

If, then, classes are characterized by the mode of execution of a given plan, the Ctenophoræ being radiated animals, we have only one point more to ascertain respecting them. Does their structure exhibit only a general homology to that of the Acalephs, or are the Ctenophoræ linked to the ordinary Acalephs by special homologies? What has already been said when considering their typical relations seems to me conclusive in that respect. Ctenophoræ differ only in degree, and not in kind, from the animals thus far generally considered as true Medusæ; they must, therefore, be considered as belonging to the class of Acalephs, in which, as we shall see in the next section, they constitute a natural order.

As the Discophoræ have always been considered as the typical group of the class of Acalephs, and as the Acalephian character of all the other groups that have successively been associated with them, or removed from them, has uniformly been measured by the degree of their affinity to the Discophoræ, as soon as it is ascertained that these animals exhibit a special mode of execution of the plan of radiation, the independence of the Acalephs, as a class, is also proved. And this has already been done in a preceding section (p. 65). In the next, we shall consider the position of the Discophoræ in their class, amidst all the other representatives of that class.

The evidence that the Hydroids should be associated in one and the same class with the Discophoræ and Ctenophoræ is of two kinds. In the first place, Hydroids produce Medusæ; next, they are not themselves Polyps, as was long admitted. The first of these facts furnishes a direct argument for the necessity of uniting that kind of Hydroids with the other Acalephs; and the circumstance that the Hydroids from which free Medusæ arise are not identical in their structure with Polyps, but themselves resemble Medusæ more than Polyps, in connection with what is already known of the reproduction of the latter, shows that Polyps never produce free Medusæ, but that the Polyp-like animals, from which free Medusæ arise, are themselves Acalephs.

It is hardly necessary, nowadays, to demonstrate that such animals as *Sarsia*, *Lizzia*, *Zanlea*, *Cladonema*, *Hippocrene*, *Nemopsis*, *Hybocodon*, *Tiaropsis*, *Thaumantias*, etc., are genuine Medusæ. Their close affinity to the highest representatives of this order of Acalephs has been recognized by all the investigators of this class of animals. Péron and LeSueur, Eschscholtz, deBlainville, Milne-Edwards, Lesson, Sars, Forbes, Dujardin, Leuckart, Gegenbaur, and others have expressed their conviction that they are such, not only by direct declarations, but also in various other ways, when alluding to them. To the arguments adduced by other investigators, new facts have been more recently added: their mode of reproduction has been made known; their sexual organs have been studied; the development of their eggs has been traced through every stage of growth; the formation of their