

M.Sc. Thesis

Nitrate leaching under Douglas fir: soil biological mechanisms

mycorrhiza:root:microbes



Within the framework of the Research Training Group 2300 “Enrichment of European beech Forests with Conifers: ecosystem functioning” (www.uni-goettingen.de/grk2300), the belowground biological processes that influence soil solution chemistry in Douglas fir stands are investigated. Douglas fir is a highly interesting species for forestry in the temperate region. In a greenhouse experiment, we will test if Douglas fir roots foster particular nitrogen accumulation patterns in the soil and then determine which group of associated soil organisms is responsible: fungi and/or microbes. The student will use methods in genetics to detect community changes of these groups of organisms and microscopy techniques to determine the hyphal productivity and form.

Offering:

A M.Sc. thesis: the project will explore functional traits of trees and root-associated organisms (fungi) that influence ecosystem nitrogen cycling in managed forests consisting of highly interesting novel tree species. The student will gain lab skills and learn to employ methods in genetics.

Work place: department of Forest Botany and Tree Physiology, Büsgenweg 2

Time: March/April 2023, expected submission of thesis autumn 2023

The position offers the chance to learn useful methods in plant-soil and mycorrhizal studies, to gain experience in how to conduct a scientific experiment from experimental design to data analysis, and the opportunity to work in an interdisciplinary research project RTG 2300 (fungal ecology + soil science).

Wanted:

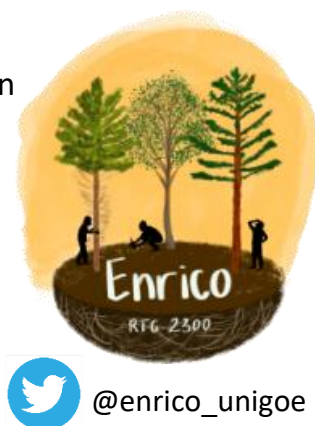
- A motivation for scientific work and interest in the topic. A strong sense of responsibility for the quality of experimental work (handling of samples and data management).
- Basic English speaking skills
- Potential candidates should be enrolled at the University of Göttingen



Contact persons:

Michela Audisio, PhD candidate
michela.audisio@uni-goettingen.de

Klara Mrak, PhD candidate
Klara.mrak@uni-goettingen.de



@enrico_unigoe