

Ankle structure in Eocene pholidotan mammal *Eomanis krebsi* and its taxonomic implications

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Georges Cuvier (1798) established the classical concept of Edentata which included sloths, anteaters, armadillos, aardvarks, and pangolins. With the growing body of comparative morphological data becoming available during the nineteenth century, it was evident that Cuvier's "Edentata" was an artificial group (e.g., Huxley 1872). In his classical textbook, Weber (1904) excluded aardvarks and pangolins from the Edentata and put them in separate orders, Tubulidentata and Pholidota. Later on, fossil taxa were repeatedly added to and removed from Edentata, such as various xenarthran groups, taeniodonts, palaeonodons, and gondwanatheres, but the South American Xenarthra always was considered as their core group. Even the living order Pholidota has been cited again as ?Edentata *incertae sedis* many years after Weber's work (Romer 1966). The validity and extent of a higher taxon Edentata are still in dispute. In this discussion, the Middle Eocene pholidotan *Eomanis* and the putative xenarthran *Eurotamandua* from Grube Messel near Darmstadt (Germany) play an important role (Storch 1978, 1981, 2003; Rose and Emry 1993; Gaudin and Branham 1998; Rose 1999). *Eomanis krebsi* and *Eurotamandua joresi* have been subject to some discussion regarding their taxonomic distinction. It has been suggested that the only specimen known of *Eo. krebsi* might actually be a juvenile representative of the senior species *E. joresi*. A reexamination of the type specimen of *Eo. krebsi* has yielded some new observations regarding the identity of some of its ankle elements. An element that was previously identified as a navicular, is here reidentified as a partial distal tibia, whereas a partially exposed calcaneus had gone unnoticed. These two elements display several differences in morphology between *Eo. krebsi* and *E. joresi*, indicating that these are in fact distinct species.

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