

none, can be seen from the upper surface. Three small, nearly equal, peg-like arm spines, less than half the length of a side arm plate. Five small, close-set tentacle scales to pores of mouth tentacles, three on one side and two on the other; the pores beyond have but one small rounded scale. Colour in alcohol, straw.

Station 317.—February 8, 1876; lat. 48° 37' S., long. 55° 17' W.; young; 1035 fathoms; hard ground. Station 320.—February 14, 1876; lat. 37° 17' S., long. 53° 52' W.; 600 fathoms; hard ground.

The specimen described, though well characterised, was perhaps not fully grown. It is the southern cousin of *Ophioglypha robusta*, from which it differs in shorter arm spines, more swollen disk scales, smaller mouth papillæ, and fewer tentacle scales.

*Ophioglypha multispina*, Ljn., Oph. Viv. Öf. Kong. Akad., p. 307, 1866; Lym., Bull. Mus. Comp. Zool., vol. v., part 7, p. 99.

Port Jackson, Australia; 2 to 10 fathoms.

*Ophioglypha hexactis*, E. A. Smith (Pl. XLV. fig. 1; Pl. XLVII. fig. 2).

*Ophioglypha hexactis*, E. A. Smith, Ann. Mag. Nat. Hist., vol. xvii. p. 3, Feb. 1876; Lym., Bull. Mus. Comp. Zool., vol. v., part 7, p. 99.

In the whole genus this is the only species that has more than five arms. It is also viviparous. A curious parallel is the many-armed *Ophiacantha vivipara*, from the same region, which is viviparous likewise. But whereas the bursæ of the latter are limited to the neighbourhood of the arms, those of the species under consideration are thrust between the disk roof and the digestive cavity, until in some cases they occupy almost the whole body cavity proper, a state of things shown in fig. 1, Plate XLV., which presents a vertical cross-cut of a gravid female, passing through one arm and the opposite interbrachial space. Just above the mouth angles is the long fold of the mouth sphincter (*du*), continued on either side by a wide flattened somewhat pleated digestive cavity, whose walls are thin and membranous in some places, where their soft layer has been scraped off. Above this is a space like the low between-decks of a ship, wherein are stored the large young, two of which (*Y, Y'*) are seen cut in two, together with parts of their arms. One (*Y*) is in a natural position, while the other (*Y'*) lies on its back. Both show the mouth angles beginning to take form, and the large mouth tentacles. Their digestive cavities, simple in the adult, are folded in a way that calls to mind *Gorgonocephalus*. At first sight these young seem lying free in the body cavity. Each, however, is enclosed in a thin bag, an expansion of the bursa (a fold of it is seen at *δ'*), which has thrust itself between the disk roof and the upper wall of the digestive cavity. These two surfaces are closely connected normally by threads (*sm*), which in the present case are not broken, but simply stretched, sometimes to an immense extent. The relation of the parts may be made clearer by removing the roof of the disk and showing