

Pollen2013

2nd International APLE-APLF Congress



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a Changing Environment*

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Pollen record during the Eemian from the Fuentillejo maar-lake sequence (Ciudad Real, Spain).

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The Fuentillejo maar is located in the Central Spanish Volcanic Field of Campo de Calatrava (Ciudad Real). Fuentillejo maar-lake is a closed system covering over 142 m depth of lacustrine sediments; it is one of the best examples of long and continuous cores at terrestrial site from the Iberian Peninsula.

Palynological, mineralogical and sedimentary facies analysis were performed to characterize the sedimentary record during the Last Interglacial. In core FUENT-1 this period (dated in 133 ka-120 ka) is detected between 45,90-56,90 m depth. Sedimentology point of view is characterized by develop of lacustrine facies, finely laminated black-brown dolomicrite mud and sapropel layers (Sedimentary Units 16,6-17-18).

The vegetation is characterised by high pollen taxa diversity (around 50 pollen taxa of terrestrial types, 5 pollen taxa of aquatic types, spores and 9 types of non palynological microfossils-NPM) together with a high content in the Mediterranean and mesic forest components (*Quercus* evergreen, *Oleaceae*, *Quercus* deciduous and *Corylus*), typical of warm and humid conditions, and a few content on *Artemisia*, *Pinus* and *Juniperus* taxa (typical of cold or warm arid phases). The scarce forest development can be interpreted from the pollen record of mesophilus and thermophilous vegetation of the FUENT-1 sequence, in which only 40-50% of total pollen come from arboreal associations. These values for arboreal pollen content are low compared with other European pollen sequences.

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