

## A Cretaceous mammal from Tanzania

David W. Krause, Michael D. Gottfried, Patrick M. O'Connor, and Eric M. Roberts

*Acta Palaeontologica Polonica* 48 (3), 2003: 321-330

We report here the discovery of a Cretaceous mammal from the "Red Sandstone Group" of southwestern Tanzania. This specimen is one of only a very few Cretaceous mammals known from Gondwana in general and Africa in particular. The specimen consists of a short, deep left dentary that bore a large, procumbent central incisor, and five single-rooted, hypsodont cheek-teeth. The specimen is very tentatively identified as a sudamericid, and thus may represent the first African record of an enigmatic clade of mammals, the Gondwanatheria, which is otherwise known from the Late Cretaceous and Paleogene of several other Gondwanan landmasses. Unfortunately, the precise age of the specimen could not be determined. If it is pre-Campanian and if its identity as a sudamericid is corroborated through subsequent discoveries, it represents the earliest known gondwanatherian. If the specimen is from the Campanian or Maastrichtian, and again assuming its identification is correct, it has the potential to refute a recently formulated biogeographic hypothesis predicting the absence of certain terrestrial and freshwater vertebrate taxa, including gondwanatherians, in Africa (i.e., those that evolved elsewhere on Gondwana after Africa became an isolated landmass).

**Key words:** Mammalia, Gondwanatheria, Cretaceous, Gondwana, Africa, Tanzania.

David W. Krause [[David.Krause@sunysb.edu](mailto:David.Krause@sunysb.edu)], Department of Anatomical Sciences, Stony Brook University, Stony Brook, New York 11794–8081, USA; Michael D. Gottfried [[gottfrie@msu.edu](mailto:gottfrie@msu.edu)], Michigan State University Museum, East Lansing, Michigan 48824–1045, USA; Patrick M. O'Connor [[pmoconno@ic.sunysb.edu](mailto:pmoconno@ic.sunysb.edu)], Department of Anatomical Sciences, Stony Brook University, Stony Brook, New York 11794–8081, USA; Current address: Department of Biomedical Sciences, College of Osteopathic Medicine, Ohio University, Athens, Ohio 45701, USA; Eric M. Roberts [[eroberts@mines.utah.edu](mailto:eroberts@mines.utah.edu)], Department of Geology and Geophysics, University of Utah, Salt Lake City, Utah 84112, USA.

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

 [Full text \(777.4 kB\)](#)