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First complete heterosoricine shrew: A new genus and species from the Miocene of China

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Heterosoricinae are the oldest known soricids, their records dating back to the middle Eocene of North America and earliest Oligocene of Eurasia. They became extinct during the Miocene and were thus far only known from dental and cranial remains. For the first time, a virtually complete heterosoricine is described, coming from the early/middle Miocene locality of Shanwang, Shandong Province, which is famous for the diversity and excellent preservation of its fossils. *Lusorex taishanensis* gen. et sp. nov. is closely related to *Wilsonosorex* from the early Hemingfordian of North America. Both are unusual in sharing well-developed conules on the upper molars and reduced ectocingulids on the lowers, and most likely these sister taxa reflect faunal exchange between North America and NE Asia in early Miocene time. *L. taishanensis* was the size of a European common shrew, *Sorex araneus*. The heavy masticatory apparatus of the new heterosoricine contrasts with its slender postcranial skeleton. Adaptively, *L. taishanensis* appears to be similar to the North American *Blarina brevicauda* in its strong masticatory apparatus, very short tail, and slight limb specializations toward fossorial habits. It differs from other soricids as far as is known by unfused tibia and fibula.

Key words: Soricidae, Heterosoricinae, Miocene, China, skeleton, adaptations, new taxon.

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