

A partial skull of iguanodontian dinosaur from the Lower Cretaceous Khok Kruat Formation

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The 1st collaborative project between Fukui Prefectural Dinosaur Museum (FPDM) and Northeastern Research Institute of Petrified and Mineral Resources, NakhonRatchasimaRajabhat University (NRRU) was completed in 2009 and succeeded in additional vertebrate materials, especially iguanodontian bones. Here we first report a part of skull of iguanodontian from this formation, which includes dermal skull roof and braincase. The dorsoposterior part of skull, including frontals, postorbitals, parietals, squamosals and braincase, is articulated and large with 285 mm in length between the frontal and paroccipital process and 196 mm in width between postorbitals. The braincase was horizontally separated by means of diagenesis when unearthed, and this situation makes an inside of braincase observable. Flat frontal plate, well-proportioned oval supratemporal fenestrae and the crescent-shaped occipital condyle indicate that this specimen belongs to Iguanodontia. Furthermore, comparing other Early Cretaceous iguanodontians, the long sagittal crest on parietals and squamosals contacting at midline of this specimen differs from *Iguanodon*, *Mantellisaurus* and *Jintasaurus*. The long axis of supratemporal fenestra running almost parallel to the sagittal crest is different from anterolaterally running in *Xuwulong* and others. The straight frontals-parietals sutural line and the sagittal crest extending to this line are dissimilar to those of *Proactrosaurus*. Phylogenetic analysis tentatively recovers Thai iguanodontian of this skull as hadrosauriformes basal to *Jintasaurus* and derived from *Altirhinus*. The phylogenetic position of reported iguanodontian from Thailand is congruent with Iguanodontian diversity in the Early Cretaceous of Asia. New information of Southeast Asian iguanodontian will shed new light on the dinosaur diversity in the Indosina Terrene.