

Biomarker distributions in surface sediments of the northern Barents Sea: a basis for accurate palaeo sea-ice reconstructions

Anna J. Pieńkowski^{1*}, Katrine Husum¹, Simon Belt², Lukas Smik²

- Highly-branched isoprenoid (HBI) lipid biomarkers produced by sea-ice diatoms (IP_{25} , $IPSO_{25}$) and phytoplankton (HBI III, HBI IV)
- Used collectively for reconstructing Spring sea ice concentrations (SpSIC) and phytoplankton blooms at the seasonal ice edge (HBI T_{25})
- New data on HBIs in surface sediments (multicores) in a S-N transect
- Findings correspond well to satellite data (1988-2017 means) of Spring sea ice concentrations and chlorophyll-a
- Ongoing work:
 - subsurface (1-5 cm)
 - palaeo (Holocene)

