

almost solely to a skull found in the uppermost Cretaceous beds of Belgium, on the river Meuse, 1785, whence was derived the name *Mosasaurus*. The first American species was a tooth in a fragment of a jaw, found at Monmouth, N. J., and figured in S. L. Mitchill's *Geology of North America*, 1818, described by Dekay in 1830, and named *Mosasaurus major* by him in 1841. Previously it had been named *M. Dekayi* by Bronn (1838). The tooth, according to Dekay, was 1.06 inches long and 1.02 and 1.33 broad at base. Through the discoveries since made, the number of American species described is near 50; and their remains have come from the borders of the Atlantic and the Mexican Gulf, and from the Interior Continental seas in Kansas, Dakota, Colorado, and beyond. Kansas is credited with 25 or more Mosasaurids from the Niobrara beds.

The species are related, like true Snakes, to the Lacertians; but they had paddles, and a skulling tail which was nearly half the length of the body, as shown in the restoration of *Edestosaurus* (*Clidastes*) *velox* of Marsh, by S. W. Williston, in the following figure. The *Clidastes iguanavus* of Cope is from

1417.



Restoration of *Edestosaurus* (*Clidastes*) *velox* ($\times \frac{1}{8}$). Williston.

the Lower Greensand, New Jersey, and *C. propython* of Cope, from the Rotten Limestone in Alabama. *Baptosaurus platyspondylus* and *B. fraternus*, both of Marsh, are from the Upper Greensand of New Jersey.

One of the fore paddles of *Lestosaurus* of Marsh is represented, much reduced, in Fig. 1420. Fig. 1418 represents the tooth of *Mosasaurus princeps* of Marsh, from New Jersey, and 1419, the head extremity of one of the Mosasaurids, showing the bases of four teeth. An anomaly in *Mosasaurus* is the existence of an articulation for lateral motion in either ramus of the lower jaw (at *a* in Fig. 1421), where there is in all other Reptiles a suture only; a fact first recognized by Cope. Besides, the extremities of the two rami were free, so that they could serve like a pair of arms in the process of swallowing whole a large animal.

True *Snakes* are rare species in the Mesozoic. The *Coniophis precedens* of Marsh, the only one known in this country, occurs in the same beds with the remains of the Ceratopsidae in eastern Wyoming.

Crocodylians were represented by the *Thoracosaurus* of Leidy (the *New Jersey Gavial*, or *Gavialis Neocesariensis* of De Kay, 1833), *Holops pneumaticus* and *Gavialis fraterculus*, of Cope, from New Jersey, and other species having the vertebræ concavo-convex, as in true Crocodiles. The older type, with biconcave vertebræ, also was represented; and *Hyposaurus Rogersi* Owen (1849) from New Jersey, and *H. Webbii* Cope from Kansas are exam-