



## A Rhino from Lake Baikal

### RECOMMENDATION

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### A recommendation of

Sizov A, Klementiev A, and Antoine PO (2024). An Early Miocene skeleton of *Brachydiceratherium* Lavocat, 1951 (Mammalia, Perissodactyla) from the Baikal area, Russia, and a revised phylogeny of Eurasian teleoceratines. *bioRxiv* 498987, ver. 6 peer-reviewed by PCI Paleo. DOI: 10.1101/2022.07.06.498987

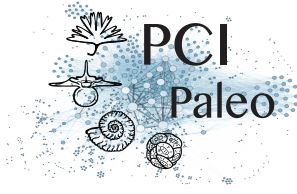
As for many groups, such as equids or elephants, the number of living rhinoceros species is just a fraction of their past diversity as revealed by the fossil record. Besides being far more widespread and taxonomically diverse, rhinos also came in a greater variety of shapes and sizes. Some of these – teleoceratines, or so-called ‘hippo-like’ rhinos – had short limbs, barrel-shaped bodies, were often hornless, and might have been semi-aquatic (Prothero et al., 1989; Antoine, 2002). Teleoceratines existed from the Oligocene to the Pliocene, and have been recorded from Eurasia, Africa, and North and Central America. Despite this large temporal and spatial presence, large gaps remain in our knowledge of this group, particularly when it comes to their phylogeny and their relationships to other parts of the rhino tree (Antoine, 2002; Lu et al., 2021). Here, Sizov et al. (2024) describe an almost complete skeleton of a teleoceratine found in 2008 on an island in Lake Baikal in eastern Russia. Dating to the Early Miocene, this wonderfully preserved specimen includes the skull and limb bones, which are described and figured in detail, and which indicate assignment to *Brachydiceratherium shanwangense*, a species otherwise known only from Shandong in eastern China, some 2000 km to the southeast (Wang, 1965; Lu et al., 2021).

The study goes on to present a new phylogenetic analysis of the teleoceratines, the results of which have important implications for the taxonomy of fossil rhinos. Besides confirming the monophyly of Teleoceratina, the phylogeny supports the reassignment of most species previously assigned to *Diaceratherium* to *Brachydiceratherium* instead.

In a field that is increasingly dominated by analyses of metadata, Sizov et al. (2024) provide a reminder of the importance of fieldwork for the discovery of fossil remains that, sometimes by virtue of a single specimen, can significantly augment our understanding of the evolution and paleobiogeography of extinct species.

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*A recommendation of Sizov et al. (2024)*

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## Appendix

Reviews by Jérémy Tissier, Panagiotis Kampouridis, and Deng Tao, DOI: 10.24072/pci.paleo.100182.