**The ecology of the Lower Cretaceous coelacanths from Las Hoyas Konservat-Lagerstätte (Cuenca, Spain): A new insight after the integration of palaeontological and sedimentological data**

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**ABSTRACT**

Coelacanths are very rare in the upper Barremian fossil site of Las Hoyas (Cuenca, Spain). However, being one of the few predatory ichthyophagous fishes preserved at the locality, understanding their ecology is fundamental to continue advancing in our comprehension of the dynamics of this palaeowetland. A previous study based on the size distribution of the coelacanth specimens suggests that a natural population of this species did not inhabit the excavated area of Las Hoyas, perhaps due to them practicing habitat partitioning. Here we analyze the sedimentological characteristics of the laminae where these fossils were preserved. In the light of the extensive previous knowledge on the stratigraphy, depositional environments and evolution of Las Hoyas, we conclude that coelacanth fossils are preserved in wet facies associations, indicating that they were not present in this part of the wetland permanently, but during periods of overall flooding of the system and high connectivity among the different environments composing the regional-scale wetland.

**Key words:** Barremian, wetland, Coelacanthiformes, microfacies, habitat partitioning.

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