four perfectly different systems of organs; by the intestines, the vascular system, the organs of respiration, and the urinary apparatus. In Zoophytes, however, these functions and their organs are not yet separate, and are all performed by a single system of alimentary canals, by the so-called gastro-vascular system, or the cœlenteric apparatus of the intestinal cavity. The mouth, which is also the anus, leads into a stomach, into which the other cavities of the body also open. In Zoophytes the body-cavity, or "cœloma," possessed by the four higher tribes of animals is still completely wanting, likewise the vascular system and blood, as also the organs of respiration, etc.

All Zoophytes live in water; most of them in the sea, only a very few in fresh water, such as fresh-water sponges (Spongilla) and some primæval polyps (Hydra, Cordylophora). A specimen of the pretty flower-like forms which are met with in great variety among Zoophytes is given on Plate VII. (Compare its explanation in the Appendix.)

The tribe of animal-plants, or Zoophytes, is divided into two distinct provinces, the Sponges, or Spongice, and the Seanettles, or Acalephae (p. 144). The latter are much richer in forms and more highly organized than the former. In all Sponges the entire body, as well as the individual organs, are differentiated and perfected to a much less extent than in Sea-nettles. All Sponges lack the characteristic nettleorgans which all Sea-nettles possess.

The common primary form of all Zoophytes must be looked for in the *Protascus*, an animal form long since extinct, but whose existence is proved according to the biogenetic principle by the Ascula. This Ascula is. an ontogenetical development form which, in Sponges as well