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An ankylosaurid dinosaur from Mongolia with in situ armour and keratinous scale impressions

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A Mongolian ankylosaurid specimen identified as *Tarchia gigantea* is an articulated skeleton including dorsal ribs, the sacrum, a nearly complete caudal series, and in situ osteoderms. The tail is the longest complete tail of any known ankylosaurid. Remarkably, the specimen is also the first Mongolian ankylosaurid that preserves impressions of the keratinous scales overlying the bony osteoderms. This specimen provides new information on the shape, texture, and arrangement of osteoderms. Large flat, keeled osteoderms are found over the pelvis, and osteoderms along the tail include large keeled osteoderms, elongate osteoderms lacking distinct apices, and medium−sized, oval osteoderms. The specimen differs in some respects from other Tarchia gigantea specimens, including the morphology of the neural spines of the tail club handle and several of the largest osteoderms.

Key words: Dinosauria, Ankylosauria, Ankylosauridae, *Tarchia, Saichania*, Mongolia, Late Cretaceous, Mongolia.

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