


Arctic Observation Programs

A group of brown bears is resting on a large, flat ice floe in the middle of a blue, icy sea. The bears are clustered together, some lying down and others sitting up. The surrounding water is filled with numerous smaller ice floes of various shapes and sizes, creating a textured, white and blue landscape. The sky is a pale, clear blue.

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Institute of Ocean Sciences
Fisheries and Ocean Canada**

JWACS



Joint Western Arctic Climate Study

Canada - Japan collaboration, 1999-2007

Hydrographic surveys and mooring program in
southern Canada Basin

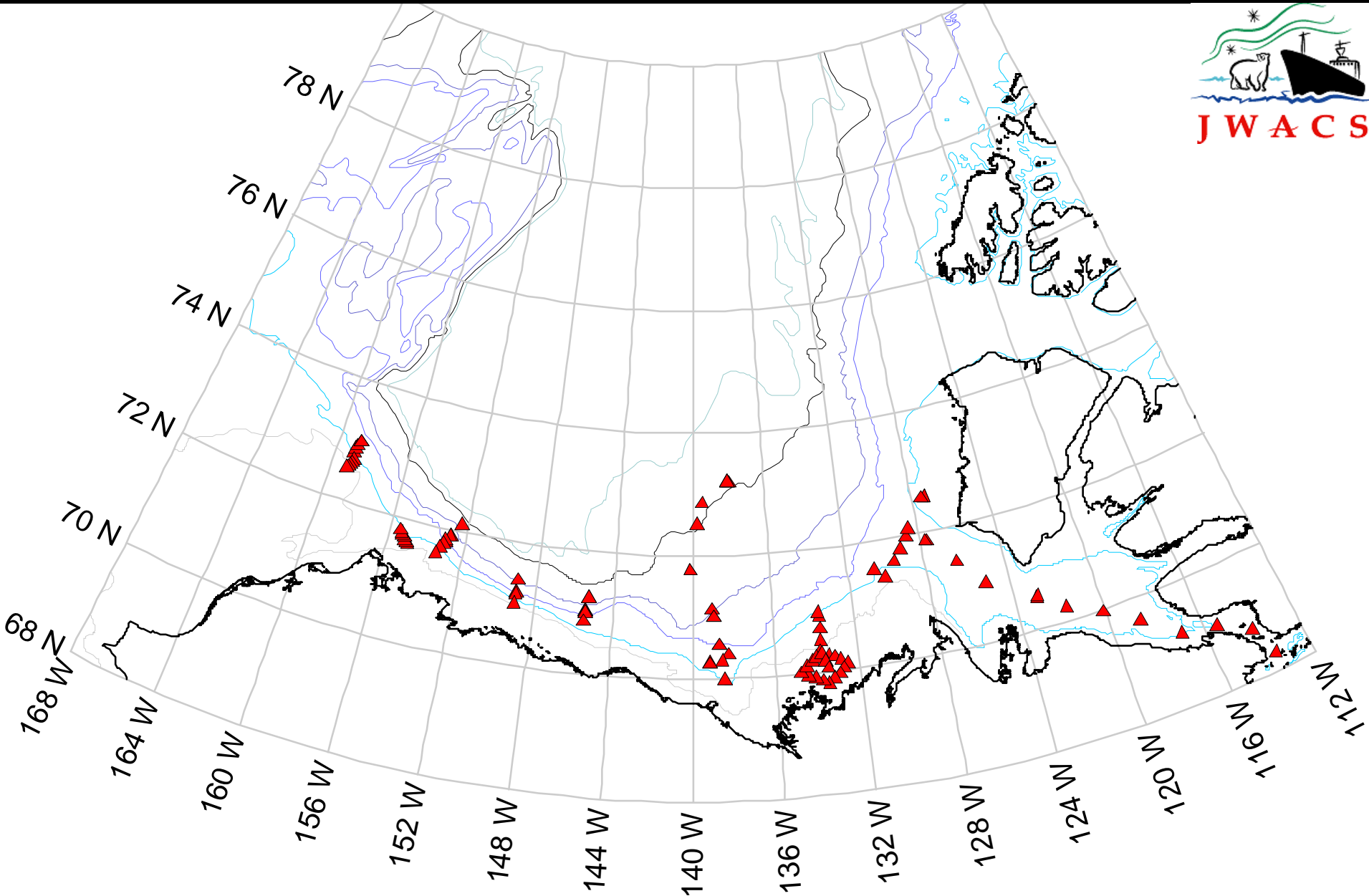
CCGS Sir Wilfrid Laurier



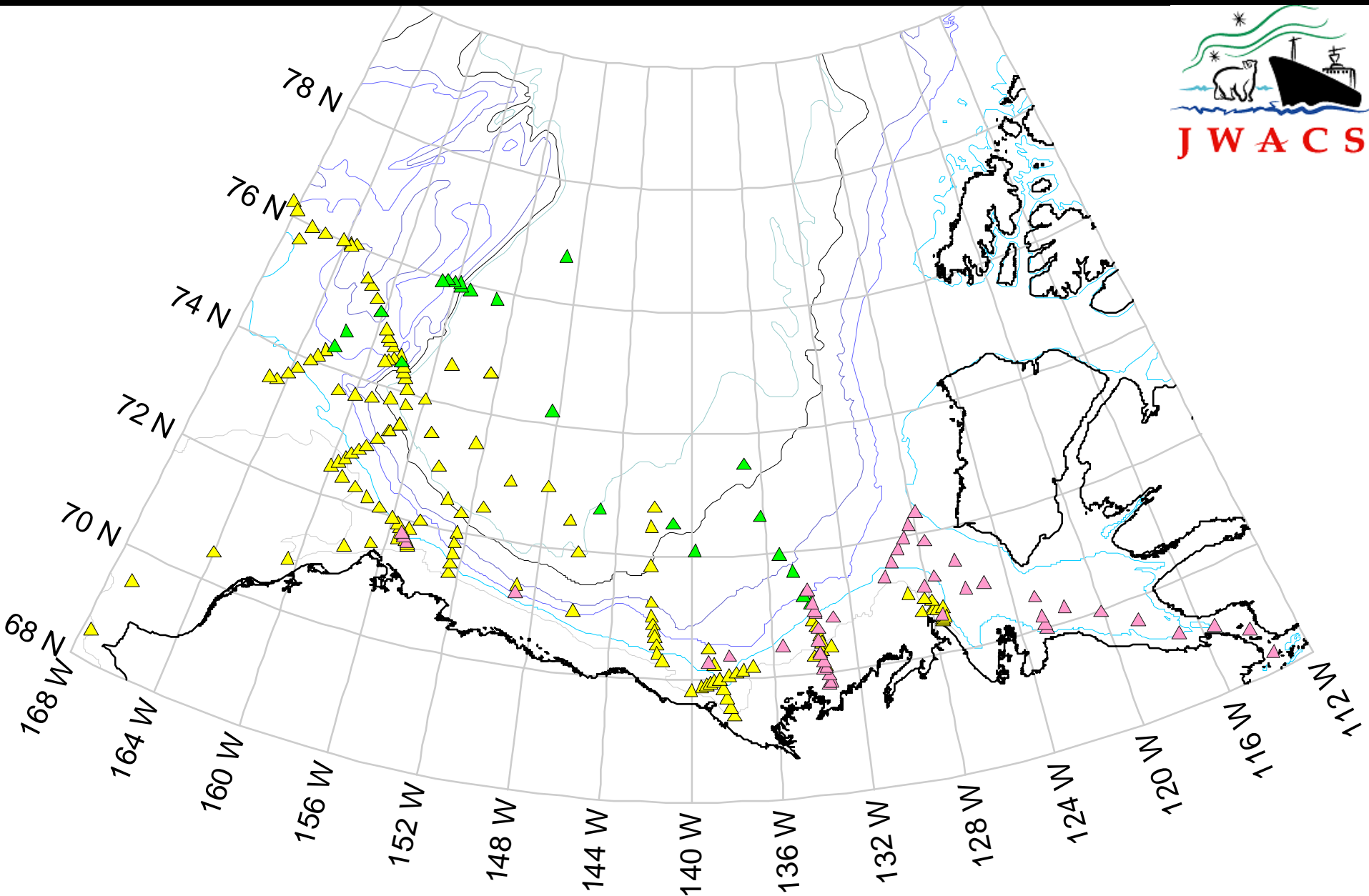
CCGS Louis S. St-Laurent



2001



2002: three ship program



BGEP

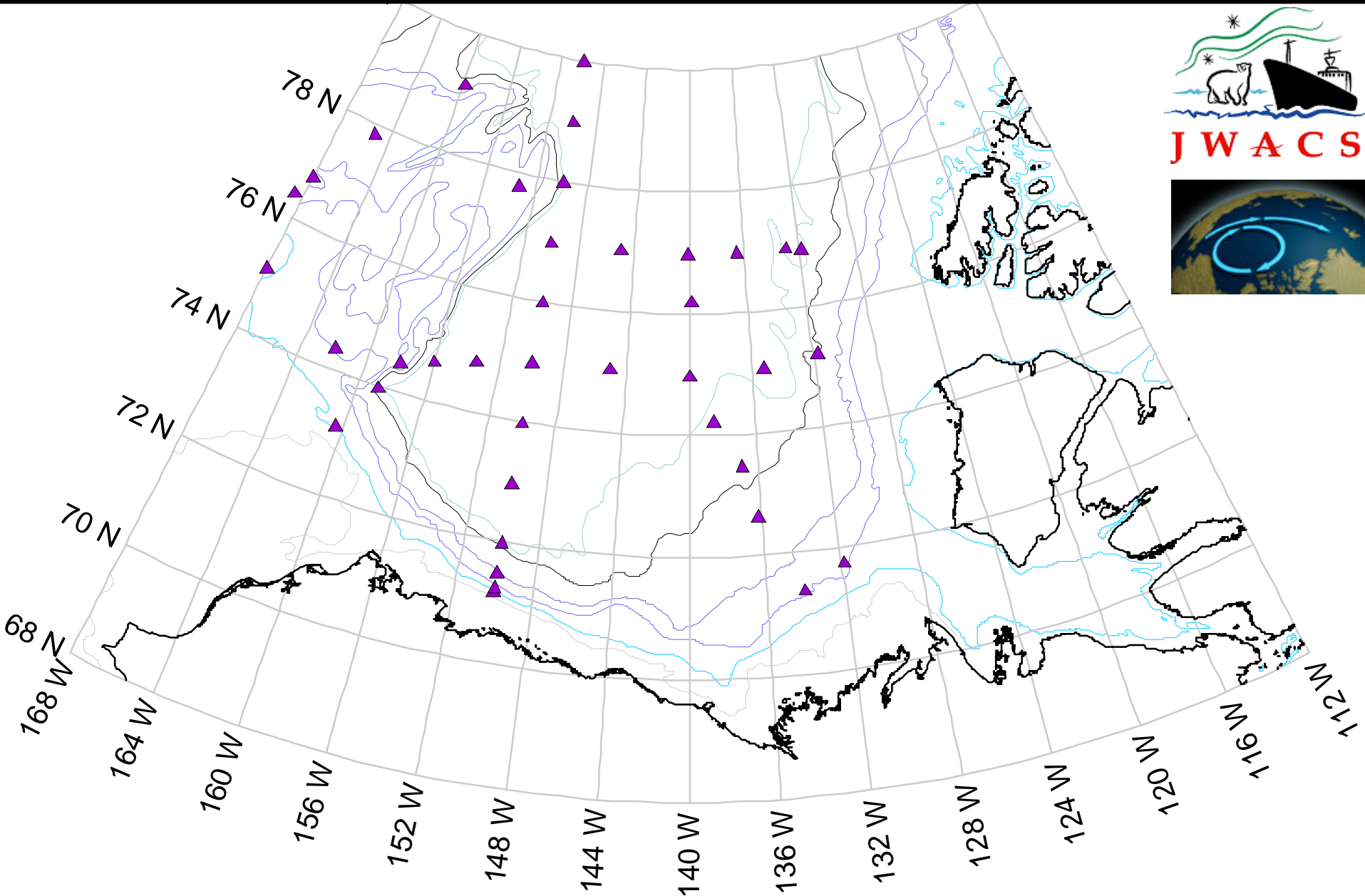


Beaufort Gyre Exploration Project, 2003-

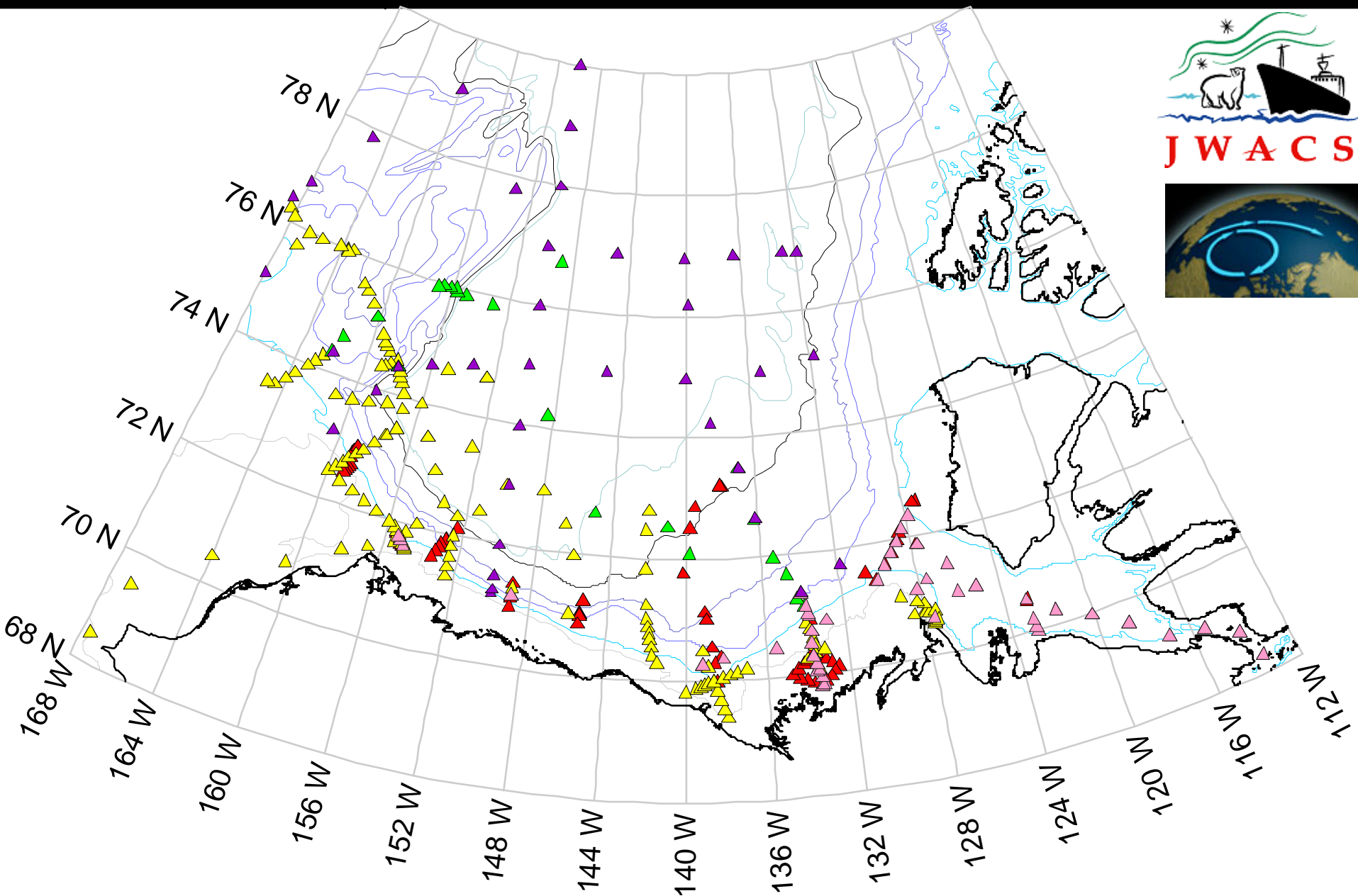
Canada – US collaboration

Moorings and hydrographic surveys

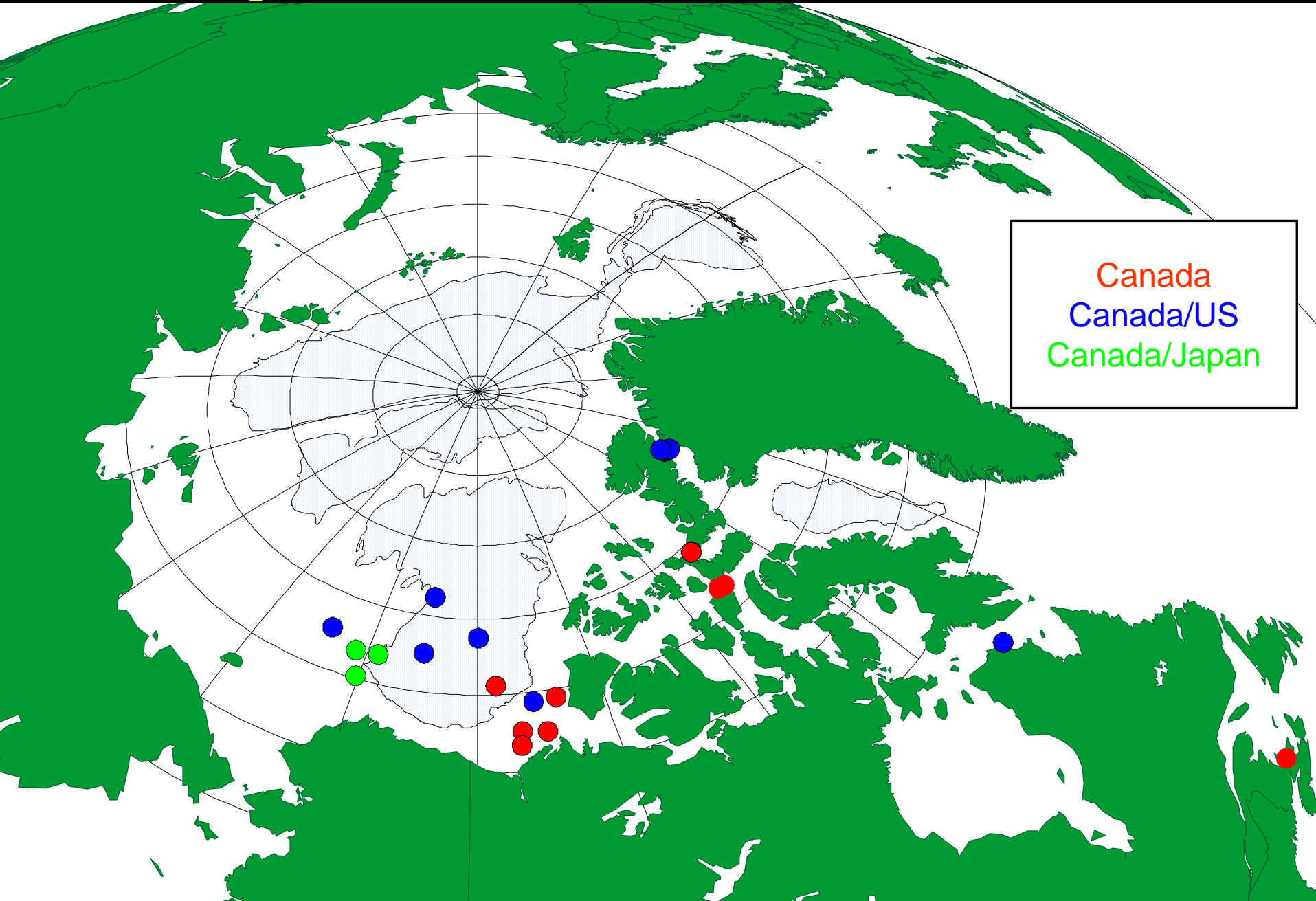
2003



2001, 2002, 2003

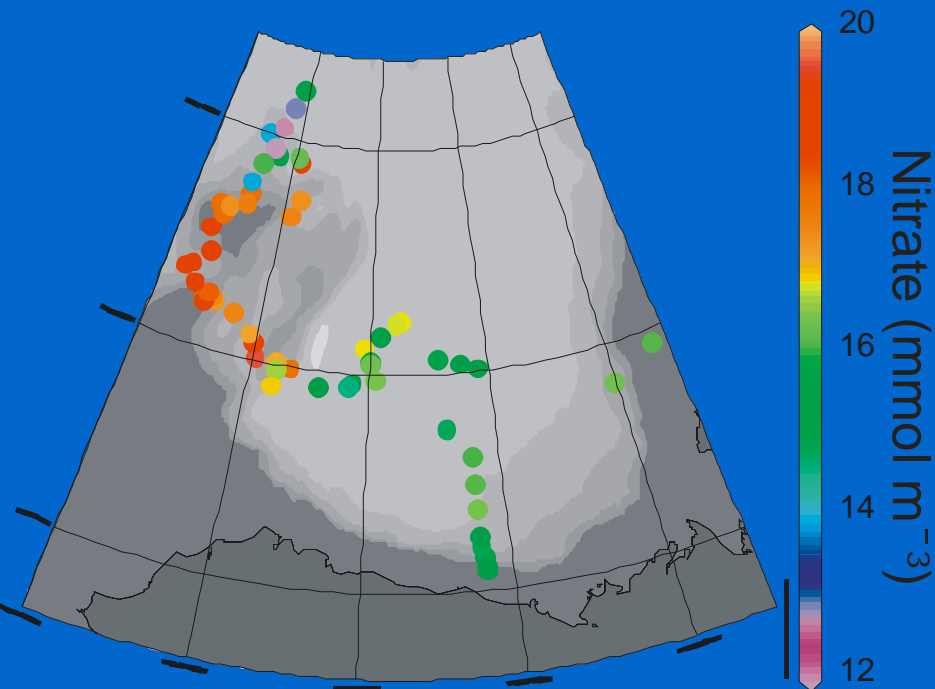


Mooring locations

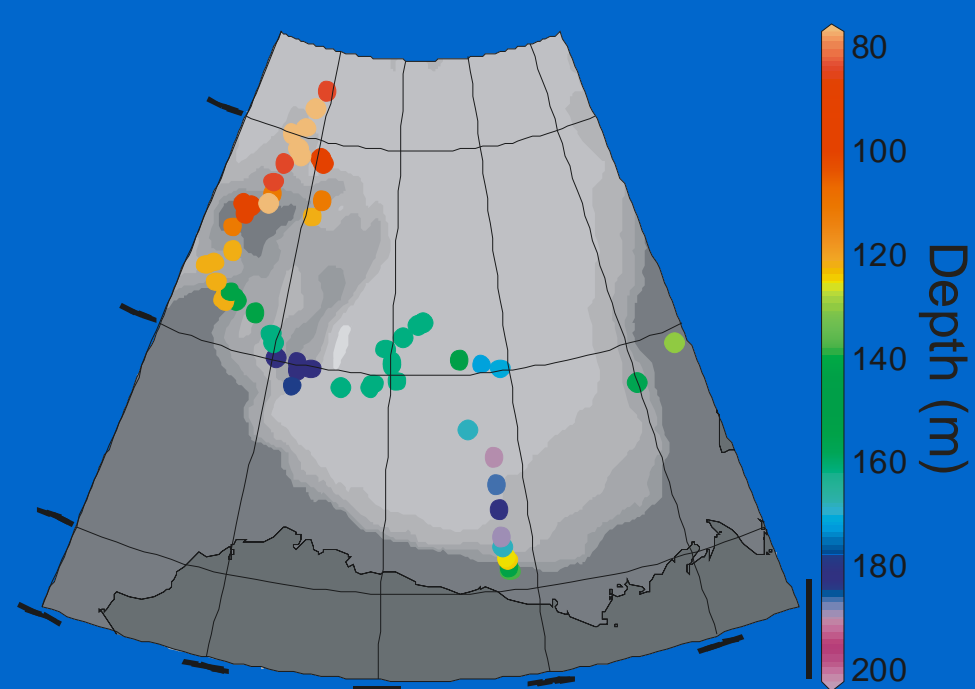


Decrease in Pacific-origin waters across the Canada Basin: from SHEBA/JOIS

1997-1998

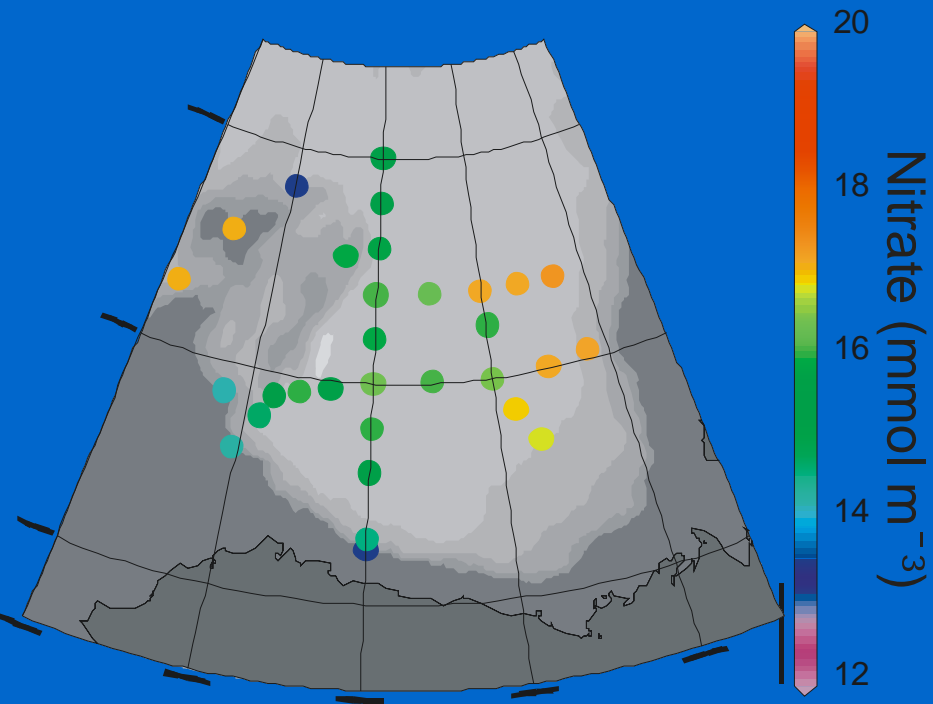


1997-1998

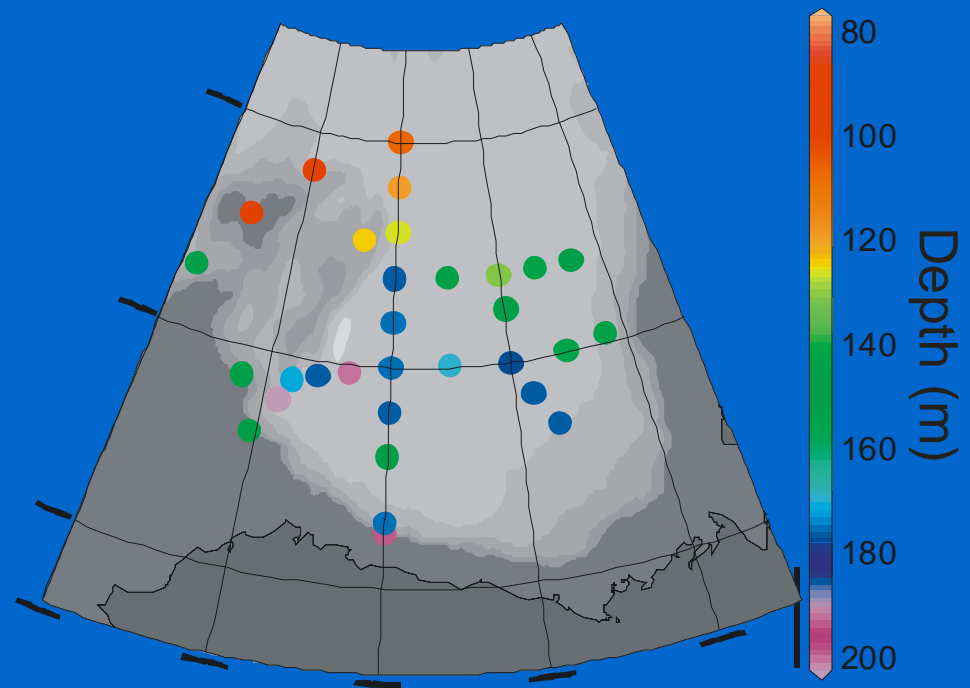


Then by 2003

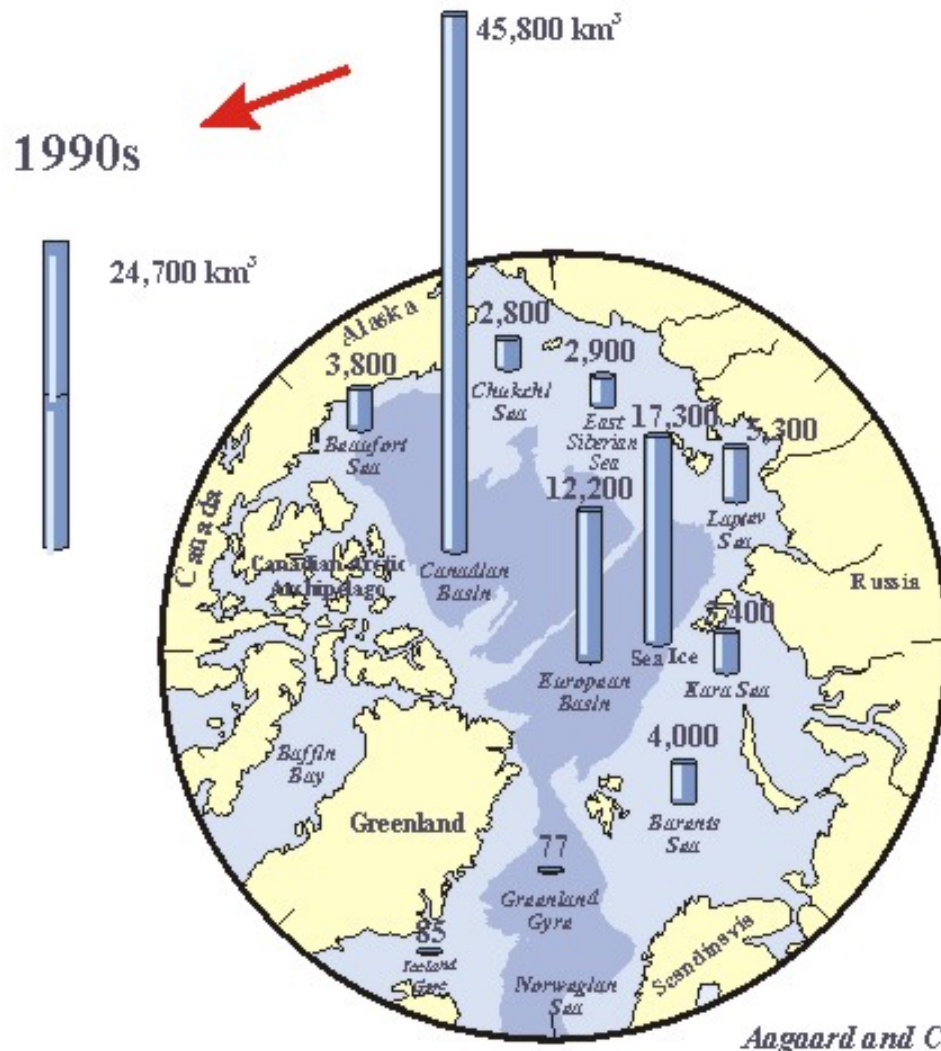
2003



2003



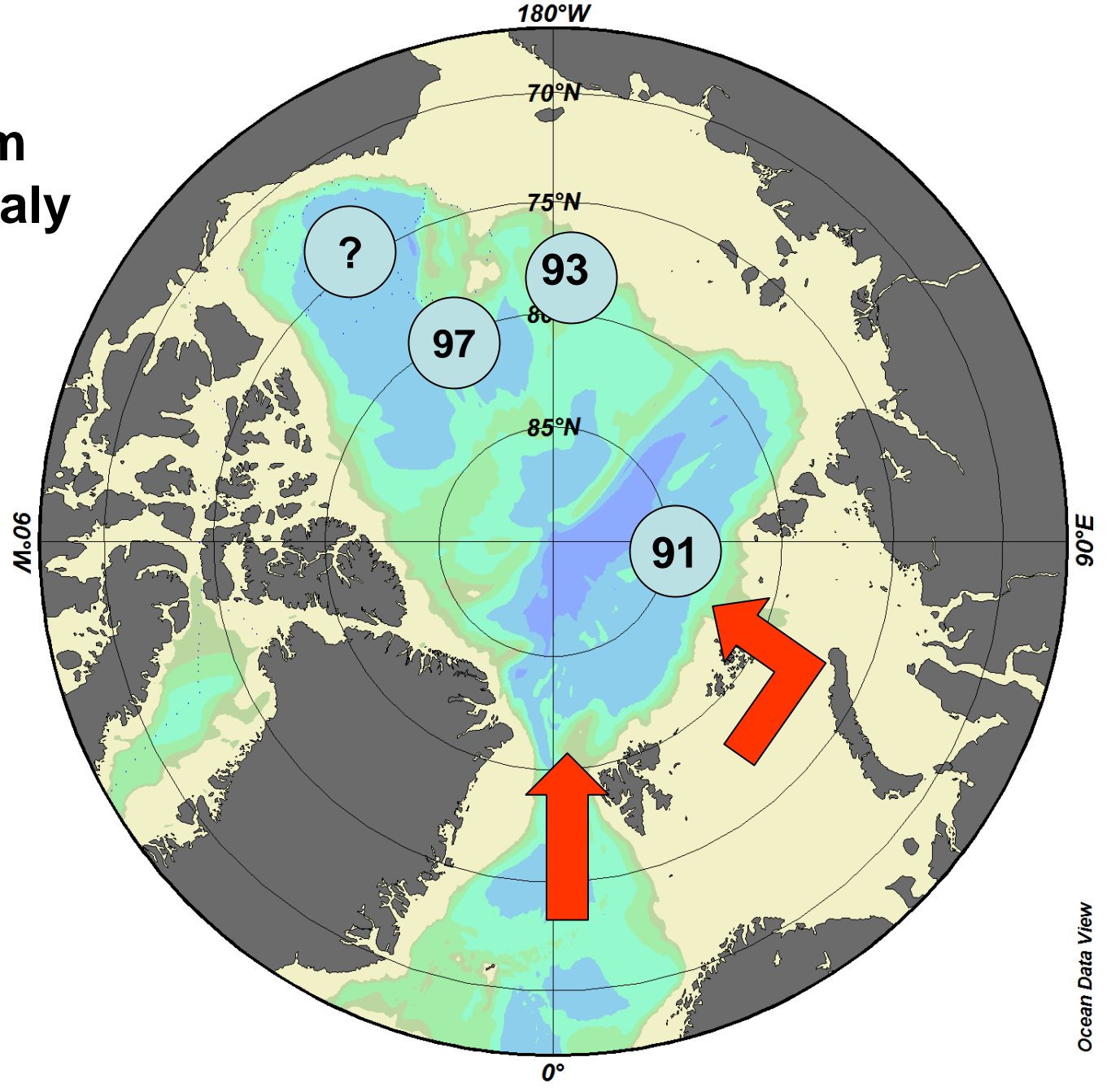
Distribution of fresh water storage .



During the 1990s:

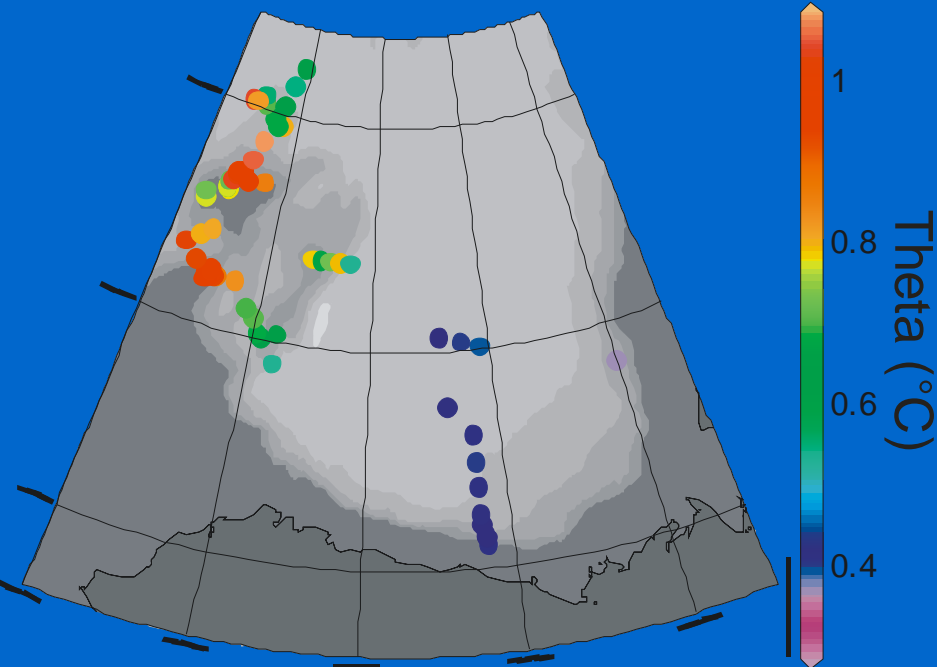
- Shift of the A/P front
less Pacific water in the Makarov Basin
- shallowing of Pacific water in the Canada Basin

Warm Anomaly

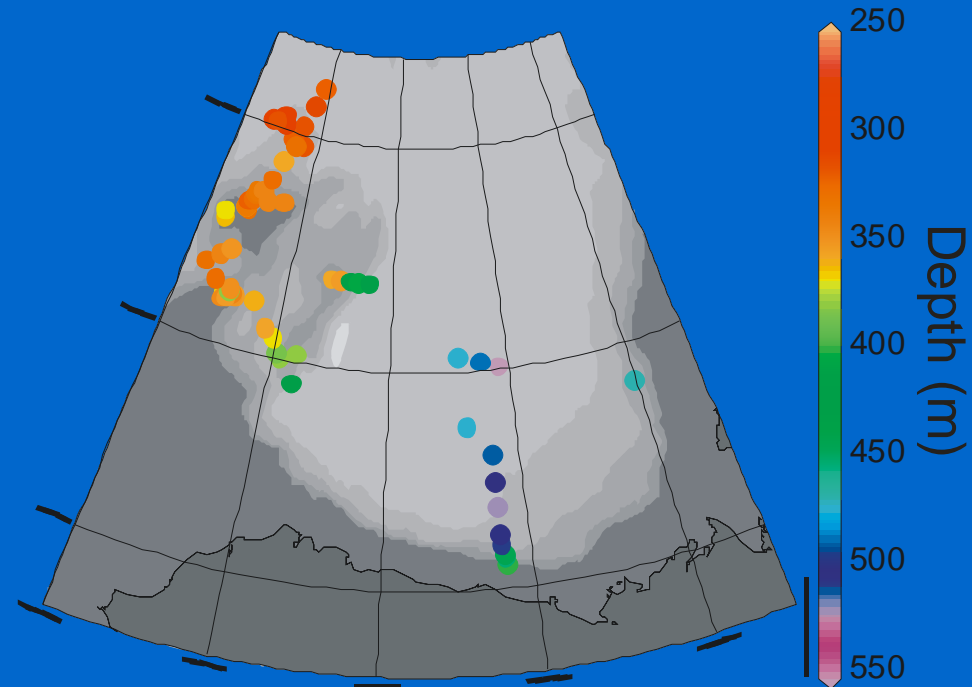


Warming of Atlantic-origin waters: in 1998 from SHEBA/JOIS

1997-1998

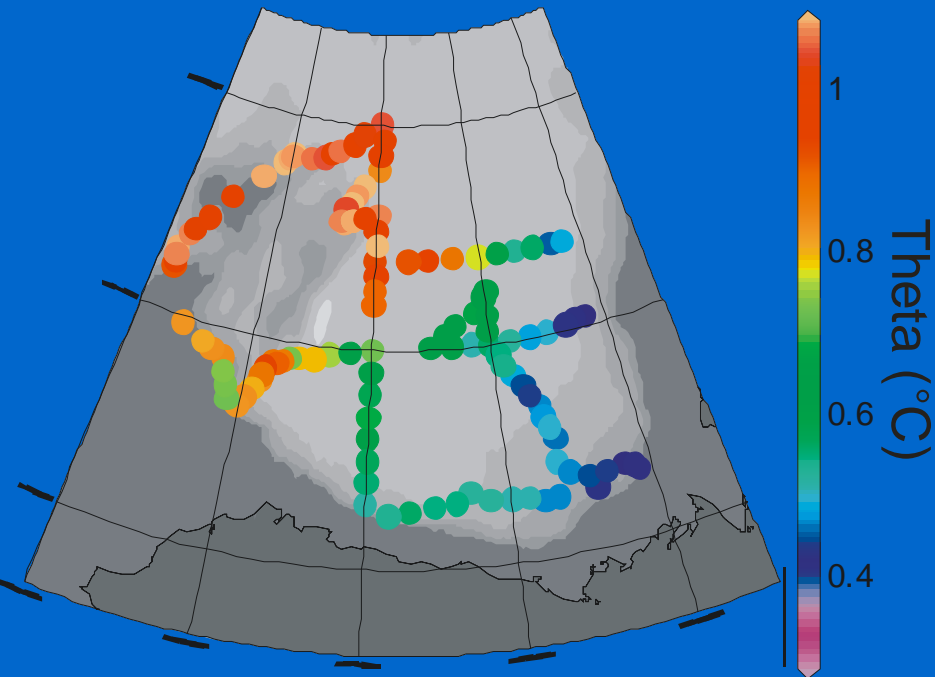


1997-1998

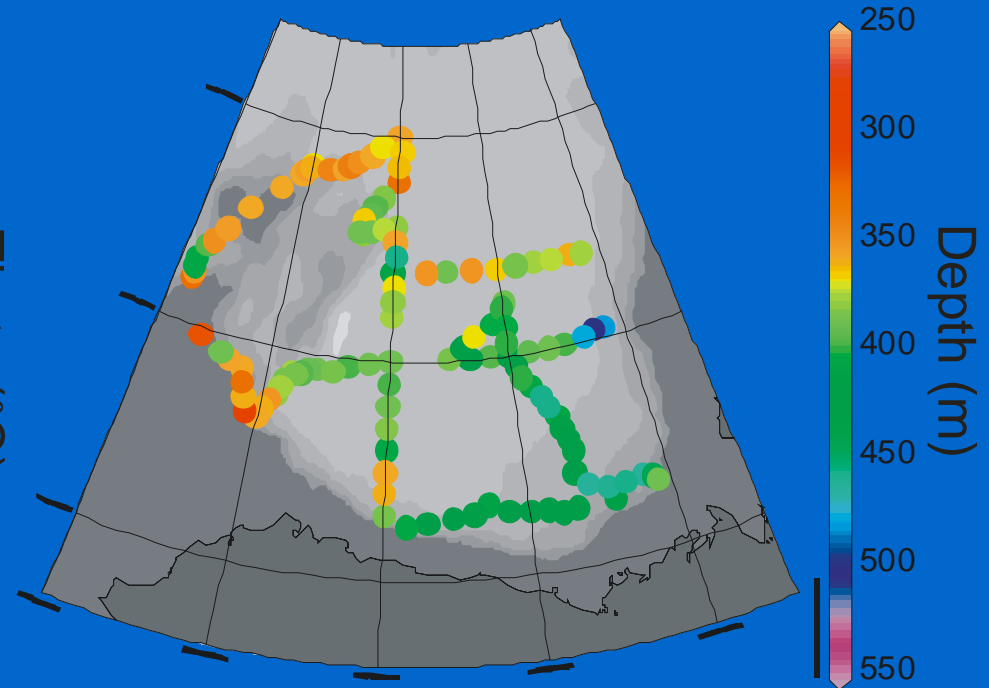


and in 2003

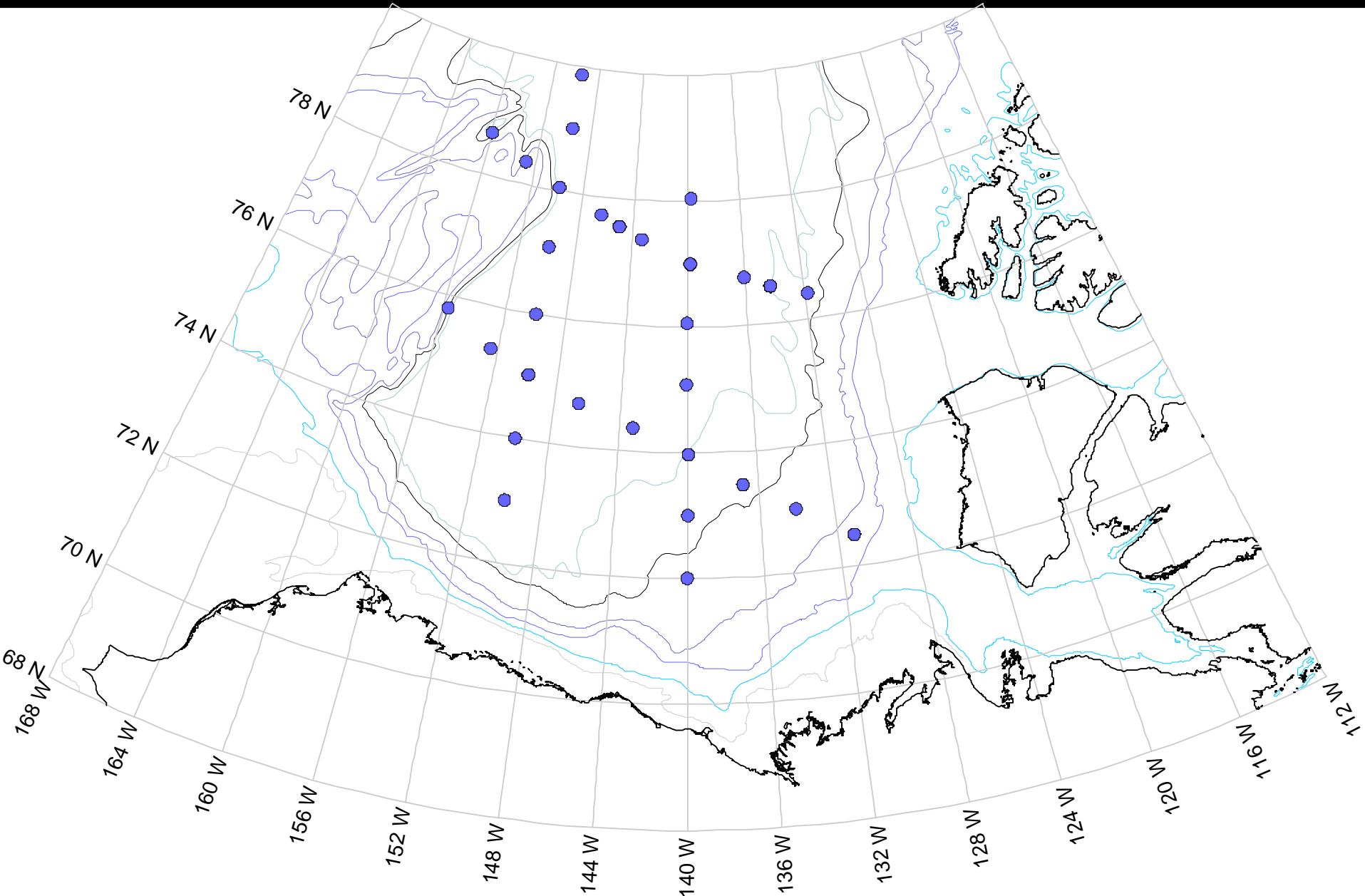
2003



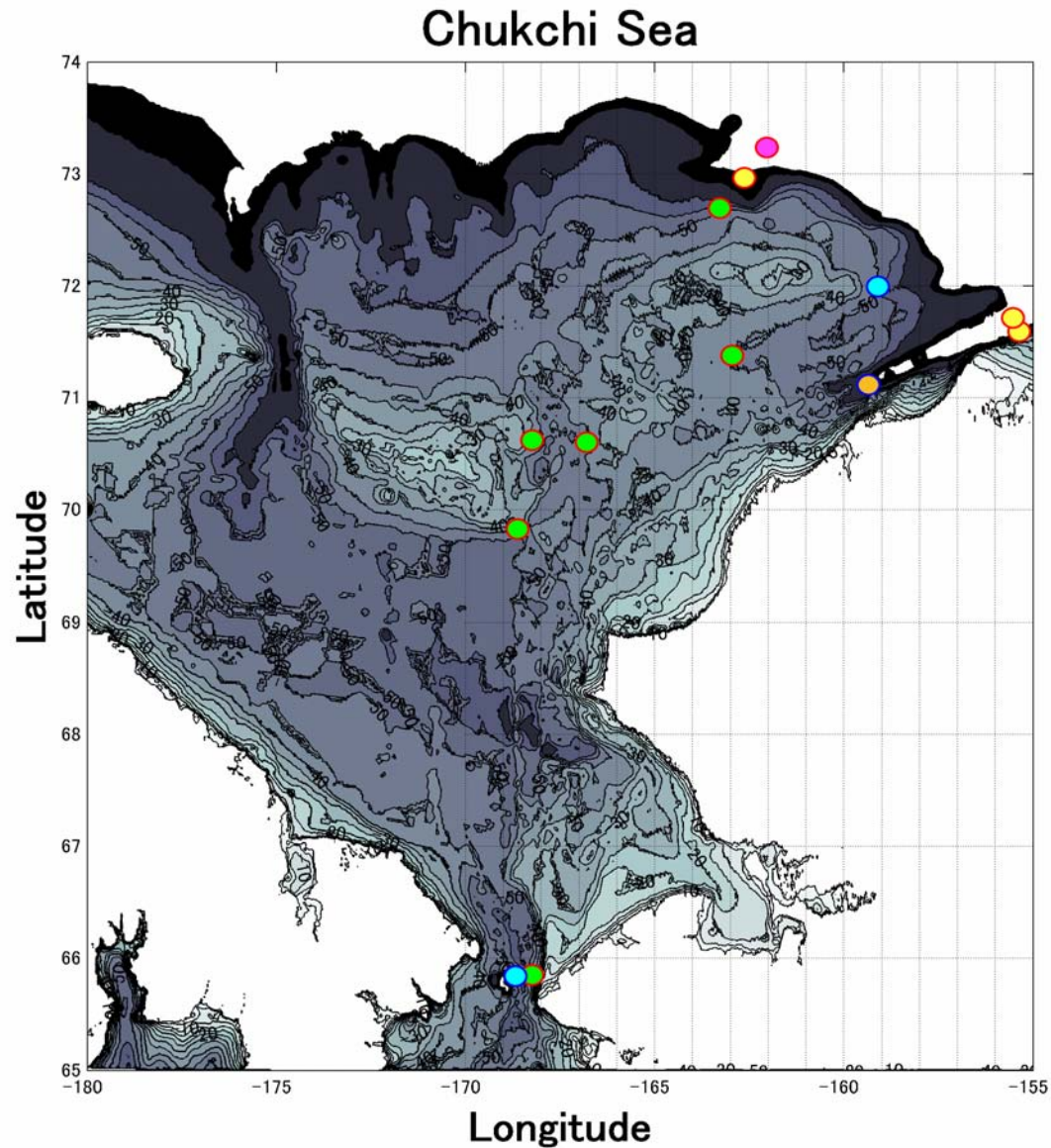
2003



2004



2004 Mirai mooring deployments



JWACS and Beaufort Gyre Programs

- 2005 LSSL - Canada Basin
- 2006 Mirai - Baffin Bay
- 2006 LSSL – Nares Strait, Canada Basin

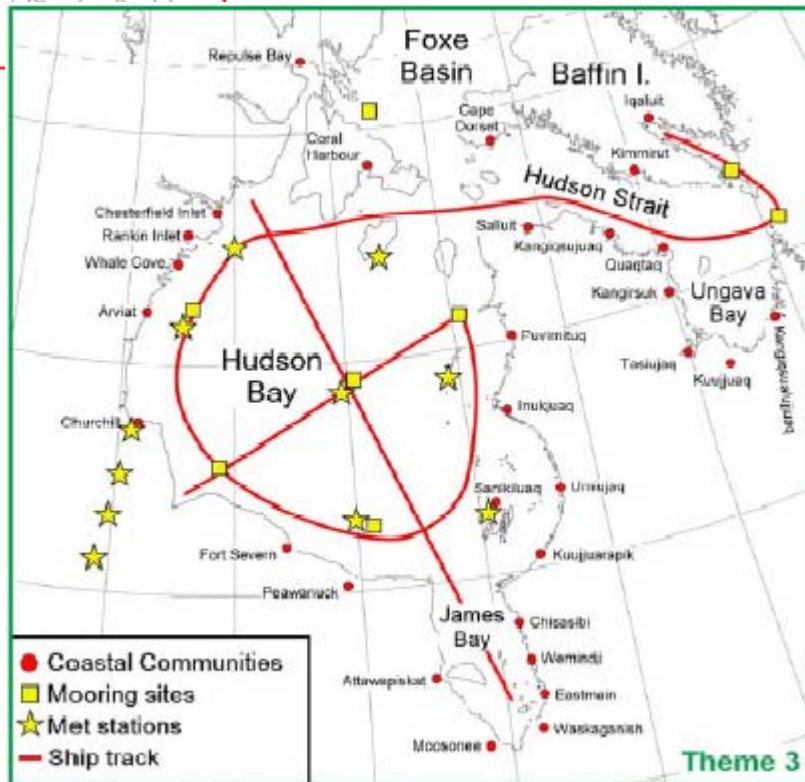
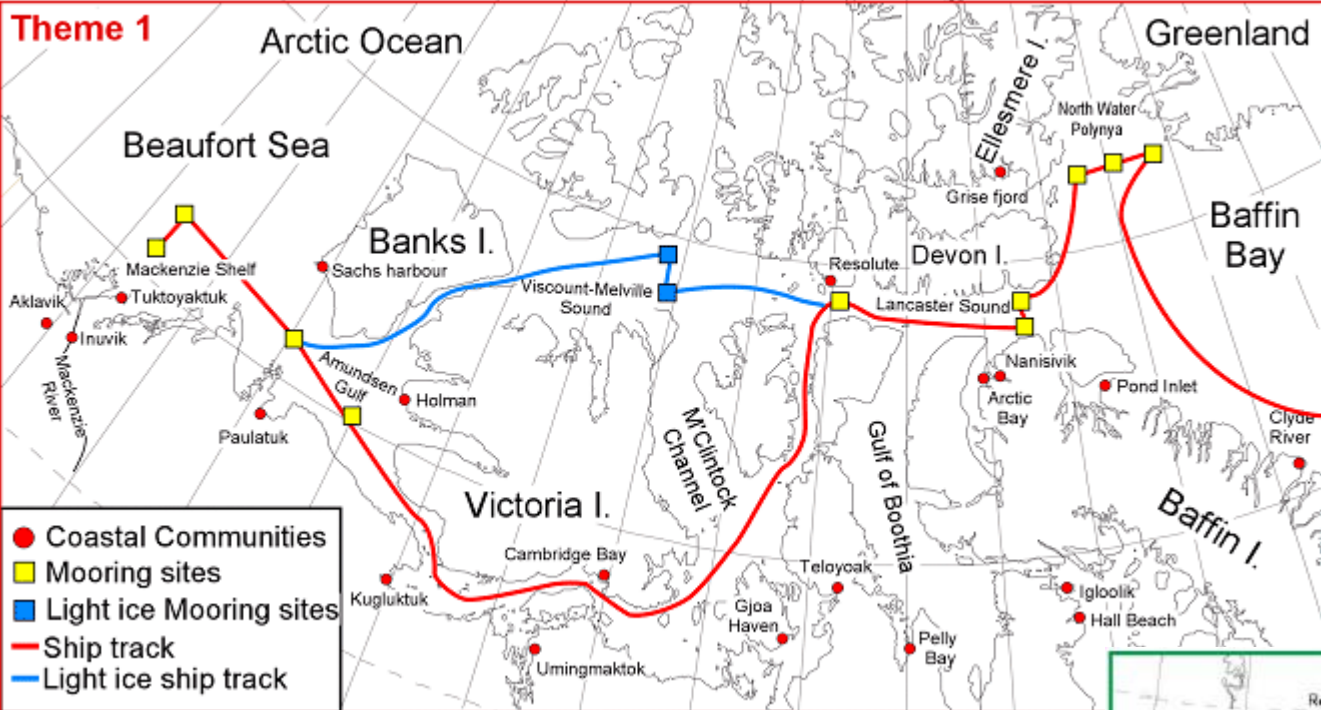




CCGS Amundsen and ArcticNet



Theme 1



ArcticNet



The integrated natural/health/social study of the changing coastal Canadian Arctic

Activities in 2004

