

PALEOECOLOGY OF THE ENIGMATIC RHINOCEROS *CHILOTHERIUM* IN CENTRAL ASIA

ROBSON, Selina, Department of Geological Sciences, University of Oregon, 1272 University of Oregon, Department of Geological Sciences, Eugene, OR 97403, robson.selina@gmail.com and MCLAUGHLIN, Win Nadia Francis, Geological Sciences, University of Oregon, Department of Geologic Sciences, 1272 University of Oregon, Eugene, OR 97403

We report a new occurrence of the rhinocerotid *Chilotherium* in the Kochkor basin in Kyrgyzstan. While some geologic reports refer to *Chilotherium* in Kyrgyzstan, no described material exists from the country and all published material is now lost to science. Therefore, our new material is important for not only recognizing the occurrence of the genus, but also understanding the evolution, ecology, and dispersion of various fossil taxa including *Chilotherium*. Few studies have examined the global distribution of *Chilotherium*. While a not uncommon taxon, we found that 84% of *Chilotherium* specimens were found in China, mostly from the Linxia Basin. Thus, the Kyrgyz specimens represent an important geographic extension of the taxon, and may clarify the relationship between ecology and species diversity.

Of collected fossils from Kyrgyzstan, *Chilotherium* is the most abundant taxon. A species level diagnosis of *Chilotherium* is difficult because the taxonomy poorly constrained. There are only three valid species (*C. anderssoni*, *C. haberi*, *C. kiliasi*) but close to 20 published species. By mapping occurrences globally, we hope to clarify taxonomic relationships as well as to assign the new Kyrgyz material to a species level.

The Kyrgyz fossils are found with *Dorcac dorcadoides*, *Sivatherium*, *Hipparion*, and a tortoise. These taxa are associated with open ecologies. The astragalus of the new *Chilotherium* fossils is most similar to the North American *Teloceras*, a large barrel bodied rhino with short legs. We therefore suggest that *Chilotherium* was less cursorial than several contemporaneous rhino taxa in Asia. Also, our database of *Chilotherium* occurrences only reports localities above 2,000m elevation. While paleoaltitudes may be different than modern altitudes, recent studies support the construction of both the Himalayan and Tien Shan ranges prior to the late Mio/Pliocene. This indicates that *Chilotherium* occupied a different ecological niche.

[2014 GSA Annual Meeting in Vancouver, British Columbia \(19–22 October 2014\)](#)
[General Information for this Meeting](#)

Session No. 222--Booth# 263

[Paleontology: New Discoveries in Vertebrate Trace and Body Fossils \(Posters\)](#)

Vancouver Convention Center-West: Exhibition Hall C

9:00 AM-6:30 PM, Tuesday, 21 October 2014