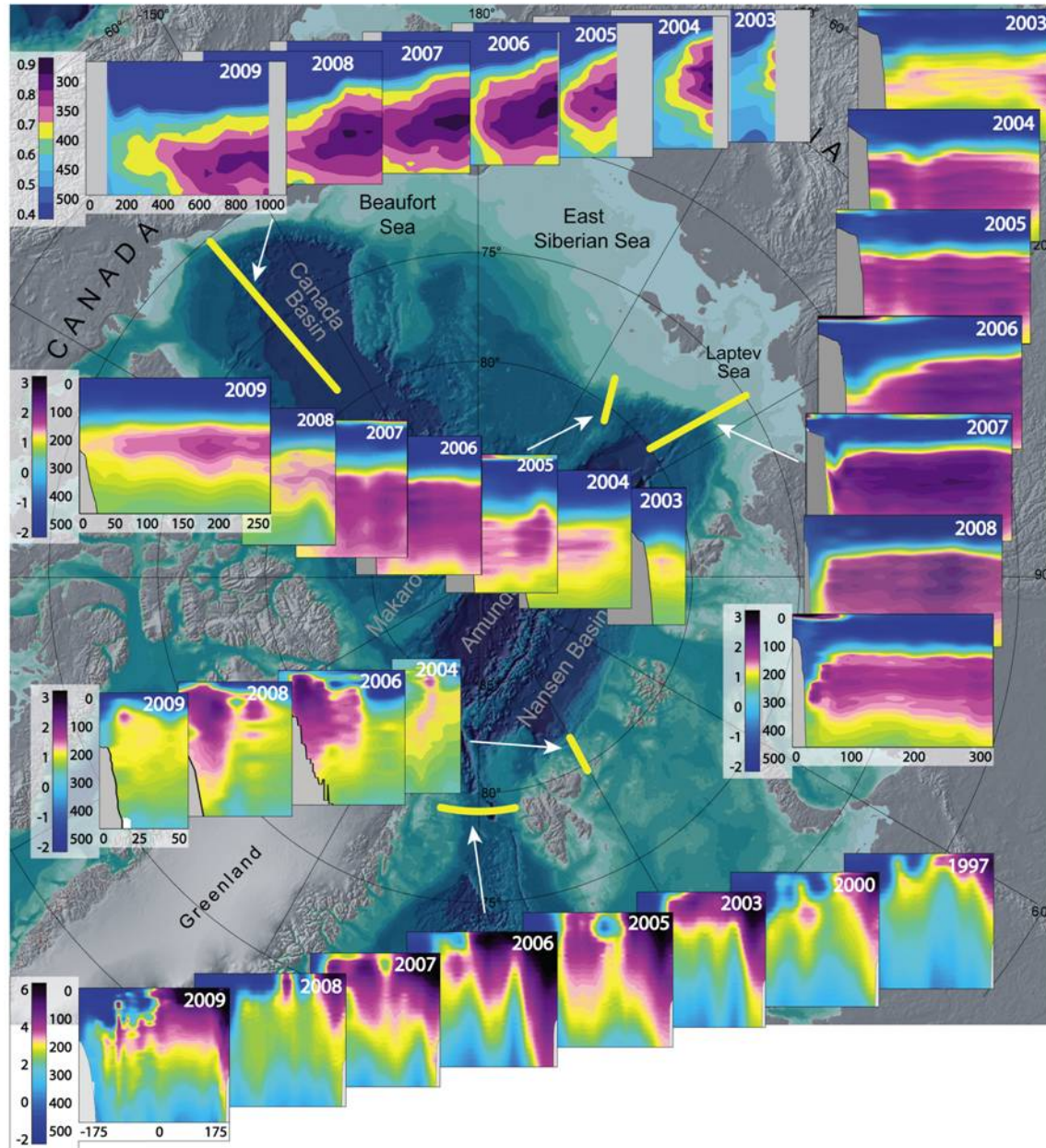


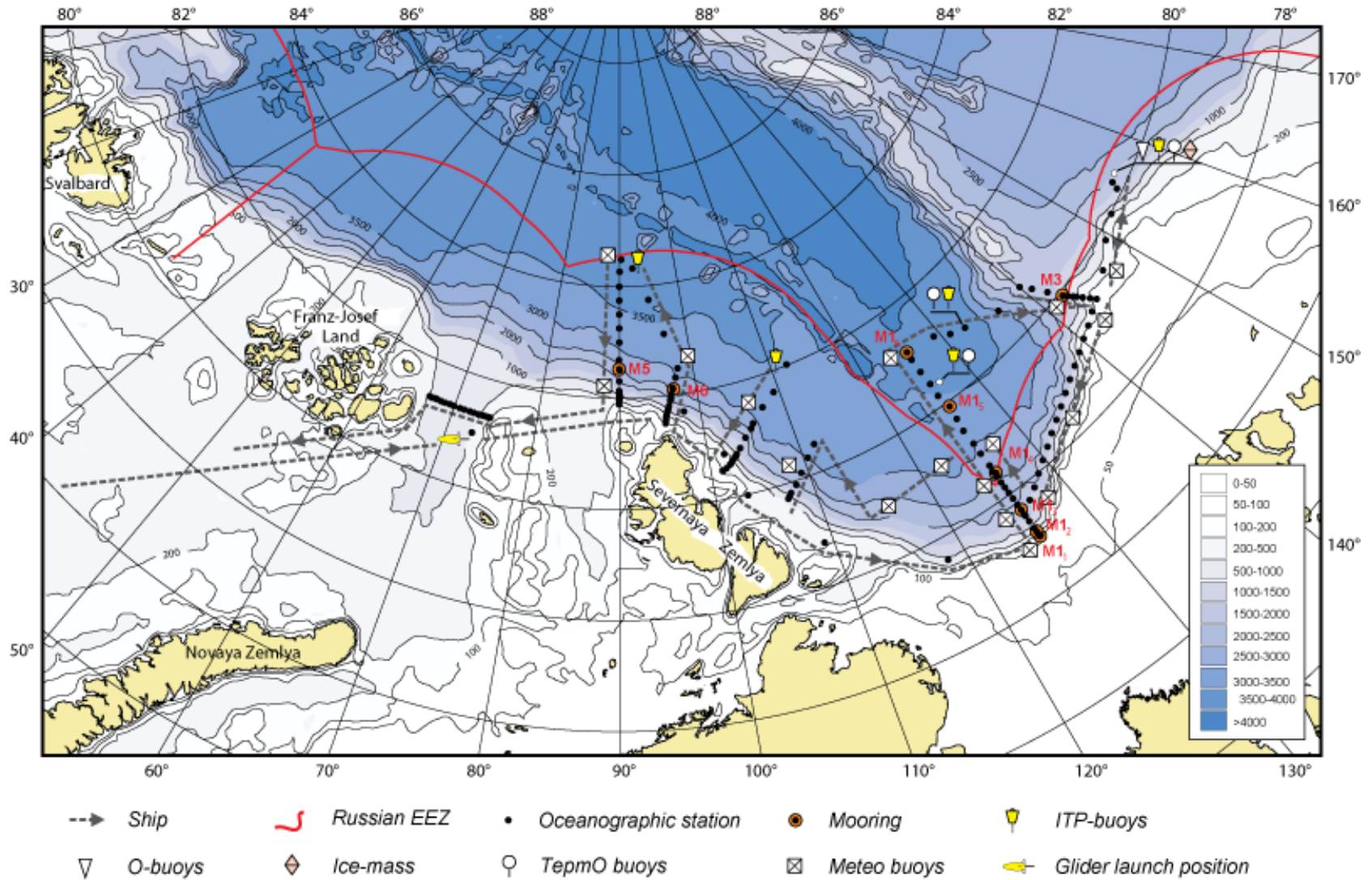
RESEARCH HIGHLIGHTS



Overarching goal of 2012-2017 study, as an element of the Arctic Observing Network is to compile a cohesive picture of climatic changes in the Eurasian and Makarov basins of the Arctic Ocean.

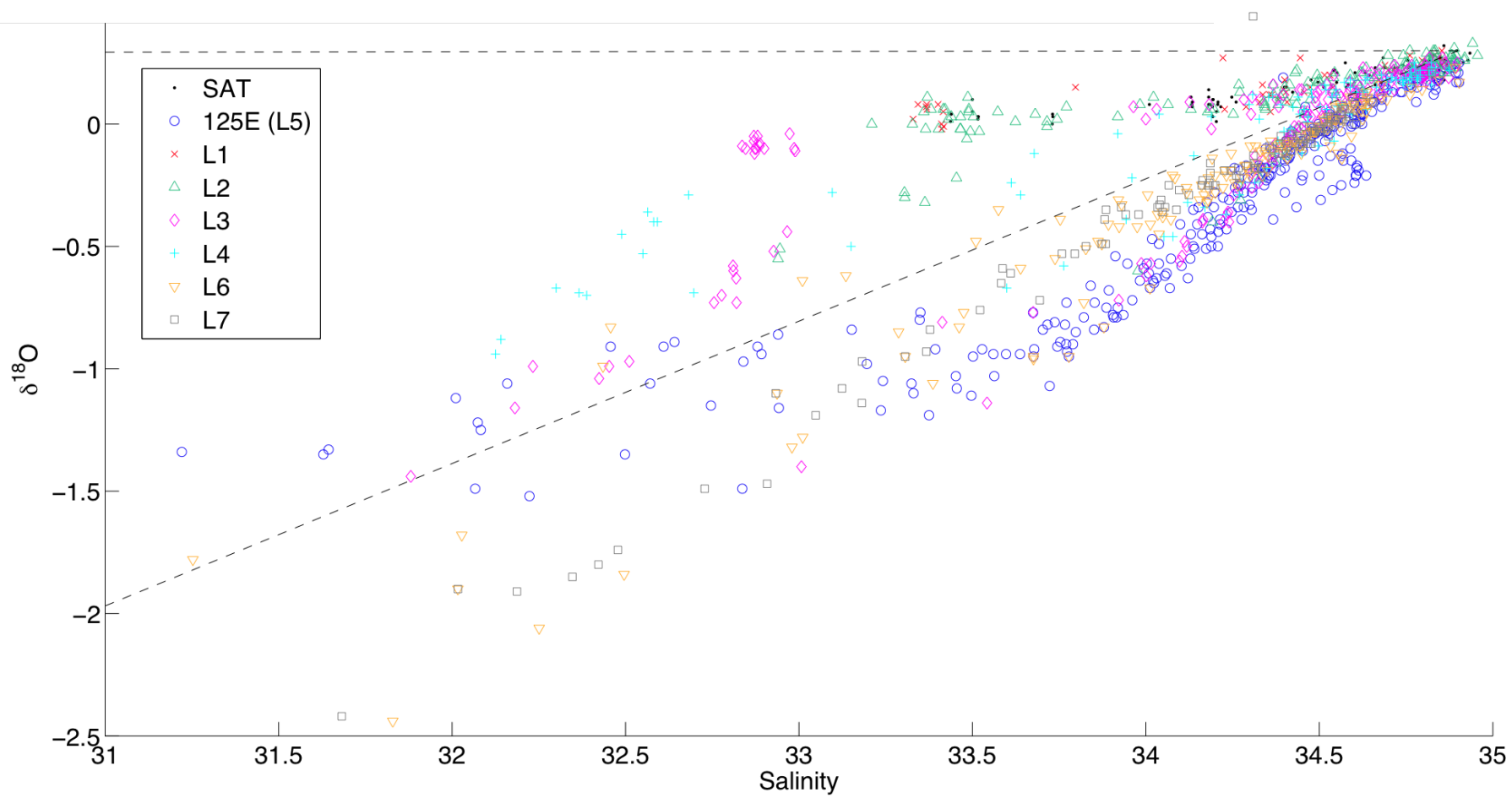
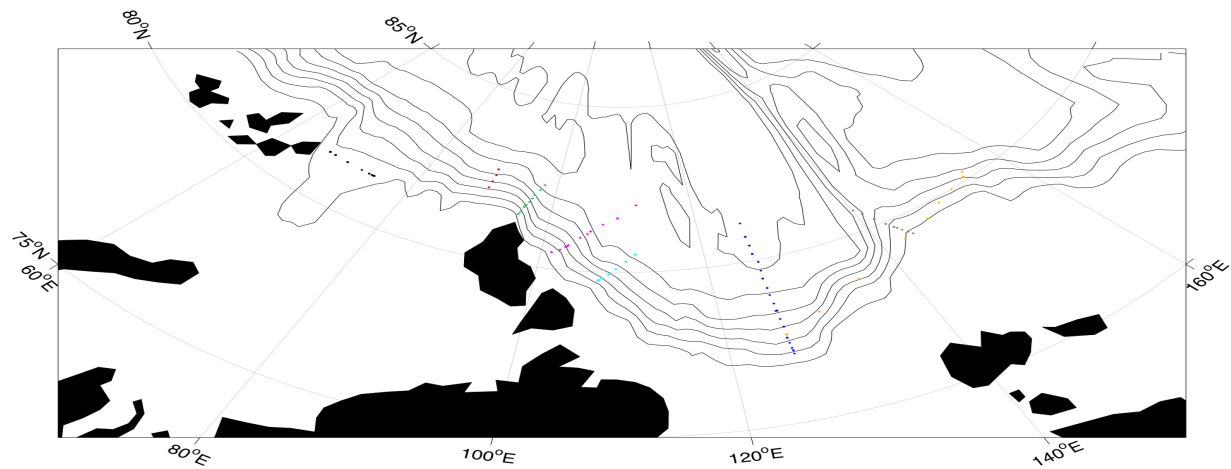
Polyakov et al., 2011

2013 field campaign

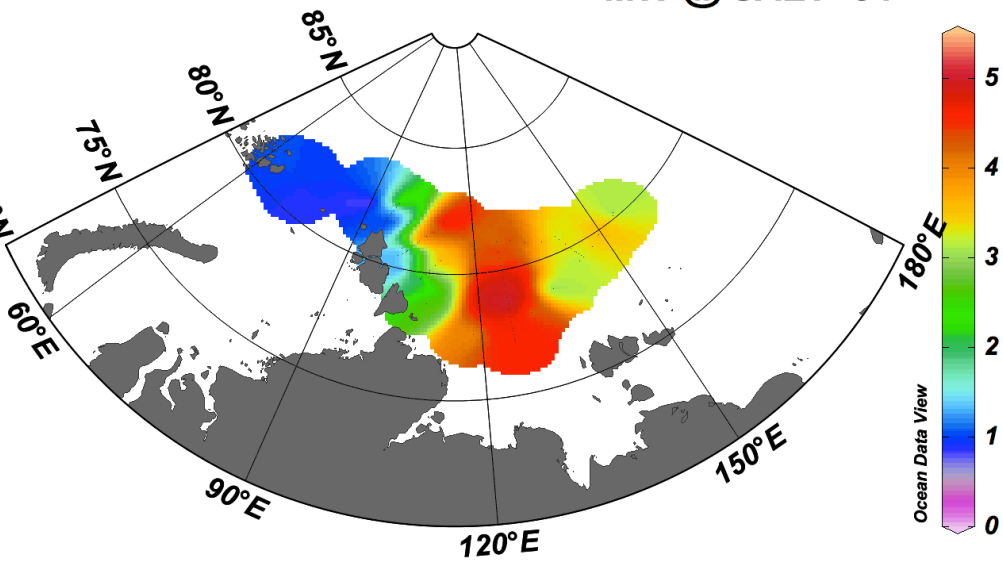




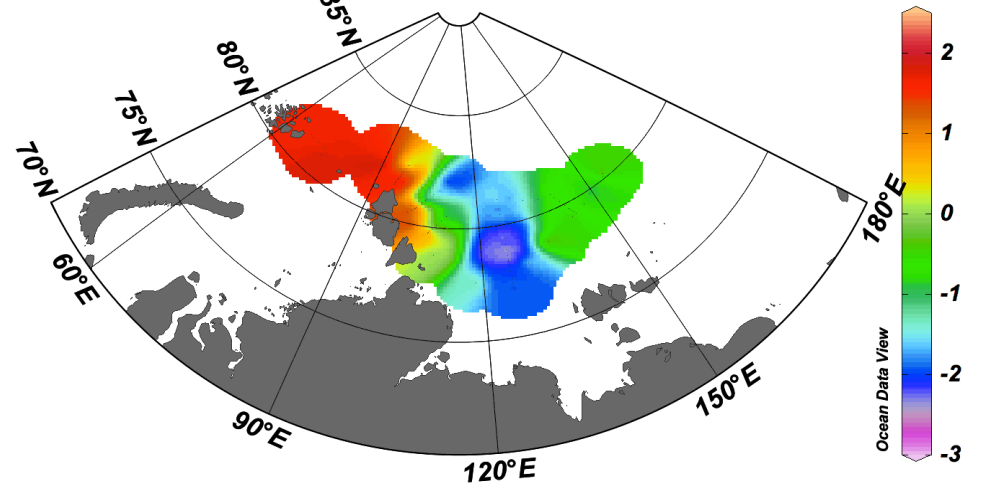
24 bottle (10 L) rosette, CTD with dual conductivity & temperature sensors, dual O₂ sensors, SUNA NO₃ sensor, WET Labs ECO FLNTU (Chl F & turbidity), C-star (beam attenuation), ADCP, and altimeter



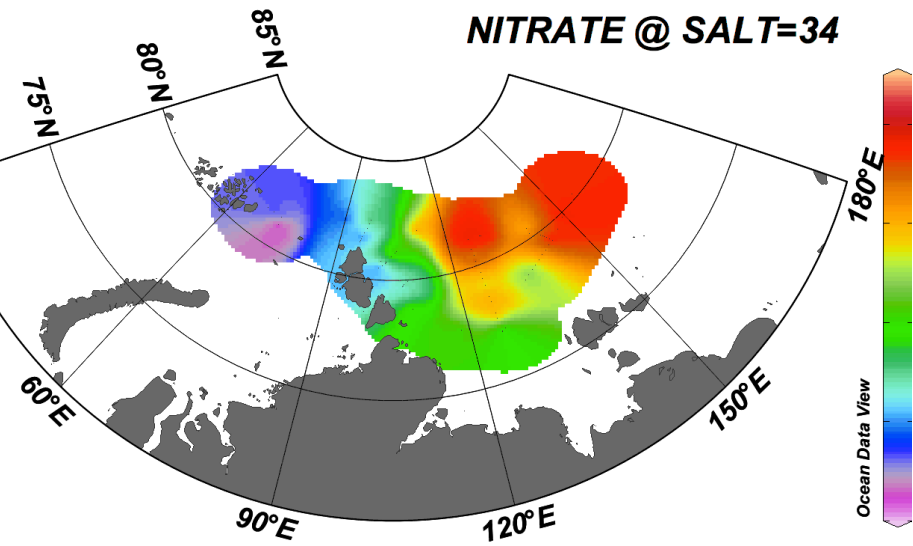
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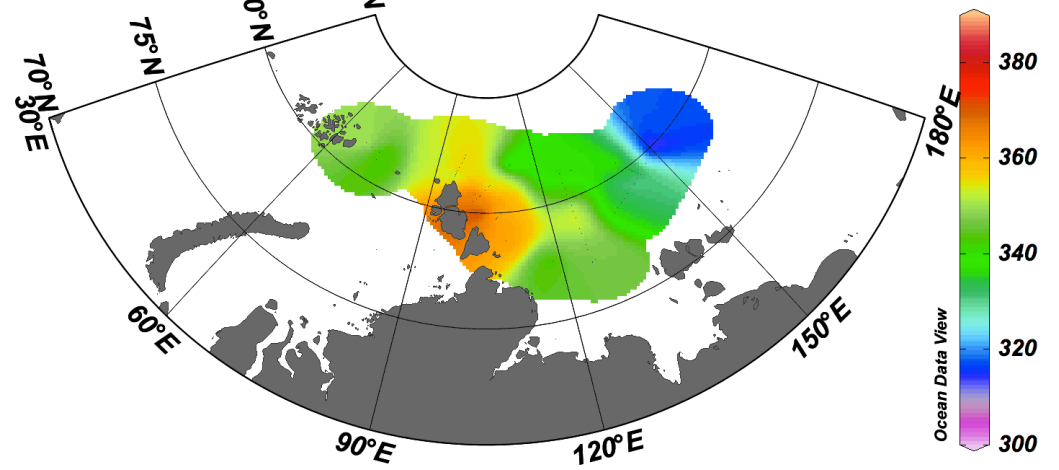
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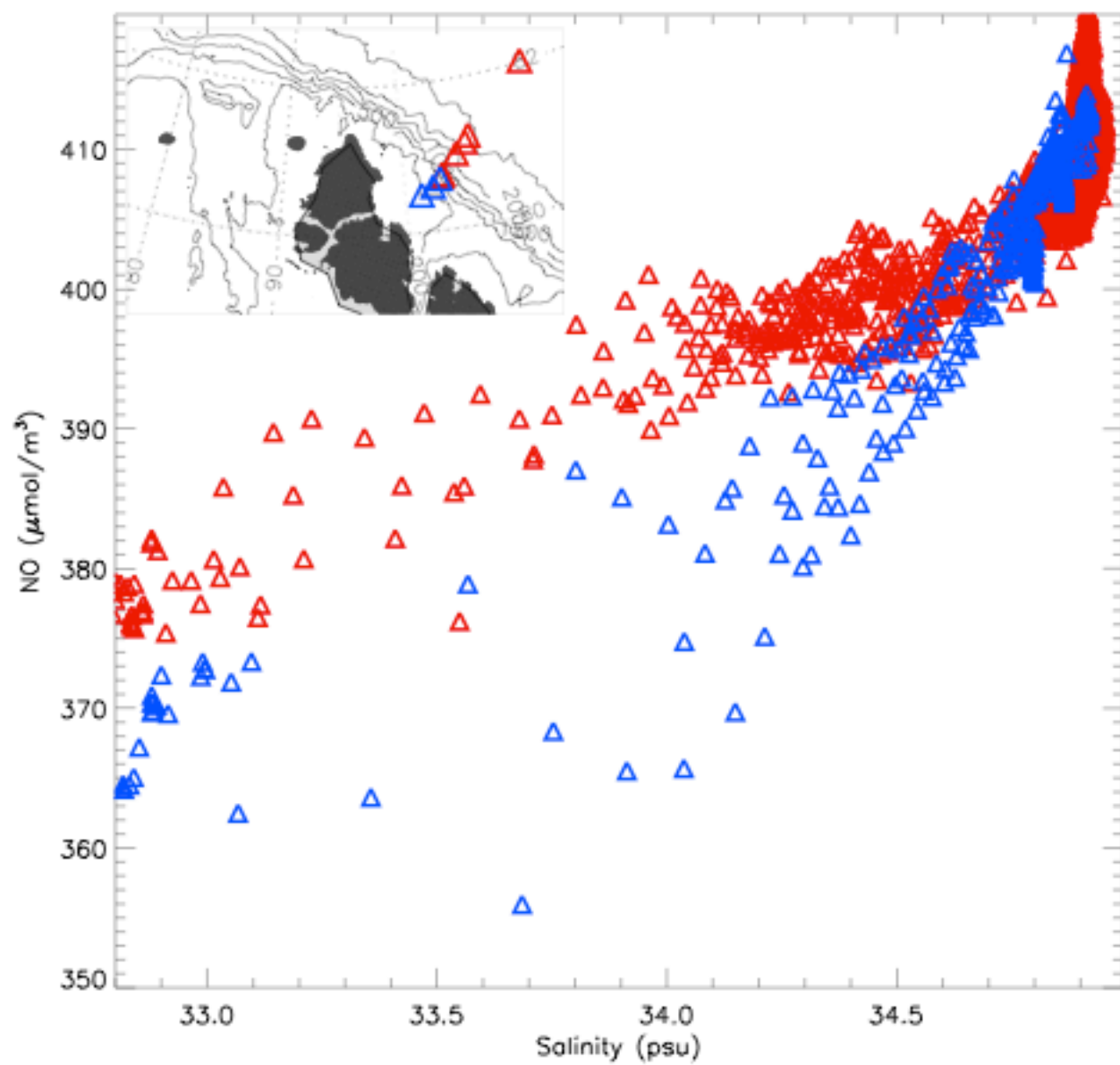


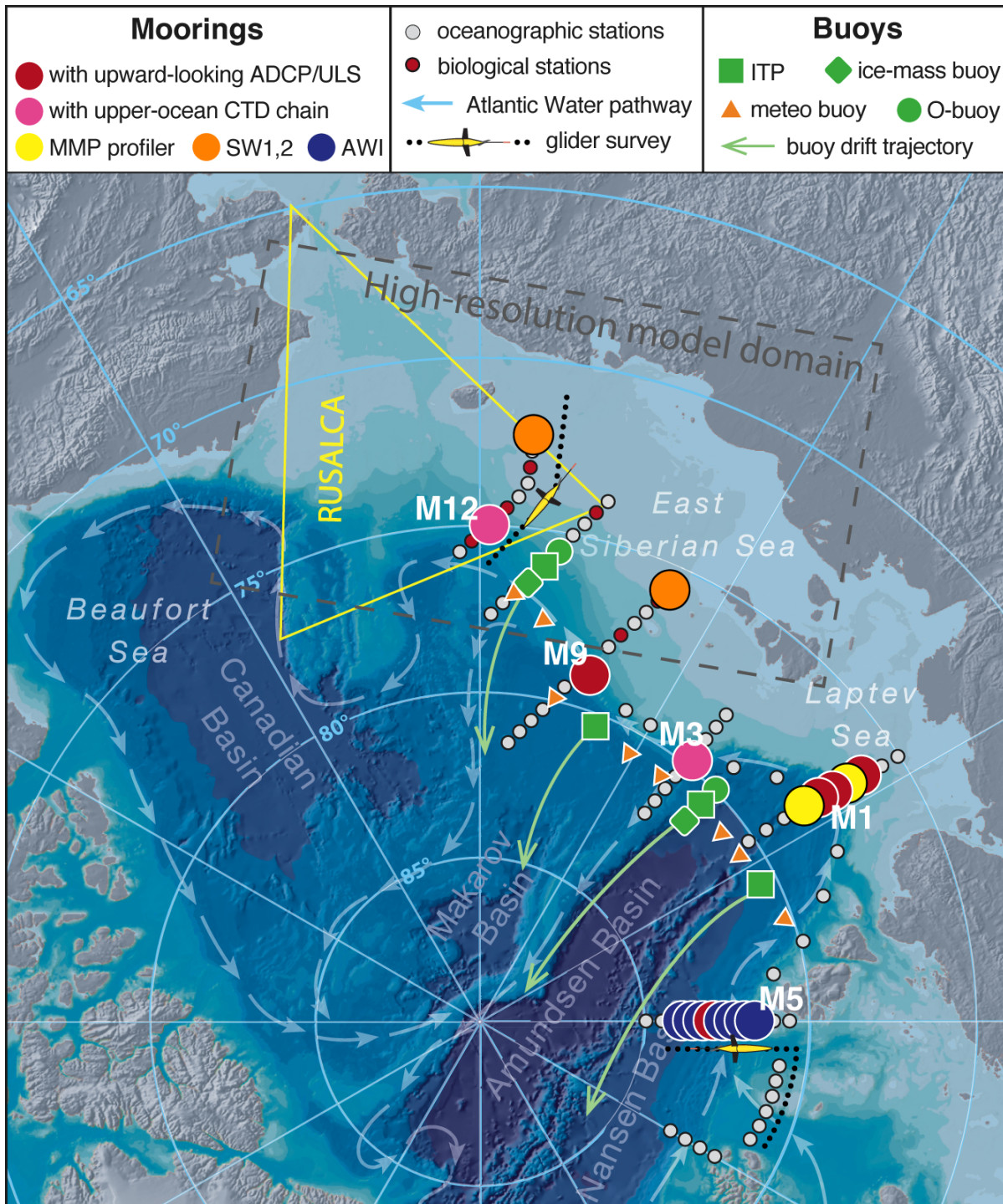
NITRATE @ SALT=34



DISSOLVED OXYGEN @ SALT=34



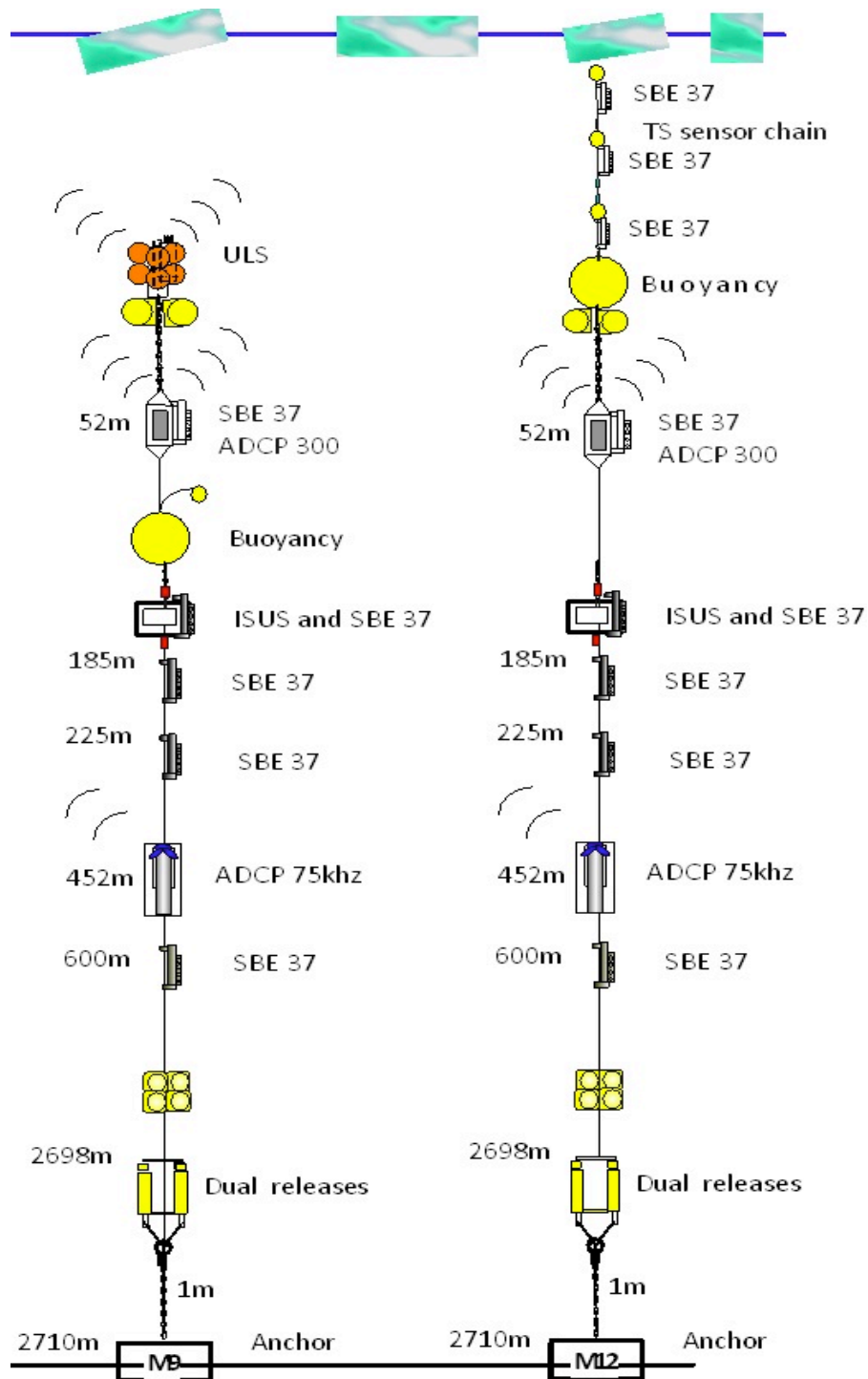




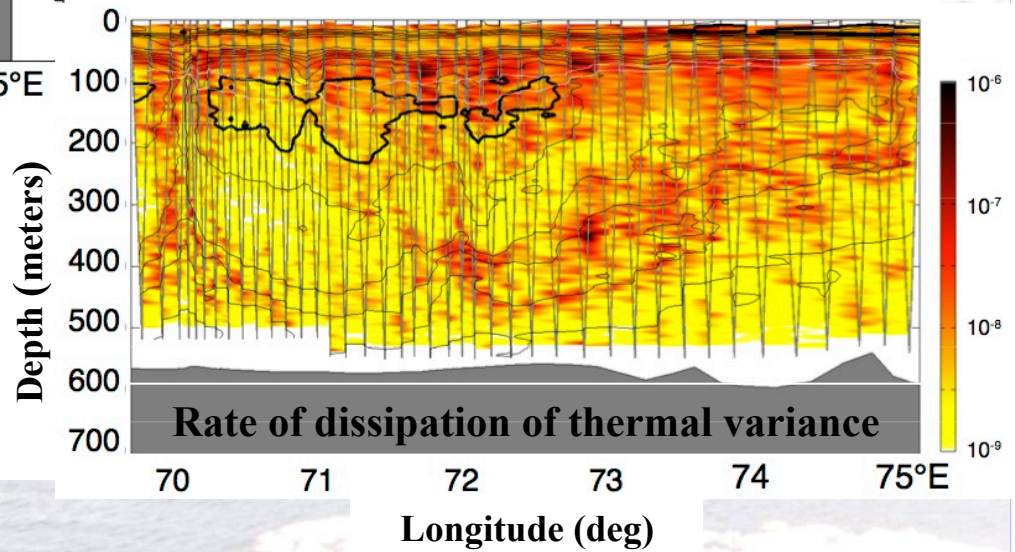
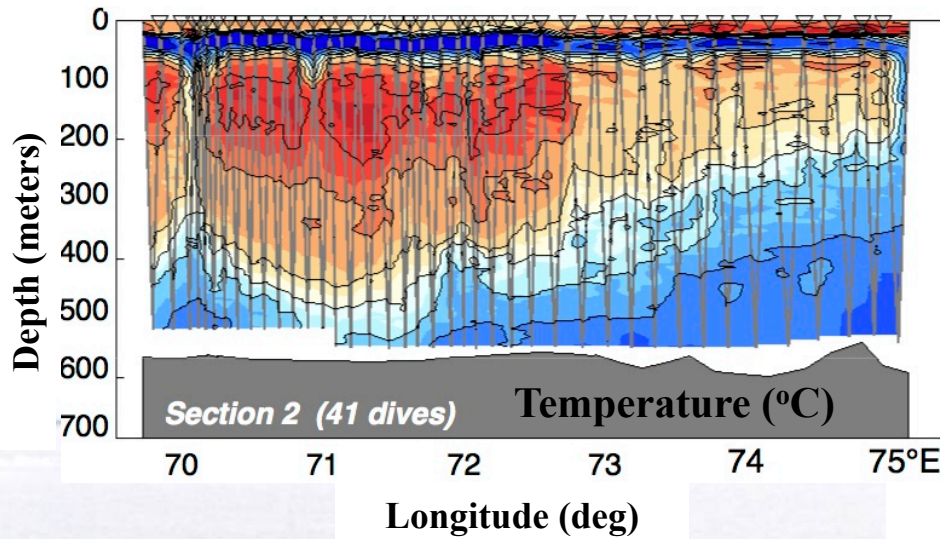
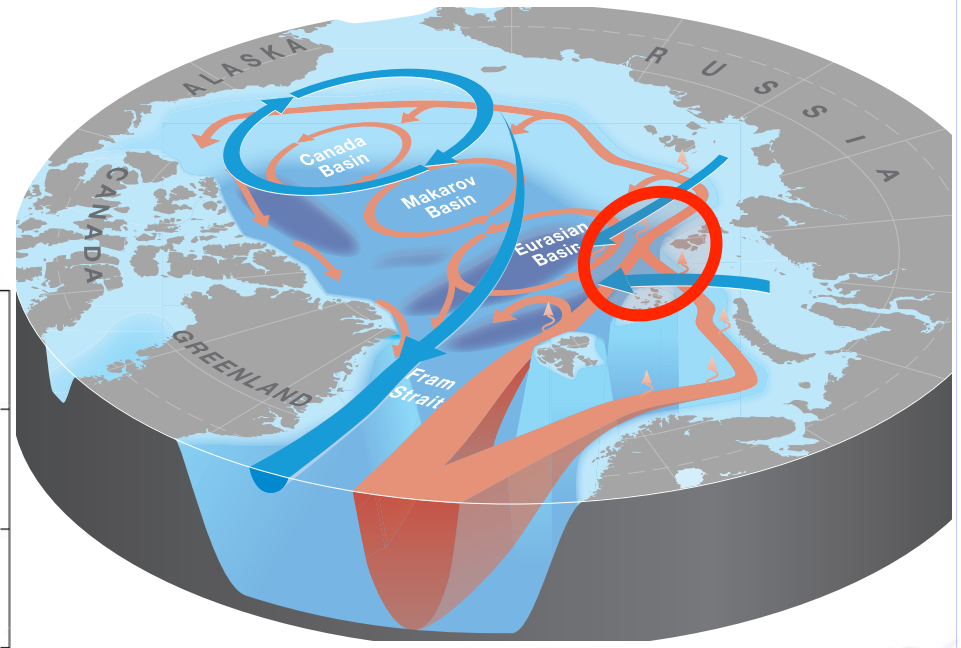
2015-2020
 proposed East
 Siberian Sea /
 Makarov Basin
 observational
 system

SUMMARY

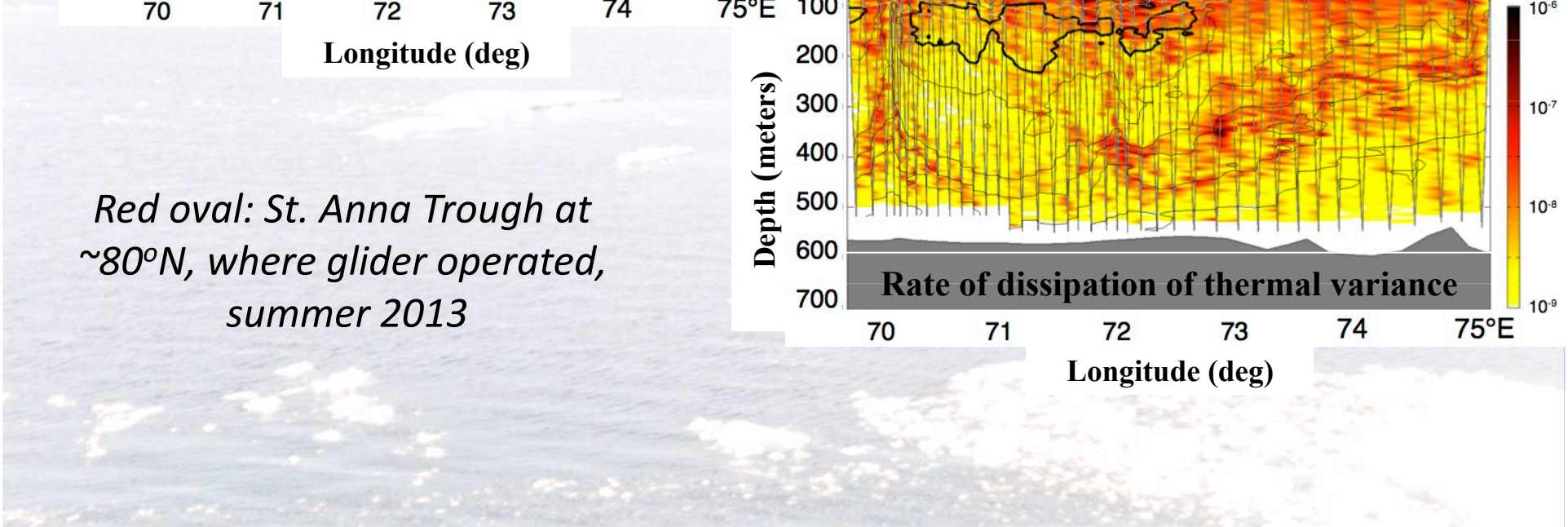
- *NABOS scientific results: essential for understanding on-going changes in high-latitude regions*
- *NABOS: 14 years' experience working in harsh Arctic conditions*
- *Established observational network: an important element of the Arctic Observing System*
- *Wide international recognition, extending from participation of many countries' researchers in project activities*
- *Conduit for application of new technologies in Arctic Ocean research*

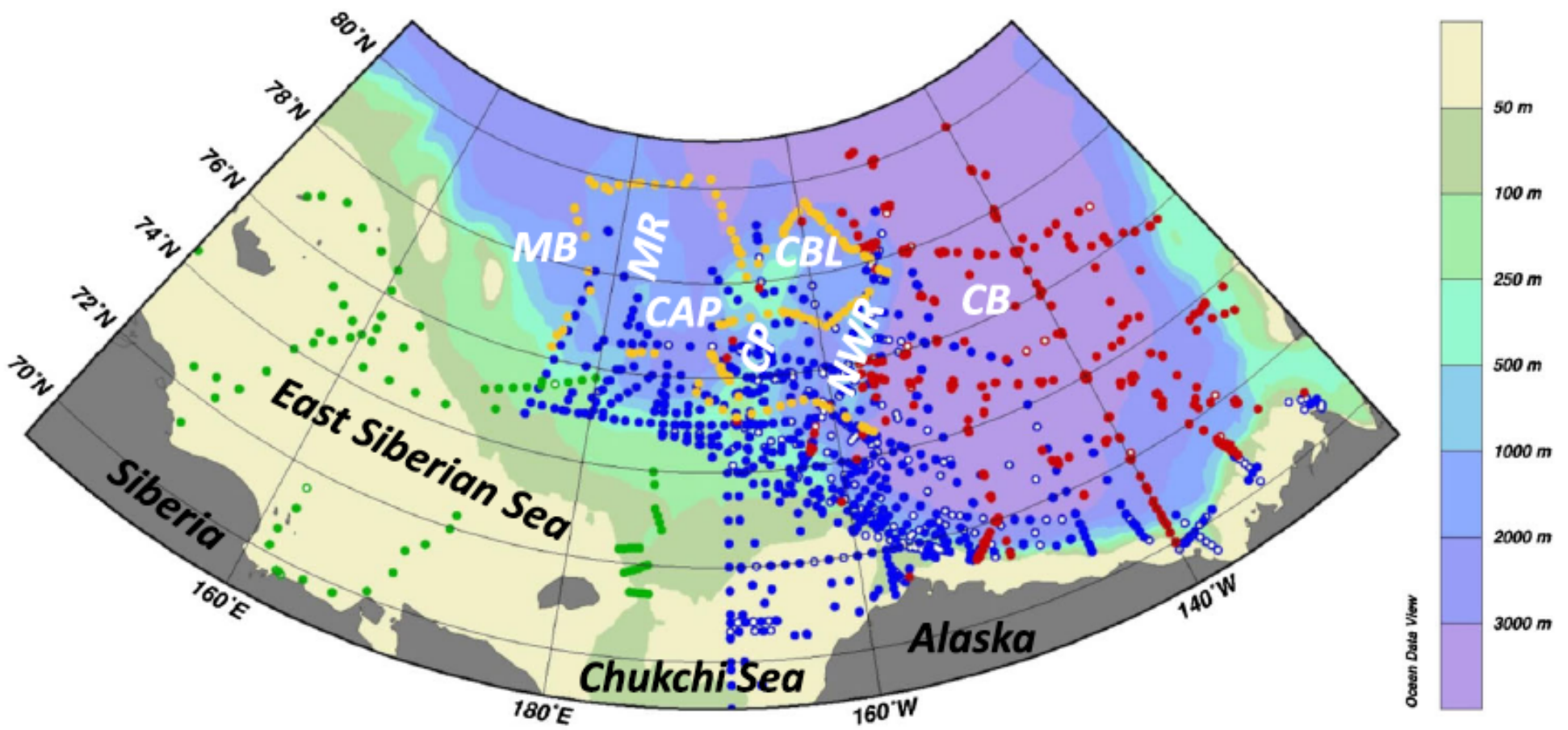


New technologies: delivering heat flux information from Arctic Ocean interior



Red oval: St. Anna Trough at ~80°N, where glider operated, summer 2013





Nishino et al. (2013)

Dmitrenko et al. (2005)

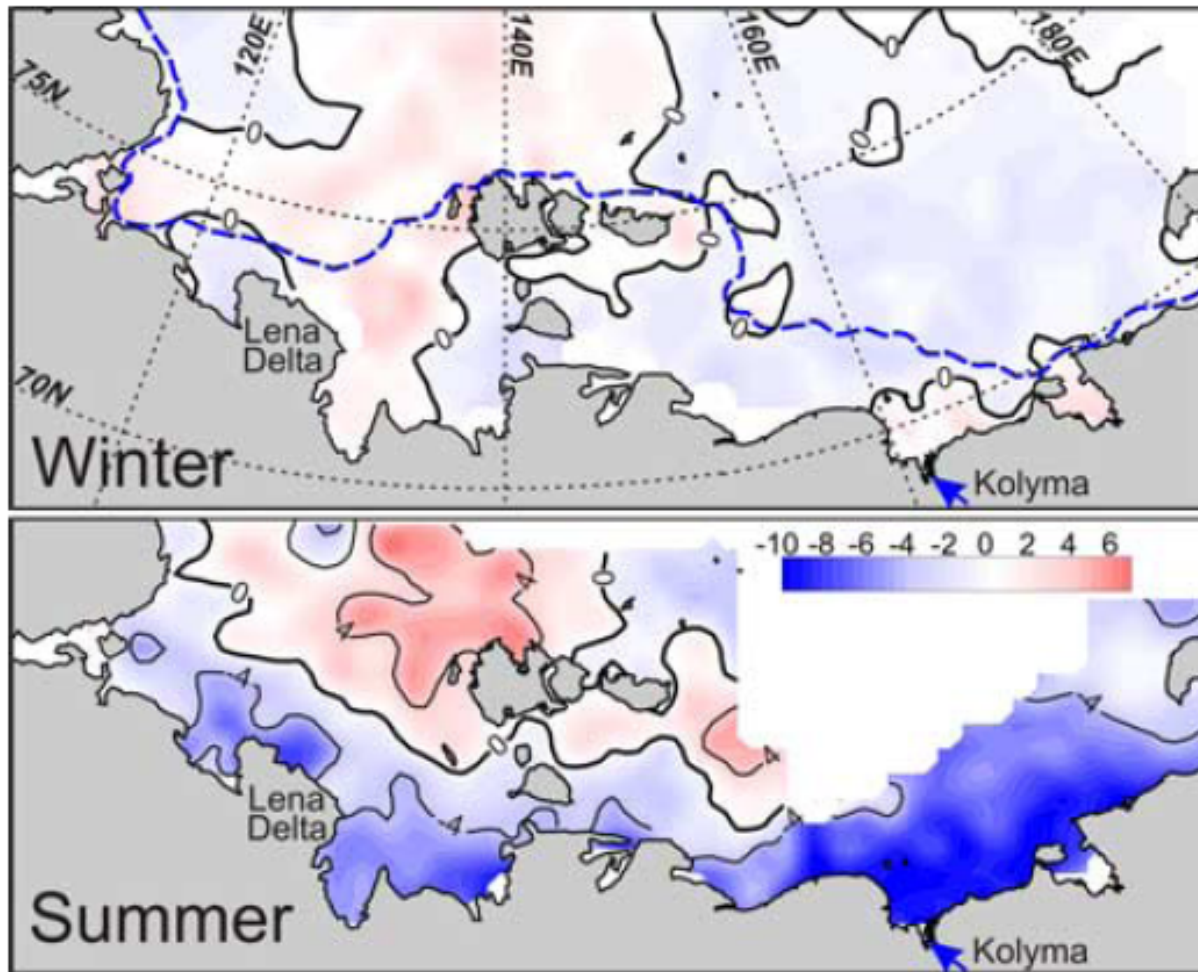
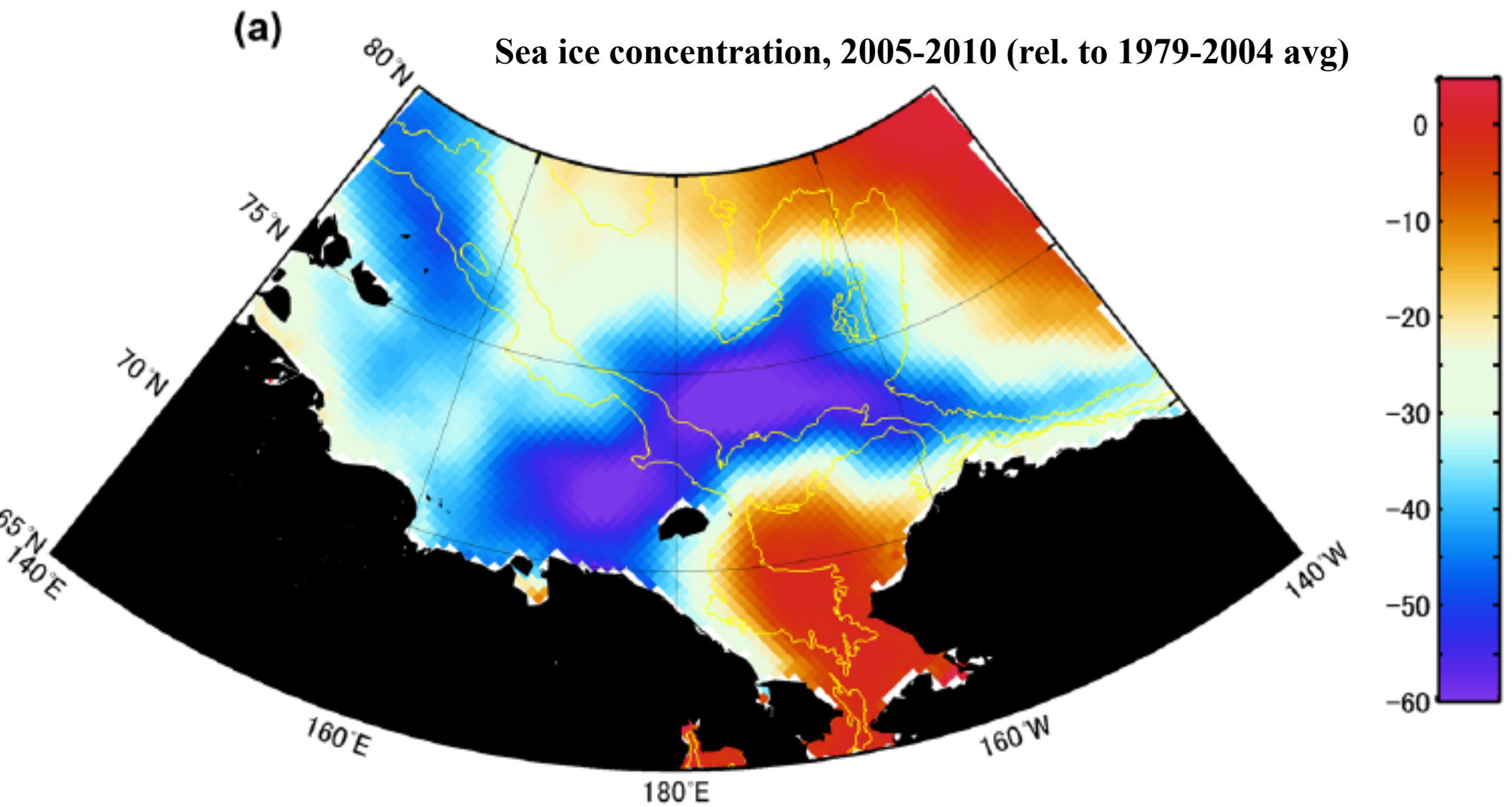
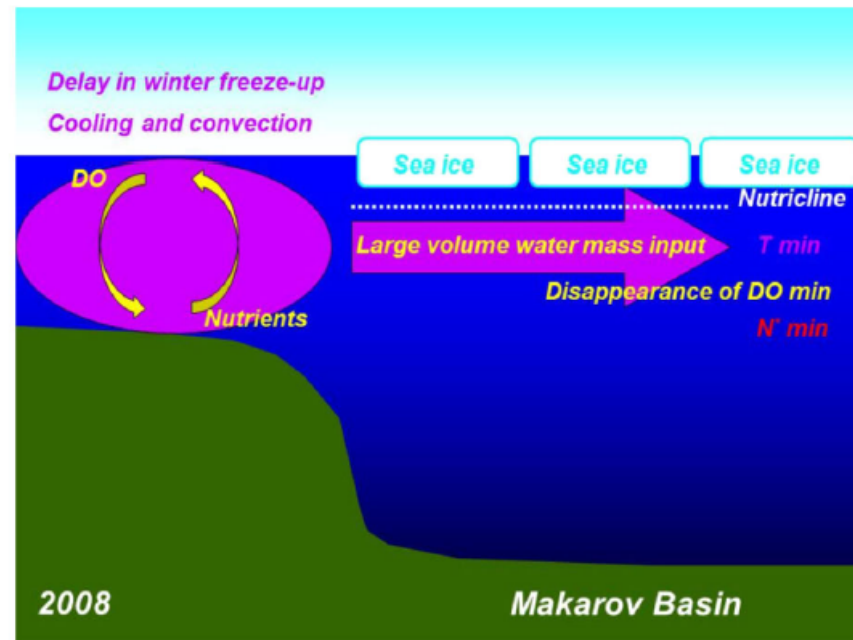
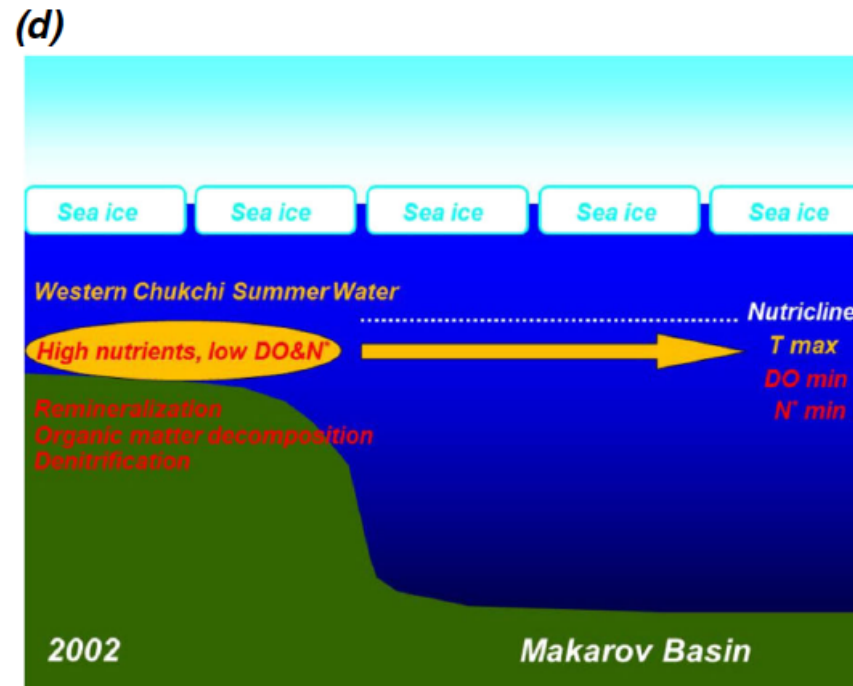
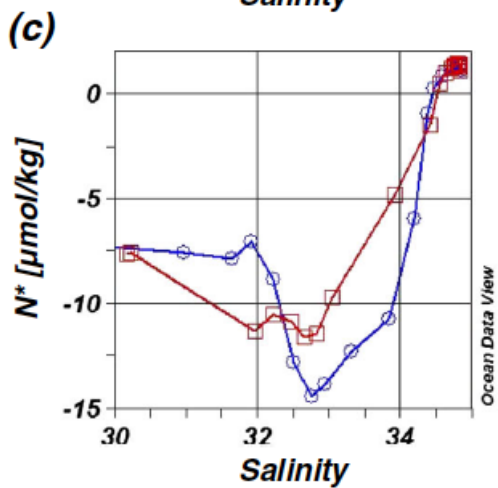
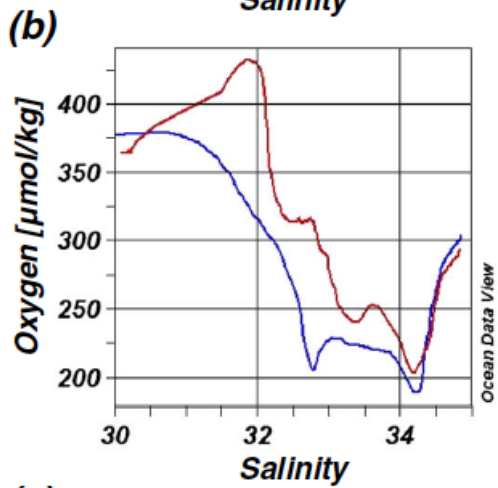
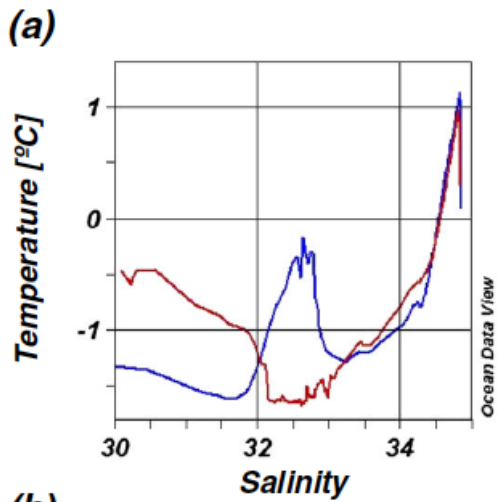


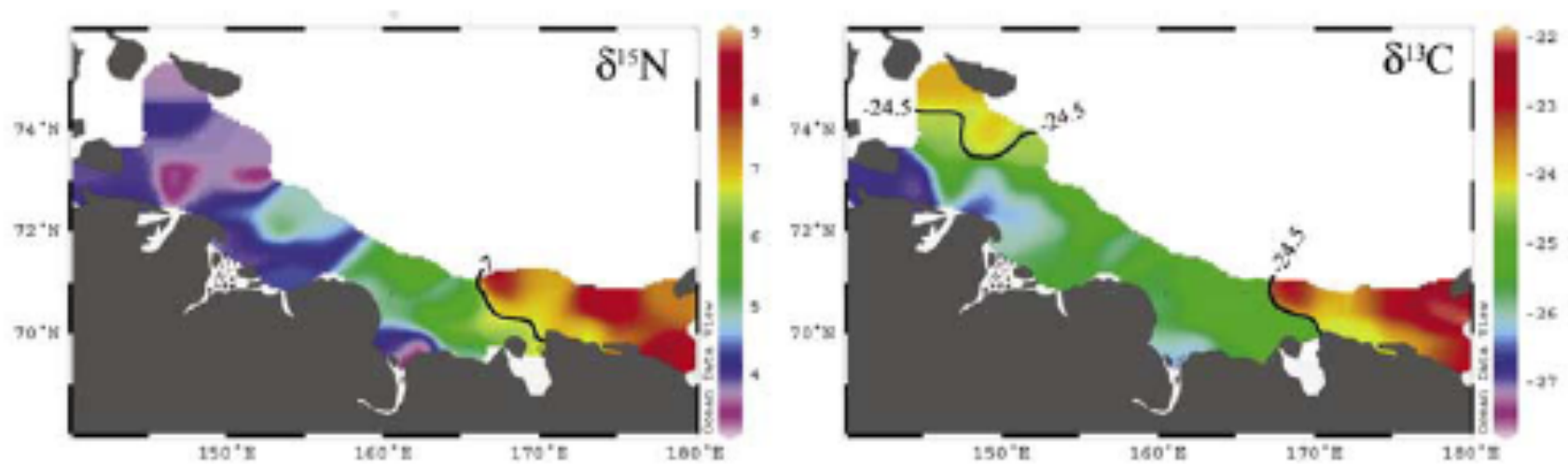
Figure 5. Difference between surface salinity averaged for the years with positive and negative vorticity index. Top and bottom panels show winter and summer correspondingly. The blue dashed line in the top panel shows the long-term mean position of the landfast ice edge.



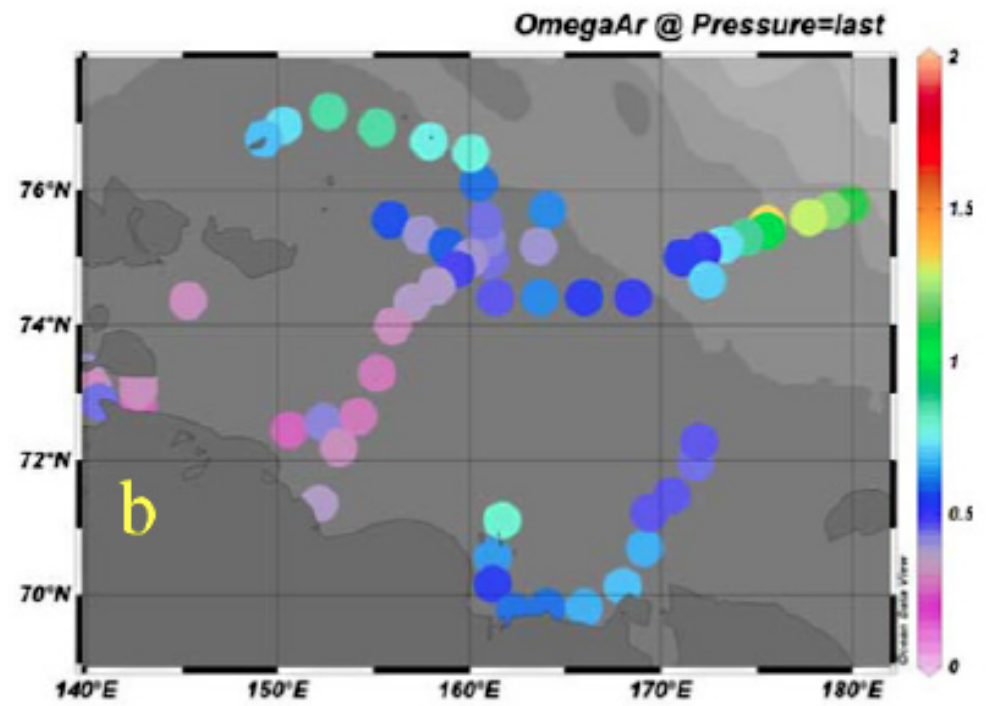
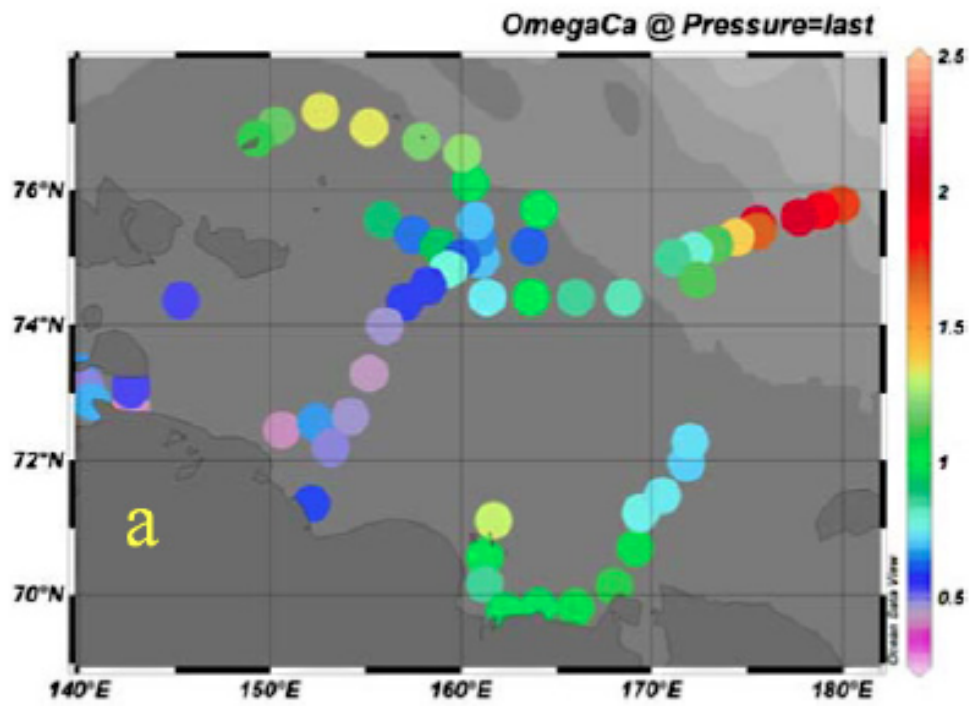
Nishino et al. (2013)



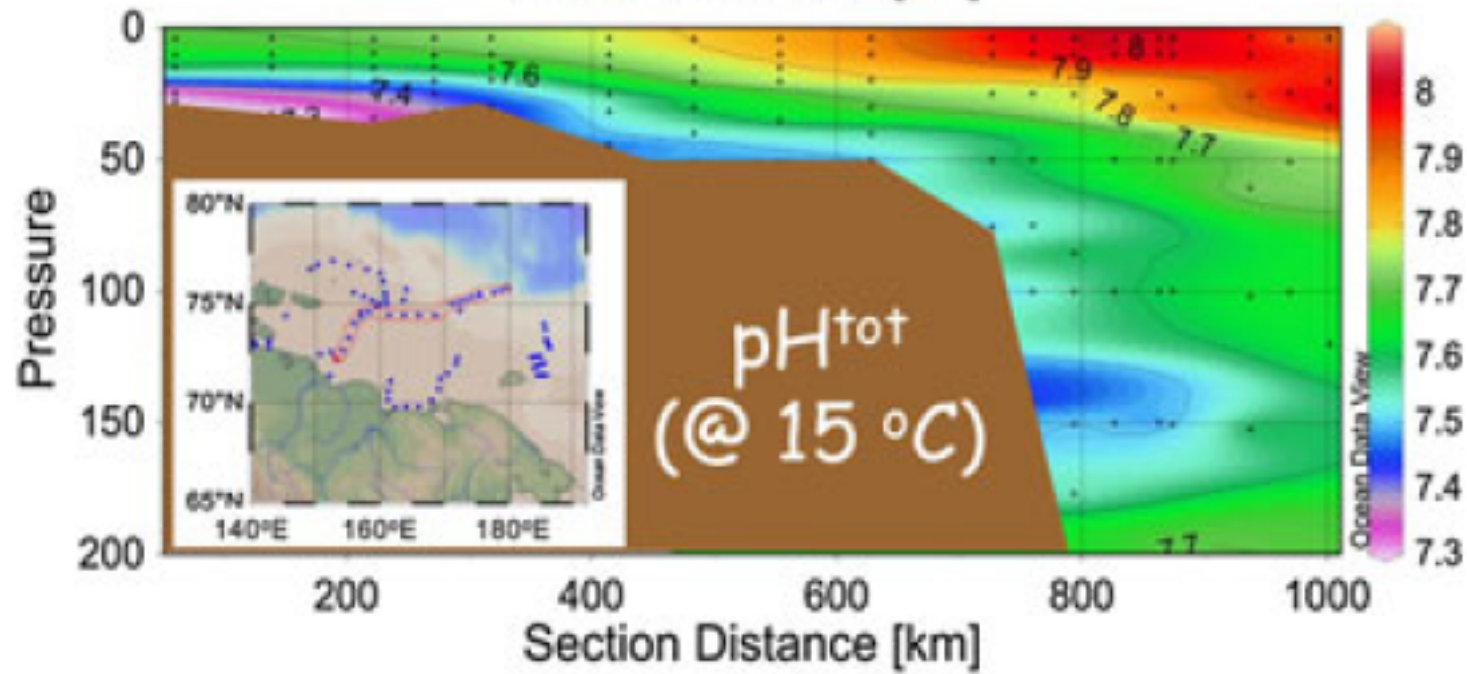
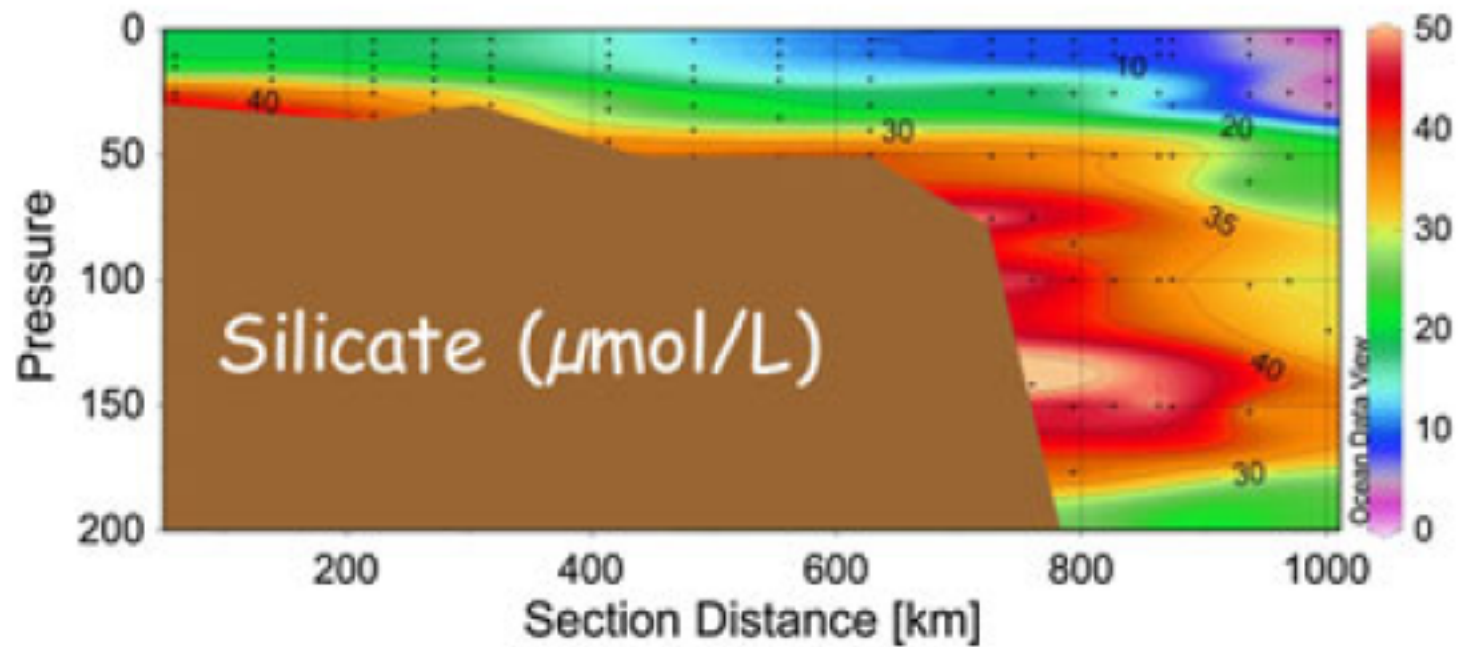
Nishino et al. (2013)



Semiletov et al. (2005)

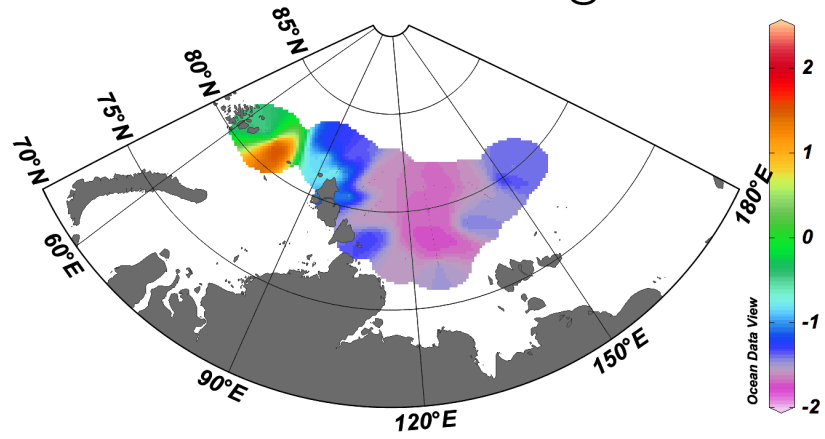


Anderson et al.
2011

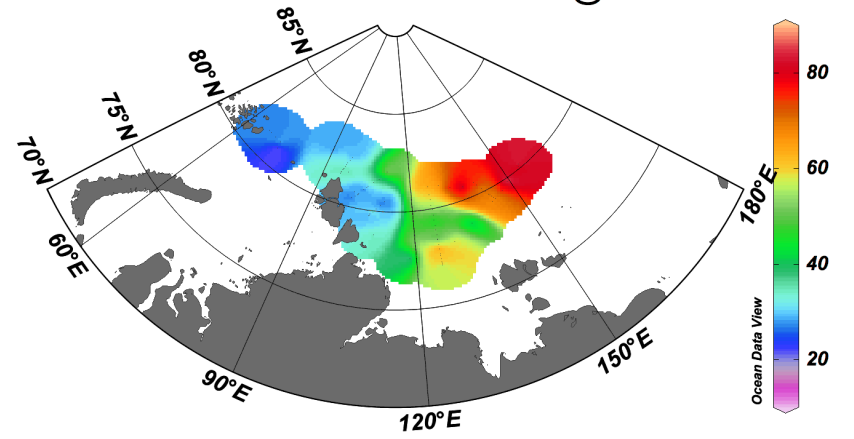


Anderson et al.
2013

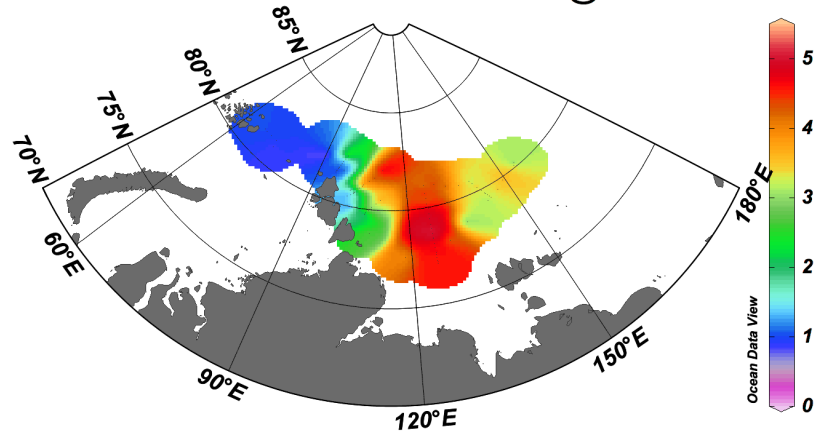
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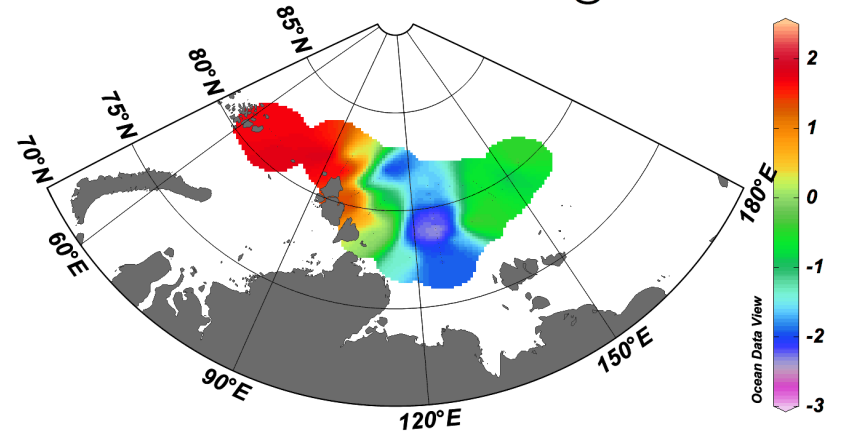
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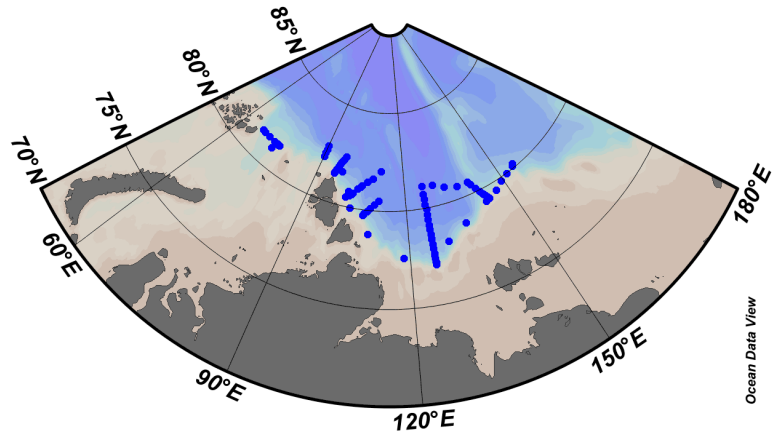
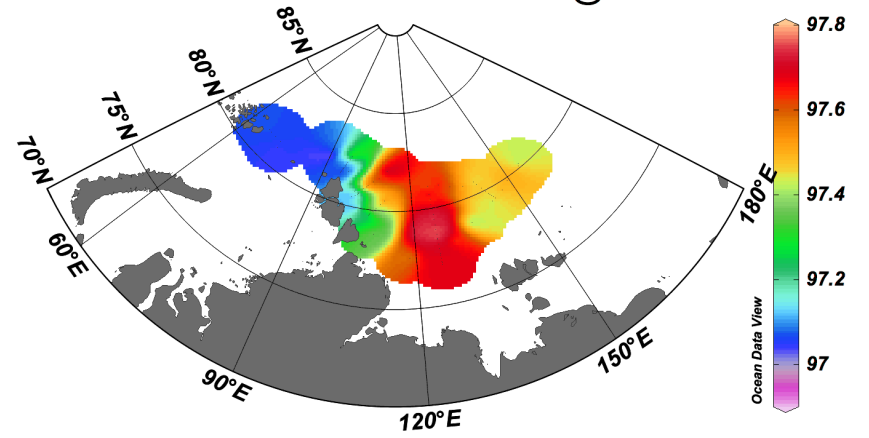
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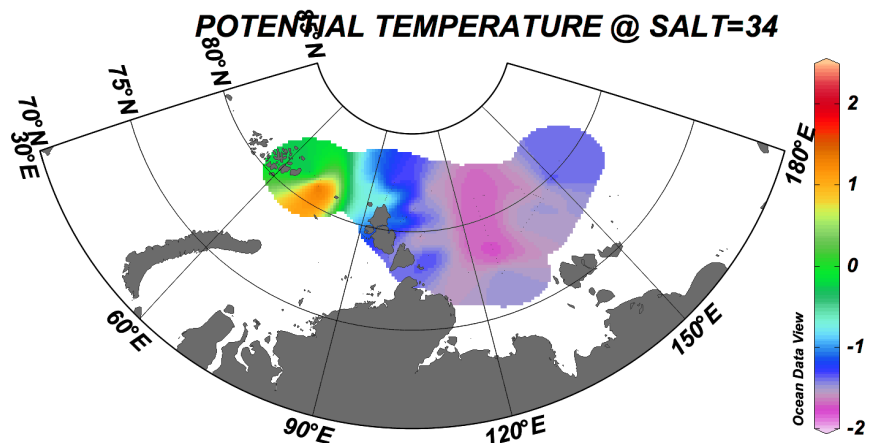
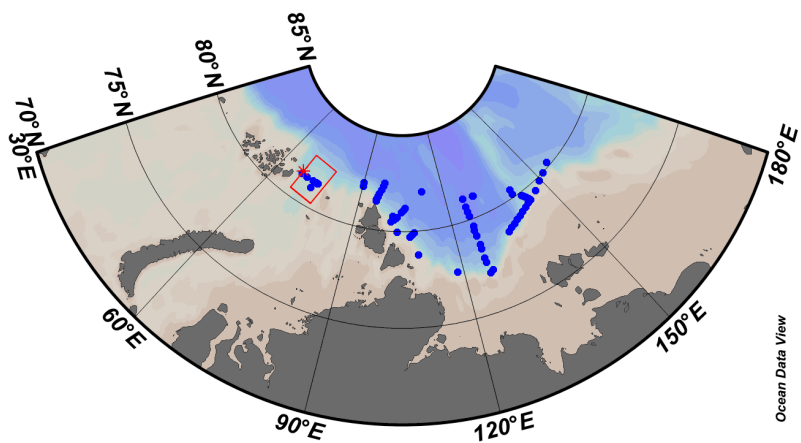
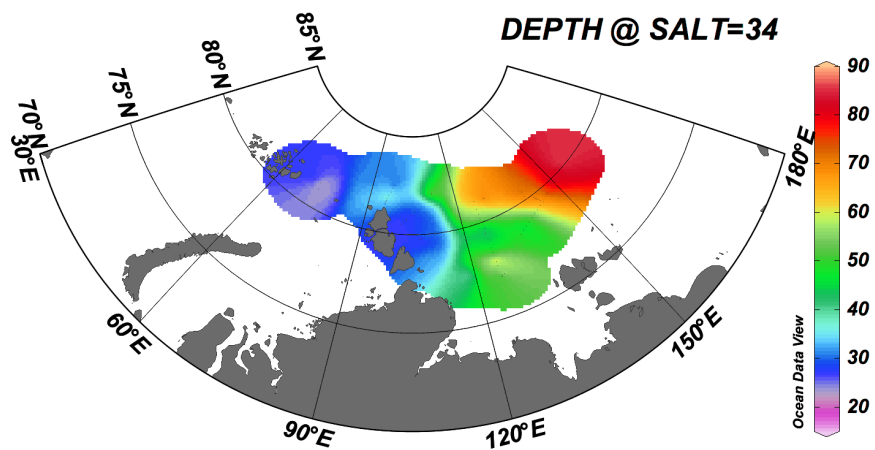
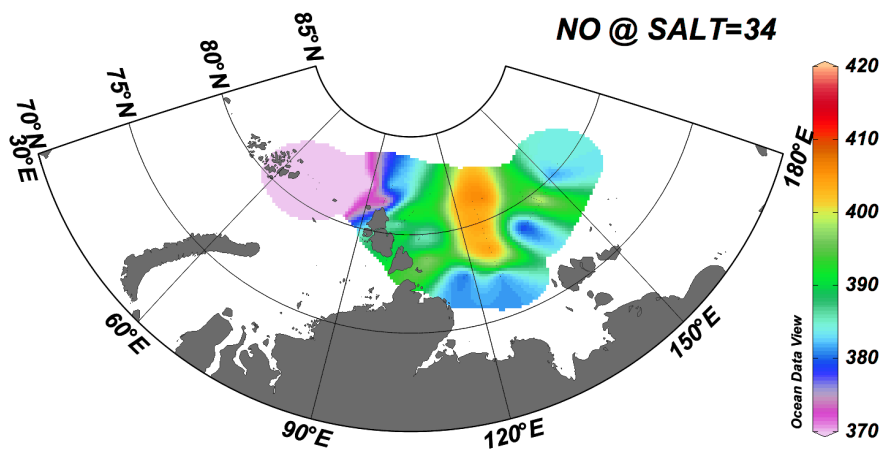
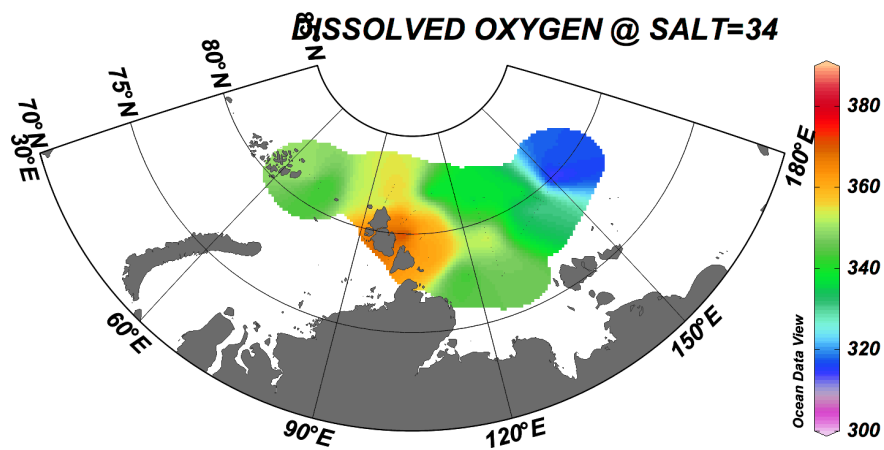
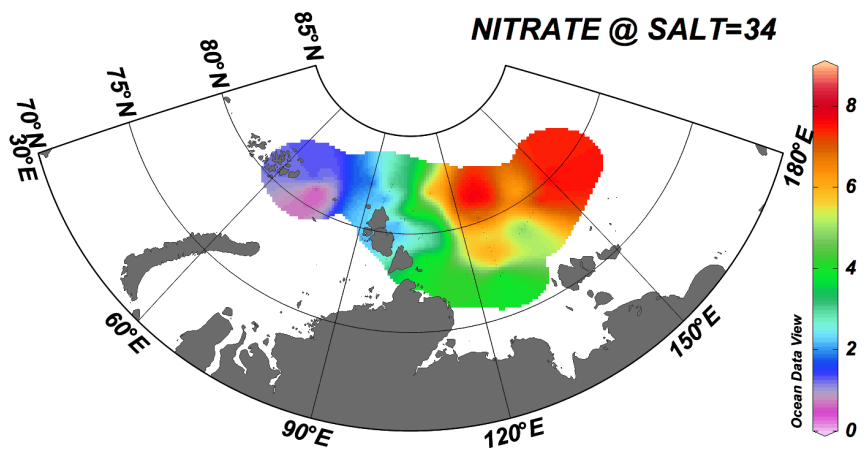


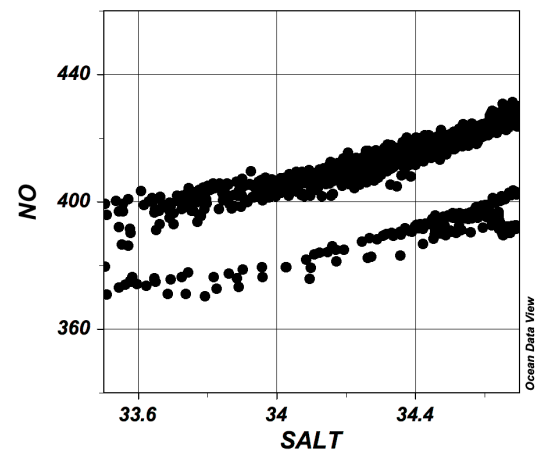
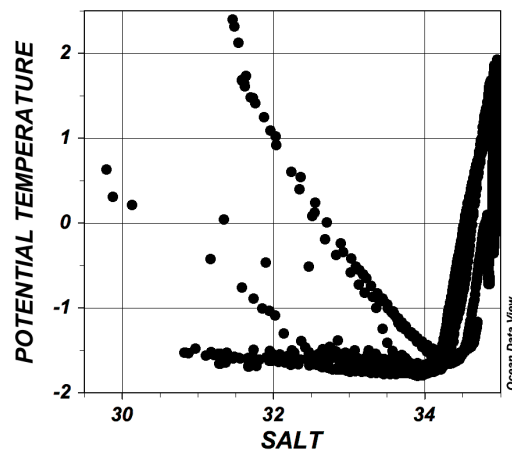
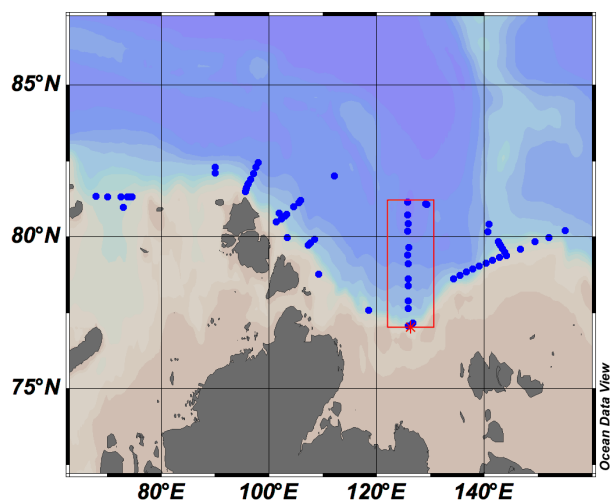
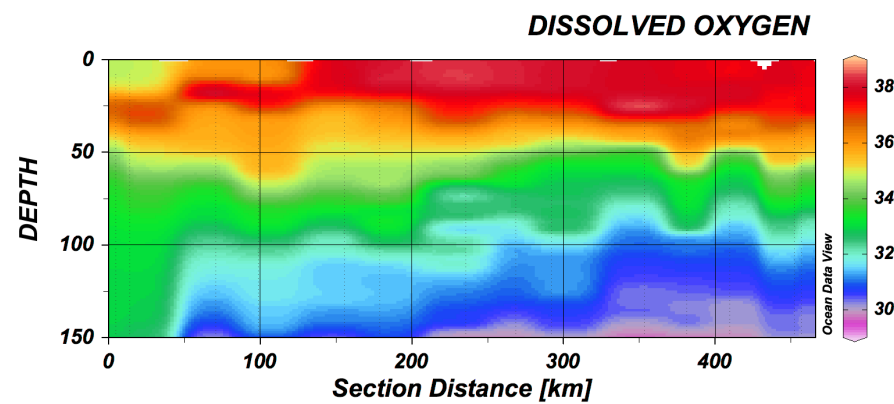
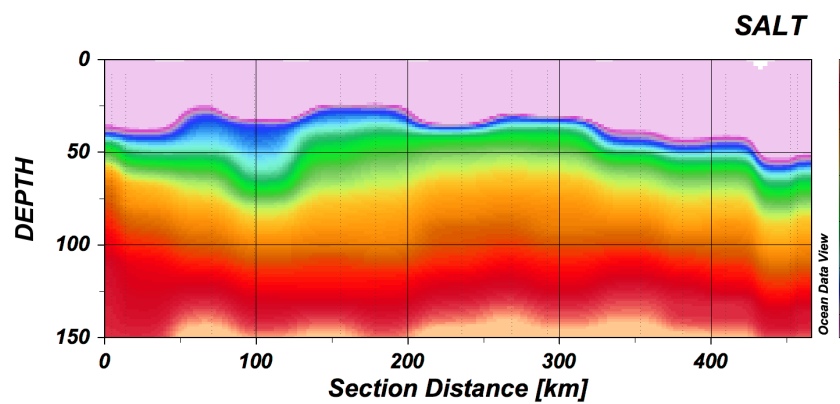
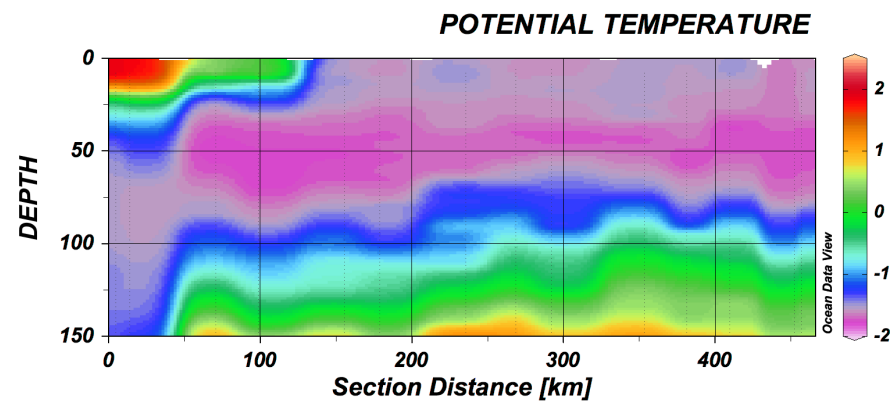
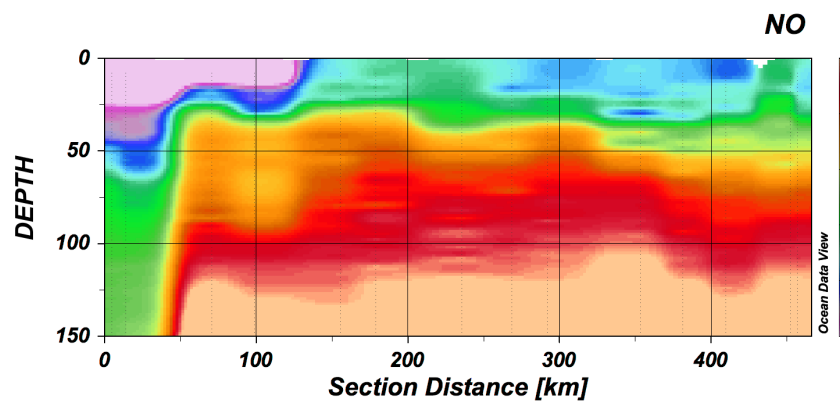
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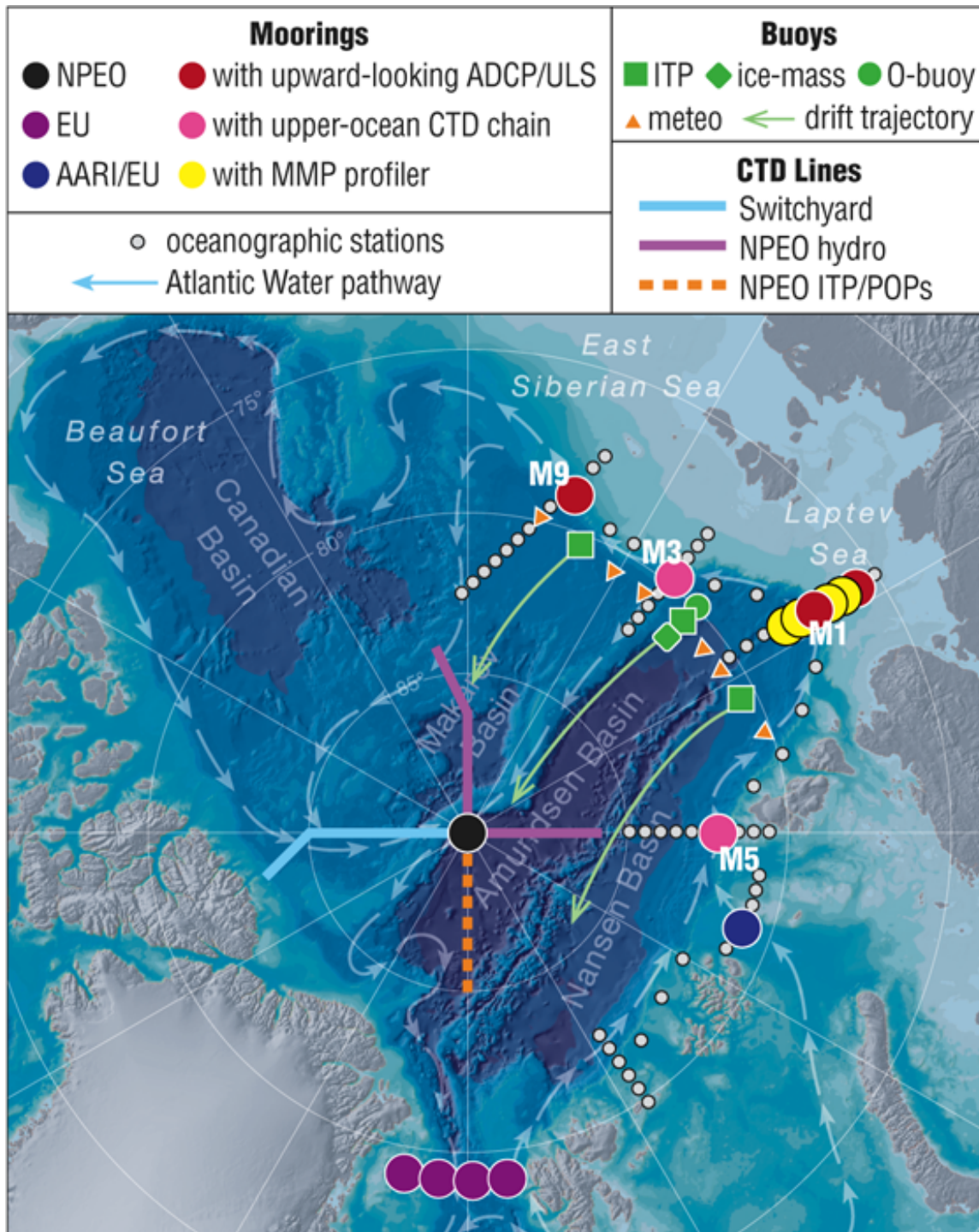


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Overarching goal of 2012-2017 study, as an element of the Arctic Observing Network is to compile a cohesive picture of climatic changes in the Eurasian and Makarov basins of the Arctic Ocean.