

New Data on Miocene Neotropical Provinciality from Cerdas, Bolivia

Darin Andrew Croft · Federico Anaya ·
David Auerbach · Carmala Garzione ·
Bruce J. MacFadden

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Abstract We provide the first faunal report for the early/middle Miocene fauna of Cerdas, Bolivia (16.5–15.3 Ma; 20° 52' S, 66° 19' W), based primarily on new specimens collected in 2007. As many as twelve species

of mammals in nine families are represented. Notoungulates include *Palyeidodon obtusum* (Toxodontidae), *Protypotherium* cf. *attenuatum* and *Protypotherium* sp. nov. (Interatheriidae), '*Plesiotypotherium*' *minus* and possibly *Microtypotherium choquecotense* (Mesotheriidae), and *Hegetotherium?* sp. nov. (Hegetotheriidae). Xenarthrans include *Stenotatus planus* and *Prozaedyus* sp. (Cingulata: Dasypodidae), Peltephilidae gen. et sp. nov. (Cingulata), and *Xyophorus* cf. *bondesioi* (Pilosa: Nothrotheriidae). A new species of litoptern is also present (Macraucheniiidae) as well as an unidentified rodent (Chinchillidae: Lagostominae). Two of these Cerdas species occur in Friasian sensu stricto/Colloncuran SALMA faunas of Patagonia, and perhaps one in Santacrucian SALMA faunas. Among middle latitude localities, Cerdas resembles Chucal, Chile (late early Miocene, Santacrucian SALMA) in community composition (e.g., abundant mesotheriids, few rodent species), but has no species in common; it shares one species with Quebrada Honda, Bolivia (middle Miocene, Laventan SALMA), and perhaps as many as three more. These observations indicate that Cerdas is not referable to the Santacrucian, and that the upper limit of this SALMA in the middle latitudes falls somewhere between 17.5 Ma (the top of Chucal) and 16.5 Ma (the base of Cerdas). Based on the range of dates proposed for the youngest Santacrucian intervals in Patagonia, a diachronous offset of up to 2.1 Ma may exist at this point in the SALMA sequence between middle and high latitude faunas.

D. A. Croft (✉)
Department of Anatomy,
Case Western Reserve University School of Medicine,
10900 Euclid Ave.,
Cleveland, OH 44106-4930, USA
e-mail: dcroft@case.edu

F. Anaya
Facultad de Ingeniería Geológica,
Universidad Autónoma Tomás Frías,
Av. del Maestro s/n,
Potosí, Bolivia
e-mail: fedanaya@hotmail.com

D. Auerbach · C. Garzione
Department of Earth and Environmental Sciences,
University of Rochester,
227 Hutchison Hall,
Rochester, NY 14627, USA

D. Auerbach
e-mail: auerbach@earth.rochester.edu

C. Garzione
e-mail: garzione@earth.rochester.edu

B. J. MacFadden
Florida Museum of Natural History, University of Florida,
Gainesville, FL 32611, USA
e-mail: bmacfadd@flmnh.ufl.edu