present state of knowledge appear to have the largest number of important affinities. But what affinities should be considered important for classification it is by no means easy to determine. Animals genealogically very wide apart may have adopted similar modes of life, and in so doing have become modified on parallel lines, while on the other hand, in species nearly related by descent, great divergence of character may have resulted from difference of habits, such as the assumption of a parasitic life by one branch of a family, when the other branches have remained independent. In classifying the Gammarina authors have usually placed the Orchestidæ first. In the order of evolution they might rather be placed last. Among these alone of the Amphipoda has a capacity for terrestrial existence been acquired; some of them are gradually adding the faculty of walking upon dry land to the ordinary movements of sliddering and leaping; all of them have lost the mandibular palp. Delage, founding his view upon the circulatory apparatus,[1] suggests that the Corophidæ are the ancestors in common of the other Gammarina and the Caprellidæ. But *Corophium volutator* (Pallas), the subject of Delage's investigation, is far removed from a typical Amphipod. Though it has not the variety of movement found among the Orchestidæ, yet, by having a body flattened instead of laterally compressed, it is perfectly capable of walking. It cannot perhaps, strictly speaking, be said to walk upon dry land, but it walks freely over moist mud in the open air. Of the three pairs of lateral orifices to the heart, so generally found among the Amphipoda, Delage has observed that the first two pairs are wanting in *Corophium volutator*, and that they are small and inactive in the Caprellidæ. But it may safely be said that if the Gammarina and Caprellidæ were descended in separate lines from the *Corophium*, the degraded and inert Caprellidæ would never have acquired the two additional pairs of orifices for which they have, it seems, no urgent need, and which their supposed ancestor of a higher type and more active habits is able to dispense with. Thus, while the character of the heart makes it very improbable that *Corophium* should have been an ancestor of the Caprellidæ, its shape and habits make it quite as unlikely that it should have been an ancestor of the Gammarina, so few of which have any activity out of water, and so many of which, the Orchestidæ included, have the body laterally compressed.

On the supposition of a common origin of all the Amphipoda, it is obvious that families will have been gradually separated by the successive acquisition of distinctive characters. The supposition itself is based upon the fact that some characters are common to many families, since that fact is explained most simply on the principle of inheritance from a common ancestor. In the search, then, for ancestral characters, we must look away from what is rare and exceptional to what is commonplace and unattractive. When any single character is investigated in all the known species, some form will often be found of marked simplicity and completeness, round which the rest

[1] See p. 526.