

not only *Phenacodus* and allies (=Condylarthra), but also Hyracoidea, Lemuroidea, Simmopithecoidea, and Anthropoidea, although the last-named diverge a little in the characters of the carpus. Moreover, some of the Taxeopoda of the Puerco epoch show that the Unguiculate forms can readily have descended from them, for as the carpus and tarsus of this order are thoroughly Unguiculate, it only requires intermediate forms of ungues to connect them, and these have been found. These facts and conclusions are set forth in the "American Naturalist" for 1885, in a paper on the "Evolution of the Vertebrata Progressive and Retrogressive."

It thus appears that Lemurine forms were the ancestors of all Placental Mammalia, as was already anticipated by Haeckel in his far-seeing "Schöpfungsgeschichte."
E. D. COPE.

NOTE ON *ERISICHTHE*.

SIR,—A careful perusal of Mr. Davies' note on this subject in your number for March reveals the fact that he agrees with me in the association of the fin-spines in question with *Erisichthe*, and not with *Ptychodus*. He corrects me as to the authorship of the term *Xiphias Dixoni*, and agrees with me again that the weapon of that species also belongs to the fish I have called *Erisichthe*. But he wishes me to use the name *Protosphyrena*, Leidy, in the place of the one I have proposed. In this point I hope Mr. Davies will yet again agree with me.

Two species are catalogued¹ by Leidy under the name of *Protosphyrena*, *P. ferox* and *P. striata*. If now his *P. ferox* be a species of the genus I have named *Erisichthe*, Leidy's name should, in accordance with all usage, be retained for the *P. striata*, provided the two belong to different genera. When in London, in 1878, either Mr. Davies or Mr. E. T. Newton showed me a jaw containing teeth of the *P. striata*, which was plainly not an *Erisichthe*. For this statement I depend on memory alone. If I be correct, it is for this genus that the name *Protosphyrena* should be retained, if it be used at all.

In its present status, however, the name in question is *nomen nudum*, and under the rules not more entitled to recognition than new names in museum or sale catalogues. The rules of the American and British Associations are explicit on this point, and properly so.
E. D. COPE.

NOTOCHELYS COSTATA, OWEN.

SIR,—In his description of this interesting fossil,² Sir Richard Owen stated that the "nature and age of the deposit from which it came was unknown to him." I am informed by Prof. Archibald Liversidge, by whom *Notochelys* was sent to Prof. Owen, that it was found associated with certain other fossils described³ by myself from

¹ The name is not referred to in the text of his paper by Leidy, but only appears in a catalogue at the end of it.

² Quart. Journ. Geol. Soc. 1882, vol. xxxviii. p. 178.

³ Journ. R. Soc. New South Wales for 1883 [1884], vol. xvii. p. 87.