Occurrence of a Paired Parietal Bone in a Snake

A GENERAL conception of zoologists is that the parietal bones are always fused into a large unpaired bone in Ophidia. During our recent investigation of the skeletal systems of different reptiles we found from an alizarine preparation of transparency that

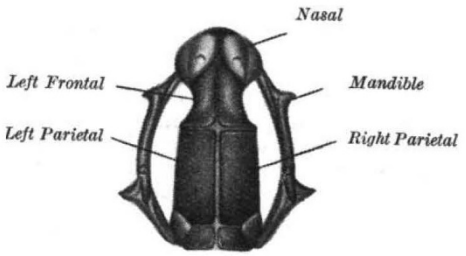

FIG. 1. Dorsal view of the skull of *Typhlops braminus* showing the paired parietal.

Typhlops braminus has a distinct paired parietal bone (Fig. 1). Perhaps their occurrence as such escaped the notice of the former investigators, the size of the skull being very small and alizarine preparation of transparency being unknown to them. The details of the skeletal system will be published elsewhere.

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University College of Science
and Technology,
Calcutta, Aug. 18.

Prof. P. E. Richards and NATURE

THE letters of the late Prof. Philip Ernest Richards (died June 4, 1920) recently published under the title "Indian Dust" (Allen and Unwin) contain a most interesting reference to the jubilee number of NATURE.

Richards was appointed in 1911 professor of English literature to the Dyal Singh College at Lahore, transferring in 1914 to Islamia College in the same town. The letter in question is dated Jan. 23, 1920, and is addressed to his mother:

"The jubilee number of NATURE has fallen into my hands. It presents a portrait of Norman Lockyer, the founder and editor. Here is the man who found something in the sun before it had been found on the earth. Surely a wonderful fellow—far more wonderful than he looks. But I think he looks wonderful. Many articles in the paper review the progress of science in many different branches during the last fifty years. I do not understand one eighth of any article, but I have read them all, and derived a deep sense of satisfaction—joy, I might say. Here are men who have something to live for, and who have much to show for what they have been doing. They are the best sort of men in the world, and the world ought to belong to them, and not to Prussians and Bolsheviks or Indian extremists. But poor humanity is far behind its leaders. Nevertheless, the world is worth living in for the sake of Science—and Literature—and all the other Arts."

T. LL. HUMBERSTONE.

15 Gower Street,
London, W.C.1,
Aug. 25.

Radiographs of Insects

IN a letter to NATURE of Sept. 17, 1932, Dr. Hugo Fricke and Irwin Sizer state, in an account of their own radiographs of insects, that they could not find previous records of such radiographs. We made and published such radiographs five years ago[1 2 3], chiefly with *Deilephila euphorbiæ* pupæ, when carrying out research work on metabolism during metamorphosis of insects. Particulars of the methods used, the results, and about seventy radiographs, can be found in the papers referred to below.

The radiographic method was afterwards found useful in economic entomology, and we have made radiographs of insects for the Department of Sylviculture. The distribution of parasitic hosts in populations of hundreds of pupæ can be shown in one single radiograph without injury, and further development can be observed by the same method.

J. HELLER.
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Sept. 26.

[1] J. Heller und E. Meisels, "Untersuchungen über die Metamorphose der Insekten. VI. Röntgenographische Untersuchungen über den Entwicklungsvorgang." *Biol. Zentralblatt*, **47**. 257-264; 1927.
[2] E. Meisels und J. Heller, "Ueber die röntgenologische Beobachtung der Metamorphose bei Insekten." *Fortschr. a.d. Gebiete der Röntgenstrahlen*, **36**. 104-109; 1927.
[3] J. Heller, "Badania nad przeobrazeniem owadów." *Acta Biol. Exper.*, **2**. 225-315; 1928.

Colonisation of the Sea by Insects

THE letter from Dr. Hem Singh Pruthi on this subject [1] is of much interest, but one feels doubtful whether the comparative absence of insects from the oceans can be accounted for simply on the ground of calcium deficiency. Even supposing that the remarkable instance of the *Clæon* larva, which he cites, is to be connected with the unusually high concentration of calcium in the waters of the Salt Range, there remains the fact that many species of Coleoptera (Dytiscidæ, Hydrophilidæ), as well as Hemiptera (Corixidæ) and Diptera, have been recorded from waters of a salinity equal to or greater than that of the sea, but in which the proportion of calcium was no higher.

Several species of insects which I myself have recorded [2, 3] from saline waters, both on the south coast of England and in the desert regions of California, are listed in the accompanying table.

Insect.	Range of Specific Gravity to which exposed.	Locality.
Hemiptera		
Corixa selecta .	1·009–1·035	Sussex, England
Coleoptera		
Ochthebius marinus	1·014–1·035	Sussex, England
Ochthebius rectus	1·024	Death Valley, California
Philhydrus maritimus	1·009–1·035	Sussex, England
Diptera		
Culicoides nubeculosus	1·022 (circa)	Somerset, England
Ephydra hians	1·024	Death Valley, California
Ephydra riparia	1·026–1·035	Sussex, England
Nemotelus uliginosus	1·000 (?)–1·035	Sussex, England

In each case, although the specific gravity of the water to which the insects were exposed was almost