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A partial skeleton of an enantiornithine bird from the Early Cretaceous of northwestern China

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Although recent discoveries from Lower Cretaceous sediments in northeastern China have greatly improved our understanding of the initial stages of avian diversification in eastern Asia, the early evolution of Aves elsewhere on the continent remains poorly understood. In 2004, a collaborative field effort directed by personnel from the Chinese Academy of Geological Sciences and Carnegie Museum of Natural History recovered multiple partial to nearly complete avian skeletons from outcrops of the Lower Cretaceous Xiagou Formation exposed in the Changma Basin of northwestern Gansu Province, China. Here we describe a thrush-sized partial skeleton comprised of a fragmentary pelvic girdle and largely complete hind limbs. A phylogenetic analysis of 20 avian ingroup taxa and 169 anatomical characters places the specimen in Enantiornithes, and within that clade, in Euenantiornithes. When coupled with additional recent discoveries from the Changma Basin, the new skeleton improves our understanding of early avian evolution and diversification in central Asia.

Key words: Aves, Enantiornithes, Cretaceous, Xinminpu Group, Xiagou Formation, China.

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