

Linking the Holocene variability of Svalbard glaciers and ice caps to oceanic heat advection

Martin Bartels, Dierk Hebbeln, Rüdiger Stein, Claude Hillaire-Marcel & Markus Kienast

Hypothesis

Atlantic Water reached the Arctic Ocean and affected glacial activity in the fjords of Northern Svalbard during the Holocene.

Questions

How far did the impact of Atlantic Water reach?

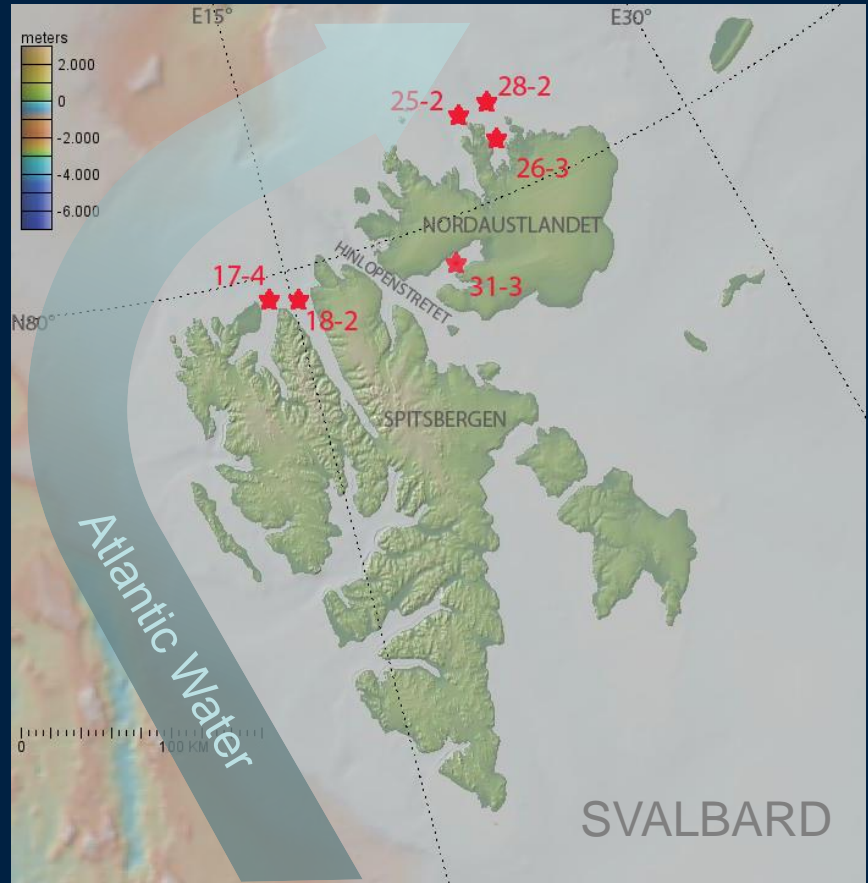
How sensitive does a key region like the Svalbard archipelago react on oceanographic variations?

Methods

Faunal analyses (benthic foraminifers)

Sedimentological analyses (IRD, grain sizes, sediment color)

Geochemical analyses (e.g. XRF, organic carbon, CaCO_3 , stable isotopes)



Red stars: core sites

Map created with GeoMapApp (<http://www.geomapapp.org>)