

Position Offered: POSTDOCTORAL RESEARCHER

Project: *bluePALEOeconomy: analysis of coastal socio-ecological systems in the long-term through data science*

Technological and scientific fields: Artificial Intelligence, Advanced Data Analysis, Climate change and biodiversity, Digital Humanities

Location: Barcelona, Catalunya, Institución Milà i Fontanals for Research in the Humanities, <https://www.imf.csic.es/>

Research Group/PI: HUMANE - Archaeology and Human Ecology, IP Débora Zurro, <https://www.imf.csic.es/areas-de-investigacion/arqueologia/arqueologia-y-ecologia-humana/>

PROJECT SUMMARY

The highly transdisciplinary project uses Data Science to analyze the historical relationship of human societies, coasts and marine ecosystems. It focuses on the study of these blue economies by addressing aspects such as the anthropological impact on marine resources. The contract will develop an agent-based model (ABM) to formalize and evaluate the relationship between environmental and social dimensions in case studies on the coast of the Atacama Desert (Chile) and the Mediterranean coast. It will open the field of study to the anthropization of marine ecosystems, incorporating a long history perspective. The working group has expertise in social simulation and data science, marine ecology, analysis of trophic networks in pelagic contexts, gender, and in archaeology and ethnography of coastal hunting-gathering societies.

PROFESSIONAL PROFILE

Minimum requirements:

- PhD in Natural Sciences, Applied Ecology, Data Science, Engineering, Physics, Telecommunications or Humanities
- Knowledge of programming languages (e.g. R, Python) and data analysis techniques
- Proficiency in English, including publications in international journals

Merits to be considered:

- Training in data analysis methodologies and techniques, as well as knowledge of analytical tools and packages in different programming languages
- Experience in ABM, especially in the area of socio-ecological systems
- Experience in dissemination and in the organization of international scientific events
- Knowledge of Spanish

WHAT IS OFFERED

bluePALEOeconomy is an innovative project that will assess the anthropogenic impact on oceans and coasts, one of the major challenges of Global Change. The selected person will have the opportunity to follow a specialized training itinerary (with formal and regulated content) of 240 ECTS, to make stays at the Escuela Politécnica Superior of the Universidad de Burgos, headquarters of the Co-IP, JM Galán Órdax, as well as in UK laboratories where Data Science is applied to paleo contexts. In order to position the postdoctoral researcher favorably for a future permanent position in the Academy, the research team will make sure that *bluePALEOeconomy* offers a special opportunity to develop new skills and publish the results in an optimal manner.

-Training in modeling applied to Social Sciences and socioecological systems, advanced statistics

Contract conditions:

Indefinite contract for a Postdoctoral Researcher associated to the Momentum Project of 4 years' duration according to Spanish science law. Gross annual salary (41.000 € - 52.000 €).

Start of contract: before 31 December 2024

PRINCIPAL INVESTIGATOR CONTACT

Email: debora@imf.csic.es / Phone: +34 93-4433818