

broad, and thick, meeting well within, where they are slightly narrower than without. First under arm plate small, nearly square, with all four angles rounded; the next two larger, pentagonal, with an angle inward, outer lateral corners rounded, and deep re-entering curves on the lateral sides, where the tentacle scales stand; the under arm plates beyond these are minute and triangular, having an angle inward and the outer edge slightly curved. Side arm plates large, swelling without into a rounded ridge and forming the greater part of the covering of the arm. Upper arm plates triangular, with an angle inward, and all three sides slightly curved. Disk massive and flat, covered with thick, slightly swollen plates, one pentagonal primary in the centre, surrounded by five rudely hexagonal plates; interbrachial spaces filled by one hexagonal plate within, and a smaller quadrangular extending to the very large marginal plate, which is much swollen and has a constriction on the outer edge. Radial shields large and angular, wider without than within, with outer angles rounded, separated their entire length within by an hour-glass shaped wedge of three small plates. Lower interbrachial space covered by the great marginal plate, the broad genital scales extending from the mouth shield to the marginal plate, and by three intermediate plates. There are two short blunt arm spines, besides a supplementary spine on the top of the side arm plate. Tentacle pores at the second and third under arm plates only, with one small round scale on each pore. Colour in alcohol, greyish.

By its general shape, and by the extra spines on top of the arm, this species approaches *Ophiomusium acuferum*, but is distinguished by form and arrangement of disk plates. It is covered by a well-marked skin, to which often adhere numerous Globigerinæ. The supplementary arm spines do not go beyond the third joint from the disk and are often missing.

Station 192.—September 26, 1874; lat. 5° 42' S., long. 132° 25' E.; 129 fathoms; mud.

*Ophiomusium validum*, Ljn. (Pl. I. figs. 1-3; Pl. XXXIX. figs. 11-13).

*Ophiomusium validum*, Ljn., Dr. Goës, Oph. Öf. Kong. Akad., p. 618, 1871; Bull. Mus. Zool., vol. v., part 7, p. 114, pl. i. figs. 7-9; Bull. Mus. Comp. Zool., vol. v., part 9, p. 219.

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. Four small, equally spaced arm spines. Smaller upper arm plates. The great lower interbrachial plate has usually two much smaller at its outer corners.

(Type specimen from Station 24.) Diameter of disk 8.5 mm. Width of arm, without spines, close to disk 2 mm. Mouth papillæ five on each side, with a large diamond-shaped one at angle of jaw, all forming a close line. Mouth shields large, irregularly