

tively as well as individually, have continually become more perfectly and highly developed. The steadily increasing *variety* of living forms has always been accompanied by *progress* in organization. The lower the strata of the earth in which the remains of extinct animals and plants lie buried, that is, the older the strata are, the more simple and imperfect are the forms which they contain. This applies to organisms collectively, as well as to every single large or small group of them, setting aside, of course, those exceptions which are due to the process of degeneration, which we shall discuss hereafter.

As a confirmation of this law I shall mention only the most important of all animal groups, the tribe of vertebrate animals. The oldest fossil remains of vertebrate animals known to us belong to the lowest class, that of Fishes. Upon these there followed later more perfect Amphibious animals, then Reptiles, and lastly, at a much later period, the most highly organized classes of vertebrate animals, Birds and Mammals. Of the latter only the lowest and most imperfect forms, without placenta, appeared at first, such as the pouched animals (Marsupials), and afterwards, at a much later period, the more perfect mammals, with placenta. Of these, also, at first only the lower kinds appeared, the higher forms later; and not until the late tertiary period did man gradually develop out of these last.

If we follow the historical development of the vegetable kingdom we shall find the same law operative there. Of plants there existed at first only the lowest and most imperfect classes, the Algæ or tangles. Later there followed the group of Ferns or Filicinæ (ferns, pole-reeds, scale-plants, etc.). But as yet there existed no flowering plants,