

The third tribe of the animal kingdom, the phylum of *Worms* or worm-like animals (Vermes, or Helminthes), contains a number of diverging branches. Some of these numerous branches have developed into well-marked and perfectly independent classes of Worms, but others changed long since into the original, radical forms of the four higher tribes of animals. Each of these four higher tribes (and likewise the tribe of Zoophytes) we may picture to ourselves in the form of a lofty tree, whose branches represent the different classes, orders, families, etc. The phylum of Worms, on the other hand, we have to conceive as a low bush or shrub, out of whose root a mass of independent branches shoot up in different directions. From this densely branched shrub, most of the branches of which are dead, there rise four high stems with many branches. These are the four lofty trees just mentioned as representing the higher phyla—the Echinoderma, Articulata, Mollusca, and Vertebrata. These four stems are directly connected with one another at the root only, to wit, by the common primary group of the Worm tribe.

The extraordinary difficulties which the systematic arrangement of Worms presents, for this reason merely, are still more increased by the fact that we do not possess any fossil remains of them. Most of the Worms had and still have such soft bodies that they could not leave any characteristic traces in the neptunic strata of the earth. Hence in this case again we are entirely confined to the records of creation furnished by ontogeny and comparative anatomy. In making then the exceedingly difficult attempt to throw a few hypothetical rays of light upon the obscurity of the pedigree of Worms, I must therefore