

prove the type of a distinct sub-order, these Ctenophoræ may be called *Tæniatæ*. A few Acalephs referred to the order of Ctenophoræ do not belong to it at all; such are the *Beroe Gargantua Less.*, which is a genuine Discophore, and the *Acils Less.*, which are mostly Siphonophoræ. *Berosoma Less.* may be a Pyrosoma; but since it was described and figured from memory, it hardly deserves further notice till it has been observed satisfactorily.

It may now be asked how far these sub-orders may be superior or inferior to one another. This is a question which I am not fully prepared to answer. Indeed, it seems as if natural sub-orders exhibit fewer indications of superiority or inferiority among themselves than any other kind of natural divisions in the animal kingdom, the characteristic features of sub-orders resting chiefly upon the prominence of one or the other subordinate elements of the structural complication which distinguishes the order itself. We find, for instance, that while the interambulacral chymiferous tube is wanting in the *Eurystomæ*, they have a large oral tube, which is wanting in the *Saccatæ*; but these have a complicated tentacular apparatus with a double interambulacral tube, all of which is wanting in the *Eurystomæ*: and again, the *Lobatæ* have four auricles and two lobes of the spherosome, which do not exist in either the *Saccatæ* or the *Eurystomæ*, but in the *Lobatæ* the oral tube is small and the tentacular apparatus very imperfect in comparison to that of the *Saccatæ*. So that, unless comparative embryology some day furnishes the means of determining the relative importance of these structural differences, it is not likely that these sub-orders can be linked together in a gradual series, without falling back upon arbitrary considerations for their systematic arrangement.

McCrary, who has admitted as sub-orders the same divisions which Leuckart calls orders, does not hesitate to consider the *Beroids* proper as superior to the tentaculated Ctenophoræ. It seems to me that his argument is untenable. The reduction in the number of identical parts is truly a character of superiority, and the absence of tentacles in the Ctenophoræ *Eurystomæ* might be an indication of their superiority, if the tentacles of Ctenophoræ were homologous with the tentacles of Discophoræ; but I have proved that they are not, their position showing distinctly that they are an interambulacral, and not an ambulacral, apparatus. Their limited number in some Ctenophoræ, and their total absence in others, are therefore not to the point. I am rather inclined to assign to the *Beroids* proper the lowest position, on account of that very absence of tentacular apparatus, the presence of which in *Saccatæ* and *Lobatæ* I view as an additional structural complication; and, judging from Mr. McCrary's own statements respecting the embryology of *Bolina*, which I have not myself traced, I would assign the highest position to the *Lobatæ*, on account of their resemblance to the *Saccatæ* during