

or a monogastric larva of the polygastric *Epibulia ritteriana* (Pl. XXII. figs. 6–8). Indeed it is possible that this latter has been developed immediately from the former, or that *Cystalia* is a larva of *Epibulia*, which has reached sexual maturity only exceptionally (Pædogenesis). But comparing the structure of the pneumatophore in both similar forms, we find that the polygastric *Epibulia* possesses the eight radial clusters of hypocystic villi characteristic of the Rhizophysidæ, whilst these are wanting in the monogastric *Cystalia*. In any case the fully developed state of the gonodendron in the latter justifies its position as an independent genus.

In the same month (December 1881) in which I captured *Cystalia larvalis* off the coast of Ceylon, I took by the tow-net a number of young larvæ of Siphonanthæ, which I supposed at the first glance to be the larvæ of some Physonect, perhaps an Agalmid. The most important stages of them are figured in Pl. XXII. figs. 1–4. Comparing them with the larvæ of the Agalmid *Cupulita*, which Metschnikoff has described as *Stephanomia pictum* (85, Taf. xii.), we find a great likeness between these larvæ. The youngest larva observed (fig. 1) exhibits a spindle-shaped gastrula, composed of a large-celled entoderm (*d*) and a small-celled ciliated exoderm (*e*), with the invagination of the pneumatophore on the apical pole. In the second stage (fig. 2) the medusiform body is divided by a transverse annular constriction into a proximal and a distal portion; the superior portion is the rudimentary umbrella with the pneumatophore (already containing a gas-bubble); the inferior portion is the primary siphon, from the base of which arises a single tentacle. In the third stage (fig. 3) the distal mouth of the siphon is open, and from its base, opposite to the dorsal tentacle, arises in the ventral side the first bud (*i*), probably of a palpon. The fourth and last stage observed (fig. 4) exhibits the number of buds augmented (as the beginning of a corona of palpons?), and the single tentacle beset with a series of simple filiform tentilla (*ts*).

Since I was not able to recognise the origin of these pelagic larvæ, nor to follow their further development, the question remains open, whether they were produced by a Physonect or a Cystonect. In the latter case they may possibly have been derived either from *Cystalia* or from the closely allied *Epibulia*.

*Cormidium*.—The central or axial portion of the single cormidium, which represents the entire adult corm of *Cystalia*, must be regarded as an individual medusome, the modified umbrella of which is the pneumatophore (*p*) and the manubrium the siphon (*s*). The base of this latter bears a single tentacle on its dorsal side, a single large gonodendron (*gd*) on its ventral side. The short tubular pedicle of the siphon which connects it with the base of the float represents the axial trunk of the corm, and has produced by budding the corona of palpons, which are expanded between them. The gonodendron itself is the sexual portion of the single cormidium, composed of numerous male and female gonophores, each of which is a modified medusome.

Comparing the single parts of the corm with the similar parts of related Siphono-