

LETTERS TO THE EDITOR.

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Remarkable Coelenterata from the West Coast of Ireland.

I HAVE been allowed to examine a small collection of Alcyonaria and Antipatharia that has been obtained by the fisheries branch of the Department of Agriculture for Ireland from deep water off the west coast of Ireland, and as this reveals some features of special interest I should be glad of an opportunity to write a short preliminary note upon it pending the examination of the species in detail.

The most interesting feature, perhaps, is the Coralliid, *Pleurocorallium johnsoni*, from 382 fathoms, about sixty miles off Achill Island. The family of precious corals to which this species belongs has hitherto only been obtained in the Mediterranean Sea, the Japanese seas, off Madeira and the Cape Verde islands, and in the Banda Sea. The specimens obtained by the *Challenger* in the Banda Sea were "dead," but I have recently published a preliminary note on a new species of precious coral from deep water off the coast of Timor, which was captured "alive" by the naturalists of the *Siboga* Expedition.

The distinction between the genus *Corallium*, to which *C. nobile*, the precious coral of the Mediterranean, *C. japonicum*, and *C. reginae*, the new species from Timor, belong, and the genus *Pleurocorallium* is not a distinction of very great importance, and, as recently pointed out by Kishinouye, cannot, with convenience, be much longer maintained. If, however, for the present we retain the two generic names it must be noted that *Corallium* no longer maintains its monopoly of corals that are precious, as the species *Pleurocorallium elatius* yields some of the most valuable classes of coral obtained in the Japanese fishery. Both in Japanese waters and off the Cape Verde Islands the valuable and the commercially worthless *Coralliidae* occur in the same fishing area, and consequently it would not be a matter for surprise if a renewed investigation of the locality from which the Irish Fishery Department obtained its specimen of *Pleurocorallium johnsoni* yielded some specimens of commercial value.

I should not like to suggest the prospect of a coral fishery off the coast of Ireland, as the sea is too stormy and the water too deep at the station from which the specimen came to render any such fishery commercially successful, but it would be a matter of considerable scientific interest to find that precious corals are growing within a few miles of our British coasts.

The second feature of interest is the occurrence in these waters of at least three species of Antipatharia. This group of Coelenterata is one which I thought was entirely exotic. I can find no mention of any Antipatharians in any of the lists of the British marine fauna that I have examined, but perhaps some of your readers could inform me if I have overlooked any references to them. The species are, I believe, *Cirripathes spiralis*, *Antipathella gracilis*, and a species which I think must be new, but is allied to *Stichopathes lütkeni* in some respects.

Among the other interesting things in the collection are representatives of the alcyonarian genera *Ceratoisis*, *Stachyodes*, and *Eunephthya*, which I believe are new to the British fauna. The two pennatulid genera *Kophobelemnon* and *Umbellula* were obtained in deep water off the west coast of Scotland by the *Knight Errant* (*Kophobelemnon* only) in 1880, and by the *Triton* in 1882. These also have now been found off the west coast of Ireland. Although these genera may now be included in the British fauna as being found within the British area as defined by the British Association committee of 1888, they really represent the fauna that is common to the "mud line" of Murray of the eastern side of the North Atlantic Ocean.

Thus *Pleurocorallium* occurs off the Cape Verde Islands, *Stachyodes* off the Azores, *Ceratoisis grayii* off the coast

of Portugal, *Antipathella gracilis* off the coast of Madeira, *Kophobelemnon* and *Umbellula* off the west coast of Scotland. These genera, with many others that live with them, constitute a fauna which is quite distinct from the ordinary shallow-water fauna of the British area.

SYDNEY J. HICKSON.

Victoria University of Manchester, October 24.

Action of Radium on Gelatin Media.

SOME misapprehension appears to exist in certain quarters as to the precise nature of the bodies I have called radiobes, as distinct from such aggregations as those which M. Dubois has obtained by the action of the salts of barium, radium, and manganese upon bouillon. M. Dubois describes his bodies as "*grosses vacuolides*," and their appearance is quite different from that of the bodies I have described, judging by the drawings which have been reproduced in the *Revue des Idées* during the last few months.

I have observed two distinct types of bodies, of an entirely different order of magnitude, one type, radiobes, extremely minute and only visible with the highest powers: the other visible with an ordinary magnifying glass. The latter are decidedly crystalline in their structure, and resemble the bodies obtained in various ways by the action of salts on gelatin. They are like the ones described by Schenck, and very like those obtained by Dubois and others.

The smaller type cannot be said to be large in any sense of the word, and are like the minutest visible diplococci or biscuit-shaped cocci. They do not exceed this size to any great extent.

It is therefore desirable that the two types should not be identified, as their appearance, order of magnitude, structure and behaviour seem to be quite different.

M. Dubois has not noticed these, and therefore it seems to me that his claim to priority is quite irrelevant.

Cambridge, October 21. JOHN BUTLER BURKE.

Border occasionally seen between Light and Dark Regions on Photographic Prints.

I HAVE once or twice been asked why photographs are apt to show a line or band or edging along the boundary of a bright and dark region. My assistant, Mr. E. E. Robinson, has thought of the reason, and it may be convenient to publish it. In a developed film the exposed portion perceptibly differs in thickness from the unacted-on portion, and accordingly the linear boundary of two contrasted regions may sometimes act as a cylindrical lens, and during printing either concentrate or disperse the light on the positive immediately beneath it.

October 20.

OLIVER LODGE.

Terminology in Electro-physiology.

I WOULD deem it a favour to be assigned the space of a letter in order to make a suggestion in connection with the above still vexed subject.

It cannot be said that even now all is peace in the realm of electrical terminology as applied to physiological phenomena, in spite of Dr. Waller's helpful efforts in this direction. Dr. Waller's term "zincative" admirably expresses that a given region (A) of excited tissue is "electromotive like the zinc of a voltaic couple,"¹ is, in fact, a source of current towards a region (B) of less excited or non-excited tissue (the current, of course, travelling in the tissue from the region A to the region B, and in the external circuit from the region B to the region A); but it leaves untouched the solution of the old middle over the use of the signs + and -.

Confessedly, "zincative" avoids any reference to + and -, but every teacher of physiology knows that sooner or later the + and - must appear, and with them all the ambiguities of "negativity of action," &c., if the student is to make his notes "agree" with his text-book.

¹ "The Signs of Life from their Electrical Aspect," p. 17. (Murray, 1903)

