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Where the Sahara meets the Atlantic: First results from the SOLAS cruise P320/1 to the Mauritanian upwelling in March/April 2005

Hermann W. Bange and P320/1 cruise participants

Marine Biogeochemistry Res. Div., IFM-GEOMAR, Kiel, Germany

(hbange@ifm-geomar.de)

The oceanic region off Mauritania (NW Africa) is expected to be a hot spot of trace gas emissions and iron input to the ocean because it is site of intensive coastal upwelling, high biological productivity and atmospheric deposition of Sahara dust. The SOLAS cruise P320/1 with the German research vessel Poseidon took place in March/April 2005. The distributions of carbon dioxide, nitrous oxide, bromoform and other gases as well as iron were measured in the ocean and in the atmospheric boundary layer/aerosol in order to investigate the air-sea gas exchange and the dust deposition. Additionally, phytoplankton distribution and turbulence profiles of the upper water column were measured. An overview of the first results of the SOLAS cruise P320/1 will be presented.