

# 3D models related to the publication: New information on the braincase and endocranial morphology of the Late Triassic neotheropod *Zupaysaurus rougieri* using Computed Tomography data

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## Abstract

The present 3D Dataset contains the 3D models analyzed in the following publication: Paulina-Carabajal, A., Ezcurra, M., Novas, F., 2019. New information on the braincase and endocranial morphology of the Late Triassic neotheropod *Zupaysaurus rougieri* using Computed Tomography data. Journal of Vertebrate Paleontology. <https://doi.org/10.1080/02724634.2019.1630421>

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Inv. nr	Taxon	Description
PULR076	<i>Zupaysaurus rougieri</i>	Skull, braincase and cranial endocast.

**Table 1.** Involved specimen (collection: Universidad Nacional de La Rioja, La Rioja, Argentina)

## INTRODUCTION

*Zupaysaurus rougieri* was a neotheropod from the late Triassic of Argentina. The skull was preserved complete and articulated (Arcucci and Coria, 2003; Ezcurra, 2007); Using CT scan data, the braincase was virtually extracted allowing the study of its morphology. Further, the cranial endocast and partially preserved inner ear, represent the oldest anatomical information for a representative of the clade Neotheropoda (Paulina-Carabajal et al., 2019) (Fig. 1 and table 1).

## METHODS

The 3D surfaces of the skull, braincase, brain and inner ear were extracted using Materialise Mimics 18.0 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.

## ACKNOWLEDGEMENTS

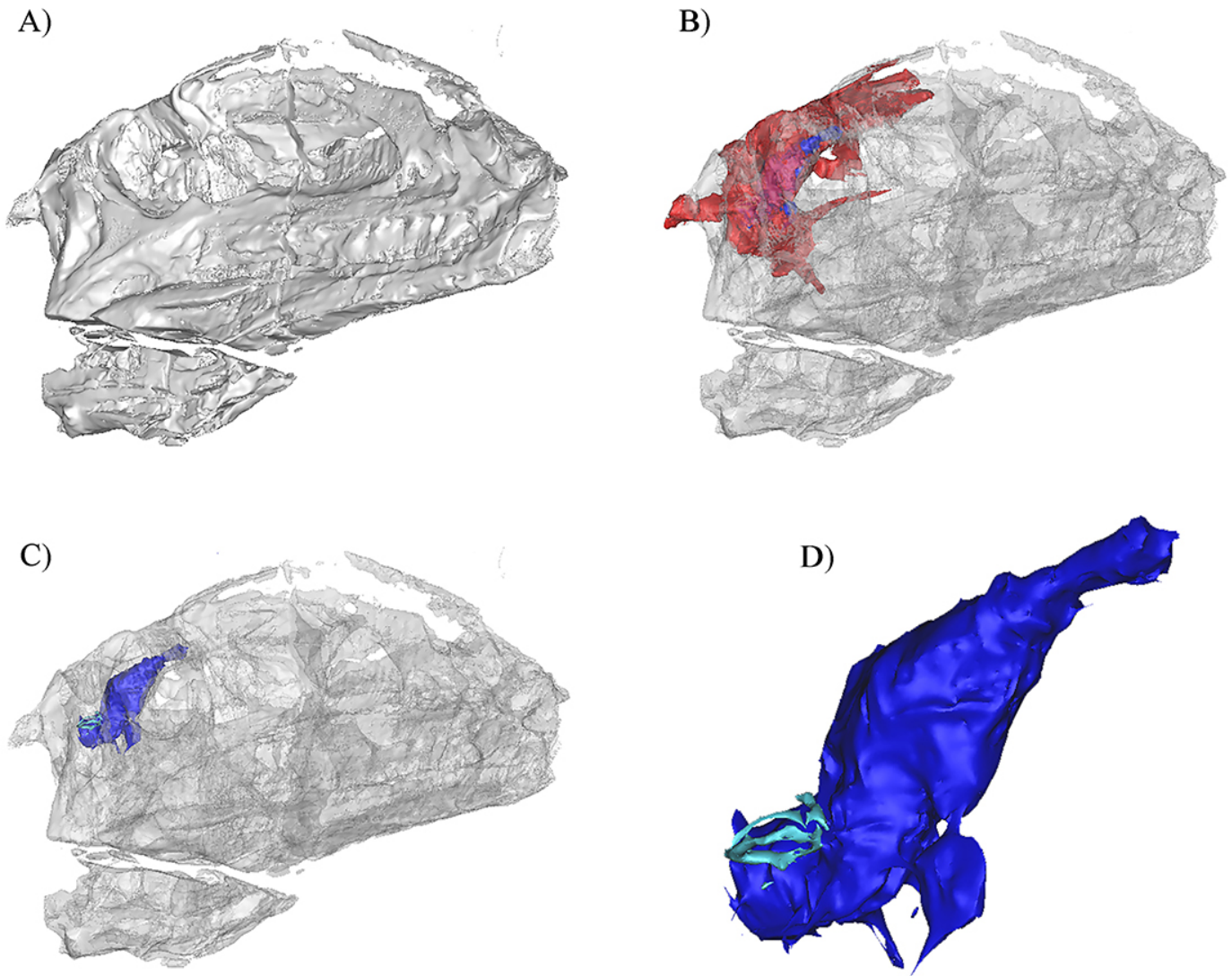
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Paulina-Carabajal, A., Ezcurra, M., Novas, F. E., 2019. New information on the braincase and endocranial morphology of the Late Triassic neotheropod *Zupaysaurus rougieri* using Computed Tomography data. *Journal of Vertebrate Paleontology*. <https://doi.org/10.1080/02724634.2019.1630421>



**Figure 1.** Skull of the neotheropod dinosaur *Zupaysaurus rougieri* (PULR 076; Universidad Nacional de La Rioja, La Rioja, Argentina) in anterolateral right view. A) bone solid, B) skull bones rendered semi-transparent to allow observation of the braincase, C) skull bones rendered semi-transparent to allow observation of the brain, D) detail of the brain and partial right inner ear (not to scale). Gray, skull bones; red, braincase; blue, cranial endocast, light-blue, inner ear.