

Grant: Vertebrate Evolution, Biogeography, and Paleoecology in an Ancient Insular Ecosystem

CODE: PID2020-119811GB-I00

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Title of FPI project: Evolution of the terrestrial ecosystems of the western Late Cretaceous European Archipelago preceding the K-Pg event

Abstract - The project aims to understand the evolution of vertebrate terrestrial ecosystems during the last four million years of the Maastrichtian, before the K-Pg extinction event, in the Ibero-Armorican island of the Late Cretaceous European Archipelago. This endeavor will require estimating various paleobiological parameters (e.g., growth strategies, life history traits, dietary preferences, habitat, trophic relationships) for the major vertebrate clades that inhabited the Ibero-Armorican island. A primary focus of this project will be the use of those parameters for modeling food webs and establishing the trophic relationships among the various taxa documented in the Maastrichtian fossil record of the Ibero-Armorican domain, preserved in the south-central Pyrenees.

Requirements

- BSc in Geology, Biology or related discipline
- Master of Science in Geology, Biology or related discipline
- Good command of the written and spoken English language (no diploma required)
- Knowledge of the comparative anatomy of vertebrate animals (particularly fossil reptiles)
- To be familiar with the vertebrate record of the Late Cretaceous of Europe

Desirable Competences

- Basic understanding of statistical techniques of data analysis
- Familiarity with the R framework (at the user level for running various R libraries and packages for data analysis)
- Fieldwork (experience in prospecting for, excavating and documenting fossil remains)
- Familiarity with the stratigraphy and sedimentary geological units of the Late Cretaceous of Europe
- Basic understanding of how to conduct osteohistological analysis and interpret osteohistological data
- Familiarity with the implementation of Scanning Electron Microscopy (SEM analysis)
- Publication record including at least one peer-reviewed journal article
- Presentations at professional symposia