Mammalian distal humeri from the Late Cretaceous of Uzbekistan

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We describe mammalian distal humeri recovered from the Bissekty Formation, Dzharakuduk, Kyzylkum Desert, Uzbekistan (90 Ma). Isolated elements were sorted into groups that likely correspond to species (or genera). These groups were allocated to taxa known mostly from the dentition, petrosals, and/or tarsals at this site. We identified one humerus of a multituberculate and one of a zalambdalestid. Several eutherian humeri have been tentatively assigned to Zhelestidae based on their dissimilarity to zalambdalestids and the abundance of zhelestids in the dental record. The zalambdalestids and zhelestids were probably terrestrial. At least two metatherian taxa have also been identified, and both were likely arboreal. Although the dental record suggests twelve eutherian species and only one metatherian, crurotarsal evidence supports the presence of at least four metatherian species at Dzharakuduk. The humeri analyzed here also provide support for the presence of multiple metatherians in the fauna, further demonstrating that postcrania are critical to understanding the taxonomic diversity present at these Late Cretaceous localities.

Key words: Mammalia, Multituberculata, Metatheria, Zalambdalestidae, Zhelestidae, humerus, Cretaceous, Uzbekistan.

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