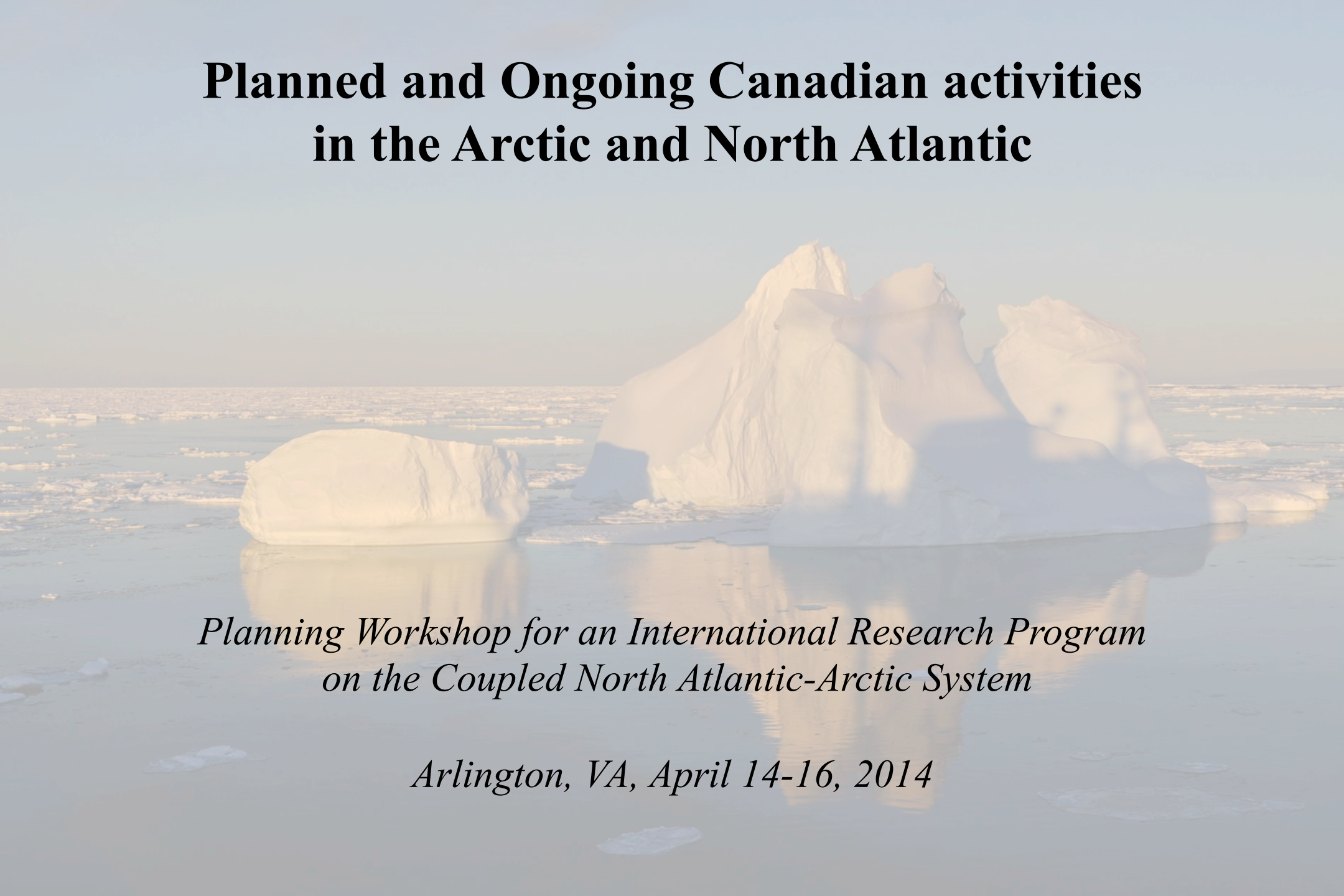
Planned and Ongoing Canadian activities in the Arctic and North Atlantic



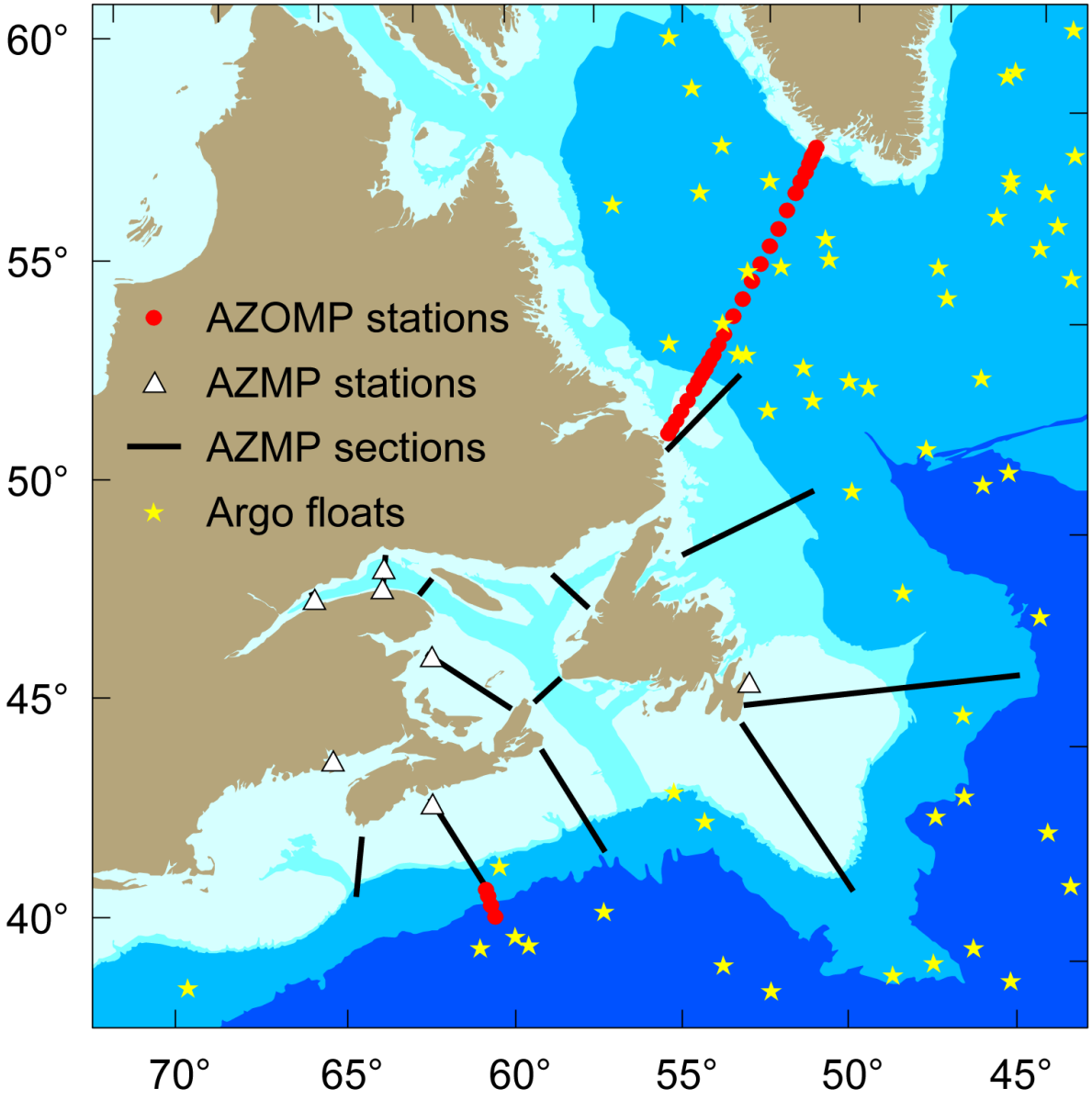
Planning Workshop for an International Research Program on the Coupled North Atlantic-Arctic System

Arlington, VA, April 14-16, 2014

The objective of **ArcticNet** is to study the impacts of climate change and modernization in the coastal Canadian Arctic. Collaborating nations include Denmark, Finland, France, Greenland, Japan, Norway, Poland, Russia, Spain, Sweden, the United Kingdom and the USA. 2004-2018

Climate Change and Atmospheric Research (CCAR): 3 programs (2013-2018)

Monitoring programs (Fisheries and Oceans Canada)



The objective of the Atlantic Zone Off-Shelf Monitoring Program (**AZOMP**) is to monitor variability in the ocean climate and plankton affecting regional climate and ecosystems off Atlantic Canada and the global climate system.
Since 1990

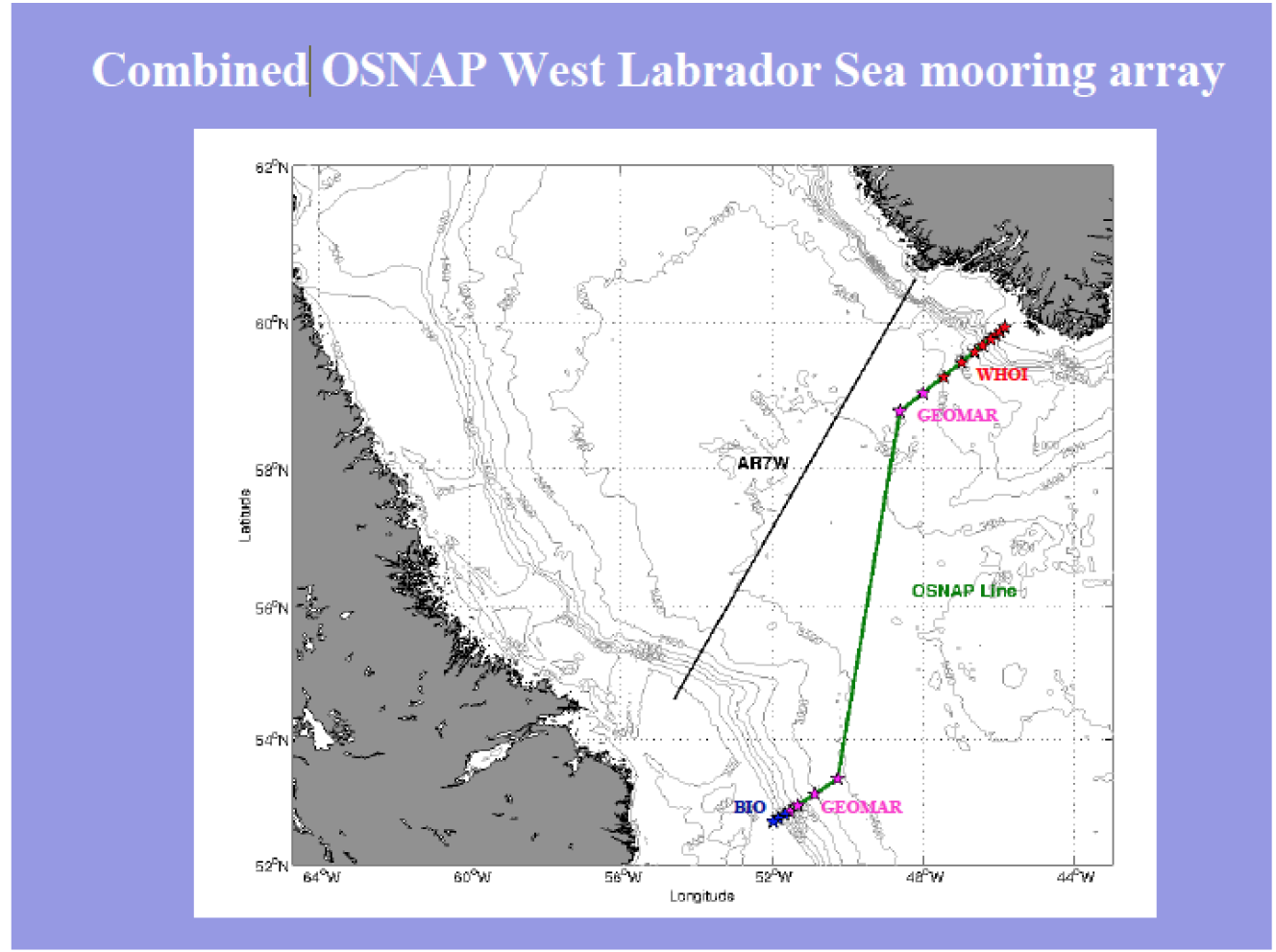
The main objectives of **AZMP** are twofold: (1) to collect and analyse biological, chemical, and physical data to characterise and understand the causes of oceanic variability at the seasonal, interannual: and decadal scales; and (2) to provide the multidisciplinary data sets that can be used to establish relationships among the biological, chemical, and physical variability.
Since 1999

Participation to International Programs

OSNAP
PIs: Blair Greenand
Brad de Young

ARGO
PI: Denis Gilbert

Carbon Bridge
PI: JE Tremblay



Redfish Survey (Dalhousie University/Iceland)

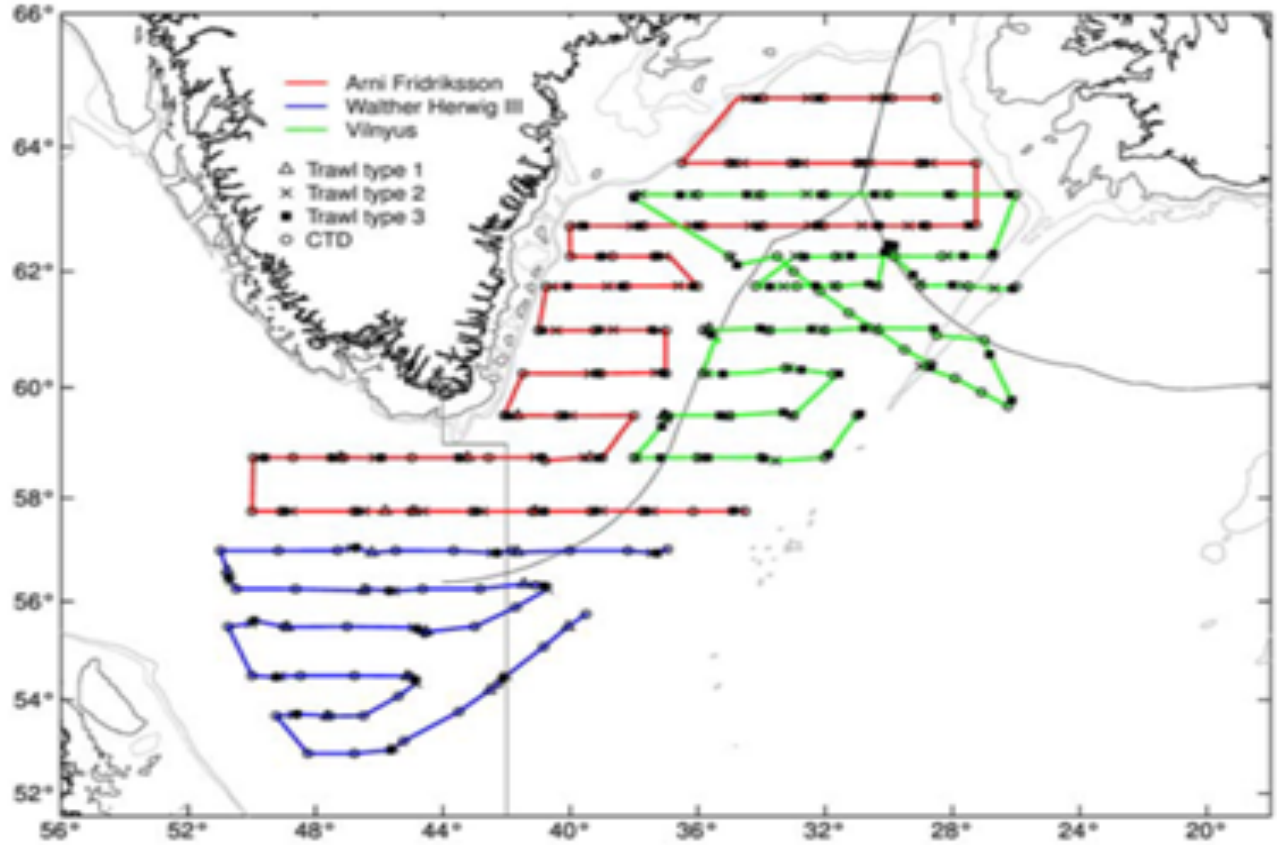
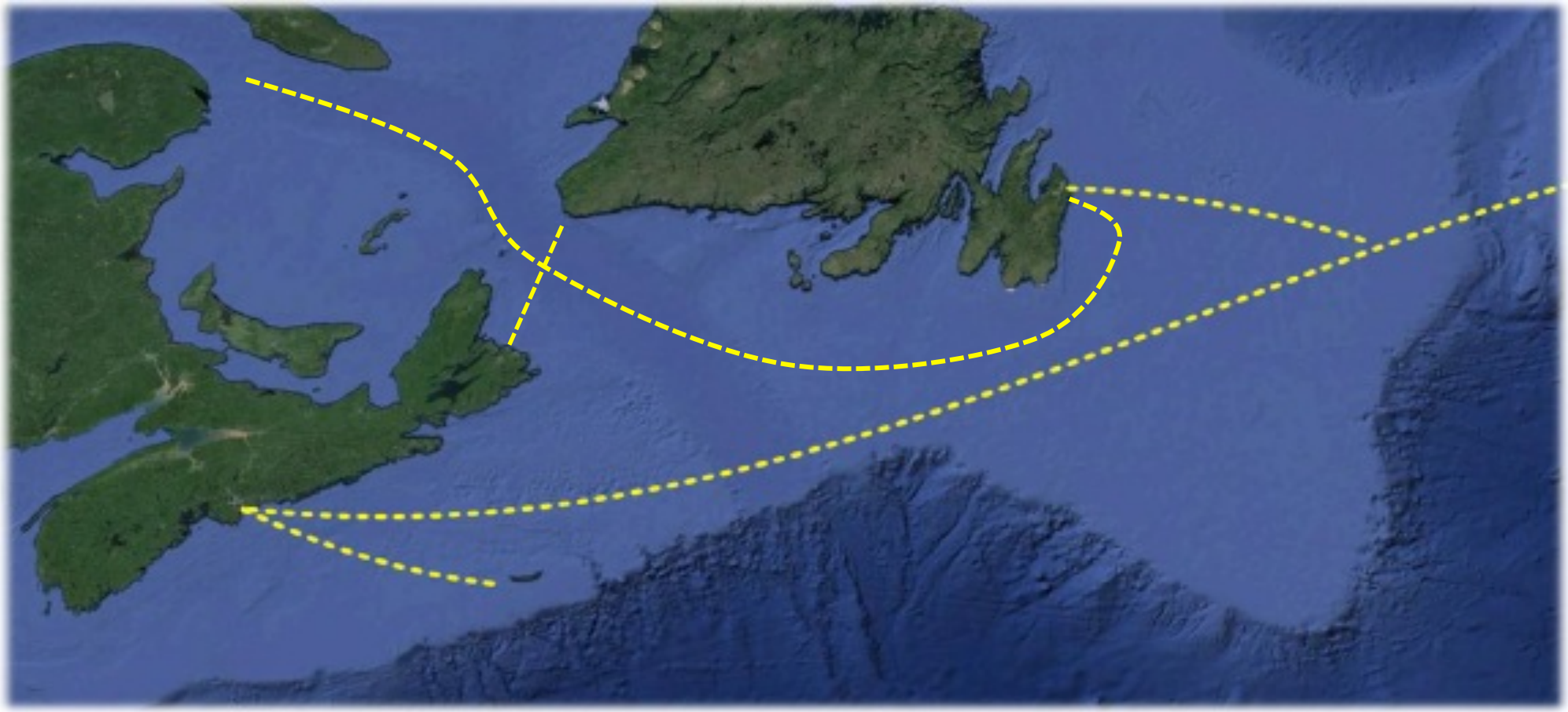


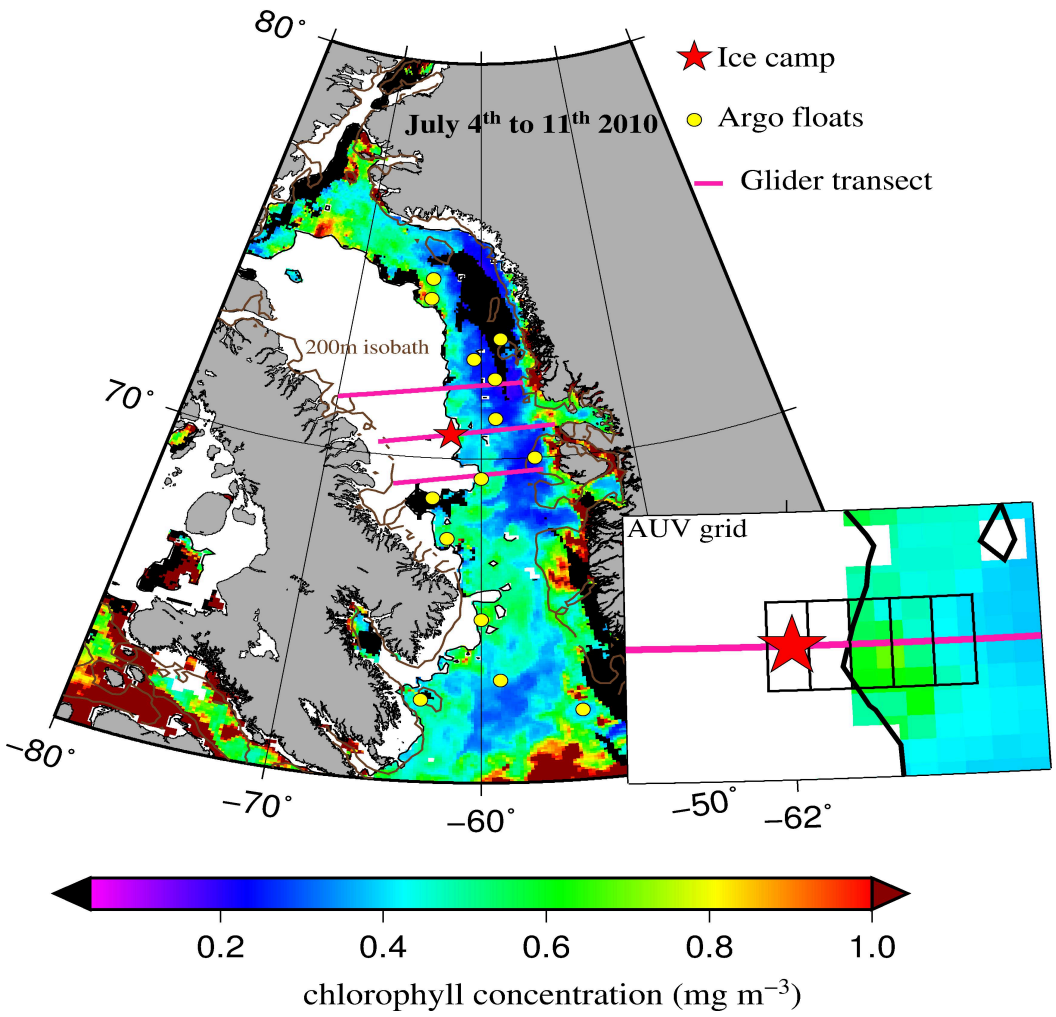
Figure 1. Cruise tracks and stations taken in the joint international redfish survey in June/July 2013.

Physical and chemical water-column parameter, every second year. Next one in 2015



Atlantic Canada VOS routes

GreenEdge (planning stage)



An international, multi-platform study of the spring bloom at the ice edge (2016)

Lead PI: Marcel Babin

1. Detailed description and understanding of spring bloom dynamics
2. Transfer through food web and toward bottom
3. Current trends in the spring bloom (remote sensing)
4. Spring bloom in the past (paleoceanography)
5. Spring bloom in the future (modeling)

Funding sources:

- Support from ArcticNet and CERCs
- France (ANR, CNES, CNRS)
- Canada (CSA, NSERC)
- USA (NASA, NSF)

Baffin Bay/Labrador Sea Observatory

Assess and monitor the impact of changing Arctic throughflows and Greenland melt on biogeochemistry, ecosystem productivity and LSW formation (to be developed and coordinated internationally)

- Bio-Argo floats (20 secured)
- Bio-gliders (2 secured)
- Remote sensing (secured)
- Underwater positioning system
- Biogeochemical moorings
- Amundsen surveys
- Operational coupled modeling