3D fossil reconstruction related to the publication: Body shape and life style of the extinct rodent *Canariomys bravoi* from Tenerife, Canary Islands

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**Abstract:** This contribution contains the 3D reconstruction of *Canariomys bravoi*, described and figured in the following publication: Michaux J., Hautier L., Hutterer R., Lebrun R., Guy F., García-Talavera F., 2012 : Body shape and life style of the extinct rodent *Canariomys bravoi* (Mammalia, Murinae) from Tenerife, Canary Islands (Spain). Comptes Rendus Palevol 11 (7), 485-494. doi:10.1016/j.crpv.2012.06.004

**Key words:** Canari Islands, Fossil reconstruction, Insularity, Rodentia

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### TECHNICAL AND SPECIMEN-RELATED PARAMETERS

<table>
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<th>Specimen inventory number</th>
<th>TFMCV872</th>
<th>TFMCV873</th>
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<td><em>Canariomys bravoi</em></td>
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<td>Repository institution</td>
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<td>3D data acquisition institution</td>
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<td>ISE-M, Université Montpellier 2, France</td>
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<td>3D data acquisition method</td>
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<td>SkyScan 1076</td>
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<td>3D data acquisition operator</td>
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<td>Renaud Lebrun</td>
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<td>Renaud Lebrun and Mikaël Antioco</td>
<td>Renaud Lebrun and Mikaël Antioco</td>
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### METHODS

The present three-dimensional reconstruction of the skeleton of the Holocene giant rat of Tenerife (Canary Islands, Spain) was obtained by computerized microtomography reconstruction. Two distinct specimens were used in this reconstruction, TFMCV872 and TFMCV873 (Museo de la Naturaleza y el Hombre, Santa Cruz). TFMCVF872 is an almost complete but disarticulated skeleton of *C. bravoi*. As the mandibles and the cranium of this specimen were not well preserved, a complete skull of *C. bravoi* (TFMCVF873) was added to this reconstruction. All the bones were extracted within a “labelfield” module of AVIZO 6.3, using the segmentation threshold selection tool. The 3D model is provided in a series of .vtk format, and the whole reconstruction can be opened with ISE-MeshTools (Lebrun, 2014).

### DISCUSSION

Murinae rodents observed by Owen (1853) always possess a total amount of 19 thoraco-lumbar vertebrae, most often divided in 13 thoracic and 6 lumbar vertebrae (he also observed at least one specimen of *Rattus norvegicus* possessing 12 thoracic and 7 lumbar vertebrae). This number of 19 thoraco-lumbar vertebrae is observed very often in mammals and is thought to be a plesiomorphic condition for eutherians and metatherians mammals (for a review, see for instance Sánchez-Villagra et al., 2007). The present fossil of *C. bravoi* exhibits a number of 17 thoraco-lumbar vertebrae, so it is likely that 2 vertebrae (either 1 thoracic and 1 lumbar, or 2 lumbar) are missing. Furthermore, the number of caudal vertebrae in Murinae rodents observed by Owen (1853) is often greater than the 21 presented in this reconstruction. The present reconstruction of
Canariomys bravoi does not take into account these potentially missing thoraco-lumbar and caudal vertebrae.

ACKNOWLEDGEMENTS

We are grateful to María Esther Martín González, curator of the Museo de la Naturaleza y el Hombre, Santa Cruz, for her enthusiasm regarding the diffusion of the present model. Data presented in this work were produced through the technical facilities of the MRI platform and of the labEx CeMEB, and at the Centre de Microtomography of the University of Poitiers. The present work developed results of a preliminary study initiated by Mikaël Antioco during the academic year 2010–2011, at the Paleontology Department, University of Montpellier-2. This is ISE-M publication 2015-004.

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