

Notes on the Flora of Derbyshire.

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SINCE the appearance of W. R. Linton's *Flora of Derbyshire* in 1903 several contributions to the study of the flora of the county have been published (E. and H. Drabble: *Notes on the Flora of Derbyshire, Journal of Botany*, 1909, 1911, 1913, 1916; *Journal Derbysh. Arch. and Nat. Hist. Soc.*, 1917). More recently much work has been done, particularly in the N.E. of the county. An ecological study is still much to be desired. C. E. Moss's *Vegetation of the Peak District* (Camb. Univ. Press, 1913) gives some account of the ecology of N.W. Derbyshire, but the rest of the county is still quite untouched. A careful survey of the woodlands of the coal measures is especially called for, as these are only too rapidly being felled. Some notes have already been made, but several years must elapse before any satisfactory account can be presented. Meanwhile the following observations on Derbyshire plants may be worth putting on record. Names to which an asterisk is prefixed seem to be new records for the county.

Clematis Vitalba L. Very rare in the county and doubtfully native. This is rather surprising as it is distinctly a plant of calcareous soils. The few Derbyshire specimens that I have seen belong to the variety *integrata* DC. (*C. scandens* Borkh.) with the leaflets entire. There are at least two other varieties, one with the leaflets ovate acute and deeply dentate-serrate, which is the common form in the South of England, the other (var. *lanceolata* Timb.) with long narrowly lanceolate coarsely toothed

or subentire leaflets. This latter was collected by Timbal-Legrave in Garonne. I have not seen it in this country.

Ranunculus pseudofluitans Bak. and Fogg. (*penicillatus* Bab.). This plant is thickly encrusted with calcium carbonate in the stream in Lathkil Dale and at Alport, while *R. fluitans* L. var. *Bachii* Wirtg., which grows with it is much less encrusted. It is interesting to note that *pseudofluitans* in the Rother at Locoford near Chesterfield, where the water is not strongly calcareous, is lime-encrusted.

Ranunculus auricomus L. var. **integrifolius* Reichb. Calow.

Berberis vulgaris L. Very rare in the North of the county. The only record given by Linton is an old one of Painter's from Millhouses—doubtfully in Derbyshire. I have found it at Spital, Barlow, Rowtor Rocks and Cromford.

Barbarea intermedia Bor. Very rare: Linton recorded it from Yeldersley and Sturston. I have found it at Buxton and Chesterfield.

**Alyssum maritimum* L. Established at Woodthorpe near Staveley.

Erophila brachycarpa Jordan (*E. praecox* DC.) Milltown and Fallgate near Ashover.

Erophila vulgaris DC. Moors between Curbar and Wadshelf; Ashover.

**Erophila oedocarpa* Drabble. This plant is distinguished from *brachycarpa* and *vulgaris* by its very much inflated fruits, which are actually circular in cross-section. It occurred plentifully in the Butts Pastures at Ashover before the construction of the Light Railway. The only other known station is Wallasey in Cheshire. A description of the plant was published in the *Journal of Botany*, Feb., 1926.

Sisymbrium pannonicum Jacq. An eastern alien which is fully established on waste land at Chesterfield.

Lepidium ruderales L. Waste land near Chesterfield.

Thlaspi virens Jord. This species was described by Jordan from French specimens, and he records it from Pierre-sur-Haute (Loire), Mont-Mézin (Ardèche), Mont Lozère near Villefort (Lozère) and from mountains in Auvergne, where it grows in dry fields in sub-Alpine regions. In England the plant so named is known only from the neighbourhood of old lead mines in the Carboniferous Limestone districts of Derbyshire.

Recently some doubt has been cast on the identity of the French and Derbyshire plants. I have therefore made a careful examination of Jordan's description and figure in his *Observations sur plusieurs plantes nouvelles etc. de la France* iii, 1846, and have arrived at the conclusion that there can be no doubt about the identity. Linton (p. 71) writes "Specimens from Lyons named by Jordan have shorter racemes" than the Derbyshire plant. Jordan's figure, however, shows a long-racemed plant and any hesitation on the score of length of raceme may be dismissed.

Cerastium viscosum L. (*glomeratum* Thuill.) var. **apetalum* (Dum.) Nether Loads.

Cerastium vulgatum L. (*triviale* Link). A densely hairy and caespitose form with small closely set leaves grows amongst *Festuca ovina* in truly wild habitats at Cave Dale and elsewhere.

Tilia platyphyllos Scop. Upper Langwith, probably truly native.

Montia chondrosperma Fenzl. Holymoorside.

Geranium columbinum L. Scarcliffe Park woods. Apparently the first record for the Permean district.

Impatiens parviflora DC. This plant, first recorded from Matlock by Painter about forty years ago, is still abundant there on the bank of the Derwent.

**Medicago falcata* L. var. **tenuifoliolata* Vuyck. Spital. *M. falcata* is a native of East Anglia. In this county it occurs elsewhere only as an occasional weed of cultivated fields. The variety *tenuifoliolata* is probably an eastern alien.

Lotus uliginosus Schkuhr var. *glabriusculus* Bab. Spital. This almost glabrous form is very uncommon. The ordinary form is long-haired.

Ornithopus perpusillus L. Joseph Whittaker recorded this plant from Breadsall in the *Phytologist* II, 1847. I have a specimen gathered there by him in 1849.

Prunus insititia L. The bullace is common in the hedges of N.E. Derbyshire where it flowers freely but, in my experience, never fruits.

Potentilla erecta Hampe var. **sciaphila* Zimm. Hady near Chesterfield.

Pyrus rupicola Syme. Recorded from Matlock by J. G. Baker and W. W. Newbould in *Journ. Bot.* 1884. I possess a specimen gathered at Matlock Bath in 1864 by Joseph Whittaker.

Chrysosplenium alternifolium L. Stated by Linton to be not uncommon. In N.E. Derbyshire it is certainly very rare. A plant was sent to me from Ashover by Miss A. Wilson in 1917, and I possess another gathered at Matlock by Mrs. Madden in 1875.

Peltiphyllum peltatum (Torr.) Engl. A specimen which proved to be this species was sent to me in 1925 by Canon F. L. Shaw from the bank of the river at Ilam. It is a native of California and may be an escape from the grounds of Ilam Hall, as Canon Shaw suggests, but I am not aware that it is cultivated in this country. It will be very interesting to see whether it becomes naturalized: the habitat should suit it as, according to Engler (*Pflanzenfamilien*, iii, Teil, 3 Abteilung, p. 61), it grows "an Bachrändern in Cascadengebirge Kaliforniens."

Sedum Telephium L. (*S. purpurascens* Koch). Holymoorside.

- Circaea lutetiana* L. var. **cordifolia* Lasch. Spital.
- Conopodium denudatum* Koch (*C. magus* Loret). A very unusual form was sent to me from Ashbourne by Canon Shaw in June 1924. The stalks of the partial umbels were very short and each compound umbel formed a dense, almost spherical head about $\frac{1}{2}$ in. in diameter. There was no sign of fungal or insect infection.
- Aethusa Cynapium* L. var. *agrestis* Wallr. Spital; fairly abundant as a cornfield weed. It seems to be a mere state.
- Chrysanthemum Leucanthemum* L. A form with densely hairy stem and leaves occurred at Barlow. It should be looked for in other parts of the county.
- Matricaria inodora* L. A form without ray florets but otherwise well developed was found at Chesterfield in 1925.
- Cnicus heterophyllus* Willd. My specimen from Wormhill is the entire-leaved form, while those from Lathkil Dale are var. **lacinosum* Norrlin. This latter variety was cultivated for many years and maintained its special character unchanged.
- Cnicus arvensis* Hoffm. var. *mitis* Koch. Staveley.
- Crepis biennis* L. Grindleford, Oct. 1920; decidedly rare in the county.
- Crepis capillaris* Wallr. (*virens* L.) var. *diffuse* DC. Common round Chesterfield; var. **anglica* Druce and Thellung. Barlow. Probably all the plants previously recorded as var. *agrestis* W. and K. were really referable to *anglica*, which has only recently been distinguished from *agrestis*.
- Sonchus oleraceus* L. var. **triangularis* Wallr. Spital; var. **integrifolius* Wallr. Lant Lane near Tansley.
- Sonchus asper* Hill var. *integrifolius* Lej. Spital.
- *Campanula Rapunculoides* L. Lathkil Dale. Its status in the county is doubtful.
- *Vaccinium myrtillus* \times *Vitis-idaea*. A large clump of this

plant on East Moor has been kept under observation for more than fifteen years. It is spreading vegetatively but, though it flowers freely, no fruits have been found. The plant was first described as *V. intermedium* Ruthe, *Flora der Mark Brandenburg und der Niederlandsitz*, p. 377, t.i. It was recorded and described as a British plant by N. E. Brown in *Journ. Linn. Soc. London*, xxiv, pp. 125-128 and plate 3, from material gathered by T. G. Bonney on Cannock Chase, Staffordshire in Aug. 1886. A specimen was found in 1872 in Maer Wood, Staffs. by R. Garner, but it does not seem to have been definitely identified. By whom its hybrid nature was recognized I have not tried to trace. Rouy (*Flore de France*, 10, 1908) treats it as such without question. The plant forms a large shrub much taller than the *myrtillus* with which it grows. From *myrtillus* it differs in the stem being less angular and in producing periderm at an early stage, so that the branches soon assume a twiggy appearance. In this respect it resembles *Vitis-idaea*, as it does also in the form of the corolla and the hairy filaments of the stamens. The anthers, however, bear long appendages on their abaxial side, thus resembling those of *myrtillus*. The leaves are denticulate and larger than those of *myrtillus*, and are retained during the winter, the plant being evergreen like *Vitis-idaea*. Previously, I believe, the plant has been recorded only from Maer Wood, Cannock Chase and Whitmoor Common, Staffordshire; Lonsdale, Yorkshire; Coniston Old Man, Lancashire; and Scarmclett Braes and Dunbeath, Caithness.

Anagallis foemina Mill (*coerulea* Schreb.). Holymoorside; stated by Linton to be very rare in the county.

Symphytum peregrinum Ledeb. This native of the Caucasus region is established at Hasland, at Bakewell and in other parts of the county. It differs from *S. officinalis* in its non-decurrent leaves and in the hairs of the leaves being swollen at the base.

Linaria vulgaris var. *latifolia* Bab. Roseland Wood.

Echium vulgare L. Oxtun Rakes near Barlow. Very rare in the county. Previously I have found it only on the Permian, and there sparingly.

Veronica Buxbaumii Ten. (*V. persica* Poir; *V. Tournefortii* Gmel.). This veronica is now abundant everywhere as a weed of cultivated soil. *V. agrestis* L., which is given in the *London Catalogue* Ed. xi, 1925, as occurring in all Watsons vice-counties, is, on the other hand, in my experience decidedly uncommon. Linton states that *agrestis* is common and generally distributed in Derbyshire. I have met with it only at Holymoorside. I possess also a specimen sent to me from Shatton in 1926 by Mr. J. M. Brown. It is probable that the great increase of *Buxbaumii* in recent years has led to the partial disappearance of *agrestis*, but there is no doubt that many of the old records were erroneous. Many plants so named that I have examined in old herbaria are *Buxbaumii*, while others are *V. polita*. *Buxbaumii* is figured correctly in Bentham's *Illustrations*, but the figure termed *agrestis* is more like *polita*. The confusion of *agrestis* and *Buxbaumii* is perhaps partly due to Babington's Manual, where (I quote from Ed. 9, edited by H. and J. Groves) the corolla of *Buxbaumii* is described as blue, that of *agrestis* as having the lower lip white. As a matter of fact there is no such constant distinction. At Wadshelf and elsewhere I have found plants of *Buxbaumii* with the petals all blue and others with the lower lip white, growing side by side. There are, however, such clearly marked differences in the capsules and sepals that, once the two species have been actually compared in the fresh condition, confusion is again impossible.

Veronica arvensis L. var. *nana* Poir (*eximia* Towns). Castleton and other places on the Carboniferous Limestone. I believe it to be merely a starved state; it

seems to grade into the ordinary form in Middleton Dale and elsewhere.

Veronica Chamaedrys L. var. **lamiifolia* Beck. Spital; this is a variety with large leaves, the upper ones being petiolate.

Mentha alopecuroides Hull. Tapton; Ashover.

Mentha citrata Ehrh. Lathkil Dale. Linton gives "Wet ditch in Derbyshire, where it does not flower. *Miss Stubbs*, 1876. 'I think it is rightly named.' Boswell, B.E.C. Rep. 1876, 28."

Mentha aquatica L. var. *subglabra* Buller. Linacre; Staveley. Linton's only record is Pin Dale near Castleton.

Scutellaria galariculata L. var. *pubescens* Mutel. Spital.

Stachys palustris × *sylvatica* (the plant termed *S. ambigua* by Smith). This has been growing to my knowledge for thirty-three years at Tapton and continues to extend vegetatively, but I have never found it with ripe seeds.

Galeopsis angustifolia Ehrh. Barlow; decidedly rare in the county.

Galeopsis Tetrahit L. var. **nigricans* Bréb. Cowley; Barlow. A large plant with blackish calyx and generally nigrescent stem and leaves.

Leonurus Cardiaca L. Barlow.

**Chenopodium Botrys* L. This native of S.E. Europe, Central Asia and Africa was found as a casual at Calow. It is by no means common as an alien in this country.

Chenopodium album L. var. *candicans* Lam. Common round Chesterfield; var. *viride* L. Spital; var. *viridescens* St. Amans (*C. paganum* Reichb.) Holymoorside.

**Chenopodium leptophyllum* (Nutt.) Britton and Brown (*C. album* L. var. *leptophyllum* Moq.) An American alien, occurring in quantity at Spital in Sep. 1926 and fruiting a fortnight later than *viride* with which it was growing.

Polygonum Convolvulus L. var. *subalatum* Lej. and Court. The common form in N. Derbyshire. I have the typical plant from Spital only.

Polygonum aviculare L. This name has been shown by Lindman to comprise two species, *P. heterophyllum* Lindman, and *P. aequale* Lindman. I have *heterophyllum* from Spital and Eyam, *aequale* from Spital, Tapton and Over Haddon.

**Polygonum mite* Schrank. By the Canal near Chesterfield.

In the latter part of the eighteenth century, Jonathan Salt, a native of Sheffield, formed a collection of plants growing locally and compiled a MS. *Flora Sheffieldiensis*. His herbarium is now in the Sheffield Public Museum and his MS. *Flora* in the library of the Sheffield Lit. and Phil. Society. Salt's records extend over a considerable area of N. Derbyshire and it is interesting to compare the flora then and now. No full comparison will be made on this occasion, but an attempt was made by C. F. Innocent in a paper entitled *A Century's Changes in the Sheffield Flora*, published in *The Naturalist*, June 1911. He compiled lists of "extinctions" and "disappearances." Whether any distinction between these terms was intended I do not know. In these lists are mentioned the following plants, among others, all of which I have seen in N.E. Derbyshire in recent years:—

<i>Aquilegia vulgaris</i> ,	<i>Primula vulgaris</i> ,
<i>Papaver Argemone</i> ,	<i>Digitalis purpurea</i> ,
<i>Fumaria capreolata</i> ,	<i>Veronica scutellata</i> ,
<i>Cerastium semidecandrum</i> ,	<i>Mentha piperita</i> ,
<i>Malva rotundifolia</i> ,	<i>Mentha arvensis</i> ,
<i>Malva moschata</i> ,	<i>Lamium amplexicaule</i> ,
<i>Alchemilla arvensis</i> ,	<i>Galeopsis ochroleuca</i> ,
<i>Oenanthe crocata</i> ,	<i>Scutellaria minor</i> ,
<i>Caucalis daucoides</i> ,	<i>Salvia Verbenica</i> ,
<i>Carduus tenuiflorus</i> ,	<i>Nepeta Cataria</i> ,
<i>Gnaphalium uliginosum</i> ,	<i>Galanthus nivalis</i> ,

Gnaphalium sylvaticum, *Narcissus Pseudo-Narcissus*,
Pulicaria dysenterica, *Triodia decumbens*.
Cichorium Intybus,

Of these the following are very rare:—

Papaver Argemone, *Cichorium Intybus*,
Oenanthe crocata, *Salvia Verbenica*,
Caucalis daucoides, *Galeopsis ochroleuca* (*dubia*
 Leers),
Carduus tenuiflorus, *Nepeta Cataria*,
Gnaphalium sylvaticum, *Galanthus nivalis*.

Local, but abundant in one or more localities are:—

Aquilegia vulgaris, *Narcissus Pseudo-Narcissus*.
Carduus heterophyllus.

The following are abundant in many suitable localities:—

Cerastium semidecandrum, *Veronica scutellata*,
Malva rotundifolia, *Mentha piperita*,
Malva moschata, *Mentha arvensis*,
Alchemilla arvensis, *Lamium amplexicaule*.
Gnaphalium uliginosum, *Hordeum sylvaticum*,
Pulicaria dysenterica, *Triodia decumbens* (*Sieg-*
Primula vulgaris, *lingia decumbens* Bernh.)
Digitalis purpurea,

Of the plants mentioned above, only *Papaver Argemone*, *Oenanthe crocata*, *Caucalis daucoides* and *Galanthus nivalis* can be said to be actually on the verge of extinction, though *Narcissus Pseudo-Narcissus* and *Salvia Verbenica* are threatened by recent clearances.

It is an interesting fact that many of the plants stated by Innocent to be extinct in the Sheffield area grow freely within the limits of the Borough of Chesterfield.
