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Small mammal fauna from Wulanhuxiu (Nei Mongol, China) implies the Irdinmanhan–Sharamurunian (Eocene) faunal turnover

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Wulanhuxiu, a middle Eocene locality in the Erlian Basin, Nei Mongol (China) has been commonly regarded as belonging to the Ulan Shireh Formation, equated with the Irdin Manha Formation. We recognized two separate mammalian faunas of different age from the beds exposed at Wulanhuxiu. The lower fossiliferous horizon contains an anagalid, uncommon duplicidentate representatives (*Gomphos progressus* sp. nov., *Mimolagus*, *Erenlagus*, and *Strenulagus*), and diverse perissodactyls. This combination of taxa points to an Irdinmanhan age, but one element of the fauna (*Schlosseria*) may represent an Arshantan relic. Overall, the assemblage comprises “paleoplacental” mammals mixed with “neoplacentals”. The upper horizon is less species-rich and the only paleoplacentals present are scarce creodonts. However, this horizon is marked by abundant remains (including postcranial material) of the lagomorph *Gobiolagus* and by the presence of an advanced form of *Gobiomys* (Rodentia), and is most probably Sharamurunian in age. Thus, Wulanhuxiu documents replacement, albeit incomplete, of paleoplacentals by neoplacentals in the Chinese Eocene record.

Key words: Mammalia, Rodentia, Duplicidentata, Anagalidae, Eocene, Ulan Shireh Formation, China, Erlian Basin.

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