

## NEW OCCURENCES OF *CELTEDENS* (LISSAMPHIBIA; ALBANERPETONTIDAE) FROM THE LOURINHÃ FORMATION

A.R.D. Guillaume<sup>1,2\*</sup>, C. Natário<sup>1</sup>, M. Moreno-Azanza<sup>1,2</sup>, O. Mateus<sup>1,2</sup>

<sup>1</sup>GEOBIOTEC, Department of Earth Sciences, NOVA School of Science and Technology, Campus de Caparica, P-2829 516 Caparica, Portugal.

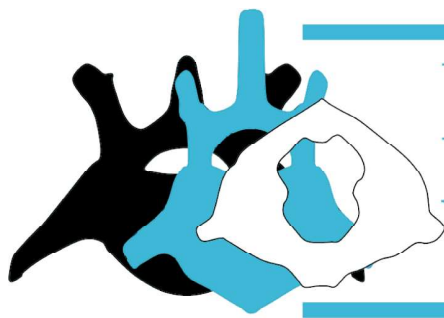
<sup>2</sup>Museu da Lourinhã, R. João Luís de Moura 95, 2530-158 Lourinhã, Portugal.

\*presenting author, [guillaume.763@gmail.com](mailto:guillaume.763@gmail.com)

**Keywords:** *Upper Jurassic, Portugal, Phylogeny, Morphometry*

Albanerpetontidae form an enigmatic extinct group of highly derived small ballistic tongue feeding amphibians. They ranged from the early Bathonian to the early Pleistocene, and have been recovered from Europe, North America, Asia and North Africa. Due to their small size, their fossil record is fragmentary and scarce, most generally recovered as isolated fragmented bones from vertebrate microfossil assemblages. The Late Jurassic Guimarota microfossil assemblage yielded thousands of albanerpetontid specimens, although only partial results and identification have been formally published.

Here, we present new material from the Lourinhã Formation, including cranial and postcranial elements. The specimens come from four different localities, ranging from Kimmeridgian to Tithonian: Valmitão, Zimbral, Porto das Barcas, and Peralta. Frontals share an hourglass-outline frontal bone with a curved orbital margin, and a broad blunt internasal process, diagnostic features of the genus *Celtedens*. The phylogenetic analysis, based on the new material described, supports this attribution based on the shape of the internasal process, but it was not able to resolve the polytomy of the genus. Morphometrics analyses based on 17 frontals from Lourinhã and Guimarota show some morphological variations, such as the width of the ventrolateral crests, the relative proportion of the internasal process, and the dorsal ornamentation (from vermicular, to concave, honeycomb pits), and suggest a size component in the variation observed. However, it is not yet clear if such variation would be intraspecific (ontogenetic, sexual or other) or interspecific (between two closely related species).



# PALÆO VERTEBRATA

Special Volume 1-2021



Abstract book of the 18th Conference of the  
European Association of Vertebrate Palaeontologists (EAVP)  
5-9 July 2021, Benevento, Italy