

Genus *Sympodium*, Ehrenb.

- Sympodium*, Ehrenberg, Die Corallenth. des rothen Meeres, p. 61.
 „ Dana, Zooph., p. 608.
 „ Milne-Edwards, Hist. Nat. des Coralliaires, t. i. p. 110.
 „ Kölliker, Icon. histiol., pt. 2, p. 141.
 „ Klunzinger, Die Korallth. des rothen Meeres, p. 42.
 „ Danielssen, Norske Nordhavs-Exped., Alcyonida, p. 141.
Sympodiadæ (pars), Massarella, *Sympodium* (pars), Gray, Ann. and Mag. Nat. Hist., ser. 4, vol. iii. pp. 119-20, 1869.

Ehrenberg (*loc. cit.*) characterises the genus very concisely as follows:—“Basi membranacea, effusa, polypis (in papillas inermes parum prominulas) retractilibus, stipite carentibus.” (*Antheliox retractiles.*)

Klunzinger (*loc. cit.*) emends this diagnosis, pointing out that the polyps are sometimes wholly, sometimes only half retractile, and also that the bottom of the digestive cavity is sunk into the basal membrane, a fact which distinguishes *Sympodium* from those species with membranous bases which belong to *Clavularia*.

On a survey of the already known species, the following diagnosis may be given of the genus. From a membranous basis, which grows over foreign bodies, and is penetrated by nutritive canals, polyps arise, whose bodies are more or less deeply sunk into the membranous cœnenchyma, but so that they project to a greater or less degree above the basal membrane. The polyps are either at definite distances from each other, or they are associated together in groups round which the cœnenchyma thickens considerably so as to raise them above the basal membrane. There are thus formed Alcyonium-like colonies in which the polyps are arranged above each other at various levels. In the part of the polyp which is protruded above the basal membrane, one can always distinguish a calyx-portion, and a more or less retractile anterior region, containing the mouth and the crown of tentacles. The calycine portion is more or less rigid, and is often marked by eight longitudinal ridges, between which are eight longitudinal furrows. The calyx can be closed over the retracted anterior portion of the polyp and then contracts into an eight-rayed star.

The tentacles are frequently armed with spicules, and the œsophageal tube may also contain eight longitudinal bundles of spicules. The form of the spicules varies greatly. Some are smooth, lenticular, others are disc-like bodies; others are spiny and warty spindles.

Gray includes among his *Sympodiadæ*, under the generic title *Eunoëlla*, *Alcyonium gorgonoides*, Ellis and Solander. This species Milne-Edwards refers hypothetically to *Sympodium*, Ehrbg. The figures given by Ellis and Solander (pl. ix. figs. 1, 2, not 12 as Gray records), are evidently those of a *Palythoa*, with distinct twelve-rayed polyps. This form must therefore be expelled from the series of Alcyonaria.