A second Cretaceous ornithuromorph bird from the Changma Basin, Gansu Province, northwestern China

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Finely−bedded lacustrine deposits of the Aptian (Lower Cretaceous) Xiagou Formation exposed in the Changma Basin of Gansu Province, northwestern China, have yielded numerous fossil vertebrate remains, including approximately 100 avian specimens. Though the majority of these birds appear referable to the ornithuromorph Gansus yumenensis, a number of enantiornithine fossils have also been recovered. Here we report on a specimen consisting of a complete, three−dimensionally preserved sternum, furcula, and sternal ribs that represents a second ornithuromorph taxon from the Xiagou Formation at Changma. The fossil exhibits morphologies that distinguish it from all previously−known Xiagou birds and demonstrate that it represents a derived non−ornithurine member of Ornithuromorpha. Though it is morphologically distinct from the equivalent elements of all other described ornithuromorphs, the material is too incomplete to justify the erection of a new taxon. Nonetheless, it increases the taxonomic diversity of the Xiagou avifauna, thereby expanding our knowledge of Early Cretaceous avian diversity and evolution.

Key words: Aves, Ornithuromorpha, Aptian, Early Cretaceous, Gansu Province, China.

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