

this tribe that approaches the nearest in its character to the sponge which it resembles in the nature of its internal texture. Each of the polypes with which its surface is studded has eight serrated tentacula. Fig. 57 represents one of these polypes detached. Polypes may thus be united in immense numbers into one mass, having mutual organic connexion. In other cases they may form smaller clusters, or be even totally unconnected. Sometimes the detached polypes are still disposed to assemble in groups, as is the case with the *Zoanthus* of Cuvier* (Fig. 58:) at other times they are altogether isolated, as in the *Hydra viridis* (Fig. 59.†)

Polypi form a very extensive order of zoophytes, abounding in every part of the ocean, but growing in greatest luxuriance in the warmer regions of the globe. Their flesh exhibits the same granular appearance as that of the sponge, but it is generally firmer, and often intermingled with masses of calcareous matter. The tentacula, which may be compared to arms, vary in number and in length in different species of polypi, and sometimes, instead of a single row, each of the mouths has two or more series of tentacula placed around it. They are formed of a prolongation of the soft substance of the polypus, and are sometimes tubular; and their cavities are then continuous with that of the general internal cavity into which the several mouths open. Besides being flexible in every direction, the tentacula are also capable of being lengthened or shortened at the pleasure of the animal. Their elongation is produced by the propulsion of a fluid into their interior, derived from the general cavity of the body; and their retraction is effected by the return of the same fluid.

The whole arrangement of the tentacula on the margin of the projecting mouths bears a striking resemblance to a flower, especially to those which, like the daisy, or china-aster, have the corolla composed of slender radiating petals. We find, indeed, that as the organs of zoophytes become more developed, the affinities which these lower departments

* The *Hydra sociata* of Gmelin; the *Actinia sociata* of Ellis.

† In this figure two hydræ are seen attached to the stem of a plant.