

ON THE NOMENCLATURE OF CERTAIN AMERICAN FOSSIL VERTEBRATES.

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In 1893, Prof. E. D. Cope* described from the Blanco beds of Texas a horse which he called *Equus minutus*. It will, however, be necessary to apply to this animal a new name, since the term *minutus* had already been employed to designate another, probably two other, species of *Equus*.

An *Equus minutus* was indicated by Marcelles de Serres in the year 1838,† but I have not been able to determine whether or not this name was accompanied by a description. For our present purpose this knowledge is not important. We have the following facts: In 1833 P. C. Schmerling‡ figured and described, without naming, some teeth of a small horse, found in caverns of Belgium. In 1858 A. von Nordmann§ wrote as follows: "Für die kleinen Pferde Zähne, angezeigt von Schmerling aus den Lütticher Knochenhöhlen, ist von Marcelles de Serres die Benennung *E. minutus* vorgeschlagen worden." This application of the name to those figured teeth would of itself be sufficient to give the name validity. I have been unable to find any mention of this *Equus minutus* in works more recent than Gervais' *Zoologie et Paléontologie française*, 2nd edition, 1859, where it is made a synonym of *Equus adamaticus*. This itself is a synonym of *E. caballus*. Trouessart|| credits to Dubois an *Equus minutus*, regarding it also as a synonym of *E. caballus*, and omitting reference to place of publication. Dr. T. S. Palmer, of the U. S. Department of Agriculture, kindly informs me that Trouessart quotes the name and author from Roger's *Verzeichniss*, 1887, p. 46, in which place no additional information is vouchsafed. If Dubois has described as new an *Equus minutus*, it too antedates Cope's species of that name.

For the latter I propose the name *Equus phlegon*.**

*Prelim. Rept. Vert. Palæont. Llano Estacado, p. 67, pl. XX, figs. 8, 8a, 8b.

†Essai sur les cavernes de l'Aude, 1838, p. 117. (Quoted by Gervais, in *Zool. et Paléont. française*, ed. 2, 1859.)

‡Recherches sur les ossements fossiles découverts dans les cavernes de la Province de Liège, vol. II, p. 142, pl. XXV, figs. 3, 5.

§Palæont. Südrusslands, p. 158.

||Catalogus Mammalium, 1898, p. 794.

**Interea volucres Pyrois Eous et Aethon,
Solis equi, quartusque Phlegon, hinnitibus auras
Flammiferis implent, pedibusque repagula pulsan.—*Ovid*.

I wish to make some remarks on certain fossil reptiles of North America.

In 1856 Dr. Leidy* described a new genus of dinosaurian reptiles from the Judith River beds of Montana, and this genus he called *Deinodon*, the single species being *D. horridus*. A more extended description with figures was published by Dr. Leidy† in 1860. When these descriptions were written Dr. Leidy was in doubt whether all the teeth comprehended under the name which he gave belonged to a single species or even a single genus. Some of the teeth, represented by figures 21-34, plate IX, as cited, resemble those of *Megalosaurus* and are broadly elliptical in section, with two denticulated carinæ, on opposite sides of the crown. Other teeth, represented by figures 35-45, are somewhat U-shaped in section, with one nearly plane surface, corresponding to the top of the U, and this surface is bounded on each side by a denticulated carina. But none of these teeth was especially designated as types of the genus *Deinodon*.

In 1866 Prof. Cope‡ in considering these teeth, restricted the genus *Deinodon* (spelled *Dinodon*, however) to the teeth represented by figures 35-45 of Dr. Leidy's plate. The *Megalosaurus*-like teeth, represented by figures 21-34, Prof. Cope regarded as belonging to his own genus *Laelaps*. In 1868 Dr. Leidy§ again took up the subject; and refusing to be bound by Prof. Cope's action, he retained *Deinodon* (with the orthography *Dinodon*) for the teeth of figures 21-34; while for the others he proposed the new generic name *Aublysodon*, the species being called *A. mirandus*. In the same year Prof. Cope,|| replying to Dr. Leidy, defended his own procedure, but accepted Dr. Leidy's generic name *Aublysodon* on the ground that "*Dinodon*" had been preoccupied by Duméril and Bibron for a genus of snakes.

Undoubtedly, Prof. Cope, being the first to distribute the materials of Dr. Leidy's composite species and genus, had entire right to assign the original name to such part thereof as he chose, and succeeding writers ought to have respected his

**Proc. Acad. Nat. Sci. Phila.*, 1856, p. 72.

†*Trans. Amer. Philos. Soc.*, vol. XI, p. 144, pl. IX, figs. 21-48.

‡*Proc. Acad. Nat. Sci. Phila.*, 1866, p. 279.

§*Proc. Acad. Nat. Sci. Phila.*, 1868, p. 198.

||*Amer. Jour. Sci.*, [3], vol. XLVI, p. 415.

work. Hence, Dr. Leidy's original generic name adheres to the teeth represented by figures 35-45 of his plate and not to the others. On the other hand, Prof. Cope erred when he undertook to improve Dr. Leidy's name by writing *Dinodon* and again when, with this emendation as a basis, he accepted *Aublysodon*. Were *Deinodon* Leidy and *Dinodon* Duméril and Bibron derived from the same Greek words, *δεινος* and *ὄδων* it would not be necessary first to emend *Deinodon* to *Dinodon* to produce interference. But, while Leidy's *Deinodon* is undoubtedly derived from the Greek words written above, Duméril and Bibron's *Dinodon* is not so derived. If we turn to the famous work on reptiles by the author* just mentioned, we find this explanation of their generic name: "Ce nom a été imaginé par Bibron, d'après l'examen de l'individu confié par M. Smith. Il semble composé de *Δι*, par le milieu, de chaque côté, utrinque, et de *Νοδωσ*, édenté."

This being the case, Dr. Leidy's name, in its original form *Deinodon*, is not preoccupied and is the proper name to apply to those species which for many years have been arranged under the generic name *Aublysodon*.

It may be remarked here that more recently Prof. Cope† has emended also the *Dinodon* of Duméril and Bibron into *Dianodon*.

The disposition of this case above detailed, which disposition I believe to be uncontestable, on the assumption that two distinct genera are included in the lot of teeth described by Leidy, leaves those teeth represented by figures 21-34 without specific name. It is possible that they are covered by some of the specific names which have been included under Prof. Cope's genus *Laelaps*, but apparently they are not. Hence, I believe that I am justified in giving them a provisional specific title.

The name *Laelaps*, having been employed in 1835 for a genus of Arachnida, is not available in the sense given it by Prof. Cope. Hence, Prof. Marsh‡ properly substituted for it, in 1877, the name *Dryptosaurus*. To this genus then the teeth

**Erpétologie Générale*, vol. VII, 1854, p. 447, footnote.

†*Trans. Amer. Philos. Soc.*, XVIII, p. 205.

‡*Amer. Jour. Sci.*, [3], vol. XIV, p. 88.

represented by figures 21-34 of Dr. Leidy's plate IX seem to belong. They may be called *Dryptosaurus kenabekides*.*

From the time of Leidy's first description there have been some reasons for suspecting that all the teeth described by him belonged to the same genus, indeed to the same animal. All those teeth were found "in one place and possessed the same structural differences." Again, Prof. Cope in describing his *Laelaps incrassatus*† states that he found that the anterior denticulated carina of some of the anterior teeth was moved around the crown so that it was no longer opposite the hinder carina; and he says that a further transference would produce a tooth like those of Leidy's figures 35-45, those with the U-shaped section. Furthermore, Cope says that he found a large tooth in immediate association with the jaw of his *L. incrassatus*, but separated from it, which had the posteriorly truncated section described by Leidy as typical; and Cope believed that this tooth belonged to the maxillary bone, near the position of the superior canine of a mammal.

Nevertheless, in 1892 Prof. Cope‡ had the opportunity to study remains of *L. incrassatus* which furnished him nearly all parts of the skull; and he did not find, either in the maxilla or in the dentary, teeth of the kind represented in Leidy's figures 35-45. The teeth of the premaxilla were missing in his specimen and there remains the possibility that they are the ones which possess the U-shaped section. Meantime, it seems wiser to retain the genera as distinct, awaiting further discoveries.

The name *Axestus* was proposed in 1872 by Prof. Cope for a genus of trionychid tortoises, found in the Eocene deposits of Wyoming. The species *A. byssinus* was further described and figured by Prof. Cope in 1884.§ The name is however preoccupied. It may be modified into *Axestemys*. *Axetus* was employed in 1834 by Dejean for a genus of beetles.

Mr. J. Z. Gilbert || has described the skull of a species of

*The Kenabeek, the great serpents,
Lying huge upon the water,
Sparkling, rippling on the water,
Lying coiled across the passage,
With their blazing crests uplifted.—*Longfellow's Hiawatha*.

†Proc. Acad. Nat. Sci. Phila., 1876, p. 341.

‡Proc. Amer. Philos. Soc., vol. XXX, p. 240.

§Tertiary Vertebrates, p. 116, pl. XV, figs. 1-12.

||Kansas Univ. Quart., vol. VII, p. 143, with 4 text-figures.

Testudo from the Loup Fork beds of Kansas and identified it with Prof. Cope's *T. undata*, described* from the Loup Fork deposits of New Mexico. Since nothing is known of the latter species except a few marginals and a costal bone, there is really no evidence that the fine skull described by Gilbert belongs to *T. undata*. The probabilities are greater that it belongs to one of the species described by Prof. Cope† from the Loup Fork beds of Kansas, *Testudo orthopygia* and *T. cyclopygia*. Of *T. orthopygia* Prof. Cope possessed most of the skeleton including the skull. A comparison of Mr. Gilbert's figures and description with the description of Prof. Cope makes it pretty certain that the former is not identical with *T. orthopygia*. Of *T. cyclopygia* the skull is not known, and we have no means of comparing it with Mr. Gilbert's species. This being the case, it is better, I believe, to give the latter a distinct name, so that its literature may be kept separate until further discoveries demonstrate its relationship to other described forms. I name it in honor of its describer *Testudo gilbertii*.

**CROSSING THE VALDEZ GLACIER,
ALASKA, AT BATES BAY.‡**

By CAPTAIN W. R. ABERCROMBIE.

Everything being in readiness July 27, the fog set in so dense it was decided not to attempt to cross the glacier until landmarks could be discerned. July 31 Private Garrett was sent up on the third bench of Valdez Glacier to bring in eight prospectors who had lost their way in attempting to cross Bates Pass. Some of these men had been on the glacier for five days, and during that interval had abandoned everything—guns, clothing, and food. The action of the fog seemed to be governed by the warm, moist air rushing in through Port Valdez from Prince William Sound, which, when striking the

*Wheeler's Survey West of 100th meridian, vol. IV, p. 283, pl. LXVII, figs. 1-2.

†Bull. U. S. Geol. and Geog. Surv. Terr., vol. IV, 1878, pp. 393, 394.

‡Extracted from "Reports of Explorations in the Territory of Alaska" made under the direction of the Secretary of War, 1898, No. XXV, Washington, July, 1899.