

THE RIDDLE OF THE UNIVERSE

ical dentition of the primitive placentals, consisting of forty-four teeth (three incisors, one canine, four premolars, and three molars in each half of the jaw); all are characterized by the small size and the imperfect structure of the brain (especially of its chief part, the cortex, which does not become a true "organ of thought" until later on in the Miocene and Pliocene representatives); they have all short legs and five-toed, flat-soled feet (*plantigrada*). In many cases among these oldest placentals of the Eocene period it was very difficult to say at first whether they should be classed with the carnassia, rodentia, ungulata, or primates; so very closely, even to confusion, do these four groups of the placentals, which diverge so widely afterwards, approach each other at that time. Their common origin from a single ancestral group follows incontestably. These *prochoriata* lived in the preceding Cretaceous period (more than three million years ago), and were probably developed in the Jurassic period from a group of insectivorous marsupials (*amphitheria*) by the formation of a primitive *placenta diffusa*, a placenta of the simplest type.

But the most important of all the recent palæontological discoveries which have served to elucidate the origin of the placentals relate to our own stem, the legion of primates. Formerly fossil remains of the primates were very scarce. Even Cuvier, the great founder of palæontology, maintained until his last day (1832) that there were no fossilized primates; he had himself, it is true, described the skull of an Eocene prosimiæ (*adapis*), but he had wrongly classed it with the ungulata. However, during the last twenty years a fair number of well-preserved fossilized skeletons of prosimiæ and simiæ have been discovered; in them we find all the chief