

an adjacent ray. We have, besides, to note the (sometimes very regular) occurrence of a protuberance between the bases of the rays, which is occasionally drawn out into a long radially projecting spine. Or it may be that besides the six principals divided into terminals other independent rays are present, running out into simple points (Pl. LVII. fig. 4).

Finally, the parenchyma includes a tolerable abundance of very minute discohexasters, which are in some regions disposed with especial thickness below the external and under the gastral skin. In these small discohexasters the short simple principals bear broad, plano-convex, transverse terminal discs, from the convex external surface of which numerous delicate divergent terminals arise, which are of equal length, and bear minute transverse discs like those in the rosettes of other sponges as figured in Pl. LVII. fig. 11, Pl. LXI. fig. 7, Pl. LXV. fig. 4.

The greater part of the dermal skeleton consists of autodermal tetracts, in which the rays, intersecting at right angles, and inclined slightly inwards, are cylindrically thickened, or even somewhat club-shaped at their rounded extremities, and are beset throughout their entire length with fine spines (Pl. LVII. fig. 6). In many places, and especially in the hillocky elevations, from which the radial spines project, besides these autodermal tetracts, pentacts also occur in which the four tangential rays are altogether similar to those of the tetracts, while a fifth proximal ray, springing from the node of intersection, projects in a radial direction inwards (Pl. LVII. fig. 7). Between these tetracts and pentacts isolated smooth tetracts occur, double the size of the others, and with their rays intersecting at right angles.

The gastral skeleton consists of small gastral pentacts, which correspond exactly to those of the dermal skeleton. Between these there is a sparse occurrence of tetracts also like the dermal forms (Pl. LVII. fig. 2).

Genus 5. *Bathydorus*, n. gen. (Pls. LVIII., LIX.).

Saccular or bladder-shaped forms, with thin loose walls, smooth or spinous external surface, and thin round oscular margin, which is (always?) provided with a cuff-like fringe of projecting spicules. The parenchyma contains, besides large diacts and hexacts of various kinds, oxyhexasters and in some species discohexasters. The dermal skeleton includes, besides the familiar smooth hypodermal oxytetracts, autodermal oxytetracts, and in some species similar diacts or even monacts. In the gastral skeleton, on the other hand, only roughened oxyhexacts occur.