

2. "Further Discoveries in the Cresswell Caves." By Prof. Boyd Dawkins, M.A., F.R.S., F.G.S., and the Rev. J. M. Mello, M.A., F.G.S., with notes on the Mammalia by the former.

This paper contained the account of digging-operations carried on in one of the smaller caves of the Cresswell Crag, known as Mother Grundy's Parlour. The authors described the occurrence in the red clay and ferruginous sand of this cave of bones of Hippopotamus and the Leptorhine Rhinoceros, proving the existence of these animals in the wooded valleys of the basin of the Upper Trent at the time of the accumulation of those deposits; while at the same time, so far as the evidence goes, there was an absence of Palæolithic man, of the Reindeer, and of Horses, while Hyænas were abundant. In a subsequent period, represented in all the caves by the Red Sand, the Mammoth, Woolly Rhinoceros, Horse, and Reindeer inhabited the vicinity, and were subject to the attacks both of Hyænas and of human hunters, whose quartzite implements prove them to have belonged to the same people whose traces are found in the river-deposits. In the breccia and upper cave-earth of the larger caves the existence of the Palæolithic hunter is evidenced by flint implements resembling those of Solutr , accompanied by implements of bone and antler. Associated with these was the incised figure of a horse described in a former paper. The authors finally dwelt briefly upon the characteristics of the caves in prehistoric and historic times, and indicated some of the anthropological points of interest connected therewith.

MISCELLANEOUS.

On the Notodelphyid . By M. L. KERSCHNER.

THE author describes two new genera of the curious Copepod family Notodelphyid , each including a single species, which he names *Paryphes longipes* and *Dorsipys uncinata* *. He prefaces his descriptions with some corrections of previous notions as to certain points in the organization of these crustaceans. He shows that the brood-chamber, which is usually regarded as contained within the body-cavity, is formed, in the majority of Notodelphyid , by a duplicature of the integument of the body proceeding from the dorsal surface of the fourth and from the sides of the fourth and fifth segments, but that in two genera this duplicature is inserted even upon the second thoracic segment. He further indicates that an

* The former generic name was preoccupied by Burmeister in 1835 for a genus of Rhynchota; the latter, if it has any derivation at all, is probably a mongrel compound of Latin and Greek. We hope the author will take the opportunity of changing both names before his paper is printed.

unpaired ovary is present, and that the ova pass in strings into the oviducts (formerly "ovaries").

The author confirms a part of Thorell's observations upon the connexion of the female generative organs, and, by the discovery of the hitherto overlooked external genital aperture of the female, brings back these organs to the general type of the whole order.

In all the males observed he describes an unpaired testis, and represents the envelope of the spermatophores as secreted by the wall of the whole of the seminal duct. In the spermatophore itself he recognizes more layers than Thorell. He describes the type on which the nervous system is constructed, and, in opposition to Buchholz, asserts the presence of olfactory nodes.—*Anzeiger Akad. Wiss. in Wien*, June 13, 1879.

Notice of a new Pauropod.

Mr. J. A. Ryder described a new myriopod which he had recently discovered, and which turned out to be nearly allied to the form described by Sir John Lubbock under the name of *Pauropus*. The specimens which the speaker had obtained were five in number and had but six segments, fewer than any other known member of the group, whilst the number of pairs of legs was nine, the same as in *Pauropus*, which is very strong evidence that the specimens are adults. The following characterization of the genus and species was proposed:—

Eurypauropus spinosus, gen. et sp. nov.

Body-segments six in number, sixth exceedingly rudimentary; antennæ five-jointed; legs in nine pairs, equidistant; tergal sclerites laterally expanded so as to conceal the legs almost entirely when the animal is viewed from above, and covered with fine tubercles which are joined to each other by raised lines; appressed curved spines are scattered over their surface in less number, and also fringe their margins, being disposed at regular intervals; the spines and lines give the dorsal surface of the little creature a slightly silky lustre when viewed with reflected light. Colour a delicate light brown. Mouth-organs the same as in the first-described genus. No evidence of eyes could be detected. Length $\frac{1}{25}$ inch; width about $\frac{1}{70}$ inch. Habitat in Fairmount Park, Philadelphia, east and west of Schuylkill, under decaying wood.

The tergal sclerites are much thicker than in *Pauropus*, having the characteristic brown colour of chitin when viewed with transmitted light. The antennæ have the terminal globular hyaline body with a long pedicle, as in *Pauropus pedunculatus*. The type is the most distinct form discovered since the detection of the first known representatives in England in 1866, and also extends the geographical range of the family, and does much towards fully establishing the Pauropoda as a distinct order of myriopods.—*Proc. Acad. Nat. Sci. Philad.*, April 22, 1879.



Kerschner, Ludwig. 1879. "On the Notodelphyidæ." *The Annals and magazine of natural history; zoology, botany, and geology* 4, 321–322.

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