universität wien

CeMESS | Centre for Microbiology and Environmental Systems Science

Postdoc position on aquatic methane biogeochemistry

A 3-year Postdoc 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 postdoctoral researcher will conduct research within the framework of the Austrian Science Fund (FWF) START Grant "METHANIAQ" on microbial methane cycling in aquatic ecosystems.

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. However, methane concentrations are often elevated in oxic surface waters of oceans and lakes ("methane paradox"). Due to its proximity to the atmosphere, aerobic methane production in surface waters might constitute a particularly important source of methane, which might escape the aquatic "microbial methane filter". Yet, we currently lack a comprehensive understanding of the involved processes and microorganisms. The postdoctoral researcher will use a combination of stable isotope tracing and natural abundance approaches to investigate sources and production rates of methane in oxic surface waters. Furthermore, we will apply metagenomics and -transcriptomics to identify the main microbial groups and pathways involved in aerobic methane production.

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 PhD degree in a relevant field and a demonstrable publication record. Researchers with experience in biogeochemistry, geobiology and/or microbial ecology are particularly encouraged to apply. Experience with isotope applications, in particular stable isotope tracing and natural abundance approaches, would be highly beneficial. A strong interest to learn new methodological skills required for the project is of advantage. Good organizational skills and the ability to work independently but also in research teams are essential. The candidate must be able to manage their research project and should have an excellent level of spoken and written English. Self-motivation, creativity and curiosity are essential assets. Willingness and motivation to plan and conduct fieldwork in lake and/or ocean environments is required.

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 3 references). For full consideration, please send your application until October 15th.