



Correlation of sediment cores with high Holocene time resolution from the western Svalbard margin

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Long sediment cores were obtained during cruise leg MSM05/5b of RV "Maria S. Merian" in August 2007 from selected locations on the western Svalbard margin and the Yermak Plateau (Arctic Ocean). Within the HOVAG project ("HOlocene Variability in the Arctic Gateway") they are analyzed to reconstruct the Holocene variability of Atlantic Water advection to the Arctic Ocean and the position of the sea ice margin. Preliminary results comprising MSCL logging and color scanning data can be correlated to other cores from the area and indicate that sediment transport at certain water depths along the margin and deposition of fine-grained sediments at sites of diminished flow velocity ("lee positions") result in the accumulation of relatively thick Holocene sedimentary sequences. These deposits hold the potential for high-resolution paleoceanographic reconstructions of environmental changes in this area which has experienced significant changes in the last few centuries and probably also in the rest of the Holocene.