

*Ophiopholis japonica*, Lym. (Pl. XXIII. figs. 13-15).

*Ophiopholis japonica*, Lym., Bull. Mus. Comp. Zool., vol. vi, part 2, p. 42, pl. xiii. figs. 374-376, 1879.

Upper disk covered with thin scales and large radial shields, neither of which have grains or spines, except the marginal scales. Five stout, cylindrical, tapering arm spines.

(Type specimen from Station 236.) Diameter of disk 10 mm. Length of arm about 40 mm. Width of arm without spines near disk 2·7 mm. Three or four small, irregular, flat, scale-like mouth papillæ on each side, and a flat clump of short, bead-like tooth papillæ at apex of mouth angle. Mouth shields and side mouth shields somewhat obscured by thick skin. The former are transverse oval, much wider than long; length to breadth ·8:1·3. Side mouth shields small and short, with rounded ends, rather wider within than without, and somewhat bent. Under arm plates a little wider than long, slightly separated, and with rounded corners. Side arm plates closely soldered with their neighbours, meeting neither above nor below, rising laterally in a strong spine ridge. Upper arm plates transverse oval, twice as broad as long, slightly swollen, each surrounded by a single line of rounded granules, which are broader than long. Disk round and thick, with a flat top, covered with thin, variously-shaped scales, which, near the margin, are obscured by thick skin; those of the centre small, round, and arranged in a rosette; those farther out, larger and elongated, arranged in three or four rows between the radial shields in the interbrachial spaces, where they are beset with a few scattered grains, which at the margin become much more numerous and larger, and appear as very short spines. Interbrachial spaces below covered with a few grain-like spines. Radial shields large, pear-seed shaped, much longer than wide, separated usually by a line of two large and two small scales. Genital openings large and extending about two-thirds the distance to the margin. Five, rarely six, stout cylindrical, blunt, tapering arm spines, whereof the second and third are stoutest, and as long as one and a half arm joints. One, and on the first two joints sometimes two, small, rounded tentacle scales. At tip of arm are four slender spines, of which the lowest takes the form of a flat, long, three toothed hook, as elsewhere in this genus. Colour in alcohol, above, light pink; below, pale straw.

It is evident that *Ophiolepis mirabilis*,<sup>1</sup> Duncan, is a true *Ophiopholis*, lacking none of its characters, and standing quite near the typical *Ophiopholis aculeata*. The fact that certain small scales surround larger ones is not here of generic importance, and probably results from the young stage of the specimen, which, to judge from the figures, had a disk not exceeding 4 mm. in diameter. *Ophiopholis japonica* differs from the old species as well as from *Ophiopholis mirabilis* in its more slender arm spines, and in having the radial shields and much of the upper disk free of grains or spines.

Station 235.—June 4, 1875; lat. 34° 7' N., long. 138° 0' E.; 565 fathoms; mud.  
Station 236.—June 5, 1875; lat. 34° 58' N., long. 139° 30' E.; 420 to 775 fathoms; mud.

<sup>1</sup> P. M. Duncan, Linn. Soc. Journ. Zool., vol. xiv. pp. 460 and 479.