

developed into the *Prothelmis*, the common primary form of *Worms* (Vermes). (Compare p. 133.)

This latter tribe (as limited by modern zoology) is of the greatest interest in the study of genealogy. For among Worms, as we shall see later, there are, besides very numerous peculiar families, and besides many independent classes, also very remarkable forms, which may be considered as *forms of direct transition* to the four higher animal tribes. Both comparative anatomy and the ontogeny of these worms enable us to recognize in them the nearest blood relations of those extinct animal forms which were the original primary forms of the four higher animal tribes. Hence these latter, the Molluscs, Star-fishes, Articulated animals, and Vertebrate animals, do not stand in any close blood relationship to one another, but have originated independently in four different places out of the tribe of Worms.

In this way comparative anatomy and phylogeny lead us to the *monophyletic pedigree of the animal kingdom*, the outlines of which are given on p. 133. According to it the seven phyla, or tribes, of the animal kingdom are of different value in regard to genealogy. The original primary group of the whole animal kingdom is formed by the Primæval animals (Protozoa), including the Infusoria and Gastræads. Out of these latter arose the two tribes of Animal-plants (Zoophyta) and Worms as diverging branches. Out of four different groups of the Worm tribe, the four higher tribes of the animal kingdom were developed — the Star-fishes (Echinoderma) and Insects (Arthropoda) on the one hand, and the Molluscs (Mollusca) and Vertebrated animals (Vertebrata) on the other.