

during the embryonic growth, in the order of their subordination, there was no possibility of deriving from embryological monographs, that information upon this point, so much needed in Zoölogy, and so seldom alluded to by embryologists. Again, without knowing what constitutes truly the characters of the groups named above, there is no possibility of finding out the true characters of a genus of which only one species is known, of a family which contains only one genus, etc., and for the same reason no possibility of arriving at congruent results with reference to the natural limitations of genera, families, orders, etc., without which we cannot even begin to build up a permanent classification of the animal kingdom; and still less, hope to establish a solid basis for a general comparison between the animals now living and those which have peopled the surface of our globe in past geological ages.

It is not accidentally I have been led to these investigations, but by necessity. As often as I tried to compare higher or more limited groups of animals of the present period with those of former ages, or early stages of growth of higher living animals with full-grown ones of lower types, I was constantly stopped in my progress by doubts as to the equality of the standards I was applying, until I made the standards themselves the object of direct and very extensive investigations, covering indeed a much wider ground than would appear from these remarks, for, upon these principles, I have already remodelled, for my own convenience, nearly the whole animal kingdom, and introduced in almost every class very unexpected changes in the classification.

I have already expressed above¹ my conviction that the only true system is that which exists in nature, and as, therefore, no one should have the ambition of erecting a system of his own, I will not even attempt now to present these results in the shape of a diagram, but remain satisfied to express my belief, that all we can really do is, at best, to offer imperfect translations in human language of the profound thoughts, the innumerable relations, the unfathomable meaning of the plan actually manifested in the natural objects themselves; and I should consider it as my highest reward should I find, after a number of years, that I had helped others on in the right path.

¹ See Chap. I., Sect. 1, p. 7-9.