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Lower incisor in zalambdalestid mammals (Eutheria) and its phylogenetic implications

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Relationships of the specialized eutherian family Zalambdalestidae (Late Cretaceous, Asia) have long been debated. Beginning with suggestion of Van Valen (1964) and including the recent phylogenetic analysis of Archibald et al. (2001), a possible close relationship of Zalambdalestidae to Glires (Lagomorpha + Rodentia) has been repeatedly suggested (but see Meng and Wyss 2001). One of the characteristics of Glires is the structure of the lower incisor, which is enlarged and open-rooted. An open-rooted incisor has been documented in the oldest known zalambdalestid, *Kulbeckia*, but structure of this tooth has remained unknown for the Mongolian representatives of this family, *Zalambdalestes* and *Barunlestes*. Here we present evidence on the presence of an open-rooted first lower incisor in *Zalambdalestes lechei* and *Barunlestes butleri*; we argue, however, that structure of this incisor does not necessarily indicate relationship of Zalambdalestidae to Glires.

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