

in such an order and in such connections as clearly to indicate that he knew their relations. When speaking of Fishes, for instance, he never includes the Selachians.

After Aristotle, the systematic classification of animals makes no progress for two thousand years, until Linnæus introduces new distinctions and assigns a more precise meaning to the terms class, (*genus summum*,) order, (*genus intermedium*,) genus, (*genus proximum*,) and species, the two first of which are introduced by him for the first time as distinct groups, under these names, in the system of Zoölogy.

SECTION III.

PERIOD OF LINNÆUS.

When looking over the "Systema Naturæ" of Linnæus, taking as the standard of our appreciation even the twelfth edition, which is the last he edited himself, it is hardly possible, in our day, to realize how great was the influence of that work upon the progress of Zoölogy.¹ And yet it acted like magic upon the age, and stimulated to exertions far surpassing any thing that had been done in preceding centuries. Such a result must be ascribed partly to the circumstance that he was the first man who ever conceived distinctly the idea of expressing in a definite form, what he considered to be a system of nature, and partly also to the great comprehensiveness, simplicity, and clearness of his method. Discarding in his system every thing that could not easily be ascertained, he for the first time divided the animal kingdom into distinct classes, characterized by definite features; he also for the first time introduced orders into the system of Zoölogy besides genera and species, which had been vaguely distinguished before.² And though he did not even attempt to define the characteristics of these different kinds of groups, it is plain, from his numerous writings, that he considered them all as subdivisions of a successively more limited value, embracing a larger or smaller number of animals, agreeing in more or less comprehensive attributes. He expresses

¹ To appreciate correctly the successive improvements of the classification of Linnæus, we need only compare the first edition of the "Systema Naturæ," published in 1735, with the second, published in 1740, the sixth published in 1748, the tenth published in 1758, and the twelfth published in 1766, as they are the only editions he revised himself. The third is only a reprint of the first, the fourth and fifth are

reprints of the second; the seventh, eighth, and ninth are reprints of the sixth; the eleventh is a reprint of the tenth; and the thirteenth, published after his death, by Gmelin, is a mere compilation, deserving little confidence.

² See above, Sect. 2, p. 188. The *γένη μέγιστα* of Aristotle correspond, however, to the classes of Linnæus; the *γένη μεγάλα* to his orders.