

covered with a thick skin, which obscures the radial shields and scaling, except a patch near mouth shield; the surface is closely set with small spines, about .8 mm. long, whose ends are forked, but which are more or less cased in skin. Seven regular tapering arm spines, smooth, or bearing a few minute thorns; the upper one somewhat longer; lengths to that of an arm joint, 4, 3, 2.8, 1.6, 1.6, 1.6 : 1.2. One small blunt, pointed tentacle scale. Colour in alcohol, disk above dull chocolate-brown, lower side and arms pale brown.

The only essential variation noted was in a larger specimen, with a disk of 18 mm., which had sometimes as few as seven mouth papillæ to an angle.

Station 298.—November 17, 1875; lat. 34° 7' S., long. 73° 56' W.; 2225 fathoms grey mud.

*Ophiacantha stimulea*, Lym. (Pl. XIII. figs. 4–6).

*Ophiacantha stimulea*, Lym., Bull. Mus. Comp. Zool., vol. v., part 7, p. 141, pl. ix. figs. 225–228, 1878.

Disk closely set with small simple spines. Arm spines not thorny. One or two large long tentacle scales.

(Type specimen from Station 164.) Diameter of disk 7 mm. Length of arm 35 mm. Width of arm without spines 2 mm. Ten or twelve pointed, flat, rather thin mouth papillæ, of which the two innermost are largest, the others about equal. Teeth similar to innermost mouth papillæ, but larger. Mouth shields wider than long, rather small, bounded without by a curve and within by an obtuse angle. Side mouth shields somewhat curved, rather narrow within, where they meet, wide without. Under arm plates wider without, where they are bounded by a gentle curve, than within, where they present an obtuse angle; lateral sides slightly re-enteringly curved. Upper arm plates fan-shaped, with an angle inward. Side arm plates stout and prominent, meeting narrowly above and below, near base of arm. Disk a little puffed, with a constriction in each inter-brachial margin, closely set with small simple spines, which, under the microscope are seen to be slightly rough at their tips; just over each arm they are much shorter, and extend to the first upper arm plate. Radial shields and scaling wholly obscured by thick skin and spines, except on a small patch next mouth shields. Seven regular, not thorny, nearly cylindrical, rather slender arm spines, which taper slowly to a blunt point; lengths to that of an arm joint, 2, 3, 2, 1.5, 1.5, 1.5, 1 : .8. Tentacle scales long, pointed, and rather wide; two on each of first two or three pores, and one on those beyond. Colour in alcohol, white.

Station 164.—June 12, 1874; lat. 34° 8' S., long. 152, 0' E.; 950 fathoms; grey ooze.

This species is distinguished from *Ophiacantha segesta* by more numerous and different mouth papillæ and by stouter arm spines.