

a much more spacious chamber divided by various mesenteries. In *Balanoglossus* this chamber posteriorly is inconspicuous in the adult. The condition again in the Entoproctous Polyzoa (e.g., *Loxosoma*) considerably diverges, for no body-cavity exists; while in the Phylactolæmata it is present in the adult, and is lined by ciliated epithelium, such not being the case in the body-cavity of the Gymnolæmata.

It is an interesting fact that the *Muscular System* both in *Cephalodiscus* and *Rhabdopleura* is connected with the pedicle, if we may for the moment so term the soft contractile stalk of the latter. In the former, however, it is much more largely developed and is continued directly from the body-cavity; whereas in *Rhabdopleura* it is wholly external to that chamber, and is less distinctly differentiated on the surface of the axial skeleton, which forms another feature of distinction in this form. If the funiculus of one of the Eupolyzoa be disconnected from the digestive system and formed into an external process in the line of the ordinary communication-plate, something similar in structure and function to the pedicle in the Aspidophora will be made. As a rule in the same group the retractor muscles of the body and lophophore arise from the peritoneal lining.

The funiculus of the Eupolyzoa, according to Haddon, is probably derived from the irregular strands of funicular tissue which occur in the parent zoecium. It appears as a thickish cord stretching from the fundus of the developing polypide to the base of the zoecium. It is in direct communication with the brown body, directing "the developing alimentary tract to that nutritive mass, thereby ensuring the better nutrition of the growing bud." The bud is thus developed at a distance from the brown body, but approaches it and extracts nutriment from it. This has been noted by other authors. In *Loxosoma* the stem quite differs, since there is no communication with the body-cavity.

The present condition of our knowledge of the *Reproductive Organs*, both in *Cephalodiscus* and *Rhabdopleura*, is incomplete, so that a satisfactory comparison cannot be made. The ova in the former are very large, but no male elements have been seen. In *Rhabdopleura* the testis occurs as a long sac adjoining the intestine and even projecting beyond the abdomen. It opens near the anus, and thus agrees with the condition in *Cephalodiscus* and *Phoronis*, as well as offers certain resemblances to the condition in the Entoproctous Polyzoa. The reproductive organs in *Phoronis* are posterior in position, and both male and female elements are usually conspicuous. In *Balanoglossus* these elements occur between the liver and the anterior part of the body.

The early appearance of the ova in the young buds of the Eupolyzoa, for instance *Bugula flabellata*, as noticed by Haddon, is worthy of mention. These ova are in close relation to the wall of the digestive tract. The distinction of the Aspidophora from those of the Eupolyzoa in which the ova of the parent pass ready-formed into buds is marked.