did honestly endeavour to distinguish, between mere succession of forms, among which there might be no genetic bond, and those which show at least a probability of such connection. The difficulties in securing such facts he frankly stated; and if, for example, he held it probable that the horse had been derived from an animal of the type of Hipparion of the middle tertiary, he knew that this required, not merely the successive changes in foot and tooth, but a vast variety of correlated changes, and these occurring under varied geographical and climatal conditions, and movements of migration, accompanied with partial extinctions, isolations and intermixtures, none of which are certainly known to us in their detail, and the greater part have to be imagined. Of these points he gives intimations in his discourse of 1870 on Palæontology and Evolution, reprinted under his own supervision as late as last year. In face of all this, it is obvious that the doctrine of natural selection becomes quite insignificant as a factor in evolution, or is mixed with so many questions as yet unsolved that the problem becomes intensely complex. Small minds can easily cut this knot, but Huxley strove to untie it, and that without the help he might have derived from the belief in a pre-determined plan of development.

Tracing back the evolutionary history of animals, he further finds that he can by no means reach its beginning. As he puts it, "If there is any truth in the doctrine of Evolution, every class must be vastly older than the first record of its appearance upon the surface of the globe. But if considerations of this kind compel us to place the origin of vertebrated animals at a period sufficiently distant from the silurian in which the first elasmo-branchii and ganoids[1] occur, to allow of the evolution of such fishes from a vertebrate as simple as the Amphioxus, I can only repeat that it is appalling to speculate upon the

1 Sharks and bony pikes.