

The female gonophores are closely similar in structure to those already described as occurring in *Pliobothrus symmetricus*; but there is this great difference—that whilst in *Pliobothrus* the ampullæ and their contained ova and planulæ remain until maturity immersed in the cœnosteum beneath its surface, in *Errina* the ampullæ project more and more above the surface as development proceeds.

The spadix in *Errina labiata* is at first cup-shaped (Pl. IV. S), the walls of the cup being composed of a very thick layer of endoderm. The cavity of the cup is directed towards the surface of the coral, and within it rests the single large ovum with its distinct germinal vesicle and spot. Each ampulla contains invariably only one spadix and ovum. The ovum is covered over in the cup by a reflection of the ectodermal investment of the spadix (Pl. IX. fig. 4).

The stages of yolk division were not detected. The ovum becomes developed into the condition of a planula within the ampulla. As development proceeds, the embryo becomes gradually greatly increased in size, and assumes a form corresponding to that of the containing ampulla already described. As the process proceeds the spadix becomes divided at its margin into a series of lobes, which lobes subdivide, branch, and unite to form a network, and encroach over the surface of the embryo until more than half of the proximal surface of the embryo becomes thus embraced by the reticulate cup of the spadix (Pl. IV. S).

The ectodermal layer of the embryo seems to be formed from the general mass by delamination. No trace of any process of invagination was observed; but all stages were seen which would appear to prove that the ectoderm layer is gradually differentiated at the surface from the outer elements of the mass. The ectodermal layer when first observable as distinct, appears finely granular in structure, whilst the abundant endodermal mass is composed in large part of highly refracting oil-globules. The ectoderm, as development proceeds, shows a striation directed perpendicularly to the surface of the embryo all over, and this condition is very conspicuously marked in the fully-developed planula (Pl. IV. E C). The mature planula is elongate-ovoid in form, and is slightly folded once upon itself in order to accommodate itself to the confined space within the ampulla. The layer of ectoderm described as investing the surface of the ovum, and derived from the spadix, persists as a covering of the mature planula until set free (Pl. IV. B).

In fine sections of mature planulæ the fine structure of the ectoderm and endoderm is well seen. The ectoderm forms a thick layer composed of alternately placed transparent and opaque tracts disposed vertically to the surface of the planula. The more opaque tracts contain numerous nuclei and thread cells in process of development. The dark tracts fuse together towards the inner region of the layer, and form a continuous mass full of nuclei which rests upon the basement membrane, as yet little differentiated but still clearly indicated (Pl. XI. fig. 9, B).