

A NEW EARLY/MIDDLE MIOCENE FAUNA FROM SOUTHERN BOLIVIA

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Nearly all Tertiary fossil localities in South America come from temperate latitudes (Flynn and Wyss, 1998). The few low latitude faunas presently known are scattered in space and time, providing only glimpses of Neotropical paleocommunities (MacFadden, 2006). A biased record such as this is inadequate for understanding the development of modern faunas, and discovery of additional Neotropical faunas therefore should be a top priority for paleontologists. We here provide a preliminary report of a new Neotropical mammal fauna from the “Estratos de Cerdas” near 21° S latitude, about 60 km southeast of Uyuni, Bolivia. A paleomagnetic section with associated radioisotopic dates constrains the fossiliferous horizons to ca. 16.5–15.3 Ma (late early to early middle Miocene) (MacFadden et al., 1995). Fossils were first reported from the area in 1972 (Villarroel, 1978), but no mammals other than mesotheriid notoungulates had been noted by investigators. Our team of geologists and paleontologists collected 72 new mammal specimens from Cerdas during a brief visit in 2007, increasing taxonomic representation to nine families and twelve species. The most common mammals at Cerdas are mesotheriid notoungulates; many partial dentitions and several skulls of “*Plesiotypotherium*” minus and/or *Microtypotherium choquecotense* have been collected. Other Cerdas notoungulates include a very small hegetotheriine (75% the size of *Hegetotherium mirabile*), two intertheriines (one resembling *Protypotherium attenuatum* but with more reduced premolar talonids, the other 25% smaller with a tiny middle lobe on M1), and a toxodontid (*Palyeiodon* sp.). A metatarsal and a partial mandible from a small macraucheniid litoptern may pertain to a new species. Osteoderms of at least three armadillos have been collected: a peltephilid (?*Epipeltephilus*), a eutatin dasypodid (*Stenotatus* cf. *S. planus*), and a euphractin dasypodid (?*Prozaedyus* sp.). A partial mandible records the presence of the megatheroid sloth *Xyophorus villarroeli*. The only rodent collected thus far is a lagostomine chinchillid, likely *Prolagostomus*. These species represent a mix of Cerdas endemics, species present in contemporaneous Chilean and Argentine faunas, and species present in Bolivian faunas of different age.

Flynn, J.J. and Wyss, A.R. 1998. Recent advances in South American mammalian paleontology. *Trends in Ecology and Evolution* 13: 449-454.

MacFadden, B.J. 2006. Extinct mammalian biodiversity of the ancient New World tropics. *Trends In Ecology & Evolution* 21: 157-165. Villarroel, 1978

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Villarroel, C. 1978. Edades y correlaciones de algunas unidades litoestratigráficas del Altiplano boliviano y estudio de algunos representantes mesotériinos. *Revista de la Academia Nacional de Ciencias de Bolivia* 1: 159-170.