

“Travailleur” examples of this species as a new generic type *Democrinus*,<sup>1</sup> which is really, however, only a synonym of *Rhizocrinus*. His account of *Democrinus* was as follows:—“Le *Democrinus* se distingue immédiatement de tous les autres genres par la composition de son calice formé de cinq longues basales constituant à elles seules un calice en entonnoir; un sillon circulaire sépare ces cinq basales de cinq radiales rudimentaires, en forme de croissant, alternant avec elles et surmontées elles-mêmes de cinq radiales axillaires libres, rectangulaires, mobiles, sur lesquels se fixent respectivement cinq bras, beaucoup moins larges que les radiales. Ces bras se brisent très facilement au niveau de leur articulation avec les radiales axillaires qui se rabattent alors sur la voûte du calice.” He further adds that in *Rhizocrinus* “les basales sont confondues et le calice formé en partie de radiales.” The basals of *Rhizocrinus*, however, are very far from being “confondues,” but are large and independent, as was pointed out by Pourtales in 1868 and 1874, and by myself in 1877 and 1882. But Perrier, unaware of this fact, was unfortunately misled by the erroneous descriptions of the basals as internal and concealed which were given by Sars and Ludwig (*ante*, pp. 249–251); so that when he found a *Rhizocrinus*-like form with long and well defined basals, he naturally (though erroneously) considered it as new to science.

Although, however, the radials of *Democrinus* may be small and rudimentary externally, there is no reason why the calyx should consequently be considered as formed by the basals alone; though Perrier regards this as another character distinguishing *Democrinus* from *Rhizocrinus*. In one of the specimens of *Rhizocrinus lofotensis* which was figured by Sars<sup>2</sup> the radials are quite small externally; but they have large distal faces for the attachment of muscles and ligaments, the inner surfaces of which form the funnel lodging the lower part of the coelom. The same is undoubtedly the case with the radials of *Democrinus*, to which the movable first brachials (axillaries, Perrier) are attached just as in *Rhizocrinus*.

It is difficult to understand why the radials of this type should be considered as forming part of the calyx, while those of *Democrinus* are excluded from it on account of their smaller size. On the same principle one would have to describe the cup of those species of *Antedon* in which the first radials do not appear externally, as formed by the centro-dorsal only!

Prof. Perrier describes the rudimentary radials of *Democrinus* as separated by a circular furrow from the basals below them. But a drawing of the type which he has kindly sent me, shows that while the basiradial suture is marked by five strong elevations with intervening depressions in which the radials rest, the furrow crosses the radials at the level of the highest angles of the basals. This furrow is more or less distinct in various specimens of *Rhizocrinus rawsoni* (Pl. IX. fig. 3; Pl. LIII. fig. 8), as has been pointed out already. But it can hardly be said to “separate” the radials from

<sup>1</sup> *Comptes rendus*, t. xcvi. p. 450.

<sup>2</sup> *Crinoïdes vivants*, Tab. ii. fig. 44.