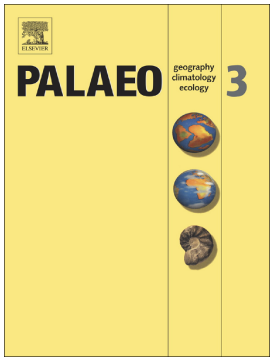

Lateglacial to Late Holocene palaeoclimatic and palaeoenvironmental reconstruction of El Mirador cave (Sierra de Atapuerca, Burgos, Spain) using the small-mammal assemblages

Sandra Bañuls-Cardona, Juan Manuel López-García, Juan Ignacio Morales Hidalgo, Gloria Cuenca-Bescós, Josep María Vergès

PII: S0031-0182(17)30050-0
DOI: doi: 10.1016/j.palaeo.2017.01.019
Reference: PALAEO 8155

To appear in: *Palaeogeography, Palaeoclimatology, Palaeoecology*

Received date: 22 March 2016
Revised date: 28 November 2016
Accepted date: 16 January 2017

Please cite this article as: Sandra Bañuls-Cardona, Juan Manuel López-García, Juan Ignacio Morales Hidalgo, Gloria Cuenca-Bescós, Josep María Vergès , Lateglacial to Late Holocene palaeoclimatic and palaeoenvironmental reconstruction of El Mirador cave (Sierra de Atapuerca, Burgos, Spain) using the small-mammal assemblages. The address for the corresponding author was captured as affiliation for all authors. Please check if appropriate. Palaeo(2017), doi: 10.1016/j.palaeo.2017.01.019

LATEGLACIAL TO LATE HOLOCENE PALAEOCLIMATIC AND PALAEOENVIRONMENTAL RECONSTRUCTION OF EL MIRADOR CAVE (SIERRA DE ATAPUERCA, BURGOS, SPAIN) USING THE SMALL-MAMMAL ASSEMBLAGES

Sandra Bañuls-Cardona[1], Juan Manuel López-García [2,3], Juan Ignacio Morales Hidalgo[2,3] Gloria Cuenca-Bescós [4] and Josep María Vergès [2,3]

[1]Sezione di Scienze Preistoriche e Antropologiche. Dipartamento di Studi Umanistici, Università degli Studi di Ferrara. C.so Ercole 1 d'Este 32, 44121 Ferrara, Italy.

[2] IPHES, Institut Català de Paleoecologia Humana i Evolució Social, C/Escorxador s/n, 43003 Tarragona, Spain.

[3]Àrea de Prehistòria, Universitat Rovira i Virgili (URV), Avinguda de Catalunya 35, 43002 Tarragona, Spain,

[4] Aragosaurus-IUCA-EIA. Paleontology, Earth Sciences Dpt.University of Zaragoza, Spain.

E-mail addresses: bnlsdr@unife.it (S. Bañuls-Cardona), jmlopez@iphes.cat (J.M. López-García), jignacio.morales@gmail.com (J.I. Morales Hidalgo), cuencag@unizar.es (G. Cuenca-Bescós), jmverges@iphes.cat (J. M. Vergés).

ABSTRACT

El Mirador is a cave in the Sierra de Atapuerca (northern Iberian Peninsula) that contains 27 archaeological layers from the Lateglacial to the Late Holocene. A total of 4436 small-mammal remains have been analysed from these layers, and 19 taxa have been identified (three insectivores, seven chiropters and nine rodents). The palaeoenvironmental reconstruction based on a small-mammal analysis suggests that the entire sequence is dominated by a woodland landscape. Our climatic analysis characterises the climate in terms of an evolution from a cool and arid period in the Pleistocene layers (16000 to 14000 cal yr BP), probably related to Heinrich Event 1, to humid conditions and temperatures similar to nowadays in the Holocene layers in general. In MIR23 and MIR22 (7300 to 6800 cal yr BP) we detect an increase in temperature to levels above current values and an important decrease in rainfall. These