

## Djadochtatheria - a new suborder of multituberculate mammals

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*Acta Palaeontologica Polonica* 42 (2), 1997: 201-242

Mongolian Late Cretaceous multituberculates (except *Buginbaatar*) form a monophyletic group for which the suborder Djadochtatheria is proposed. Synapomorphies of Djadochtatheria are: large frontals pointed anteriorly and deeply inserted between the nasals, U shaped fronto parietal suture, no frontal maxilla contact, and edge between palatal and lateral walls of premaxilla. Large, rectangular facial surface of the lacrimal exposed on the dorsal side of the cranial roof is present in all djadochtatherians, but may be a plesiomorphic feature. It is also possible that in djadochtatherians the postglenoid part of the braincase is relatively longer than in other multituberculates. Djadochtatherians have an arcuate p4 (secondarily subtrapezoidal in *Catopsbaatar*) that does not protrude dorsally over the level of the molars (shared with Eucosmodontidae), I3 placed on the palatal part of the premaxilla (shared with the eucosmodontid *Stygimys* and the cimolomyid *Meniscoessus*). The small number of cusps on the upper and lower molars and no more than nine ridges on p4 are possibly plesiomorphies for Djadochtatheria. The djadochtatherian *Nessovbaatar multicostatus* gen. et sp. n., family incertae sedis from the Barun Goyot Formation is proposed. New specimens of the djadochtatherian genera *Kryptobaatar*, *?Djadochtatherium*, and *Kamptobaatar* are described and revised diagnoses of these taxa and *Sloanbaatar* are given. A cladistic analysis of Mongolian Late Cretaceous multituberculates (MLCM), using Pee Wee and NONA programs and employing 43 dental and cranial characters, 11 MLCM taxa, five selected Late Cretaceous or Paleocene multituberculate genera from other regions, and a hypothetical ancestor based on the structure of Plagiaulacoidea, is performed. The Pee Wee program yielded two equally fit trees that confirm the monophyly of MLCM excluding *Buginbaatar*. *Kryptobaatar*, *Djadochtatherium*, *Catopsbaatar*, and *Tombaatar* form a clade, for which the family Djadochtatheriidae is proposed. *Chulsanbaatar* is the sister taxon of this clade. *Bulganbaatar* and *Nemegtbaatar* are the sister group of all other djadochtatherians. *Kamptobaatar*, *Sloanbaatar*, and *Nessovbaatar* form a separate clade in the Pee Wee tree. The NONA program yielded thirty equally parsimonious trees and a strict consensus tree with a poor resolution.

**Key words:** *Djadochtatherium*, *Kamptobaatar*, *Kryptobaatar*, *Nessovbaatar*, *Sloanbaatar*, Multituberculata, Late Cretaceous, Mongolia.

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