


Early Cretaceous multituberculates from Mongolia and a comparison with Late Jurassic forms

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A collection of multituberculates consisting of 68 specimens (teeth or their fragments and jaw fragments) from the ?Aptian or Albian Khovboor Beds in the Gobi Desert is described. It contains four species: *Eobaatar magnus* gen. n., sp. n., and *E. minor* sp. n. (assigned to the Eobaataridae nov. in Taeniolabidoidea), *Monobaatar mimicus* gen. n., sp. n., (assigned to the family incertae sedis) and *Arginbaatar dimitrievae* Trofimov (assigned to the Arginbaataridae in ?Plagiaulacoidea). For *E. magnus* and *A. dimitrievae* upper and lower elements are matched, *E. minor* is based on lower teeth, *M. mimicus* on upper teeth. Both the Eobaataridae and Arginbaataridae have five upper and three lower premolars. Eobaataridae has lower incisor with limited enamel band and P4 parallel-sided with single basal cusp; it is in some respects intermediate between the Plagiaulacidae and Late Cretaceous Taeniolabidoidea. Arginbaataridae has lower incisor completely covered with enamel. It is highly specialized in the structure of P4, which is only partly covered with enamel and rotated during ontogeny; on the other hand, it retains primitive features: upper canine and double infraorbital foramen. Both the Eobaataridae and Arginbaataridae have gigantoprismatic enamel. If gigantoprismatic enamel made its appearance only once in multituberculate evolution, one should expect that both families share a common ancestor, which would be a plagiaulacid. Some Late Jurassic and Early Cretaceous British and Late Jurassic North American multituberculates are figured for comparison. It is demonstrated that *Ctenacodon* has two infraorbital foramina. The systematic position of some *Bolodon* species is discussed.

Key words: Multituberculata, Mammalia, Cretaceous, Jurassic, Mongolia.

 [Full text \(3,680.1 kB\)](#)