Involving the local community in the acquisition of paleontological data—“MicroSaurus” Citizen Science Project

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IN INVOLVING THE LOCAL COMMUNITY IN THE ACQUISITION OF PALEONTOLOGICAL DATA

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The Upper Jurassic of Portugal is globally known for its dinosaurs and the Guimarota Mine, which yield thousands of vertebrate microfossil remains. Most recent work carried through a master thesis highlighted the diversity and value of vertebrate microfossil assemblages in the Lourinhã Formation. Over 700 kg of sediments from three localities have been sampled and prepared during this thesis, but only 80 kg were picked. Picking is a time-consuming process (over 750 hours during the master thesis) in which the picker must sort and collect microfossils through sediments using stereo microscopes.

“MicroSaurus Project” is a 10-month citizen science project profiting the synergies of Museu da Lourinhã, Faculdade de Ciências e Tecnologia da Universidade Nova de Lisboa, and DinoPark of Lourinhã. The project aims to involve the local and visiting communities in the care of their natural and paleontological heritage and familiarize them with the work of paleontologists. The project is targeting pre-teenagers (10-13 years old), as they are the main public of the involved institutions but is opened to volunteers of all ages who wants to be involved in this heritage.

The project is organized in 45-60 minutes workshops for 10 to 20 people, hosted by the institutions mentioned above, in which up to 100 g of unpicked, screen-washed sediments will be provided to each participant. An illustrated guide provides the basics on the methods of picking and how identify fossils from sediments. Three characteristics are emphasized to sort the microfossils both from the sediments and between them: shape, texture, and color. For the youngest audience (below 10), or those who do not have time to participate, a plate with specimens collected during the first week is on display to give a glimpse on the diversity and the paleontological heritage of Portugal.

The scientific aim of MicroSaurus is to allow the Museu da Lourinhã to build a substantial vertebrate microfossils collection with well preserved and iconic specimens ready for study. They will be used for paleoecosystem characterizations and paleoenvironmental reconstructions of the Lourinhã Formation.

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**Keywords:** Citizen Science Project, Lourinhã Formation, vertebrate microfossils, paleoecology, paleoenvironment.
Apoios e Patrocínios

[Campanhas e Logotipos de Apoios e Patrocínios]