

A tritylodontid synapsid from the Middle Jurassic of Siberia and the taxonomy of derived tritylodontids

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Abstract

© 2017, © by the Society of Vertebrate Paleontology. Upper and lower tritylodontid postcanine teeth from the Middle Jurassic (Bathonian) Itat Formation of the Berezovsk coal mine, Krasnoyarsk Territory, Russia, are referred to *Stereognathus* sp. The genus *Stereognathus* Charlesworth, 1855 (*Polistodon* He and Cai, 1984, *Xenocretosuchus* Tatarinov and Mashenko, 1999, and *Montirictus* Matsuoka et al., 2016, are new synonyms), is similar to *Bocatherium* and differs from all other tritylodontids in having an upper postcanine cusp formula of 2:2:2. It differs from *Bocatherium* in the quadrangular shape of the upper postcanine teeth. *Stereognathus* also differs from all other tritylodontids in having a more elaborate interlocking system in the upper postcanine teeth, each of which bears a mesial cingulum connecting cups B0, M0, and L0. *Stereognathus* shares with *Bienotheroides* single-rooted lower postcanine teeth, and these two genera are closely related. Discovery of *Stereognathus* in the Itat Formation underlines the similarity of the vertebrate assemblage from this stratigraphic unit to the British Bathonian vertebrate assemblages and the Early Cretaceous vertebrate fauna from the Ilek Formation in Siberia. The presence of *Stereognathus* during an ~40 Ma time interval in Siberia suggests a long stasis in the evolution of the vertebrate faunas of this region. Citation for this article: Averianov, A. O., T. Martin, A. V. Lopatin, J. A. Schultz, P. P. Skutschas, R. Schellhorn, and S. A. Krasnolutskii. 2017. A tritylodontid synapsid from the Middle Jurassic of Siberia and the taxonomy of derived tritylodontids. *Journal of Vertebrate Paleontology* DOI: 10.1080/02724634.2017.1363767.

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