

New Late Cretaceous mammals from the Intertrappean beds of Rangapur, India and paleobiogeographic framework

Rajendra S. Rana and Gregory P. Wilson *Acta Palaeontologica Polonica* 48 (3), 2003: 331-348

A new mammal-bearing locality from the Intertrappean beds (Maastricthian) of Rangapur, Andhra Pradesh, India provides isolated teeth referable to *Deccanolestes* and a new eutherian, *Sahnitherium rangapurensis*. Dental comparisons with *Cimolestes*, *Procerberus*, and *Aboletylestes* do not support proposed "palaeoryctoid" affinities for *Deccanolestes*. Although similarities exist with *Otlestes* and *Batodon*, *Deccanolestes* is currently considered to be of uncertain familial affinities. *Sahnitherium rangapurensis* exhibits similarities to *Procerberus*, *Paranyctoides*, *Alostera*, *Aboletylestes*, and *Avitotherium*, but it is here placed within Eutheria *incertae sedis*. Despite family level taxonomic uncertainties, the new material confirms the presence of eutherians on the Indian subcontinent during the Late Cretaceous. A Eurasian connection via an early collision or some other dispersal route may explain these paleobiogeographic data, but other hypotheses are considered. In particular, paleogeographic, paleontological, and molecular systematic data hint that boreosphenidan mammals may have had wider distribution on Gondwana during the Cretaceous than previously supported.

Key words: Mammals, Eutheria, biogeography, Late Cretaceous, Gondwana, India.

Rajendra S. Rana [rs_rana_hnbgu@rediffmail.com], Department of Geology, HNB Garwhal University, Srinagar (Garhwal), Uttaranchal, India–246174; Gregory P. Wilson [gpwilson@socrates.berkeley.edu], Department of Integrative Biology and Museum of Paleontology, University of California, Berkeley, California, 94720–4780, USA. (to whom correspondence should be directed)

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

