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The first pan-trionychid turtle from the Upper Cretaceous of southern China, with a summary of the turtle succession in the Ganzhou Basin

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Pan-trionychids are a group of aquatic turtles with a geological occurrence from the Early Cretaceous to the present. Here, we report a small pan-trionychid specimen from the Upper Cretaceous Zhoutian Formation of the Ganzhou Basin of Jiangxi Province, China, which consists of a nearly complete carapace and several associated fragments. The specimen is the first definitive pan-trionychid record from the Upper Cretaceous of southern China. Its general skeletal features are comparable with those of other pan-trionychids from the mid Cretaceous of Asia. However, because the specimen appears to be a juvenile and lacks sufficient anatomical details, we refrain from naming a new species or hypothesizing phylogenetic relationships. Upper Cretaceous sediments in the Ganzhou Basin document a succession of turtle faunas ranging from aquatic pan-trionychids to semi-aquatic lindholmemydids to possibly terrestrial nanhsiungchelyids, but the relationship between this succession and paleoclimate remains ambiguous.

Key words: Pan-Trionychidae, Ganzhou Basin, Cretaceous, Zhoutian Formation, China.

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