

Ph.D position in hydrology/ecohydrology in Mediterranean headwater catchments

The role

The **Surface Hydrology, Ecology and Erosion Group** (SHE2g, IDAEA-CSIC) is seeking for a PhD candidate to work within the project “**DECODING**: From hyDrological response to (ECO)hydrological processes. DisentanglING the future of Mediterranean headwater catchments in a global change context (PID2025-174507NB-I00).

The **DECODING** project aims to advance understanding of the evolving hydrological response and functioning of Mediterranean headwater catchments in a global change context. The project will leverage long-term hydrometric and isotopic datasets from the Vallcebre research catchments (Northeastern Pyrenees), enabling the analysis of precipitation partitioning between green and blue water and the assessment of hydrological changes at different spatial (plot and catchment) and temporal (annual, seasonal and event) scales, in response to climate and land cover change. Results from the project will generate data-driven knowledge that will contribute to the development of a robust perceptual model linking observed hydrological responses to underlying processes. This knowledge will support water and forest management strategies and improve the prediction of global change impacts on water resources in Mediterranean headwater catchments. Ultimately, the project seeks to deliver actionable, data-driven insights to help anticipate and mitigate hydrological risks in a region increasingly exposed to water resource pressures.

The **DECODING** project is an ideal setting to host a PhD candidate in hydrology/ecohydrology, taking advantage of the demonstrated scientific experience of the host group (Surface Hydrology, Ecology and Erosion group) and of the potential of the infrastructures in the Vallcebre research catchments. This setting will enable the PhD candidate to gain familiarity with processing a wide range of ecohydrological field data, using stable water isotopes, and applying state-of-the-art hydrological analysis techniques and ecohydrological models.

The candidate will be part of a team with demonstrated training capacity. The inclusion of the PhD candidate in the **DECODING** project will also allow her/him to interact with national and international researchers with whom the SHE2g collaborates in several scientific networks, as well as to be trained by foreign researchers included in the project. Finally, the candidate will be integrated into a productive scientific environment that will allow her/him to acquire the tools necessary to disseminate the results of her/his research in scientific articles in impact journals, as well as in scientific meetings and congresses.

What do we look for?

We seek candidates for a predoctoral fellowship (“ayudas para la formación de personal investigador predoctoral”, Spanish Ministry of Science and Innovation). It is a competitive call, therefore eligible candidates must have a strong academic record.

- **Qualifications**

Master's degree in environmental sciences, hydrology, natural resources, environmental engineering, or a strongly related field.

• Competences

Team spirit, flexibility, high motivation and the ability to work independently
Scientific curiosity and willingness to work on a doctoral thesis
Good computer skills and knowledge of programming (R, Python,...)
Excellent communication and writing skills in English
Driving licence

Working conditions

Contract duration: 4 years (starting $\simeq$ May 2027)

Foreseen application period between mid-October/early Novembre 2026 !!! through the CSIC platform [CONVOCA](#)

Estimated annual gross salary: $\simeq$ [21.000€ - 24000€]

Additional funding to cover tuition, research secondment abroad, and publication costs.

The group

The **Surface Hydrology, Ecology and Erosion Group** is oriented towards the study of the **hydrological dynamics of Mediterranean mountain areas** using a multidisciplinary and multiple-scale approach. Several aspects of the hydrological cycle are investigated, utilising the Vallcebre Research Catchments (NE Spain) as a field laboratory to **observe, quantify and model hydrological processes at the plot and catchment scale**.

The hydrology and global change in Mediterranean environments, focusing on the spatio-temporal variability of hydrological responses, water fluxes and residence times; the variability of hydrological processes across the soil–vegetation–atmosphere continuum; the influence of water availability, storage and transport on plant function and ecosystem structure; the effects of global change on nutrient and carbon transport and biogeochemical transformations; and human impacts on biodiversity and ecosystems are the main subjects studied by the group.

The institute

The [Institute of Environmental Assessment and Water Research \(IDAEA\)](#) is a **multidisciplinary research institute** focused on the scientific understanding of key environmental challenges facing society, especially those linked to water and air quality issues. Our **investigation, training, and education programmes** cultivate fertile ground for cross-subject innovation from local to global scales.

Since IDAEA's foundation a decade ago, we have striven to perform at an outstanding level on environmental research, guided by the principle that our scientific **understanding of current threats to global ecosystems** is best approached from a holistic, systems-based viewpoint.

How to apply?

Those interested may email their CV and a motivation letter to Jérôme Latron (jerome.latron@idaea.csic.es), before **30/10/2026**.