

PhD opportunity on aquatic paleoecology. Full-time IRTA-funded fellowship

About the project: The objective of the thesis project is to investigate aquatic ecosystem dynamics at centennial and millennial time scales based on the responses of biological communities with complementary geochemical, molecular, and climatic reconstructions. This overarching objective will be unleashed through i) **developing** reference conditions in highly dynamic and impacted Mediterranean coastal wetlands for a better implementation of the Water Framework Directive using benthic diatoms and foraminifera, ii) **identifying** unequivocal past anthropogenic influences to refine chronological frameworks of human and environment constraints in agroecosystem changes looking at ancient DNA signatures, and iii) **elucidating** relationships between past climates, past land-use changes, and diatom biodiversity in freshwater lake ecosystems to understand spatio-temporal variations of community and functional properties leveraging open databases. Collectively, the three objectives will inform management and restoration actions to mitigate the impact of current and future anthropogenic climate change across the aquatic continuum: from freshwater lakes to rivers and coastal wetlands.



I offer: 4-years contract. Opportunities for field work, national and international collaborations in tropic-related projects (see an overview of projects [here](#)), and participation in scientific dissemination.

Foreseen starting date: September/ October 2025

About IRTA and AMIC: IRTA La Ràpita is located in the Ebro Delta, one of the most ecologically important coastal wetlands in the Western Mediterranean where natural and human values are intrinsically linked to impacts of global change. The **Marine and Continental Waters Program (AMIC)** is a vibrant diverse group whose multidisciplinary environmental science research seeks to inform sustainable management measures on aquatic ecosystems and their resources. AMIC is part of the Freshwater Ecology, Hydrology, and Management group (FEHM), a Catalan Government Consolidate Research group including the University of Barcelona, and IDAEA-CSIC.

Supervisor: **Xavier Benito**, Marine and Continental Waters Programme, Institute of Agrifood Research and Technology (<https://xbenitogranell.github.io>)

If you are interested and motivated to apply for this soon-to-open PhD position, contact me at xavier.benito@irta.cat with a small description of background and research interests within the topic of the PhD project.