

fact difficult to draw any definite line between them. In the sense in which the name is here employed, it is extended to embrace continuous zoaria, usually composed of cylindrical branches, for the most part of uniform diameter throughout, and in the more typical species obtusely rounded at the ends, towards which alone the orifices remain patent, the lower parts becoming more or less solidified and sometimes presenting no trace of the zoecial structure either externally or internally.¹ In the less typical forms this condition does not attain to anything like the same extent, but in all there is a very great tendency to the obliteration of the zoecia in the older parts.

Another circumstance in which the true or typical species of *Myriozoum* are distinguished from the rest, is the finely cancellated structure of the walls of the cells, or as it may be stated, of the entire substance in the actively growing parts. On the exterior this is indicated by the close reticulation, as it may be termed, rather than punctuation of the surface, whilst internally the walls of the zoecia are generally very thick and finely cancellated, so that ample provision is made for the ready diffusion of fluid throughout the growth; which may not improbably be connected with the abundant deposit of calcareous matter in the older portions of the zoarium.

These differences in essential structure appear to be of sufficient importance to justify, if not the entire separation generically of the typical forms from others here included in the genus, at any rate the placing of them in a distinct section, as follows:—

§ 1. *Myriozoa typica.*

- (1) *Myriozoum truncatum*, Donati.
- (2) *Myriozoum subgracile*, d'Orbigny.
- (3) *Myriozoum coarctatum* (Sars).

§ 2. *Myriozoa dubia.*

- (1) *Myriozoum honolulense*, n. sp.
- (2) *Myriozoum immersum*, n. sp.
- (3) *Myriozoum simplex*, n. sp.
- (4) *Myriozoum marionense*, n. sp.

All the forms in the Challenger Collection belong to the second division.

¹ When a portion of the completely solidified part of *Myriozoum truncatum* is decalcified, the chitinous opercula and shrunken remains of the endocyst may often be found enclosed in the interior.