

diamond-shape. Side mouth shields short, wide, slightly curved, not meeting within. They and the mouth shield are obscured by a thick skin. Under arm plates somewhat obscured by skin, axe-shaped, with a broad curve without, a narrow angle within, and lateral sides slightly re-enteringly curved. Upper arm plates long triangular, with an acute angle inward and a curve without. Side arm plates large, meeting above and below, with a rounded, rather wide, but not very prominent spine ridge. Disk regularly, but not very closely set with small, short, thick stumps, each bearing a crown of blunt thorns. Radial shields and scaling hidden. Six cylindrical, opaque, blunt, slightly tapering arm spines, which under the microscope, are a little rough, but not thorny; lengths to that of an under arm plate, 3, 2·2, 1·3, 1·2, 1·2, 1 : 1. One minute pointed tentacle scale. A young specimen from the same locality had a disk 4 mm. in diameter, and arms of 18 mm. The disk stumps were closer set, and more like grains, and there were nine mouth papillæ to each angle.

This species is viviparous. It represents in the antarctic zone the arctic *Ophiacantha anomala*, from which it differs in having a minute slender tentacle scale and only five arms.

Christmas Harbour, Kerguelen Islands; 120 fathoms. Royal Sound, Kerguelen Islands; 25 fathoms. Station 150.—February 2, 1874; lat. 52° 4' S., long. 71° 22' E.; 150 fathoms; rock. Station 151.—February 7, 1874; off Heard Islands; 75 fathoms; mud. Kerguelen Islands; 120 fathoms.

*Ophiacantha sentosa*, Lym. (Pl. XIII. figs. 10–12).

*Ophiacantha sentosa*, Lym., Bull. Mus. Comp. Zool., vol. v., part 7, p. 140, pl. ix. figs. 229–232, 1878.

Disk closely beset with short slender spines, with forked heads, encased in thick skin, so that they give the disk a furry look; arm spines slender and not thorny; one minute rounded tentacle scale.

(Type specimen from Station 298.) Diameter of disk 16 mm. Length of arm 80 mm. Width of arm without spines 3 mm. Mouth papillæ nine or eleven, to each angle of which the innermost odd one is stoutest and spearhead-shaped, and is similar to and continuous with the teeth; the outermost is very small and rounded, and the others are stout, conical, and pointed. Mouth shields small, wider than long; bounded within by an obtuse angle, and without by a curve. Side mouth shields wider without than within, where they meet, of moderate width, and extending well beyond mouth shield on either side. Under arm plates slightly swollen, much wider without, where they are gently curved, than within, where they present a peak, and are separated from the next plate; lateral sides re-enteringly curved opposite tentacle pores. Side arm plates moderately prominent, meeting below, and beyond fourth joint, above also. Upper arm plates about as long as broad, narrow fan-shaped, with an angle inward. Disk puffed,