

THE HISTORY OF OUR SPECIES

only give the barest outlines in it of my chief object, the phylogenetic construction of a natural system. I have, therefore, given the complete proof, which is wanting in the earlier work, of the phylogenetic system in a subsequent larger work, my *Systematic Phylogeny* (outlines of a natural system of organisms on the basis of their specific development). The first volume of it deals with the protists and plants (1894), the second with the invertebrate animals (1896), the third with the vertebrates (1895). The ancestral tree of both the smaller and the larger groups is carried on in this work as far as my knowledge of the three great "ancestral documents"—palæontology, ontogeny, and morphology—qualified me to extend it.

I had already, in my *General Morphology* (at the end of the fifth book), described the close causative connection which exists, in my opinion, between the two branches of organic evolution as one of the most important ideas of transformism, and I had framed a precise formula for it in a number of "theses on the causal nexus of biontic and phyletic development": "*Ontogenesis is a brief and rapid recapitulation of phylogenesis, determined by the physiological functions of heredity (generation) and adaptation (maintenance).*" Darwin himself had emphasized the great significance of his theory for the elucidation of embryology in 1859, and Fritz Müller had endeavored to prove it as regards the crustacea in the able little work, *Facts and Arguments for Darwin* (1864). My own task has been to prove the universal application and the fundamental importance of the biogenetic law in a series of works, especially in the *Biology of the Calcispongiae* (1872), and in *Studies on the Gastraea Theory* (1873-1884). The theory of the homology of the germinal layers and of