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Discovery of a crocodyliform tooth from the upper Eocene Ergilin Dzo Formation, Mongolia

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Although the distribution of Asian crocodyliforms was extended northwards during the Paleocene–Eocene greenhouse world, the fossil record in northern Asia becomes scarce towards the end of the Eocene. We here report the first crocodyliform (an isolated tooth) from the upper Eocene Ergilin Dzo Formation of southeastern Mongolia, the mammalian fauna of which defines the Ergilian Asian Land Mammal Age. The conical non-recurved crown, the near complete root with the central resorption facet, and its late Eocene age suggest the crocodyliform affinity of the tooth. The current finding represents one of the northernmost occurrences of crocodyliforms in the upper Eocene of Asia (paleolatitude ca. 49°30' N), and demonstrates that SE Mongolia probably met thermal requirements of crocodyliforms during the late Eocene.

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