



PhD position on microbial methane cycling in aquatic ecosystems

A fully funded (4-year) PhD position is available at the Division of Microbial Ecology ([DOME](#)) at the Centre for Microbiology and Environmental Systems Science ([CeMESS](#)), University of Vienna, Austria. The PhD candidate will conduct research within the framework of the Austrian Science Fund (FWF) START Grant “METHANIAQ” under the supervision of [Barbara Bayer](#), PhD.

Project description:

Aquatic ecosystems are a major source of the potent greenhouse gas methane, accounting for half of the global methane emissions. Biogenic methane is microbially produced in anoxic sediments and typically rapidly consumed by methanotrophic microorganisms, largely limiting emissions to the atmosphere (=“microbial methane filter”). Enhanced eutrophication due to human activities has been linked to increases in methane emissions from coastal ocean and lake ecosystems. Yet, it is unclear how such changes in environmental conditions affect the *in situ* activities of methanotrophic microorganisms. The PhD candidate will conduct research to understand the impacts of eutrophication on methane consumption in lakes and coastal zones.

Project-related tasks include:

- Laboratory experiments with methanotrophic microorganisms
- Methane measurements at multiple lake and/or ocean sites
- Metagenomics of *in situ* microbial communities
- Data analyses and preparation of scientific publications
- Presenting work output in department seminars and at conferences
- Co-supervision of trainees and students

The successful candidate will benefit from a collaborative and international research network. We thrive to be an inclusive, welcoming and safe environment for people of all backgrounds, ethnic identities and gender identities.

Ideal start date is January 2024 with some flexibility to start later.

Requirements:

Interested candidates (f/m/d) should have a MSc degree (or equivalent) in Microbiology/Ecology/Aquatic Sciences/Geochemistry or a related field. A strong interest to learn new methodological skills required for the project is essential. Previous experience with laboratory and/or fieldwork is of advantage. The candidate must have the ability to work independently but also in research teams. Self-motivation, creativity and curiosity are essential assets. Willingness to plan and conduct fieldwork in lake and/or ocean environments is required. The candidate must have good organizational skills and a very good level of spoken and written English.

How to apply:

For informal enquiries or to apply, please contact Barbara Bayer (barbara.bayer@univie.ac.at). For applications, please send a short (max. 1-page) cover letter (highlighting your main interests and relevant experience) and your CV (including the contact information for 2 references). For full consideration, please send your application until October 15th.