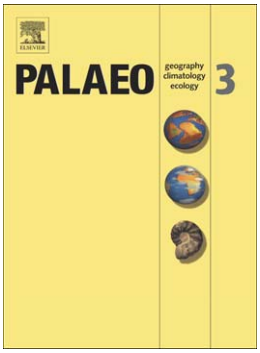

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Diverse sauropod-, theropod-, and ornithopod-track assemblages and a new ichnotaxon *Siamopodus xui* ichnosp. nov. from the Feitianshan Formation, Lower Cretaceous of Sichuan Province, southwest China

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ABSTRACT

Copper mining activities in a huge quarry in the fluvial-lacustrine Lower Cretaceous Feitianshan Formation near Zhaojue, Sichuan Province have temporarily exposed large track-bearing surfaces that require rapid documentation before they are subject to erosion or damage from collapseor destruction by mining. Due to the urgent need to document these sites several preliminary studies of representative material have been completed, and more than 1000 tracks have been observed. Here we present maps of two large surfaces, with a combined area of ~1000 m^2, representing the same stratigraphic level, and yielding multiple trackways of measurable quality, including at least 8 theropod, 7 sauropod, and 22 ornithopod trackways. Additional trackmakers of the two latter groups are also well-represented by natural casts derived from an overlying unit disturbed by quarrying. The sauropod tracks are assigned to the ubiquitous ichnogenus *Brontopodus*. The ornithopod tracks belong to the ichnogenera *Caririchnium*, attributed to quadrupeds or facultative bipeds, and *Ornithopodichnus*, corresponding to smaller bipeds. Based on size and morphology the theropod trackways appear to represent diverse morphotypes, including one attributed to the new ichnospecies *Siamopodus xui*. The Feitianshan Formation ichnofauna, which also includes pterosaur tracks from other nearby surfaces, is moderately diverse and indicates an abundant presence of archosaurs in the region during the Early Cretaceous.

Key words: Sauropod tracks, ornithopod tracks, theropod tracks, *Siamopodus xui*, Cretaceous, Feitianshan Formation, Sichuan, China

1. Introduction