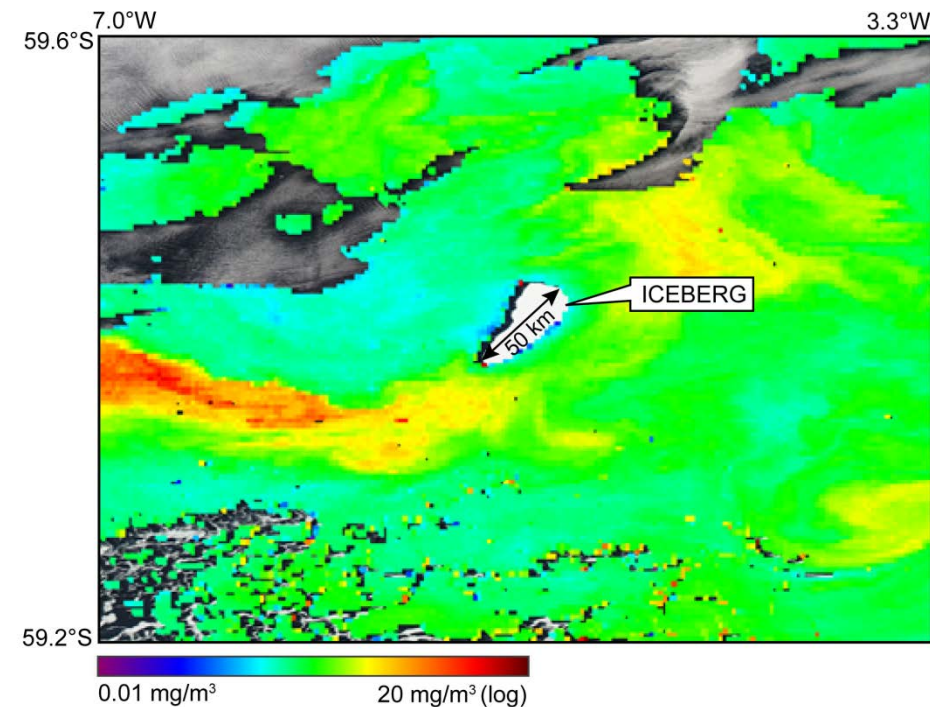
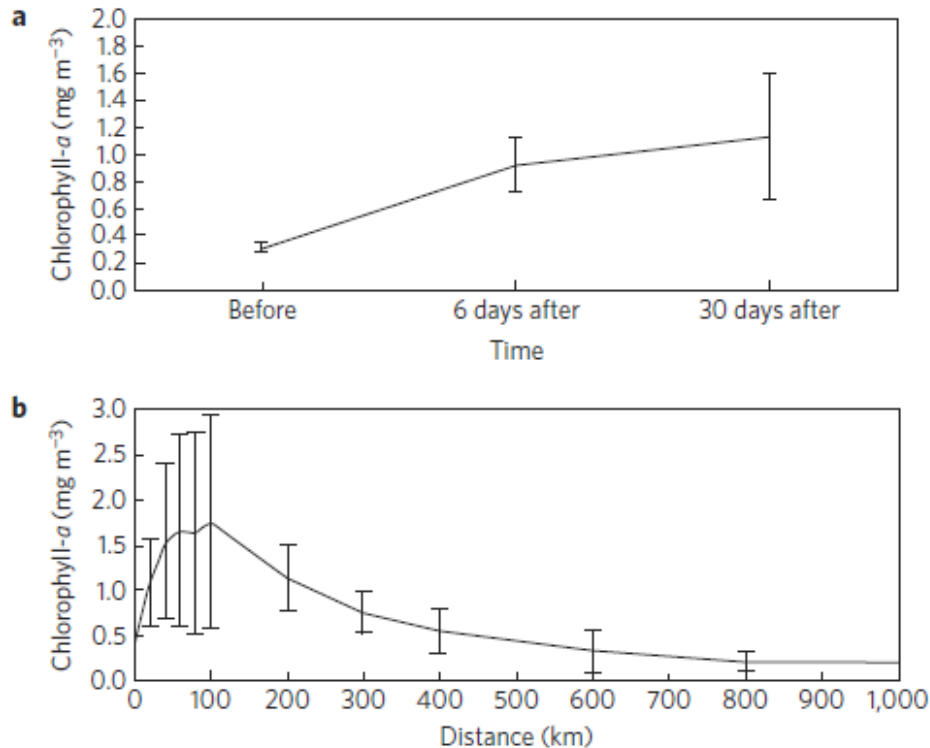


Icebergs and the Carbon Cycle

Grant Bigg, University of Sheffield

- The Chl-a level in the wake of a giant iceberg remains elevated for more than a month
- The spread of the enhanced production can be up to 1000 km and the enhancement an order of magnitude
- Relative to the undisturbed background, up to 0.012-0.04 Gt C sequestered in the deep Southern Ocean annually by giant icebergs
- 10-20% of estimated Southern Ocean total C export



Icebergs and the Carbon Cycle

- Remote sensing to determine properties and production – visual, SAR, altimetry
- Shipboard sampling near icebergs
- Modelling to determine density and contribution to ocean biogeochemistry

