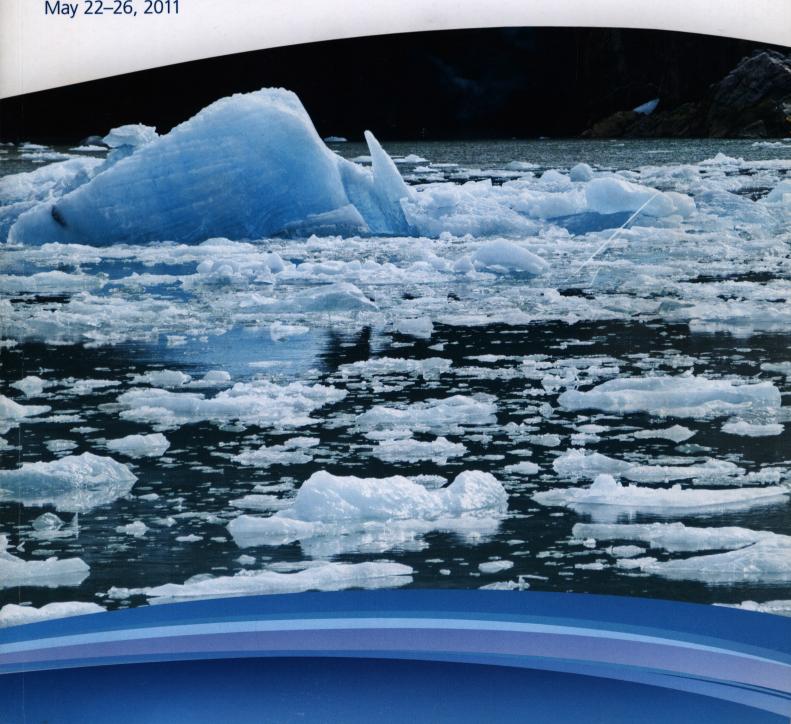
## Comparative Studies of Climate Effects on Polar and Sub-Polar Ecosystems

**Progress in Observation and Prediction** 

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## W1 Poster

W1-P1

## Spatial variability of warm eddies in western boundary of Canada Basin: Biochemical implication

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Physical and biochemical oceanographic data were intensively collected along the Northwind Ridge (NwR) and western boundary of Canada Basin (CB) between July and August, 2010. Through the water mass identification, Pacific-origin warm water was identified in the depth of 30-150m, forming the strong warm eddies. In particular, warm eddies were found near the peak of NwR and the continental slope of CB. The nutrient distribution and chlorophyll a concentration generally matched with the location of warm eddies. Nitrate was the limiting factor of phytoplankton growth, and generally small-sized cells were mostly dominated. However, warm eddy area was characterized by large-sized cells (e.g., diatom). In the context of warm eddies vs. biomass bloom, during the presentation, the spatial variability in temperature and salinity and biochemical responses (i.e., nutrient and plankton biomass) will be presented. Furthermore, microscopic observation and pigment analysis for phytoplankton community study will be discussed.