

the adult double only towards the margin of the calicle, simple below. Wall finely perforate all over. Calicle in the adult irregularly elliptic in outline, being angular at the ends of the long axis, the ratio of the axes being 100 to 200; in the young nearly circular. The summits of the smaller axis a little higher than those of the larger axis. Fossa of about one-third or one-fourth the depth of the height of the corallum. Columella spongy, well-developed, flat at the bottom of the fossa, and not at all prominent in it. Septa, in the largest specimen, 112 in number, disposed in the same manner as in many species of *Flabellum* with numerous septa, the irregularity being produced by the development of additional partial systems on either side of the ends of the longer axes of the calicle. Septa slightly exsert according to order. Primaries and secondaries equal, uniting with the columella deep in the calicle. The outer quaternary septa in each half system fuse together over the tertiaries in pairs at their junction with the columella, and their junctions are thickened by processes of the spongy columellar substance. These outer quaternaries in each half system are far larger than the inner, which latter fuse with them at some distance from the columella, and thus bridge over the proximal edges of the single pair of quinary septa present in each half system.

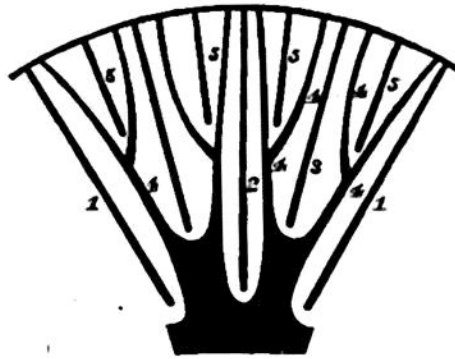


Diagram showing the arrangement of the septa in *Balanophyllia bairdiana*.
The septa of successive orders are indicated by numbers.

The arrangement of the septa in the adult is shown in the accompanying diagram. The fusion of the septa resembles that of *Deltocyathus* and *Stephanophyllia*. Pourtalès remarks on the resemblance of the arrangement in his *Balanophyllia florideana* to that in these two genera.¹ In the younger specimens the fusions of the septa are early marked. At first the tertiary septa are seen to be fused at their inner margins over the secondaries, but as growth proceeds, these fusions are hidden by the increase of the columella and swallowed up in it.

The smaller adult specimen is much longer and narrower in shape than the one figured. It has a more perfectly developed epitheca, a shallower fossa, and in it quinary septa are developed only in one or two systems, and in these not in pairs.

¹ Deep-Sea Corals, p. 42.