rated from one another, than those of any other Order of Mammalia, it is important to fill these vacant intervals with the fossil genera of a former state of the earth; thus supplying links that appeared deficient in the grand continuous chain which connects all past and present forms of organic life, as parts of one great system of Creation.

As the bones of all these animals found in the earliest series of the tertiary deposits are accompanied by the remains of reptiles, such as now inhabit the fresh waters of warm countries, e. g. the Crocodile, Emys, and Trionyx (see Pl. 1, Figs. 80, 81, 82), and also by the leaves and prostrate trunks of palm trees (Pl. 1, Figs. 66, 67, 68, and Pl. 56), we cannot but infer that the temperature of France was much higher than it is at present, at the time when it was occupied by these plants and reptiles, and by Mammalia allied to families which are natives of some of the warmest latitudes of the present earth, e. g. the Tapir, Rhinoceros, and Hippopotamus.

The frequent intrusion of volcanic rocks is a remarkable accompaniment of the tertiary strata of the Eocene period, in various parts of Europe; and changes of level, resulting from volcanic agency, may partially explain the fact, that portions of the same districts became alternately the receptacles of fresh and salt water.

The fresh-water calcareous deposits of this period are also highly important, in relation to