AMPHIBIANS FROM THE HIGH LATITUDE EARLY CRETACEOUS TEETE LOCALITY, YAKUTIA, RUSSIA

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The Early Cretaceous (Berriasian-Barremian) Teete locality in Yakutia, Eastern Siberia, Russia was formed close to Mesozoic polar latitudes (62-66.5° N) and has become known for its polar dinosaurs, as well as other vertebrates, including amphibians. The amphibian faunal components of Teete include two salamander taxa: the relic stem salamander Kulgeriherpeton ultimum (described on the basis of an isolated atlas) and an undescribed crown-group salamander. New material of Kulgeriherpeton shows significant similarities to the stem salamander Marmorerpeton from the Middle Jurassic (Bathonian) of Great Britain which may indicate close phylogenetic relationships. The histological structure of the femora of Kulgeriherpeton is similar to that of other stem salamanders in having a thick periosteal nearly avascular cortex and calcified cartilage in the small medullary cavity, but differs in the presence of well pronounced growth marks. The observed growth marks suggest that there were periods of strong seasonality in the local climate of Teete. The crown salamander is characterized by a gracile dentary with spaced pedicellate teeth and specific (thin parallel longitudinal grooves) sculpture on the lateral surface. The dentaries of the Teete crown salamander resemble the long-lived Jurassic-Cretaceous crown salamander Kiyatriton. The high-latitude vertebrate fauna of Teete is similar in composition to that of the Early Cretaceous mid-latitude Shestakovo locality in Western Siberia, Russia, including taxa with Jurassic affinities (e.g. stem salamanders) that survived as relics into the Early Cretaceous of present-day Siberia. The similarity in faunal composition between the high-latitude fauna of Teete and the mid-latitude vertebrate fauna of Shestakovo (including the amphibian component) suggests that the refugium (= "Great Siberian refugium") for Jurassic vertebrate relics covered the vast northeastern part of the Asiatic continent.