

Biological observations in Norway and some thoughts on the DBO strategy

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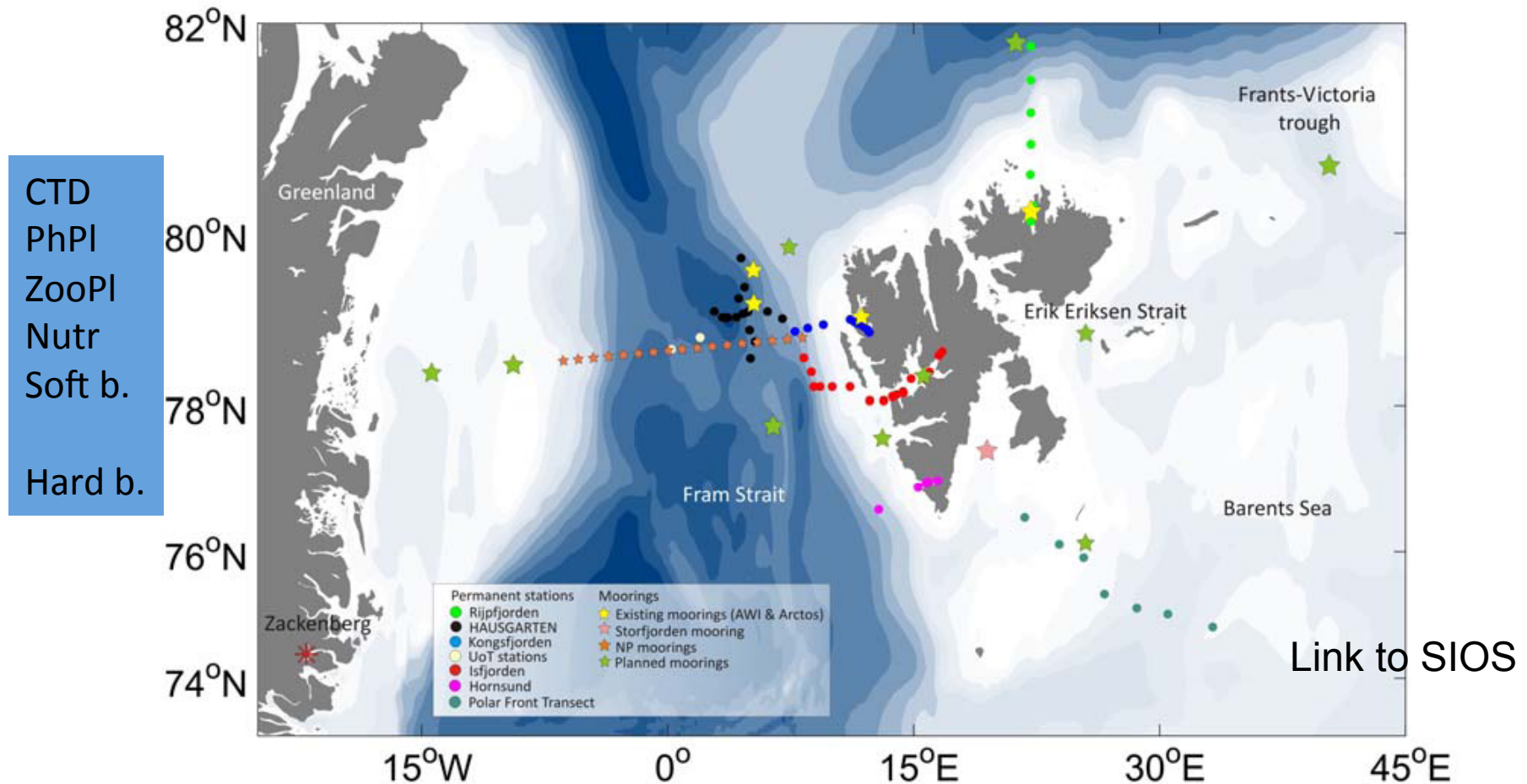


Main monitoring activities:

- Norwegian Polar Institute (NP): Arctic Ecosystem Monitoring Program (AEM/MOSJ)
 - Long term transect (Kongsfjord since 1995)
 - Database of all phyto- and zooplankton data (cooperation with Poland)
- Institute of Marine Research (IMR)
 - Ecosystem surveys for fisheries, plankton and physics
- UNIS
 - Annual cruises as student courses
- UiT
 - Benthos hard bottom
 - Project related pelagic-benthic coupling

Observation around Svalbard

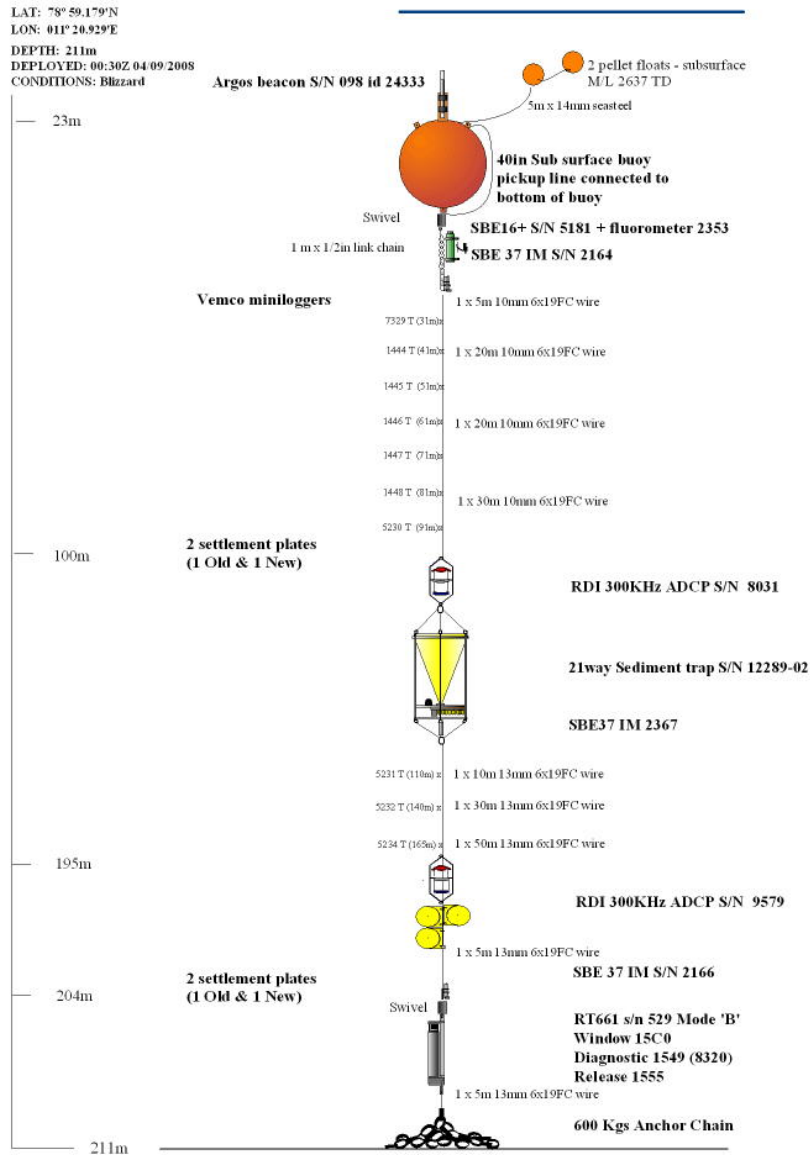
- Community Time Series (Polar Front, KongHau, Rijpfjord)



Courtesy by M Carroll

Kongsfjorden 2002-2010

LAT: 78° 59.179'N
LON: 011° 20.929'E
DEPTH: 211m
DEPLOYED: 00:30Z 04 09 2008
CONDITIONS: Blizzard



Oceanographic moorings NP/SAMS/UNIS

CTD
Fluorescence
ADCP (currents, vertical migrating zooplankton)
Sediment traps (vertical flux, zooplankton species comp.)

Rjipfjord, Kongsfjord, Billefjord

SIOS:
Suggested additional moorings

Institute of marine research

- Ecosystem surveys in cooperation with Russian fisheries management (PINRO)
- Cover the areas of fisheries interest in the Barents Sea
- Included CTD, phyto and zooplankton. Also a benthic sampling program
 - Some examples shown

Environmental parameters; CTD, grab, trawl

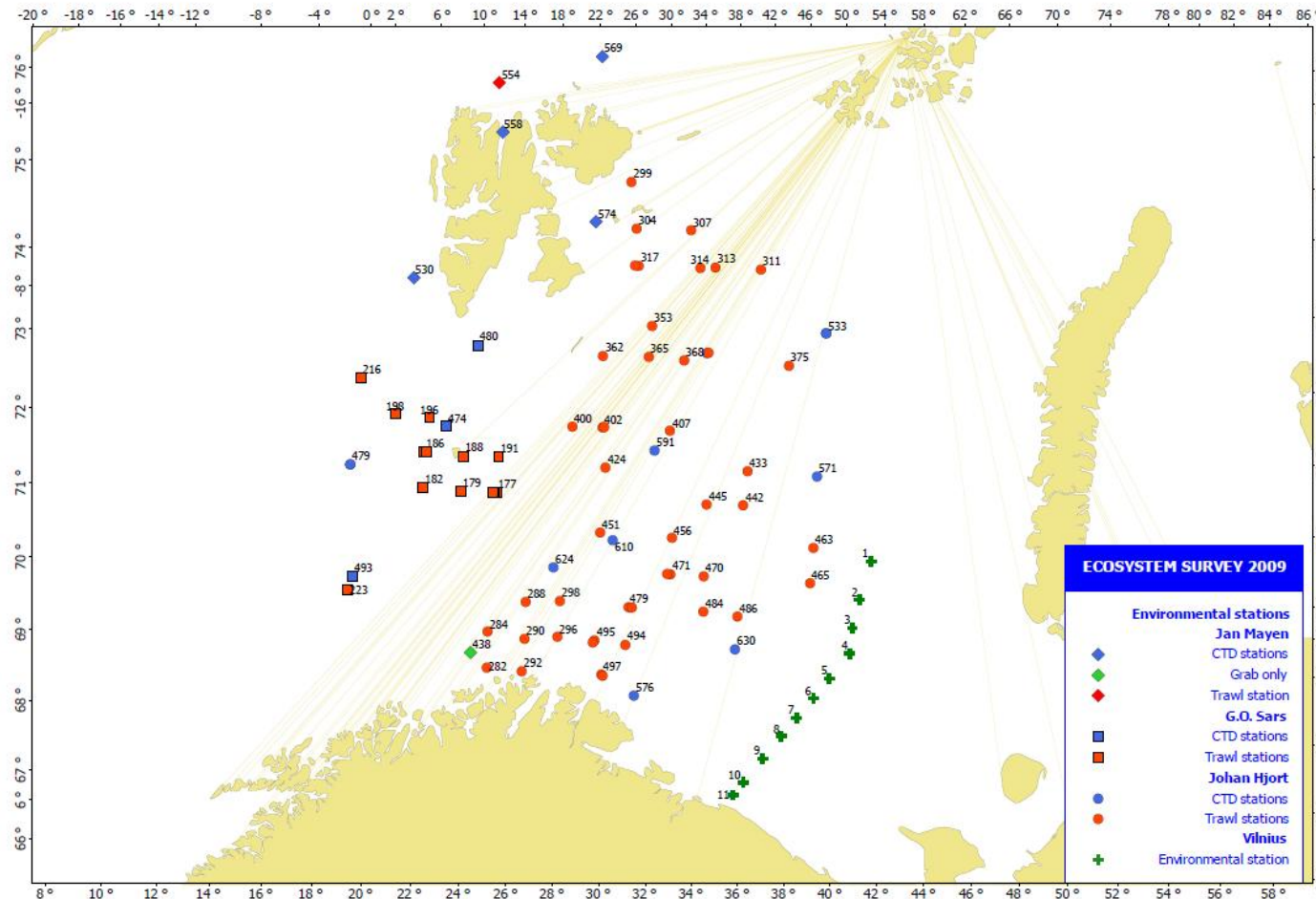
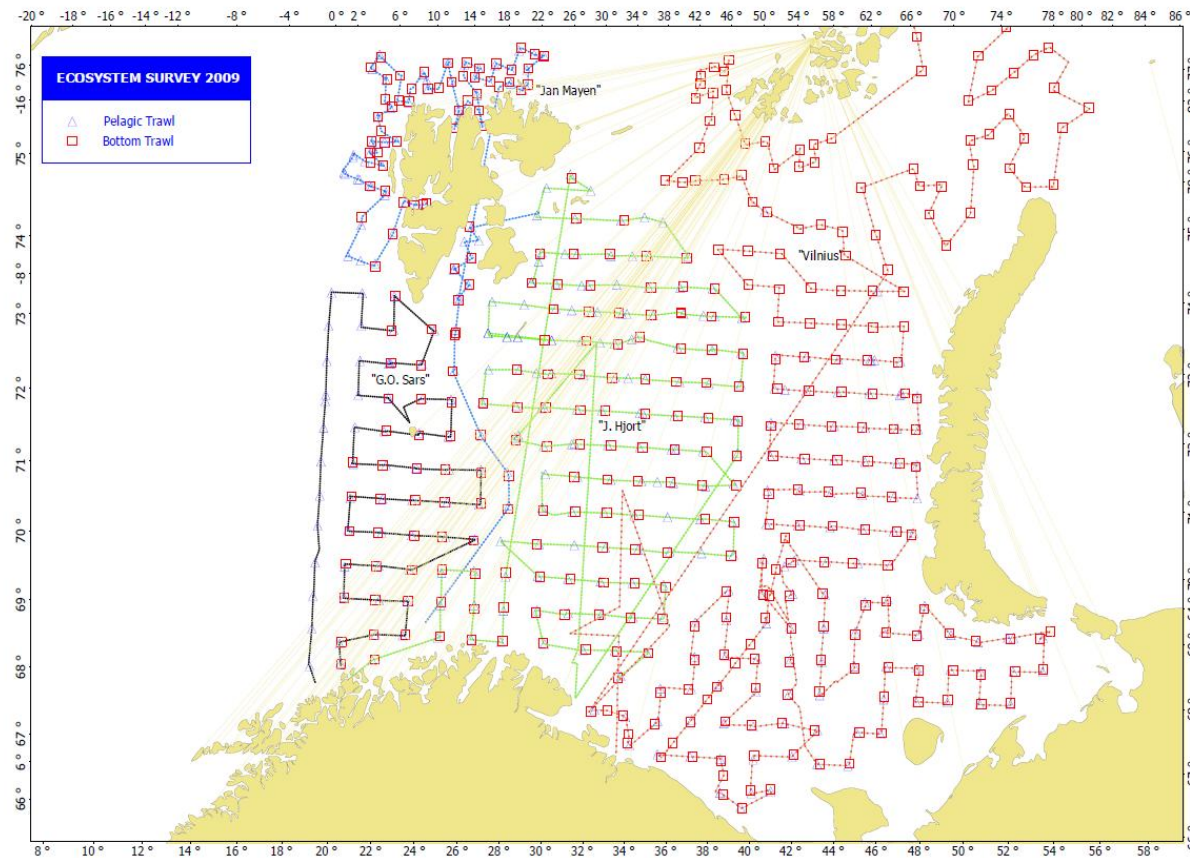


Figure 2.3 Environmental stations for "G.O. Sars", "Johan Hjort", "Jan Mayen" and "Vilnyus", August - October 2009

Courtesy by IMR

Trawling stations: fish stock assessment



Trawl stations for "G.O. Sars" "Johan Hjort", "Jan Mayen" and "Vilnius", August – October 2009

- Annual surveys in August/September
- Pelagic and benthic trawl

Courtesy by IMR

Hydrography and plankton

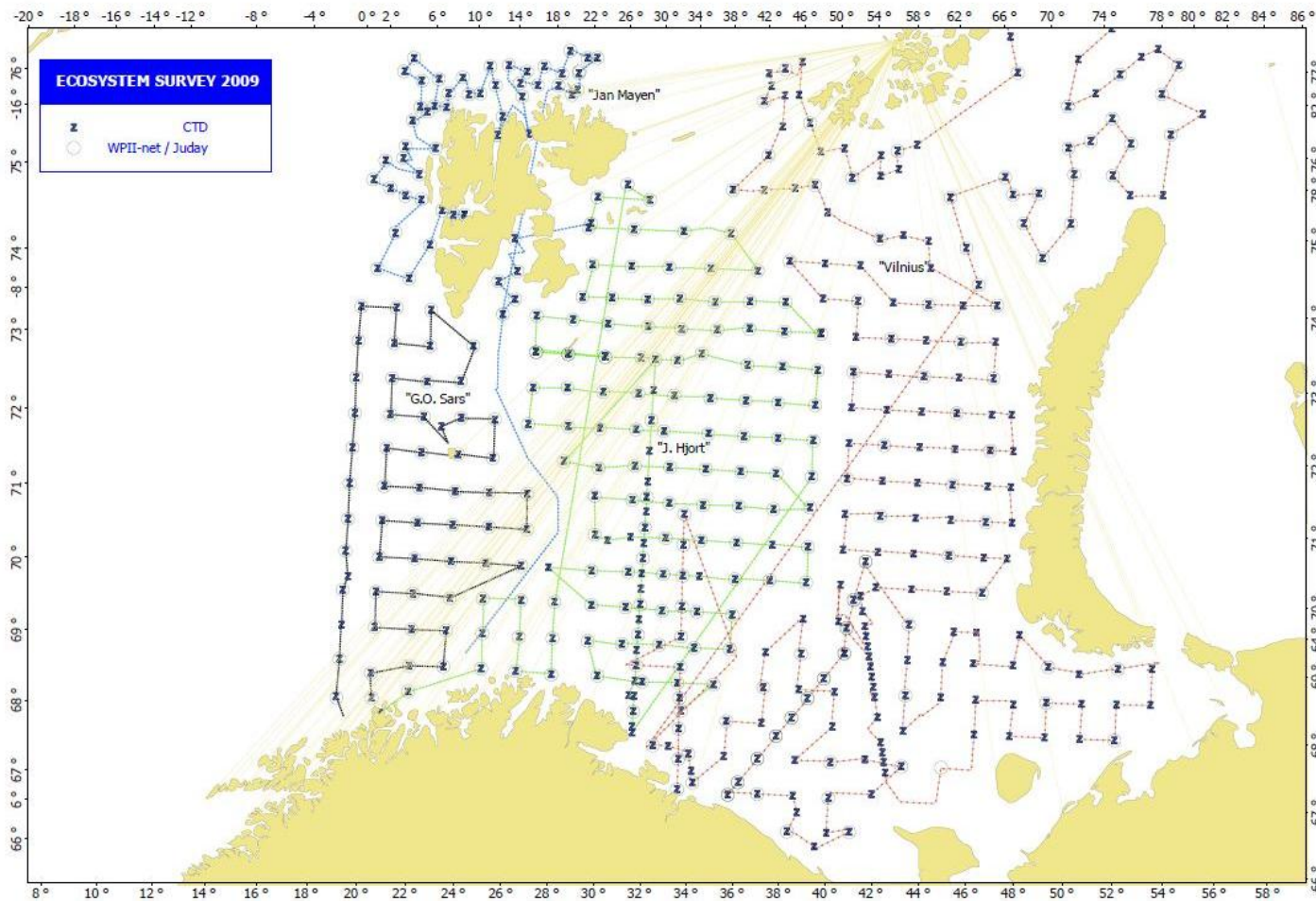
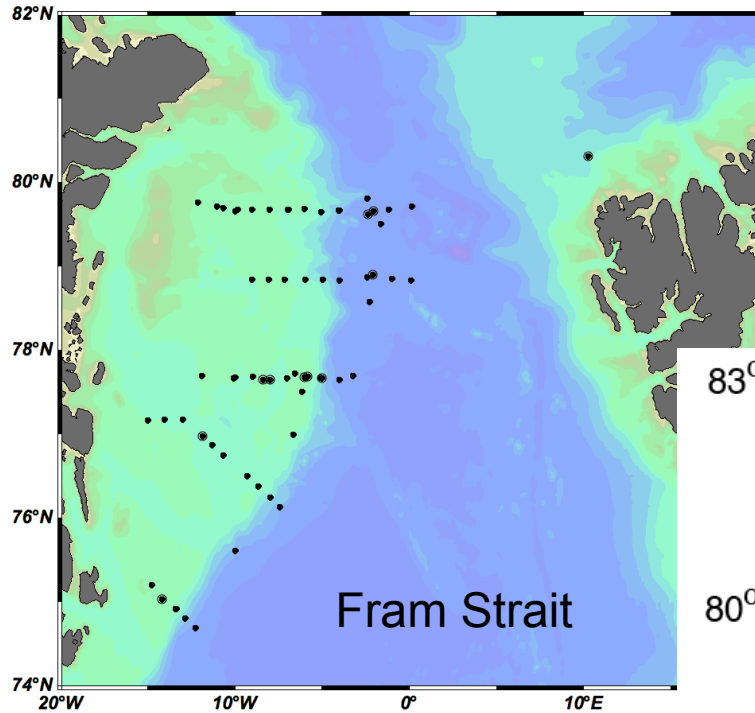


Figure 2.2 Hydrography and plankton stations for "G.O. Sars" "Johan Hjort", "Jan Mayen" and "Vilnyus", August - October 2009

Courtesy by IMR

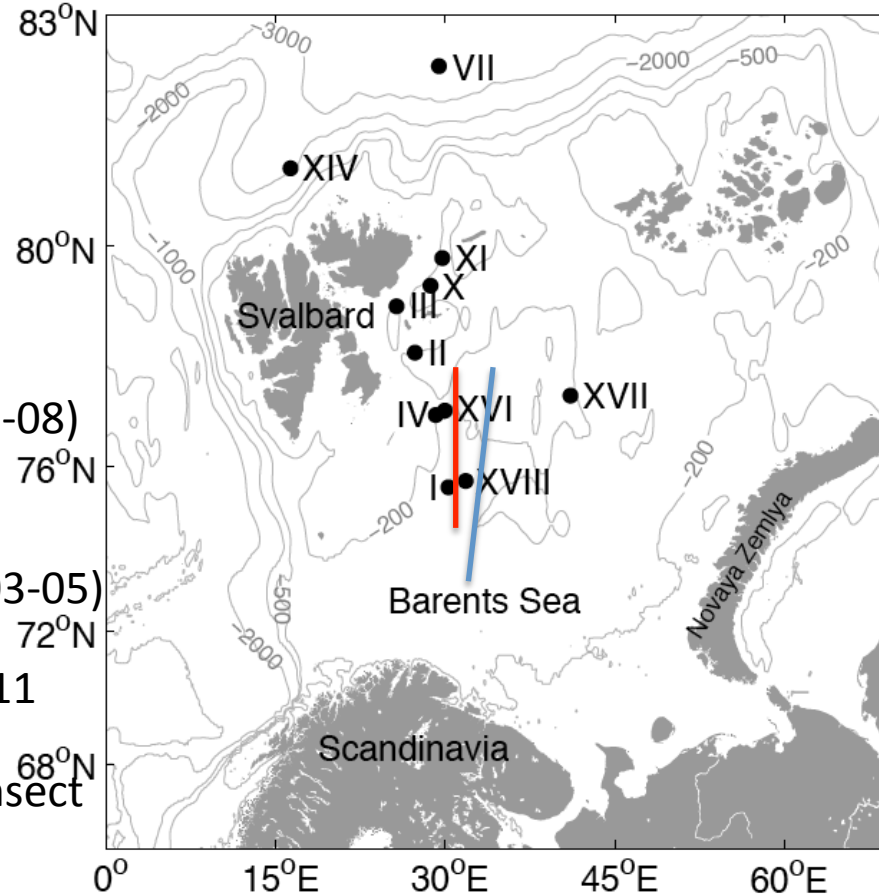
Project based sampling UiT; examples



CTD
 Plankton
 Nutrients
 Sediment traps

Process studies on production
 Cabanera incl. Benthos

Barents Sea



- Fram Strait IPY transects (2007-08)
- I-XVIII Cabanera stations (2003-05)
- CONFLUX transect -2011
- ALV and Pro Mare transect (1980ties, 1998-99)

Svalbard Integrated Observing System

SIOS

- Preparatory phase 2010-2013
- 3 marine observation platforms
 - Arctic Ocean ESONET mission (Fram Strait, benthic observatory)
 - Hausgarten (AWI)
 - Arctic Operational Oceanography Network ESONET (ARCOONE)
 - AWI & Norwegian Polar institute oceanographic moorings Fram Strait, Hausgarten, KongHau transect

Challenge to make a DBO

- Compilation of data in one database
 - Ownership, management, FRAM centre? SIOS?
- Harmonisation of methods, depths
 - Based on different strategy, traditions, part of timeseries
- Identification and agreement of a few KEY-stations where a DBO strategy for sampling is used
- Publication rights of fast accessible, complied data