

CRITICAL REVIEW OF LITERATURE.

Our knowledge of the Sclerobasic or Black Corals may be said to date from the publication of the *Elenchus Zoophytorum* of Pallas in 1776, previous authors, including Linnæus, not having recognised their essential difference from the Gorgonidæ. Several species were already known and figured in the works of Rumphius, Seba, Marsigli, and others, but these, with the exception of two or perhaps three, first received a place in the binomial system at the hands of Pallas. Two forms are included in the 10th edition of the *Systema naturæ* under the genus *Gorgonia*, viz., *Gorgonia abies*, Linnæus, and *Gorgonia spiralis*, Linnæus, whilst *Gorgonia ænea*, Linnæus, is perhaps synonymous with the former species.

The work of Pallas is remarkable for its clearness and precision; in it we first find clearly stated those characters which still are of ordinal value amongst the Antipathidæ. It is true that the chief characters of his new genus *Antipathes*, new rather by definition than in name, rested on points of skeletal structure, and little was known at that time, nor indeed until quite recently, about the structure and organisation of the polyps. Nevertheless the words of Pallas—"Stirps cornea; extus scabra, attenuata; cortice gelatinoso," define the Antipathidæ as clearly to-day as they did a century ago, and separate them from all other known Zoantharia. This is all the more remarkable when it is remembered how much the horny skeleton of Hydroids and Actinozoa is subject to variations within limited groups; how even species of the same genus may differ in this respect. Yet with regard to the Antipathidæ the structure of the skeleton alone is sufficient to separate them from other forms. Had subsequent investigators been more careful in following the characters laid down by Pallas, much confusion and error might have been avoided. The possession of a spinose horny axis has proved to be such an essential character of all Antipathidæ, that those which have been described as smooth have either been erroneously so described, or do not belong to the family at all.

At a time when nothing was known of the structure of the polyps, it was only natural that the species of *Antipathes* should be regarded as closely allied to *Gorgonia*, to which indeed their dendritic sclerobasic axis seems very closely allied. The similarity