraria* L.

Common in 1943 and 1944 but now gone.

**Linaria dalmatica* Mill.

Several large plants every year. They are mutilated by children, who pluck the racemes as they flower. I am grateful to the officials of the Royal Botanic Gardens, Kew, for the identification of this species, which they describe as a Balkan species,

occasionally occurring as an alien in this country.

ACKNOWLEDGMENT.

My thanks are extended to A. A. Dallman, A.L.S., for his critical review of the original MS., and for help in the identification of several species.

REFERENCES.

- (1) *The Flora of Leigh*, by A.H.S. (Collins & Darwell Ltd. 1908).
- (2) *The Flora of the Liverpool District*, by C. T. Green. 1902.

[Postscript: It should be stated that Mr. Edmondson's paper was written in 1947 and we regret its late appearance. Edit.]