

PhD fellow offer in soil fungi in Mediterranean forest ecosystems. Open Position

The Research group of “Forest Management” of **Agrotecnio** (Lleida, Catalonia, Spain) offers a PhD position. The expected starting date is May 2025, while the application **deadline is March 21, 2025**.

Project Title: Shaping Soil Fungal Networks: The Role of Fungi in Mediterranean Forest Restoration

Fungi inhabiting soils play a fundamental role in many ecological processes that underpin ecosystem functioning, particularly in biochemical and nutrient cycling processes such as soil organic carbon dynamics. In the context of global change, there is increasing interest in understanding how ecosystems respond to disturbances. Any disturbance is expected to influence above- and belowground heterogeneity, thereby affecting soil mycelial networks and dynamics. However, a comprehensive assessment of these effects on Mediterranean ecosystems remains largely unexplored.

Soil fungal communities are key players in ecosystem resilience, facilitating nutrient cycling, organic matter decomposition, and plant-soil interactions that drive forest regeneration and soil health. Understanding how fungi respond to disturbances is crucial for predicting how ecosystems will adapt to future environmental changes, including climate change. More specifically, it is important to investigate the role of soil fungi in the recovery of soil functions during the restoration process.

The aim of this PhD research is to identify and understand fungal dynamics in Mediterranean ecosystems, with a particular focus on their role in ecosystem restoration following disturbances. The research will emphasize the relationship between soil fungi and the recovery of soil functions in degraded or disturbed landscapes.

We are seeking a highly motivated, independent, and enthusiastic individual to conduct applied research on soil fungi within a restoration ecology framework. The PhD candidate will work within a well-established and internationally recognized research group with strong expertise in Mediterranean soil fungi.

This PhD opportunity offers a unique chance to advance knowledge in fungal ecology, and restoration science, contributing to innovative strategies for mitigating the impacts of global change on Mediterranean ecosystems.

The PhD candidate should be capable of independently designing and developing new experimental set-ups and working effectively in laboratory conditions. Good field skills are desirable, along with experience in data handling and basic-to-intermediate proficiency in programming (e.g., R). While these technical skills are not mandatory, as full training and support will be provided, they would be advantageous. More importantly, enthusiasm, self-motivation, intellectual curiosity, and strong communication skills to engage with diverse audiences will be highly valued.

Location and Supervision: This research project will be developed in Agrotecnio CERCA Center in Lleida (www.agrotecnio.org). The supervisors will be Dr. Josu G Alday and Dr. Svetlana Dashevskaya (<http://www.medforlab.com/>).

Required qualifications of candidates:

The applicants must have:

- Master's degree in the field of forestry, biology, environmental sciences, biotechnology, ecology or related disciplines (Master's degree is mandatory).
- Expertise in molecular biology, microbiology or genetics is desirable.
- Fluency in English, written and spoken.
- Driving license.
- Availability to travel.
- Interest in learning multiple techniques.

Terms of employment:

The position as a PhD fellow is a temporary full-time work with 37,5 h week. It is available for 3 years and it can be extended up to 1 year more (max 4 years). The selected candidate will have a contract provided by Agrotecnio, and the initial gross salary 17.651,76 € for the first and 2nd years and 18.912,60 € for the 3th year.

Expressions of interest:

Interested candidates should submit the following documents to the mail:

josu.alday@udl.cat

- Curriculum vitae (CV) (up to 4 pages).
- Motivation letter (up to 1 page)

If you require further information on matters relating to the call please contact:

josu.alday@udl.cat