

Geology of Wyre Forest Atkins A.H. (1883)

Geology of the Wyre Forest. Midland Naturalist 6: 31-33

FROM MICK BLYTHE

In a former number of this Magazine an article appeared by Mr. Blatch describing an entomological ramble in Wyre Forest. As this place is one of the most beautiful still left to us in the Midland Counties, I have written this brief sketch not as a complete scientific description, but merely as an outline of the chief geological features, sufficient, I hope, to show that in this branch of Natural History also much may be found to interest and instruct.

The forest covers an undulating district, and is drained in great part by Dowles Brook, a little tributary of the Severn, which it joins about a mile above Bewdley. Up this rivulet we may wander for five or six miles, through a valley bordered by hills, covered not, however, by the mightier monarchs of the forest, but by groves of saplings, which, crowded thick together, give a picturesque appearance, especially when the light of the setting sun is seen creeping up the slopes till the verdant summits above are tinged with the departing rays. The trees are felled every seven years, and are used - the trunks for supports in mines and sewers, and the branches for charcoal.

Geologically, the forest lies almost entirely on sandstone belonging to the Coal Measure series, and forms part of the Wyre Forest Coalfield. Coal seams occur beneath, but are worked only in a few parts, as the coal is said to be of an inferior quality. It is as well perhaps for the lover of nature that this is so, for if it paid to extract the coal the beautiful glades and valleys would soon be converted into an unsightly array of collieries and cinder heaps. Some of our loveliest English scenery occurs in the coal measures, and our Staffordshire Black Country was no doubt not less beautiful till its aspect was marred by the sinkings for the rich treasures beneath.

The beds which appear at the surface in Wyre Forest consist of white and brown sandstone, interbedded with thin layers of brown shale. Since their deposition they have been subjected to much disturbance, and in many places very contorted sections may be seen, and in walking along the railway, which runs through the forest, the beds shown in the cuttings often appear bent up and down like huge waves. In the north part of the district volcanic forces have been in action; at Shatterford, for instance, near Arley, a long dyke of basalt has broken through the sandstones and is quarried for road metal. It is very similar to the Rowley Rag of our pavements, and is known by the local name of Dhu Stone. This name, derived from the Celtic word for black, is no doubt given to it on account of its colour. I have, however, seen it written Jew Stone and Dew Stone, but I think the one I have given is the most correct. A similar mass is found in the coal measures of the Titterstone Clee Hills to the west of the forest, where it is known by the same name.

The sandstones occur all over the forest, but I do not know of any outcrops of the coal itself, or its accompanying black shale or clay.

The fossils found in these rocks consist almost entirely of vegetable remains of the same species of plants as coal itself is composed of, showing that the forests which formed the coal seams could not have been far away when these rocks were deposited as sediment, and that the rivers running through them bore on their waters leaves, branches, and ferns, which sunk down with the sand and mud. The best collecting grounds are the thin bands of soft shale, which are found on the banks on the sides of the road which runs along Dowles Brook from the main road to Cooper's Mill. This bed is absolutely full of plant remains, principally consisting of ferns and calamites. The ferns (*Neuropteris* and *Pecopteris*) have their vein markings as perfect and distinct as when alive.

The calamite was a reed, similar to our modern *Equisetum* or Horsetail, which flourished in the Coal Period. Vast numbers of their flattened stems are found in these shales, together with their characteristic foliage of narrow-leaved whorls.

In the coarser sandstone the plants are rarer but larger, consisting of thick calamite stems, and of another common coal plant - the *Lepidodendron*. This was a tall tree, allied to our humble club moss, and the diamond-shaped leaf scars have caused it to be called by people of the neighbourhood "Nail rod". It seems evident that the heavier trunks and branches sank down with the coarser sand which would be first deposited, while the finer mud with the leaves and twigs would sink down more slowly and in thin layers. The only other remains I have found there are a few fossil fruits and some fish scales.

The brook, at a place just above Cooper's Mill, shows a fine illustration of the lateral change which river beds are constantly undergoing. At this spot the brook is eating away the bank at a rapid rate - so fast, in fact, that though a wall was built seven years ago to resist its action, it has broken it down and advanced beyond it for several feet. On the other side of the stream, and about eight feet from its present bed, is a cliff, at the base of which the current ran in the memory of the parents of the present inhabitants.

There is another curious fact concerning it which I think is worth relating. What called my attention to this place was some nodules of hæmatite or red oxide of iron, which I saw in one of the cottages, and which I was told were dug out of the ground. Naturally, I wanted immediately

to see the place where this mineral came from, and found that the nodules formed a layer in the bank of the stream, and also that with them were a number of rounded fragments of slag. The question at once arose, How came these waterworn remains of human industry into the bed of Dowles Brook? I found out, after some inquiries, that there formerly existed some blast furnaces about two miles higher up the brook, though they have not been worked, I was told, for a century or more. There is a corn-mill there now, called Furnace Mill, and I believe some few traces of the ancient works still exist, though unfortunately I was not able to visit the place myself. But here, several miles down the stream, the fragments of slag were brought and deposited by the current. Slowly the bed of the stream moved to the other side of the valley, and a verdant meadow sprang up on the newly-made land. Now, the course of the stream is swinging back again and wearing away the beds which

it formerly deposited, most likely to carry this slag and iron farther down the stream, where in years to come the remains of the ancient iron-works will be found long after its traces have disappeared on the spot where they originally stood.

I might mention that coal was searched for near Dowles Brook about five years ago, and a boring 1,200 feet deep was made; but the result was unsatisfactory, though coal was found. Water has filled the bore from below, and approaches near the surface, but is as salt as brine. It is not usual, I think, to find salt rocks in the Coal Measures, though other mineral springs occur in the neighbourhood. In the Chamberlain Wood, which forms a part of the Forest between Dowles Brook and Arley, is a spring called Stinking Ditch, which is so impregnated with sulphuretted hydrogen that it may be smelt a hundred yards away.



Iron slag, from Clebury Woods

Rosemary Winnall



Borehole, New Parks, 10 September 2003

Rosemary Winnall



New rock exposure, Dry Mill Lane car park, 14 February 2011

Rosemary Winnall