

umbrellæ of the sterile medusomes were separated from the appertaining siphons, and both so dislocated, that the former migrated upwards and together composed the nectosome; whilst the manubria with the tentacles remained in the cormidia, composed of clustered sexual medusomes or gonophores.

The cormidia of the Polyphyidæ are ordinate and monogastric, as in all other Calyconectæ, separated by free internodes of the stem, of equal length. Each cormidium contains a single siphon and one tentacle, besides a group of clustered gonophores. These are sometimes of one sex in each cormidium, so that this is diclinic. The corm itself is monœcious, male and female cormidia occurring on the same stem; usually the androphores occupy the lower or distal part, the gynophores the upper or proximal part of the siphosome. At other times the cormidia are monoclinic (composed of gonophores of both sexes) as described by some authors (Kölliker, 4, and Weismann, 1883, p. 194).

The general rule, that the cormidia are ordinate in all polygastric Calyconectæ, has perhaps a single exception in *Polyphyes*. The clustered gonophores are here separated from the base of the siphon by a small interval, and this seems to become larger in some species, so that the cormidia may be described as alternate (or even irregular), the sterile medusomes (siphon and tentacle) alternating with the fertile (gonophores), just as in many Physonectæ (*Agalma*, *Agalmopsis*, &c.). This is perhaps the case in the Mediterranean form described by Kölliker as *Hippopodius neapolitanus* (4, Tab. vi.), and in a similar South Atlantic form, an incomplete specimen of which I observed in a bottle from the Challenger collection (from Station 325), and which I have called provisionally *Polyphyes dissolutus* (95, p. 36). The preservation of this fragment, however, was not sufficiently good to furnish confirmation of that statement, and since the description of Kölliker has not been confirmed by later authors, it may be that an accidental error occurred, and that the cormidia are always ordinate as in the common *Hippopodius*.

*Siphons* (fig. 1, *s*).—The polypites of the Polyphyidæ are in general of the same shape as in the other Calyconectæ. The pedicle arising from the siphosome is sometimes longer, at other times shorter or even rudimentary. The basigaster is subspherical or ellipsoidal, its thickened exoderm full of cnidocysts. It is separated by a pyloric valve from the ellipsoidal or spindle-shaped glandular stomach, which passes over without a sharp boundary line into the long and very contractile proboscis. Sometimes these parts are very prolonged and vermiform. The distal mouth is small and simple, but may be expanded in the form of a circular suctorial disc.

*Tentacles* (fig. 1, *t*).—The single tentacle, which is attached to the base of each siphon, is very long and thin, beset with a series of very numerous tentilla. Each tentillum (fig. 8) is composed of a long pedicle, a roundish cnidosac, and a cylindrical terminal filament; the latter is often coiled up spirally. The cnidosac is relatively small, ovate, ellipsoidal or subspherical, often coloured by yellow or orange pigment. Its cnido-battery is placed in form of a curved band along the convex dorsal side of the cnidosac, and