Dataset

3D model related to the publication: The cranium of *Proviverra typica* (Mammalia, Hyaenodonta) and its impact on hyaenodont phylogeny and endocranial evolution

Dubied Morgane[1,2], Mennecart Bastien[2,3*], Solé Floréal[4]

[1] *University of Burgundy, FR–21000 Dijon, France*
[2] *Natural History Museum Basel, CH–4001 Basel, Switzerland*
[3] *Natural History Museum Vienna, A–1010 Vienna, Austria*
[4] *D.O. Earth and History of Life, Royal Belgian Institute of Natural Sciences, B–1000 Brussels, Belgium*
***Corresponding author**: mennecartbastien@gmail.com

Abstract
This contribution contains the 3D model described and figured in the following publication: Dubied, M., Solé, F. and Mennecart, B. The cranium of *Proviverra typica* (Mammalia, Hyaenodonta) and its impact on hyaenodont phylogeny and endocranial evolution. Palaeontology https://doi.org/10.1111/pala.12437

Keywords: brain, microtomography, middle Eocene, Proviverrinae, skull

Submitted:2018-06-04, published online:2019-08-26. https://doi.org/10.18563/journal.m3.74

Inv. nr.	Taxon	Description
NMBEm18	*Proviverra typica*	Lectotype specimen, composed of the facial bones and of the braincase

Table 1. Associated specimen (collection: NMB, Basel)

INTRODUCTION

The lectotype *Proviverra typica* NMB Em18 has already been studied several times (Rüttimeyer, 1862; Van Valen, 1965; Lange Badré, 1979).The cranium is divided in two parts: NMB Em18a (brain case) and NMB Em18b (facial bones). They are considered to be the same individual (Costeur & Schneider, 2011). The specimen has been found in Egerkingen (Switzerland; MP13?-MP14, Lutetian, middle Eocene). Thanks to the 3D tomography technology, we have reassessed the cranium and brain morphology of this small hyaenodont (Table 1 and Fig. 1). New data on the monophyly of the Proviverrinae is highlighted.

METHODS

The X-ray microtomography acquisition was performed using a nanoCT® system nanotom® (phoenix x-ray, GE Sensing & Inspection Technologies GmbH, Wunstorf, Germany) hosted at the Department of Biomedical Engineering, University of Basel. 1299 equiangular radiographs were taken. The scanning parameters are 180kV and 30mA for a resolution of 35mm (voxel size). We digitally segmented the cranium and the brain of NMB Em18a,b using AVIZO LITE 9.0. Both manual and automatic segmentation were used. The 3D surface models are provided in .ply format, and can therefore be opened with a wide range of freeware. NMB is the acronym for the Natural History Museum, Basel (Switzerland).

ACKNOWLEDGEMENTS

We would like to thank Loïc Costeur (curator of the Natural History Museum in Basel, Switzerland) for providing access to the specimens and the helpful discussions all along this work. Georg Schulz and Bert Müller (both Department of Biomedical Engineering, University of Basel) are thanked for performing and helping with the Micro-CT scans. This research was financially supported by the Federal Science Policy Office of Belgium (Floréal Solé, Belspo Brain Pionnier BR/175/PI/CARNAGES) and the Swiss National Science Foundation (Bastien Mennecart, SNF project P3P3P2_61066).

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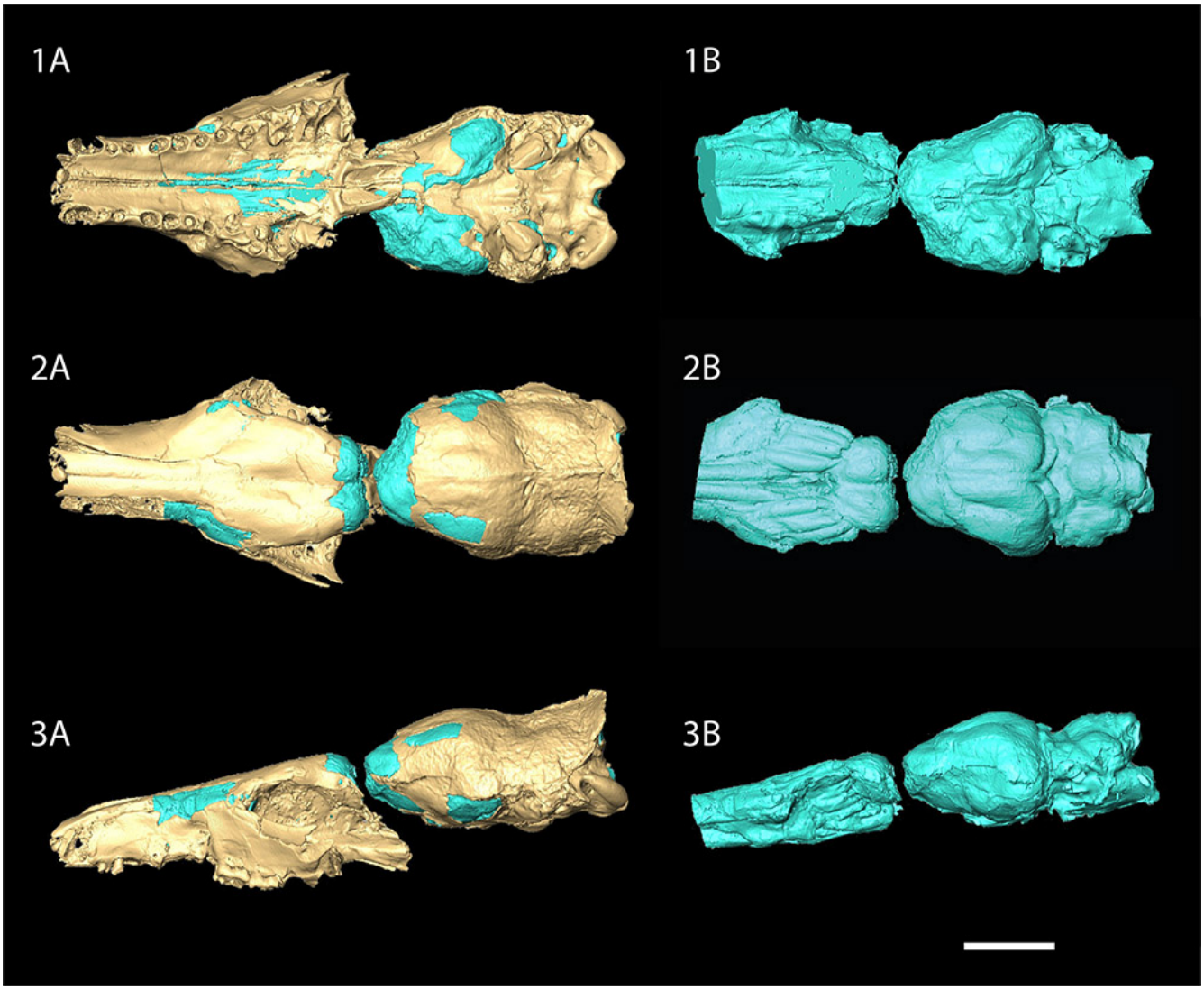

Figure 1. Cranium of *Proviverra typica* from Egerkingen (NMB Em18). 3D reconstruction of the cranium bones (yellow) and endocast (blue) in ventral (1), dorsal (2), and left lateral (3) views. A pictures illustrate both the cranial bones and endocast; B ones illustrate only the endocast. The scale bar is 1 cm.

ISSN: 2274-0422

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