



Holocene palaeoenvironmental reconstruction in the Central Ebro Basin (NE Spain): vegetation changes and hydrological fluctuations from saline lakes (La Playa and La Salineta records)

(1) **P. González-Sampériz**, (1) B. L. Valero-Garcés, (1) A. Moreno, (2) A. Navas, (2) J. Machín & (3) A. Delgado-Huertas

(1) Instituto Pirenaico de Ecología, CSIC, Avda. Montañana, 1005, Apdo. 202, 50080 Zaragoza (Spain) pgonzal@ipe.csic.es, (2) Estación Experimental de Aula Dei, CSIC, Apdo 202, 50080-Zaragoza (Spain), (3) Estación Experimental de El Zaidin, CSIC, Prof. Albareda 1, 18008 Granada (Spain)

The spatial variability of vegetation and rainfall distribution across Spain is extreme compared to most other parts of the Mediterranean due to the Iberian topography and other geographic factors. This heterogeneity at the sub-regional scale has to be considered when interpreting the regional paleoclimate signal derived from the records. The NE regions of Spain are a clear example of such large climatic and environmental gradients in a N-S gradient from the Pyrenees to the Ebro River valley. Climatic and environmental reconstructions for the Central Ebro Basin are scarce, with poor chronologies, and consequently, regional reconstructions are heterogeneous and sometimes contradictory. More records and a multiproxy approach are needed to allow more detailed palaeoenvironmental reconstruction of Holocene climate in the area. To contribute to this purpose, we combined analysis of pollen, sedimentary facies and geochemistry, from two saline lake sequences located in Los Monegros region (Central Ebro Valley): La Playa and La Salineta. We provide new data to characterize the vegetation and lake level status during the Holocene in the Central Ebro Valley (NE Spain). These records show the presence of several phases with increased effective moisture, while regional vegetation was dominated by coniferous taxa (*Pinus* and *Juniperus*), Mediterranean formations (evergreen *Quercus* and thermophilous shrubs) and herbaceous steppe species. *Chenopodiaceae* and aquatic taxa percentages are co-

herent with sedimentological and geochemical proxies and both characterize the evolution and fluctuations in the playa-lakes paleohydrology. The results suggest more humid conditions during the Early and the Late Holocene.