

tinal cæca. Close to the posterior end of the body I cannot vouch for their presence; their extreme tenuity, and a folding of the sections, preventing the transverse commissures, if present, from being seen. Nor could I make out with certainty in the one specimen available, whether the longitudinal stems themselves coalesce *above* the anus as they do in the other Hoplonemertea, but on *a priori* grounds, I can hardly doubt their doing so.

Anteriorly, the transverse commissures were present even in the immediate neighbourhood of the brain, up to the point where the so-called vagus nerve branches off and stretches forwards towards the œsophagus.

Although, on the whole, they have a very regular course, and are situated at equal intervals, still a few irregularities in these commissures must be noticed; some of them branching into two, others being connected with the preceding or the succeeding commissure by a small bundle of nerve-fibres.

The significance of this nervous arrangement will be discussed further on.

The second characteristic to which I wish to draw attention is the presence of transverse cæca belonging to the proboscidian sheath. Although they are present in other species of *Drepanophorus*, so that we are justified in looking upon their presence as one of the typical generic characters, still I never found their walls so markedly developed as in *Drepanophorus lankesteri*. Generally the walls are exceedingly thin and membranaceous (e.g., *Drepanophorus rubrostriatus*); here, however, they attract attention by the thick cellular coating which immediately reveals its presence both in longitudinal and in transverse sections. On Pl. X. fig. 4, the nature of this arrangement is clearly shown. Another peculiar feature of these cæca of the proboscidian sheath is that I have found a few of them coalescing peripherally with the one preceding or following them by means of a short longitudinal extension, which allows these few successive cæca to intercommunicate not only by means of the proboscidian cavity, but also by means of this distal connection.

The muscular body-wall of this, as of most other Hoplonemertea, may be shown to contain, in addition to the two layers α and β (cf. Pl. XI. fig. 8), certain cross fibres not forming a definite layer, but arranged at angles of 45° , and visible in sections parallel to the surface.

The openings of the longitudinal canals of the nephridia to the exterior are situated ventrally, posteriorly, and at the same time terminally; this constitutes another difference as compared with *Drepanophorus rubrostriatus* which has been already described and figured by Oudemans.¹ On one side of the specimen investigated two openings of the nephridial duct piercing the integument are at all events observable, although somewhat more internally, before these deferent ducts have pierced the muscular body-wall, they coalesce. There is a very close proximity between the anterior nephridial ramifications and the lateral longitudinal blood-vessels. They do not, however, intercommunicate, nor do, as was supposed by M'Intosh, the proboscidian sheath-cæca and the blood vascular system.

¹ *Loc. cit.*, pl. i. fig. 7.