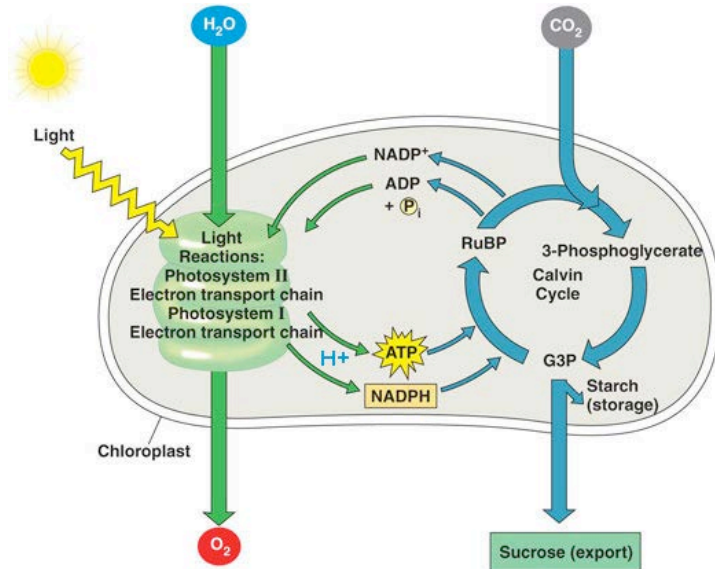


Shedding Light on Phytoplankton Community Structure and Photophysiology

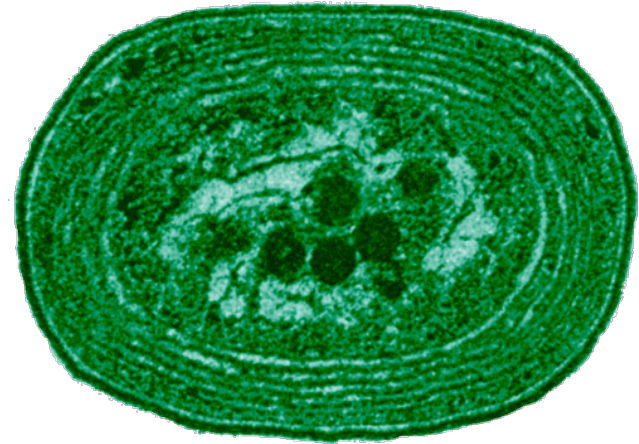


Heather Bouman, Department of Earth Sciences, University of Oxford
(heather.bouman@earth.ox.ac.uk)

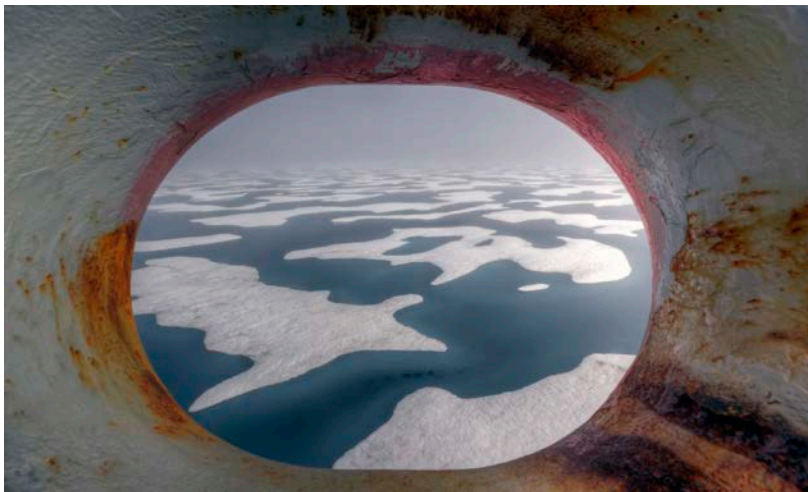
PHOTOPHYSIOLOGY



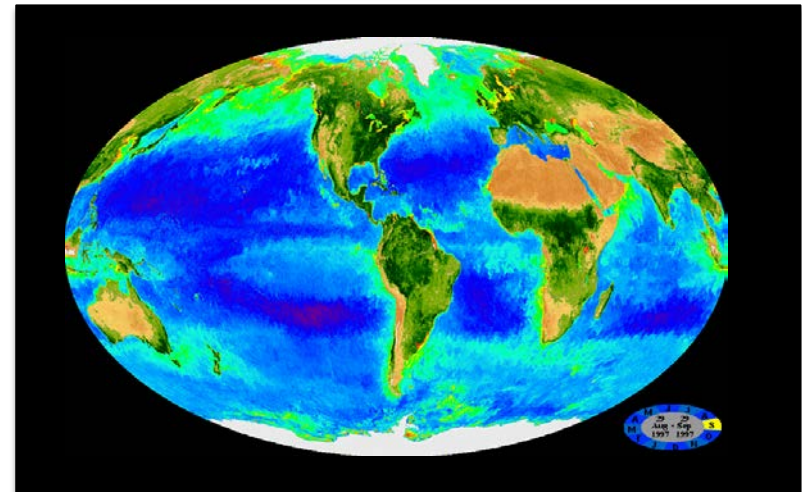
COMMUNITY STRUCTURE



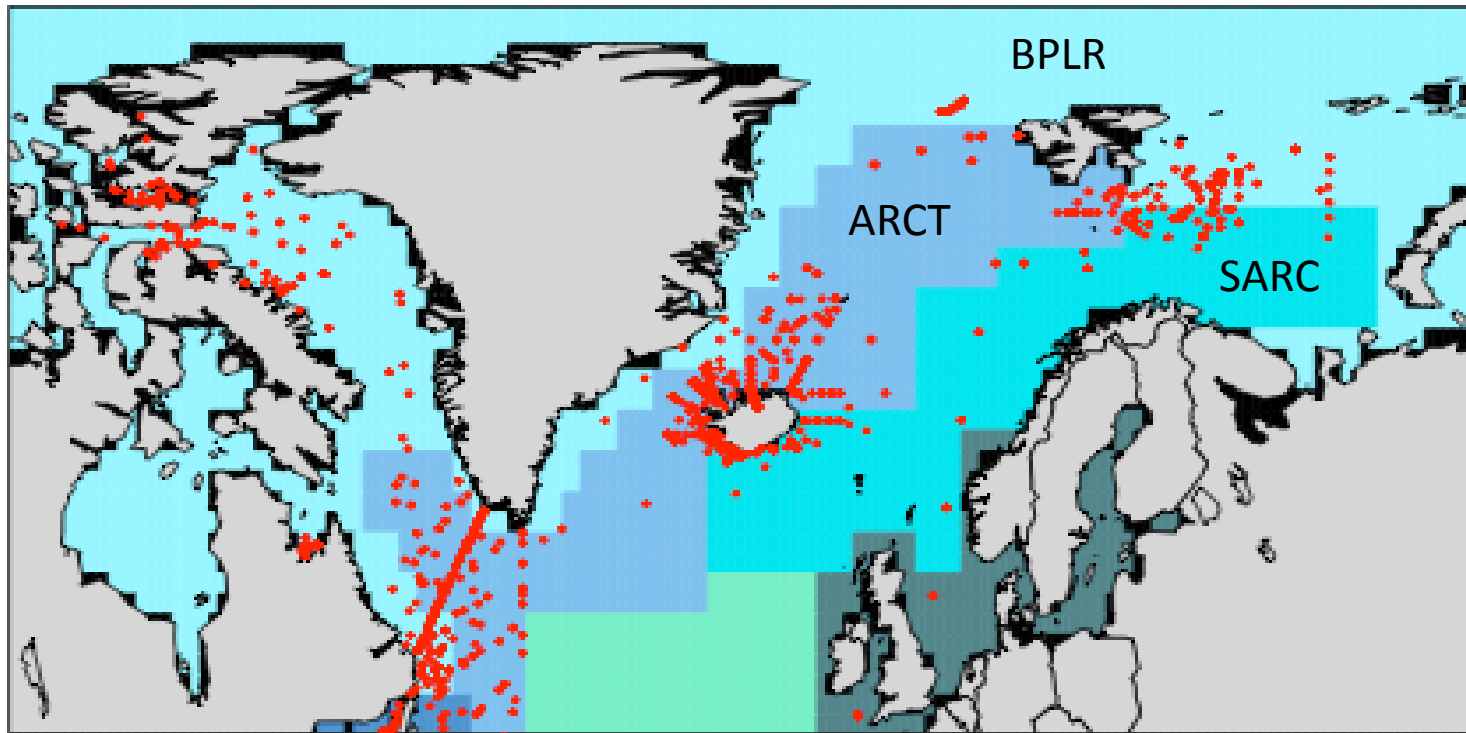
ECOSYSTEM PATTERNS AND PROCESSES



GLOBAL BIOGEOCHEMISTRY & BIOGEOGRAPHY



Arctic Ecophysiology

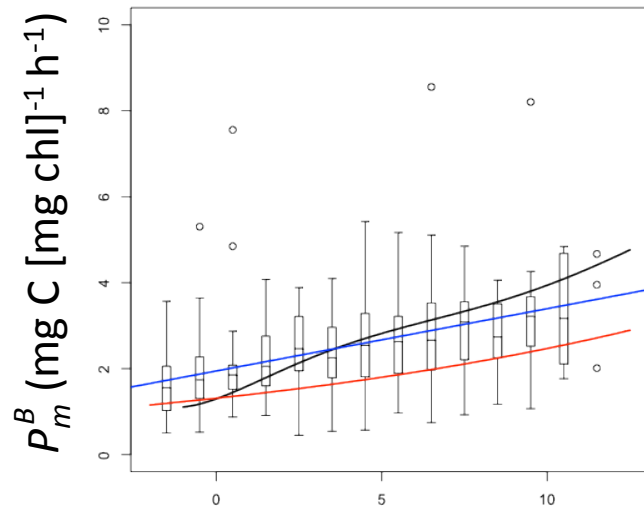


- Boreal Polar - BPLR (N=764)
- Atlantic Arctic - ARCT (N=776)
- Atlantic Subarctic - SARC (N=199)

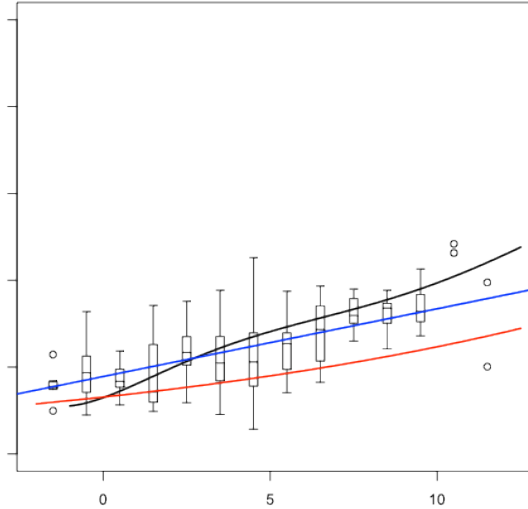


Arctic Photophysiology

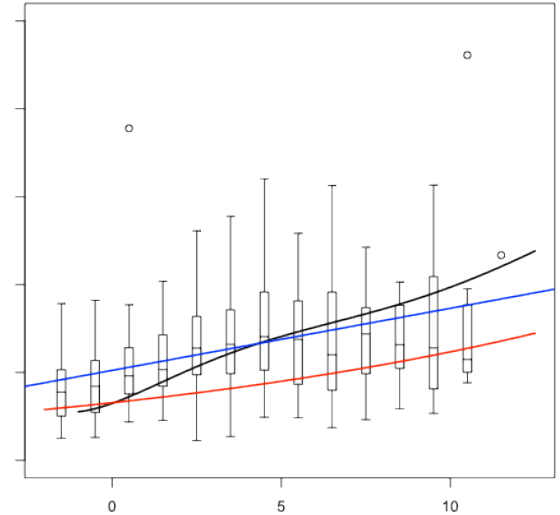
All Data $\leq 20\text{m}$



Western $\leq 20\text{m}$

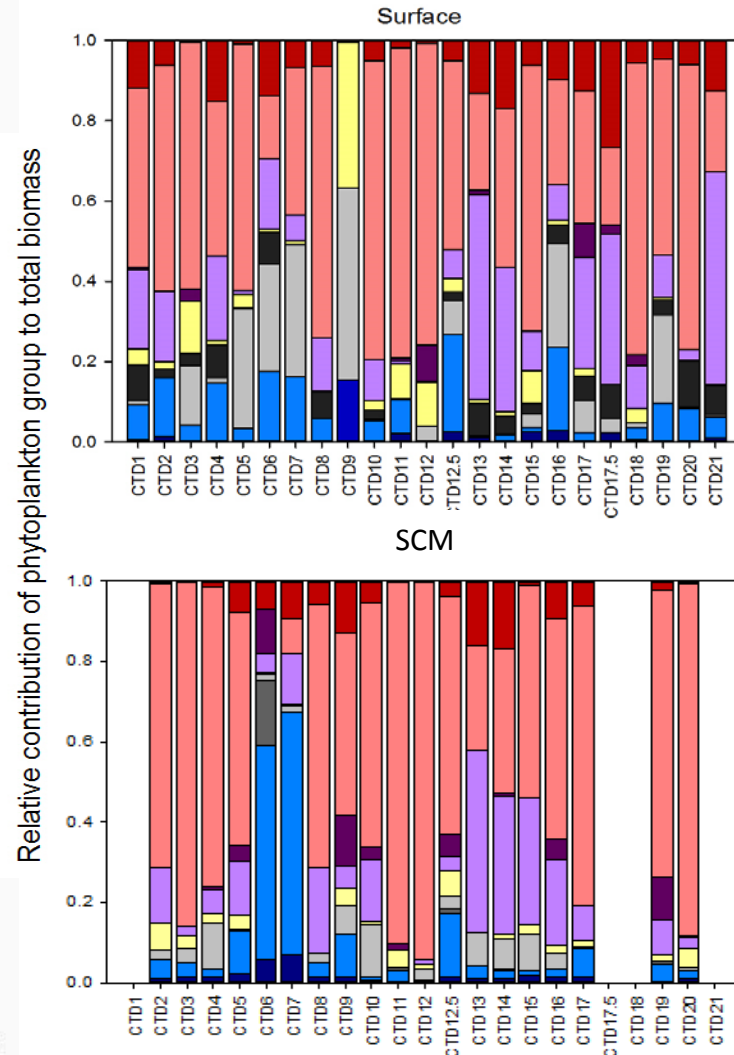
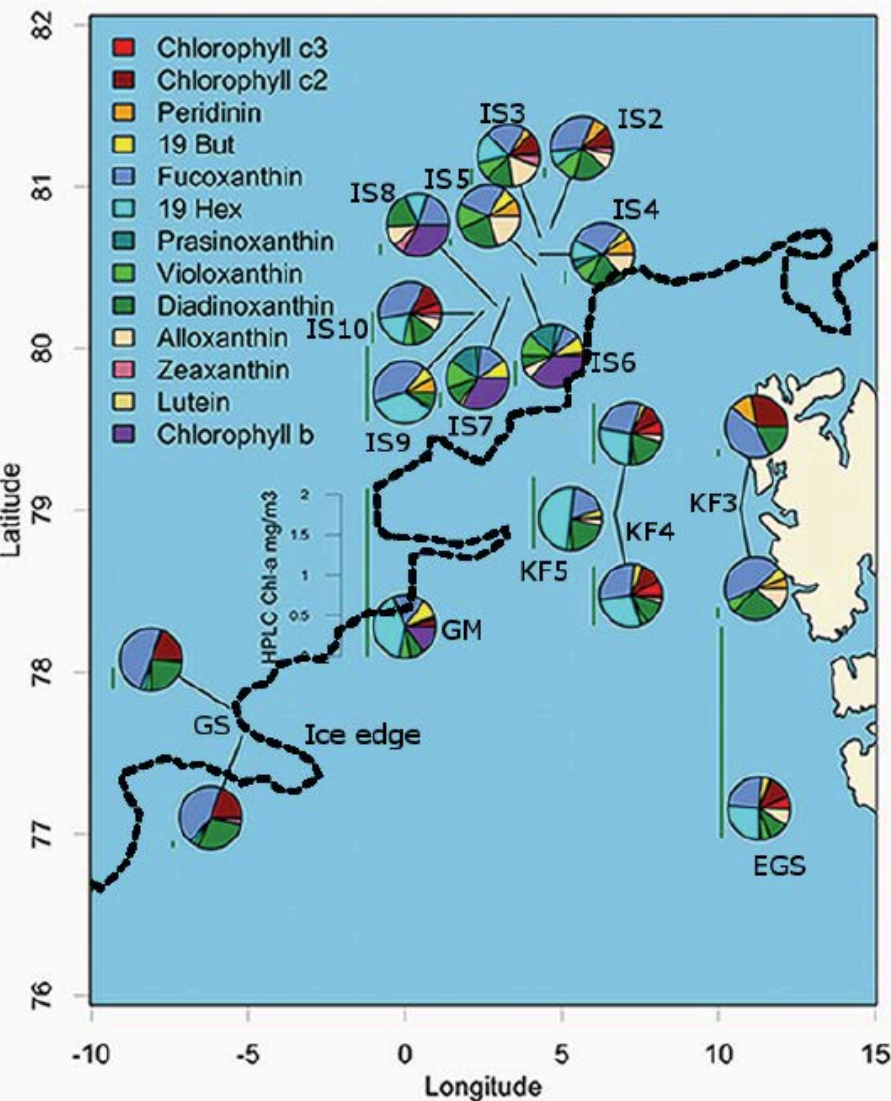


Eastern $\leq 20\text{m}$



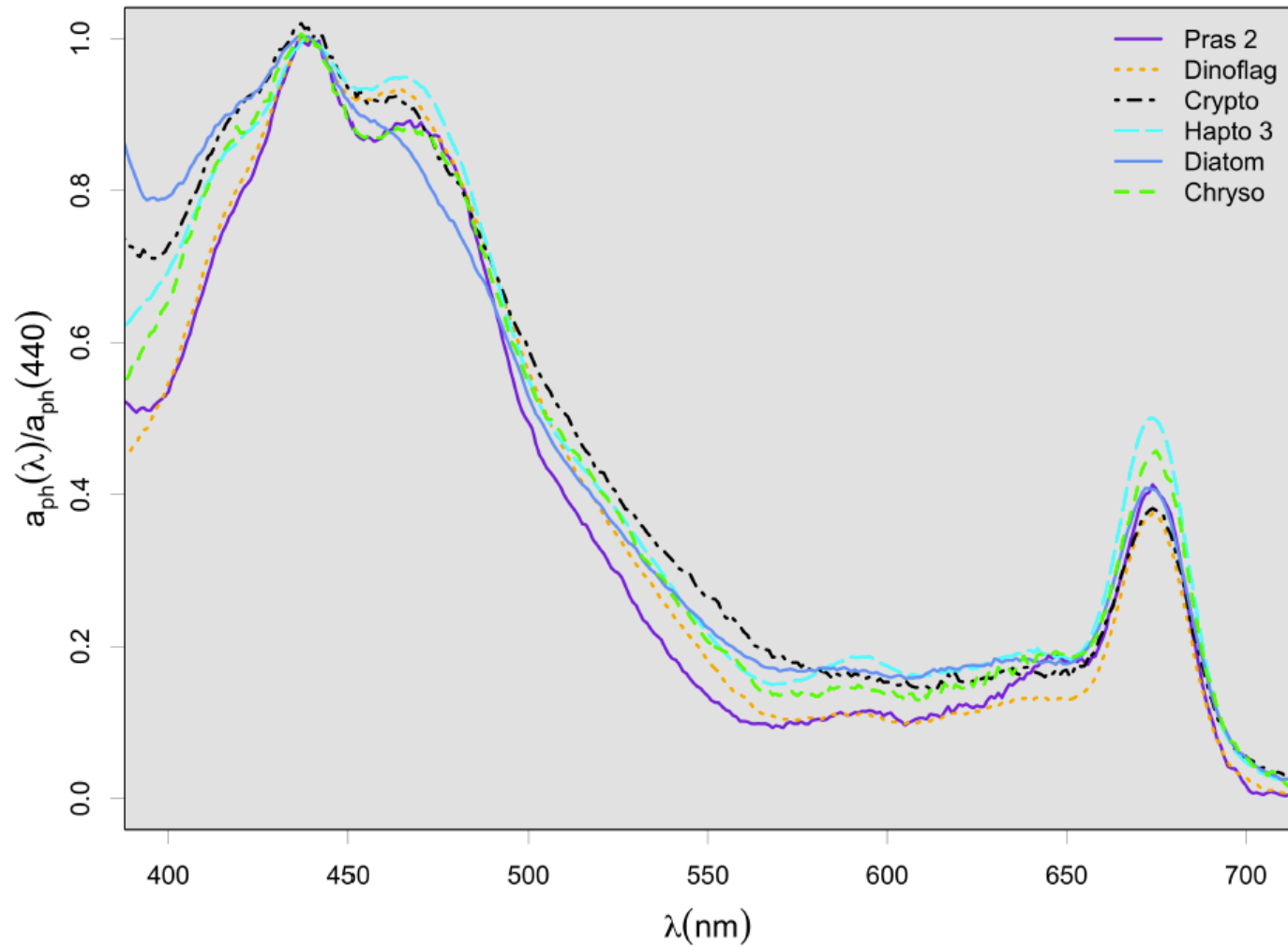
Temperature ($^{\circ}\text{C}$)

Arctic Community Structure

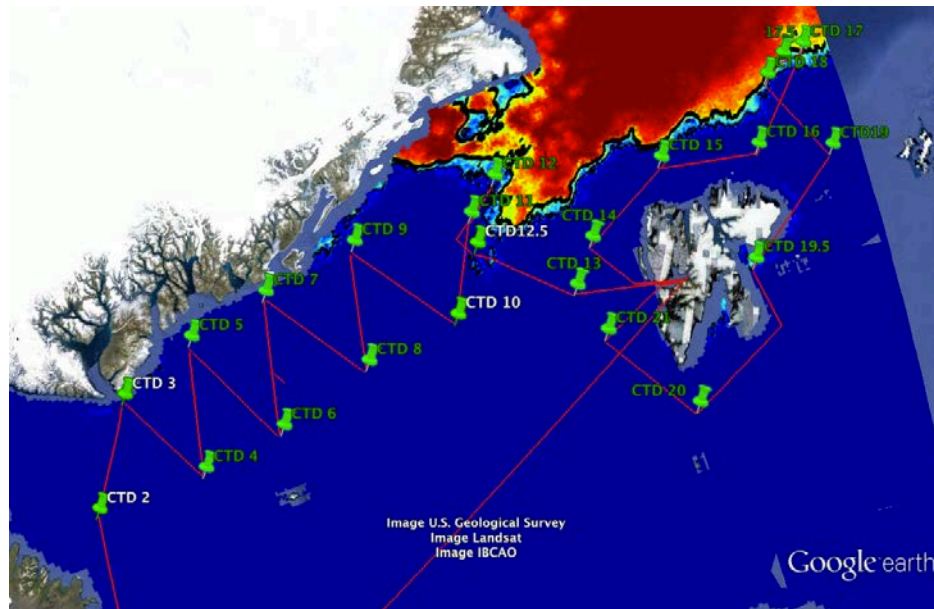




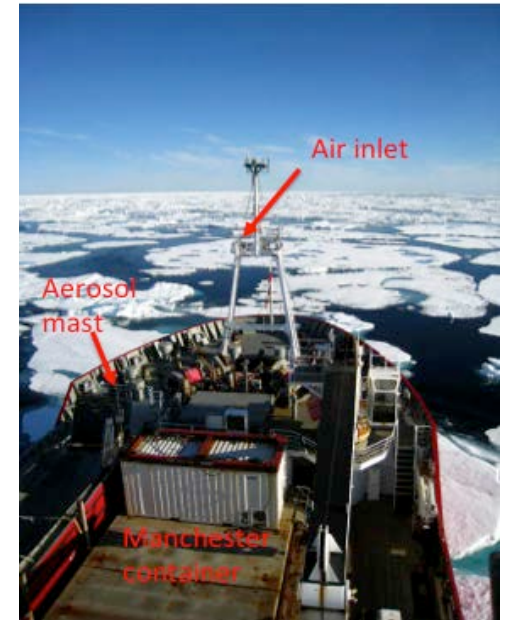
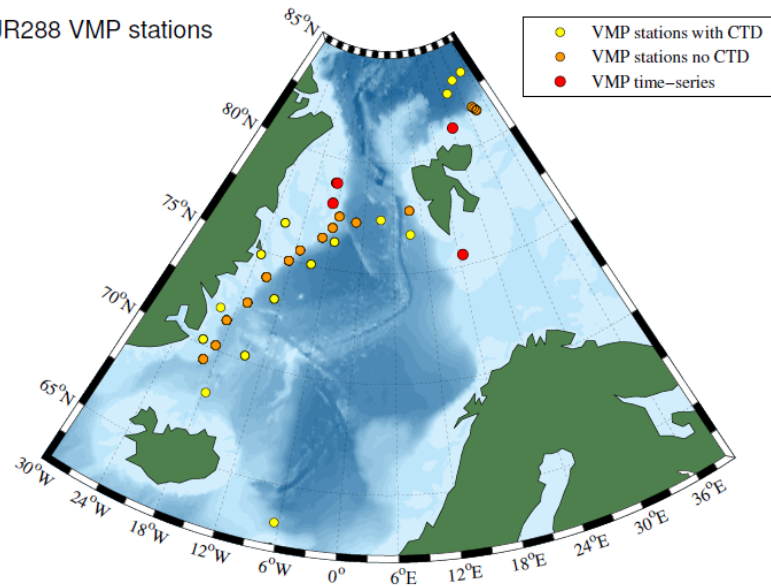
Arctic Bio-optics



LINKS BETWEEN OCEAN PHYSICS AND BIOLOGY



JR288 VMP stations



Collaborative Opportunities

- Research Partnerships – UK-based marine centres (SAMS, PML, NOCS)
- Datasets: Bio-optical, photophysiology/primary production, pigments – primarily in Greenland and Norwegian Seas
- Collaborative opportunities (PhD studentships through Oxford DTP, international fellowships)



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