

this coat is just beyond the proboscidian canal, while the thinnest part is in the median line above it.

“The proboscidian sheath has a remarkably thick wall, which is chiefly composed of an interwoven circular coat, presenting an irregular looped appearance in transverse section. The fibres in thin sections seem to anastomose. On the inner surface of this coat are some longitudinal fibres, with a glandular epithelial coat internally.

“Posteriorly the body-cavity is greatly dilated by the presence of a vast series of ova, so that all the muscular coats are much thinned, and the digestive canal contracted. The inner longitudinal coat is especially affected, three thickenings only being left, viz., one on each side of the proboscidian sheath, and one in the middle line ventrally. The ova are compressed into various angular forms, between vertical partitions which occur at short intervals in the region, and which fill up the entire area, except the small space for the proboscidian and digestive canals superiorly.”

For some farther particulars concerning this species, I refer to the description of *Cerebratulus macroren* that is still to follow, and where the points of agreement and of difference between these two evidently closely related species will be more fully entered upon.

A second specimen, also from the New Zealand waters, shows that the conspicuous development of the secondary basement layer of the integument, and the considerable thickness of the medullary nerve, are further characteristic features of this species.

*Cerebratulus angusticeps*, n. sp. (Pl. I. fig. 15; Pl. XIV. figs. 1, 6; Pl. XV. fig. 4).

This is another Schizonemertean from the New Zealand waters (Station 167A, Queen Charlotte Sound, June 27, 1874; 10 fathoms). Its head is figured on Pl. XV. fig. 4. In M'Intosh's preliminary notes this fragment is referred to in the following words:—

“A fragmentary form, resembling in shape *C. angulatus*, and with an acutely pointed snout. The diameter of the widest flattened region is about 4.5 mm. The colour is dull yellow, with a darker stripe down the middle of the dorsum. . . . The vascular trunks lie opposite the nerve-cords, and this in the angular lateral region. The external longitudinal muscular coat is largely developed, and the fibres are uniformly fine. The very much produced lateral angle of the body is mainly composed of this coat. In such forms the lateral nerve-cord seems to be much flattened from above downwards.”

The sections which I made of this fragment, horizontally through the head and transversely through the trunk, were in many respects very instructive. To the flattened and pointed shape of the head they added an internal distinctive feature of the species in the unusual size of the posterior brain-lobes, which, although in intimate connection with the superior brain-lobes in the same way as in the Schizonemertea, in general equalled or even surpassed the latter lobes in length. Pl. XIV. fig. 6, gives a representation of this, illustrating, at the same time, how in a horizontal section the blood-space (*c.o.l.*)