

described as branched Antipathidæ having a spinose chitinous axis, presenting no fusions between any parts of the corallum.

No new species are recorded, and those previously described are allocated to one or other of the above genera, as best could be done from the descriptions available. With the exception of Duchassaing and Michelotti, subsequent investigators have not followed Milne-Edwards in his subdivision of the genus *Antipathes*, partly on account of the admittedly unsatisfactory state of our knowledge of the group, and partly owing to the fact that it has been generally felt that genera founded on the structure and arrangement of the axis alone could have little value in a natural system. Pourtales especially has preferred, pending a fuller study of the polyps themselves, to regard the Antipathidæ as consisting of only a single genus, *Antipathes*, those species having a simple axis being included in a subgenus, *Cirrhipathes*.

As no new genera have been proposed since the publication of Milne-Edwards' work, it may be well to consider here the systematic value of the genera therein defined, in the light of the information brought forward in the present monograph. I do not, of course, for a moment suppose that the information which has been obtained concerning the structure of the zooids of some twenty species will prove sufficient for an adequate classification of the group, particularly when it is remembered that we have absolutely no information on the structure of the zooids in the majority of the species described. Still I believe it to be sufficiently complete to be of service in the present instance. In the first place it may be stated generally that although in those forms studied, a similarity in the structure of the zooids is frequently associated with a similarity in the type of branching of the corallum, this is by no means always the case. With regard to the more or less frequent occurrence of fusions between different portions of the corallum, a point which will be discussed in detail later, it may here be stated that the evidence available at present appears to show that such fusions are not constant in all the species of a genus, and are therefore of no generic value. Indeed amongst the species referable to the *Rhipidipathes* type of Milne-Edwards, there are at least three well-marked types of polyp. In other cases where the fusions are slight, and more accurately defined as adherences, the feature is more or less accidental, and probably not even of specific value.

Turning now to the genera adopted by Milne-Edwards, it will be well to consider first those described by Blainville and Gray.

*Cirrhipathes*, Blainville.—This genus was constituted by Blainville in consequence of Ellis' observations on the polyp of *Antipathes spiralis*, Pallas, and for the reception of those forms in which the sclerobasic axis remains simple. At the time Ellis' figures of the polyps of *Antipathes spiralis* were the only reliable ones extant for any species of *Antipathes*, and further investigation has shown that the form of polyp assigned to this genus by Blainville is, so far as his definition goes, not confined to it, but is shared by