

## An ailuravine rodent from the lower Eocene Cambay Formation at Vastan, western India, and its palaeobiogeographic implications

Rajendra S. Rana, Kishor Kumar, Gilles Escarguel, Ashok Sahni, Kenneth D. Rose, Thierry Smith, Hukam Singh, and Lachham Singh

*Acta Palaeontologica Polonica* 53 (1), 2008: 1-14 doi:<http://dx.doi.org/10.4202/app.2008.0101>

A new ailuravine rodent, *Meldimys musak* sp. nov. (Mammalia: Rodentia, Ischyromyidae), is recorded from the lower Eocene lignites of western India. It is the oldest record of Rodentia from India. *M. musak* is more derived than the earliest Eocene ailuravine *Euromys cardosoi* from Portugal and more generalized than late early Eocene *E. inexpectatus* and *Ailuravus michauxi* from France. Its dental morphology closely corresponds to the middle early Eocene species *M. louisi*, which lived about 52 Ma in Western Europe. *Meldimys* was previously known only from Europe, and ailuravines were previously reported only from Europe and North America. Its occurrence in India allows the first direct correlation between the early Eocene land mammal horizons of Europe and India, and raises the possibility of a terrestrial faunal exchange between India and Eurasia close to the Palaeocene-Eocene transition.

**Key words:** Mammalia, Ailuravinae, Rodentia, palaeobiogeography, Eocene, India.

Rajendra S. Rana [rs\\_rana\\_hnbgu@yahoo.com](mailto:rs_rana_hnbgu@yahoo.com) and Lachham Singh [lachhamrawat@yahoo.co.in](mailto:lachhamrawat@yahoo.co.in), Department of Geology, HNB Garhwal University, Srinagar 246 175 UA, India;

Kishor Kumar [kumark@wihg.res.in](mailto:kumark@wihg.res.in), Wadia Institute of Himalayan

Geology, 33 General Mahadeo Singh Road, Dehradun 248 001 UA, India

(corresponding author); Gilles Escarguel [gilles.escarguel@univ-lyon1.fr](mailto:gilles.escarguel@univ-lyon1.fr), UMR

CNRS 5125 Paléoenvironnements & Paléobiosphère, France; Université Lyon 1,

Campus de la Doua, Bât. Géode F-69622 Villeurbanne Cedex, France; Ashok

Sahni [ashok.sahni@gmail.com](mailto:ashok.sahni@gmail.com), Department of Geology, Panjab University,

Chandigarh 160 014, India; Kenneth D. Rose [kdrose@jhmi.edu](mailto:kdrose@jhmi.edu),

Center for Functional Anatomy and Evolution, Johns Hopkins

University, School of Medicine, Baltimore MD 21205, USA; Thierry

Smith [Thierry.Smith@naturalsciences.be](mailto:Thierry.Smith@naturalsciences.be), Department of Paleontology, Royal

Belgian Institute of Natural Sciences, B-1000 Brussels, Belgium; Hukam Singh [hukams@gmail.com](mailto:hukams@gmail.com),

Birbal Sahni Institute of Palaeobotany, 53 University Road, Lucknow 226 007 UP, India.

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 \(682.5 kB\)](#)