



## **Natural iron enrichment in the Southern Ocean: an overview of the CROZEX experiment.**

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Iron limitation has been widely demonstrated in high-nitrate low-chlorophyll oceanic regions. However, despite numerous studies of artificially induced blooms, the biogeochemical consequences of iron fertilisation remain relatively poorly understood. The Crozet natural iron fertilisation and export experiment involved a two leg cruise undertaken to the Crozet islands within the Polar Frontal zone in November 2004 – January 2005. Satellite data indicated that a large phytoplankton bloom occurs yearly in this region. Using a combination of in situ and on-deck experimental techniques, we observed that this bloom was dominated by diatoms combined with patchy regions of Phaeocystis. Enhanced carbon export, principally via the sinking of large diatoms following the collapse of the bloom, and changes in the export stoichiometry of carbon, nitrogen and silicate were also observed. This talk will provide a brief overview of the key results from the CROZEX experiment with implications for biogeochemical cycles in the Southern Ocean.