

in another it is distinctly nine-lobed. A few Sponges, Polyzoa, &c., are attached in some of the specimens to the left side.

The following list shows the dimensions in twelve individuals of this species :—

| | Length of Body. | Breadth of Body. | | Length of Body. | Breadth of Body. |
|----|---------------------|------------------|-----|-----------------|------------------|
| 1. | 14 cm. | 8 cm. | 7. | 11.5 cm. | 7 cm. |
| 2. | 12.5 cm. | 8.5 cm. | 8. | 11 cm. | 7 cm. |
| 3. | 12 cm. ¹ | 13 cm. | 9. | 11 cm. | 6.5 cm. |
| 4. | 12.5 cm. | 8 cm. | 10. | 8 cm. | 4.5 cm. |
| 5. | 12 cm. | 7 cm. | 11. | 7.5 cm. | 5.5 cm. |
| 6. | 12 cm. | 6.5 cm. | 12. | 5.5 cm. | 3.5 cm. |

The test is moderately thick but very soft. The blood-vessels are large and abundant, and are conspicuous on the inner surface of the left side. Their terminal twigs in the outer layers have enlarged knob-like ends. Bladder cells are abundant; they are very large throughout the inner three-fourths of the thickness, but in the outer fourth they become smaller and are more closely packed. The ordinary minute fusiform cells are also present. The mantle is of moderate strength; the musculature is irregular on the right side of the body and the anterior half of the left, while it is absent on the posterior half of the left, over the stomach and intestine.

The branchial sac (Pl. XXXI. figs. 5 and 6) is large, completely filling the mantle cavity. It is slightly plicated longitudinally, and the stigmata are arranged in alternate bands of narrower and wider ones corresponding with the crests and troughs of the plications. The large transverse vessels are very wide, and are somewhat encroached upon by the ends of the narrower stigmata. In figure 5, which shows the outer (atrial) side of the branchial sac, one of the muscular suspensors or tubes (s.) connecting the sac with the mantle is seen at the right hand lower corner.

The dorsal lamina (Pl. XXXI. fig. 7) is broad but delicate, and the edge is strongly serrated; it extends a little more than two-thirds of the way down to where the œsophageal opening is placed. The tentacles (fig. 8, *tn.*) are filiform, and the longer ones are very long and thin, running out to fine terminations.

The nerve ganglion is oblong, of a yellow colour, and gives off two large nerves at each end—one pair to the branchial and the other to the atrial aperture.

The alimentary, genital, and renal viscera form a large but flat mass upon the posterior half of the left side. The œsophageal aperture is situated near the posterior end of the sac, and from it the œsophagus runs posteriorly and ventrally; the large stomach continues the curve, running ventrally and anteriorly, and then turns directly anteriorly; the intestine, after leaving the stomach, continues anteriorly, then bends dorsally for a short distance, and then runs back again posteriorly, nearly parallel to the stomach; finally it bends forwards, and runs anteriorly and dorsally to end in a wide anus, a little

¹ This specimen was not perfect, it must have been of enormous size.