

***Anisodontherium* from the late Miocene of north-western Argentina**

Diego Brandoni, Jaime E. Powell, and Osvaldo E. González

Acta Palaeontologica Polonica 57 (2), 2012: 241-249 doi: <http://dx.doi.org/10.4202/app.2010.0129>

The fossil record of Megatheriinae (Tardigrada, Megatheriidae) in Argentina extends from the Colloncuran (Middle Miocene of Patagonia) to the Lujanian (Late Pleistocene–Early Holocene of the Pampean region). In the Late Miocene of north–western Argentina, Megatheriinae is represented by just three species belonging to a single genus, *Pyramiodontherium*. Here, we describe a partial mandible and the phalanges of a third digit of the manus recovered from the Saladillo Formation (Upper Miocene) of Tucumán Province, and assign them to *Anisodontherium* sp. *Anisodontherium* is primarily characterized by mesiodistally compressed molariforms, an anterior margin of the coronoid process located posterior to m4, and a posterior margin of the mandibular symphysis located anterior to m1. While these features can also be observed in *A. halmyronomum* from the Arroyo Chasicó Formation (Buenos Aires Province, Pampean region), *Anisodontherium* sp. is smaller and more slender than the former. The shape of each molariform of *Anisodontherium* affects the total length of the molariform tooth row, and thus the interpretation of some characters used in cladistic and paleobiological analyses. The material described here adds to the knowledge of the mandibular and dental anatomy of early megatheriines. In addition, the occurrence of *Anisodontherium* in Tucumán Province provides the first record of this genus outside the Pampean region, and increases the diversity of megatheriines during the Late Miocene–Pliocene of north–western Argentina.

Key words: Xenarthra, Megatheriinae, *Anisodontherium*, ground sloths, diversity, late Miocene, Argentina.

Diego Brandoni [dbrandoni@cicyttp.org.ar], Laboratorio de Paleontología de Vertebrados, Centro de Investigaciones Científicas y Transferencia de Tecnología a la Producción (CICYTTP-CONICET), Matteri y España, 3105 Diamante, Entre Ríos, Argentina; Jaime E. Powell [powell.jaime@gmail.com], CONICET. Facultad de Ciencias Naturales e Instituto Miguel Lillo. Universidad Nacional de Tucumán, Miguel Lillo 205, 4000 Tucumán, Argentina; Osvaldo E. González [segemargonzalez@arnet.com.ar], SEGEMAR. Facultad de Ciencias Naturales e Instituto Miguel Lillo. Universidad Nacional de Tucumán, Miguel Lillo 205, 4000 Tucumán, Argentina.

This is an open-access article distributed under the terms of the Creative Commons Attribution License (for details please see creativecommons.org), which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

 [Full text \(327.9 kB\)](#)