High resolution record of Ailuropoda-Stegodon complex at Ban Fa suai I and II (Thailand) casts doubts on the current paleoenvironmental models using this complex as a marker.

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Abstract

The *Ailuropoda-Stegodon* complex is considered to be a chronologically significant faunal association for South-East Asia during the Pleistocene. However, the stratigraphic contexts of this regional faunal complex require clarification before to build any paleoenvironmental model. Indeed, in the literature, taphonomical studies are currently missing for South-East Asian sites while the mixture of the faunas is common. Due to such a mixture or to chronological controversies, the use of historical sites such as, Yenchingkuo in China or Phnom Loang in Cambodia, to biostratigraphically gauge new faunal assemblages leads to undermining the significance of the new discoveries. Shedding light on the high resolution paleontological record of two localities (Ban Fa Suai I and II) in Northern Thailand and, taking into account the taphonomy and the ESR dating of both sites it is possible to contest the validity of a strict association between *Ailuropoda* and *Stegodon* during the Upper Pleistocene. Such a result leads us to reject the basis of all the paleoenvironmental models that are readable in the literature until now.

Keywords: Pleistocene, Ailuropoda, Stegodon, Pongo, Thailand

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