

## Botanical Notes on a Walk from Buxton to Miller's Dale in June, 1890.

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THE walk to be now described was really one from Miller's Dale to Buxton, but for the purpose of this paper it is reversed, as it is far easier for a pedestrian to *descend* from the last mentioned place to the former, than for him to *ascend* from the one to the other.

The reason for my walking to Buxton from Miller's Dale was this: I particularly wished to examine a willow growing in this dale, *Salix undulata* (*Ehrhardt*), and to obtain specimens of its fertile capsules; therefore I took a train down to Miller's Dale station, intending to visit this tree, and then, if there was not time for doing anything more, to return to Buxton to catch the train for Congleton, which left at 5.10 p.m. But as I found when I had returned to the railway station that I had sufficient time to walk to Buxton (two and a half hours), I determined to do this, and the result of this rapid walk will now be placed before you in the reverse order, as I have already stated.

After leaving Buxton by Spring Gardens and the Bakewell Road, the pedestrian keeps by the side of the river Wye down Ashwood Dale. This dale, from its commencement until the road winds round Topley Pike, and Blackwell Dale commences, is full of botanical treasures. On the occasion of this visit of mine to it, I found three plants which I had not before seen there, though I had frequently botanized in it, all of which occur

in various parts of the county. When looking over broken ground near the Lover's Leap, my attention was attracted to a tall cruciferous plant, which I immediately discovered to be *Draba muralis* (Linn.), one of the Whitlow grasses, a plant which grows only upon the mountain limestone, and which I have also gathered at its most southern habitat, Stone Eaton, in Somersetshire. Close to it was the little *Hutchinsia petraea* (R. Ba.), a plant which is plentiful in the limestone dales, and one which I once travelled thirteen miles in a gig to find. In company with these was the little *Alchemilla arvensis*, (Lam.), or Parsley Piert, a plant which is not of frequent occurrence in Derbyshire, and also *Valerianella olitoria* (Moench), or Lamb's Lettuce, another plant which is not frequently met with in the county, especially in the hilly parts.

Close to these, but hidden away in the grass, grows *Saxifraga Geum* (Linn.), or London Pride, which has been growing here for many years, and has thus become naturalized. On the rocks above the spot where this plant grows is to be seen early in July the beautiful *Polemonium cæruleum* (Linn.), the Blue Jacob's Ladder, a plant which extends southwards from the limestone dales of Yorkshire, and which is found only in a wild state in similar dales in Derbyshire, though it is frequently found as a garden escape. Specimens of these two plants are exhibited, though they were not gathered in the course of this excursion.

The next plant of which a specimen is exhibited is *Cardamine flexuosa* (With.), which is said to be considered a variety of *Cardamine hirsuta* (Linn.), but it will be seen that it is a well-marked species, easily distinguished by its flexuous stem and spreading fruit pods. This plant abounds all through the dales in the gutters by the sides of the roads.

The sides of the river Wye all down this dale are fringed with several species of willows, such as *Salix fragilis* (Linn.), var. *Britannica* of Dr. F. Buchanan White, which prevails throughout Britain, the true *Salix fragilis* not being known in Great Britain; and *Salix viminalis* (Linn.), easily distinguished by its long and narrow leaves.

Lower down the dale I was very glad to meet with the pretty mossy saxifraga, *Saxifraga hypnoides* (Linn.), which I had not before seen there, though it grows in several places in the neighbourhood.

All the cliffs on the right hand side of the road were fringed with various species of the Hawkweed, with their bright golden flowers. Among them I noticed *Hieracium murorum* (Linn. *pt.*), with its thin leaves, arched peduncles, and hoary phyllaries, *Hieracium cæstum* (Fr.), var. *Smithii* (Baker), an exact reproduction of the plants which grow upon the Limestone Scars of Settle, in Yorkshire. Here, let me say, the true *Hieracium cæstum* is not to be found in the British Isles; the variety only is to be met with.

Nearly at the end of this dale, on a bed of Toadstone, is to be found the pretty Butterwort, *Pinguicula vulgaris* (Linn.), which also may be seen growing on the ledges of the rocks of Topley Pike, but not in the profusion in which it is to be seen in Yorkshire and Westmoreland.

Near the foot of Topley Pike a path leaves the Bakewell Road, and keeps near the river side. Pursuing this, we soon enter Blackwell Dale, and here, in the season, we find the river Wye covered with the white, starry flower of *Ranunculus pseudo-fluitans* (Bab.), a plant which occurs in most of the limestone dales, and which is distinguished from the true *Ranunculus fluitans* (Lam.), by its sessile submerged leaves. A specimen of this plant is exhibited, obtained on a former visit.

Pursuing our way down the dale, a good-sized tuft of *Tragopogon pratense* (Linn.), var. *minus* (Mill.), is to be seen, and on a woody bank a fine bush of *Pyrus Aria* (Linn.), with its corymb of white flowers, greets the eye.

On the stones of the railway embankment a large number of the Hawkweeds grow. Among them I discovered *Hieracium pallidum* (Biv.), a species closely allied to *Hieracium cæstum* (Fr.) before mentioned, from which it differs by its yellow styles and leaves fringed with white hairs; the var. *nemorosum* (Backh.) of *Hieracium vulgatum* (Fr.), from which it differs by its

large rosulate leaves, which are always purplish on the under side.

Lower down the dale I came upon *Myosotis sylvatica* (Hoff.), one of the handsomest of the Forget-me-Nots, a plant which grows also in Ashwood Dale, where I found it in the course of this walk. The only place where I had previously seen it growing in this county was near Ashford-in-the-Water, on the high road from Buxton. This plant may be readily distinguished from the other species of *Myosotis* by its long-stalked root-leaves, and by the spreading hooked bristles of the calyx.

Near this plant another was growing which is often mistaken for it, *Myosotis arvensis* (Hoffm), var. *umbrosa* (Bab.). This variety of the Field Scorpion Grass has larger flowers than the type, and is altogether a taller and more robust plant, while it differs from the plant before-mentioned in having half-cleft segments of the calyx, and oblong acute leaves, *M. sylvatica* having a calyx which is three-fourths cleft, and oblong-lanceolate leaves. This variety is of frequent occurrence in the dales.

*Salix cinerea* (Linn.) also grows here, another well-marked plant or shrub, and which is of frequent occurrence throughout the county. The leaves of the specimen exhibited belong to the male plant, as there were no catkins visible upon the bush from which it was cut.

Several grasses occur in this dale, but I only stopped to gather specimens of the one now shown—*Festuca duriuscula* (Lin.).

Through taking a wrong turn in the path I came upon a fine plant of *Polystichum lobatum* (Prest.), one of the Shield Ferns, which used to be called *Polystichum aculeatum* (Roth.), var. *lobatum* (Smith). This is the usual form of *P. aculeatum* in the woods and lanes of Derbyshire, differing from the type by its narrow fronds, and from *P. angulare* (Prest.) by its pinnules not being stalked but sessile, and at an acute angle with the common stalk of the pinnæ.

Now we enter Chee Dale and gaze upon Chee Tor. Here *Geum intermedium* (Ehrh.) grows luxuriantly, as well as *Veronica montana* (Linn.), a plant which I had overlooked in my previous

visits to this dale. And here, in August, is to be found one of the rarest Derbyshire plants, growing upon a perpendicular rock, *Hieracium prenanthoides* (Vill.), a specimen of which is included with the plants now exhibited.

Lower down the Dale several bushes of *Salix Caprea* (Linn.) (the Great Sallow) were noticed ; in the swampy ground *Carex rostrata* (Stokes) was found ; whilst in the plantations *Poa nemoralis* (Linn.), var. *angustifolia* (Parnell) was gathered, a grass which, on being submitted to Mr. C. Bailey, F.L.S., for his verification, was pronounced by him to be the above-mentioned variety.

On a level piece of wet ground in this Dale is to be found another rare plant, *Scirpus Caricis* (Retz), which flowers in July and August. This is its only habitat in Derbyshire, and thus in this dale two plants are found which do not occur elsewhere in the county.

Hastening on our way through Miller's Dale, in which during the season several roses are to be met with, we notice here and there small plants of *Geranium columbinum* (Linn.), or the long-stalked Crane's-bill, a plant which is generally found on limestone banks ; *Arenaria serpyllifolia* (Linn.), a tolerably common plant ; *Populus canescens* (Sm.), a tree which grows at the beginning of the Dale, but is mentioned here because of its place in the Botanical order of plants ; and last, but not least, *Salix undulata* (Ehrhardt), a willow upon which I have some lengthy remarks to make.

When I first saw this tree in August, 1883, unlike other willows, it had produced *summer* catkins, which are more or less pubescent, a fact which had misled many Botanists. Upon specimens of it being submitted to our greatest British authority upon the willows, Dr. J. Buchanan White, of Perth, he requested me to visit this tree in June and obtain the spring capsules. These turned out to be quite glabrous. Thus Dr. White was enabled to determine the species of this willow, and also to settle the question of its parentage, for this willow is a hybrid of two other willows, and not a true species. To quote Dr. White's own words, given in my "Flora of Derbyshire" : "The great interest," he says, "attaching

to the plant is, that it clearly demonstrates *Salix lanceolata* with glabrous capsules, and *Salix undulata* with pubescent capsules, as the one bush shows the two at different times."

Here is an object for Botanists to keep in view. Let them search for this willow in the osier-beds. I find that in the neighbourhood where I am now living, in North Staffordshire, this same plant is grown for basket-making; and it is not unlikely that it is cultivated in the neighbourhood of Derby for the same purpose.

Close to the old tree of *S. undulata* (Ehrh.), I found on the top of a wall the little grass *Festuca rigida* (Kunth.), a plant which I had looked for in Miller's Dale several times, but hitherto without success, though I had frequently passed by its habitat.

In bringing my remarks upon this ramble to a close, I trust that what has been said, and the specimens that have been exhibited, will act as a stimulus to the Botanists present, and also as an incentive to others who have not yet commenced the study of this science to join their ranks. Independently of the zest and interest which a knowledge of Botany gives to a walk in the fields, or upon the roads, often converting what would otherwise be an uninteresting walk into an interesting one, the study of the flowers of the field gives one an insight into the mercy and wisdom and creative power of Him Who is the Maker of all things, and Who has designed the delicate pencillings upon the petals of flowers, as well as the means by which different plants are propagated and dispersed abroad upon the face of the earth. Be it, then, the object of all true Botanists to trace in all that they see of plant life, from the first manifestation of that life, when a plant arises from the seed, to the time when its petals fade away, and its fruit is formed and dispersed by the winds, the hand of Him Who has created the worlds; thus acknowledging the truth of the words of the Psalmist, "O Lord, how manifold are Thy works! In wisdom hast Thou made them all; the earth is full of Thy riches."