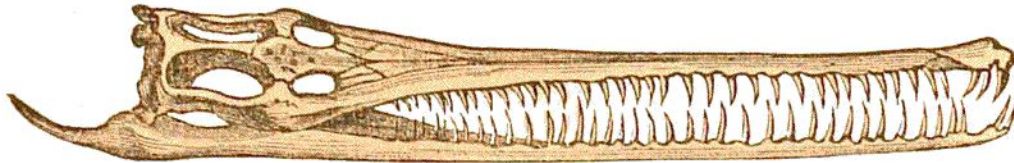


monstrous ichthyosauri and plesiosauri swarming in the ocean, and gigantic crocodiles and tortoises crawling on the shores of the primeval lakes and rivers; air, sea, and land must have been strangely tenanted in these early periods of our infant world." *Bridgewater Treatise*, vol. i. p. 224.

Fossil crocodiles are quite numerous from the lias to the chalk inclusive. The earlier species had great peculiarities. Many of them had long and slender jaws like the gavial of the Ganges. Of the twelve living species, three are alligators, eight true crocodiles, and one gavial. Fig. 298, shows the head of the *Mystriosaurus Tiedmanni*, from the lias; a good example of long and slender jaws.

Fig. 298.



*Mystriosaurus Tiedmanni*.

Excepting their tracks, as already detailed, we have no evidence of the existence of Chelonians or tortoises, below the lias. In general these are not larger than those now living; but in some of the higher deposits they are found from eight to twenty feet in diameter.

*Birds.*—The only evidence of the existence of birds as early as the lias, or even perhaps the later periods of the trias, depends upon their tracks in New England. For no trace of their skeletons has been found, nor of any thing connected with them, save a few coprolites. But so clearly do some of the tracks correspond to the feet of birds in their form, the number of their toes, and especially in the number of phalanges, that Professor R. Owen, the most eminent of European comparative anatomists, seems fully satisfied that they were formed by this class of animals. See his arguments on the subject in his admirable work on Palæontology published in 1859. The case is argued also in the *Ichnology of New England*, where full details of the facts are given. In what follows in this work upon the oolitic Lithichnozoa the facts are also briefly stated.

*Mammalia.*—These are warm-blooded, air-breathing, viviparous, vertebrate animals. The lowest group on the scale of organization and character are the marsupials, like the kangaroo and opossum; and these, as we might expect and as we have seen,