

dorsal, and the pinnule-joints are somewhat shorter and less glassy than those of the individual from Station 164. In the former also both the antero-lateral rays have the first pinnule on the left side; while the latter presents a curious variation. The first pinnule is on the right side in the two posterior rays, and on the left in the left anterior one, the right anterior one being broken at the syzygy in the fourth brachial. The anterior ray has been repaired at this syzygy, but no pinnule has been developed on the epizygal. The fifth brachial, however, bears a pinnule as usual on the left side, but that on the sixth is on the same side; so that the first pinnule on the right of the ray does not come till the seventh brachial.

*Eudiocrinus japonicus*, n. sp. (Pl. VII. figs. 1, 2).

1882. *Eudiocrinus japonicus*, P.H. Carpenter, Journ. Linn. Soc. Lond. (Zool.), 1882, vol. xvi. p. 499.

Centro-dorsal relatively large, conical, and covered except at the dorsal pole by from forty to fifty cirrus-sockets, each with a well-marked articular rim around the opening of the central canal. Cirri more than 35 mm. long, tapering, and consisting of twenty-seven joints. The first three are quite short, the fourth a good deal longer than wide, and the next four the longest, but scarcely reaching 2 mm.; the following ones diminish slowly in size, but have no traces of any dorsal spine.

Radials just visible. First brachials trapezoidal, the sides commencing to slope inwards almost immediately beyond the proximal edge. The second brachials, as seen from below, are also trapezoidal, being narrower along their proximal edges, where they project backwards into the preceding joints, both surfaces rising towards the line of junction. The next four or five joints have unequal sides, the fourth being a syzygy, and bearing a pinnule on its shorter side. In the only specimen with all the arm-bases preserved, one of them has the first pinnule on the left side. The fifth and one or two following joints also have the pinnule on the shorter side. The next is more oblong, and its successor again a syzygy, with the pinnule on its longer side. The succeeding joints have still more markedly unequal sides, the breadth being about equal to the length of the longer side. After the second syzygy there is an interval of four or five joints between successive syzygia.

The lowest pinnules are apparently tolerably equal, consisting of some twenty stout joints, of which only a few middle ones are longer than wide. Beyond the eighth brachial, the pinnule-joints become relatively longer and thinner and the pinnules more slender. Ovaries short, not extending over more than three or four joints.

Mouth central or subcentral. Disk naked, 7 mm. in diameter; the brachial ambulacra close down between the muscles, with a few supporting rods and networks of limestone, but no traces of sacculi. Skeleton white.