

*The Test* is leathery, it is tough but rather thin. The inner surface is white and glistening.

*The Mantle* is strongly muscular on the right side, but membranous over the viscera. A narrow membrane projects into the branchial siphon above the tentacular circle; it is slightly crenated, but does not bear large conical processes as in *Microcosmus helleri*.

*The Branchial Sac* has seven folds on each side. The transverse vessels are all of one size. The internal longitudinal bars are strong and numerous; there are about six on the fold and the same number in the interspaces. The meshes are transversely elongated, and contain each about twelve stigmata; generally a fine transverse vessel divides the mesh into two.

*The Dorsal Lamina* is not broad, but rather thick; the edge is plain.

*The Endostyle* is very broad.

*The Tentacles* are about twenty in number. There are six large, six small, and some intermediate very minute ones which are not present in all the interspaces.

*The Dorsal Tubercle* is irregularly cordate, and has both ends turned inwards.

This species is nearly allied to *Microcosmus helleri*, and is not unlike it in external appearance (compare figs. 1 and 5 in Pl. XIV.). In the details of its anatomy, however, it differs considerably, the principal points being that the present species has fourteen folds in the branchial sac, while *Microcosmus helleri* has only twelve, and that the diaphragm in the branchial siphon is different.

The single specimen was attached by the posterior part of its ventral edge to the interior of a bivalve shell (Pl. XIV. fig. 5). The branchial aperture is conspicuous, and is directed ventrally. The test covering the siphon is not seamed and corrugated like that of *Microcosmus helleri*; over the rest of the body it is considerably wrinkled. The mantle is well developed, and forms a slight diaphragm at the base of the branchial siphon, which, however, does not form large processes, as in the case of *Microcosmus helleri*. The branchial sac (Pl. XIV. fig. 6) has wide meshes between the folds, containing each ten to fifteen stigmata. Most of the meshes are divided by a narrow horizontal membrane (*tr.*'), the wider transverse vessels (*tr.*) are all of one size.

One specimen was obtained off East Monoccur Island, Bass Strait, at Station 162, April 2, 1874; depth, 38 to 40 fathoms; bottom sandy.

*Microcosmus polymorphus*, Heller (Pl. XIV. figs. 7 and 8).

*Microcosmus polymorphus*, Heller, Untersuch. ü. d. Tun. d. adriat. Meer., Abth. 3, p. 6.

*Microcosmus polymorphus*, Herdman, Prelim. Rep., Proc. Roy. Soc. Edin., 1880-81, p. 55.

(?) *Ascidia papillosa*, Carus, Beiträge zur Anatomie und Physiologie der Seescheiden, Meckel's Archiv., Bd. ii. p. 569, pls. vii. and viii., 1816.