

PhD candidate interested in applying for FI/FPU fellowships in the DRYLAND project

The role

The Institute of Environmental Assessment and Water Research (IDAEA-CSIC) is seeking a motivated predoctoral candidate interested in applying for an FPU or FI fellowship to join the [DRYLAND project](#). The research will focus on understanding how drought affects soil biogeochemical cycles and mountain water quality. The work will involve field sampling, laboratory experiments, data analysis, and ecosystem modelling, aiming to improve our understanding of ecosystem resilience to climate-induced water stress.

About de project

DRYLAND aims to unravel how drought drives the mobilization of carbon, nutrients, and trace elements from high-mountain soils, and how these processes propagate to streams and rivers. The PhD project crosses scales and disciplines, combining: Lab experiments with undisturbed soil cores & advanced stable isotope (^{13}C ^{15}N) techniques, high-frequency sensor networks in mountain catchments (Aiguastortes National Park), soil & water chemistry, microbial activity & greenhouse gas fluxes and data analysis & process-based modelling to predict water quality under climate change.

This is a unique opportunity to work at the interface between soil microbial ecology, hydrology and global change science, contributing to a timely question: **How do droughts reshape carbon and nutrient cycling in alpine ecosystems?**

What do we look for?

Qualifications

MSc in Environmental Sciences, Ecology, Biology, Earth Sciences, Env. Engineering or related fields.

Strong academic record & motivation to apply for FPU/FI.

Professional experience

Not need it

Competences

Interest in soil & water biogeochemistry, microbial ecology, fieldwork, and data analysis. Experience with R is a plus

The group

You will be integrated at IDAEA-CSIC and CREAM (UAB), collaborating with field ecologists, biogeochemists, modellers, and sensor-technology specialists. Training includes:

- Hands-on work in field and controlled lab experiments
- Advanced analytical methods (IRMS, GHG analysis, Isotope pool dilution, Isotope tracing)
- Access to Pyrenees Limnological Observatory (LOOP)
- Participation in conferences, workshops, and summer schools
- Mentoring, weekly supervision meetings, and support in fellowship preparation

Our group values collaboration, open discussion, and supportive supervision. PhD candidates also benefit from a thesis committee and CREAM's and IDAEA's doctoral training environment.

The institute

The **Institute of Environmental Assessment and Water Research (IDAEA)** is the leading research institute of the Spanish National Research Council (CSIC), recognised with the Severo Ochoa Centre of Excellence accreditation in 2019.

Dedicated to understanding and addressing today's most pressing environmental challenges, IDAEA investigates the interactions between environmental stressors, ecosystems and human health through a One Health approach, generating knowledge and solutions that contribute to a more sustainable and resilient future.

Bringing together expertise in analytical chemistry, biology, toxicology, atmospheric sciences, hydrogeology, geology, environmental engineering and data science, IDAEA combines fundamental and applied research to understand environmental processes, assessing emerging risks and developing innovative solutions for pollution prevention, sustainable resource management and environmental protection.

Its research encompasses contaminants of emerging concern, air quality, water systems, global change, biogeochemical processes, circular economy and advanced environmental monitoring and modelling.

We offer a diverse and inclusive environment where no discrimination based on disability, gender, nationality, religion or sexual orientation will occur during the selection process.

How to apply?

Those interested may email their **CV** and **motivation letter** to **Lluís Gómez Gener** at **lluis.gomez@idaea.csic.es**, adding PhD position to the email subject.

Deadline: 10th November 2026