

east of Japan, from a depth of 2300 fathoms. It agrees with the genus *Bathyoncus*, as characterised in the First Part of this Report, in having four-lobed apertures, simple tentacles, and a branchial sac with folds but no true stigmata. It differs, however, very greatly from *Bathyoncus mirabilis*, the type species of the genus, in the condition of the reproductive organs and in the shape of the body (see Pl. XLVIII. fig. 5); possibly it may have to be separated from *Bathyoncus* when the Deep-sea Ascidiæ come to be more thoroughly known.

The body in *Bathyoncus discoideus* is flattened antero-posteriorly to such an extent that the test forms merely a basal expansion attached to the surface of the manganese nodule, and an upper expansion which is very slightly curved and forms the anterior end of the body on which the branchial and atrial apertures are placed. The margin forms a slight spreading edge (Pl. XLVIII. fig. 5). The surface of the test is marked by fine concentric ridges or striæ. The apertures are distinct (Pl. XLVIII. fig. 5) but not prominent.

The test on the posterior part of the body is extremely thin, and all the inequalities of the surface of the manganese nodule are seen through it distinctly. The upper part forming the anterior surface of the body is tougher and more opaque.

The mantle has the muscle bands running in all directions (Pl. XLVIII. fig. 6), so as to form an intricate network.

The branchial sac shows the remarkable open structure first discovered in the genus *Culeolus*, and which seems to be associated with the abyssal zone. It has been found in both Simple and Compound Ascidiæ, but only in forms from deep water. The branchial folds are of various sizes. A small fold consists of two closely placed bars only (see Pl. XLVIII. fig. 8), while a large fold has as many as eight bars (Pl. XLVIII. fig. 9). The meshes between the folds are large (Pl. XLVIII. fig. 8). The inner edges of the internal longitudinal bars are thickened, but no cilia are present (Pl. XLVIII. figs. 8, 9, 10). A few calcareous spicules are present in the internal longitudinal bars, but they are very small and difficult to see. They are visible under a high power (see Pl. XLVIII. fig. 10). The tentacles are short and stout (Pl. XLVIII. fig. 7). The anterior edge of the tentacle is thickened.

The alimentary canal is short and of small calibre (Pl. XLVII. fig. 6). It lies on the dorsal edge of the left side of the body, behind the branchial sac. The œsophagus is short and funnel-shaped (Pl. XLVII. fig. 6). The stomach is small and globular; it is smooth-walled. The intestine curves round in a wide loop so as to reach the œsophagus, close to which it terminates, not far from the atrial aperture. The intestine, like every other part of the body, is flattened, and is about 1.5 mm. in width. It is of a light grey colour, and is thin-walled and almost transparent.

The reproductive organs are situated on both sides of the body. They are in the form of small scattered clumps, possibly modified polycarps, most of which occur upon