

areolated or thickened irregularly so as to form a series of knobs or very short cæca; but it differs from all of these groups in having the branchial aperture surrounded by eight lobes in place of six. This last feature it possesses in common with Giard's two genera *Circinalium* and *Fragarium*, from both of which it is separated by the structure of the stomach-wall. Amongst those genera with areolated stomachs (see Table, p. 152) *Morchellioides* is most nearly related to *Morchellium* on account of the compound systems and the sessile post-abdomen; and amongst genera with more than six lobes round the branchial aperture it is most nearly related to *Fragarium*, again, on account of the compound systems. Consequently the nearest allies of the present genus appear to be:—on the one side *Morchellium*, with only six lobes round the branchial aperture, and on the other *Fragarium*, with a folded or ridged stomach-wall.

The genus *Parascidia* was founded by Milne-Edwards for the reception of forms allied to *Amaroucium*, but having eight-lobed branchial apertures, and Alder very properly referred to that genus the species described by Fleming and Forbes under the name of *Sidnyum turbinatum* along with a species of his own, all of them being characterised by eight-lobed branchial apertures. *Parascidia* must be very closely related to *Fragarium*, *Circinalium*, and *Morchellioides*, but unfortunately none of the published accounts of it are sufficiently detailed to show whether or not it is distinct from all of them. *Morchellioides* can be separated from *Fragarium* and *Circinalium*, but may possibly be the same as *Parascidia*.

Further points in the structure of the present genus will be found noted under the description of the single species which follows.

*Morchellioides affinis*, n. sp. (Pl. XXIV. figs. 16–20).

*The Colony* is an irregularly globular or dome-shaped mass attached by a wide base and slightly compressed laterally. The widest part is a little way above the base, and the top is rounded. The surface is even, but finely roughened all over. The colour is a warm yellowish-grey.

The length is 4 cm., the greatest breadth is 3 cm., and the thickness is about 2.5 cm.

*The Ascidiozooids* are numerous and fairly large. They are very distinctly visible all over the colony, and are not arranged in regular systems. They are usually about 7 mm. in length and 1 mm. in breadth, and the body is not distinctly divided into regions externally. The widest part of the body is in the branchial region. Vascular appendages are given off from the posterior end of the body.

*The Test* is thick and moderately firm. It is of a light grey colour and is semi-transparent. The test cells are small but very numerous. There are no bladder cells and no pigment corpuscles, but a few rather narrow vessels are present; they end in slightly dilated knobs.