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Groundwater in steppe environments: "El Hito" Lagoon wetland as a case of study (Cuenca; Spain)

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El Hito Lagoon wetland, located in the interfluve of the upper basins of the Cigüela and Záncara rivers (Guadiana Basin, central Spain), configures an important element of geo-environmental heritage of Castilla-LaMancha (Natural Reserve), as well as being an area recognized as Ramsar Site and integrated in the Natura 2000 Network. It has an extension around 290 ha in the periods of maximum flooding and it is embedded in an endorheic basin of 42 Km^2.

The area that includes it has an arid appearance in a landscape dominated by extensive agriculture, being catalogued as "without aquifers" under its unfavorable geo-hydrological substrate. Thereby, the manifestation of the wetland has been attributed to the simple accumulation of precipitation water in the rainy periods. However, studies to date show the contribution of groundwater to the dynamics of this geo-system, showing how the lake basin behaves itself like a diffuse discharge area of groundwater flow to the endorheic in which it is located.

This paper shows the most relevant data to understand the functioning of this wetland of great scientific and environmental importance, as it support interesting halophytic plant communities as well as large number of waterflow and steppe birds.