

OUC's effort to Physical Processes in Central Arctic

Jinping Zhao

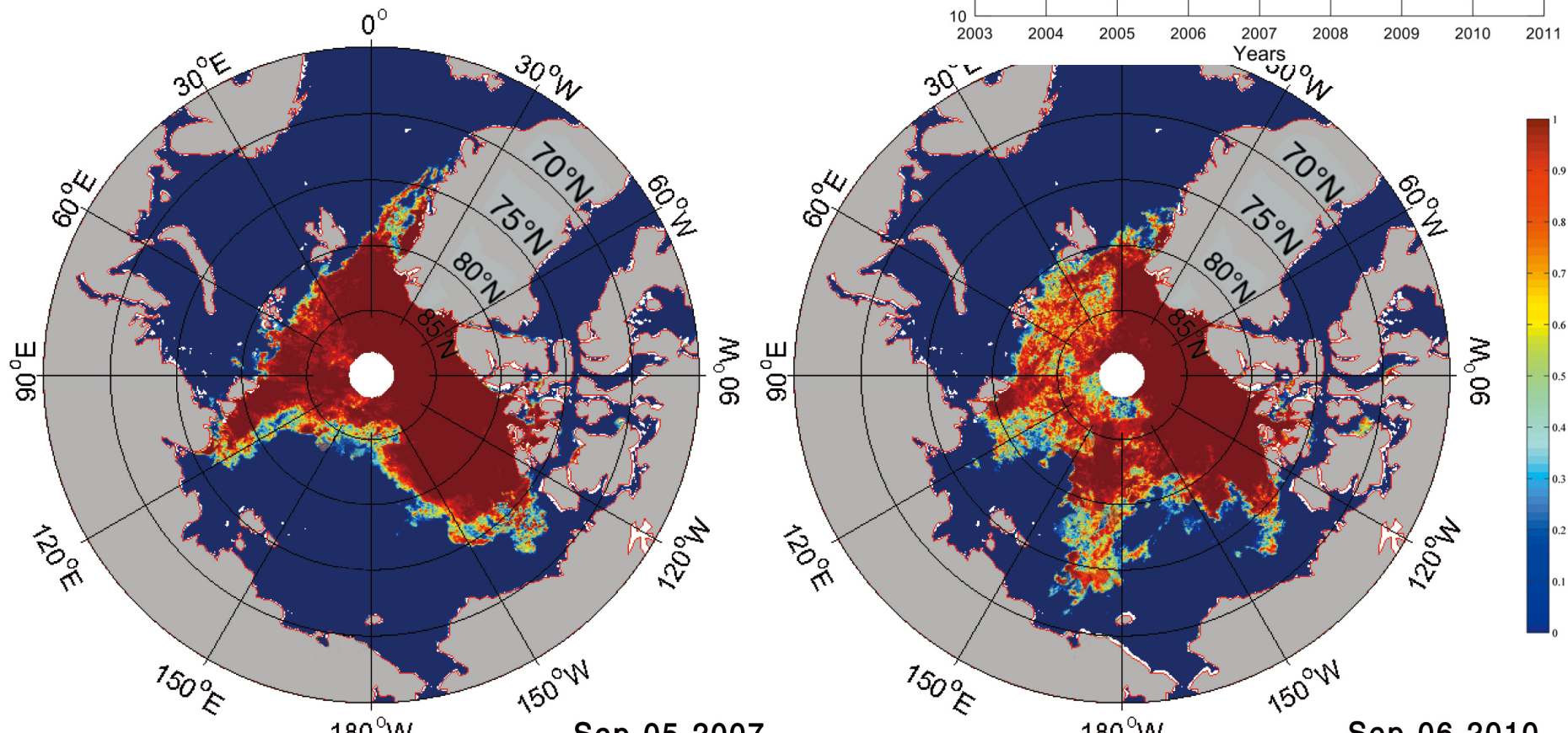
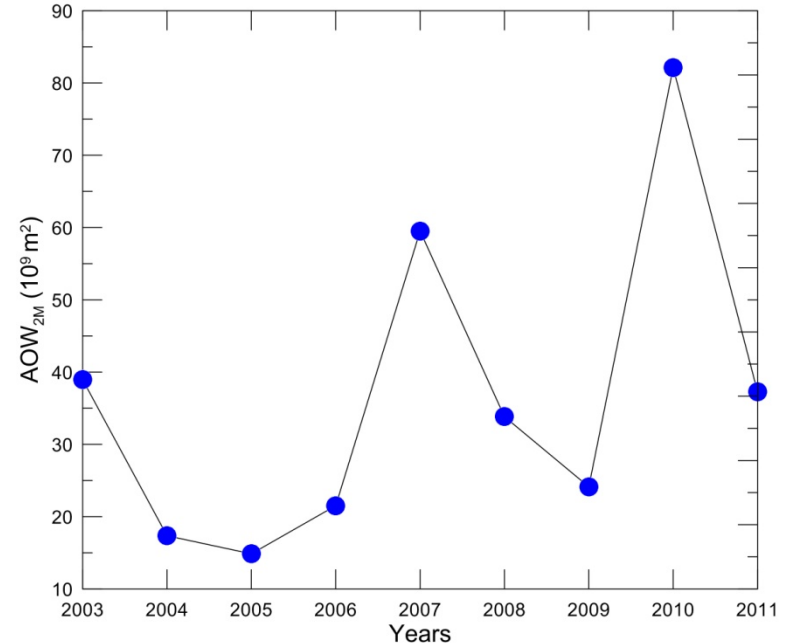
Key Lab for Polar Oceanography and Global
Ocean Change

Ocean University of China

OUC activities in the Arctic in 2014

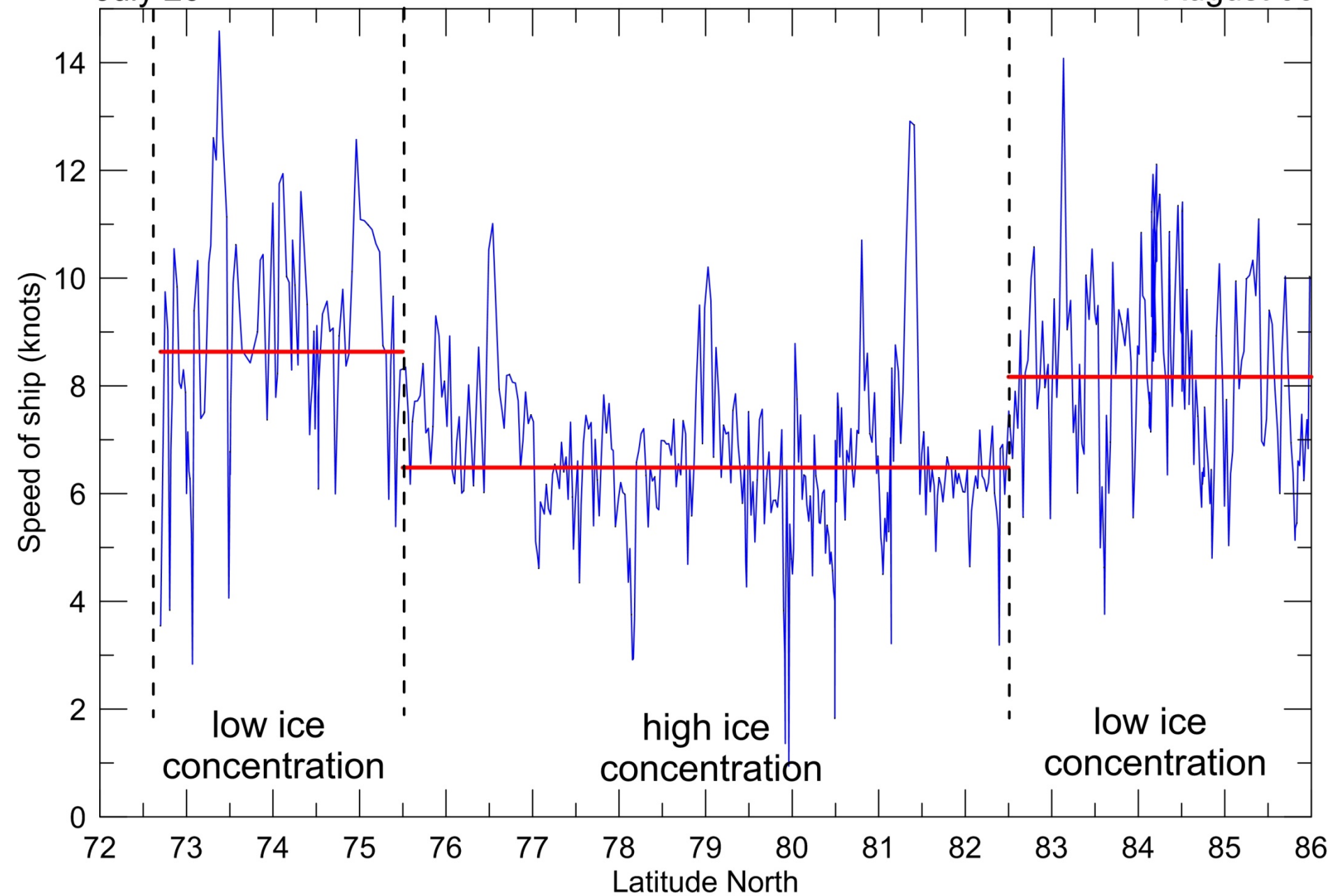
- Fog and sea ice observations in Barrow
- Chinese Arctic cruise
- Korean Arctic cruise
- Nordic Seas cruise

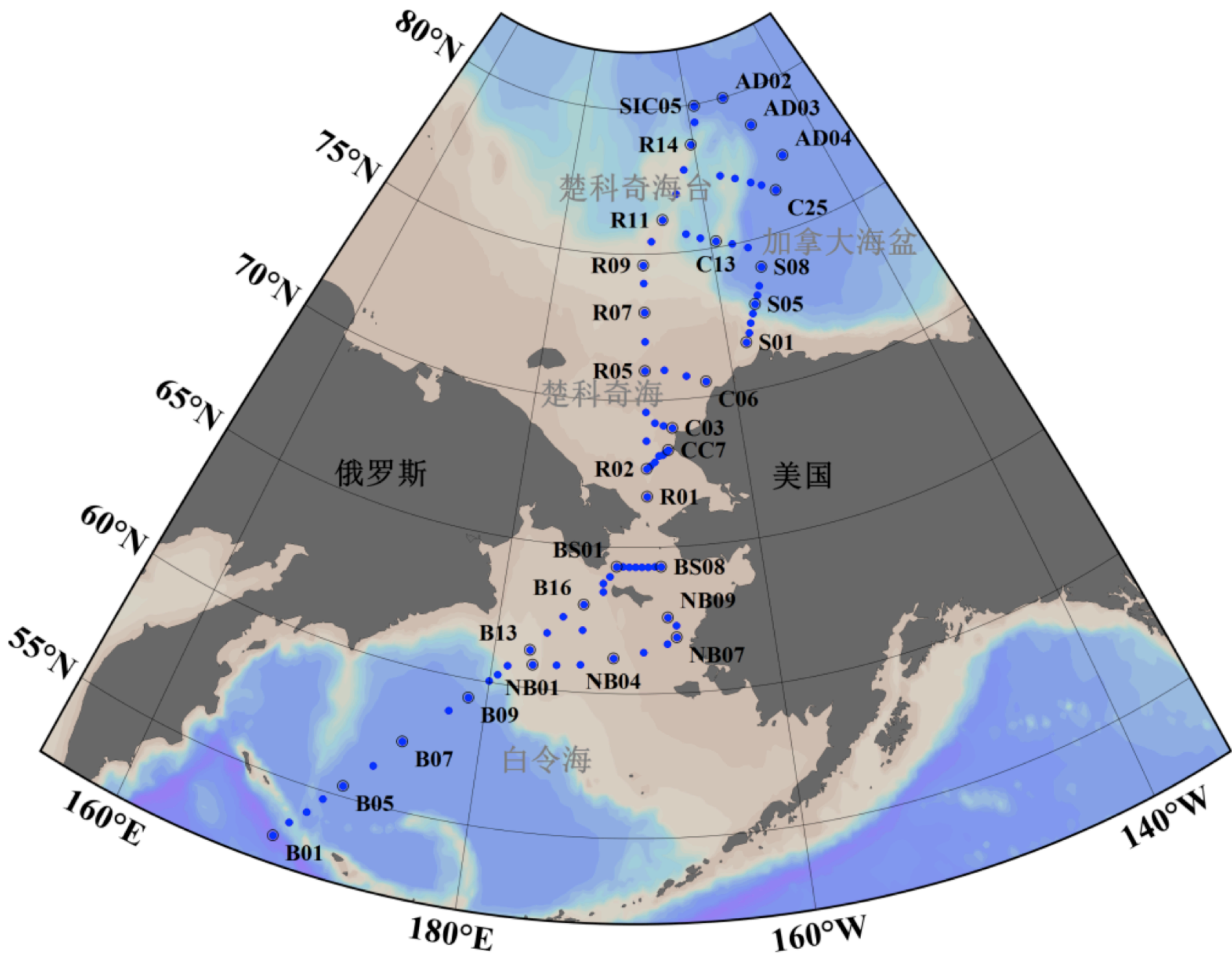
Record Low Sea Ice Concentration in the Central Arctic during the Summer of 2010



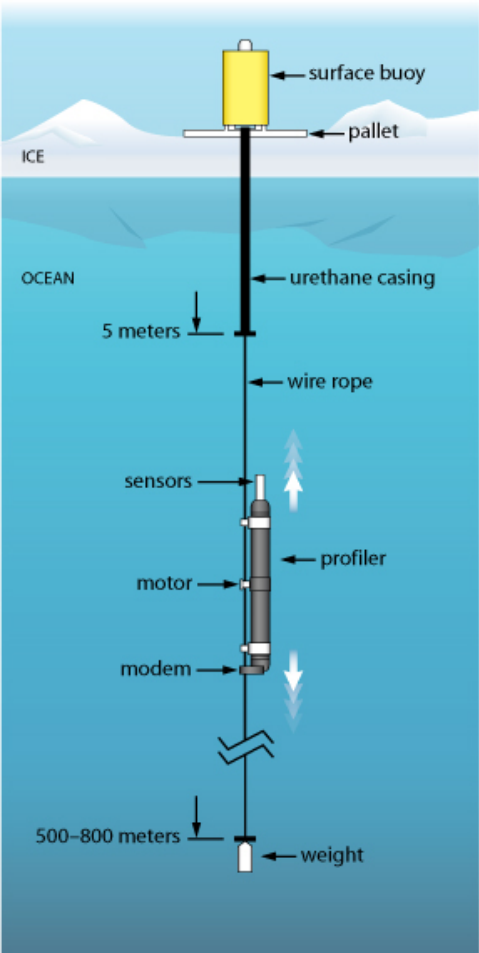
July 26

August 06

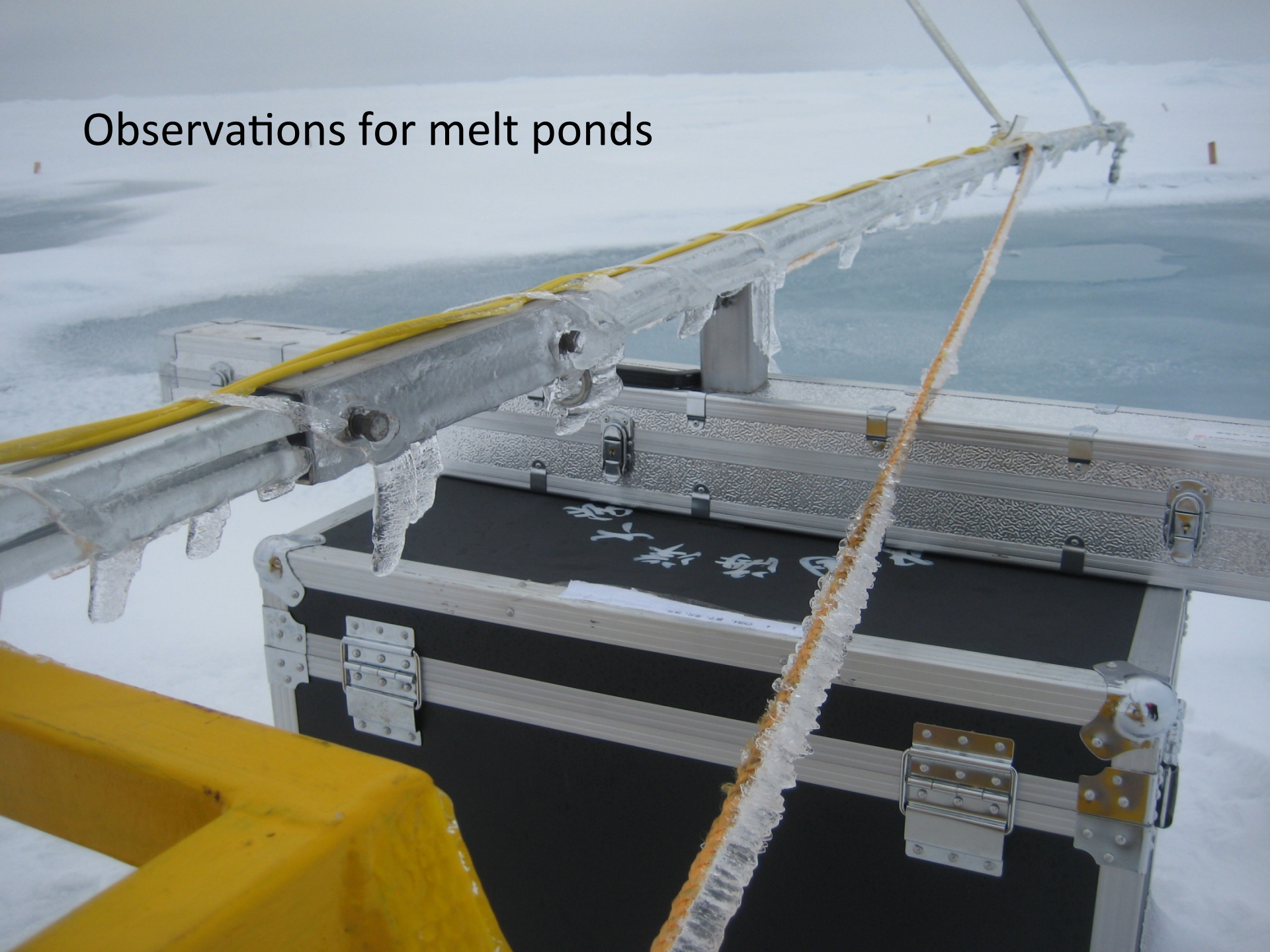




ITP – Collaborated with Woods Hole Institute



Observations for melt ponds



Sea ice optical observations



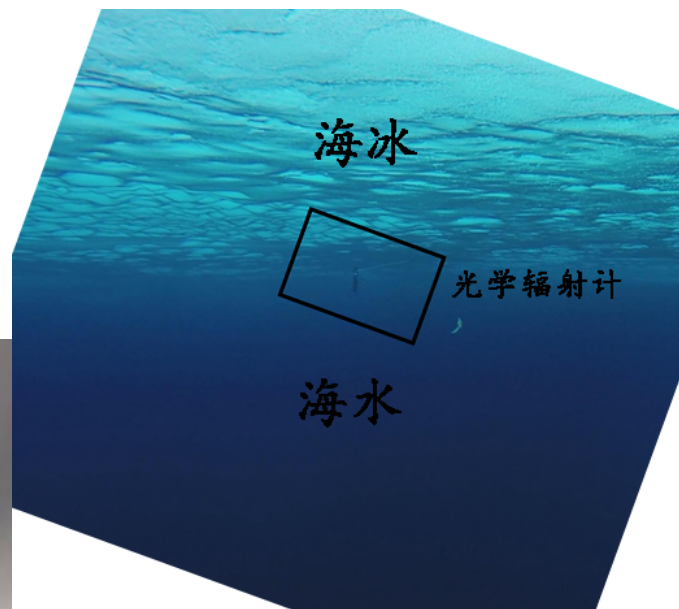
Optical scanning by ROV

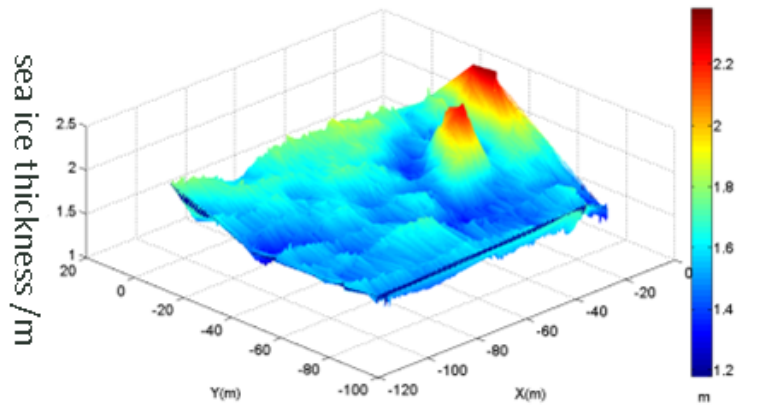
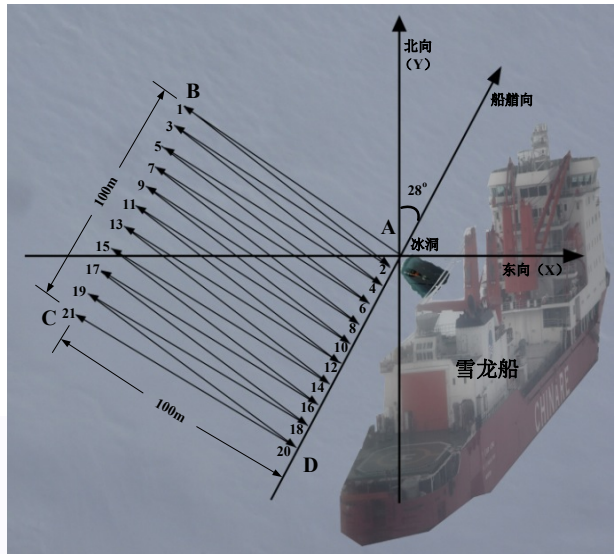
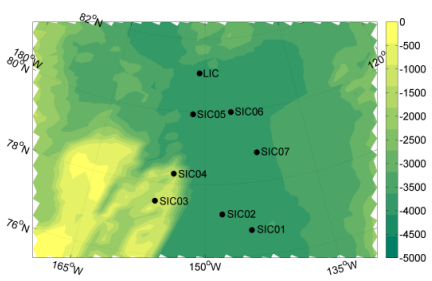


海冰

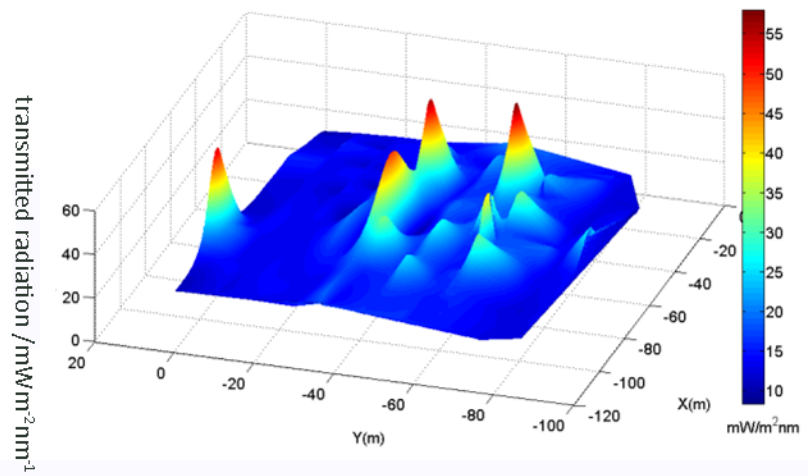
融池

海水



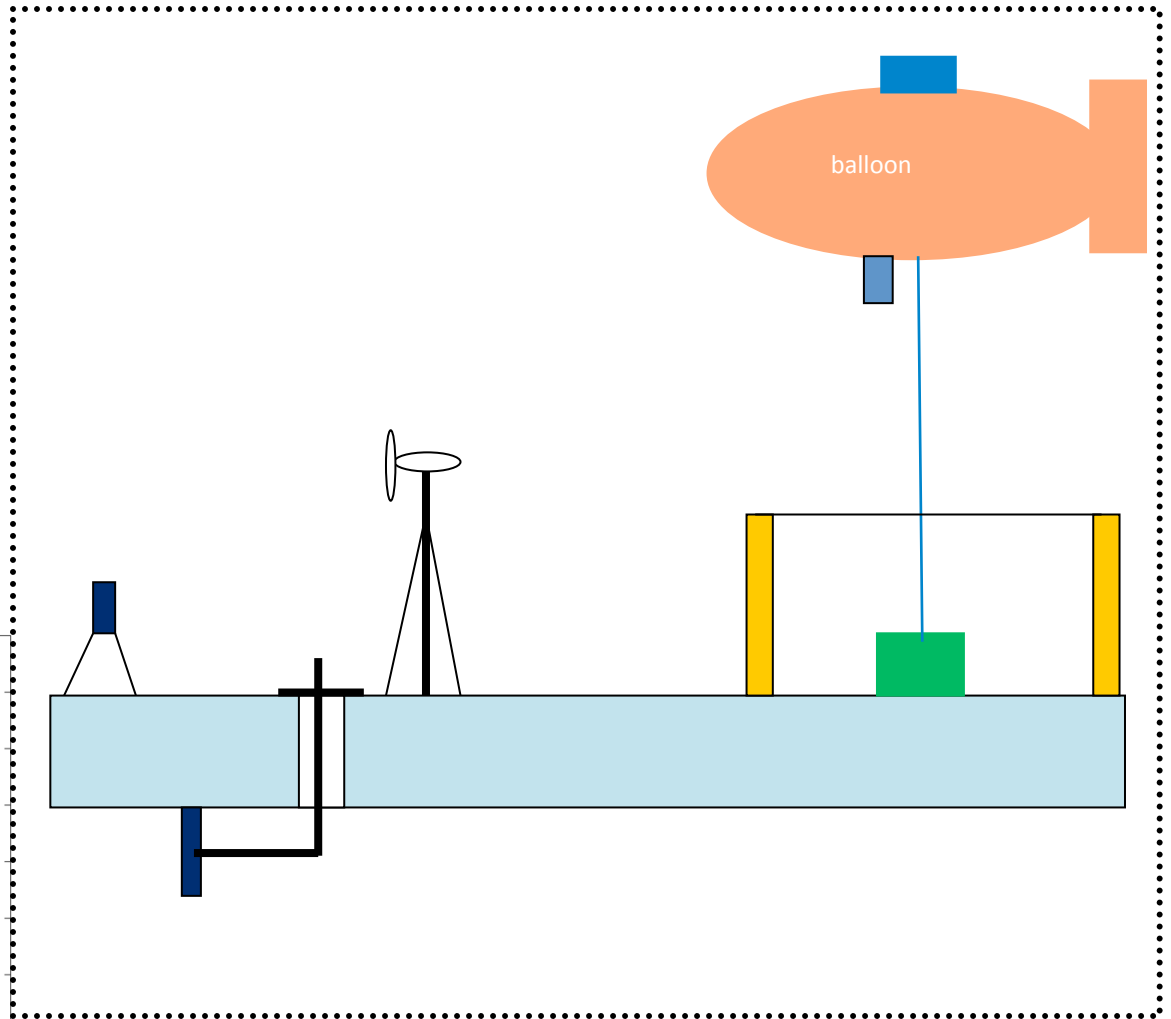
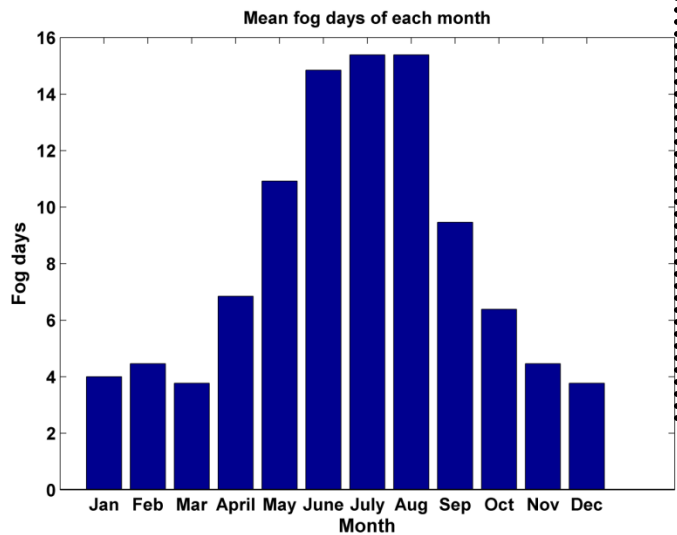


海冰厚度空间变化



海冰透射辐射空间变化

Joint observation for fog and sea ice

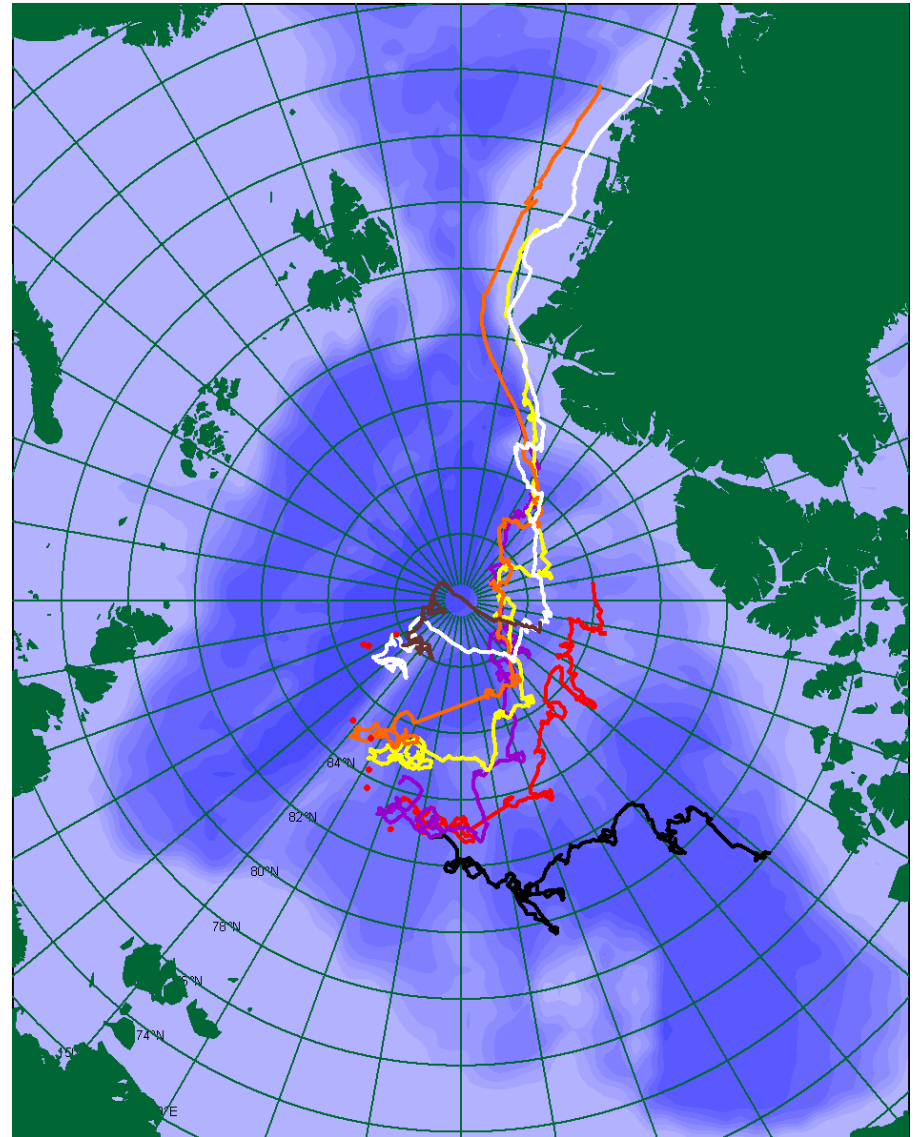




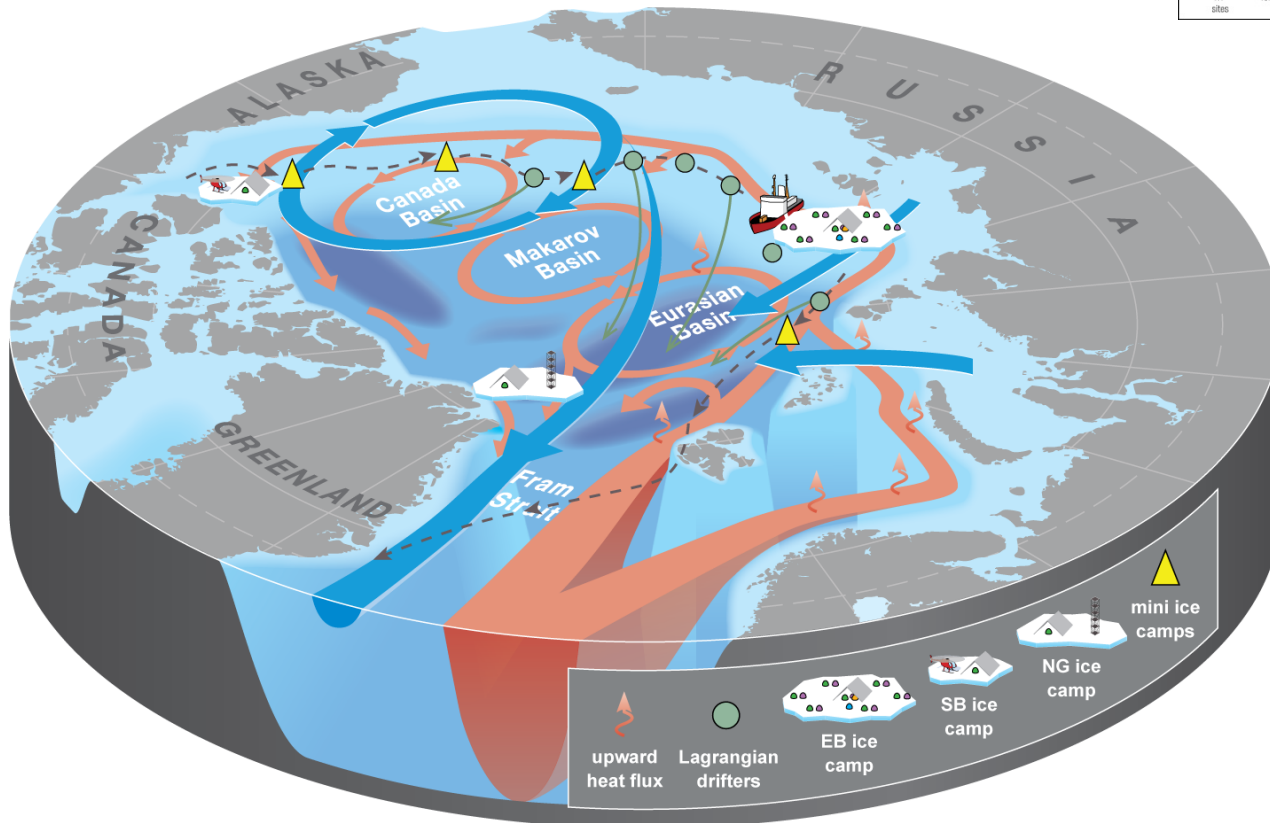
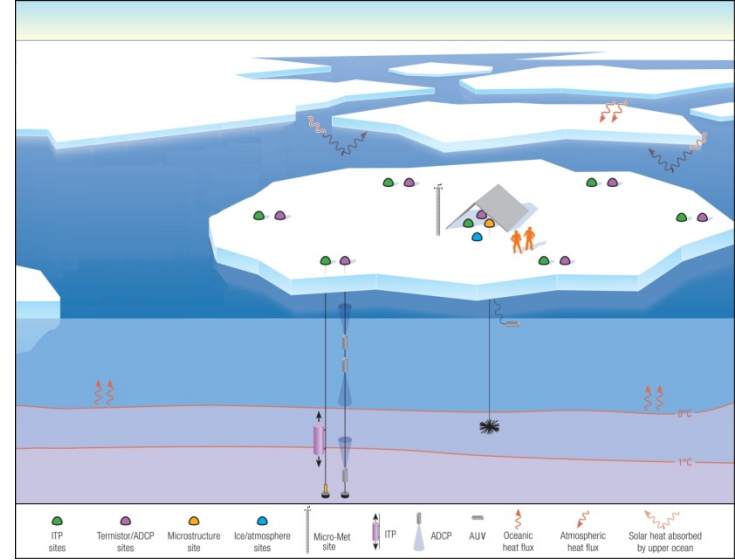
Drifting buoys

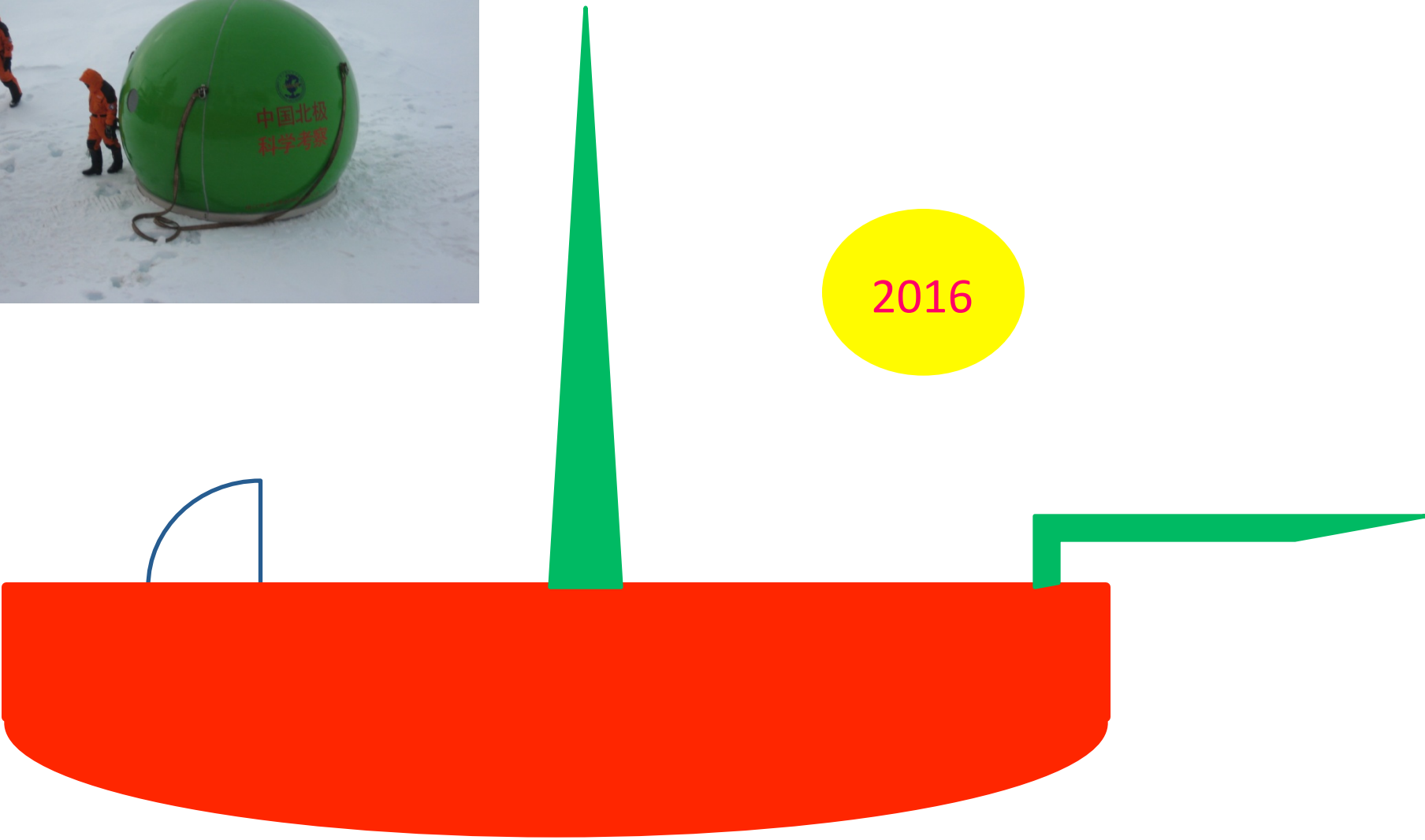
- We deploy 7 buoys in August of 2012
- 2 of them are still working

A energy accumulating technology has been applied to the buoys



Drifting programs

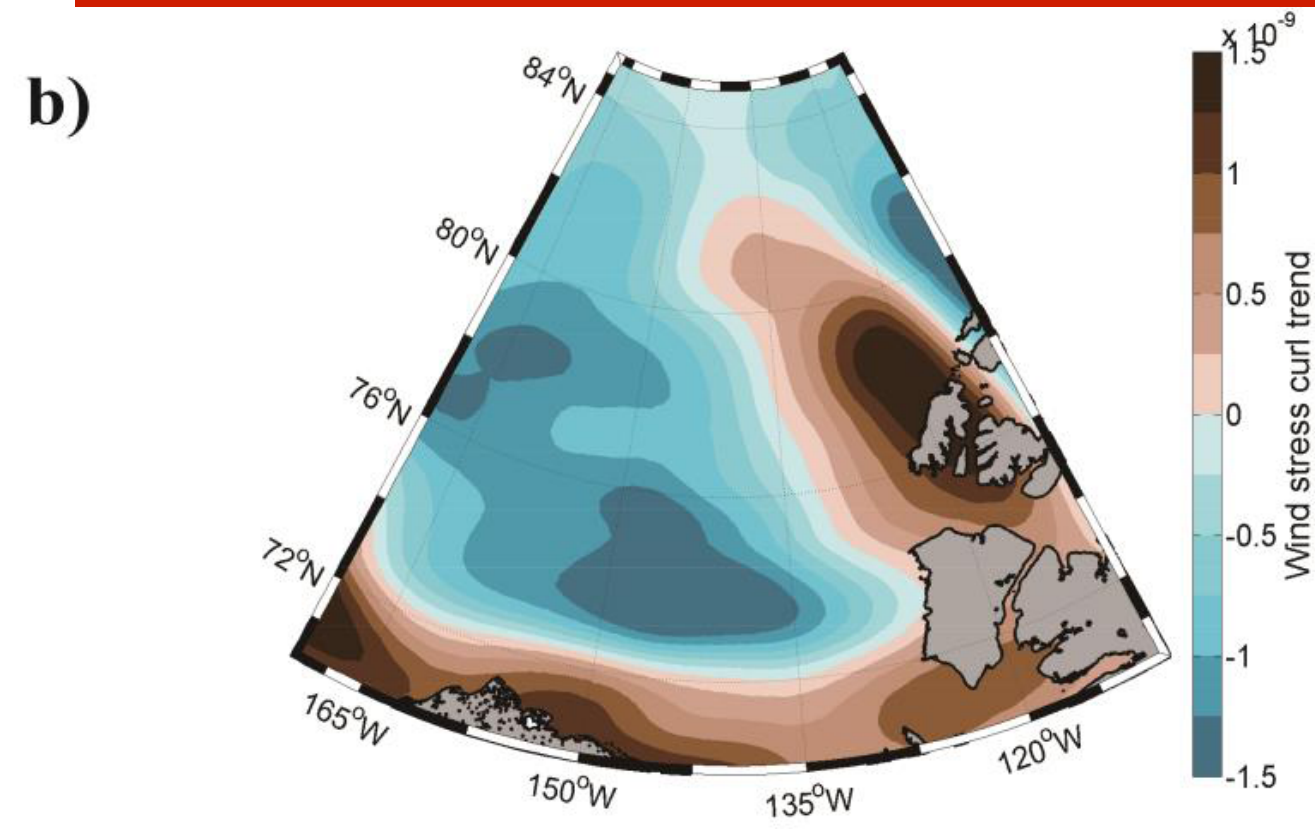


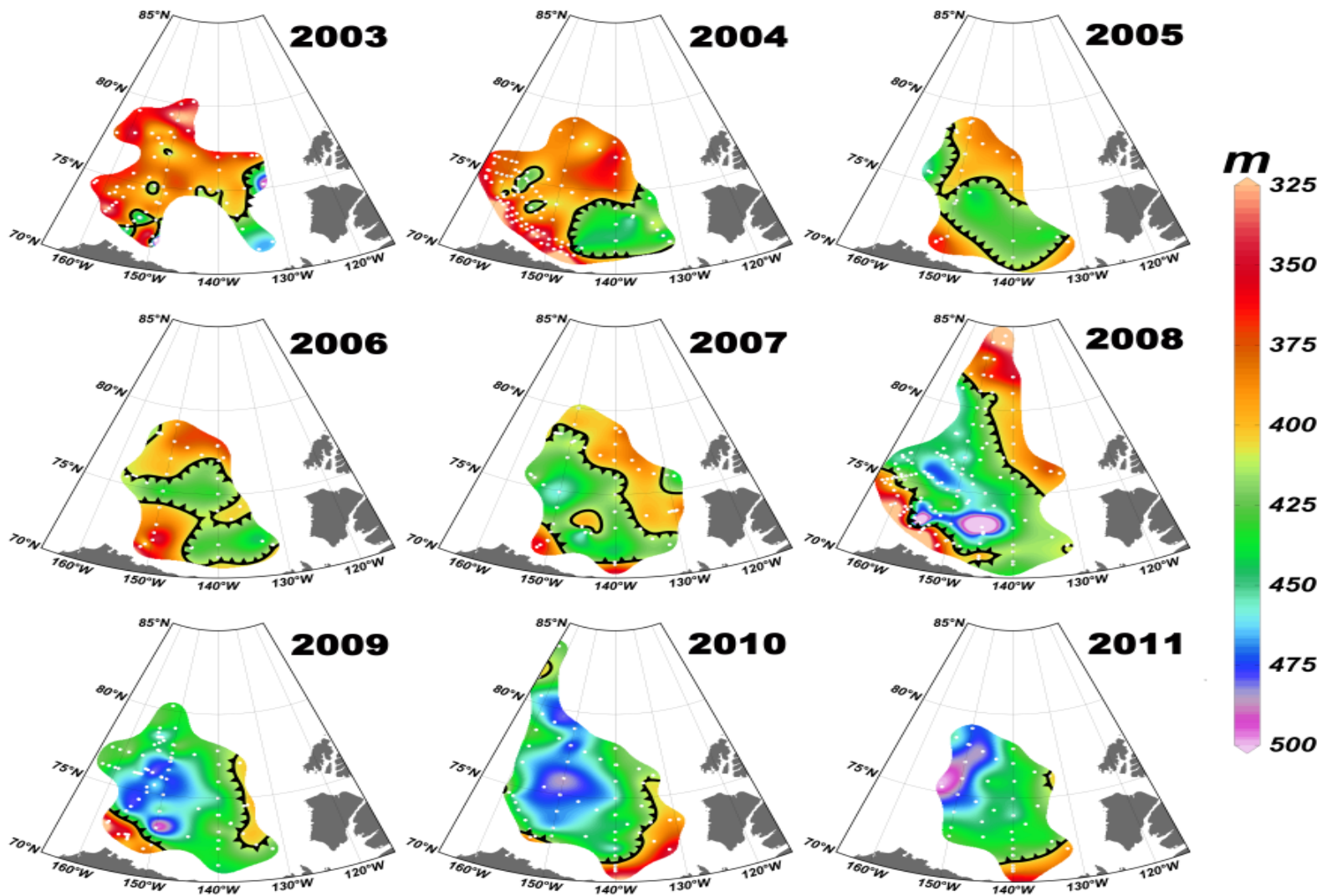


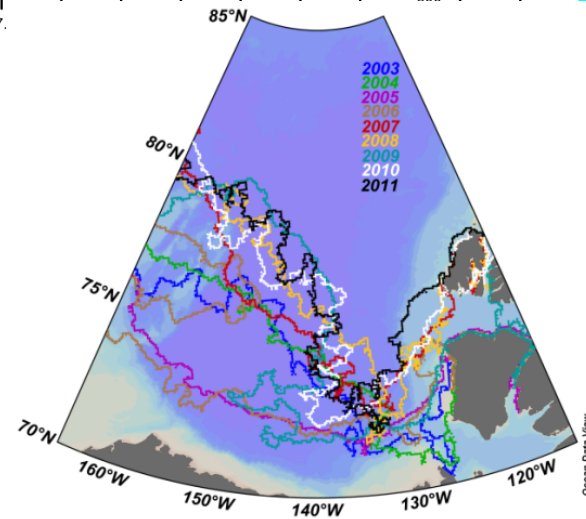
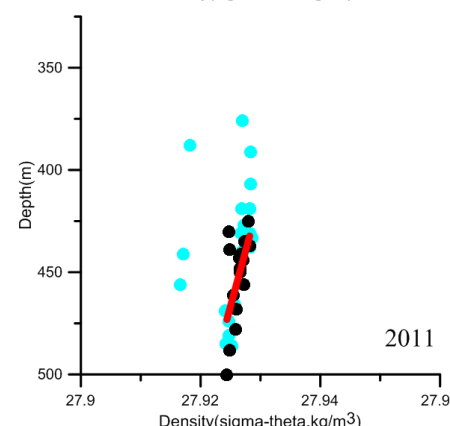
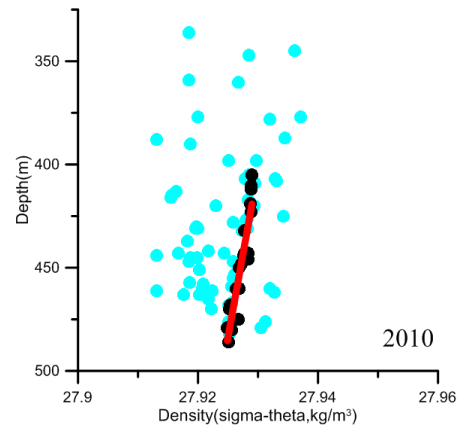
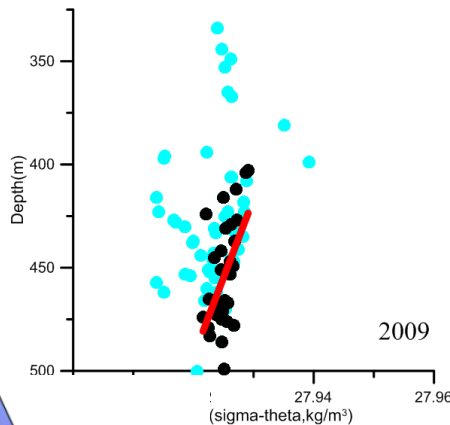
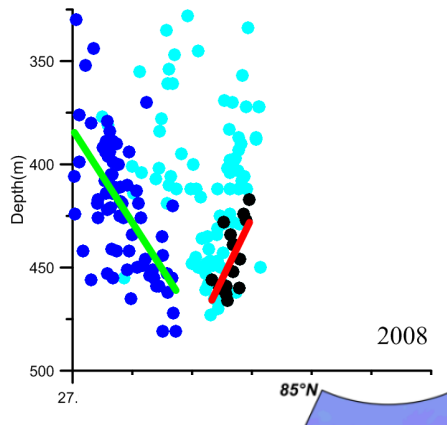
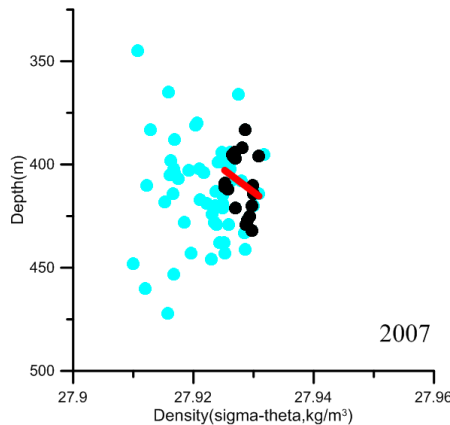
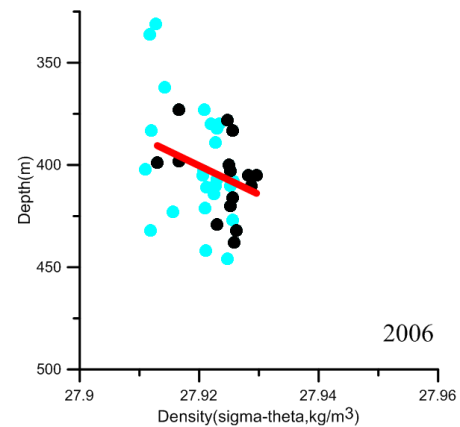
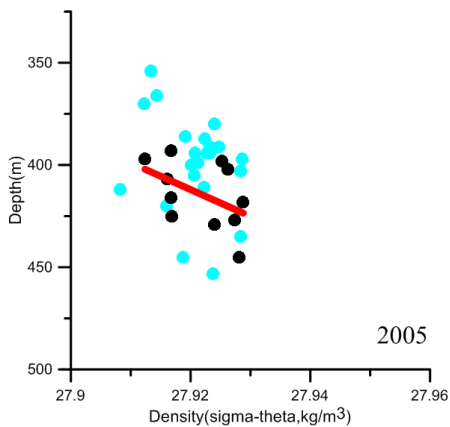
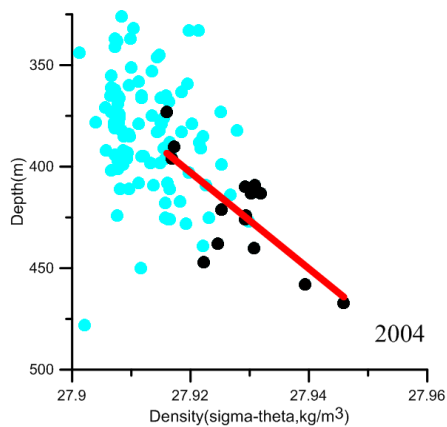
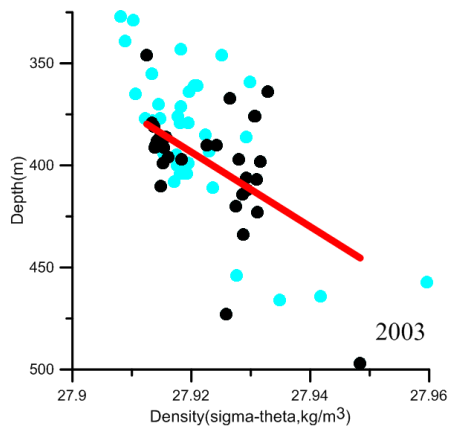
a)

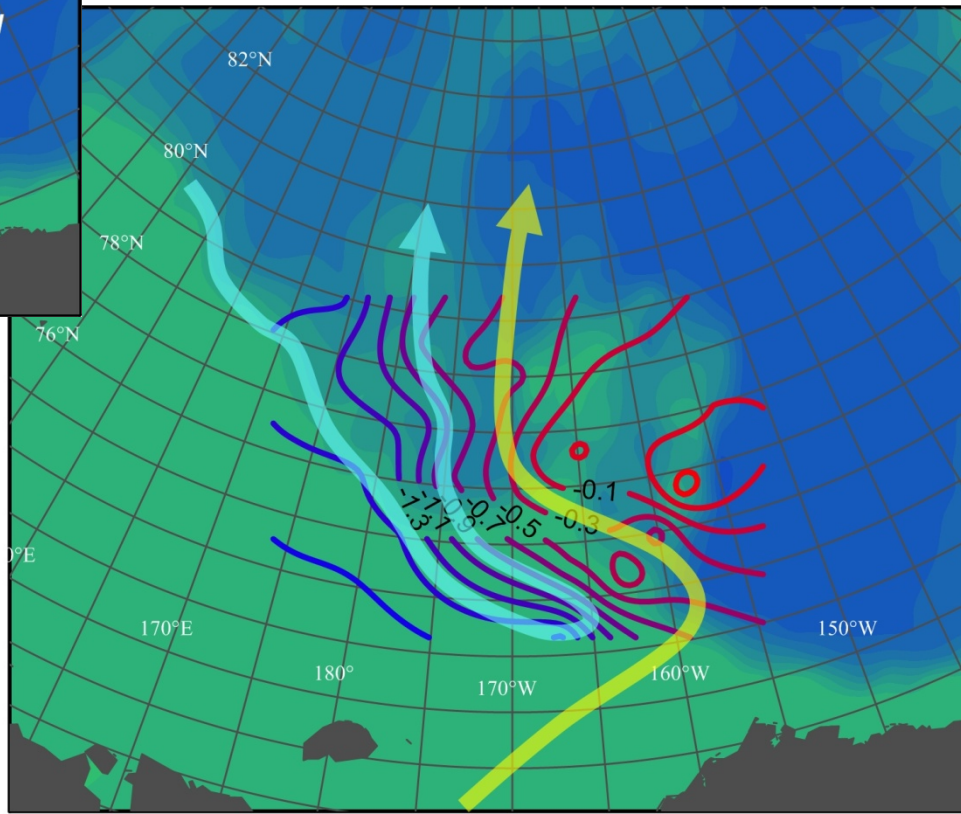
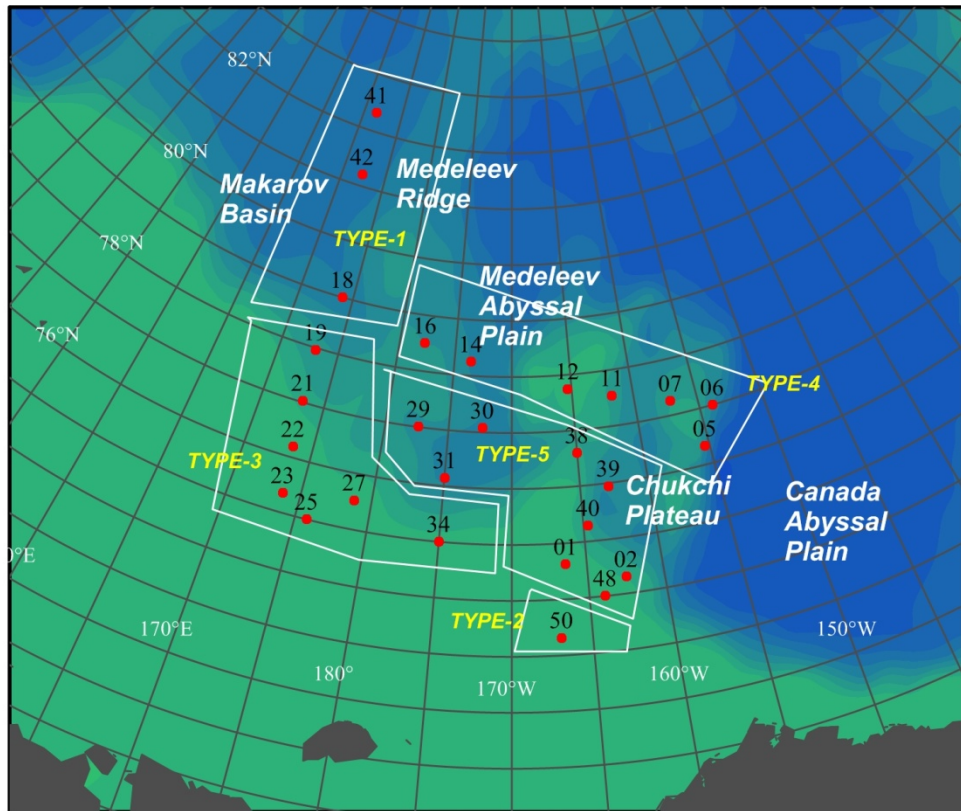
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Ocean circulation and water masses variation in Canadian Basin

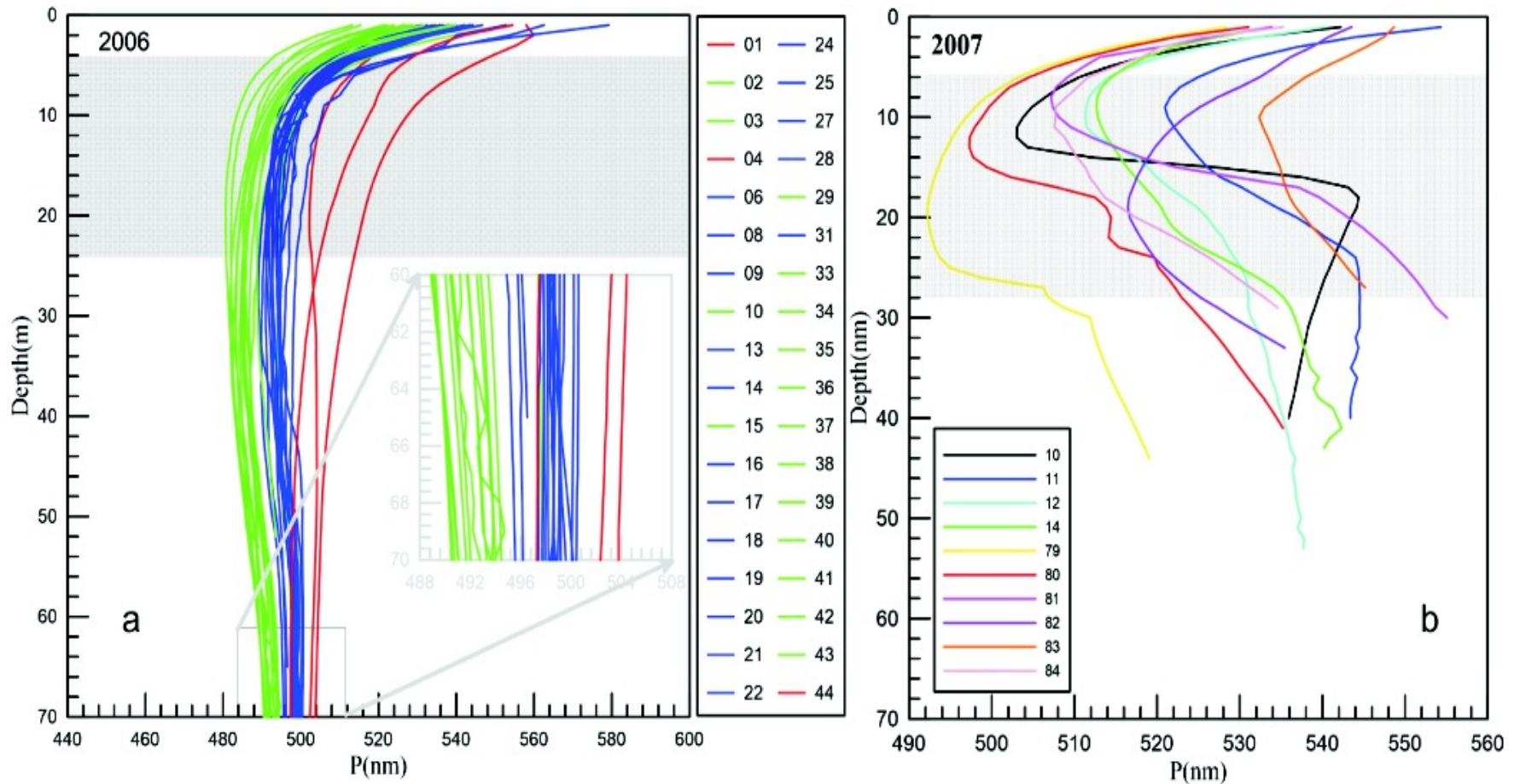
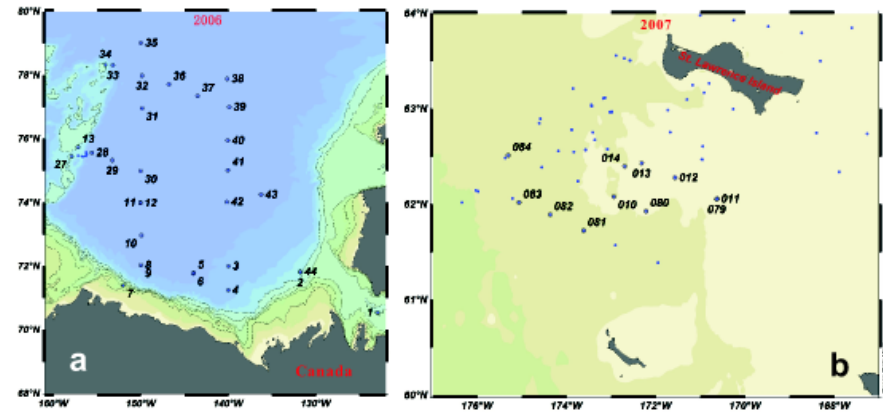








Principle wavelength



A new project

Global Change Research Program of China

Arctic Amplification and global climate effect
related to sea ice retreat in the Arctic