

The mouth-plates are large, prominent, and elevated along the line of suture; the junction is imperfect, and the adoral extremities of the plates being widely open expose the odontophore. Their armature consists of six to eight mouth-spines on each plate, which are short, compressed, and pointed. The innermost one on each side is larger and longer than the rest, and is directed towards the actinostome; the lateral ones stand in the furrow and interlock with the corresponding denticles of the neighbouring mouth-angle. A number (varying from six to twelve) of small granule-like tubercles are present on the actinal surface of each plate; two, which are slightly largest, stand near the inner third of the plate, whilst the remainder are confined to the aboral half of the plate, and are sometimes arranged in two or three lines, and sometimes irregularly. It seems scarcely possible to rank these as secondary mouth-spines; and yet there can be little doubt that they are rudimentary or aborted representatives of these appendages.

The actinal interradial areas are triangular in outline, and covered with a regular plating of hexagonal, imbricating, scale-like intermediate plates arranged in columnar series extending from the margin to the furrow, parallel to the median interradial line. The plates are broader than long, the disproportion increasing as they approach the margin; they bear a few (three to five) small, widely spaced, irregularly disposed granules, some plates here and there having none.

Colour in alcohol, greyish white on the margins and actinal area; abactinal membrane bluish grey, with touches of light brown near the margin of the area and occasionally on the groups of paxillæ round the centre of the disk.

Locality.—Station 299. Off the western coast of South America, between Valparaiso and the Island of Juan Fernandez. December 14, 1875. Lat. 33° 31' 0" S., long. 74° 43' 0" W. Depth 2160 fathoms. Blue mud. Bottom temperature 35°·2 Fahr.; surface temperature 62°·0 Fahr.

Remarks.—*Hyphalaster diadematus* is distinguished from the other members of the genus by the prominent groups of larger paxillæ on the abactinal area of the disk (the character from which the name is derived), and by the presence of five cribriform organs.

The example of this species, which is figured on Pl. XXI., did not come into my hands until some time after the preliminary notice¹ of this group had been published. It was one of the two species which had been drawn under the direction of the late Sir Wyville Thomson before the collection was entrusted to me, and after his death the specimens had been mislaid amongst other things, and were lost sight of for some time.

The type which has been described is larger and differs slightly in several respects, but I see no reason to doubt for a moment that the two examples belong to the same

¹ *Journ. Linn. Soc. Lond. (Zool.)*, 1883, vol. xvii. p. 237.