

celebrated zoologists and botanists, among the opponents of the Theory of Descent; but these latter are mostly old stagers, who have grown grey in quite opposite views, and whom we cannot expect, in the evening of their lives, to submit to a reform in their conception of the universe, which has become to them a fixed idea.

It is, moreover, expressly to be remarked, that not only a general insight into the *whole* domain of biological phenomena, but also a philosophical understanding of it, are the necessary preliminary conditions for becoming convinced of and adopting the Theory of Descent. Now we shall find that these indispensable preliminary conditions are, unfortunately, by no means fulfilled by the majority of naturalists of the present day. The immense amount of empirical facts with which the gigantic advances of modern natural science have recently made us acquainted has led to a prevailing inclination for the special study of single phenomena and of small and narrow domains. This causes the knowledge of other paths, and especially of Nature as a great comprehensive whole, to be in most cases completely neglected. Every one with sound eyes and a microscope, together with industry and patience for study, can in our day attain a certain degree of celebrity by microscopic "discoveries," without, however, deserving the name of a naturalist. This name is deserved only by him who not merely strives to *know* the individual phenomena, but who also seeks to *discover* their causal connection. Even in our own day, most palæontologists examine and describe fossils without knowing the most important facts of embryology. Embryologists, on the other hand, follow the history of development of a particular