

# 3D models related to the publication: Old fossil findings in the Upper Triassic rocks of southern Brazil improve diversity of traversodontid cynodonts (Therapsida, Cynodontia)

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## Abstract

The present 3D Dataset contains the 3D models of a skull and lower jaw of the holotype of *Santagnathus mariensis*, described in “Old fossil findings in the Upper Triassic rocks of southern Brazil improve diversity of traversodontid cynodonts (Therapsida, Cynodontia)”

**Keywords:** Gomphodontosuchinae, *Hyperodapedon* Assemblage Zone, Late Triassic, Traversodontidae

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## Description

Skull

Lower jaw

**Table 1.** List of models of *Santagnathus mariensis*. Specimen: UFRGS-PV-1419-T. Collection: UFRGS, Porto Alegre, Brazil.

## INTRODUCTION

Traversodontidae is a large group of cynodont therapsids and the most diverse clade within Gomphodontia. It is well represented in the Triassic fossil record of South America (e.g., Abdala and Ribeiro, 2010; Abdala et al., 2020; Schultz et al., 2020). We describe a new species of Traversodontidae cynodont in the Brazilian Triassic, with close affinities to *Exaeretodon riograndensis* and *Siriusgnathus niemeyerorum*. We scanned the skull and lower jaw of the holotype (UFRGS-PV-1419-T) and digitally processed the 3D model of the specimen (Fig. 1, 1 and table 1) to wide distribution of the data. This publication accompanies “Old fossil findings in the Upper Triassic rocks of southern Brazil improve diversity of traversodontid cynodonts (Therapsida, Cynodontia)” (Schmitt et al. 2023).

## METHODS

The holotype (UFRGS-PV-1419-T) was scanned with a medical CT scanner (GE Brighspeed 16 channels) at Serpal Clinica de Diagnóstico, in Porto Alegre, Brazil. The 3D surfaces were extracted manually with segmentation software. The 3D surface models are provided in .ply format, and can therefore be opened with a wide range of freeware.

## ACKNOWLEDGEMENTS

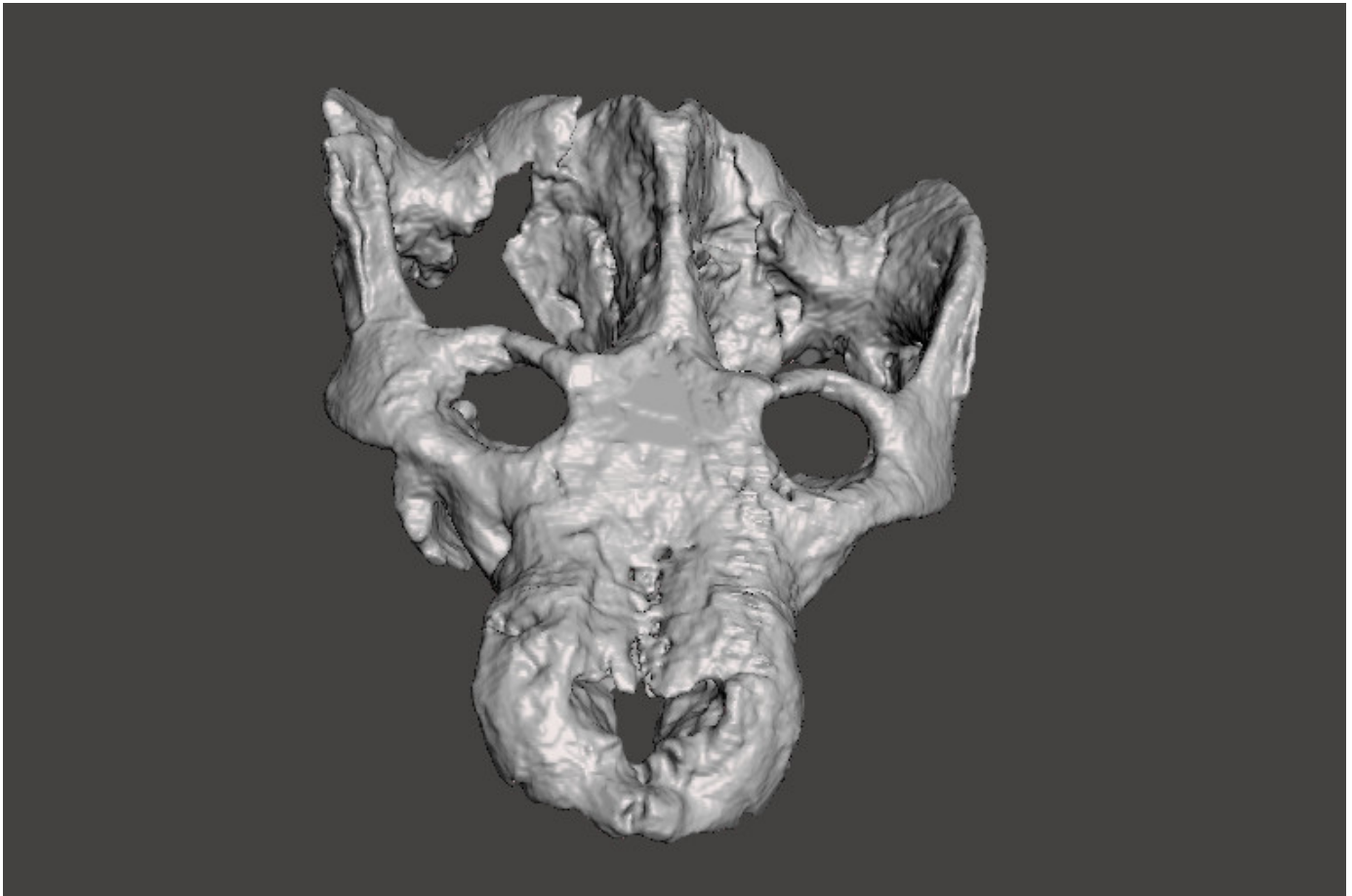
We thank the curator of the Universidade Federal do Rio Grande do Sul (UFRGS), Heitor Roberto Dias Francischini for the access to the specimens and to Pedro Henrique Morais Fonseca for the assistance with the CT data processing. Project funded by: CAPES, Grant number: PROEX 88882.345539/2019-01; Grant sponsor: CNPq, Grant numbers: 311251/2021-8; 307938/2019-0; Grant sponsor: FAPERJ, Grant numbers: E-26/010/002540/2019; E-26/201.066/2021; Grant sponsor: PalSIRP, Grant number: 2016/2017 and 2018; Grant sponsor: Ginko Foundation; Grant sponsor: PICT, Grant number: 2020-SERIEA-01498.

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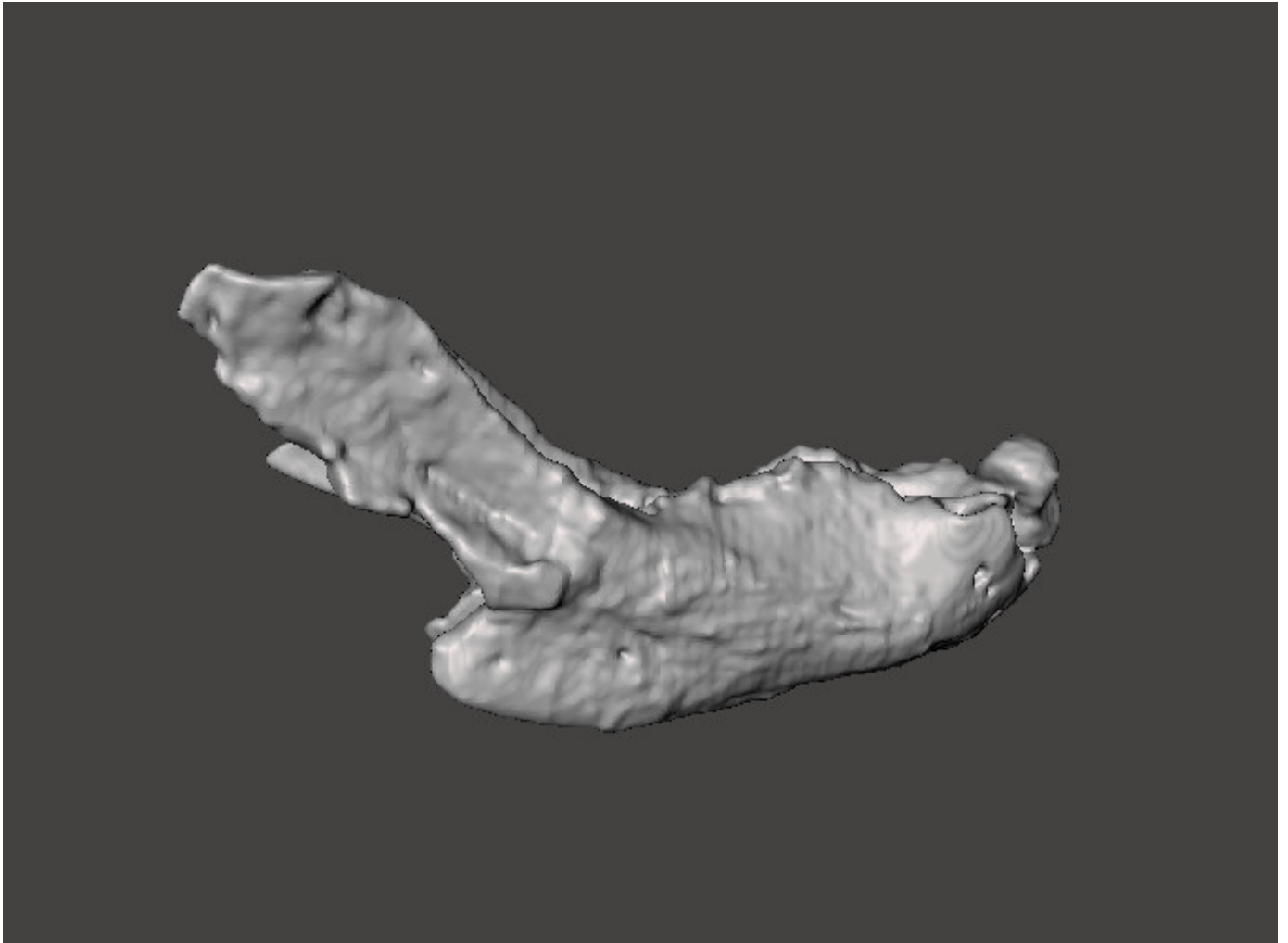
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**Figure 1.** 3D model of the skull of *Santagnathus mariensis*.

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**Figure 2.** 3D model of the skull of *Santagnathus mariensis*.