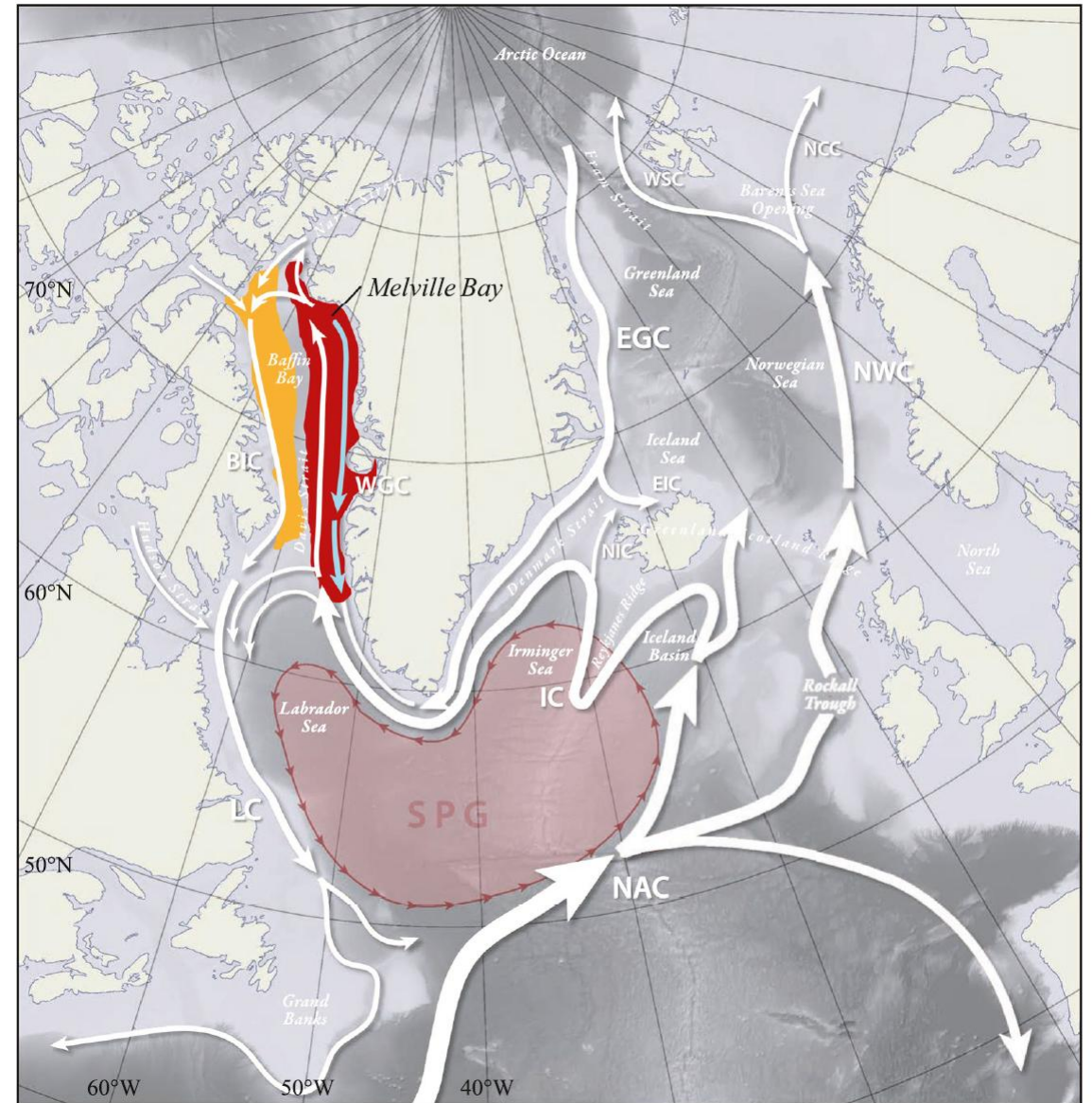
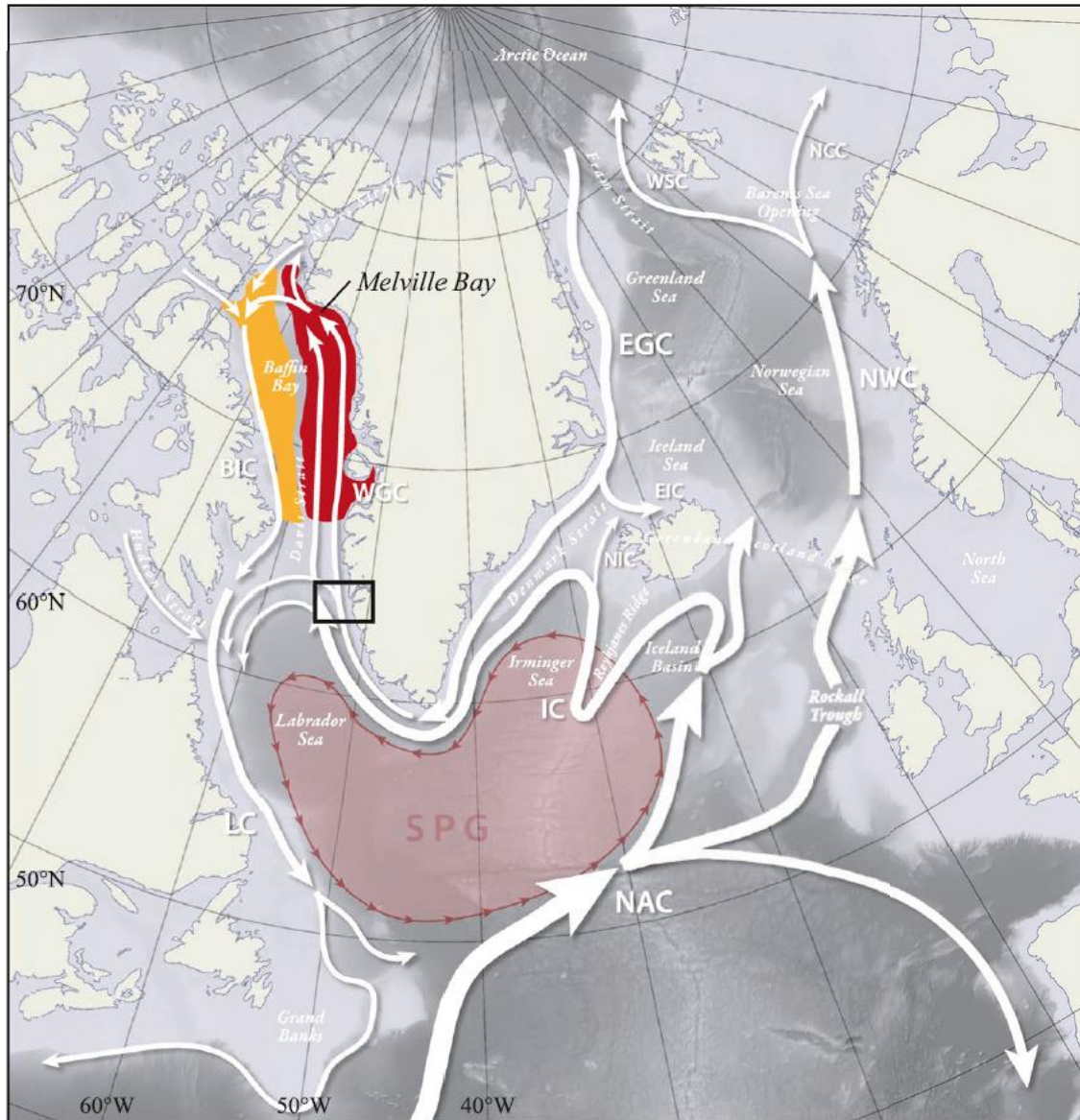


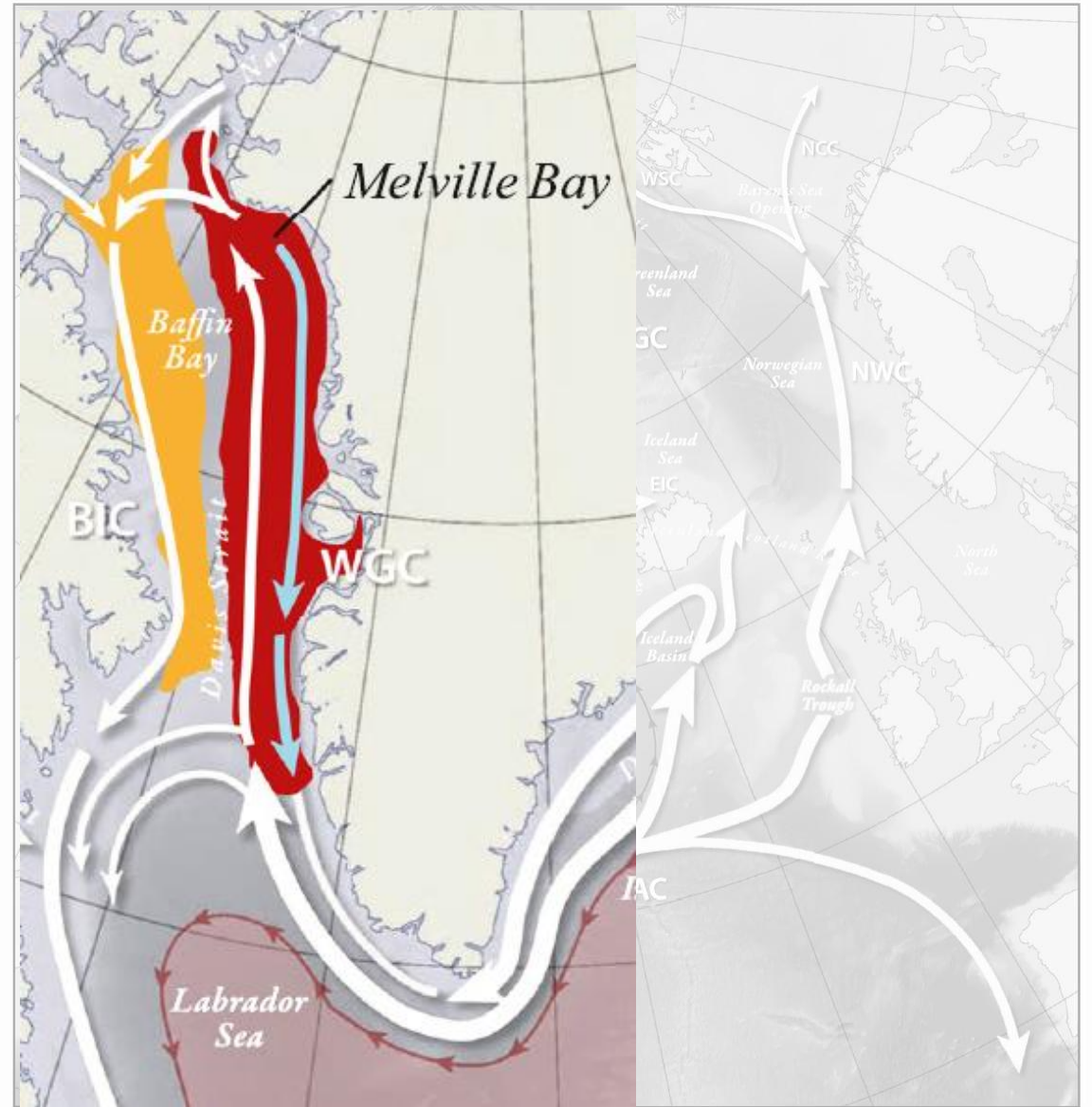
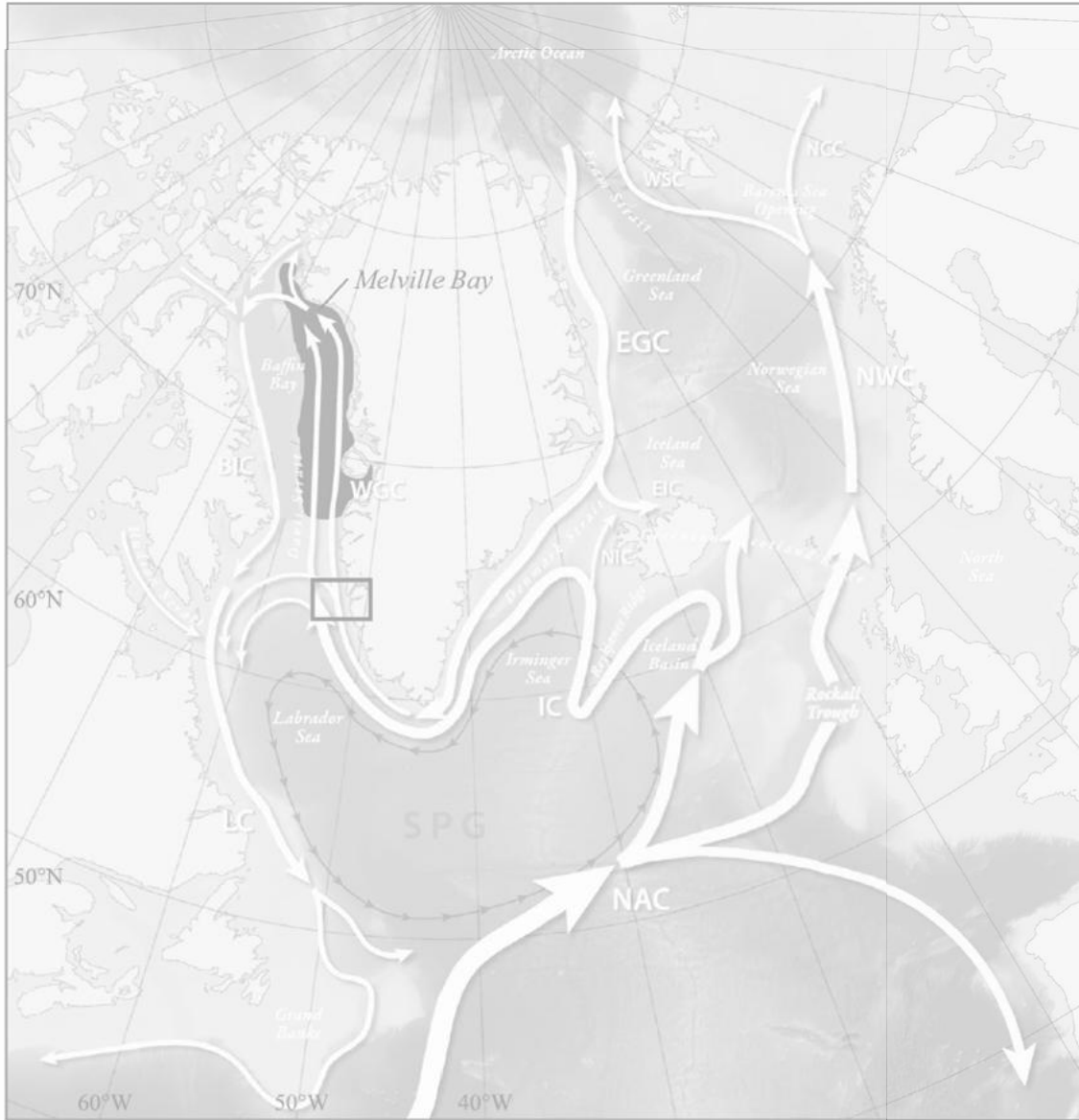
A satellite image of the Arctic region, specifically focusing on Baffin Bay and the surrounding landmasses. The image shows a mix of white ice, dark water, and greyish-brown land. A semi-transparent white rectangular box is overlaid in the center, containing the title and author information.

# The Circulation of Baffin Bay Polar Water

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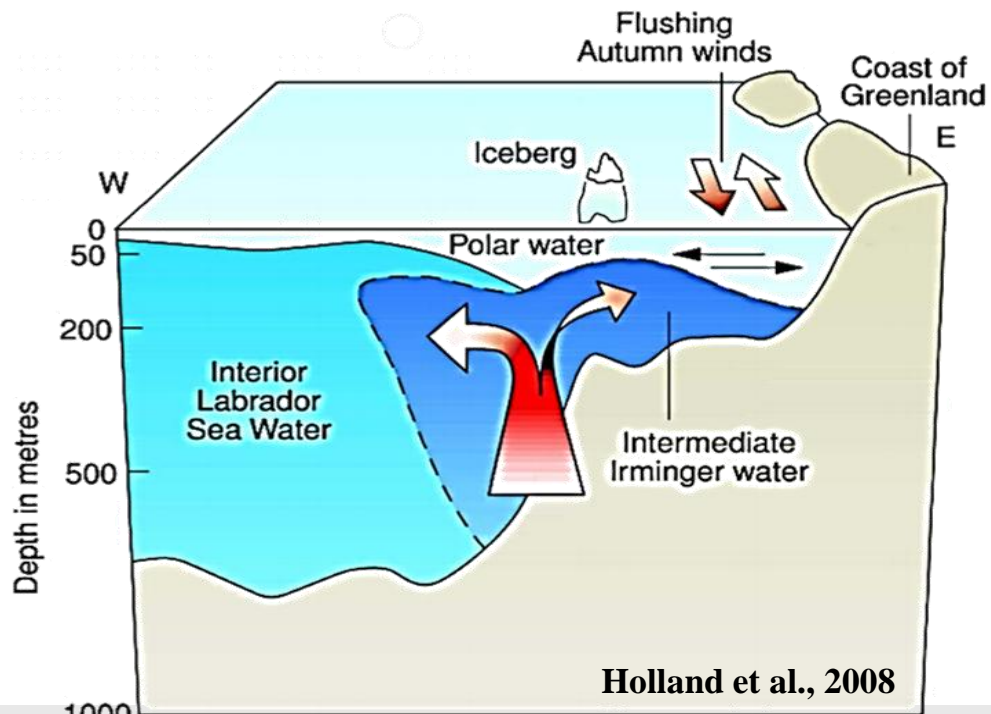


Mortensen et al., 2022

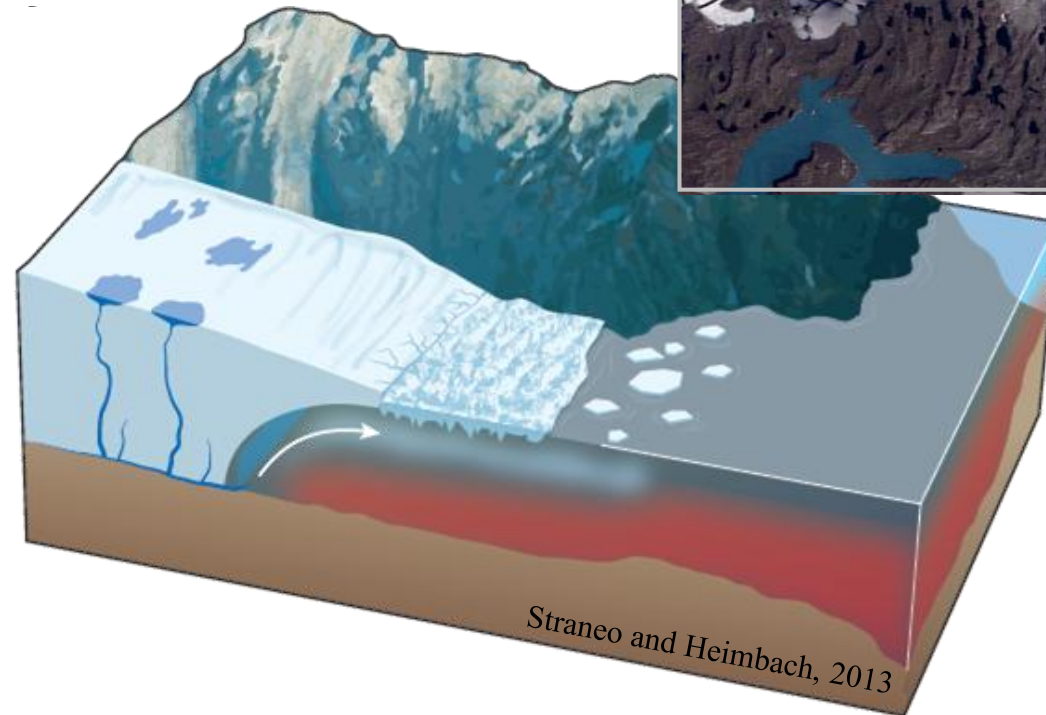


Mortensen et al., 2022

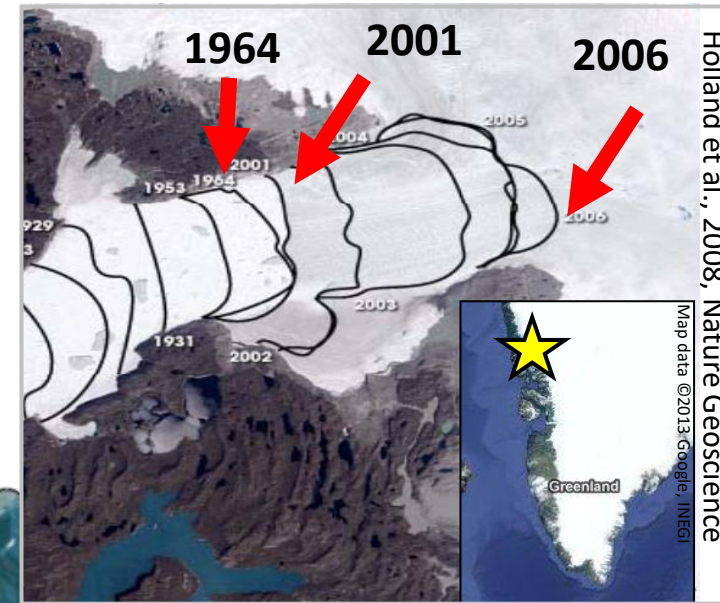
# Ocean Influence on the GrIS



Holland et al., 2008



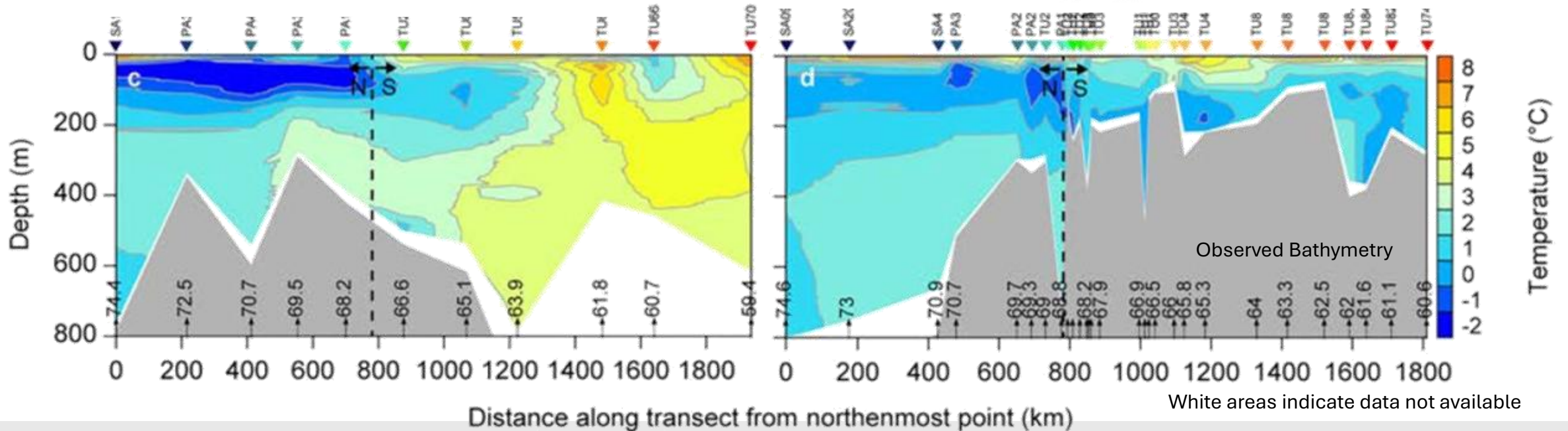
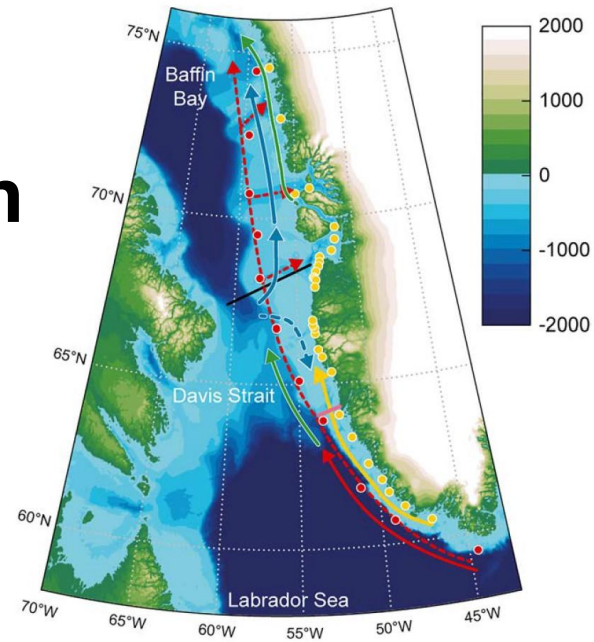
Straneo and Heimbach, 2013



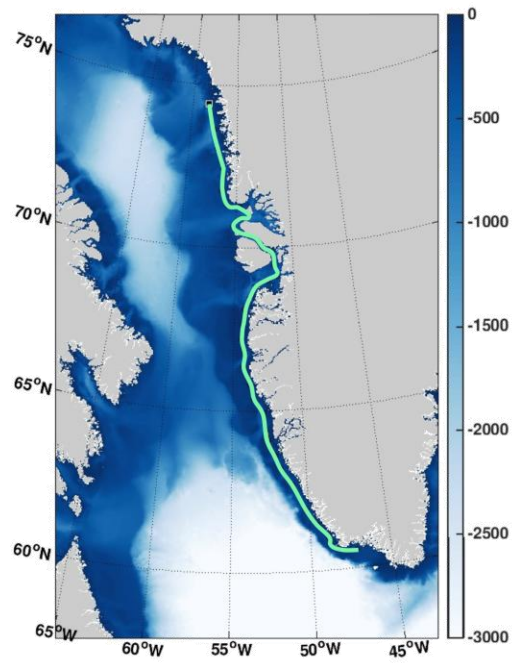
Holland et al., 2008, Nature Geoscience  
Map data ©2013 Google, INEGI

# New look at the Baffin Bay Circulation

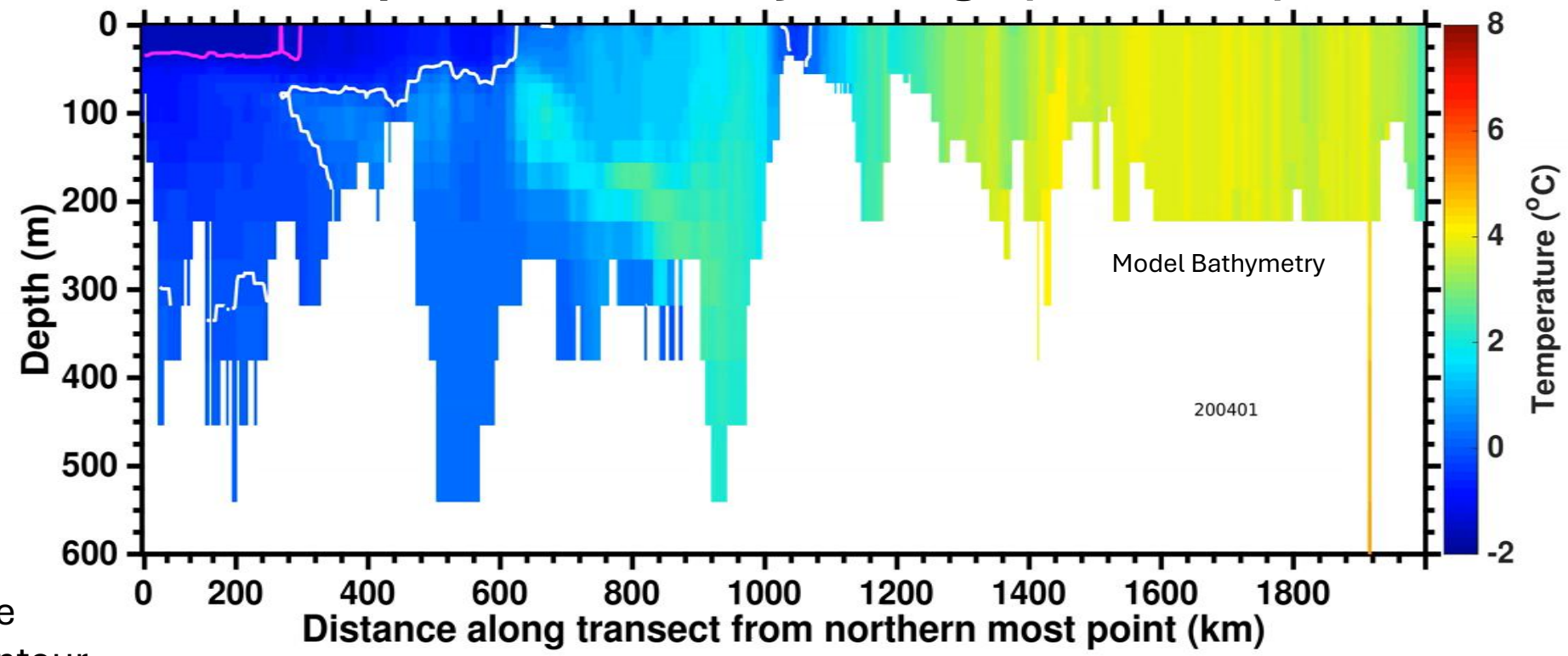
Rysgaard et al., 2020





# Using Ocean Models to Understand more about the BBPW seasonality



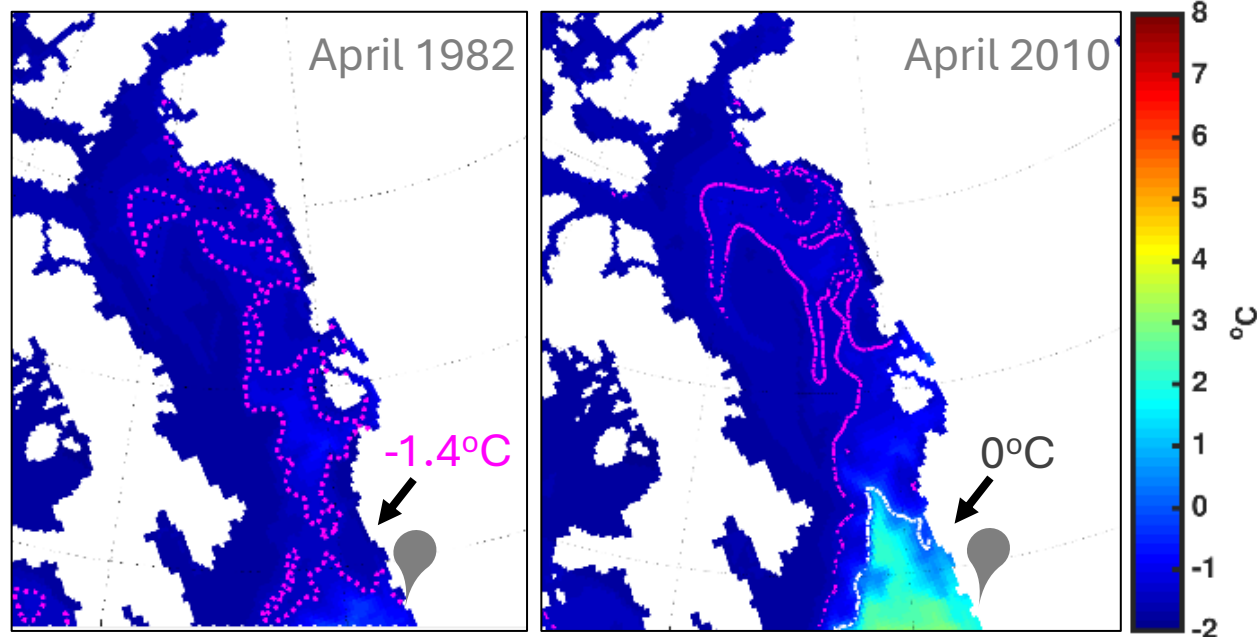
## Temperature Monthly Average (Coastline)



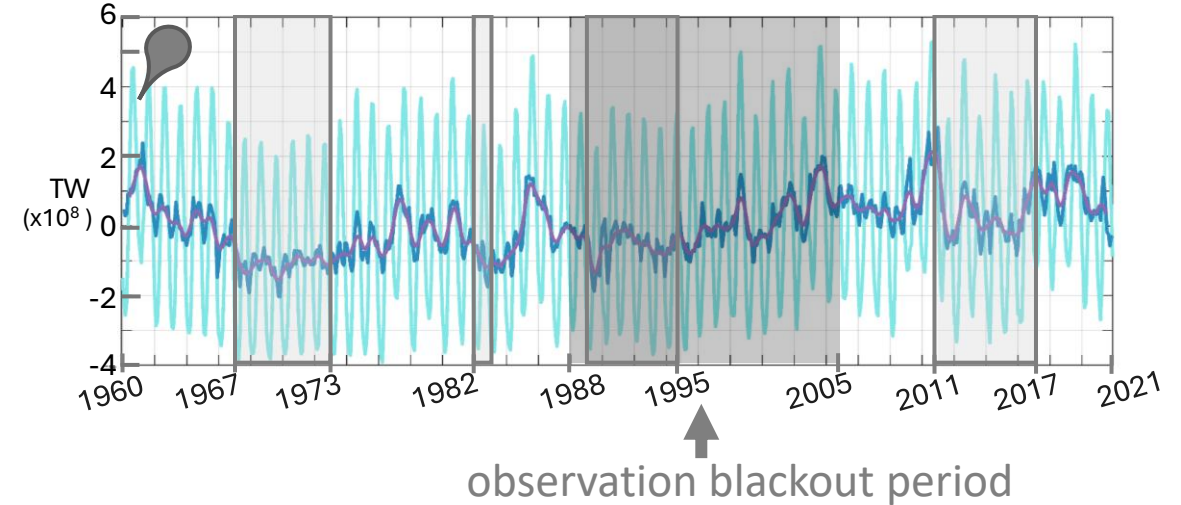
Monthly Temperature Average  
0°C        White Contour  
-1.4°C        Magenta Contour

# Exploring Water Masses off West Greenland

Cold water spatially extensive and coldest in April



Long timeseries indicates a periodic cold occurrences





## Research Importance

- Local communities
- Frozen structures (glaciers, icebergs, and sea ice)
- Marine mammals
- Understanding climate variability

## Future Work

- Where does Baffin Bay Polar Water come from?

**Gillard, L. C.,** Rysgaard, S., Carlson, D. F., Myers, P. G., Mortensen, J., Juul-Pedersen, T., & Dahl-Jensen, D. (in review). Exploring water masses on the West Greenland continental shelf. *Journal of Geophysical Research: Oceans*.