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Magnetostratigraphic Dating of hominoid-bearing Sediments at Yuanmou Basin in southwest China

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The hominoid fossil in southwestern China is among the key fossils for understanding the evolution of early hominoids in eastern Asia and their relationship with coeval hominoids in Europe and Africa. However, its exact age has not yet been well determined. We report a new high-resolution magnetostratigraphy for the Zhupeng profile, a fossil-bearing type section, at the Yuanmou Basin. Mineral magnetic studies demonstrate that hematite is the dominant magnetic carrier of the natural remanent magnetization. Constrained by the age of micromammalian fauna, the hominoid-bearing layer is magnetically dated within subchrons C3Br.1r or within C3Br.2r, respectively, corresponding to time between 7.34-7.17 Ma and 7.43-7.38 Ma. This unambiguously indicates that the age of the Yuanmou hominoid is in the late Miocene.