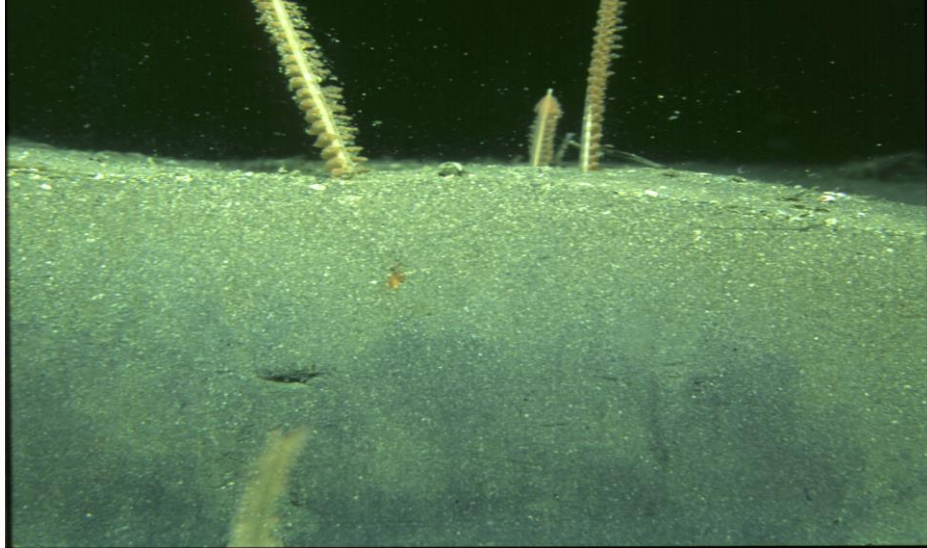
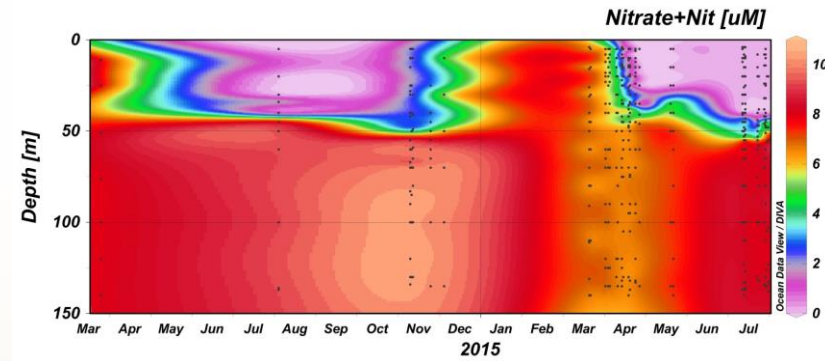


# Biogeochemistry, macronutrient and carbon cycling in the benthic layer (BMCC)



## Nutrient dynamics on the UK Continental Shelf during the Shelf Seas Biogeochemistry programme

Malcolm Woodward, Amandine Sabadel and Carolyn Harris



**CANDYFLOSS**

Nitrate, Nitrite, Silicate, Phosphate and Ammonium: 4 Benthic and 5 Pelagic cruises: CTD's, underway surface samples and numerous samplings for Benthic experiments, Flumes, Cores, Excretion experiments, CeFas Spatial Survey, NOC-L Lander deployments etc. etc. Over 51,000 nutrient analytical data points.



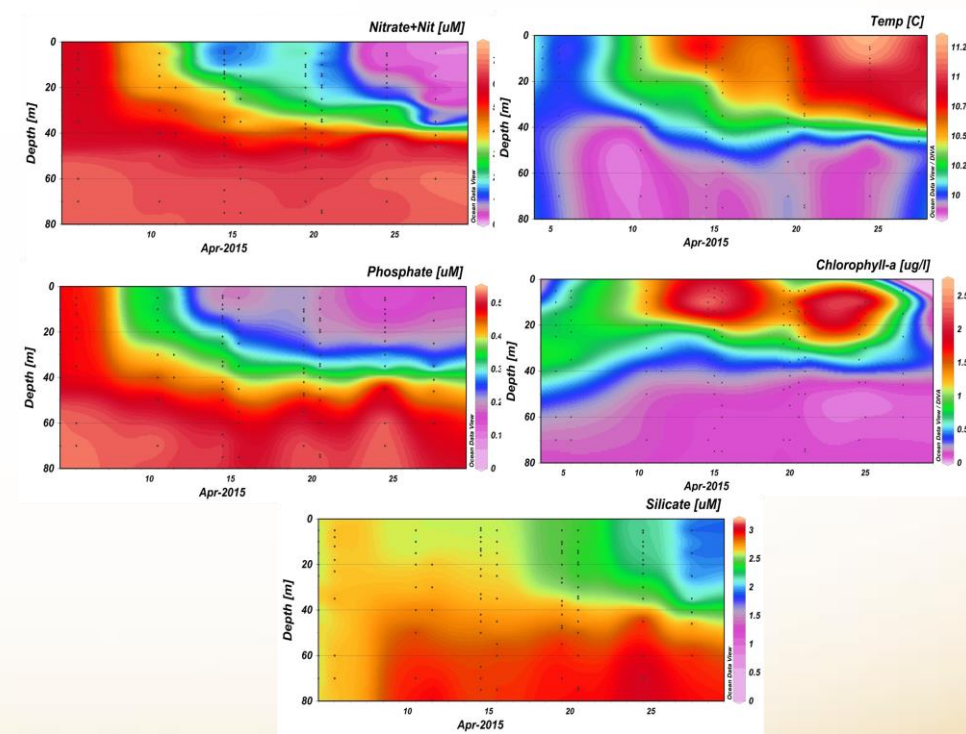
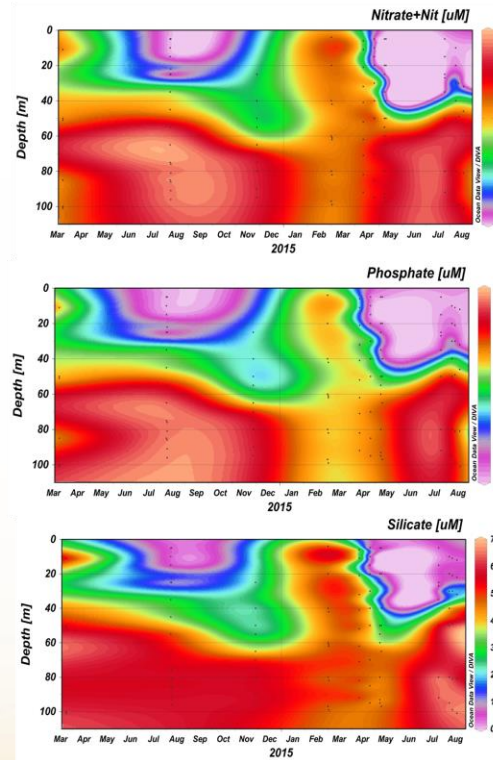
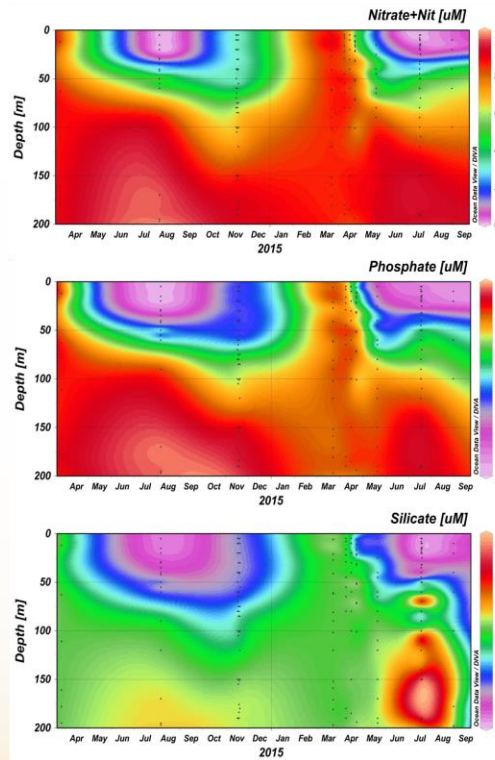
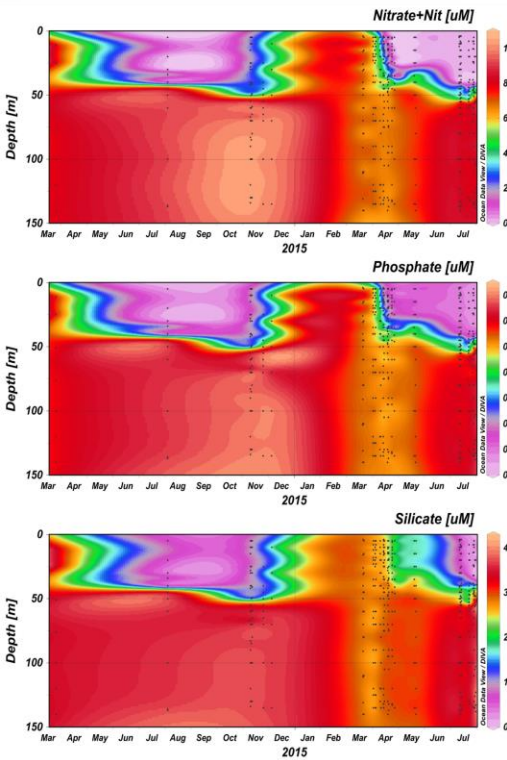
## Whole Programme Nutrients

## April 2015 – Spring Bloom

**Candyfloss**

**Shelf Break**

**Celtic Deep: Site A**



**Shelf Break: shallower mixed layer, shorter depletion – slope upwelling**  
**Celtic Deep: oligotrophic in summer, NO<sub>3</sub> and PO<sub>4</sub>, others only NO<sub>3</sub>**  
**Nitrate winter = 8umoles/l: Summer <5 nmoles/l. PO<sub>4</sub>: 0.45 – 55nmoles/l**  
**NO<sub>3</sub> availability limits PP**

**NO<sub>3</sub>: 6 - 0.4 umoles/**  
**PO<sub>4</sub>: 0.45 – 0.15 umoles/**