

Family IX. POLYPHYIDÆ, Chun, 1882.

Polyphyidæ, Chun, 86, p. 12.*Hippopodidæ*, Kölliker, 4, p. 28.

Definition.—Calyconectæ polygastricæ, with a biserial nectosome, composed of four to six or more opposite nectophores. Cormidia ordinate, separated by equal free internodes, always without bracts.

The family Polyphyidæ differs from the other polygastric Calyconectæ in the complete absence of bracts. The nectophores are numerous, and arranged in a biserial nectosome, as in the preceding Desmophyidæ, from which they may be derived by the reduction of the bracts. The general composition of the cormidia, as well as the special structure of the single parts composing them, is very similar to that of the other Calyconectæ (mainly Prayidæ); but in some respects they approach more to the Physonectæ.

The oldest and best known form of Polyphyidæ is the common Mediterranean *Hippopodius gleba*, described and figured so early as 1775, by Forskål, under the name *Gleba hippopus* (11, pl. xliii. fig. E). It has been mentioned under very different names by later authors (compare 33, p. 22). The first accurate anatomical description of it was given in 1853 by Kölliker (4), others by Vogt (6) and Leuckart (8). Kölliker observed a second Mediterranean form of this family, which he called *Vogtia pentacantha* (4, p. 31, Tab. viii.); and he established for these two genera the family Hippopodidæ, differing from the Physophoridæ in the absence of a pneumatophore, from the Diphyidæ in the possession of numerous nectophores arranged in a biserial nectosome similar to that of the Agalmidæ. Chun afterwards (1882) called the same family Polyphyidæ (in opposition to Diphyidæ and Monophyidæ). Leuckart united the Hippopodidæ and Diphyidæ in his group Calycophoridæ (8).

Nectosome.—The nectophores of the Polyphyidæ are always numerous, at least four to six, often eight to twelve, sometimes more. They are constantly opposed in alternate pairs and arranged in a biserial column, similar to that of the Agalmidæ. But a remarkable difference exists in the form and the structure of the trunk. The tubular trunk or common stem of the nectosome, which bears the nectophores, is, in the Agalmidæ, Apolemidæ, and other Physonectæ, the rectilinear prolongation of the trunk of the siphosome, which bears the siphons and gonophores; the former is the superior and the latter the inferior part of a straight, cylindrical tube. Quite different is the relation of the two parts of the trunk in the Hippopodidæ, as was first pointed out by Leuckart.¹ The superior part of the common stem, or the trunk of the nectosome, is connected with the inferior part, or the trunk of the siphosome, at a small acute angle, which forms the top of the corm. Both descend together from the top, and the deflexed trunk of the nectosome, bent down upon itself, forms a spiral band which surrounds the

¹ 8, p. 303, Taf. xii. fig. 3; 35, p. 553, Taf. xlvii. fig. 27.