

....HYPOX partner institutions

Partner 1:

MPG-MPI (Bremen, Germany)



....HYPOX partner institutions: MPG

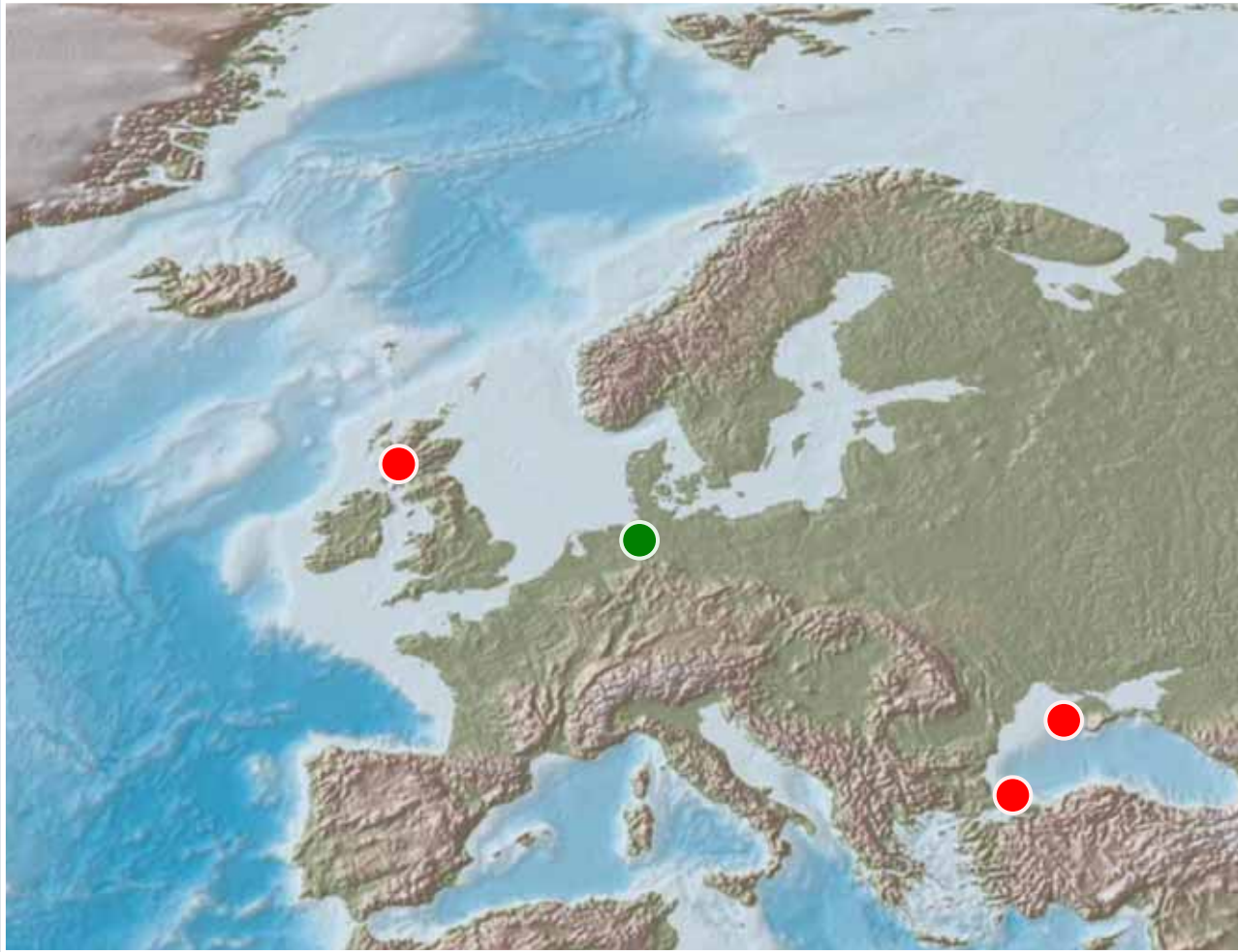
Max Planck Institute for marine
Microbiology www.mpi.bremen.de



Image by M. Schloesser

....HYPOX partner institutions: MPG

Institute & main study sites location



Max Planck
Institute

Black Sea:
Crimea
Bosphorus

Loch Etive

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The Max Planck Institute in brief

- Some facts
founded in 1992, one of 76 Max-Planck-Institutes,
~ 250 coworkers >200 scientists and graduate students
- General concepts
investigating marine microbiology by combining field research on processes with laboratory research on microorganisms
- Structure
interlinked groups covering many aspects of marine microbiology
organisms: microbiology, molecular ecology, genomic
processes & cycling: biogeochemistry, nutrient, ecophysiology
distribution & diversity: habitat, fitness



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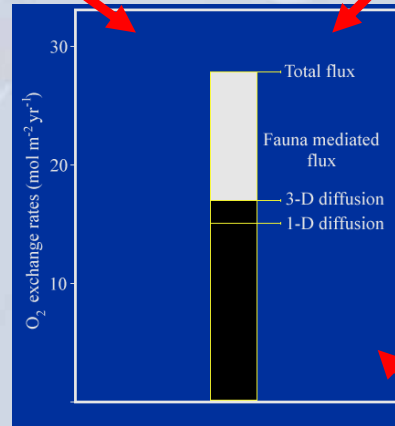
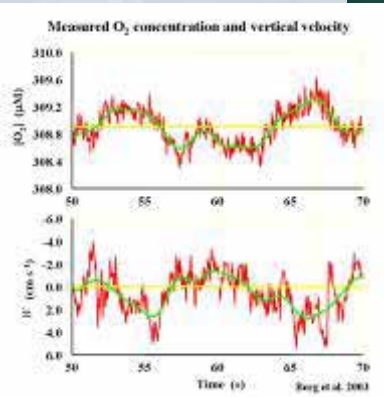
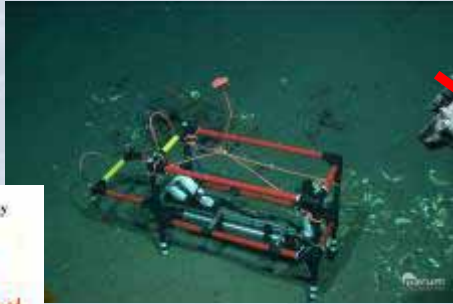
HYPOX-related tools at MPI

MPG-tasks in HYPOX

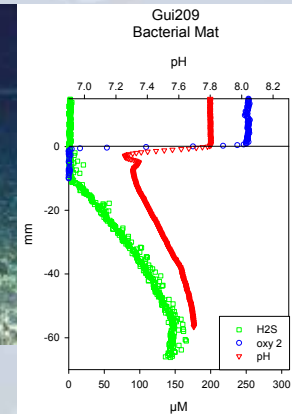
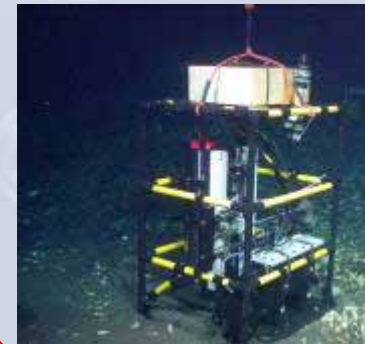


In situ approaches at MPI: examples

Eddy
total flux



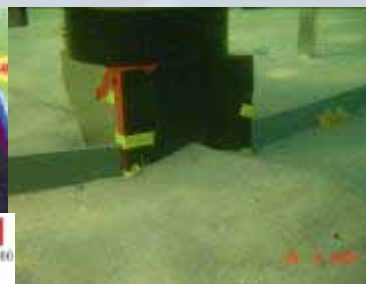
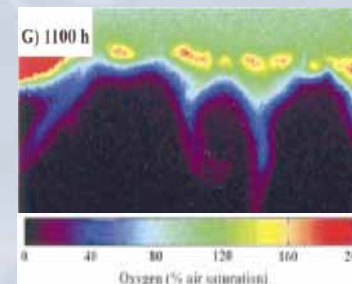
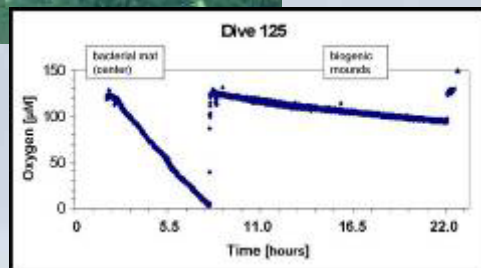
Microprofiler
diffusive flux and
(micro-) zonation



Chamber
total exchange
rate



Planar Optodes
2D-distribution over
space and time



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WP6&7: Sediment biogeochemistry under low/changing O_2 : Crimea & Loch Etive

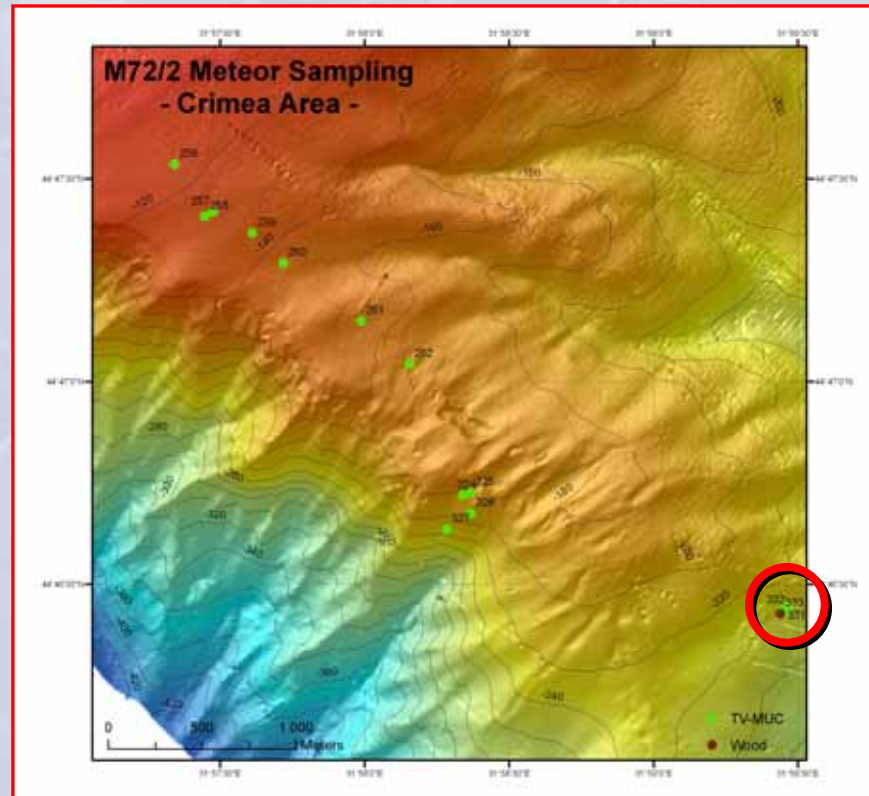
- observatory installation and targeted surveys
- microbial processes and fluxes under spatially or temporally changing O_2
- autonomous instruments (profiler, chambers eddy correlation)



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WP6&7: Sediment biogeochemistry under low/changing O_2 : Crimea & Loch Etive

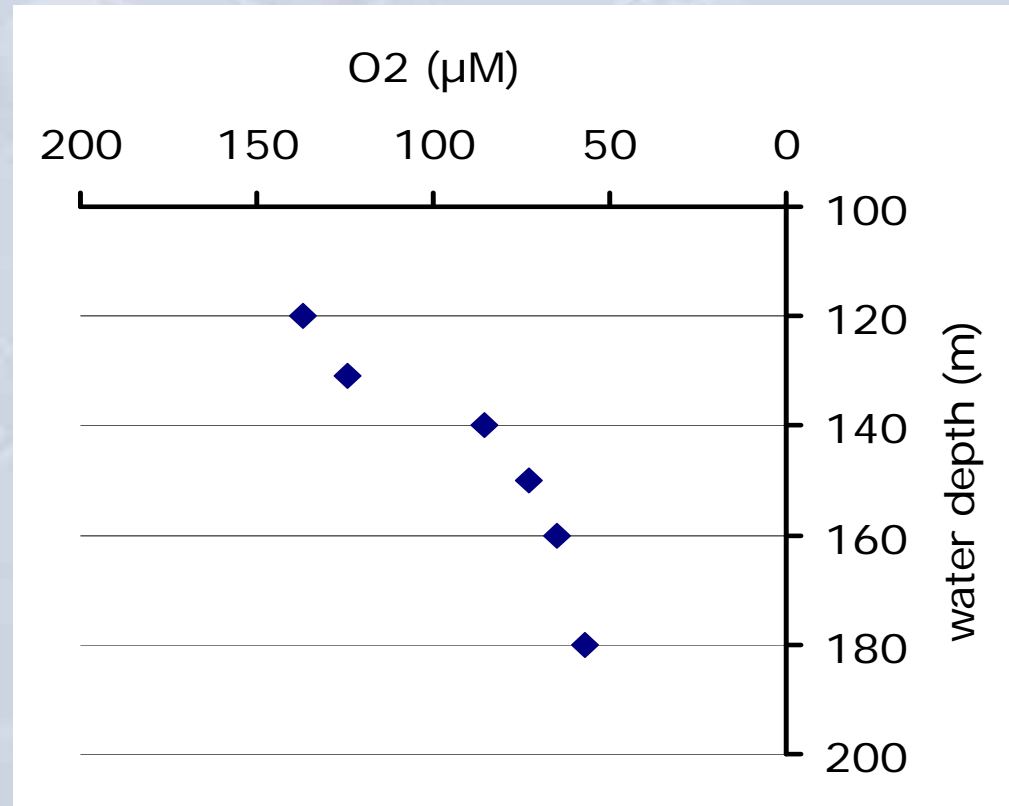
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WP6&7: Sediment biogeochemistry under low/changing O₂: Crimea & Loch Etive

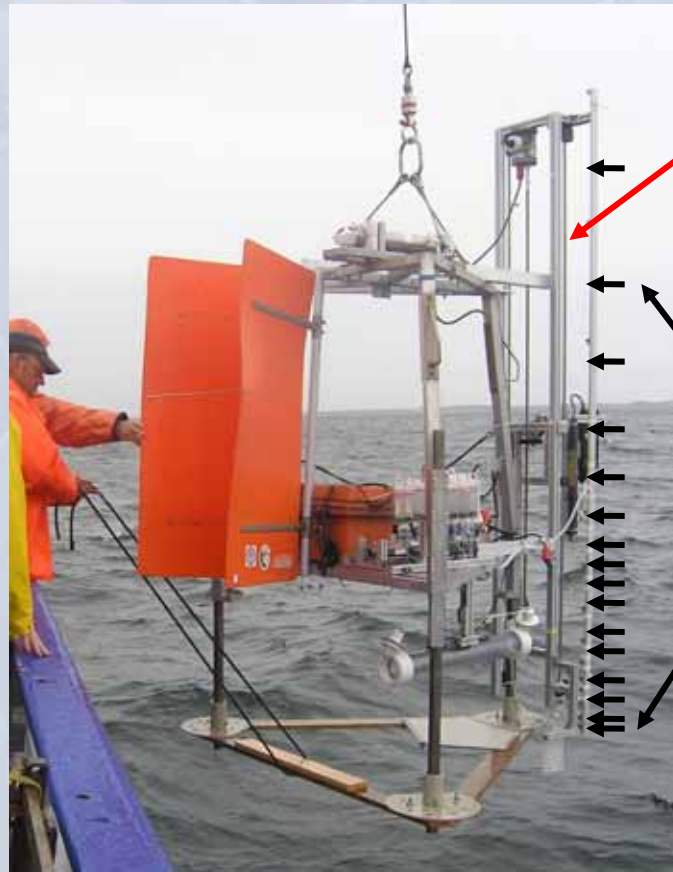
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Oxygen in MUC cores: A. Boetius, unpublished data

WP6: Nutrient cycling under low/no O₂: Bosporus benthic boundary layer

- Nutrient cycling in the benthic boundary layer
- Effect of lateral intrusions of oxygenated Mediterranean waters
- Bottom water sampler & profiler



Sensor-equipped vertical slide

Bottom water sampler ports