ing or holding food, and jaws armed with long canines, they, too, needed no abnormal growths for defense or attack.

The larger Plant-eaters, who dared to face the Carnivores, at least when escape was not easy, whose legs, while good for locomotion, were of no service for prehension or attack, used themselves as battering-rams, with the head as the striking end and the means also of tossing away or rending the daring enemy. Under the necessities of their condition, the forehead and nose grew horns, and a pair of teeth became elongated into tusks. As the legs, besides, were of no service for gathering food, the nose, as well as the elongated canines, was sometimes made to serve for grubbing; and the nose thus used became elongated, until the Tapir's nose could pull over a tree, and the Elephant's serve as a long agile arm of great strength and wide diversity of work. Such abnormal growths are characteristics of Herbivores alone. The graceful Horse is one of the exceptions among Herbivorous locomotors, for it finds its chief means of attack in its hind legs, and of escape in its fleetness.

Great degeneration also took place among the Mammals; for before the close of the Eocene there were Whales in the seas — the Zeuglodons. The species is supposed, from its teeth and food, to be a degenerate flesh-eating species, which, for escape, took to the water, where support from limbs is not needed. In this supporting element the body became enormously enlarged and multiplicate in its vertebral column, like the Sea-Saurians, the length being increased from four or five feet to 70 feet, and the size of the dorsal vertebræ to a diameter of a foot and a length of a foot and a half. Its teeth remained few, 36; and the molars retained their two roots, but the distinction between molars and premolars was lost.

Further: in the Miocene, as stated on page 912, Whales appeared of greater degeneration along two or more lines: species appearing that were multiplicate in teeth, and in the phalanges of some of the digits of the fore limbs, as well as in vertebræ; others that had teeth only in one jaw and all single-rooted; and still others that had no teeth, but only plates of whalebone with unravelled edges in a huge mouth to strain out small animals from the sea-water for food.

It may be supposed that these aquatic animals became urosthenic, like Fishes, because sculling with the whole posterior part of the body was their best mode of progression; that the body became long and almost indefinite in number of vertebræ, to secure greater force in the sculling organ; that the hind limbs disappeared because useless; and that, in one branch of the tribe, the teeth began to disappear altogether when the smaller swarming life of some parts of the ocean received into the mouth almost without effort, began to satisfy appetite. It may also be presumed that the whale-bone plates, over 350 in number, either side of the middle line, grew downward from the palate just as soon as they were needed; but the question, what made them grow, remains, as in many like cases, unanswered. In the young state these Whales have rudimentary teeth. The results were much like