

Darwin's theory to zoological classification, and it exerted a widespread influence both in extending the knowledge of Darwin's leading principles and in demonstrating the great superiority of a scheme of classification based upon these principles over the many artificial schemes which had been previously proposed on the basis of recurrent earth catastrophes, or on that of repeated exhibitions of the creative force and the working of inscrutable laws.

A decade after the publication of the *Origin of Species*, Darwin's theory of descent was almost universally accepted as the most natural basis of classification in all the domains of the science of animal organisms. Darwin's conception of the origin of species could not fail to enhance the interest of palæontology. That study was realised to be no longer merely descriptive and comparative, or the means of bringing useful material to the sciences of botany and zoology, but a branch of knowledge to be studied for its own intrinsic interest.

The greatest likelihood of solving some of the obscure problems of the origin and extinction of species lay with the palæontologist, since the rich material at his command, extending through many successive ages, comprised the record of the incoming and outgoing of countless types of life. The origin, geological development, gradual modification, differentiation, improvement or degeneration of the individual groups of the animal and plant kingdom, the genealogical relations of the primæval and recent organisms, the phylogeny of the plant and animal world, the relations between the developmental history (ontogeny) of the single individual, and the history of descent (phylogeny) of the family, order, and class to which the individual belongs, are questions which can be answered either exclusively by palæontology or only with its assistance.

With Darwin begins the modern period of palæontological research. Numerous and important evidences were brought forward in favour of the doctrine of descent. The continuous series of forms, which can be followed through several stratigraphical horizons and formations with greater and less variations, the occurrence of mixed and embryonic types, the parallels of ontogeny with the chronological succession of related fossil forms (biogenetic principle of Haeckel), the similarity in the general impress of the fossil floras and faunas next each other in age, the agreement in the geographical