

If genera and families exist at all in nature, the genera above mentioned, and the families to which they have been referred, or some other divisions more or less nearly approaching them, really exist; and the discrepancies between the statements of Linnæus, Cuvier, and Müller, respecting their affinities, will have nothing to do with the existence of the groups to which they belong, when their natural limits shall be ascertained beyond controversy. The differences now so generally prevailing among naturalists respecting the circumscription of the groups they adopt do not arise, in my opinion, from inherent difficulties in the subject, but from the circumstance, that, in defining groups of any kind, zoölogists are too ready to snatch at the first feature which strikes their eye and seems to afford a ground for distinction, without making themselves thoroughly acquainted with the whole range of peculiarities of the animals they study, and then sifting the different categories of their characteristic features to lay the foundation for a durable edifice. As soon as genera and families and the higher divisions of animals begin to be studied with the view of ascertaining the nature of their difference, and no longer simply as means of classifying species, we shall hear no more of the unmeaning complaints about *making* too many genera, or about *useless* genera, and the non-existence of genera and families and the real existence of species, and the like; but shall enter upon an era of truly scientific studies in systematic zoölogy.

## SECTION II.

### THE NATURAL FAMILIES OF THE CTENOPHORÆ EURYSTOMÆ.

There is a much greater uniformity among the representatives of the Ctenophoræ Eurystomæ than among either the Saccatæ or Lobatæ; and it is not easy to ascertain whether they all belong to one family or not, for the simple reason that very few of them have been examined with the minuteness now required in the investigation of Acalephs. There is, in fact, a single figure among the many thus far published, and representing Beroids proper, which gives an accurate idea of the structure and form of one of these Acalephs, and that is nearly twenty years old; it accompanies Milne-Edwards's highly instructive paper on Acalephs, in the *Annales des Sciences naturelles* for 1841. What the other illustrations are intended for may be guessed at; but it is impossible with certainty to refer them to their respective species, or to ascertain the peculiarity of the species by a comparison of the figures, and the descriptions are generally neither better nor more instructive than the plates. This state of things is the more to be lamented,