

## Order, ALCYONARIA.

Sub-Order, PENNATULACEA.

Family, RENILLIDÆ.

*Renilla*.

The polyps arise from the upper surface of a flat, reniform, cavernous disk or frond, having a sinus on one edge, near which there is upon the lower surface a locomotive peduncle, which is muscular and greatly extensible and divided in the interior into two longitudinal chambers, which communicate with two large cavities at its base, and through these with the smaller cavities of the disk, and thus with the bodies of the polyps. The integument of the lower surface, peduncle, and upper surface, is filled with numerous, slender, prismatic spicula, and around the bases of the polyps there are pointed, projecting groups of similar spicula. The polyps originate by budding around the edge of the disk, and are therefore regularly arranged, alternately both in consecutive circles and in radiating lines, which are symmetrical upon the right and left side of a median plane passing through the sinus, and they are smaller and more crowded toward the edge than on the central parts. The polyps are rather large, much exsert in expansion, but wholly retractile.

Besides the ordinary form of polyps, there are in this, as in other genera of Pennatulacea, a second kind, having a different structure and appearance. Or, in other words, the polyps are dimorphous in a manner analogous to that observed in many Hydroids. In *Renilla*, the second kind of polyps are scattered thickly over the upper surface between the others, and appear in alcoholic specimens like little papillæ, with clusters of whitish spots on their surface, and surrounded with spicula similar to those around the ordinary polyps, but less numerous and smaller. They are also asexual.

The writer first described these peculiar dimorphous forms of the polyps of *Renilla*, in 1864,\* as "rudimentary polyps," and afterwards those of *Leioptillum undulatum*, *Ptilosarcus Gurneyi*, *Veretillum Stimpsonii*, etc.†

\* Revision of the Polyyps of the Eastern Coast of the United States, Memoirs of the Boston Society of Natural History, vol. i, p. 12.

† Proceedings of the Essex Institute, vol. iv, p. 182-5, 1865.