

of the sponge. Such an association is undoubtedly artificial.

Dr. Bowerbank, another great sponge authority, takes yet another view. He maintains "that the silicious axis, its envelopment, and the basal sponge are all parts of the same animal." The polyps he regards as 'oscula,' forming with the coil a 'columnar cloacal system.'

Professor Max Schultze, of Bonn, examined with great care several perfect and imperfect specimens of *Hyalonema* in the Museum of Leyden, and in 1860 published an elaborate description of its structure. According to Schultze, the conical sponge is the body-mass of *Hyalonema*, a sponge allied in every respect to *Euplectella*; and the siliceous coil is an appendage of the sponge formed of modified spicules. The zoophyte is of course a distinct animal altogether, and its only connection with the sponge is one of 'commensalism.' It 'chums' with the sponge for some purpose of its own,—certainly getting support from the coil, probably sharing the oxygen and organic matters carried in by the ciliary system of the sponge passages. This style of association is very common. We have another example of the same thing in *Palythoa axinellæ*, SCHMIDT, a constant 'commensal' with *Axinella cinnamomea* and *A. verrucosa*, two Adriatic sponges.

In 1864 Professor Barboza du Bocage, director of the Museum of Natural History in Lisbon, communicated to the Zoological Society of London the unexpected news that a species of *Hyalonema* had been discovered off the coast of Portugal; and in 1865 he published, in the Proceedings of the same Society,