

objection, for the animal so-called had not relatively larger claws than the *Megatherium*, *Mylodon*, or even the existing *Bradyrus* & *Cholepus*. Other *Megatherioid*s besides *Heliodotherium* are remarkable for the colossal proportions of their hind legs. These are also quadrupeds as large and even larger than the *Megatherium*. If Dr. Harlan's conjecture as to the generic distinction of his *Megalonyx laqueatus* prove correct, the same objection might be raised to his proposed names *Antaxodon* or *Plenodon*, which would equally apply to many more Mammalian genera, both recent & fossil, than would ~~my~~ term *Mylodon*. Every experienced Naturalist has felt the difficulty of obtaining an ^{exclusively} ~~exclusively~~ descriptive name for a new genus, and ^{has acknowledged virtually} the necessity of being content with a partially descriptive one, if it be euphonic & not squibbed at all. I ~~must~~ must, however, here

Letter from Richard Owen, Esq. F.R.S. &c. &c. on ^{Harlan's Notice of New Fossil Mammalia published in this Journal} [London, Dec^r 10th 1842] + Vol 43 - p. 141 + [received Aug 27 1843]

Dr. Guthrie

Permit me to state, in reference to ~~the~~ some observations in an interesting Notice of some New Fossil Mammalia, inserted in your valuable Journal, (Vol. XLIII, p. 141) by my esteemed friend Dr. R. Harlan, that my genus *Mylodon* was not founded on the Doctor's description of the *Megalonyx laqueatus*, in his Med. & Phys. Researches (p. 319 ³³² ~~319~~) nor does it include that species, which is a true *Megalonyx*.

Dr. Harlan appears to have been led into the error by an Article in the Penny Cyclopaedia, which he attributes to me. In justice to the accomplished Naturalists who contribute the zoological articles in that Work I cannot permit myself to retain ~~for a day longer the credit of~~ the credit of writings which ~~are not mine, but~~ ^{are not mine, but} which he would be proud to acknowledge. The names of the contributors have been published by the Society.

To the Editors of The American Journal of Science & Arts.

whom we owe the diffusion of the useful knowledge contained in the Penny Cyclopaedia. I have never contributed any article to that work.

My genus Mylodon is characterized in the 'Fossil Mammalia' of the Zoology of the Voyage of the Beagle, 2^d No 3, 1839, p. 68-72. In the preceding pages Dr. Harlan's observations on his Megalonyx laqueatus, (Aulacodon or Pleurodon) are quoted in illustration of the genus Megalonyx, and I conclude by stating "With reference to the Pleurodon of Dr. Harlan, after a detailed comparison of the cast of the tooth on which that genus is mainly founded, with the descriptions and figures of the tooth of the Megalonyx jeffersoni, Leach. in the 'Opemeno fossils' they seem to differ in so slight a degree as to warrant only a specific distinction." p. 66.

The fossil described by Dr. Harlan, which belongs to the genus Mylodon, is the subject of the Article, p. 334, succeeding that on the Pleurodon or Aulacodon, in the 'Medical & Physical Researches' into the

the portion of the lower jaw in the paper of Mr. Graves of New York. This jaw does not, in my opinion belong, to the Megalonyx laqueatus, but to a different genus of Megatherioid animals, founded by me on fossils discovered by Mr. Darwin in South America. If the Megalonyx laqueatus should hereafter prove, as Dr. Harlan thinks, the structure of the tooth to be such as renders it improbable, to have retained a generic distinction, the terms Aulacodon or Pleurodon may not be inappropriate. To my genus Mylodon they are decidedly inappropriate since six out of the eighteen teeth, or one third of the entire dental series, are neither ~~grooved~~ or fluted.

The sense which I have attached to the term Mylodon is a mammal with molar teeth only. It may be objected that canine teeth and incisors are absent likewise in other genera of Megatherioid animals. But the accepted term Megalonyx is open to the same

Benton County,

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brought by Mr. Koch from the ^{Benton County,} ~~Missouri~~. They belong to the same species of *Myiodon* as the lower jaw in the possession of Mr. Graves, in New York: and the name *Orycterotherium Missouricum* must therefore sink into a synonym of *Myiodon Harlani*. The humerus and ~~other~~ ^{from the Oregon Territory,} tooth, figured and described by Dr. H. C. Perkins, in Vol. xlii of your valuable journal, belong to the *Myiodon Harlani*.

In the best preserved portion of the lower jaw ~~from~~ of this species in Mr. Koch's collection, there was evidence of four teeth, and no more, on each side. The first tooth resembled that in the *Myiodon Darwinii*, ~~but~~ having a simple elliptical transverse section & being neither ribbed nor fluted. The empty socket in the lower jaw at New York, erroneously referred by Dr. Harlan to his *Megalonyx laqueatus*, indicates the tooth to have had a similar simple form: the remaining three teeth in that jaw are identical in configuration and size with those of the so-called *Orycterotherium*. They resemble in structure the teeth of the Sloth and *Megatherium*, and widely differ from those of the *Orycteropus*.

Here, remark that the practice of proposing a name for an undiscovered future probable or possible genus is questionable & certainly hazardous. It is true, that the danger of the inapplicability of such name will be diminished in the ratio of the extent of choice submitted by the anticipator to the future discoverer. Dr. Harlan has left but two names ~~for the selection~~ ^{the choice} of the discoverer of the generic characters of his *Megalonyx laqueatus*, and as only a single tooth of that species has been described, the names *Antarodon* & *Pleurodon* may prove as inapplicable to the entire dentition, as they would have been if either of them had been transferred from their position as synonyms of *Meg. laqueatus*, to the distinct genus, *Myiodon*. I ~~have elsewhere~~ ^{may}, however, state that the additional experience which I have had of the

6 fossil remains of *Megatherioid Edentata* has confirmed my ~~belief~~ belief that this *Megalomys laqueatus* of Dr. Harlan is a true *Megalomys*, nor can I perceive any reasonable ground for its specific distinction from the *Megalomys jeffersoni*. The broken tooth (Pl. xiii figs. 7, 8, 9, *Med. Phys. Researches*) affords none, since its relative length, as entire, & its transverse or antero-posterior diameters cannot be known. The *Megalomys* agrees with the *Megatherium* and differs from the *Myiodon* in the greater relative length of the humerus, ~~in~~ in the greater degree of convexity of the head of the bone, in the greater convexity of the articular surface for the ulna: the *Megalomys* differs from both *Megatherium* & *Myiodon* in the perforation of the inner condyle of its humerus. The *Megalomys* agrees with *Megatherium* & differs from *Myiodon* in the convexity of the proximal articulation of the ~~the~~ tibia presented to the external condyle: it differs from both *Megatherium* and *Megalomys*, and having both the condyloid articular surfaces of the femur distinct from the rotular surface. So well marked is the ~~generic~~ distinction of *Myiodon*

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from *Megalomys*, ~~laqueatus~~, whether the bones of ~~that~~ ^{the latter} genus ~~have been~~ ^{be} described under the names *jeffersoni* or *laqueatus*, that the generic characters, first detected by me in the lower jaw of the *Myiodon*, are repeated in most of the bones of the skeleton. They have consequently been recognized by Dr. Harlan himself when presented to his notice in the ^{Edentate Fossil, in the} *Missourian* Collection of Mr. Koch; but the Dr. having referred the lower jaw in the possession of Mr. Graves of New York to the *Megalomys laqueatus* failed to detect the specific identity of the broken lower jaws of the Edentate animal in Mr. Koch's collection with the New York Specimen, and ~~consequently~~ not having been aware that I had separated Mr. Graves' fossil generically from the *Megalomys laqueatus*, Dr. Harlan, perceiving that the *Missourian* Edentate fossils were not referable to *Megalomys*, conceived them to belong to an undescribed genus. I have ~~carefully~~ ^{thoroughly} examined these Edentate remains, and have brought to light the characters which distinguish them from *Megalomys*, and which confirm my former belief, which I have now published.

an front Boston Feb-27-1843 by B. S. Grant
The humerus of the Missouri *Myiodon Harlani* like
that of the South American species, resembles
the humerus of the *Megatherium* and *Bradyus*
tridactylus in being unperforate whilst that
of the *Orycteropus* is perforated at the inner
condyle.
The ungual phalanges or claw-bones, retained more
or less perfect traces of the osseous sheath continues
from the upper and lateral parts of the base of the
phalanx, as in the *Megatherium* & *Megalonyx*
but ^{44 345} were less compressed, and presented the
proportions of the claw-bone of the *Scoliodon* *theri-*
um. (Natal Museum of the Beagle, p. 97 pl. 27.)
The ungual phalanges of the *Orycteropus* have no
such osseous sheath.
The tibia, ^{of the Missouri} corresponds with that of the South American
species of *Myiodon*, with that of the *Megatherium* in the
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peculiar to the Missourian *Mylodon*, although it forms
a well marked distinction between it and the
Oryzeterops. ~~In the *Mylodon* ~~the~~~~ The astragalus
of the *Acelidotherium*, which has the same convex
protuberance from the inner, and ~~one~~ part of its
upper surface, as that of the *Megatherium* & *Mylodon*
must, therefore, have ~~the same~~ ^{been governed} excavation of
the distal end of the tibia. The *Megatherioid*
family, ~~thus~~ ^{therefore}, appears ~~therefore~~ to have been as strikingly
distinguished by this structure of the ankle-joint, as
the *Protheriids* are by the pivoted articulation of the
astragalus with the fibula.

The opportunity afforded me by Mr. Koch ~~the~~ of
examining the remains of the *Mylodon Harlani*
discovered by him ~~in~~ ^{at} Benton County, and which
species I had before known only by Dr. Harlan's
figures, Pl. xv, figs. 2, 3, 4, in the valuable work already
quoted, and by a drawing of the cast of the original
specimen transmitted to me by ^{M.} Laurillard from Paris,
fully confirmed the propriety of dissociating it from

the *Megalonys lagratus* or *Pleurodon* of Dr. Harlan,
and established, by the dental characters and
those of the ankle-joint, the essential affinities
of the genus *Mylodon* to the *Megatherian* family.

In my Report on the Missourium printed in the Proceedings
of the Geological Society Dr. Harlan will find that I
have duly acknowledged the originator of the opinion
that 'the *Tetracaulodon* was nothing but the young
of the gigantic *Mastodon*'. To the excellent man &
Naturalist Mr. Wm. Cooper of New York the honour
of this insight belongs & I have had the same pleasure
in acknowledging the ingenious observations on the
Mastodontal fossils in Mr Koch's collection published
in the Proceedings of the American Philosophical
Society for October 1841.

I have the honour to remain,
~~Dear Sir~~ Gentlemen,
with much esteem,
Your obedient servant
Richd. Owen.