8.2 ka event in the Cantabrian region (N Iberia) from marine (oxygen isotopes on gastropods) and terrestrial (palynology) proxies: implications for Mesolithic populations

Asier García-Escárzaga*[2,1], Sara Nuñez De La Fuente[3], Igor Gutiérrez-Zugasti[3], David Cuenca-Solana[4,3], Javier Martin-Chivelet[5], José Antonio López-Sáez[6], and Manuel Ramón González-Morales[3]

[2]Department of Archaeology, Max Planck Institute for the Science of Human History (MPI-SHH) – Kahlaische Strasse 10. D-07745 Jena, Germany

[1]Departamento de Geografía, Prehistoria y Arqueología, Universidad del País Vasco (UPV) – C/ Tomás y Valiente s/n, 01006, Vitoria-Gasteiz (Basque Country), Spain

[3]Instituto Internacional de Investigaciones Prehistóricas de Cantabria, Universidad de Cantabria, Gobierno de Cantabria, Santander (IIIPC) – Edificio Interfacultativo, Avda. de los Castros s/n, 39005 Santander, Cantabria, Spain

[4]UMR-6566, Centre de Recherche en Archéologie, Archéosciences, Histoire (CReAAH) – CReAAH, UMR 6566 – France

[5]Departamento de Estratigrafía. Facultad de Ciencias Geológicas, Universidad Complutense and Instituto de Geociencias (CSIC-UCM) – Ciudad Universitaria. 28040 Madrid, España., Spain

[6]Spanish National Research Council [Madrid] (CSIC) – Albasanz, 26-28. Madrid 28037, Spain

Abstract

One of the most prominent short climatic events occurred during the Early Holocene was the so-called '8.2 ka cal BP event'. However, the information about this abrupt climate change and its implication for human groups in Iberia is still very scarce. This paper aims to improve our knowledge of climate variability in the northern Iberian littoral area, as well as the impact of this abrupt climate change for the last hunter-fisher-gatherers that inhabited the coastal areas during the Mesolithic period. To achieve this, δ18O values were obtained from subfossil shells of *Phorcus lineatus* (da Costa, 1778) recovered from the Mesolithic site of El Mazo (Asturias), a shell midden site with a high chronological resolution. The radiocarbon dates place the formation of the site between 9 and 7.5 ka cal BP, while palynological data contributed to add details on this study. Results showed that shells from units dated to around 8.2 ka cal BP recorded slightly cooler winters and summers than the rest of the sequence, suggesting thus that the 8.2 ka cal BP event had a certain impact on the oceanographic conditions in this area. The pollen record showed that the vegetation was clearly affected by this abrupt climatic change, showing a decline in arboreal taxa and the increase of herbs due to colder and drier climate conditions. Archaeological data showed how this abrupt climate change affected to demography of these forager groups along a narrow littoral platform, giving rise to changes in coastal resource exploitation patterns.

*Speaker

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