

A new capybara from the late Miocene of San Juan Province, Argentina, and its phylogenetic implications

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Acta Palaeontologica Polonica 64 (1), 2019: 199-212 doi:<https://doi.org/10.4202/app.00544.2018>

A new hydrochoerine rodent, *Cardiatherium calingastaense* sp. nov. (Caviidae), is described based on the specimen INGEO-PV 87. It was recovered from the late Miocene Las Flores Formation, cropping out at the Puchuzum locality, San Juan Province, Argentina. The new species is based on a particular combination of characters, among which the following can be highlighted: p4 with internal fissures equally deep as in *Cardiatherium paranense*, secondary external fissure as in *Cardiatherium patagonicum*, and lacking the fifth internal fissure and supernumerary internal fissure, as in *C. paranense*; m3 with a conspicuous labial column in the posterior ramus of the second prism; very deep primary and secondary external fissures in upper cheek teeth, the former producing a labial strong step-shaped profile in M2; sagittal crest on the parietals; bullae small in ventral view; scars of the origin of the masseter medialis muscle with an anterior projection up to the level of the incisive foramen and the maxilla-premaxilla suture. The phylogenetic analysis supports the taxonomic proposal of creating a new species of *Cardiatherium* and shows *C. calingastaense* sp. nov. as the sister group of the other species of the genus. The lineage leading to the clade *Cardiatherium* + largest capybaras would have originated at least during the Chasicoan SALMA (early late Miocene). *Cardiatherium calingastaense* sp. nov. adds to the previous record of *Cardiatherium chasicoense* and *Cardiatherium paranense* in the late Miocene of San Juan and Mendoza provinces, respectively, thus increasing the diversity of capybaras in central-west Argentina.

Key words: Mammalia, Rodentia, Caviidae, *Cardiatherium*, systematics, phylogeny, late Miocene, Argentina.

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