



## The Sarawak Museum Journal

Vol. LXII No. 83

December 2006



ISSN: 0375-3050

E-ISSN: 3036-0188

Citation: Earl of Cranbrook et al. (2006). Quarternary Mammal Fossils in Borneo: Retraction and Review. The Sarawak Museum Journal, LXII (83): 107-119

## QUARTERNARY MAMMAL FOSSILS IN BORNEO: RETRACTION AND REVIEW

Earl of Cranbrook, G.W.H. Davison &amp; A.P. Currant

## INTRODUCTION

In an earlier note we described two fossils bought at a curio shop in Kuching in 1999: the rear portion of a lower 3<sup>rd</sup> molar of a stegodont, *stegodon aff. elephantoids* = *trigonocephalus*, and a fragment of the upper jaw of a hippopotamus, *Hippopotamus sivalensis*, both being extinct members of the South-east Asian Pliocene-Middle Pleistocene mammal megafauna (Cranbrook, Currant & Davison, 2000). We drew attention to the three proboscidean fossils of late Tertiary or Quaternary age previously found in Borneo: (1) the left upper molar of *Mastodon latidens*—*Stegolophodon lydekkeri*, originally presented to the Zoological Society of London by A.H. Everett in 1885, and said to have been “found by a Kadayan in the jungle in the vicinity of Bruni, on the north-west coast of Borneo” (Lydekker, 1885; Osborn, 1942; Medway, 1972); (2) a right upper 2<sup>nd</sup> and 3<sup>rd</sup> molar of *Palaeoloxodon cf. namadicus*, said to have been found, some time in the 19<sup>th</sup> century, “northeast of Samarinda, Eastern Borneo, about an hour’s walk from the seashore” (Hooijer, 1952); and (3) a portion of a right upper P<sup>1</sup> molar of the modern Asiatic elephant, *Elephas maximus*, said to have come from a “cavern” in Belait District, Brunei, and thought by Hooijer (1972) “more likely to be Pleistocene than Holocene”.

# QUATERNARY MAMMAL FOSSILS IN BORNEO: RETRACTION AND REVIEW

by

Earl of Cranbrook, G.W.H. Davison & A.P. Currant

## INTRODUCTION

In an earlier note we described two fossils bought at a curio shop in Kuching in 1999: the rear portion of a lower 3<sup>rd</sup> molar of a stegodont, *Stegodon* aff. *elephantoides* = *trigonocephalus*, and a fragment of the upper jaw of a hippopotamus, *Hippopotamus sivalensis*, both being extinct members of the South-east Asian Pliocene-Middle Pleistocene mammal megafauna (Cranbrook, Currant & Davison, 2000).

We drew attention to the three proboscidean fossils of late Tertiary or Quaternary age previously found in Borneo: (1) the left upper 3<sup>rd</sup> molar of *Mastodon latidens* = *Stegolophodon lydekkeri*, originally presented to the Zoological Society of London by A.H. Everett in 1885, and said to have been “found by a Kadayan in the jungle in the vicinity of Bruni, on the north-west coast of Borneo” (Lydekker, 1885; Osborn, 1942; Medway, 1972); (2) a right upper 2<sup>nd</sup> or 3<sup>rd</sup> molar of *Palaeoloxodon* cf. *namadicus*, said to have been found, some time in the 19<sup>th</sup> century, “northeast of Samarinda, Eastern Borneo, about an hour’s walk from the seashore” (Hooijer, 1952); and (3) a portion of a right upper 1<sup>st</sup> molar of the modern Asiatic elephant, *Elephas maximus*, said to have come from a “cavern” in Belait District, Brunei, and thought by Hooijer (1972) “more likely to be Pleistocene than Holocene”.

We also noted that, while no previous hippopotamus remains are known from Borneo, the species *H. sivalensis* is represented as a fossil in Java, along with stegodontids and primitive elephantids, among a fauna of Upper Pliocene through Pleistocene age

(Koenigswald, 1935; Hooijer, 1962a; Hooijer & Kurtén, 1984), and has also been found in a cave deposit in Peninsular Malaysia of inferred mid-Pleistocene age (Hooijer, 1962b). We argued that periodic episodes of lowered sea-level during the Quaternary could potentially have permitted both these large mammals to range across the entire Sunda landmass, and that their occurrence in Borneo would therefore not be unexpected.

Currant noted that the fossil of *Hippopotamus* appeared to have been enhanced, probably for trade purposes. Nonetheless, on the basis of information provided by the vendor, while emphasizing the uncertain provenance of our two purchases, we did postulate that they might have derived from a site within Indonesian Borneo, such as the alluvial gold-workings of West Kalimantan (Cranbrook, Currant & Davison, 2000).

Further researches have now shown that both pieces were in fact imported to Kuching for trade as curios, and that their true source was the area of Sangiran, Central Java. We therefore withdraw the suggestion that these particular fossils might have originated in Borneo. Recognizing that, worldwide, there is a long history of commerce in fossils as objects of magical or medical power, or simple curiosity (Koenigswald, 1958; Palmer, 2003) we have re-examined evidence for the provenance of the three other proboscidean fossils from Borneo, with emphasis on the sole specimen of *Stegolophodon lydekkeri*, the original (M7225) and a cast (M2498), in the Palaeontological collections of the Natural History Museum, London.

While following a convoluted and sometimes obfuscating trail, Cranbrook and Davison have encountered many individuals who have prompted us on our travels. In particular, we thank Dr Handojo Susanto for fruitful advice, Mr Febri Abbas for clarifying the involvement of his family and, finally, the staff of the Museum Situs Sangiran for kindly opening the doors of their fossil-filled stores and thereby displaying the source of our original purchases beyond reasonable doubt.