

BayCEER Kolloquium

Lectures in Ecology and
Environmental Research

Summer 2017



UNIVERSITÄT
BAYREUTH

Thursday

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12:00 in H6, GEO

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Microbial cycling of organic matter and trace gases in a changing ocean

Marine microbes play a crucial role in the production and consumption of climate-active gases. In our studies, we investigate the environmental control on two important microbial pathways leading to the production of climate-active gases in the ocean, (i) the enzymatic hydrolysis and bacterial turnover of organic matter that results in the release of CO₂ and (ii) the formation and cycling of halogenated trace gases which play a significant role in present day ozone depletion. We conclude that the ongoing ocean acidification has the potential to stimulate the bacterial community and facilitate the microbial recycling of freshly produced organic matter, thus strengthening the role of the microbial production of climate-active gases in the surface ocean.