

A re-evaluation of goniopholidid crocodylomorph material from Central Asia: Biogeographic and phylogenetic implications


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Central Asia is a key area for crocodylomorph evolution, lying midway between the highly documented deposits in Europe and North America, but crocodylomorph fossils from this part of the world are rare. Included among these are specimens collected in the 1970s and 1980s by the Soviet-Mongolian Expeditions in the Jurassic and Cretaceous of Mongolia, Tajikistan, and Kazakhstan. Three species, “*Sunosuchus*” *shartegensis*, *Kansajsuchus* *extensus*, and *Turanosuchus* *aralensis* are redescribed and subjected to phylogenetic analysis for the first time. “*Sunosuchus*” *shartegensis* and *Kansajsuchus* are relatively derived goniopholidids, and part of a pan-east-Laurasian radiation of goniopholidids from which the European goniopholidids subsequently radiated. No characters can be used to distinguish “*Sunosuchus*” *shartegensis* from “*S.*” *thailandicus*; the two species are therefore synonymized. *Turanosuchus* *aralensis* is here considered a nomen dubium. Cladistic analysis suggests that *Sunosuchus* is polyphyletic, indicating a higher degree of diversification than was previously thought, but also pointing to the need for further systematic revision.

Key words: Reptilia, Crocodylomorpha, Neosuchia, Goniopholididae, phylogeny, Mesozoic, Asia.

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