

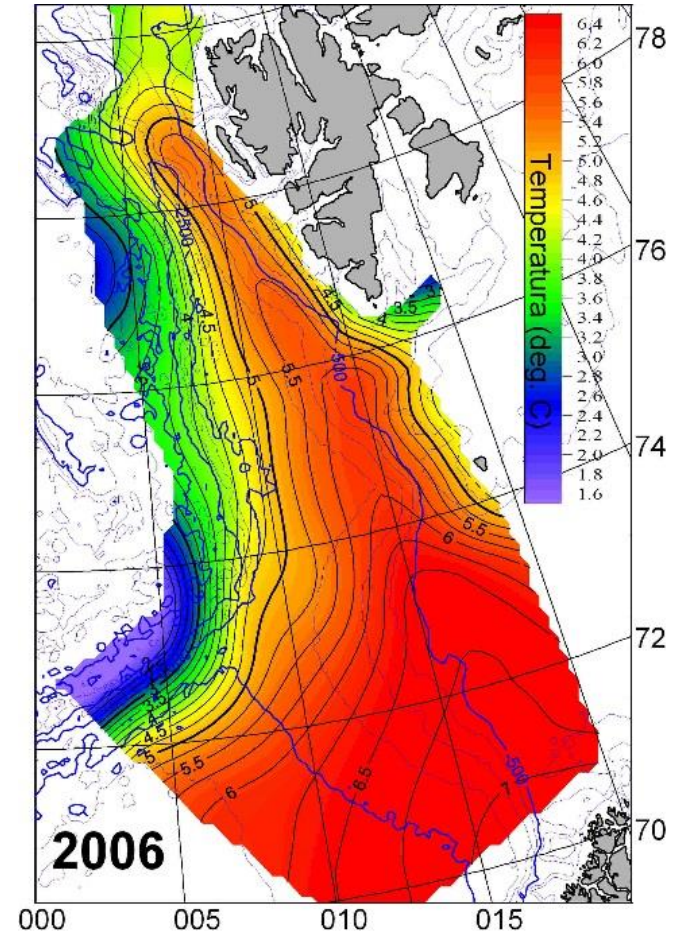
Fish and why non-fish fjords on Svalbard



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Promińska A., Ormańczyk M., Deja K., *D. Fey, *B. Schmidt
Institute of Oceanology PAS, *Sea Fisheries Institute Gdynia.

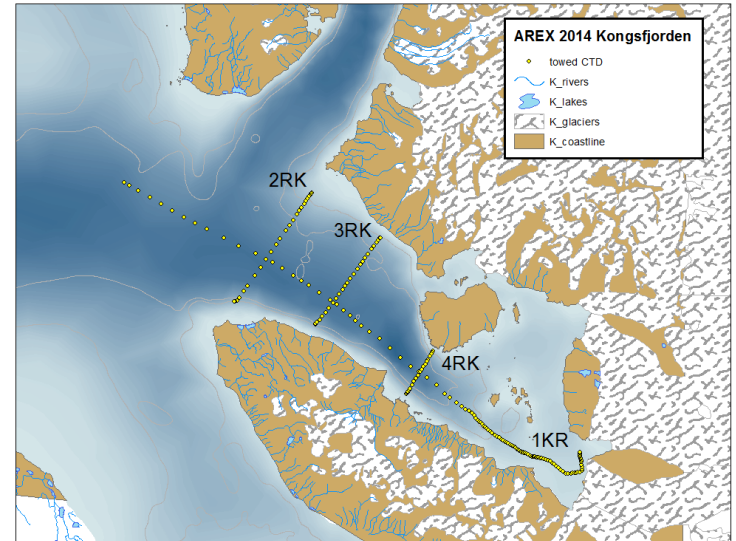
GAME & GLAERE projects results

r/v Oceania
Since 1987 every summer
survey on Svalbard

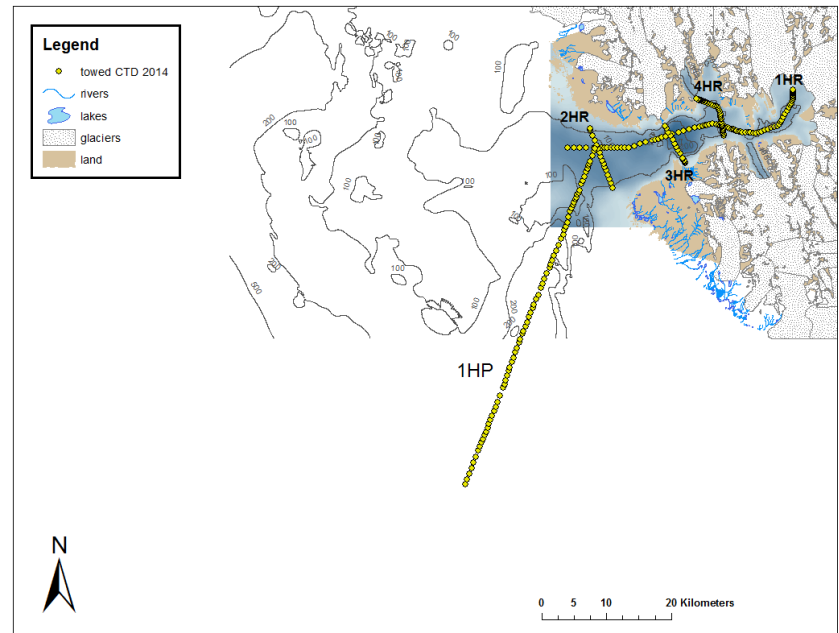


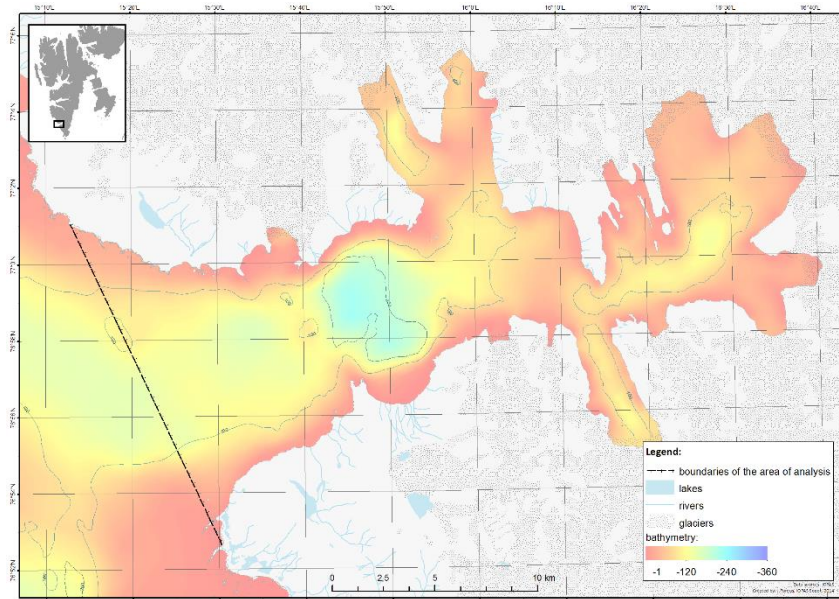
Kongsfjord 79°N

CTD, optics, acoustics,
Microplankton, zooplankton,
benthos (meio and macro)



Hornsund 77°N

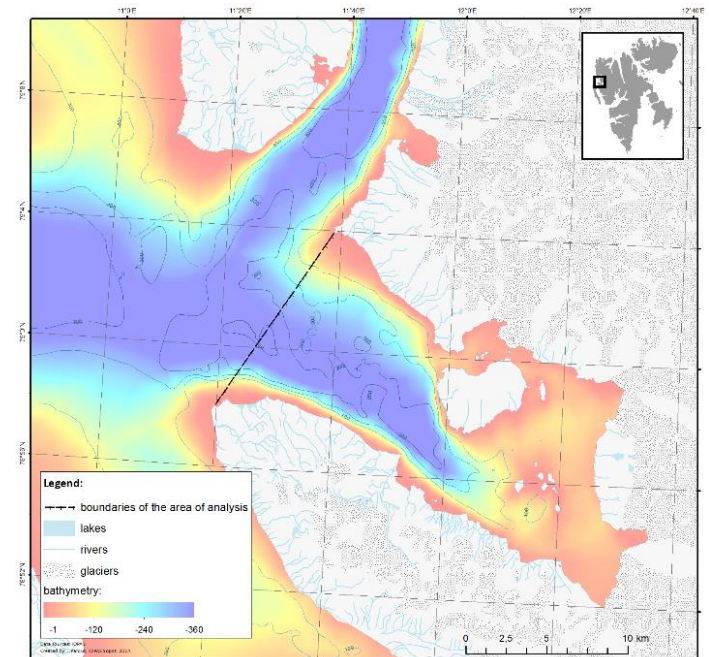




Hornsund

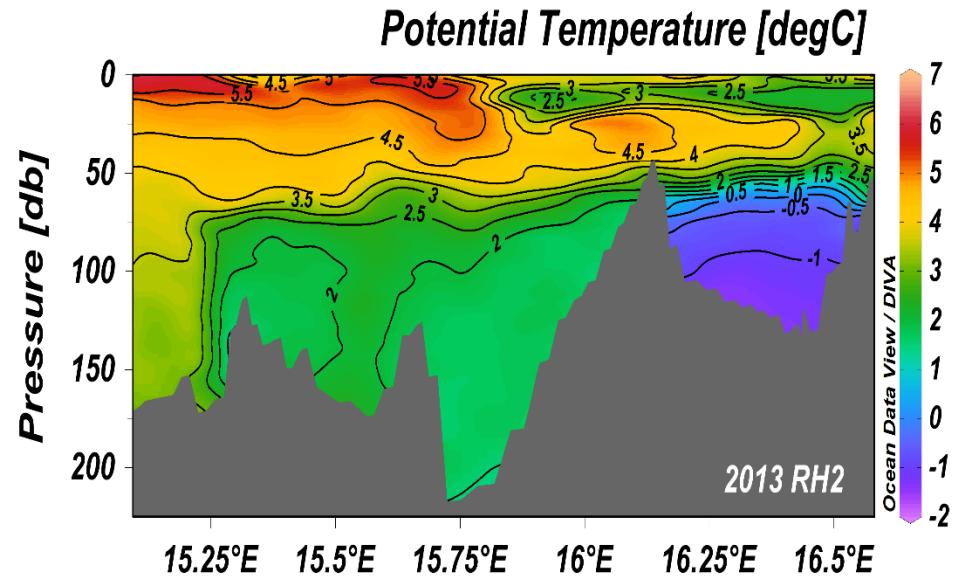


Cod appeared
in high amount
in Kongsfjord about 2005

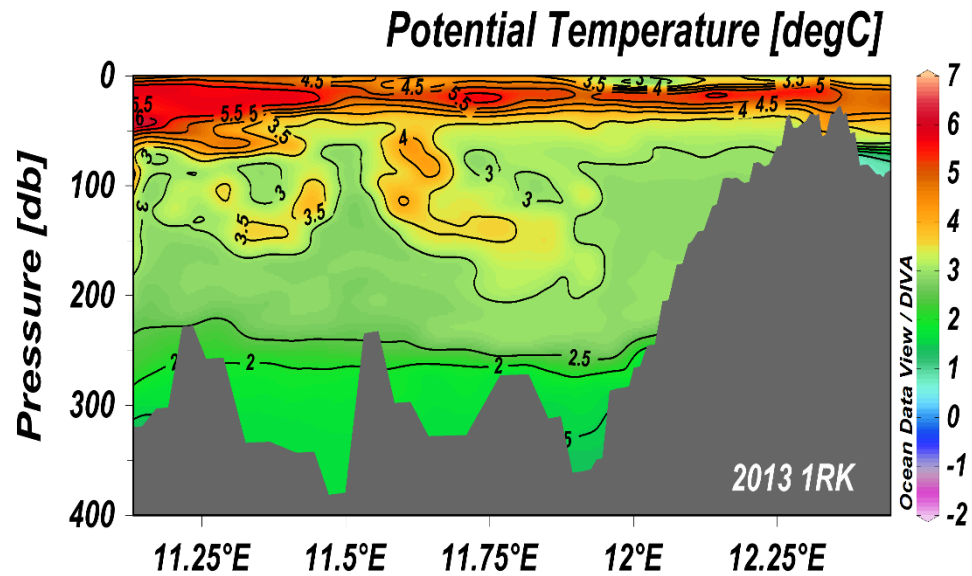


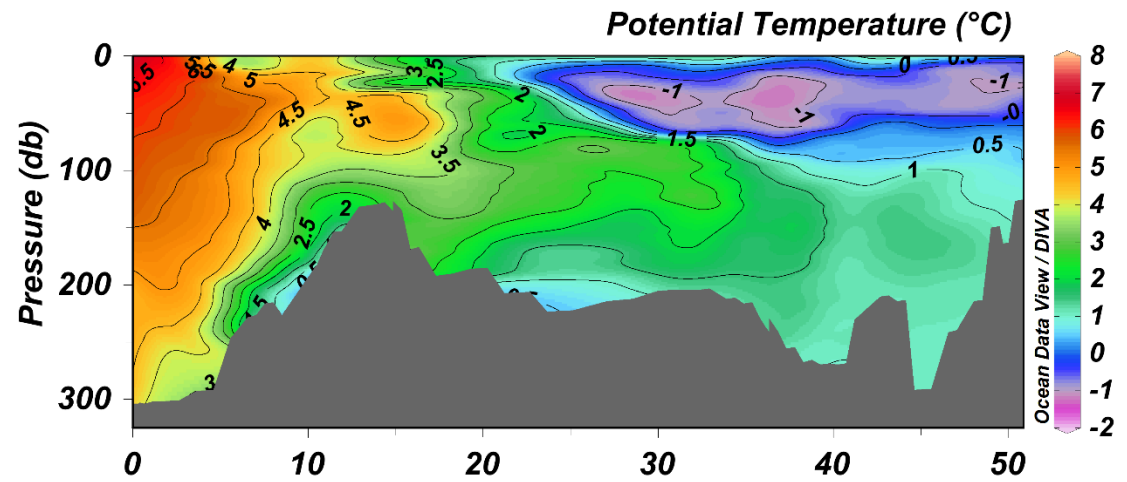
Kongsfjord

Hornsund

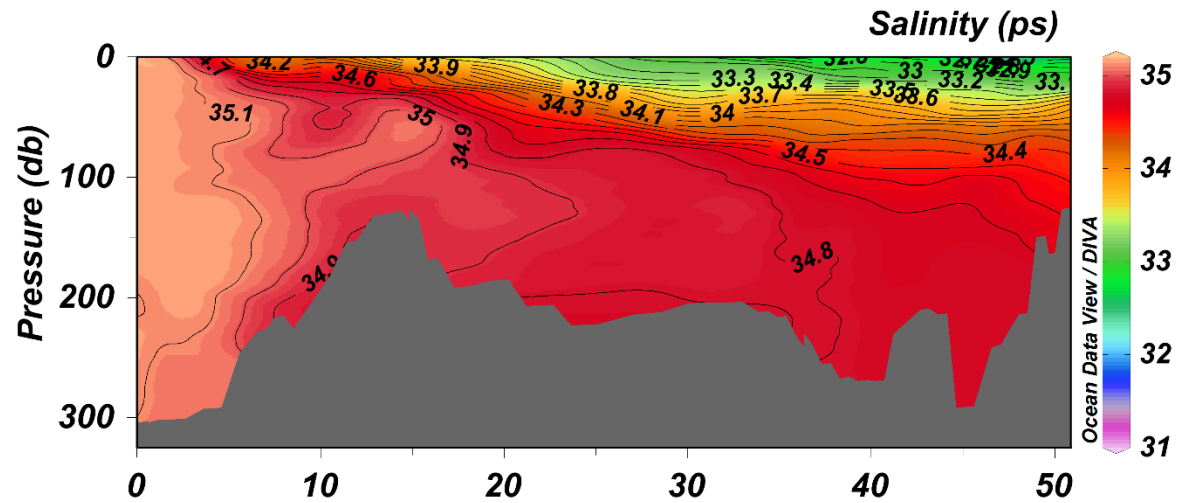


Kongsfjord

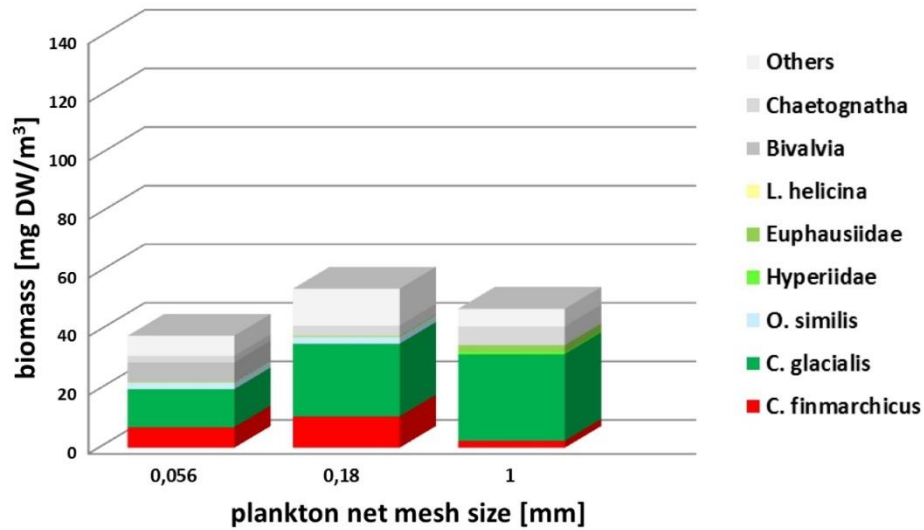




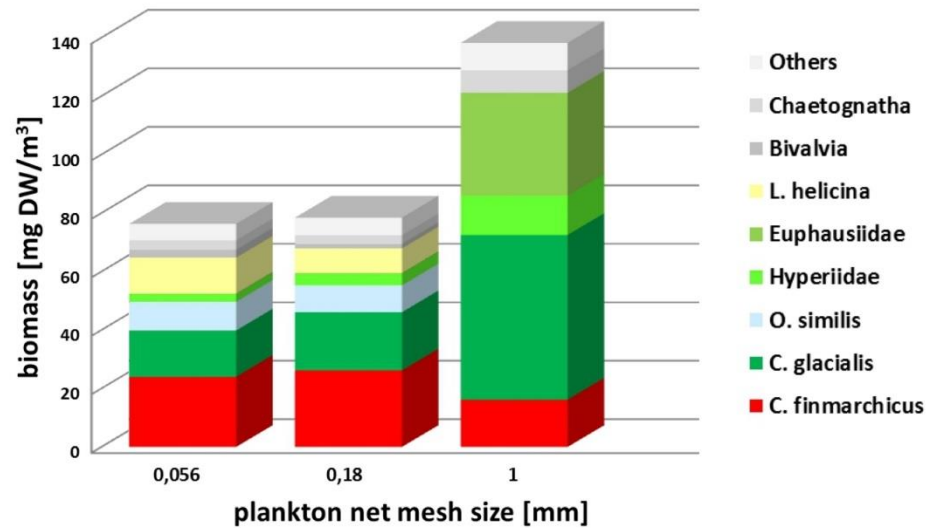
Front at the fjords entrance



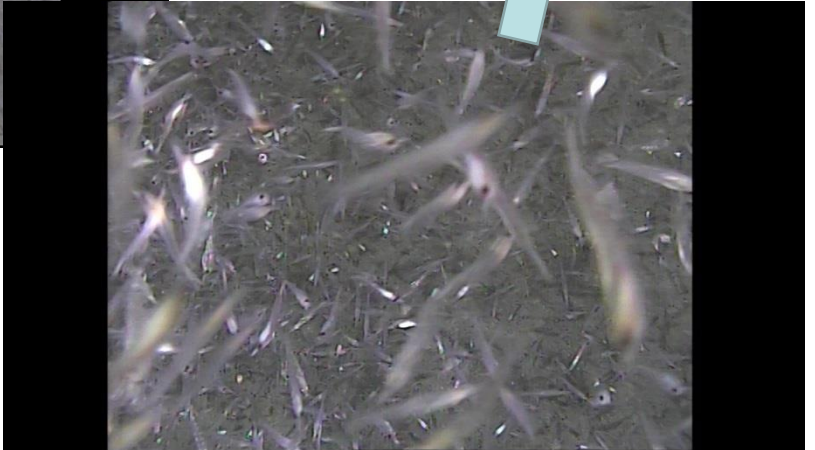
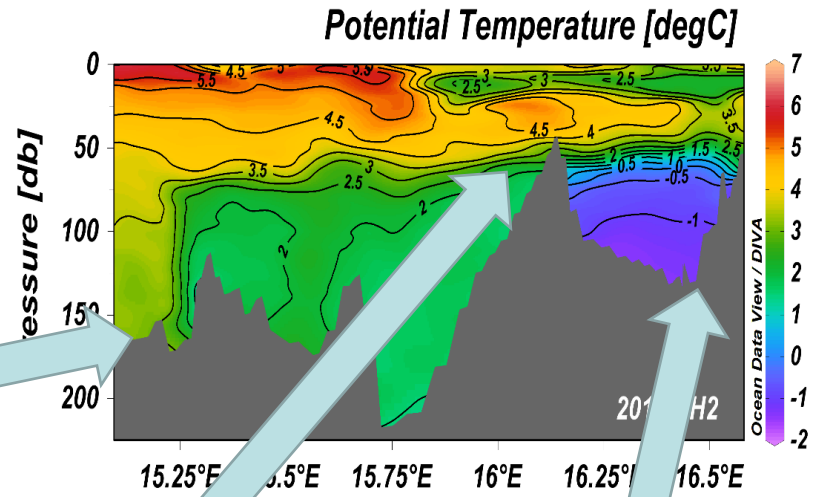
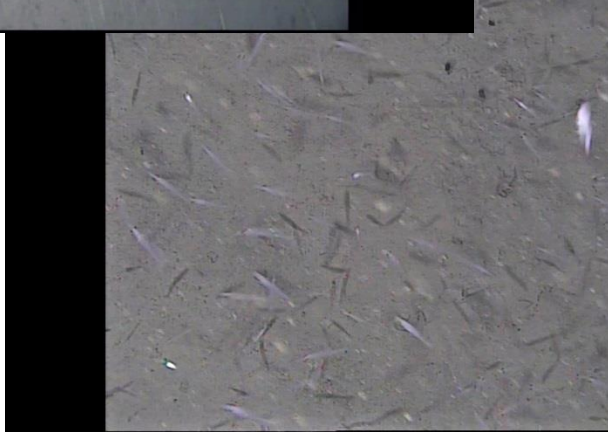
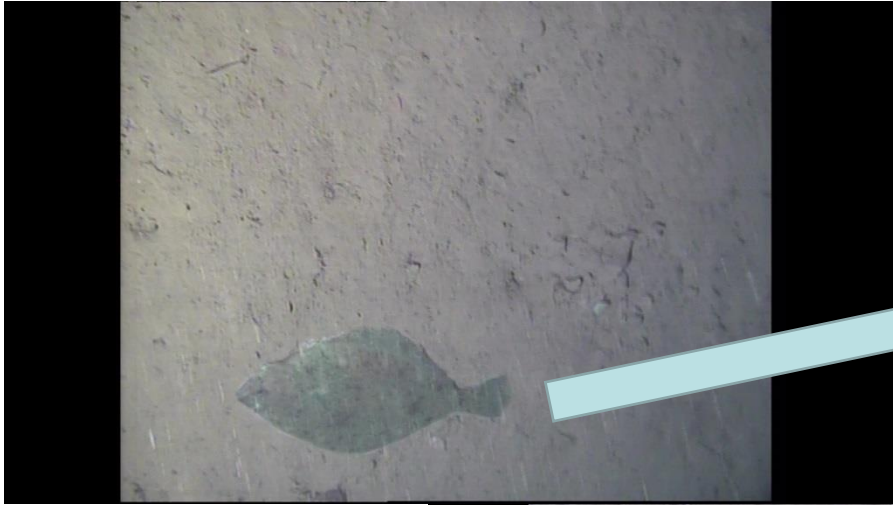
Fish food – chips



Hornsund

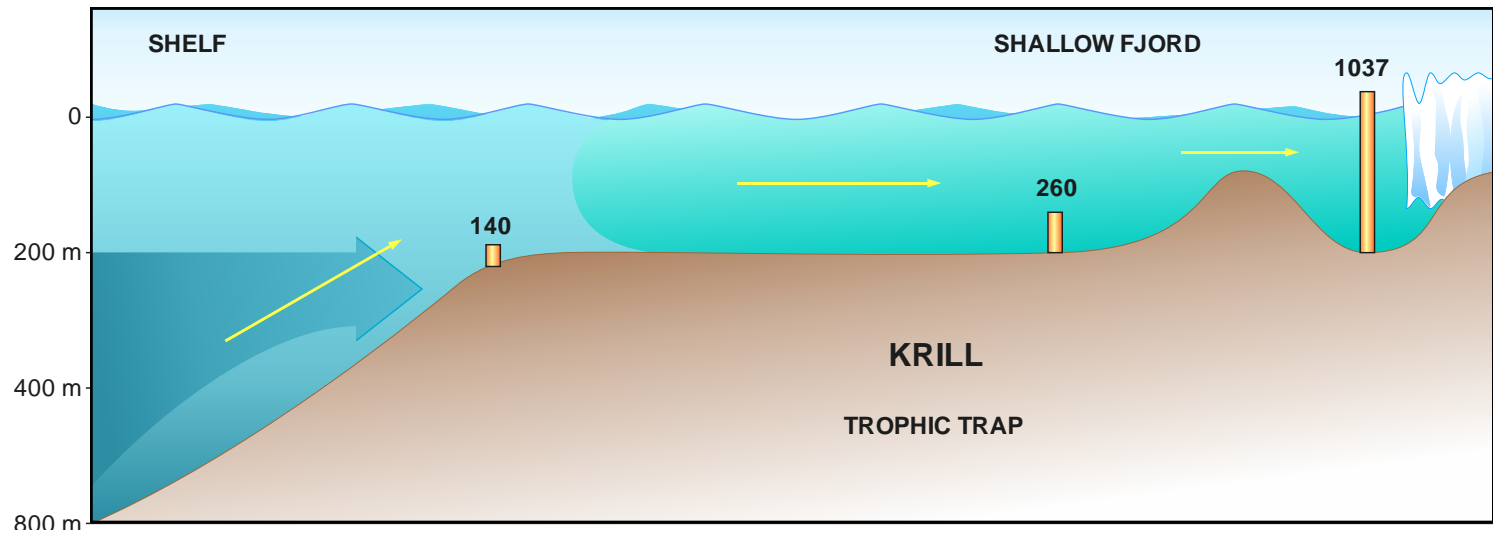
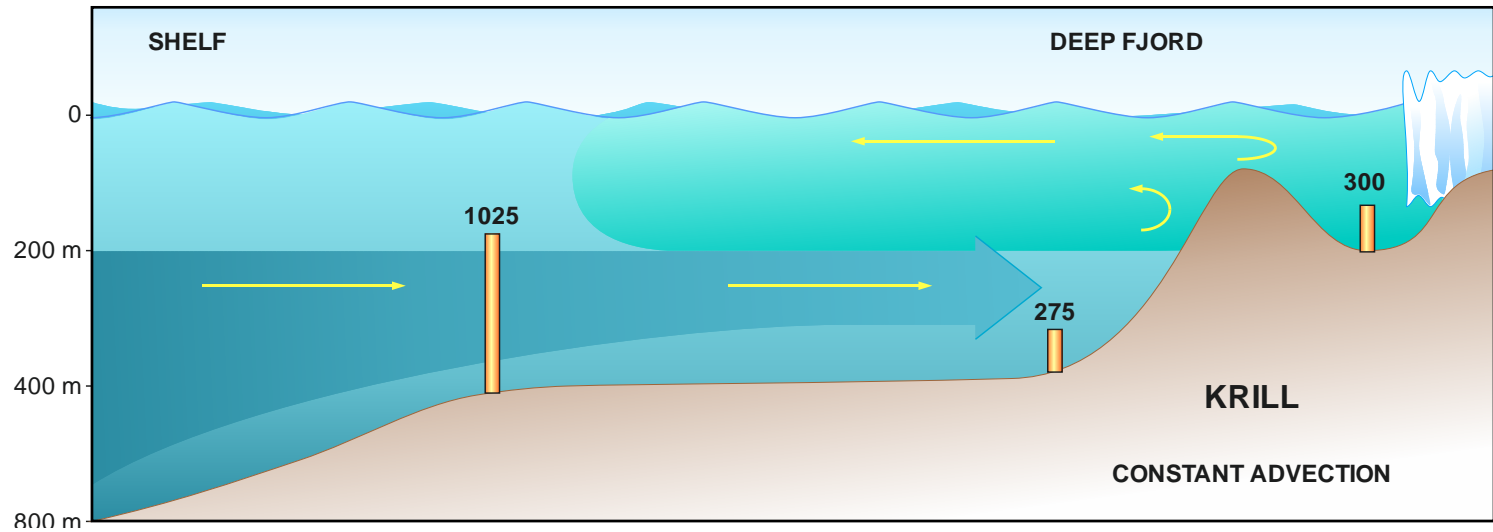


Kongsfjord

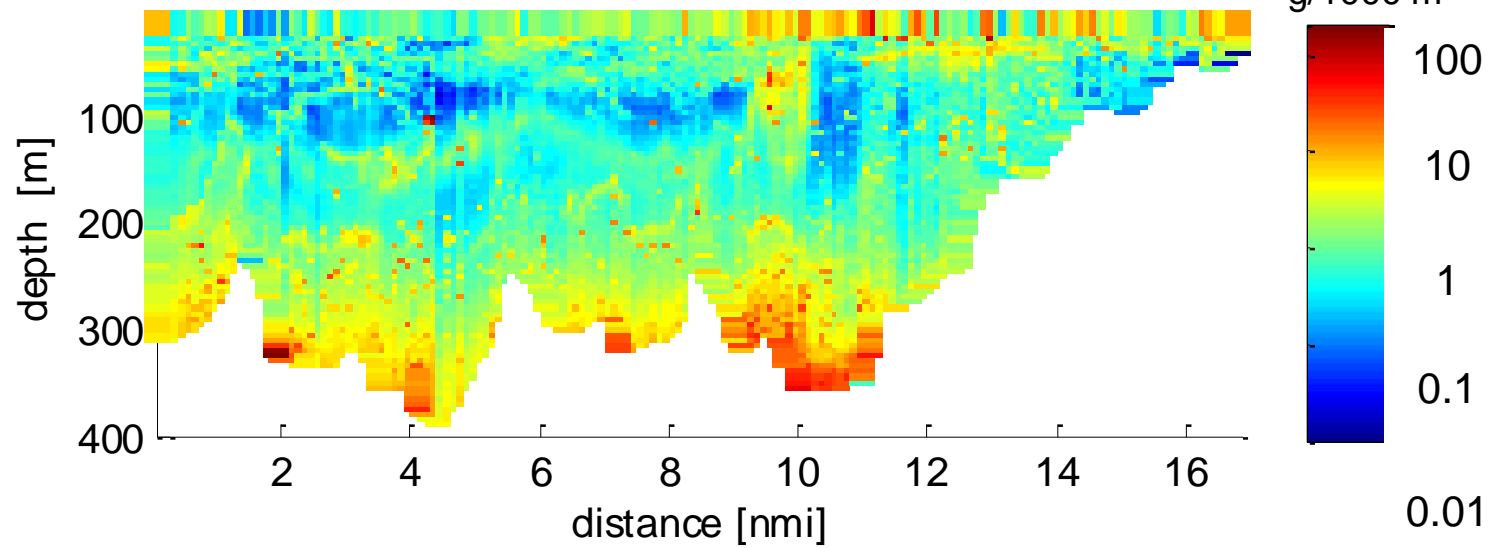


Hornsund, summer 2015, seabed photos

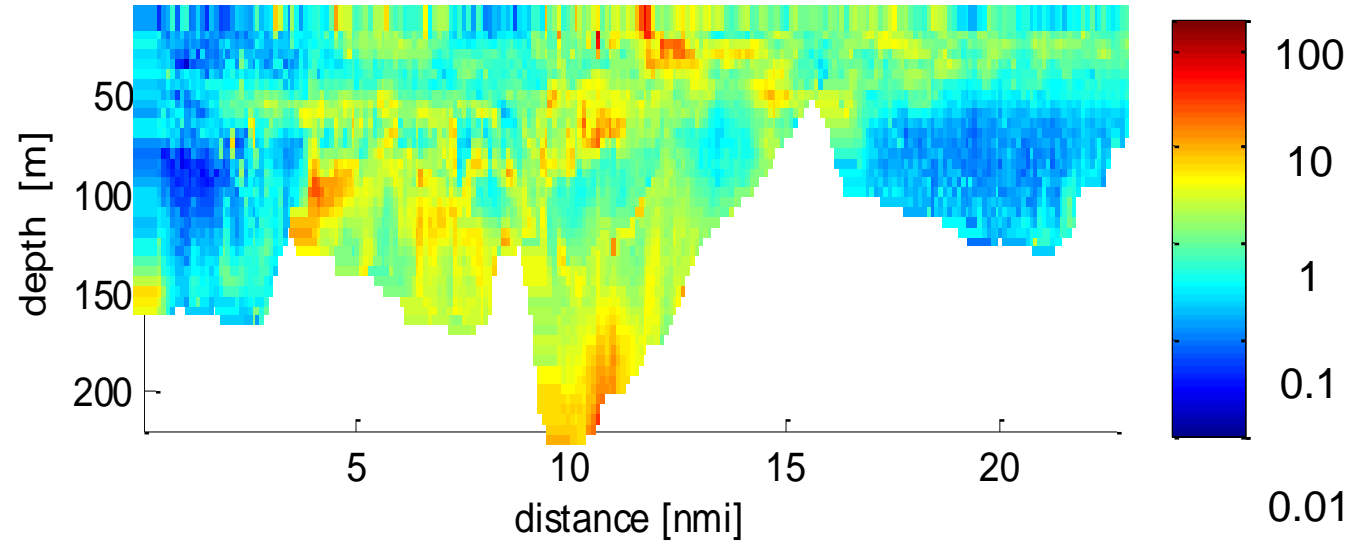
Macroplankton biomass in water column (g ww/1000m³)



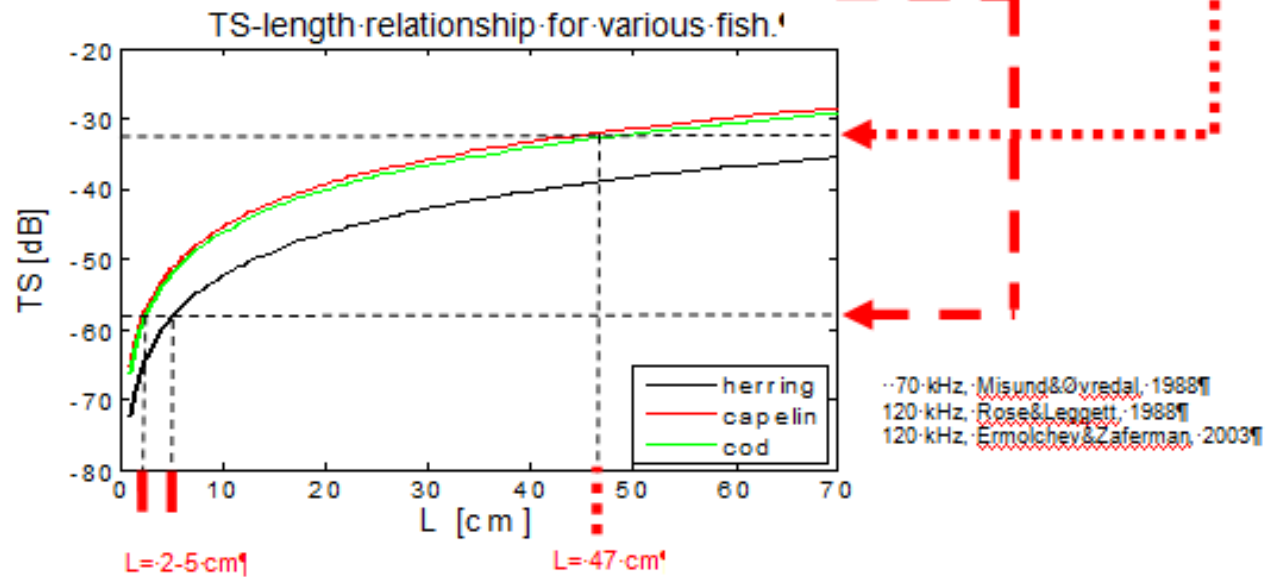
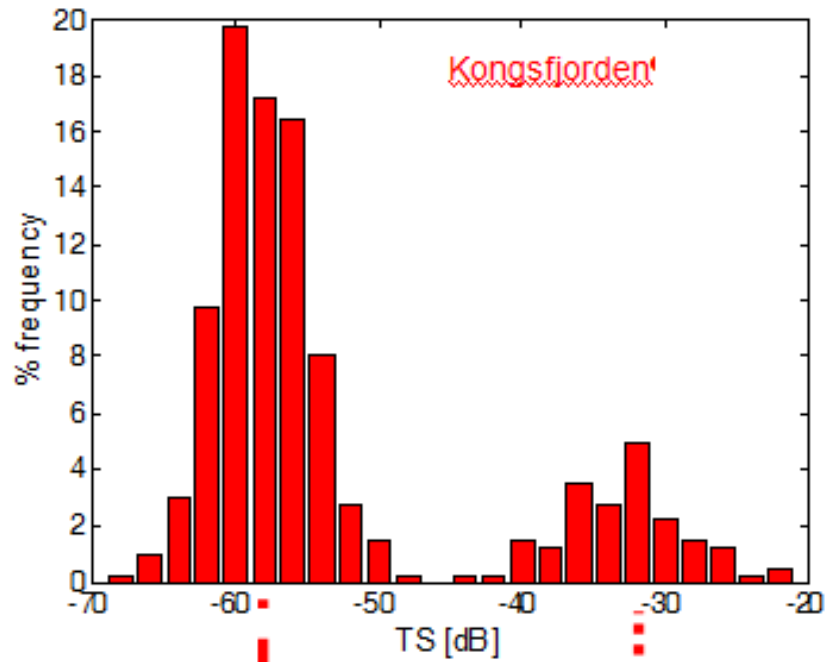
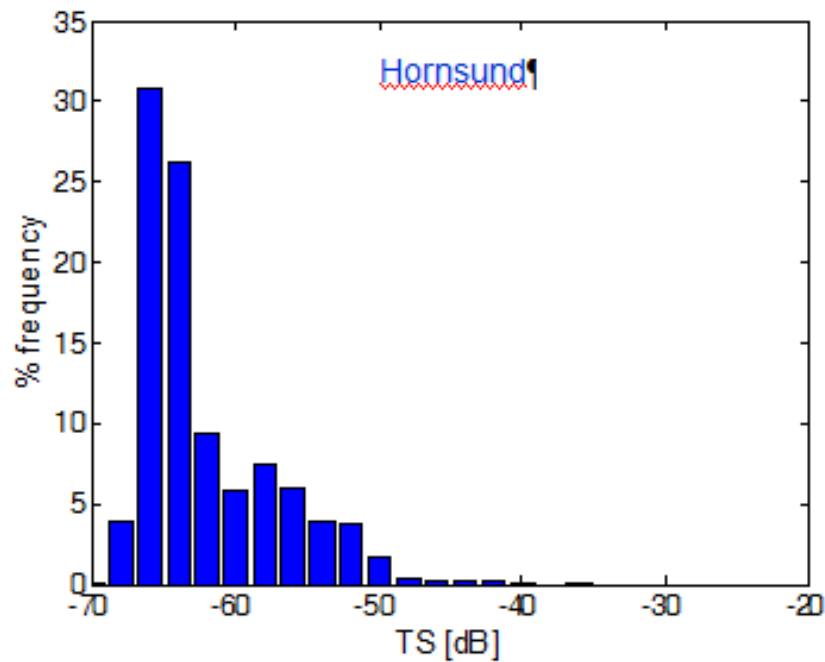
2013_K



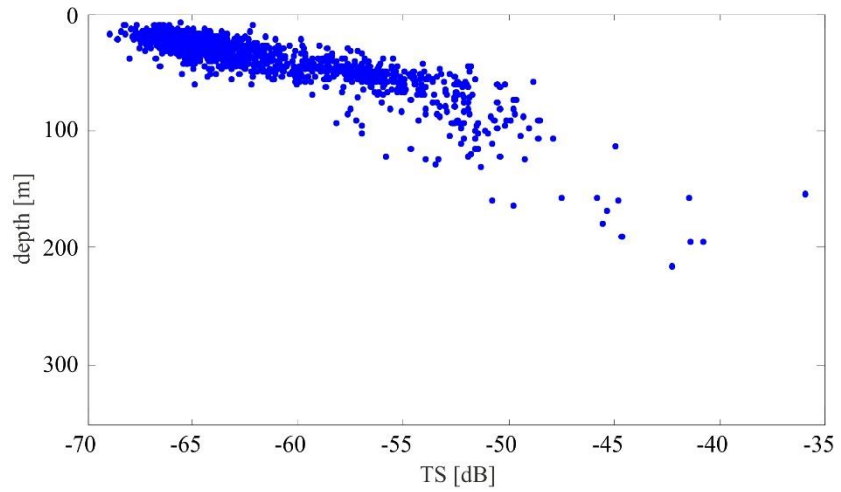
2013_H



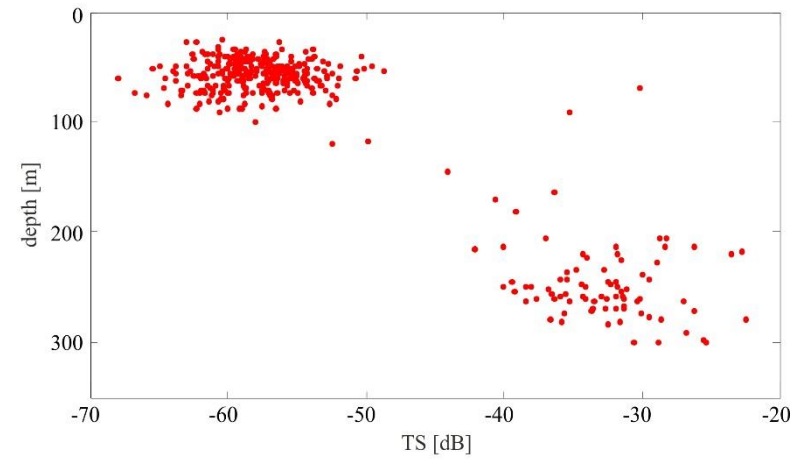
TS-distribution-of-the-tracked-fish



Target strength and depth – small and big fish, TS = -50dB as threshold between two groups

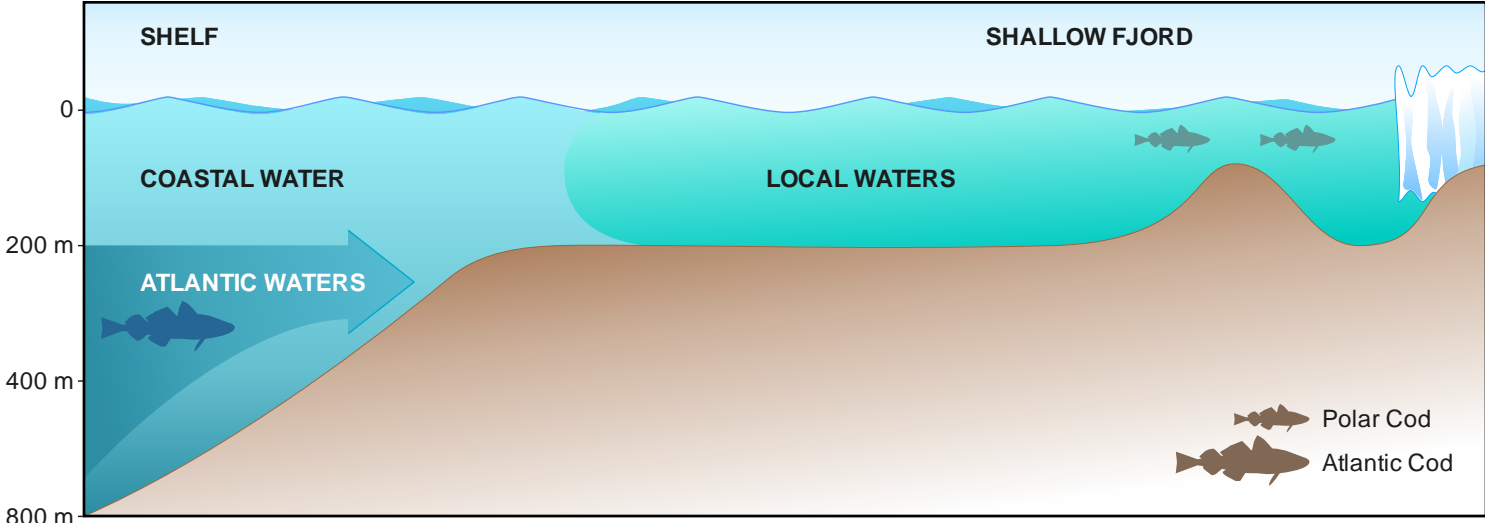
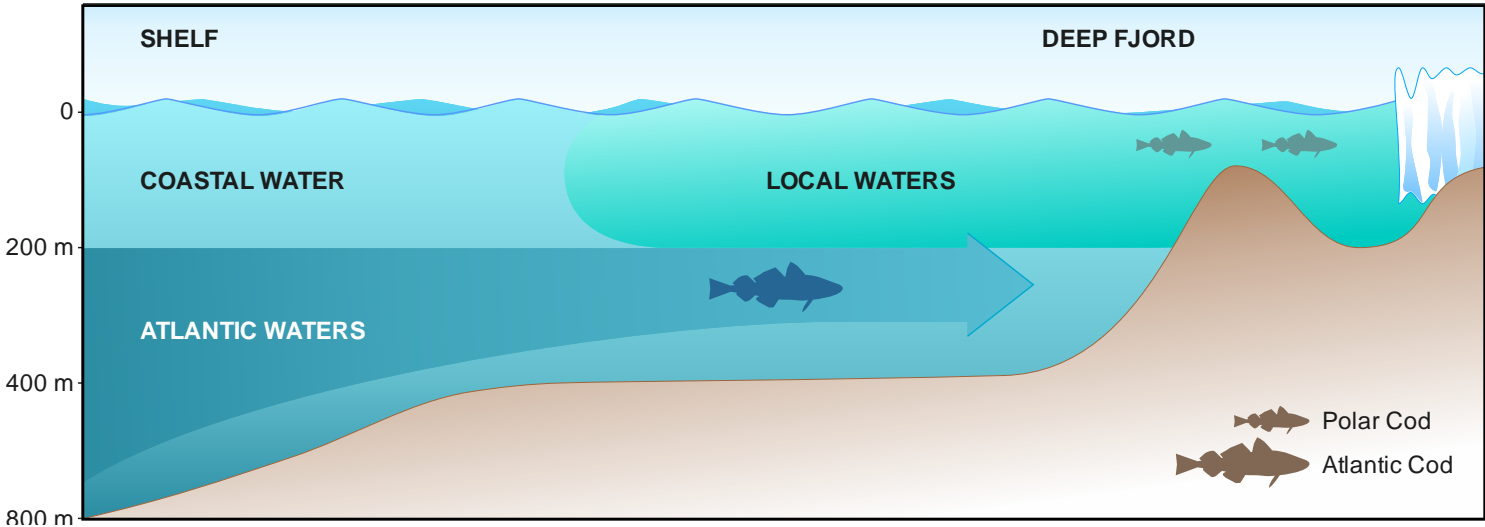


Hornsund



Kongsfjord

scenario



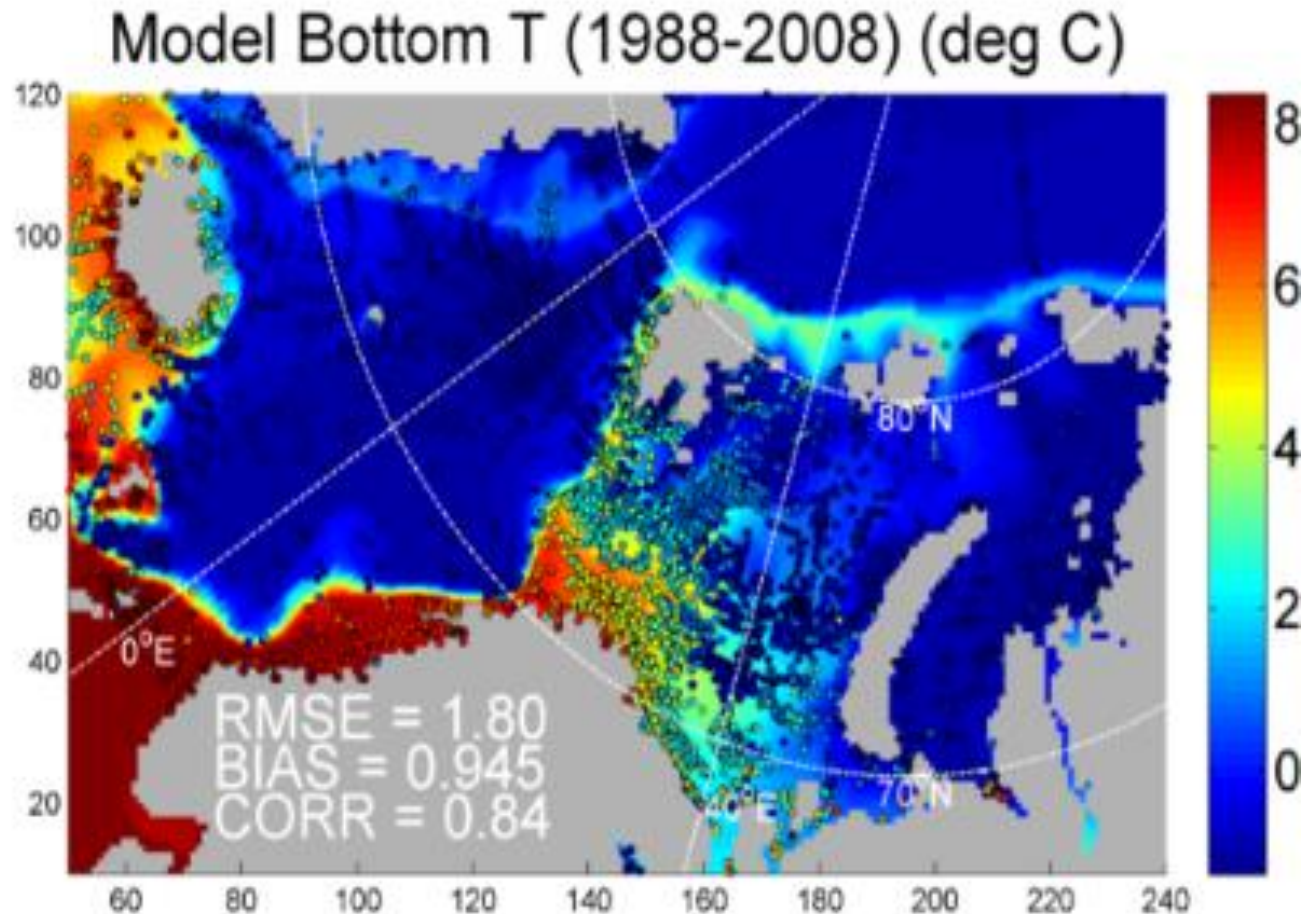
Final remarks - relation of poikilothermic predator to temperature

Cod feeding at

Lofoten at 12°C – on fish- very active

Bjornoya at 8°C – on crabs, shrimps - active

Kongsfjorden at 4°C – on krill swarms - almost passive



Courtesy of Phil Wallhead (NIVA) and Dag Slagstad (SINTEF)