

must say frankly - that the paper ignores ^{almost} the whole existing literature upon this subject. And there are few points in it - with which I can agree. There are many others - such as the evidence for a distinct coracoid &c which are extremely valuable. I am

E. M. MUSEUM OF GEOLOGY

AND ARCHÆOLOGY

Very truly yours, Henry J. Osborn

PRINCETON, N. J.

Garrison, N. J.

July 1st 1889.

Dear Professor Marsh:

I was interested to receive your paper upon the Cretaceous Mammalia, confirming Prof. Cope's discovery, and embracing as I predicted in a recent paper upon the teeth - which I will soon send you, tritubercular teeth of the beurodont type in the Cretaceous. I am however wholly unable to understand how, with the very complete descriptions and figures ~~that~~ recently published by you upon the molar and premolar teeth of the Plagiaulacidae - you should found four or five genera - upon teeth belonging to different parts of the same series.

The frequent association of ~~upper and lower~~ ^{of the same size} molar, with two three and two rows of tubercles ~~respectively~~ indicates that they belong to upper and lower jaws respectively. The only multituberculate genus known with but two rows in the upper jaws is Chirox - Cope. Even this has part of the third row - either in process of development or degeneration.

A second characteristic is the presence of a much smaller number of tubercles upon the second molar in each jaw than upon the first.

- § 3. What evidence have you that the breuchant tooth found with the Mensisissus molar by Wortman is not mammalian? I have examined it very carefully - it was ^{almost} certainly bifanged - the sides are grooved though worn - and the enamel and dentine are precisely similar to those of the molar. Moreover, this tooth has a rudimentary basal cingulum - and agrees closely with some of the upper premolars discovered by Leucos. If you read Cope's description carefully, I think you will find the molar is the type.
- § 4. Why do you refer Cuioloups to the Pitylodontidae, when the characteristic of the family is the absence of breuchant premolars - and your own collection contains so many pro-molars ^{of the breuchant type}, which may well have been associated with these molars? On the principles stated above, I should say, that Cuiolodon is a lower molar of Cuioloups - and belongs to the same family - viz. the Plagiaulacidae.
- § 5. Dipriodon, Tripriodon, Selenacodon & Stalodon, correspond closely in size and number and form of the cusps - markings of the premolars with Mensisissus. What character separates this family from the Plagiaulacidae?
- § 6. Why do you separate Didelphodon and Cuiolestes, when precisely similar upper and lower molars are constantly associated ^{viz.} the bitubercular and tuberculo-sectorial type? These and many other criticisms occur to me - and while congratulating you upon Hatcher's brilliant discovery -

July 9th 1889

P.S.

Before mailing the above I have received your
clip. correcting Didephodon - for which
many thanks. Also your letter of
July 3rd.

Upon annexed slip. I refer you to some of
the known Plagiomacidae. I have carefully
examined the upper and lower molars
of Neoplagiurus, & Ptilodus - they are both
very similar to your Cuiocamp etc.

This genus will probably be distinguished
by two functional premolars (see p.
216) from Ptilodus

Your drawings - are remarkably fine. Cer-
tainly the best that have been published -

Very truly yours

Harvey J. Osborn

With



Compare

- Curolomys. first upper .. Neoplagiolar
molar. Lemouie.
- " Curolodon. first lower .. Ptilodus
molar. Cope, p. 214.
- " Nauomys. second lower .. Ptilodus
molar. Cope, p. 214.

" Dipriodon. first lower .. Meniscoessus
molar. Cope

" Tripriodon. second upper .. Meniscoessus
molar. Cope.

" Selenacodon. first upper .. Meniscoessus
molar. Cope.

" Halodon sculptus.
a premolar. Meniscoessus
Cope.

PRINCETON, N. J.

April 30th, 1890.

Dear Professor March:

I wrote you that I expected to visit the Yale Museum and examine some more of your type upon Saturday. But learning recently of your letter to President Eliott regarding Baur and of your covering up the Dinocerata bones on the occasion of ~~my~~ a former visit, and of your views in regard to my use of the Agassiz Collection, I have decided for the present, at least, to forego a further examination of your collection. I have ~~made~~ ^{made} these visits from the start with a desire to learn what your specimens are, and intention of giving you full credit; see every paper of mine which has any reference to your specimens.

Mr Charles Earle, who is writing upon Palaeozoops would like to visit the Yale Museum, to examine the fossils in the accompanying list. If you are willing to have him do so, please write me - what day next week he can see them. I am -

Yours truly

Henry J. Osborn.