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A. BORISSIAK (A. BORISIĀK). *Indricotherium* and *Baluchitherium*. [A. A. БОРИСЯК.
Indricotherium и Baluchitherium].

(Présenté par A. Karpinskij de l'Académie le 28 Mai 1924).

The mutual relationship of the gigantic rhinoceroses found in tertiary beds of Baluchistan, Turgai and Mongolia¹ is still unsettled. The authors, who are studying these singular animals, are inclined now to find them identical, now to separate them. Certainly, the problem would be much easier to solve if all the remains of these animals were united in the hands of one of the authors, giving thus the possibility of direct comparison.

That is the reason why it was so extraordinarily interesting for me to get the magnificent cast of the Mongolian skull of *Baluchitherium Grangeri* Osb., which prof. Osborn was so kind to send me, giving thus the possibility to compare its teeth with the dentition of *Indricotherium asiaticum* Bor. from Turgai pretty exactly. The figures of both dentitions are published by the author in the article above mentioned. From these figures it can be seen that both dentitions are almost identical in their size. There is a difference in the second premolar: in *B. G.* this tooth has the protoloph divided from metaloph; in *I. a.* it is very variable and if we take it as a rule that the protoloph is not divided from metaloph, but in a species described by M. Pavlov they are divided as well as in one isolated tooth in my collection. As to the other premolars, the principal difference between both forms consists in the size of tetartocone which is much more developed in *B. G.* than in *I. a.* This feature nevertheless is also very variable in *I. a.*: the tetartocones of the premolars in specimens, which were described in my Monograph (1923), are more developed than those described in the last article above mentioned; respectively the tritoconule it is also differently placed because it is always touching the fore end of the tetartocone.

Description of *Paraceratherium* by D-r Forster Cooper² gives a further material for comparing it with both forms mentioned. D-r Cooper has already emphasized the great resemblance of the *Paraceratherium*'s teeth to the dentition of *I. a.*; as to

¹ Bibliography of this group with its critical exposition see A. Borissiak, On the Indricotheriinae, BASR, 1924, p. 127.

² Philos. Trans. R. Soc. London, (B), v. 212, p. 369.

the size they are very variable, but the largest ones approach in their size the dentition of *I. a.*, and the length of the range of premolars, as well as that of molars are nearly equal in all three forms; nevertheless «the premolars of *P.* while quite as long, as those of *B.*, are considerably less wide», says D-r Cooper (p. 392); and the molars have «a groove sometimes very strongly marked, which runs vertically down the lingual side of the protocone» (p. 385), — this is just the feature which is not to be seen in both of the other forms. Unfortunately the description of the lower dentition of *P.* is very short; it seems to differ from *I. a.*: there is no external crest in premolars here, peculiar to the lower dentition of *I. a.*

In spite of that similarity of teeth (even in measurements) it is very important to indicate the great difference in size and in the form of the skulls of *B.* and *P.*, as D-r Cooper has stated it in detail.

This last circumstance shows us how cautious we must be in identifying by the similarity of the teeth-structure alone; the dentition of all the three forms is alike in the amount of specialisation, very like the teeth of *Aceratherium platycephalum*, *Ac. Filholi* and perhaps of *Ac. Copci*, which has the tritoconule directed to the fore end of tetartocone, as in these giants. Thus we have to wait for more complete skulls and lower jaws from all three countries, especially for the fore ends of the skulls and lower jaws with the incisors in situ, in order to settle the mutual relationship of the different forms of *Indricotheriinae* (*Baluchitheriinae*). The position of the «tusks» (incisors) seems to be different as it is proved by the comparison of the lower jaw described by M. Pavlov with that of *Paracetherium*. Now we can only say that the upper tusk in *B.* is larger than the one described by M. Pavlov (the first is in circumference 200 mm. and the later only 150 mm.) and there is not a single tooth of such a large size among the isolated incisors in my collections; all my incisors may belong to the lower jaw, although they differ from each other in the structure of their crowns and roots.

The Turgai form seemed to differ from the others by its more ancient age (oligocene), but in the last time the study of the Fauna found together with *B. G.* has induced Prof. Matthew¹ to correlate it not as miocene, following D-r Grangers opinion, but as oligocene, just as I have correlated the *Indricotherium*-Fauna.

¹ Amer. Museum Novitates, №№ 101 a. 105.