1. Nymphaster symbolicus, n. sp. (Pl. L. figs. 1 and 2; Pl. LIII. figs. 7 and 8).

Rays five. R = 85 mm.; r = 26 mm. R > 3.25 r. The minor radius is thus in the proportion of about 30 per cent.

General form flat and thin. Disk large and pentagonal. Rays elongate, narrow, and tapering continuously to a slender extremity; width midway between the centre of the disk and the extremity, 8.25 mm.; width at the commencement of the outer fourth, 4 mm. Interbrachial arcs wide and openly rounded.

The marginal plates are broad and massive, the outer part forming a vertical lateral wall, the abactinal and lateral areas of the plate being at right angles to one another, with the junction abrupt and subangular. The intermediate paxillar area is on a level with the supero-marginal plates, and the section of the ray is almost rectangular in outline, its horizontal diameter being twice the vertical near the base of the ray, but decreasing in proportion as it proceeds outward. The supero-marginal plates are thirty-three in number from the median interradial line to the extremity. Their length is little more than their height, and their breadth is nearly twice their height. On the outer part of the ray the length is greater than the breadth, the height remaining the least dimension. The surface of the plates is covered with a uniform, small, semiglobular, miliary granulation. The granules do not touch one another, but closely cover the whole plate, and at the lateral margins form a lineal series which helps to define the sutures between adjacent plates. The median surface of the plate is faintly convex. Each of the plates, except at the end of the ray, may bear one or two long entrenched pedicellariæ on the abactinal surface, and frequently (at least in large specimens) a rather smaller one also at the angular junction of the abactinal and lateral surfaces, but which may not, however, proceed very far along the ray. These pedicellariæ have the appearance superficially of a straight cut or slit about 1.25 mm. in length, intersected midway by a very small but wider cross cut; the jaws of the pedicellariæ have somewhat the form of the letter T, with its vertical line greatly prolonged; and when retracted, fit exactly in the excavations above described. The pedicellariæ have no definite posture on the plates. The odd terminal plate is comparatively large in relation to the neighbouring marginal plates; it is elongately shield-shaped, with the angular extremity directed inward, and the outer portion of the plate rounded subcylindrically and contracting slightly and gradually towards the extremity, which is obtuse. The infero-marginal plates correspond to the superior series, the rounding towards the actinal area being rather more decided. They are covered with a precisely similar small granulation, and each usually bears one of the entrenched pedicellarize on the actinal surface. The breadth of the infero-marginal plates diminishes rapidly after passing the base of the ray, and thence to the extremity the length becomes the largest dimension.

The armature of the adambulacral plates consists of a furrow series of ten delicate, rather elongate spinelets, flattened laterally to a uniform thickness but tapering towards (ZOOL CHALL EXP.—PART LL—1868.)