Dataset

3D models related to the publication: A continental Messinian vertebrate fauna from the Ouedhref area, Southeast Tunisia

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Abstract
The present 3D Dataset contains the 3D models of the two papionine remains found near Gabes and analyzed in Ksila et al. (2026), "A continental Messinian vertebrate fauna from the Ouedhref area, Southeast Tunisia."

Keywords: Biochronology, Late Miocene, Messinian dispersal, Papionini, Systematics

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Inv nr.	Description
UTM-O-Sa60	Right m1 or m2
UTM-O-Br6	Left upper canine

Table 1. List of models of *Macaca sp.*. Collection: Geodynamics, Geonumerics and Geomaterials laboratory, University of Tunis El Manar, Tunis, Tunisia

INTRODUCTION

While describing a new fossil terrestrial vertebrate fauna from Tunisia (from the sand quarries north of Ouedhref in the Gabes area), we illustrated two remains attibutable to an early papionine, probably related to the genus *Macaca*. Due to the uneven distribution of the fossil patina, capturing the morphology of the fossils using conventional photography was challenging. Hence, we performed Ct scans of both specimens: UTM-O-Sa60, a right m1 or m2 from Saada Quarry and UTM-O-Br6, a left upper canine from Mrabet 2 Quarry. These scans allow for a better examination by the lecturer of the fossil (Fig. 1 and Table 1). This material is described in the original article and represents an important contribution to the fossil record of the genus *Macaca*. It is well-established that the genus *Macaca* first appeared in Africa during the Late Miocene (Jablonski & Frost, 2010), which likely coincided with the formation of the Sahara Desert. This major climatic shift may have triggered the divergence and separation of the Macacina and Papionina clades (Roos et al., 2019). The distribution of *Macaca* in northern Africa allowed them to spread into Europe during the Late Messinian, probably at the same time as, or during, the Messinian Salinity Crisis, a period characterised by a substantial drop in sea level (Köhler et al., 2000; Alba et al., 2014, Gibert et al. 2014). The initial divergence within the *Macaca* lineage is characterised by the M. *sylvanus* group (Roos et al., 2019). This suggests that the earliest remains of the genus should exhibit a morphology similar to that of *M. sylvanus*. This finding is consistent with observations of North African fossils, including those from Ouedhref (Fig. 1), Sahabi and Wadi Natrun, which resemble *M. sylvanus*. The presence of these fossils indicates that North Africa was a significant region in the early development and spread of the *Macaca* genus.

METHODS

The 3D surfaces were extracted semi-automatically within AVIZO 9.2 (FEI) using the segmentation threshold selection tool. The 3D surface models are provided in .ply format, and can therefore be opened with a wide range of freeware".

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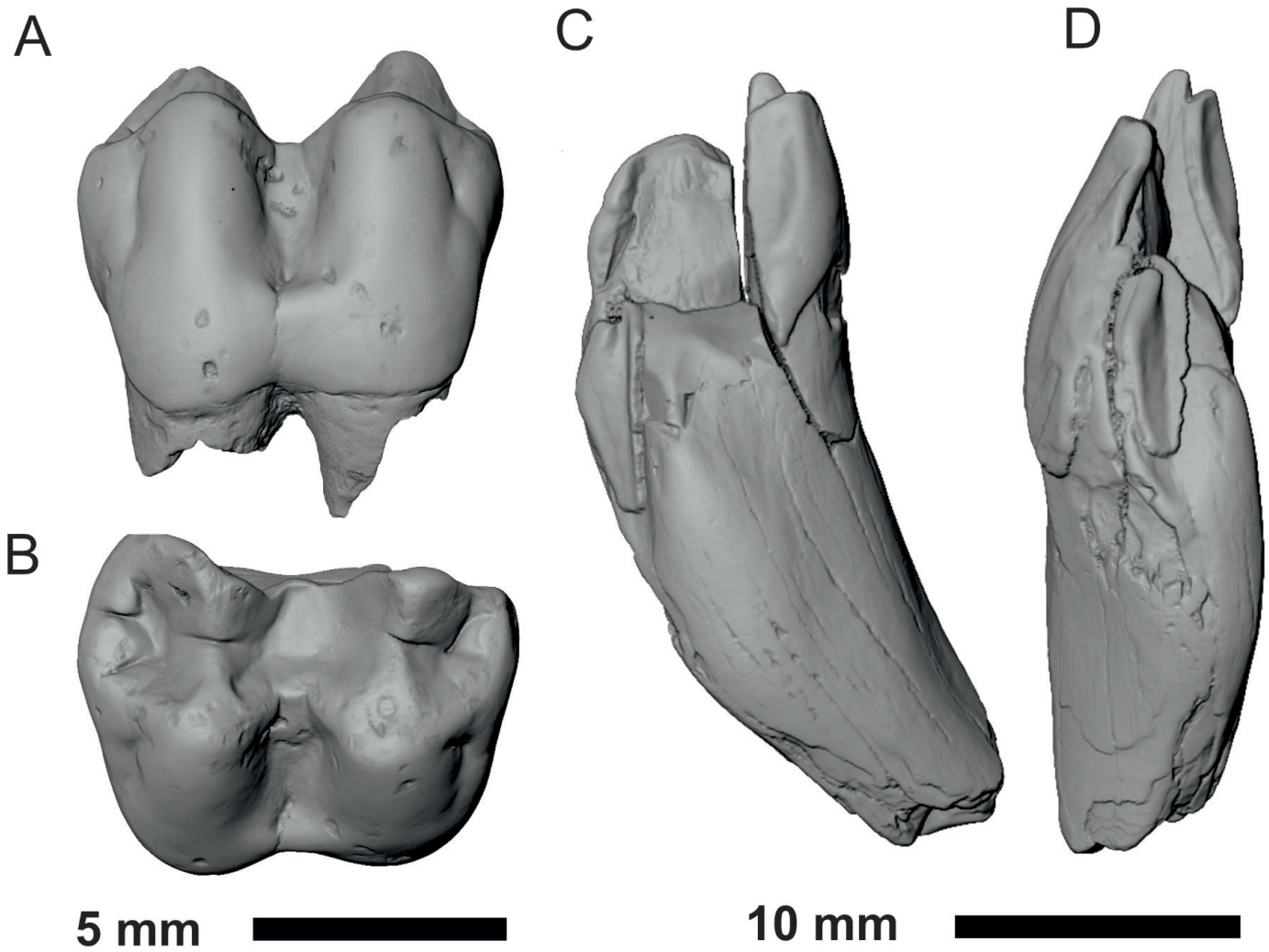

Figure 1. Primates from Ouedhref. A-B, UTM-O-Sa60, right m1 or m2 of cf. *Macaca* sp. in buccal (A) and occlusal (B) views. C-D, UTM-O-Br6, left upper canine of cf. *Macaca* sp. in lingual (C) and mesial (D) views. Both in X-ray µCT surface reconstructions.

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