

The dorsal lamina (Pl. IV. fig. 4, *d.l.*) is short and broad; the free edge is crenated, but a regular series of teeth is not present.

The tentacles are large and greatly branched, and their branchial surface, from which the pinnæ spring, is usually vesicular. The shape of one of the larger tentacles is irregularly pyramidal with the apex generally curled upwards towards the branchial aperture, so that the lower side on which the branches are placed is convex (Pl. IV. fig. 4, *tn.*) The base is very thick, and is seen from sections to be highly muscular. Numerous bundles of fibres, imbedded in the connective tissue and running in all directions and interlacing, occupy a zone extending about half-way to the centre of the tentacle.

The peritubercular area is very small, and the dorsal tubercle extends across the præbranchial zone almost to the base of the tentacles (Pl. IV. fig. 4).

The intestine is large and lies on the left side, occupying chiefly the dorsal edge and posterior end. The œsophageal aperture (Pl. IV. fig. 4, *œ.a.*) is situated far forward in the sac, generally between one-third and one-fourth of the distance from the anterior to the posterior end. In a specimen 16 cm. in length and 7.5 cm. in breadth the dimensions of the branchial sac were as follows:—

|  |   |   |   |       |
|--|---|---|---|-------|
| From peripharyngeal band to posterior end,       | . | . | . | 8 cm. |
| From peripharyngeal band to œsophageal aperture, | . | . | . | 2 "   |
| From peripharyngeal band to branchial aperture,  | . | . | . | 4 "   |
| Breadth of sac at level of œsophageal aperture,  | . | . | . | 4 "   |
| Breadth of sac at broadest part,                 | . | . | . | 6 "   |

The œsophagus is short and wide, and runs directly posteriorly from the œsophageal aperture to open into the large stomach lying on the left dorsal edge of the posterior part of the branchial sac. The intestine issuing from the stomach soon reaches the posterior end of the branchial sac, and after turning towards the ventral edge runs anteriorly for a short distance, then curving dorsally and posteriorly it returns closely pressed against its first part, so that no open loop is formed, and finally runs anteriorly along the dorsal edge of the branchial sac, past the œsophageal aperture, and opens into the relatively small cloacal part of the peribranchial cavity.

There are two ovate genital glands imbedded in the mantle, one on each side. That on the left side lies anteriorly to the intestine, and nearer the ventral than the dorsal edge. The gland on the right side is nearly in the centre, and lies anteriorly and ventrally to the large curved renal sac.

This species was obtained by the "Nassau" at two localities—Gregory Bay and near Cape Virgins. In the Liverpool Free Public Museum<sup>1</sup> there are some small specimens, which were dredged by Captain W. H. Cawne Warren, off the Patagonian Bank, lat. 41° 30' S., long. 52° 0' W.; depth, 50 fathoms.

The Challenger specimens (nearly forty) were all dredged at Station 313, January

<sup>1</sup> I am much indebted to Mr. T. J. Moore, the curator of this excellent museum, for his kindness in allowing me to examine specimens of this and several other species of Ascidiæ in the collection under his care.