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Snout and orbit of Cretaceous Asian multitiuberculates studied by serial sections

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The orbital wall in Nemegtbantar gobiensis and *Chulsanbaatar vulgaris*, from the late Cretaceous of the Gobi Desert, Mongolia, comprises a small lacrimal anteriorly, large orbital process of the frontal dorsally, orbitosphenoid posteriorly and maxilla ventrally. *Nemegtbaatar* also posesses an orbital process of the palatine ventrally; not recognized in *Chulsanbaatar* . large frontal sinuses of both taxa are interpreted as related to lack of the sagittal crest. Other anatomical characters found in this study, such as orbital process of the frontal, ossiffed turbinals, ossified ethmoid and vomer, frontal, sphenoidal and maxillary sinuses, and the presence of the orbital process of palatine in *Nemegtbaatar* suggest a close relationship of multituberculates to monotremes and therian mammals. By the new data obtained from the serial sections the diagnostic character: orbital process of the palatine absent in Multituberculata, is no longer valid. Ossified ethmoid and maxillary turbinals, characteristic for Monotremata, *Vincelestes,* Marsupialia and Placentalia, are also present in Multituberculata. The precence of a cribiform plate and the precence of an ossified plate of ethmoid in Multituberculata is shared with Monotrernata, *Vincelestes*, Marsupialia and Placentalia.

Key words: Multituberculata, cranial morphologr, sinuses, Cretaceous, Mesozoic mammals.

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