

I was able to procure several small fragments of this original specimen, and the results of my investigation seem to warrant me in amplifying the specific diagnosis of *Hyalonema lusitanicum*. From my own notes and from some subsequent observations which Mr. Ridley was kind enough to make for me, the length of the much damaged body is 12 cm., the breadth only 2.7. The much twisted basal tuft of spicules has a breadth of 15 mm. The *Palythoa* crust is *not* present having been probably separated off.

In the absence of a marginal fringe and of the probably originally present terminal sieve-net, it is impossible to determine whether the tuft of spicules, projecting for about 1 cm. on the upper end, and doubtless representing a damaged conus, really projected in the intact form.

Another form in the British Museum, which is said to have been brought from Porto Rico, exhibits a body transversely truncated above, with a well-developed terminal sieve-net, and with an indication of the conus centralis. The basal tuft here attains a length of 26 cm. and is covered with the *Palythoa* crust. Whether this second specimen really belongs to Bocage's *Hyalonema lusitanicum*, I am not able to determine, since I have not been able to analyse the structure of its component spicules.

The following description of the skeleton refers only to the first mentioned original specimen of *Hyalonema lusitanicum*, Bocage.

The supporting spicules of the parenchyma consist for the most part of diacts of variable size and thickness. These are somewhat pointed at either end, and usually exhibit a simple, spindle-shaped, perfectly smooth course, or occasionally bear a single tubercle, or there may be four or two, projecting from the middle point. They are generally somewhat curved, though frequently perfectly straight. Between these diacts medium-sized oxyhexacts occur, though on the whole not very abundantly. They exhibit six simple, somewhat pointed, straight and smooth rays, which are generally of equal length. Sometimes, however, four rays cruciately disposed are of uniform length, while the other two lying in the third axis, that is to say, radially disposed, are somewhat longer. I also found isolated monacts with one end thickened into a knob or rounded off like a button, while the other ended in a point. Scattered through the whole parenchyma in relative abundance there are small, smooth or slightly roughened oxyhexacts, with rays which are seldom perfectly straight (Pl. XXVIII. fig. 16), but usually bent in the familiar fashion, so that three approach each other, and the three antipodals likewise (Pl. XXVIII. fig. 15).

The middle-sized hypodermal oxypentacts which serve to support the skin are quite smooth, their rays run terminally to a somewhat marked point. The autodermal pentact pinuli, which are usually inserted on the latter, bear four short, strongly developed, tangential basal rays, with blunt, slightly toothed ends, and a strong distal, about 0.3 mm. in length, which has an almost bushy appearance due to the long lateral processes (Pl. XXVIII. fig. 17). The majority of the numerous, radially disposed, dermal amphidiscs have a