

occupied by six primary plates, one pentagonal, surrounded by five rudely hexagonal. The radial shields are pear-seed shape, and large, having a blunt angle inward, and outer edge much rounded; they touch only at their middle point, and are separated within and without by a small triangular scale. The interbrachial space below is covered by the large marginal plate, already mentioned, and the stout genital scales. Tentacle scales minute, circular, situated at the inner corners of the second and third plates. Two very small, short, and blunt arm spines. Colour in alcohol, white.

Station 219.—March 10, 1875; lat. $1^{\circ} 50' S.$, long. $146^{\circ} 42' E.$; 150 fathoms; mud.

Ophiomusium scalare, Lym. (Pl. I. figs. 4–6).

Ophiomusium scalare, Lym., Bull. Mus. Comp. Zool., vol. v., part 7, p. 117, pl. i. figs. 1–3, 1878.

Most of the lower interbrachial space, outside the mouth shield, is occupied by broad genital scales and a great central plate. No under arm plates beyond the third. Three short, stout, well-defined arm spines. Disk plates thick, separated by narrow grooves, and arranged above like steps. Side arm plates flaring a little outward.

(Type specimen from Station 171.) Diameter of disk 5 mm. Width of arm without spines 1 mm. Length of arm about 10 mm. Mouth papillæ three on each side, and one at angle of jaw, closely soldered together, forming high continuous ridges, radiating from the mouth. Mouth shields five sided, having a long acute angle within, and the outer side straight; length to breadth 1:1. Side mouth shields long, narrow, meeting within; broader without than within, where they join the first side arm plate; length 1 mm. Genital scales large semicircular, somewhat swollen. Under arm plates minute, three in number; the first one semicircular, wedged between the side mouth shields; second and third longer than wide, with acute angle inward, lateral sides straight, and outer side slightly curved. Tentacle scales round, very small, situated near inner angle of the under arm plate. Side arm plates thick, swollen, covering almost the entire arm beyond the disk. Upper arm plates minute, diamond-shaped. Under surface of disk covered, in the interbrachial spaces, by genital scales, and three large swollen semicircular plates, whose outer edge is curved; upper surface of disk covered with small tuberculous plates, forming a much raised rosette, the central plate of which is pentagonal, the primary plates surrounding it semicircular. Radial shields closely soldered together, and partly separated by an angular plate. In the interbrachial spaces are two large plates, radiating from the central rosette, one five sided, with an acute angle inward, and joined to the inner edge of the radial shields; the other, which is on the margin of the disk, is a large, nearly square, corrugated plate, and is attached on either side to small oval plates, which form above the base of the arm two irregular transverse rows, three