

between the mode of growth of those fan-like forms included in Milne-Edwards' division *Rhipidipathes* and some species of *Rhipidogorgia*, *Echinogorgia*, &c., is most marked, and has led Esper and others into numerous errors of identification. In the absence of polyps, the nature of the coenenchyma and the presence of spines form the only reliable characters at the present day by which the Antipathidæ may be identified. Ellis and Solander in speaking of *Antipathes cupressina*, Pallas (= *Gorgonia abies*, Linnæus), put the matter very clearly, so far as the differences were known at the time. They say, "Linnæus has classed this species under *Gorgonia*, to which it is very nearly allied; but the flesh of this tribe is so remarkably gelatinous and the whole bone or hard part is so covered with spines, which even are to be distinguished in the inner laminae, that there is sufficient reason for making of it another genus."

There is one point in which Pallas was mistaken, viz., the nature of the ovaries. These he regarded as external chitinous bodies, not always present, which are now known to be parasitic structures.

He says:—"Ovaria, calyces cornea stirpi insidentes, subturbinati," and thought the presence of these calyces to indicate an affinity between *Antipathes* and *Sertularia*; with this exception, however, the characters of his genus *Antipathes* are remarkably clear and accurate.

Pallas (17) describes ten species in all, one of which, *Antipathes orichalcea*, as he himself suspected, does not belong to the group. Two species are from the Mediterranean, viz., *Antipathes fasciculacea* and *Antipathes dichotoma*, the latter described from a species figured by Marsigli, and of which Pallas had not seen a specimen. The other seven are all from the Indian Ocean, a general term of which it is at present difficult to define the limits. *Antipathes cupressina* is evidently the *Gorgonia abies* of Linnæus, and *Antipathes spiralis* is the *Gorgonia spiralis* of the 10th edition of Linnæus' *Systema naturæ*, the *Gorgonia abies*, var. *spiralis*, of the 12th edition.

The five remaining species, viz., *Antipathes ericoides*, *Antipathes pennacea*, *Antipathes myriophylla*, *Antipathes flabellum*, and *Antipathes clathrata*, appear to be chiefly founded on types described and often figured in the Herbarium Amboinense of Rumphius. These have not all been identified by subsequent authors, but all apparently conform to the ordinal characters.

Twenty years later Ellis and Solander (19) described six species of *Antipathes*, three already recorded by Pallas, and three new ones, viz., *Antipathes ulex* from Batavia, *Antipathes subpinnata* from the Mediterranean, and *Antipathes alopecuroides* from South Carolina. The latter species, probably owing to imperfect definition and the absence of a figure, has not since been identified, although there appears every probability that it must have been met with in one or other of the American Exploring Expeditions. The same authors give a figure of the polyp of *Antipathes spiralis*, Pallas, or at least of the tentacles and oral cone, the basal portion of the polyp being omitted. The polyp was