

almost the whole period of embryonic life, the young fish and the young frog scarcely differ at all, (313 :) so it is also with the young snake compared with the embryo bird. The embryo of the crab, again, is scarcely to be distinguished from that of the insect; and if we go still further back in the history of development, we come to a period when no appreciable difference whatever is to be discovered between the embryos of the various departments. The embryo of the snail, when the germ begins to show itself, is nearly the same as that of a fish or a crab. All that can be predicted at this period is, that the germ which is unfolding itself will become an animal; the class and the group are not yet indicated.

321. After this account of the history of the development of the egg, the importance of Embryology to the study of systematic Zoölogy cannot be questioned. For evidently, if the formation of the organs in the embryo takes place in an order corresponding to their importance, this succession must of itself furnish a criterion of their relative value in classification. Thus, those peculiarities that first appear should be considered of higher value than those that appear later. In this respect, the division of the Animal Kingdom into four types, the Vertebrates, the Articulates, the Mollusks, and the Radiates, corresponds perfectly with the gradations displayed by Embryology.

322. This classification, as has been already shown, (61,) is founded essentially on the organs of animal life, the nervous system and the parts belonging thereto, as found in the perfect animal. Now, it results from the above account, that in most animals the organs of animal life are precisely those that are earliest formed in the embryo; whereas those of vegetative life, on which is founded the division into classes, orders, and families, such as the heart, the respiratory apparatus, and the jaws, are not distinctly formed until after-