

pentagonal, with an acute angle inward and outer edge straight; length to breadth 2:1.7. Side mouth shields longer than broad, wider without than within; outer ends curved, touching by their narrow ends within. Genital scales large, semicircular, stretching from mouth shield to margin of disk. There are only three under arm plates, the first small and diamond-shaped, lying at outer end of mouth slit; second and third pentagonal, with an angle inward, and lateral and outer sides nearly straight. Side arm plates thick, slightly swollen, and beyond the third under arm plate forming the entire covering of the arm, with the exception of rudimentary triangular upper arm plates, which do not extend to the tip of the arm. Disk rather flat, and covered by closely soldered plates; the upper surface is occupied by six primary plates, separated by many smaller ones; radial shields rounded triangular, with acute angle within; outer edges curved, strongly diverging inward, and separated by a triangular scale. In interbrachial space are two angular plates, the outer one wide quadrangular and closely soldered to a great marginal plate, which, with the genital scales, covers the interbrachial space on the under surface of the disk. At base of arm above are four little plates, two central and two lateral. Four short, blunt, and thick arm spines, situated low on the outer edge of the side arm plate. Tentacle scales minute, rounded, situated on the inner angle of second and third under arm plates. Colour in alcohol, pale grey.

In presence of the many new species of *Ophiomusium*, it has been thought well to give figures and a full description of this one.

Station 24.—March 25, 1873; off Culebra Island; 390 fathoms; mud. Station 23.—March 15, 1873; close to Sombrero Island; 450 fathoms; globigerina ooze.

*Ophiomusium simplex*, Lym. (Pl. I. figs. 7-9).

*Ophiomusium simplex*, Lym., Bull. Mus. Comp. Zool., vol. v., part 7, p. 115, pl. i. figs. 10, 11, 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. Two minute arm spines set low down. Besides the great interbrachial plate below there are three others along the margin.

(Type specimen from Amboyna.) Diameter of disk 6 mm. Width of arm without spines 1.5 mm.; length of arm 15 mm. Mouth papillæ seven on each side, and one, spear-head shaped, at angle of jaw, closely soldered together and forming a slightly raised continuous line. Mouth shields little longer than broad, pentagonal, with acute angle within, at the corners of which begin the genital openings; outer side straight. Side mouth shields short, wide, with curved sides meeting within; length 1 mm. Genital scales large, semicircular, somewhat swollen, running from lateral corners of mouth shield to margin of disk. There are only two under arm plates besides the small semicircular