

YORKSHIRE AND NOTTINGHAMSHIRE NATURALISTS AT ANSTON STONES.

The opening of the excursion season of the Yorkshire Naturalists' Union was fixed for the extreme southern corner of the county, close to the borders of Nottinghamshire and Derbyshire. An invitation to participate in the excursion was accepted by the Committee of the Nottingham Naturalists. There was consequently a large gathering of naturalists from both counties upon the platforms of the little station of Kiveton Park (on the M. S. & L. line between Sheffield and Worksop), early in the forenoon of Thursday the 30th of April. The weather was brilliantly fine and all that could be desired. The district appointed for investigation by the main body of excursionists was the valley of the little stream called 'The Stones Dyke,' which runs past Anston Stones and Lindrick Common to Shireoaks—where it enters the county of Nottingham. Other members went in an opposite direction and investigated the extensive sheets of water at Harthill and other places, and the Yorkshire portion of Whitwell Wood. The Chesterfield Canal was explored by some of the conchologists, and the route taken by the geologists is described in the report of that section. All parties converged upon Shireoaks Station, from which they drove or took train to Worksop, where tea was served and the meetings were held at the Lion Hotel.

Tea having been despatched and the usual sectional meetings held, the general meeting was opened at 6.30 p.m. The chair was, in the absence of the president, occupied by one of the Union's most valued ex-presidents, Dr. H. Clifton Sorby, F.R.S., of Sheffield. There was a very large attendance, 125 sitting down to tea, including the Nottinghamshire members. The Yorkshiremen present represented the eleven societies of Barnsley, Bradford (Nat. Soc.), Dewsbury, Doncaster, Heckmondwike, Leeds (three societies), Rotherham, Sheffield, and York. The minutes having from pressure of time been taken as read, several new members were announced, including Messrs. J. A. Brooke, J.P., of Fenay Hall near Huddersfield; Arnold Thos. Watson, of Sheffield; and Joseph Whitaker, F.Z.S., of Rainworth Lodge near Mansfield, Notts. Dr. Handford, president of the Nottingham Naturalists, then proposed a vote of thanks to the Duke of Leeds for permission to visit his estates, and to the various leaders of parties, namely, Messrs. Marriott Hall, F. Brittain, S. H. Bennett, F. W. Dickinson, B. Sturges Dodd, Holmes, T. Carrington, F.G.S., and C. Tylden-Wright, F.G.S. This was seconded by Mr. W. Denison Roebuck, F.L.S., and carried unanimously. Mr. F. Brittain responded. The reports of the various sections were then taken.

In Vertebrate Zoology, Mr. F. W. Dickinson reported, in the absence of the officers of the section. In this section the chief feature of the day's work was the observations made on the avifauna of the district, which is naturally rich in woodland species. In all 54 species were recorded. The date of the excursion was particularly favourable for noting the recently-arrived summer visitors, and of these no less than 21 species were observed, including the Nightingale, Redstart, Whinchat, Wood Wren, Blackcap, Sedge Warbler, Grasshopper Warbler, Yellow Wagtail, Cuckoo, Swift, Turtle Dove, Corn Crane, and Blackheaded Gull. Of resident birds, of which the list included 33 species, may be mentioned the Hawfinch, Reed Bunting, Jay, Kingfisher, Moorhen, Coot, and Wild Duck. A few of the commoner mammals and fishes completed the list.

Mr. B. Sturges Dodd of Nottingham reported on behalf of the Conchological section. Several conchologists had explored the district during the day, including himself, Messrs. Ernest Dufty and W. Gain of Tuxford, Notts; the Rev. Hilderic Friend, M.A., F.L.S., of Worksop; Mr. John Emmet, F.L.S., of Boston Spa (secretary of the section); and Mr. W. Denison Roebuck, F.L.S. The result was that 37 species had been found, being 17 water shells, 3 slugs, and 17 land shells. The conchologists had been very successful, for *Achatina acicula* had been found near Kiveton Park by Mr. Emmet, after a close and determined search for it; and Mr. Roebuck had taken several specimens of *Vertigo minutissima* in the locality which had been indicated by Mr. Pickard of Mansfield, its discoverer there. Investigation of the canal, both at Kiveton Park and at Shireoaks, had yielded *Sphærium rivicola* (one), *S. lacustre* (one, dead), *S. corneum* (plentiful), *Pisidium*

amnicum (numerous), *P. fontinale* (numerous), *Anodonta anatina* (plentiful), *Neritina fluviatilis* (one), *Bythinia tentaculata* and *Valvata piscinalis* (both plentiful), *Planorbis albus* (a few), *P. vortex*, *P. carinatus*, *Physa fontinalis*, and *Linnæa peregra* (all in plenty), and a few small *L. stagnalis*. Of other water shells were found *Ancylus fluviatilis* in the Stones Dyke at Wood Mill, and Mr. W. Eagle Clarke, F.L.S., brought a large *Anodonta cygnea* from Harthill pond. The slugs were *Arion ater*, *A. hortensis*, and *Limax agrestis*, both at Kiveton and Anston. The land shells which were obtained, both at Kiveton Park and at Anston Stones, were *Vitrina pellucida*, *Zonites cellarius*, *Z. nitidulus*, *Z. crystallinus*, *Z. purus* (one, Anston), *Helix aculeata* (Kiveton), *H. nemoralis*, *H. hortensis*, *H. concinna*, *H. hispida*, *H. pulchella* (Kiveton), *H. rotundata*, *Pupa umbilicata*, *Vertigo minutissima* (Kiveton), *Clausilia rugosa*, *Zua lubrica*, and *Achatina acicula* (Kiveton).

For the Entomological section, Mr. G. T. Porritt, F.L.S., of Huddersfield, its president, reported that only a few common species had been observed, and *Herbula cespitalis* was the only one in any abundance. It was in fine condition and very variable.

For the Botanical section the report was given by Mr. P. F. Lee, Dewsbury, one of the Secretaries of the section, to the following effect. The first excursion of the year is generally on too early a date for much to be done in botany. One of the botanical parties took a twelve-mile round in the opposite direction to Anston, skirting the three or four natural-like sheets of water beyond Harthill, and so on to Shireoaks. Near this busy mining village, the party paused to examine what they believed to be the old 'Shire' Oak, a massive, hollow, dead bole, bound with hoop iron, and situate on the point of junction of three counties, Derby, Nottingham, and York. On the way some pretty scenery was enjoyed, and many fairly good plants, either in flower or sufficiently advanced from the baby state to swear by, were gathered. One charming pastoral vale (it alone repaying the long and rather tiring walk), fringed to the right and to the left with bleached limestone crags, standing in relief against the sombre spreading arms of the yew, with its trout-stream meandering along, yielded good flowering specimens of *Erophila vulgaris* DC., *Viola odorata* (both blue and white varieties), *Primula veris*, one of the hybrids (*P. variabilis* Goupil) often taken for the true Oxlip of the south-eastern counties, *Daphne laureola*, and *Lamium amplexicaule*. The first and the last just named (the Vernal Whitlow-grass, and the Henbit Deadnettle), along with *Veronica agrestis*, sub-species *polita* Fries, and *Lithospermum arvense*, in bloom too, were growing happily together, within a two-feet radius, on the sloping bank of the last one of the picturesque lakelets visited, where the wearied botanists and ornithologists laid themselves down to smoke the pipe of peace and to note the continued splash of leaping trout. On a limestone cliff, near a badger's hole (for his footprints were visible), *Asplenium adiantum-nigrum*, and young plants of Ploughman's Spikenard (*Inula conyzæ*) were observed, while in a copse hard by there were great patches of the fertile fronds of *Equisetum arvense*, and of that fleshy root-parasite, *Lathræa squamaria*, and a large colony of that delicious fungus the Morel (*Morchella esculenta*). Not the least enjoyable feature of the day was the profuse blossoming, in every hedgerow, of the Sloe and the Bullace (*Prunus spinosa* and *P. insititia*). At Anston Crag *Cystopteris fragilis* was gathered. The total number of Phanerogams and higher Cryptogams of the London Catalogue, reached 127. The Rev. Hilderic Friend, M.A., F.L.S., of Worksop, supplemented Mr. Lee's report by giving a list of the micro-fungi which he had observed, viz.:—*Æcidium compositarum* var. *lapsanæ*, *Æ. ranunculacearum*, *Æ. urticæ*, *Uredo potentillarum*, *Puccinia anemonis*, *P. umbelliferarum*, *Trichobasis lapsanæ*, *Erysiphe graminis*, *Peronospora schleideniana*, *P. parasitica*, *P. ficariæ*, *Protomyces ari*, and *Uromyces ficariæ*.

The report of the Geological section was given by one of its Secretaries, Mr. S. A. Adamson, F.G.S., of Leeds, who stated that the members of the section had had a most practical and valuable field-day. They had as their leader Dr. Clifton Sorby, F.R.S., of Sheffield, and had facilities afforded and kindness shown by the proprietors of the Kiveton Park and the Shireoaks Collieries. Arriving at Kiveton Park station, a waggone conveyed the geologists to the first-named collieries, passing on the way the fault by which the Rotherham red rock is brought against

the magnesian limestone. At the collieries great courtesy was shown by Messrs. Holmes and Hudson, and much information afforded. Plans and sections of the workings were inspected; and in order to show the nature of the rocks met with in sinking the shafts, one end of the offices had been divided vertically into parallel compartments, and then proportionately horizontally these were now filled in in proper order with the rocks met with, and thus in a unique but accurate manner the section could be studied. The powerful machinery used in working these very extensive collieries was carefully shown and explained, and a descent of the pit offered, but time did not permit of the latter. The way was now led to a very fine section of the red rock, in a quarry a little distance from the colliery. This red rock used to be, as regards its relationship and position, a vexed question with geologists. Professor Sedgwick called it the lower red sandstone, and placed it at the base of the Permian formation, and it was also thus described in the early days of the geological survey. It is now provisionally referred by the Government geologists to an upper division of the coal measures resting unconformably on the main body of that formation. Passing through the pretty village of Harthill, the party arrived at a quarry of very friable sandstone, known as quicksands, at the base of the Permian formation. Very striking and picturesque excavations had been made here. In some places spheroidal concretions of a calcareous nature were observed. Coming to the village of Whitwell, a disused quarry was visited, formerly worked for magnesian limestone. Some good specimens of the peculiar toothed structure found in this rock were obtained. Passing over an outlier of the lower red marl at Red Hill, the geologists were tempted to wander a little from their field-work to inspect the fine old Norman chapel at Steetly, recently very carefully and judiciously restored, and the retired position of which, with its surrounding ancient yew trees, adds much to the solemn beauty of the scene. A little way from the chapel are the famous Steetly Quarries of magnesian limestone, which were visited. This stone, being crystalline, is of a very enduring nature, and has long been used in the erection of buildings of great note. The next call was at the Shireoaks Collieries, where the party was received by Mr. Tylden Wright, F.G.S., and his son. Here, too, similar kindness awaited them as at Kiveton; sections of the mine and specimens of the rock met with were shown. The whole of the extensive plant and machinery was also shown, with many wonderful inventions and labour-saving appliances. After being conducted over the beautiful modern church at Shireoaks, with its fine stained windows, the party proceeded by train to Worksop. A brief outline of what had been done by the Geological section, supplementary to Mr. Adamson's report, was also given by Dr. Sorby. A vote of thanks to that gentleman for the honour he had done the Union by presiding concluded the meeting.

NOTE—POLYZOA.

Paludicella ehrenbergi.—Those of your readers who study the freshwater polyzoa may be interested with the development of *Paludicella ehrenbergi*, which at this season of the year shows the hybernacula described by Van Beneden, but had not been seen by Professor Allman when he published his monograph on the freshwater polyzoa. The *Paludicella* has not, so far as I know, been found with statoblasts, and it seems very probable that the hybernaculum or winter bud is the only method of development of this species. Van Beneden writes: 'The hybernacula or gemmæ, which under the influence of a favourable temperature, would have grown into the ordinary lateral branches of the polyzoön, but which towards the commencement of winter acquire a conical form, and then become for a while arrested in their development. In this state, surrounded by a firm membrane of a blackish grey colour, they continue until the following spring, when the investing membrane splits to allow the elongation of the branch.' In this stage I have found it, taken from the canal near Chester, on two or three occasions, at this season of the year, and I shall be glad to find that some of your readers have also found it, so as to confirm Van Beneden's description.—THOS. SHEPHEARD, Kingsley Lodge, Chester, 23rd April, 1885.