

Ischyromyid rodents found from the Eocene of Erlian Basin in Nei Mongol

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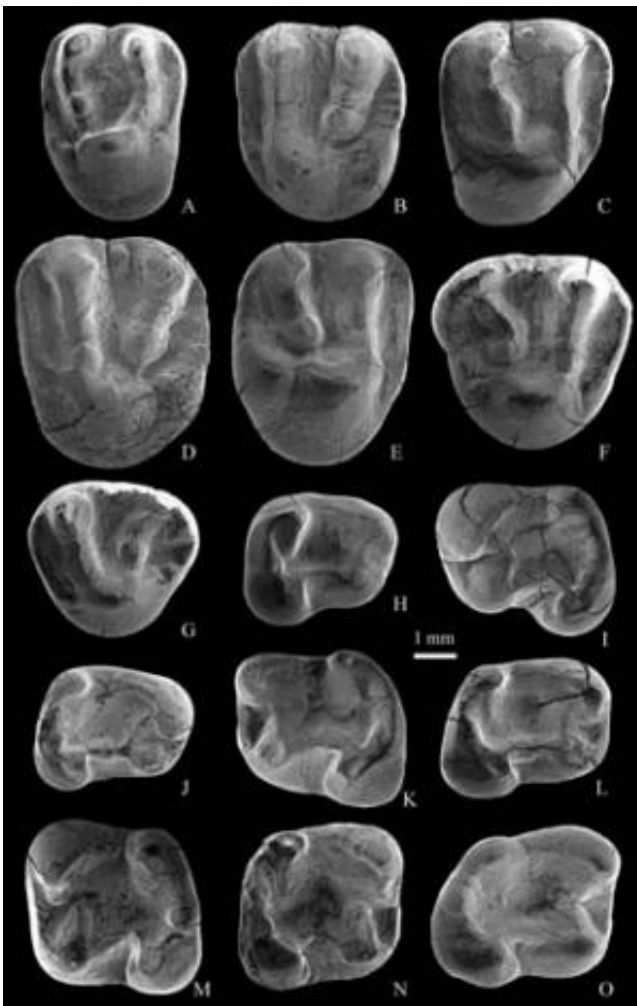


Fig.1 Occlusal view of the cheek teeth of *Asiomys dawsoni*. Credit: LI Qian

The ischyromyids are the most primitive rodents that have a Holarctic

Paleogene distribution. Members of the family are predominant in Paleogene rodents of North America, but are relatively rare in both Asia and Europe. In a study published in the latest issue of *Vertebrata Palasiatica* 51(4), Drs. LI Qian and MENG Jin, Institute of Vertebrate Paleontology and Paleoanthropology (IVPP), Chinese Academy of Sciences, reported some new findings of the Eocene ischyromyids from the Huheboerhe area in the Erlian Basin, Nei Mongol, China. These include *Asiomys dawsoni* from the basal strata of the Irdin Manha Formation and *Ischyromyidae* gen. et sp. indet. from the basal strata of the Arshanto Formation. The new materials include fragmentary mandibles and numerous cheek teeth, which provide new evidence for the mammal's dispersal between Asia and North America during the Middle Eocene.

Asiomys is similar to species of both paramyines and reithroparamyines in size. The mandible of *Asiomys* is similar to that of *Paramys delicatus* in many features. Dental characteristics of *Asiomys* are similar to those of paramyines, but quite different from those of reithroparamyines. Researchers tentatively assigned *Asiomys* to Paramyinae based on the fragmentary mandible and the cheek [teeth](#).

The teeth of *Asiomys* appear consistent with some evolutionary trends observed in Middle Eocene North America ischyromyids. However, *Asiomys* differs from other Middle Eocene Asian ischyromyids, such as *Anatoparamys*, *Eosischyromys* and *Hulgana*, in having a small hypocone and two metaconules on upper molars, a complete hypolophid on dp4 and a short hypolophid and a small hypocounulid on lower molars.



Fig.2 Mandible of *Asiomys dawsoni*. A–C, left mandibular fragment with m2; D–E, left mandibular with p4-m3. Credit: LI Qian

"Because *Asiomys* is more similar to the North American ischyromyids than to the Asian ones, it provides a new evidence for faunal exchanges between Asia and North America during the Middle Eocene", said first author Dr. LI Qian of the IVPP.

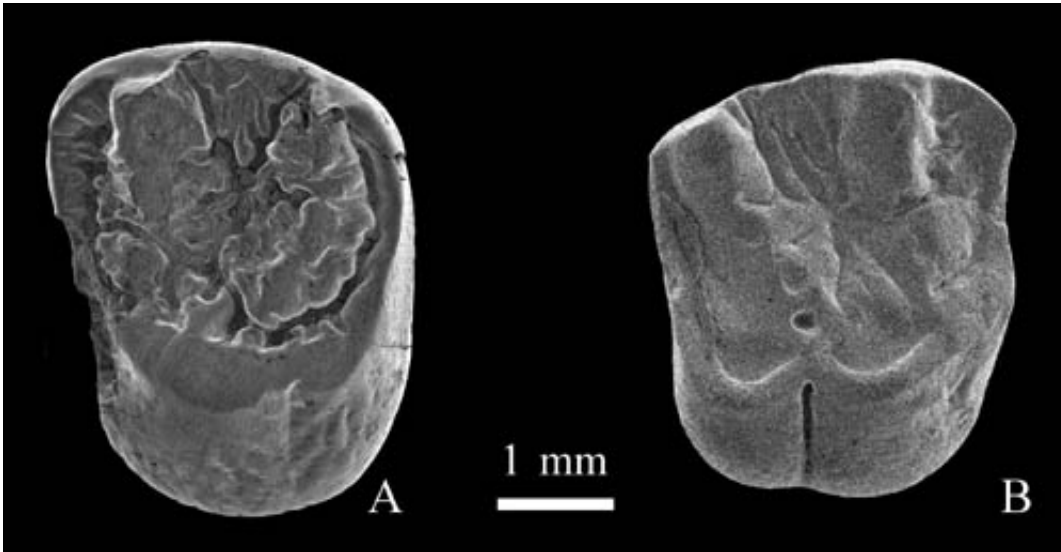


Fig.3 Occlusal view of the upper cheek teeth of Ischyromyidae gen. et sp. indet.
Credit: LI Qian

More information: Read the study: www.ivpp.cas.cn/cbw/gjzdwxb/xb..._1204403891676383.pdf

Provided by Chinese Academy of Sciences

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