

The gomphotheriid mammal *Platybelodon* from the Middle Miocene of Linxia Basin, Gansu, China

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In this paper, we report on abundant fossils of *Platybelodon* from the Middle Miocene of the Linxia Basin, China. Most of the fossils were discovered at two localities (Laogou and Zengjia) in the upper Middle Miocene Hujialiang Formation, and possess derived characters for the genus, including a relatively slender upper incisor, the development of a transverse ledge on the narrowest part of the mandibular symphysis, narrow, elongate and hypsodont third molars, the development of fourth loph(id)s on the second molars, and the development of small enamel conules and cementum in the interloph(id)s. Following comparisons with other Eurasian platybelodonts, we assign these remains to *Platybelodon grangeri*, and demonstrate that they are morphologically intermediate between *P. grangeri* from the Tunggurian localities of Tarim Nor and *Platybelodon* Quarry in Inner Mongolia. We suggest that the locality of Laogou may be younger than that of Zengjia, based on the occurrence of platybelodonts showing a suite of more derived characters. In addition, we assign two further specimens of *Platybelodon* from the lower Middle Miocene Dongxiang Formation of the Linxia Basin to *Platybelodon danovi*, owing to their retention of plesiomorphic characters distinguishing them from other Linxia *Platybelodon* fossils. Based on a cladistic analysis, we propose an evolutionary sequence of platybelodonts in Eurasia, and discuss potential functional adaptations.

Key words: Mammalia, Gomphotheriidae, *Platybelodon*, morphology, cladistics, Miocene, Linxia Basin, China, Eurasia.

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