

ART. XLV.—*The Reptilia of the Baptanodon Beds*; by
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THE Baptanodon beds form a distinct horizon in the Jurassic of the Rocky mountain region, their position being just above the red Triassic sandstones, on which they rest unconformably, and immediately below the *Atlantosaurus* beds. They consist entirely of marine strata of shales, limestones, and sandstone, and contain a peculiar invertebrate fauna in which *Belemnites densus*, M. and H., is a characteristic fossil.

The writer first recognized this horizon and determined its Jurassic age, in 1868, near Lake Como, in Wyoming, where the strata are well developed, and their geological position is clearly defined in the characteristic section at Como Bluff. In 1870, the writer again found the same horizon in the Green river valley, in Utah, on the eastern flank of the Uinta mountains. Here, also, he discovered the first vertebrate remains detected in the horizon, the most characteristic of which pertained to a small crocodile. The humerus was only five inches in length. The shaft is slender, and the distal end one and one-fourth inches in width. This animal may be referred to the genus *Diplosaurus*, found in the *Atlantosaurus* beds above, and the species be known as *Diplosaurus nanus*.

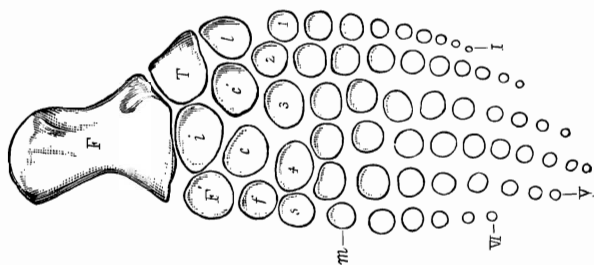


FIGURE 1.—Left hind paddle of *Baptanodon discus*. Marsh. One-eighth natural size.

Several years later, the writer carried on extensive explorations in this horizon in the Como region of Wyoming, and here was found the skeleton of the large saurian which has since given the name to the horizon. This new reptile, nearly allied to *Ichthyosaurus*, but without teeth, was first called *Sauranodon natans* by the writer,* but, as the generic name proved to be preoccupied, it was replaced by *Baptanodon*, and at the same time the paddle of a second species was figured (vol. xix, p. 491), and this is also shown in figure 1 above. A vertebra of the type species is represented in figure 2.

Subsequent researches brought to light a number of other specimens in the same region, and still others were obtained from more distant localities in the same horizon.

* This Journal, vol. xvii, p. 86, January, 1879.

A single vertebra, apparently of this genus, was obtained by the writer, in 1873, in eastern Oregon, and with it a *Trigonia*, both found in the Blue mountains. The locality was not visited by the writer, and he has no conclusive evidence that the horizon, apparently Jurassic, is the same as that in the Como region where the type of *Baptonodon* was found.

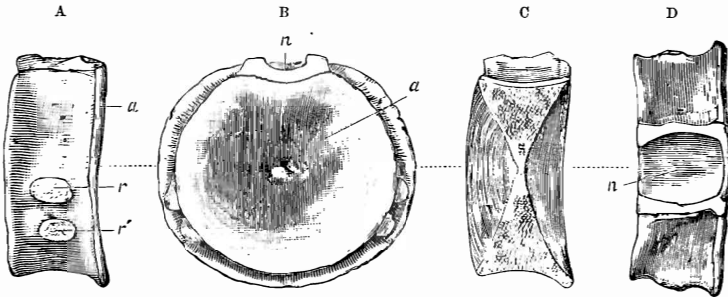


FIGURE 2.—Cervical vertebra of *Baptonodon natans*, Marsh. One-third natural size. *A*, side view; *B*, front view; *C*, section; *D*, top view; *a*, anterior articular face; *n*, neural canal; *r*, *r'*, faces for rib.

In 1885, a new outcrop of the Baptonodon beds was found in the Freeze Out mountains in Wyoming, and here several skeletons of *Baptonodon* were obtained, all in concretions of limestone, as in the original locality. One concretion from this new locality enclosed the skeleton of a small Plesiosaur of much interest, being the first Jurassic form observed in this country. This specimen was named by the writer *Parasaurus striatus*, the specific term denoting a characteristic feature of the vertebræ, which are all strongly grooved, as indicated in the one shown in figure 3, below.* This generic name also proved to be preoccupied, and was replaced by *Pantosaurus*,† the name of the species now being *Pantosaurus striatus*.

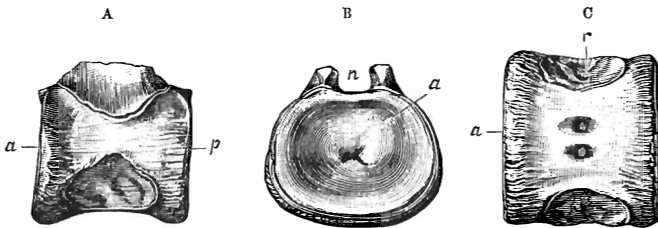


FIGURE 3.—Posterior cervical vertebra of *Pantosaurus striatus*, Marsh. One-half natural size. *A*, side view; *B*, front view; *C*, bottom view; *a*, anterior face; *n*, neural canal; *p*, posterior face; *r*, face for rib.

The skull in this genus was provided with teeth. The neck was long and slender. The vertebræ preserved resemble most nearly in form and size those of *Plesiosaurus plicatus*, Phillips.

Yale University Museum, October 16, 1895.

* This Journal, vol. xlii, p. 338, 1891. † Report Geological Congress, 1891, p. 159.