

polyps. This fact, he said, has only been proved for the Millepores: the remaining Tabulata should be joined with the true polyps, with which their relations are very near and intimate. The transverse partition-walls, the presence of which was held by Milne-Edwards and Haime as a characteristic distinction, are structures of a very low order of classificatory importance, which occur in widely different forms, and are only brought about by the simultaneous emptying of the generative products from the radial chambers. Where the emptying is not thus periodically simultaneous, a separate transverse septum is formed in each of the chambers shutting off the space thus become vacant. True tabulæ, as he showed, are found not only in *Millepora* and *Pocillopora*, but in *Cælastræa*, *Alveopora*, and *Asteropsammia*. *Columnaria* he considered to be closely allied to *Cælastræa*, *Favosites* to *Alveopora*, *Porites*, &c. *Heliopora* being now shown to be an Alcyonarian, tabulæ are proved to be present in forms still more widely different than is shown to be the case by Professor Verrill. The relations of *Favosites* and *Columnaria* appear now in a different light.

The opinions expressed concerning Professor Agassiz's relegation of the Tabulate and Rugose Corals to the Hydroids have been various.

Professor Allman, in his Monograph of the Gymnoblasic or Tubularian Hydroids (London, published for the Ray Society by Robert Hardwicke, 192 Piccadilly, 1871, page 3), referred to Professor Agassiz's opinion on the subject as published in his Contributions to the Natural History of the United States. He considered that since we are entirely ignorant of the generative system of the Milleporidæ, it was much safer to wait for such verification as might be expected from further researches. He hesitated to include amongst the Hydrozoal orders the Tabulate and Rugose corals.

Count Pourtalès (Illustrated Catalogue of the Museum of Comparative Anatomy at Harvard College, Cambridge, Mass., No. 4, Deep Sea Corals, p. 56) placed the Milleporidæ with the Hydroids. He remarked, "No observations have been made on *Millepora* since Professor Agassiz's first announcement of the affinities of the Millepores with the Hydroid polyps twenty years ago. The polyps of *Millepora* are very difficult to observe, both because of their small size, and because they are killed by the shortest contact with air; when obtained expanded, they contract on the slightest shake of the vessel containing them. I have succeeded but once, in company with Professor Agassiz, in having a good view of one of the larger polyps of *Millepora alcicornis*. It differed from the figure in the Contributions to the Natural History of the United States, vol. iii. pl. xv. fig. 1, in being comparatively shorter and having larger tentacles, or rather tentacular masses studded with lasso cells five in number instead of four. The mouth was not seen very distinctly, but appeared to be a transverse slit in the middle of the disc. It remained expanded but a short time." Pourtalès rightly placed his genus *Pliobothrus* amongst the Hydroids; but, judging from the structure of the hard parts alone, associated it with *Millepora*.