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Primitive boreosphenidan mammal (?Deltatheroida) from the Early Cretaceous of Oklahoma

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We describe a new boreosphenidan mammal, *Atokatheridium boreni* gen. et sp. n., from the Early Cretaceous of Oklahoma, based on an upper molar and a tentatively referred lower molar. The upper molar is characterized by a small protocone and unwinged conules, broad stylar shelf, paracone taller than metacone, and lack of pre- and postcingula. Comparisons with relevant Early and Late Cretaceous boreosphenidans suggest closest similarity to Deltatheroida, including one character (extreme development of the distal stylar shelf, which projects labially and lacks cusps) interpreted as derived. The tentatively attributed lower molar shows similarity to *Deltatheridium* and the ?aegialodontid genus *Kielantherium* in having the paraconid higher than the metaconid, but differs from Kielantherium in having a differently shaped talonid. From *Aegialodon* it differs in having a vertically oriented (rather than semi-procumbent) paraconid and a larger talonid. We figure also two isolated trigonids, differing in size, which show some resemblance to that of ?*Atokatheridium*. Deltatheroidans, despite their generally primitive dental morphology, are otherwise surely known only from the Late Cretaceous, and are largely restricted to the Old World. If a deltatheroidan, the new taxon implies a significant temporal range extension for the group, and provides another biogeographic link between Cretaceous mammals of Asia and North America.

Key words: Boreosphenida, Deltatheroida, Aegialodontidae, Early Cretaceous, Oklahoma.

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