

A third specimen from the Toiyabe Range, on the Reese River, north-east of Austin, consists of the isolated body of a vertebra, somewhat distorted, ground off at one of the articular faces, and less infiltrated with the rocky matrix than the others. It appears to have corresponded in proportions with those of the series last noticed. It is biconcave, moderately concave at the sides, nearly plane below, presents the remains of two short oblong articular processes for ribs near the position of the neural arch, the sutural impressions of which are visible above. The length has been about 8 lines, the breadth about 16 lines. The neural canal about 2 lines wide.

The very imperfect condition of the specimens renders me unable to say more about them, nor is it certain that they all belong to the same animal, but for the present I propose to consider them so, under the name of *CYMBOSPONDYLUS PISCOSUS*.

Of the remaining specimens, three consist of the greater portion of three vertebral bodies, which belonged in series and have been broken apart. These are labelled Humboldt, Nevada. They apparently indicate a much larger species of the same genus as the former, the vertebral body having the same form. The sides of the articular funnels are convex outwardly from the centre, which deepen more rapidly at the inner third of the surface. One specimen retains the neural arch without its spine, and a short, robust, costal process, extending from near the bottom of the arch almost half the depth of the body. A second vertebra is singularly distorted, apparently as if the bone had been in a plastic condition. The measurements of these vertebræ, partially estimated, are as follows:

Length inferiorly.....	17 to 18 lines.
Depth of body.....	44 "
Breadth ".....	44 "
Depth of costal process... ..	21 "
Projection of costal process.....	4 "

For this species I propose the name of *CYMBOSPONDYLUS PETRINUS*.

Another specimen, consisting of a mutilated vertebral body from Star Cañon, Humboldt County, indicates an Enaliosaurian, apparently not only differing from either of the former, but probably belonging to a different genus. The specimen is broken away at the top and at one side, is also somewhat mutilated on the opposite side, and appears considerably eroded on one articular face. The body is deeply biconcave, as in *Ichthyosaurus*, but proportionately much longer in relation with the breadth. The funnel-like surfaces are convex outwardly from the centre, and deepen more rapidly at the inner third. The sides and under part of the body are slightly concave fore and aft, and defined by acute borders. The under part exhibits a square depressed appearance from the presence of four angular chevron processes, associated fore and aft by sub-angular ridges. The estimated size of this specimen is as follows: Length of the body inferiorly $2\frac{1}{4}$ inches; depth $4\frac{1}{2}$ inches; breadth about 3 inches.

For this animal I propose the name of *CHONESPONDYLUS GRANDIS*.

Notice of some VERTEBRATE REMAINS from the West Indian Islands.

BY JOSEPH LEIDY, M. D.

Some time since Prof. Felipe Poey, of Havana, sent to me several fossils, together with a copy of a pamphlet entitled "De la Existencia de grandes Mamíferos Fósiles en la Isla de Cuba. Par D. M. F. de Castro. Habana, 1865."

The fossils consist of the vertebra of a crocodile and part of a costal plate of a turtle, which were found with other bones, together with the lower jaw of a giant sloth, at Ciego-Montero, Cienfuegos, Cuba.

The reptilian fossils are as follows:

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CROCODILUS PRISTINUS, n. s.

A posterior dorsal vertebra of mature age, but without its neural arch, except the greater portion of one abutment. The body is slightly shorter, and absolutely very much broader and moderately deeper than in the corresponding vertebra of the Mississippi alligator. It also more rapidly narrows posteriorly, but proportionately presents about the same degree of concavity from before backward at the sides and beneath, where it is also in like manner smooth. The anterior articular surface is of considerably greater breadth than height, so as to present a transverse ovoidal outline. The measurements of the specimen are as follows : Length in the axis 23 lines ; inferiorly 19 lines. Height anteriorly 19 lines ; breadth 24 lines. Estimated height posteriorly 17 lines ; breadth 21 lines. Thickness of neural abutment anteriorly 12 lines. I have not the means of comparing the fossil with vertebræ of either species of the living crocodiles of Cuba, so that I cannot say whether it belongs to one of them or not. It is too large to belong to *C. rhombifer*, according to the dimensions given by Dumeril, but would perhaps accord with *C. acutus*. As an associate with a *Megalonyx*, it is not unlikely that it belongs to an extinct species, for which the name leading this article is proposed.

TESTUDO CUBENSIS, n. s.

Indicated by a portion of what I suppose to be the first costal plate of the right side. It is marked by the lateral borders of the first and second vertebral scutes and their transverse separation. Along the former borders the plate is 51 lines, and along the latter separation 16 lines. The articular border with the first vertebral plate is 30 lines ; that with the second vertebral plate 14 lines. The articular border from the first vertebral plate to the lateral groove defining the first vertebral scute is convex forward and inward, and 14 lines in a direct line. A strong costal process projects from the under part of the plate nearly parallel with its length. The surfaces corresponding with the vertebral scutes are somewhat depressed, and generally everywhere are nearly smooth, or without markings so conspicuous as to affect the investing scutes. The greatest thickness of the bone is where it articulated with the first and second marginal plates, measuring from $3\frac{1}{2}$ to $4\frac{1}{2}$ lines ; and where thinnest it measures only one line.

No living *Testudo*, I believe, at present inhabits Cuba, and the fossil probably indicates a species cotemporary with the *Megalonyx*.

The pamphlet above mentioned contains a notice of remains of the horse, hippopotamus, and of a giant sloth, found in Cuba.

The remains of the horse appear not to differ from the corresponding parts of the recent animal, and it is even doubtful if they are to be considered indigenous fossils.

The remains of hippopotamus, consisting of isolated canines, probably also belong to the recent animal. An inferior canine, described and figured by De Castro, certainly presents nothing peculiar. Formerly dentists employed the canines of the hippopotamus for the construction of artificial teeth, but since the introduction of porcelain teeth they have been thrown aside. Occasionally such specimens have been brought to me as supposed fossils, and perhaps the Cuba specimens are of the same character.

The most interesting fossil described by De Castro consists of the greater part of a lower jaw of a giant sloth, which was found in association with a number of reptilian bones, of which those above described are specimens, at Ciego Montero, Cienfuegos. The figures accompanying the description, though drawn in unfavorable positions for satisfactory comparison, nevertheless clearly indicate a lower jaw of nearly the same form, and teeth holding the same relative position as in *Megalonyx*. As in this genus the anterior large caniniform molar is widely separated from the posterior three small molars, which differ from those of *Megalonyx Jeffersonii* only specifically. From the dimensions given, the jaw belonged to a smaller animal than the latter. The caniniform

molar differs remarkably from that of *M. Jeffersonii* and *M. dissimilis*, as is also the case compared with that of *Lestodon armatus* and *L. myloides* of Buenos Ayres. In transverse section it is reniform or crescentic with blunt poles, and the biting extremity appears to have been worn off in the same manner as the incisors of a Rodent, to which, indeed, the jaw appears first to have been supposed to belong. The species may be named *MEGALONYX RODENS*, or, if the peculiarities of the caniniform molar be regarded generically distinct from those of *Megalonyx* and *Lestodon*, it may be named *MEGALOCNUS RODENS*.

EMYS SOMBRERENSIS, n. s.

The bones of extinct species of turtle are not unfrequently found in the so-called Sombrero guano, Sombrerite or Ossite, a material rich in phosphate of lime, largely mined in the island of Sombrero, W. I., and used in the preparation of a fertilizer for agricultural purposes. In a mass of this material presented to the museum of the Academy (see Proc. 1859, 111), the posterior part of the plastron of a species of *Emys*, or perhaps *Testudo*, is perceived, for which the above name is proposed. The specimen consists of both xiphisternals and the greater portion of both hyposternals, articulated in natural juxtaposition. Other fragments of the plastron and carapace, together with a portion of a thigh bone, are also contained in the mass. The specimen indicates the sternum to have approximated a foot in length; and the breadth at the lateral sutures of the hyposternals has been about $7\frac{1}{2}$ inches. The under surface of the sternum is flat and smooth; and laterally it curves but slightly upward. The posterior sternal notch is two-thirds as deep as the width, and almost forms an equilateral triangle. The postero-lateral border from the inguinal notch to the rounded triangular ends of the xiphisternals, is bow-like, or presents two concavities with an intervening convexity. The caudal scutes are small, reaching slightly beyond the bottom of the sternal notch. The femoral scutes are on a level with the inguinal notches. Estimated length of hyposternals in the median suture 35 lines; breadth 45 lines. Length of xiphisternals in median suture 17 lines; greatest length about middle 25 lines; breadth along anterior suture 28 lines. Length of caudal scutes internally 13 lines; externally 10 lines. Length of femoral scute internally 25 lines. The bones present about the ordinary proportion of thickness observed in emydes.

July 7th, 1868.

DR. BRIDGES in the Chair.

Twenty-one members present.

The following papers were presented for publication:

"Notice of some remains of Horses." By Joseph Leidy, M.D.

"Notice of some extinct Cetaceans." By Joseph Leidy, M.D.

"*Mitchella repens*; a Dioecious plant." By Thomas Meehan.

July 14th.

The President, DR. HAYS, in the Chair.

Nineteen members present.

The following papers were presented for publication:

"Second contribution to the history of the Vertebrata of the Miocene period of the United States." By Edw. D. Cope.

"Remarks on *Conosaurus*." By Joseph Leidy, M.D.

"Remarks on a jaw fragment of *Megalosaurus*." Jos. Leidy, M.D.

[July,



Leidy, Joseph. 1868. "Notice of Some Vertebrate Remains from the West Indian Islands." *Proceedings of the Academy of Natural Sciences of Philadelphia* 20, 178–180.

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