

the outer side nearly straight, but having usually a feeble lobe in the centre. Disk rather thick, covered with fine, curved, rather thin, overlapping scales, which are largest in the centre, where may be distinguished an ill-marked rosette of primary plates; those near the margin are much finer (about eight in the length of 1 mm.); on the lower surface they become thinner and near the mouth shield are hard to distinguish. Radial shields short and wide, curved on the interbrachial side, straight on the brachial; barely touching without, separated within by a narrow wedge of four or five scales: length to breadth, 1.1 : .6. Three short, cylindrical, gently tapering, blunt, equal arm spines about .5 mm. long. One minute, rounded tentacle scale. Colour in alcohol, pale grey.

Station 235.—June 4, 1875; lat. 34° 7' N., long. 138° 0' E.; 565 fathoms; mud.

Amphiura constricta, Lym. (Pl. XVI. figs. 11–14).

Amphiura constricta, Lym., Bull. Mus. Comp. Zool., vol. vi., part 2, p. 22, pl. xi. figs. 295–298, 1879.

Disk finely scaled on both sides. One tentacle scale. Radial shield narrow, about thrice as long as wide. Six short, stout arm spines. Upper arm plates narrow.

(Type specimen from Station, Port Jackson.) Diameter of disk, 5 mm. Length of arm 30 mm. Width of arm near disk, 1 mm. One minute, rounded papilla at base of mouth angle, on either side, and a pair, much larger, at the apex. Above may be seen the small scales of first mouth tentacles, which resemble the outer mouth papillæ. Mouth shields wider than long, of a three-sided or wide heart shape with rounded angles. Side mouth shields long and narrow, especially within, where they do not meet. First under arm plate small and very narrow; those beyond are small and narrow, a little longer than wide, and four-sided with rounded corners; they cover only a small portion of the under side of the arm. Side arm plates small and not projecting. Upper arm plates small and covering only a portion of the upper side; pretty regular transverse oval, about twice as broad as long. Disk thick and somewhat puffed, covered with regular, small, rounded, overlapping scales, which are somewhat larger near the centre, where small round primary plates, widely separated by smaller scales, may be distinguished; below and near margin of disk, the scaling is finer and more delicate, about ten in the length of 1 mm. Radial shields long, narrow, and slightly curved, acute within, separated their whole length by a wedge of many irregular scales of several sizes; length to breadth, 1 : .3. Six small, short, stout blunt, peg-like, equal arm spines about .3 mm. long, of which one or two are microscopically rough at their ends. The spines at tip of arm are similar, but proportionately longer. One rather large oval tentacle scale.

Station, Port Jackson, Australia; 2 to 10 fathoms.

Amphiura josephinæ (young?) Ljn., Dr. Goës, Oph. Öf. Kong. Akad., p. 631, 1871.
St. Vincent, Cape Verde Islands.