

Methane oxidation in seasonally hypoxic coastal waters

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Research group: Geochemistry
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Project description

Methane is a key greenhouse gas. In marine environments, most methane formed in sediments is removed through anaerobic oxidation with sulfate and/or Fe and Mn oxides. If the removal in the sediment is not efficient enough, methane can escape to the water column and undergo aerobic, and potentially, anaerobic oxidation. The factors controlling removal of methane in the water column are still incompletely understood.

This student-assistant will contribute to experimental research to increase the understanding of methane oxidation in seasonally hypoxic coastal waters

The student will perform chemical analyses of collected water samples. The work can involve a range of chemical analyses including flow injection iron analysis, spectrophotometric analyses, gas chromatography and data processing. The student may also help with preparing fieldwork and will potentially participate (depending on the covid situation) in sampling in one or more coastal systems. This work is part of a collaborative project with the Department of Microbiology at Radboud University in Nijmegen.

The balance between fieldwork, laboratory work and office work (on campus and at home) will depend on the Covid-19 situation. The Bright Minds student will have frequent (at least weekly) contact with the supervisors, either in person or through teams.

Job requirements

The student should have basic skills in chemical work in the laboratory.