

## The platacanthomyine rodent *Neocometes* from the Miocene of South Korea and its paleobiogeographical implications

Yuong-Nam Lee and Louis L. Jacobs

*Acta Palaeontologica Polonica* 55 (4), 2010: 581-586 doi: <http://dx.doi.org/10.4202/app.2010.0013>

A left first lower molar of *Neocometes* from the Bukpyeong Formation, South Korea is more similar to *Neocometes similis* and *Neocometes* cf. *similis* from Europe than to *Neocometes orientalis* from Thailand, and is therefore referred to *Neocometes* aff. *similis*. The new discovery of *Neocometes* is important in that it is the first evidence in Asia to show close faunal affinity to European *Neocometes*. It is also of paleobiogeographic significance for the subfamily Platacanthomyinae, because it represents the easternmost occurrence of this subfamily in Eurasia, implying there was continuous gene flow between the *Neocometes* populations of eastern Asia and western Europe. The paleoclimatic interpretation for the Bukpyeong Formation based on the palynomorphs implies that *Neocometes* had wider climatic tolerances than either of the two extant platacanthomyine genera. The evolutionary stage of Korean *Neocometes* is comparable to material from European localities correlated with MN 4 and MN 5, which constrains the age of the Bukpyeong Formation to between 18 and 15.2 Mya.

**Key words:** Mammalia, Rodentia, Platacanthomyinae, *Neocometes*, paleobiogeography, Miocene, Bukpyeong Formation, South Korea.

Yuong-Nam Lee [[ylee@kigam.re.kr](mailto:ylee@kigam.re.kr)], Korea Institute of Geoscience and Mineral Resources, Daejeon 305-350, South Korea; Louis L. Jacobs [[jacobs@mail.smu.edu](mailto:jacobs@mail.smu.edu)], Roy M. Huffington Department of Earth Sciences, Southern Methodist University, Dallas, TX 75275, 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 \(247.7 kB\)](#)