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)
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

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

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

Barents Sea
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

www.sios-svalbard.org
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