

*Morchellium*, Giard.

*Amaroucium*, Milne-Edwards, Observations, &c., 1842 (in part).

*Morchellium*, Giard, Recherches sur les Ascidies composées ou Synascidies, Archives d. Zool. expér., &c., vol. i. p. 641, 1872 (as a subgenus).

*Colony* massive, sessile, or pedunculated.

*Systems* compound, irregular, and usually inconspicuous.

*Ascidiozooids* elongated but not distinctly divided into regions. Branchial aperture six-lobed.

*Test* gelatinous or cartilaginous.

*Branchial Sac* large and well developed.

*Alimentary Canal* usually large. Wall of stomach irregularly thickened.

*Post-Abdomen* large, but not distinctly separated from the abdomen.

This group was formed as a subgenus of *Aplidium* by Giard in 1872 for the reception of a single species, *Morchellium argus*, the *Amaroucium argus* of Milne-Edwards. It was characterised by the long, sessile post-abdomen, the compound irregular systems, and the areolated stomach. The last feature is an important one which this genus shares along with *Sidnyum*, *Synoicum*, and *Morchellioides*. From the first of these forms *Morchellium* is distinguished by its post-abdomen not being separated from the abdomen by any constriction, while it differs from the second in having compound irregular systems. *Morchellioides* is separated from all of these by having eight lobes round the branchial aperture.

The condition of the stomach-wall in these four genera is very interesting. In place of being thrown into longitudinal or transverse folds it is irregularly thickened, the result being the production of a series of knobs or very short cæca projecting outwards (see Pl. XXV. fig. 3). In the case of *Morchellioides affinis* these cæca form a system of irregular longitudinal lines suggesting that the areolated condition is the result of the breaking up of a series of longitudinal folds; while in *Morchellium giardi* and *Sidnyum pallidum* they are more irregularly placed.

No species have been added to the genus *Morchellium* since it was instituted by Giard in 1872, and the new species described below belongs to the southern hemisphere, and differs very considerably in structure from the type species. The genus may be divided as follows:—

