Dataset

3D models related to the publication: New remains of Neotropical bunodont litopterns and the systematics of Megadolodinae (Mammalia: Litopterna)

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Abstract
This contribution contains the 3D models described and figured in: New remains of Neotropical bunodont litopterns and the systematics of Megadolodinae (Mammalia: Litopterna). Geodiversitas.

Keywords: Fossils, La Venta, Litopterna, Miocene, South America

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INTRODUCTION

We present the surface models of two specimens (Table 1) representing two species of tropical bunodont litopterns from South America. The model of the first specimen is a partial mandible with the symphysis and left body, bearing the alveoli of ?i2, right and left ?i3, alveolus of right c and p1, roots of left p1, and the left p2–m3 of *Megadolodus molariformes* (Litopterna, Mammalia) (Fig. 1). The two models of the second specimen include: (1) an almost complete skull with left and right ?I2 and P1–M3, and (2) a partial mandible with complete right and left dentition except for left ?i2 of *Neodolodus colombianus* (Litopterna, Mammalia). The specimens come from the La Venta locality (La Victoria and Villavieja Formations; middle Miocene) in Colombia. These specimens, along with others, are described in the publication: "New remains of Neotropical bunodont litopterns and the systematics of Megadolodinae (Mammalia: Litopterna)". The specimens substantially increased the information on the craniodental anatomy of *M. molariformes* and *N. colombianus*, and they provide insights into the phylogeny of Litopterna.

METHODS

The specimen of *M. molariformes* (VPPLT 974) was CT scanned using high resolution microtomography (μCT) at the Montpellier Rio Imaging (MRI: Microtomograph RX EasyTom 150, X-ray source 40-150 kV) platform. Voxel size were 0.063 mm. The 3D surfaces were extracted semi-automatically within AVIZO v.9.7.0 software (Visualization Sciences Group, Burlington, MA, USA). The surface scan of *N. colombianus* (VPPLT 1696) was made with a 3D structural light scanner HP Pro S3 with a resolution of 0.05 mm. The 3D surface models are provided in .ply format, and can therefore be opened with a wide range of freeware.

Inv nr.	Taxon	Description
VPPLT974	*Megadolodus molariformes*	Partial mandible
VPPLT1696	*Neodolodus colombianus*	Almost complete skull
VPPLT1696	*Neodolodus colombianus*	Partial mandible

Table 1. List of specimens and 3D models. Collection: Museo de Historia Natural La Tatacoa, Villavieja, Colombia

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Figure 1. Mandible and lower dentition of *Megadolodus molariformes* (VPPLT 974) in occlusal view.

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