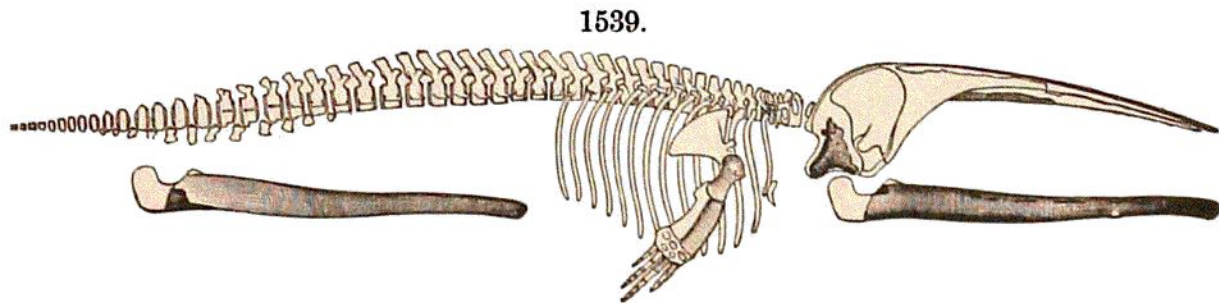


The Miocene of the Atlantic border has afforded remains of many Cetaceans. Among them are various Dolphins, several species of Whales of the genus *Squalodon*, related in teeth to the *Zeuglodon*, the largest about 30 feet long. Others having the teeth excessive in number, or multiply, and provided with only one root; others having similar teeth, but only in the upper jaw, as in the genus *Physeter*, or that including the Sperm Whale; others with teeth in neither jaw, as the Baleen or Whale-bone Whales, but having several hundred plates of the so-called whale-bone, growing vertically downward from above, with edges of fine fibers, to serve, net-like, for gathering food of small Crustaceans and other species from the ocean's waters. Fig. 1539 represents a restoration of a species of



CETACEAN. — *Cetotherium cephalus* ($\times \frac{1}{10}$). Restoration by Cope.

this kind, 30 feet long, from the Maryland Miocene, the *Cetotherium cephalus* of Cope (1890). The head of the Baleen Whales makes about a third of the length of the body.

PLIOCENE. — The Blanco beds of the Llano Estacado, western Texas, in the Pliocene, have afforded Cope remains of a *Megalonyx*, *Mastodon mirificus*, *Equus simplicidens* Cope, a Camel of the genus *Plianchenia*, and some other species.

The succession of forms in the feet and teeth under the Horse type is illustrated by Marsh with the following diagram. The plate contains, in a series of seven columns, figures of the fore foot, hind foot, lower joint of the forearm (made up of the radius and ulna), the same of the leg (tibia and fibula); and (5, 6, 7), others showing the length of the teeth and the convolutions within them. Columns 1 and 2 illustrate the fact of the diminishing number of toes with the progress of the Tertiary, until at last, in the modern kind, only the middle or third toe remains, with, either side, rudiments of the second and fourth in the form of the splint bones, while the third toe has become increasingly larger and longer. In the regular series, besides the genera there mentioned, *Epihippus* of Marsh is an intermediate genus between *Orohippus* and *Mesohippus*; and *Desmatippus* of Scott, one between *Miohippus* and *Protohippus*. In the derivation from the Tapir-like precursors, the type of the Horse became distinct when the middle toe was decidedly stouter than that either side of it; and it reached its maximum when this toe was the only one, and the other two were merely "splint" bones.