

XIII. figs. 7-9), although, when these walls are distended by the contents, their thickness correspondingly diminishes (Pl. XIII. fig. 8). In this species, moreover, it could be observed that towards the anterior end of this massive nephridial canal it subdivides into smaller branches (Pl. XIII. fig. 9), applied against the wall of the blood lacuna, and nearly escaping observation amongst the epithelial cells of these lacunæ. Here, again, no internal opening could be demonstrated; whereas, at the posterior end, the nephridial canal, making a sharp curve, passes outwards above the nerve-stems. We thus observe differences in the nephridial system of the Schizonemertea, which may be classified under the following heads:—

(a) The nephridial canal may be massive and single throughout the greater part of its course, only ramifying anteriorly (*Cerebratulus macroron*, &c).

(b) It may be very copiously subdivided, every transverse section showing a considerable number of lumina, the whole thus forming a kind of network, with certain principal longitudinal ducts, and being suspended against the wall of the circumoesophageal blood lacuna (*Eupolia*).

(c) The meshes of this network may be situated in the region between the proboscidian sheath and the longitudinal nerve-stems (most *Cerebratuli*), or they may stretch ventrally to these nerve-stems (*Eupolia*).

(d) The ducts leading to the exterior may be one on each side, and these generally terminal (posteriorly).

(e) There may be two on each side, and they may then communicate with the chief longitudinal canal about its middle.

(f) They may be more numerous, often in various phases of distension, and arranged more or less metamerically. The histological characters are fairly uniform, the lumen is never excavated in a row of cells as is the case in so many Platyelminthes, in the Discophora, &c., but is always bounded by a certain number of cells in every section. Each of these cells has a large and distinct nucleus; its protoplasm is granular, and the free surface, which is turned towards the lumen, is ciliated.

We have now to examine the nephridia of the Challenger Hoplonemertea. In Oudemans' paper several points concerning them have been already noticed; other details referring to the situation and the number of the deferent ducts were mentioned above when the species were described.

Hence it may here be sufficient to call attention to the fact, made specially palpable by certain of the Challenger preparations, that whereas the nephridia of the Hoplonemertea are no longer suspended in blood lacunæ, but wholly surrounded by the gelatinous tissue, they are at the same time much more intricately coiled and ramified, as can be very easily seen from a comparison of fig. 1 (*Nep*), Pl. X., with figs. 7, 9, Pl. XIII. This involves, however, no important change in the histology; what we have noticed under this head in the Schizonemertea holds good for the Hoplonemertea as well.