

A review of early Pleistocene *Gigantopithecus* fauna from south China

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Among the most important Quaternary mammalian faunas, the *Gigantopithecus blacki* fauna from south China has received a good deal of attention. As the largest primate fossil all over the world, *G. blacki* was firstly found from a Chinese traditional medicine store in Hongkong and named by the Dutch paleontologist Von Koenigswald in 1935.

Twenty years later (1956), Pei WZ with his team firstly discovered the *G. blacki* and associated mammalian fossils with reliable geological horizon in Quaternary cave sediments in Daxin, Guangxi Province, south China. Since then, there have been at least 13 Pleistocene *G. blacki* localities discovered across 5 provinces in south China. The *G. blacki* fossils all come from the Karst cave deposits well developing in the south China bare calcareous Karst rocks and locate in the Oriental (Fig. 1).

The Karst caves nearby Chongzuo area in Guangxi, south China, contain a plethora of Quaternary mammalian remains, especially the conspicuous fossils of *G. blacki* and Hominoid. During the past few years' excavations in this area, six new *Gigantopithecus* layers belonging to different ages of Quaternary have been found. The six newly discovered *Gigantopithecus* cave sites (viz. Baikong Cave, Boyue Cave, Sanhe Cave, Queque Cave, Hejiang Cave, and Shuangtan Cave) all distribute in or nearby the Chongzuo Eco-Park, which belongs to the north tropical zone.

In this area, six vertical horizons of caves have been recognized. The sediments of the karst caves of the fifth horizon with an elevation of about 200 m above sea level yield the early Pleistocene *Gigantopithecus* fossils (e.g. Baikong Cave, Boyue Cave, Sanhe Cave and Queque Cave). Meanwhile, middle Pleistocene *Gigantopithecus* fossils have mainly been discovered from caves in the fourth layer (e.g. Hejiang Cave), which is about 180 m ASL.

Here, I report the 4 newly discovered *Gigantopithecus* cave sites in Chongzuo during the past few years' excavations: viz. Baikong Cave, Boyue Cave, Sanhe Cave and Queque Cave, belonging to the different ages of early Pleistocene. Also, the characteristics, distribution, sequence and the evolutionary stages of the early Pleistocene *Gigantopithecus* fauna will be discussed based on the newly discovered fossil materials and the chronological data.

Keywords: *Gigantopithecus* fauna, South China, Karst caves, Early Pleistocene, *Gigantopithecus blacki*, sequence and evolution stages

