

accessory to the sense-organs forming the system of the lateral line, a sensory epithelium being protected by and combined with them, has no direct parallel in *Amphiporus moseleyi*, although it cannot be denied that the flask-shaped glands are in the immediate vicinity of and on a level with the lateral nerve-trunks.

The absence of these glandular structures in the Palæonemertea and Schizonemertea hitherto observed, renders the suggestion of any close homology very hazardous. Still, I would not wholly refrain from pointing out the distant kind of parallelism which may be noticed, and which has certainly contributed to induce me to consider these organs in the paragraph devoted to the sense-organs, a proceeding which future investigations may perhaps show to have been wholly unfounded. The significance of this parallelism will once more be discussed, when, in the chapter of General Considerations, there is further scope for speculation.

PROBOSCIS AND PROBOSCIDIAN SHEATH.

Concerning this important organ, so very fully described by M'Intosh in his Monograph on the group (XIX), the Challenger material has not revealed any startling peculiarities. Nevertheless, it deserves some closer consideration, because certain points, *e.g.*, the exact mode of the anterior attachment of the proboscis in these worms, could be studied more favourably by me in certain of the Challenger sections than ever before. Moreover, the Russian naturalist Salensky has lately¹ propounded certain views concerning the proboscis and its sheath which deserve consideration and refutation.

I will first describe the facts with respect to the proboscis which we notice in the Challenger Nemertea.

Carinina has a proboscis which, in transverse section, reveals the remarkable peculiarity that the primitive order of succession, according to which in the body-wall we meet with (1) integument, (2) longitudinal nerves, (3) musculature, also obtains in the proboscis, the innervation of which takes place through the intervention of two longitudinal nerves, which are so situated as to be enclosed by the internal cellular epithelium (Pl. II. figs. 11, 12), just as is the body nerve-stem in a section of the trunk. This fact, though it cannot be looked upon as a direct confirmation of the hypothesis advocated by me after I had become acquainted with Graff's Monograph on the Rhabdocœla, *viz.*, that in the Nemertea also the proboscis should be looked upon as a gradual derivative of an original continuation of the body-wall, which has become introvertible like the snout of the Rhabdocœla proboscidea, still throws a very favourable light on these views. And this is further the case when we notice that in many Schizonemertea there is also an order of succession of the layers in the proboscis-wall which is

¹ *Zeitschr. f. wiss. Zool.*, Bd. xliii. p. 509.