

bones are light, with thin wings, and the tops of those next the disk margin have a small process on the outer side. (See Pl. XXXVIII. figs. 6-9.)

*Ophiernus vallincola*, Lym. (Pl. XXIV. figs. 16-18; Pl. XXXVIII. figs. 6-9).

*Ophiernus vallincola*, Lym., Bull. Mus. Comp. Zool., vol. v., part 7, p. 122, pl. v. figs. 170-172, 1878.

Three small cylindrical pointed arm spines, less than half as long as an arm joint, set close together and low down on side arm plate; mouth shields rounded and widely separated.

(Type specimen from Station 78.) Diameter of disk 9 mm. Length of arm about 50 mm. Width of arm close to disk, without spines 1.7 mm. Four small, short, rounded, bead-like mouth papillæ on either side of the mouth frames, and usually two at apex under teeth, which are four in number, large and flat, with a rounded cutting edge; besides these there are two little papillæ on the side mouth shield and two on the first under arm plate, which may be considered scales of the second pair of mouth tentacles. Mouth shields triangular, length to breadth about equal, with blunt angle inward, and outer corners rounded. Side mouth shields short, broad without, pointed within, lying on lateral sides of mouth shield, by which they seem widely separated, but the inner narrow points run under the thick skin, and nearly meet within. First under arm plate triangular, with inner angle truncated, lateral sides re-enteringly curved, and outer edge rounded; the rest are narrow and rudely pentagonal, those near base of arm having the inner angle truncated, and the outer slightly curved; inner laterals bounded by a re-entering curve; length to breadth .8 : .8. Side arm plates broad and flat, not meeting below, separated above by the broad upper arm plates, which are much wider than long, and cover the whole upper surface of arm, having the lateral sides nearly straight, and edge with a slightly re-entering curve. Disk flat and round; central portion covered with a thin, naked, cross-wrinkled skin; along the margin are minute scattered granules, which, with the thick skin, hide the underlying scales. Radial shields longer than broad, much rounded, widely separated; length to breadth 2 : 1.5. Lower interbrachial space covered with a thin skin, on which there is a very scattered granulation. Genital openings wide, extending from mouth shield to edge of disk. Genital scale not seen. Three small, tapering, cylindrical arm spines, less than half as long as an arm joint, set low on the outer edge of side arm plate. Two small rounded scales on the interbrachial edge of each tentacle pore. Colour in alcohol, greenish grey.

This species grows to a large size; one with a disk of 20 mm. was similar to the above, except that the mouth angle was narrower and more prolonged, and bore, on each side of the mouth frames, eight small, very close-set papillæ. The granulation of the disk was feeble; in many specimens it is wholly wanting. The pair of small mouth papillæ under the teeth is often wanting.