

spines are not nearly so prominent as in Esper's species. The specimen in question forms part of a collection from the West Indies purchased from Scrivener. Another species described from the same collection was named *Antipathes atlantica* by Gray. I find no specimen bearing that name in the collection, but several agree with Gray's characters. All approach his supposed *Antipathes reticulata*, Esper, in form, and a careful comparison has led me to believe that all belong to one species, though there is considerable difference in the relative thickness of the branches. I have therefore retained the name *Antipathes atlantica*, Gray, for these specimens, and include *Antipathes reticulata*, Gray, *non* Esper, as a synonym.

I find no specimen in the British Museum collection bearing the name *Antipathes pluma*, Gray. There are, however, two or three specimens which agree with Gray's characters, one without locality, one from St. Helena, and one more recently received from the East Indies. As the result of a comparison of these specimens with fragments of *Antipathes pennacea*, Pallas, from the Paris Museum, I am led to suppose the two forms to be identical. There is, however, a considerable variation in the length of the pinnules in different specimens; in some, certain pinnules become elongate and pinnate, whilst in others all remain simple. There appears, as far as I could ascertain, no sufficient variation in the spines to afford constant characters. I have therefore regarded Gray's *Antipathes pluma* as synonymous with *Antipathes pennacea*, Pallas.

The genus *Sarcogorgia* must have been included in the Antipathidæ by an oversight, unless Gray regarded *Antipathes* and *Gorgonia* as members of one order, which appears possible. Gray's original description of *Sarcogorgia phidippus* occurs in the Proceedings of the Zoological Society for 1857. Professor E. P. Wright, to whom I have referred in the matter, informs me that he has not seen Gray's specimen, but, judging from the figure, he is of opinion that it may be identical with *Spongioderma verrucosa* (Kölliker), one of the Briareidæ. Gray points out that "some of the smooth species referred to the genus *Antipathes* by Esper, as *Antipathes fœniculacea*, *Antipathes clathrata*, and *Antipathes ligulata*, are evidently the axes of some species of *Gorgoniadæ* that have lost their bark;" he should also have included *Antipathes flabellum*, Esper, in the same category. His definition of the genus *Antipathes* is based on an examination of dry specimens, and it is evident that he failed to grasp the true generic, or, as one might now call them, ordinal characters. He says:—"Bark fleshy, with imbedded, large and small brown (siliceous) plates, easily deciduous. Axis simple or branched, horny, covered with numerous close-set, sub-cylindrical spines." Gray evidently regarded the genus *Antipathes* as closely allied to *Gorgonia*, and as such, probably possessing siliceous plates or spicules within the cœnenchyma. He combats Dana's view that *Antipathes* is nearly allied to the Actiniaria, basing his opposition on his studies of the dried polyps of *Leiopathes glaberrima* and *Cirrhopathes anguina*. He adds, "I am aware that the tentacles do not appear to be pinnated, when they are examined after they have been