

3D models related to the publication: Fruits of Anacardiaceae from the Early Oligocene of Baraval Quercy locality, southwestern France

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Abstract

The present 3D Dataset contains the 3D models of two endocarps from the Oligocene of Baraval Quercy locality. These endocarps document new fossil genera within the Anacardiaceae family and illustrate the morphological diversity of this family during the Palaeogene. The CT-scan data were processed with ImageJ and Mimics Innovation Suite version 1.13 to reconstruct the specimens. Here we provide .stl files easy to read with the software Meshlab.

Keywords: Baravalosphaera, Choerospondias, Fruit, Oligocene, Palaeochoerospondias

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Inv nr.	Taxon	Description
UM-BAV-675	<i>Palaeochoerospond. sheppeyensis</i>	Endocarp, seeds and lacunae
UM-BAV-689	<i>Baravalosphaera operculata</i>	Endocarp

Table 1. List of models. Collection: Université de Montpellier, Institut des Sciences de l'Évolution, Montpellier, France.

INTRODUCTION

In this study, we identified and classified new fossil fruits from the Oligocene Baraval site in the Quercy region of Lot, France. Their anatomy was studied using micro-CT-scan analyses and physical sections. Two new genera and one new species are described: *Palaeochoerospondias sheppeyensis* (Figure 1A) and *Baravalosphaera operculata* (Figure 1B). This work highlights extinct morphological diversity within the Spondioideae and contributes to a better understanding of the floristic changes that marked the Eocene–Oligocene transition in Western Europe.

METHODS

Two endocarps (UM-BAV-689 and UM-BAV-675) were CT-scanned at the Montpellier Ressources Imagerie platform using an EasyTom 150 kV micro-CT scanner (voxel $x=y=z=8.43\ \mu\text{m}$) with 1215 projection images. The CT-scan data were processed with ImageJ and Mimics Innovation Suite version 1.13 to reconstruct the specimens. The 3D surface models (see table Table 1) are provided in .stl format, and can therefore be opened with MeshLab, a free software.

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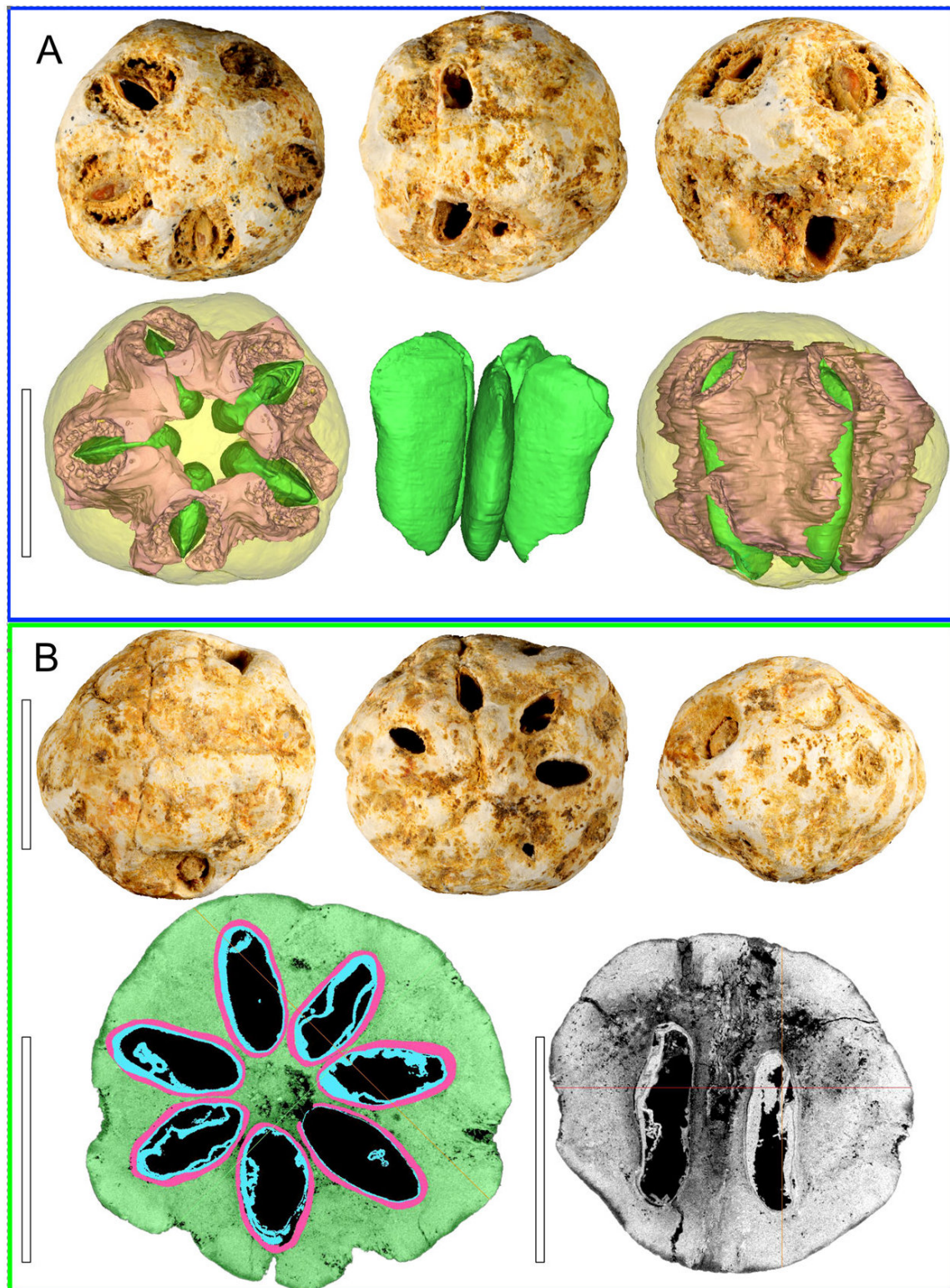


Figure 1. A. Endocarp of *Palaeochoerospondias sheppeyensis* (UM-BAV-675) and CT-Scan reconstructions. B. Endocarp of *Baravalosphaera operculata* (UM-BAV-689) and Ct-Scan cross and tangential sections. Scales: 5 mm.