

DK-Proposal 21

Submitted by

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Melt water events and changing fresh water supply to the Arctic Ocean during ice ages and interglacials

Place:

Shores of the Arctic Ocean

Disciplines:

Quaternary geology, oceanography

Motivation:

The Arctic Ocean is a main provider of fresh water to the Atlantic Ocean, and changing rates and volumes of delivery have a significant impact both on general climate – not least through its influence on sea ice production - and on the thermohaline circulation. Accumulation of large bodies of fresh water on the shores of the Arctic Ocean, dammed by ice sheets during ice ages, also influence general climate

Research:

We plan to record these changing conditions during the Quaternary using a combination of off- and onshore geology and oceanographic modelling. The project is planned as an ESF (European Science Foundation) cooperation between European nations in northern Eurasia and Greenland, based on the logistic, network, and funding experience of the QUEEN (Quaternary Environments, northern Eurasia) project. ESF funding networks, while local Research Councils support national field work). A planning meeting for this new project is scheduled to take place in Denmark in October. In the meantime we welcome comments and suggestions for other angles and cooperation possibilities.