

Multituberculate mammals from near the Early-Late Cretaceous boundary, Cedar Mountain Formation, Utah

Jeffrey G. Eaton and Richard L. Cifelli


Acta Palaeontologica Polonica 46 (4), 2001: 453-518

Herein we describe the oldest well-sampled multituberculate assemblage from the Cretaceous of North America. The fauna is dated at 98.37 Ma and thus approximates the Albian-Cenomanian (Early-Late Cretaceous) boundary. The multituberculate fauna is diverse. Two of the multituberculates (*Janumys erebos* gen. et sp. n. and an unidentified taxon) are provisionally placed among "Plagiaulacida". Another taxon, *Ameribaatar zofiae* gen. et sp. n., is of uncertain subordinal affinities. The remaining multituberculates appear to represent the advanced suborder Cimolodonta and fall within the "*Paracimexomys* group". We rediagnose *Paracimexomys* on the basis of the type species, *P. priscus*, and refer to other species as cf. *Paracimexomys* (including cf. *P. perplexus* sp. n.). A revised diagnosis is also provided for Cenomanian *Dakotamys*. A previously-described species from the Cedar Mountain Formation is placed in *Cedaromys* gen. n. as *C. bestia*, together with *C. parvus* sp. n. *Bryceomys* is represented in the fauna by *B. intermedius* sp. n. Relationships of *Paracimexomys*-group to later taxa remain obscure. However, *Bryceomys* and *Cedaromys* share a number of features with Cimolodontidae. Given these resemblances, together with the fact that Cimolodontidae retain certain plesiomorphies (stout lower incisor, gigantoprismatic enamel) with respect to Ptilodontoidea (to which they are commonly referred), we suggest that Cimolodontidae may have arisen from a clade within the "*Paracimexomys* group", independent of ptilodontoids.

Key words: Multituberculata, "Plagiaulacida", Cimolodonta, Cretaceous, Utah.

Jeffrey G. Eaton [jeaton@weber.edu], Department of Geosciences, Weber State University, Ogden, UT 84408-2507, USA; Richard L. Cifelli [rlc@ou.edu], Oklahoma Museum of Natural History, 2401 Chautauqua, Norman, OK 73072, USA.

distribution, and reproduction in any medium, provided the original author and source are credited.

 [Full text \(2,068.4 kB\)](#)