

FOURTEENTH STAGE : Tailed Amphibians (Sozura).

Our amphibious ancestors which retained their gills throughout life, were replaced at a later period by other Amphibia, which, by metamorphosis, lost the gills which they had possessed in early life, but retained the tail, as in the case of the salamanders and newts of the present day. (Compare p. 218.) They *originated* out of the gilled Amphibians by accustoming themselves in early life to breathe only through gills, and later in life only through lungs. They probably existed even in the second half of the primary, namely, during the Permian period, but possibly even during the Coal period. The *proof* of their existence lies in the fact that tailed Amphibians form a necessary intermediate link between the preceding and succeeding stages.

FIFTEENTH STAGE : Primæval Amniota (Protamnia).

The name Protamnion we have given to the primary form of the three higher classes of Vertebrate animals, out of which the Proreptilia and the Promammalia developed as two diverging branches (p. 222). It *originated* out of unknown tailed Amphibia by the complete loss of the gills, by the formation of the amnion, of the cochlea, and of the round window in the auditory organ, and of the organs of tears. It probably originated in the beginning of the mesolithic or secondary period, perhaps even towards the end of the primary, in the Permian period. The *certain proof* that it once existed lies in the comparative anatomy and the ontogeny of the Amniota; for all Reptiles, Birds, and Mammals, including Man, agree in so many important characteristics that they must, with full assur-