

ing perhaps no fossil remains which will ever be detected.²

T. D. A. COCKERELL

UNIVERSITY OF COLORADO

SPECIAL ARTICLES

NOTE ON THE UPPER EOCENE TITANOTHEROID
TELMATHERIUM (?) INCISIVUM DOUG-
LASS FROM THE UINTA BASIN

IN describing the type of this species (a skull, No. 2,398 Carnegie Museum Catalogue of Vertebrate Fossils) Mr. Douglass¹ said:

I think that this skull represents a different genus from *Telmatherium*, but I prefer to place it provisionally here rather than establish another genus.

Through the courtesy of Mr. Douglass, Director Holland and Professor Osborn, the present writer has been enabled to compare this type with the extensive Eocene Titanotheroid material in the American Museum of Natural History. With the approval of these gentlemen the species *Telmatherium* (?) *incisivum* Douglass is hereby made the type of a new genus or subgenus *Sthenodectes*.³ This genus is distinguished from *Telmatherium ultimum* Osborn by the following assemblage of characters: (1) The incisors are far larger and more advanced in evolution, i^1 being closely appressed to its fellow in the median line, with anterior face elongate, anterointernal tip blunt, median basin large, posterior wall or cingulum very massive; i^2 , i^3 extremely large with low recurved tips and very heavy posterior cingula. (2) The postcanine diastema is reduced or absent. (3) Superior premolars 2, 3, 4 are much more advanced than in *T. ultimum*, having very heavy internal cingula, pronounced external cingula, high slender internal cusps (deuterocones); p^2 especially is in a relatively advanced stage, as compared with *T. ultimum*. (4) The least

² The Cichlidae, with a very similar distribution, have left us beautifully preserved fossils of Eocene age in Wyoming, but not elsewhere.

¹ *Ann. Carnegie Mus.*, Vol. VI., No. 2, 1909, p. 305.

³ $\sigma\theta\acute{\epsilon}\nu\omicron\varsigma$, strength, $\delta\eta\kappa\rho\acute{\eta}\varsigma$, a biter, in allusion to the great power and development of the incisors and canines.

transverse diameters of p^4 and of the anterior lobe of m^1 , are greater, that of m^3 much less, than in *T. ultimum*. (5) The basicranial region differs in many details, such as the apparent junction of the post-glenoid and post-tympanic processes below the auditory meatus. (6) The occiput is low with a sharp, long, sagittal crest. (7) The forehead is relatively wide. (8) The nasals taper distally.

From *Manteoceras* (especially *M. uintensis*) the genus under consideration is distinguished by: (1) The form and size of the incisors and canines, (2) the much more advanced stage of evolution of the premolars, (3) the shorter anteroposterior diameter of m^2 , (4) the reduction of the post-canine diastema, (5) the arched and spreading zygomata; etc.

From *Dolichorhinus* and *Mesatirhinus* it is separated by the shortness and relative breadth of the skull, the great size of the incisors, the relatively heavy zygomata and many other details.

The genus or subgenus *Sthenodectes* is apparently allied to *Metarhinus* and may well be related to *Metarhinus earlei* Osborn from the Upper Washakie, which it resembles in important characters of the premolars and molars, form of the basis cranii and occiput, marked constriction of the face in front of the orbits as seen from above. The narrow tapering nasals and other characters also suggest affinity with *Metarhinus diploconus*. The type skull of *Sthenodectes incisivum* differs from all known *Metarhinus* material in the form and in the very large size of the incisors and canines, in the much stronger internal cingula on the premolars, stout zygomata, junction of the post-glenoid and post-tympanic processes below the auditory meatus. The forms of the premaxillary and of the subnasal incisure also differ from those of *Metarhinus*. The supposed vacuities in the lachrymal region, although indicated on both sides, may be artifact.

WILLIAM K. GREGORY

OIL CONCENTRATION ABOUT SALT DOMES

IN several national, state and private publications the writer has called attention to the remarkable concretionary growth and bodily