

1315 *a*, page 784); (2) in their locomotive organs or paddles (Fig. 1206) which are fin-like in having no defined limb-bones beyond the upper, the rest of the limb being represented by several series of bones, and the number of series exceeding the normal number of fingers, five; and (3) in the absence of a breast bone, and the presence of dorsal fins. The specimens from Wyoming of *Baptanodon discus* of Marsh indicate a species eight or nine feet in length, with a *toothless* head and the orbit of great size (as in Ichthyosaurs, page 784), with a sclerotic ring of 8 plates, which is conical as in some birds.

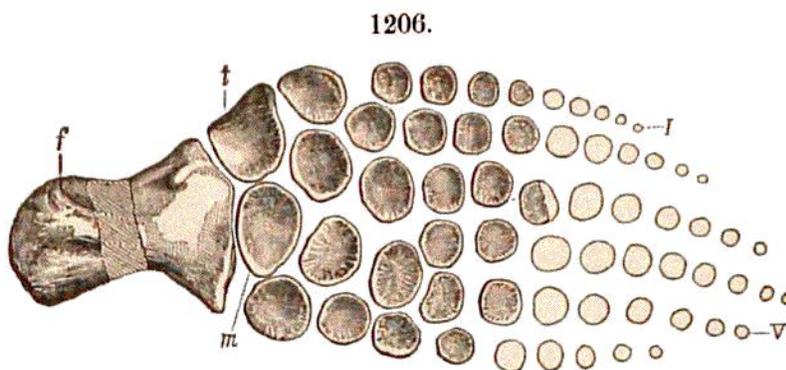


Fig. 1206, *Baptanodon discus*, left hind paddle ( $\times \frac{1}{2}$ ); *f*, femur; *t* and *m*, bones answering to tibia and fibula; *I*, first digit; *V*, fifth digit. Marsh.

*Dinosaurs*. — Localities in Colorado and Wyoming are the most important source of what is known about Jurassic Dinosaurs. They were the most gigantic of terrestrial animals, in some cases reaching a length of 70 or 80 feet, while at the same time they had a height of body and massiveness of limb that, without evidence from the bones, would have been thought too great for muscle to move. Besides this, some of the huge beasts had the most diminutive of brains; but, as a compensation, a nervous mass in the sacrum 20 to 30 times as large as the brain for use in connection with the hinder limbs and tail. There were both Carnivorous and Herbivorous kinds, the latter the inferior.

The American *Herbivorous* species are of three groups: (a) The *Sauropods* or Saurian-footed; kinds having the fore and hind limbs nearly equal, crocodile-like, with all the feet five-toed (that is, with five *usable* toes); the limb bones solid, but the vertebræ, especially the *anterior*, cavernous, and thereby light. (b) The *Stegosaurians*, having very short fore limbs; the fore feet five-toed and hinder three-toed; the limb bones and vertebræ solid; and the body covered with bony pieces or plates; the vertebræ all biconcave. (c) The *Ornithopoda* or bird-footed, having very short fore limbs with the long hind limbs three-toed, bird-like, rarely four-toed; the bones of the hind limbs hollow, but the vertebræ solid. (Marsh.)

The *Carnivorous* species have in all cases the fore limbs short compared with the hind limbs, and the latter usually three-toed, bird-like. The limb bones are hollow, and the vertebræ are more or less cavernous, in order, as in birds, to have less to lift, especially in the anterior part of the body.

The following are some examples of Jurassic species under the several subdivisions. The specimens are all from the Atlantosaurus beds of Colorado and Wyoming.