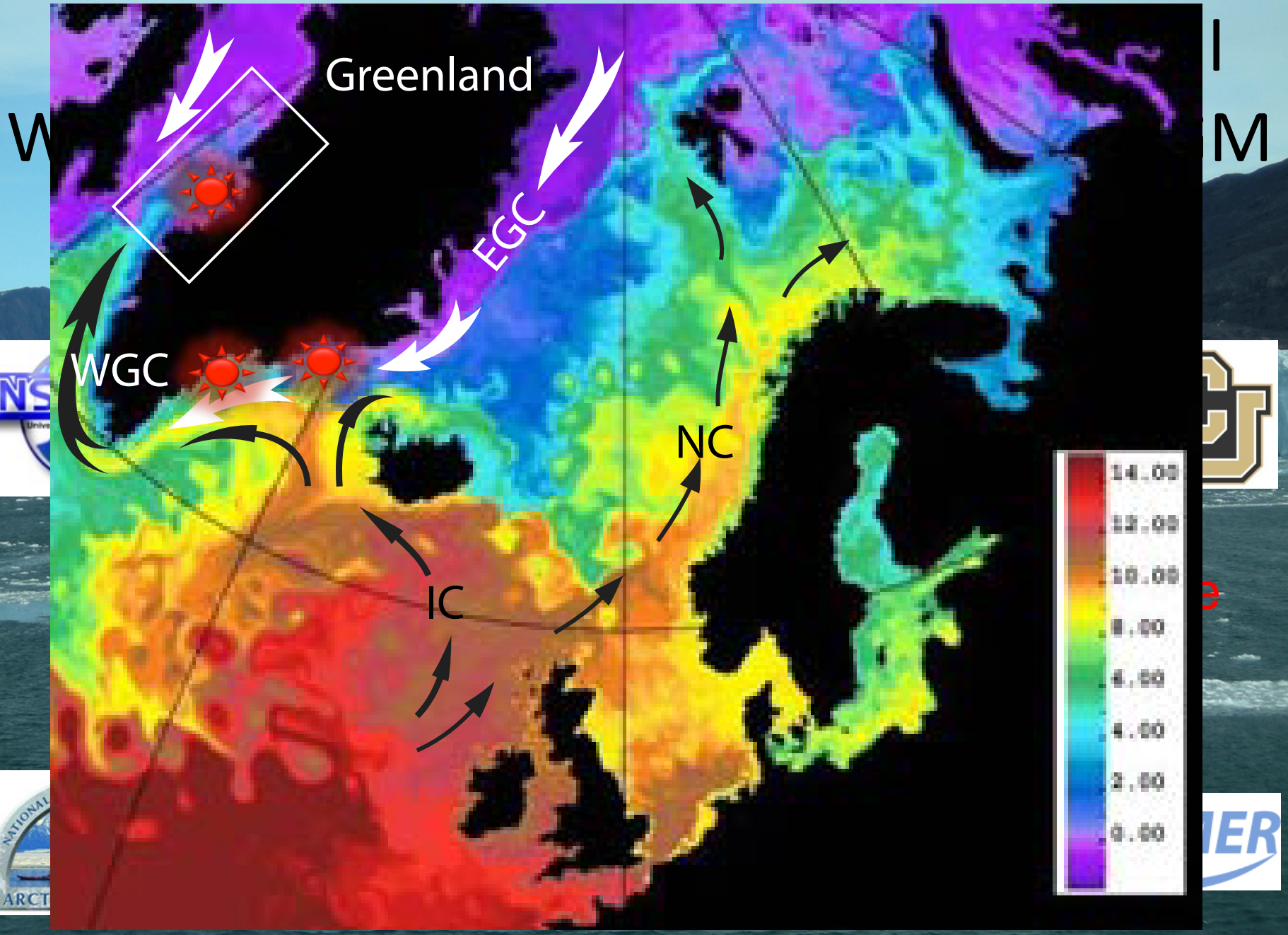
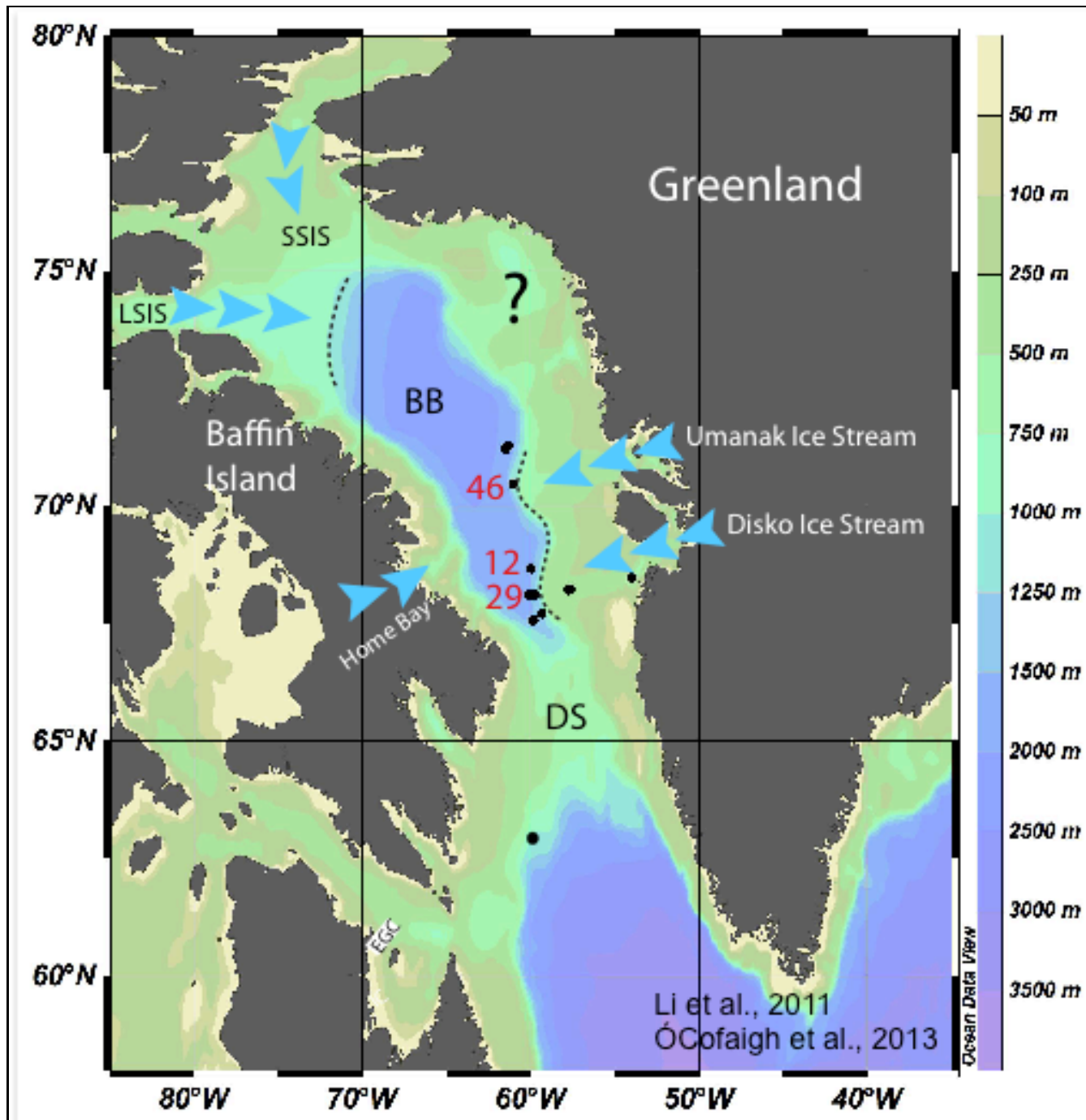


# GIS Vulnerable to Atlantic Water

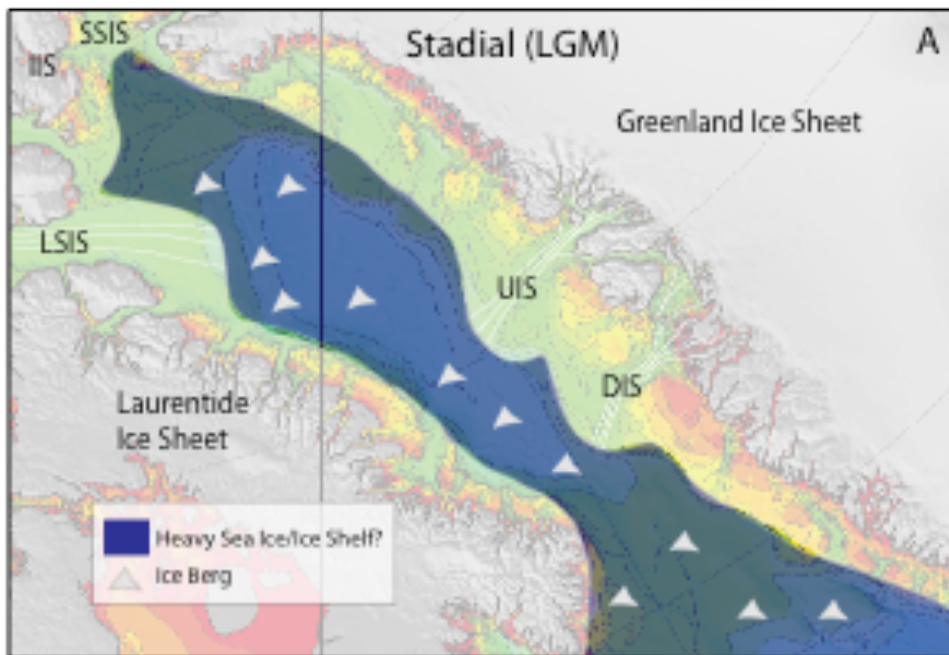




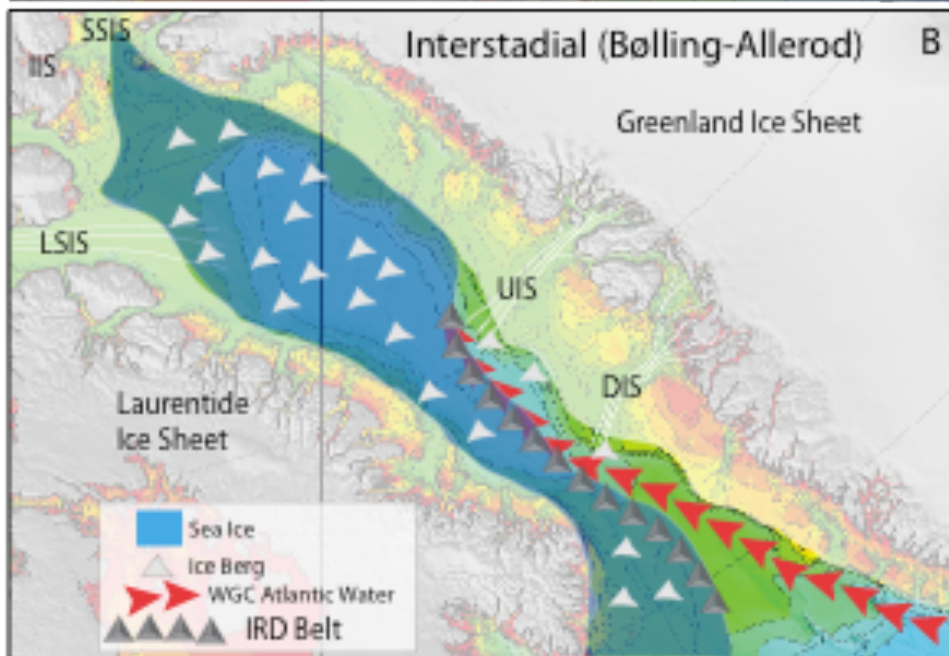
## Purpose

- When did GIS retreat from LGM position
- What was phasing relative to LIS and IIS margins?
- Role of ocean warming and climate change in initiating and sustaining ice retreat.

# Paleoenvironments represented in Hemipelagic sediments



**LGM Stadial:** Ice Sheet advanced into a heavily sea-ice covered environment. Little calving.

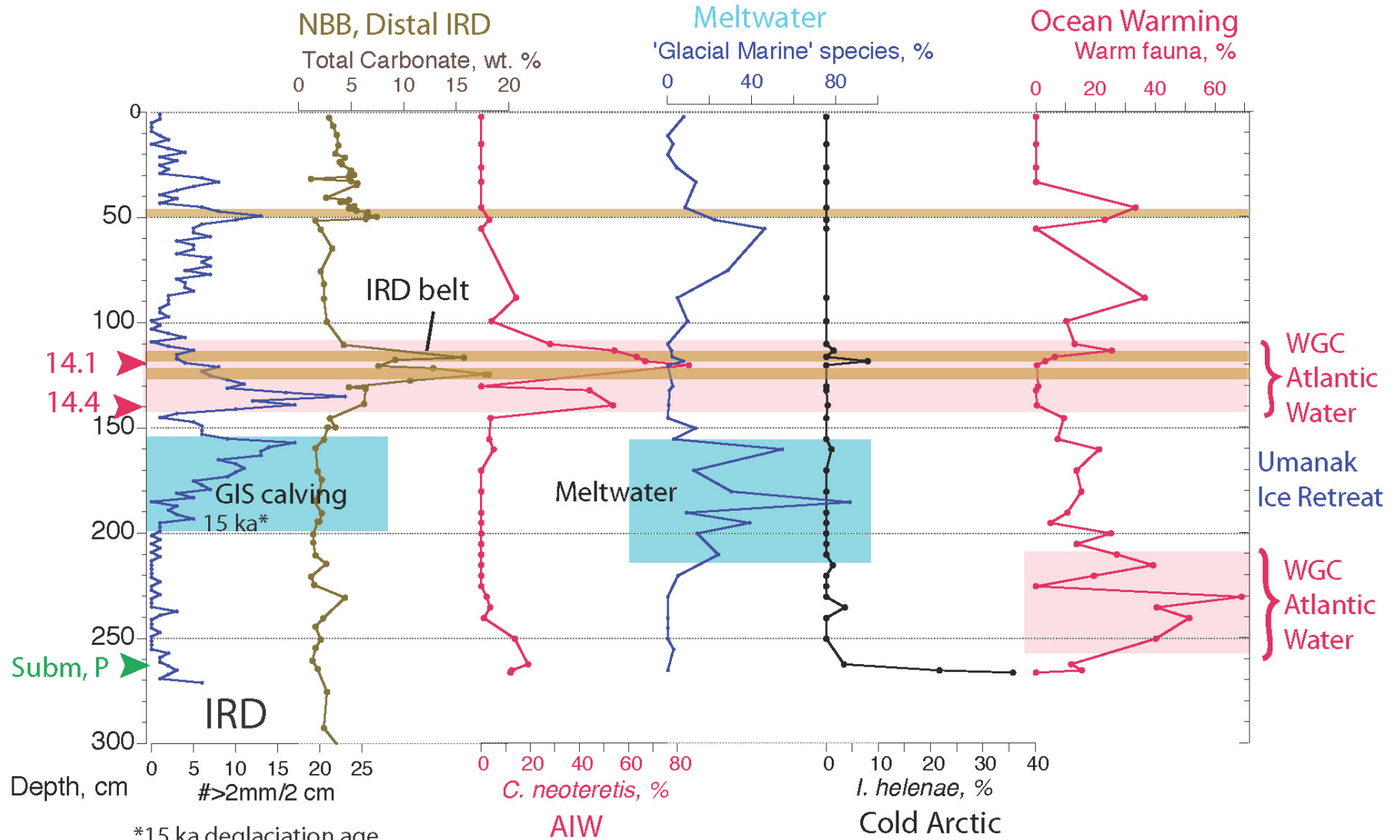


**Interstadial:** WGC Atlantic Water enters Baffin Bay.

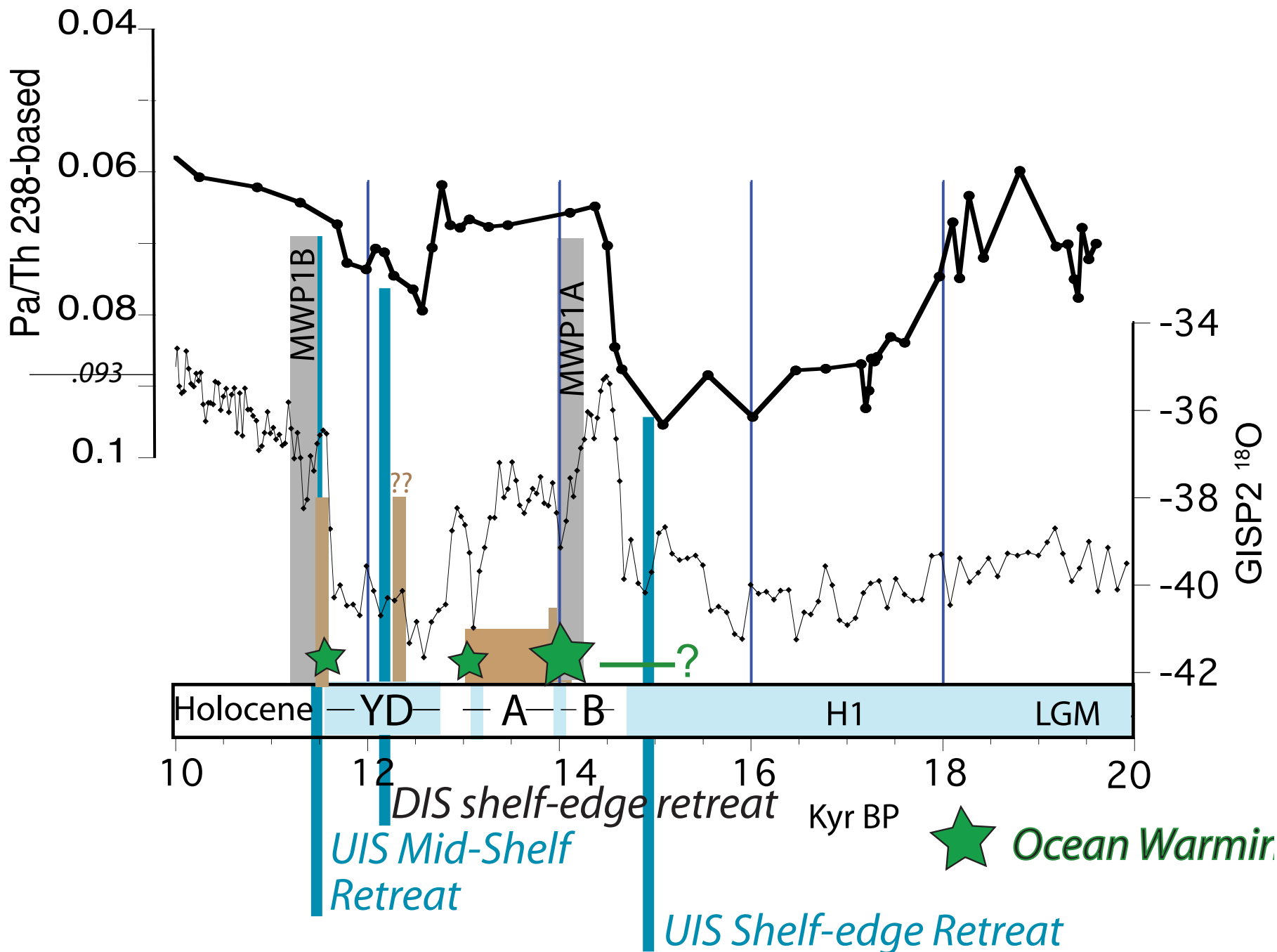
- Marine productivity.
- Ice margins retreat
- IRD belt forms where ice bergs from N Baffin Bay meet AW.



# VC46, Upper Umanak Fan



\*15 ka deglaciation age assumed from VC45, Umanak outer shelf.





# Conclusions

- Ocean Warming from Atlantic Water advection via the WGC preceded retreat from GIS limit at shelf edge: dates pending.
- Deglaciation underway by 15 ka. Strong WGC during Bølling/Allerød interstadial
- Document history using multiple proxies: forams, IRD stratigraphy, mineralogy.
- Come to poster to see details

09.04.2009