

that extraordinarily diversified type,—how should we introduce that species of animals in our systems? Simply as a genus with one species, by the side of all the other classes with their orders, families, etc., or as a family containing only one genus with one species, or as a class with one order and one genus, or as a class with one family and one genus? And should we acknowledge, by the side of Vertebrata, Mollusks, and Radiata, another type of Articulata, on account of the existence of that one Lobster, or would it be natural to call him by a single name, simply as a species, in contradistinction to all other animals? It was the consideration of this supposed case which led me to the investigations detailed below, which, I hope, may end in the ultimate solution of this apparently inextricable question.

Though what I have now to say about this supposed case cannot be fully appreciated before reading my remarks in the following chapter,¹ respecting the character of the different kinds of groups adopted in our systems, it must be obvious that our Lobster, to be what we see these animals are, must have its frame constructed upon that very same plan of structure which it exhibits now; and, if I should succeed in showing that there is a difference between the conception of a plan and the manner of its execution, upon which classes are founded in contradistinction to the types to which they belong, we might arrive at this distinction by a careful investigation of that single Articulate, as well as by the study of all of them; and we might then recognize its types and ascertain its class characters as fully as if the type embraced several classes, and this class thousands of species. Then that animal has a form, which no one would fail to recognize; so that, if form can be shown to be characteristic of families, we could thus determine its family. Again: besides the general structure, showing the fundamental relations of all the systems of organs of the body to one another in their natural development, our investigation could be carried into the study of the details of that structure in every part, and thus lead to the recognition of what constitutes everywhere generic characters. Finally: as this animal has definite relations to the surrounding world, as the individuals living at the time bear definite relations to one another, as the parts of their body show definite proportions, and as the surface of the body exhibits a special ornamentation, the specific characters could be traced as fully as if a number of other species were at hand for comparison; and they might be drawn and described with sufficient accuracy to distinguish it at any future time from any other set of species found afterwards, however closely these new species might be allied to it. In this case, then, we should have to acknowledge a separate branch in the animal kingdom, with a class, a family, and a genus, to introduce one species to its proper place in the system of animals. But the class would have no order, if orders determine the rank, as ascertained by

¹ See Chap. II.