

## Neogene giant tortoise from Tha Chang sandpit, Nakhon Ratchasima Province, Thailand

Wilailuck Naksri<sup>1</sup>, Kumthorn Thirakhupt<sup>2</sup>, Komsorn Lauprasert<sup>1</sup>, Varavudh Suteethorn<sup>3</sup>, Pratueng Jintasakul<sup>4</sup>, Haiyan Tong<sup>5</sup> & Julien Claude<sup>6</sup>

Department of Biology, Faculty of Science, Mahasarakham University, Maha Sarakham, Thailand
Palaeontological Research and Education Centre, Mahasarakham University, Maha Sarakham, Thailand

Department of Biology, Faculty of Science, Chulalongkorn University, Bangkok, Thailand Department of Mineral Resources (DMR), Rama VI Road, Bangkok 10400, Thailand

30 rue Carnot, 94270 Le Kremlin-Bicêtre, France

Giant tortoises have been found in the Neogene sediments of the paleo Mun River from Tha Chang sandpit, Nakhon Ratchasima Province together with a rich vertebrate fauna not older than late Miocene in age. These tortoises are described based on carapace, plastron, limb bones and isolated plates which correspond to several individuals. The estimated carapace length is about 1.5 meters. The tortoises differ from "Megalochelys" sivalensis from the Plio-Pleistocene of Siwalik Hills, India and M. cf. sivalensis from the Early Pleistocene Kali Glagah Formation of Bumiayu, Indonesia and from other giant tortoises from the Neogene of India by distinct shape of epiplastral projection and by the presence of a cervical. In addition, their plastral morphology is similar to the living Manouria suggesting that these giant tortoises were probably belonging to another lineage than "Megalochelys". This furthermore indicates that a giant tortoise evolved in several lineages in South-East and South Asia. This discovery also contributes to better understand geographical distribution of giant tortoises in Asia during the Neogene.

Keywords: giant tortoises, Neogene, Tha Chang sandpit, Thailand

Northeastern Research Institute of Petrified Wood and Mineral Resources, Nakhon Ratchasima Rajabhat University, Nakhon Ratchasima, Thailand

Institut des sciences de l'évolution de Montpellier. UMR CNRS 5554. Cc64. Université de Montpellier 2. 2, place Eugène Bataillon, 34095 Montpellier, cedex 5, France