



*Fig<sup>s</sup>*  
2 & 3.

*a*



*Fig. 1.*

*Fig. 1* *Sus Americana* (Harlan) fragment of the left ramus of lower jaw, dorsal aspect.  
*Fig<sup>s</sup> 2 & 3* *Chelonia Couperi* (Harlan) right os femoris. *a* scabrous protuberance.



ART. XII.—*Notice of two New Fossil Mammals from Brunswick Canal, Georgia; with observations on some of the fossil quadrupeds of the United States; by R. HARLAN, M. D.*

UNDER the head MEGATHERIDÆ, in the Penny Cyclopædia, Vol. 15, there is an exceedingly interesting description of the fossil animals included under this family, by Professor Owen of London. This distinguished naturalist admits five genera, viz. Megatherium, Megalonyx, Glossotherium, Mylodon and Scelidotherium; to which might be now added the "Orycterotherium" recently described by me in the Transactions of the American Philosophical Society. In this paper Mr. O. has constructed a new genus under the name of "Mylodon," from my description of the *Megalonyx laqueatus*, (vid. Med. and Phys. Researches,) together with an inferior jaw of another species obtained by Dr. Darwin, in South America; the former he names *Mylodon Harlani*, the latter *Mylodon Darwinii*. We have no objections to the construction of a new genus of the *M. laqueatus*, although we think there are scarcely sufficient data for the change under our existing knowledge of the remains of this extinct animal;—as no new light has been added to its structure since the description of the animal in the Medical and Physical Researches, 1835; from which we extract the following remarks:—"It possesses peculiarities of organic structure which certainly entitle it to the rank of a distinct species; indeed a minute examination of the tooth and knee-joint, render it not improbable, that if the whole frame should hereafter be discovered, it may even claim a generic distinction; in which case, either *Aulaxodon* or *Pleurodon* would not be an inappropriate term; referring to the ribbed or fluted form of the mesial aspect of the tooth." p. 330.

Mr. Owen has also made this extract from my paper, when making the new genus, and without adopting my generic name, which is very applicable,—changes the name altogether to *Mylodon Harlani*. The Greek *μῦλαι*, *dentes molares*, conveys no distinctive character whatever as applied to this animal; the English of *Mylodon* is "molar teeth, tooth," and is equally applicable to any fossil mammal with which we are acquainted. *Pleurodon*, on the contrary, would apply to this and to all of the species described under the name of *Megalonyx Jeffersonii*, *M.*



*laqueatus*, *Myiodon Darwinii*, and to which might be now also added *Orycterotherium Missouriensis*. In fine, *Pleurodon* would characterize a group of genera, but *Myiodon* affords no character whatever.

Prof. Owen has recently read a memoir before the Geological Society of London, on the fossil bones contained in Mr. Kock's collection now exhibiting in London, and during last autumn in Philadelphia. Mr. O. after a minute examination of the numerous portions of the mastodons in this collection, of every age and size and of both sexes, many with the tusks of the inferior jaw in various stages of development; and on the existence of which the late Dr. Godman attempted to construct a new genus under the name of "*Tetracaulodon*"—arrives at the conclusion, that all these mastodon crania belong to one species, and that the genus "*Tetracaulodon*" is without foundation. A conclusion at which we arrived immediately, so soon as the name was published; our opinion was made public at the time, and again republished in the Medical and Physical Researches, p. 257. Copies of this notice were sent to scientific persons abroad, to editors of journals, &c., and Mr. Owen possessed a copy. The notice was also republished in Jameson's Edinburgh Journal. The genus "*Tetracaulodon*," has long since been consigned to the "tomb of the Capulets." The subject, in fine, is one upon which no two naturalists could contend in opinion. If a difference of opinion had existed, the decision of Prof. Owen, with such a mass of material on which to found his judgment, with the naturalists of Europe, will admit of no appeal.

In the Transactions of the American Philosophical Society for 1831, I published a notice of "Ichthyosaurian Remains discovered in the State of Missouri." This essay was republished in the "Medical and Physical Researches," 1835, p. 344. Subsequently in 1839, January 9th, I read a memoir upon the same subject before the London Geological Society, and proposed to change the name of this animal to "*Batrachosaurus Missouriensis*."

I was shown by Professor Goldfuss of the University of Bonn, in Oct. 1839, a principal portion of the skeleton of a fossil animal of this kind, brought from Missouri by Maximilian Prince de Wied.



With these preliminary observations I proceed to offer a brief description of a fossil *Sus* and a fossil *Chelonia*, recently obtained from Georgia. I am indebted to my intelligent friend and collaborator, J. Hamilton Couper, Esq. of Georgia, for two boxes of fossil bones, collected with much care and labor, during the excavations made in the construction of the Brunswick Canal, Georgia. The bones were principally obtained from a post-pliocene formation—the *Cetacea* and *Chelonia* were probably from the greensand. The collection consists of the remains of the following genera, viz. *Megatherium*, beautifully preserved specimens of the teeth and lower jaw; *Mastodon*, *Elephant*, *Hippopotamus*, *Bos*, *Sus*, *Chelonia*, and *Whale*. These valuable specimens are destined by the liberal donor for the cabinet of the Academy of Natural Sciences of Philadelphia. The cases also contained specimens of soil and fossil shells, mostly of recent species.

Specimens of fossil *Sus* have rarely been discovered; the few detached relics of this nature are derived from turfs and superficial soils. Baron Cuvier remarks, "I have never known these remains accompanying elephants." Indications of the existence of a fossil *Sus* I discovered several years since, in a collection of fossils obtained by Mr. Nuttall, in Newbern, North Carolina, in the newest tertiary, post-pliocene,—these were the teeth of a *Sus*, occurring along with mastodon, elephant, elk, deer, horse, seal, cetacea, tortoise, shark, skate, snake and fish,—all congregated together as if in the mouth of some great antediluvian estuary, and commingled with fossil shells, many of which are of existing species.

I have recently examined and taken casts of the tooth of the *Mastodon longirostris*, found in the miocene of Maryland; hitherto found only on the continent of Europe, in equivalent strata.

#### *Sus Americana.\**

The remnant consists of the left ramus of the lower jaw, completely petrified, and impregnated with iron; containing three molar teeth, a portion of a fourth, and a socket for the anterior molar, making five on each side of each jaw, besides large tusks and incisors in the perfect jaws. The jaw has been fractured anteriorly behind the tusks, and posteriorly, immediately at the origin of the coronoid process; the foramen for the nerves and vessels through the body of the bone is very large. The following are the dimensions of the fragment of jaw.



Total length of the fragment,	- - - -	9 $\frac{1}{4}$ inches.
“ height of do. at alveoles and base,	- - - -	3 $\frac{3}{8}$ “
“ breadth of same,	- - - -	1 $\frac{5}{8}$ “
Length of last molar,	- - - -	1 $\frac{7}{8}$ “
Breadth of do.	- - - -	0 $\frac{7}{8}$ “
Length of alveolar processes,	- - - -	6 “

The drawing (Plate III, Fig. 1) representing the exterior or dermal aspect, reduced size, obviates the necessity of more minute detail.

The crowns of the molars are so worn by detrition as to have destroyed their specific characters—the animal appears to have died at a very advanced age. In size, the animal probably surpassed the largest of our common hogs. In form of the jaw, general appearance, and number of the teeth, this fragment bears a close analogy with the same part in the *Sus babirussa*, Buff., or *babyroussa*,—which species of hog does not exist in the American continent. The structure and composition of the molars are similar, but the *Babyroussa* was a much smaller animal. Vide Plate III, Fig. 1.

#### CHELONIA *Couperi*.\*

The right *os femoris* of a Chelonian or marine tortoise, pretty well preserved, and well characterized as a nondescript species, came to my hands, along with the others, but without a number or label attached, as in most of the others. It is completely petrified, heavy, and impregnated with iron. It bears comparison with figures 33 and 34, plate 12, of a recent Chelonian, Cuvier, Ossem. Foss., edit. 1824; and with figures 11 and 19, plate 15, for a fossil specimen. In one remarkable respect, this thigh bone differs from the same part of all recent or fossil specimens, viz. on the exterior and anterior aspect of the shaft, precisely where in other species the bone is smallest, it is here enlarged by a strongly marked scabrous protuberance or exostosis, for the attachments of powerful muscles, *vide* Plate III, Fig. 2, (a): so that if this species was not larger than those at present existing, it was probably proportionally stronger. The trochanter has been broken off. Total length, 13 inches. Circumference at the middle of the shaft, 9 inches. A portion of the shield of a Chelonian occurred along with this bone.

Philadelphia, May 15, 1842.