

SECTION XXIV.

PARALLELISM BETWEEN THE GEOLOGICAL SUCCESSION OF ANIMALS AND PLANTS AND THEIR PRESENT RELATIVE STANDING.

The total absence of the highest representatives of the animal kingdom in the oldest deposits forming part of the crust of our globe, has naturally led to the very general belief, that the animals which have existed during the earliest period of the history of our earth were inferior to those now living, nay, that there is a natural gradation from the oldest and lowest animals to the highest now in existence.¹ To some extent this is true; but it is certainly not true that all animals form one simple series from the earliest times, during which only the lowest types of animals would have been represented, to the last period, when Man appeared at the head of the animal creation.² It has already been shown (Sect. VII.) that representatives of all the great types of the animal kingdom have existed from the beginning of the creation of organized beings. It is therefore not in the successive appearance of the great branches of the animal kingdom, that we may expect to trace a parallelism between their succession in geological times and their relative standing at present. Nor can any such correspondence be observed between the appearance of classes, at least not among Radiata, Mollusks, and Articulata, as their respective classes seem to have been introduced simultaneously upon our earth, with perhaps the sole exception of the Insects, which are not known to have existed before the Carboniferous period. Among Vertebrata, however, there appears already a certain coincidence, even within the limits of the classes, between the time of their introduction, and the rank their representatives hold, in comparison to one another. But upon this point more hereafter.

It is only within the limits of the different orders of each class, that the parallelism between the succession of their representatives in past ages and their respective rank, in the present period, is decidedly characteristic. But if this is true, it must be at the same time obvious to what extent the recognition of this correspondence may be influenced by the state of our knowledge of the true affinities and natural gradation of living animals, and that until our classifications have become the correct expression of these natural relations, even the most striking coincidence with the succession of their representatives in past ages may be entirely overlooked. On that account it would be presumptuous on my part to pretend, that I could

¹ See the palaeontological works quoted in Sect. 21.

² AGASSIZ, (L.) Twelve Lect., etc., p. 25 and 69.