

Supplement material

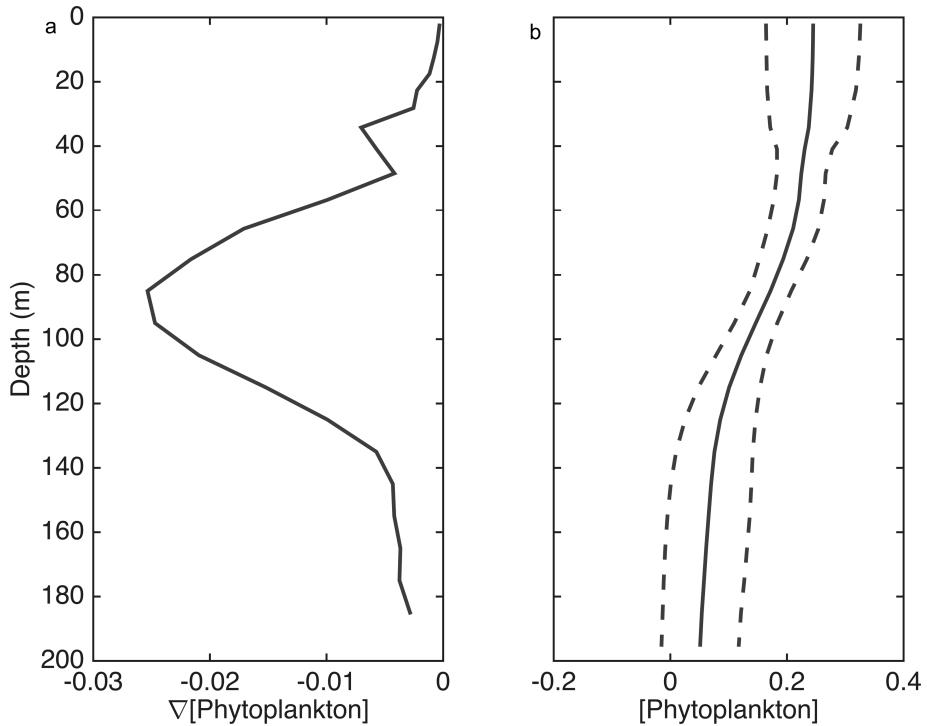


Figure S1. a) Vertical profiles of a location inside the Great Australian Bight of: a) gradient over depth of the annual mean of phytoplankton concentration, and b) annual mean and standard deviation of phytoplankton concentrations.

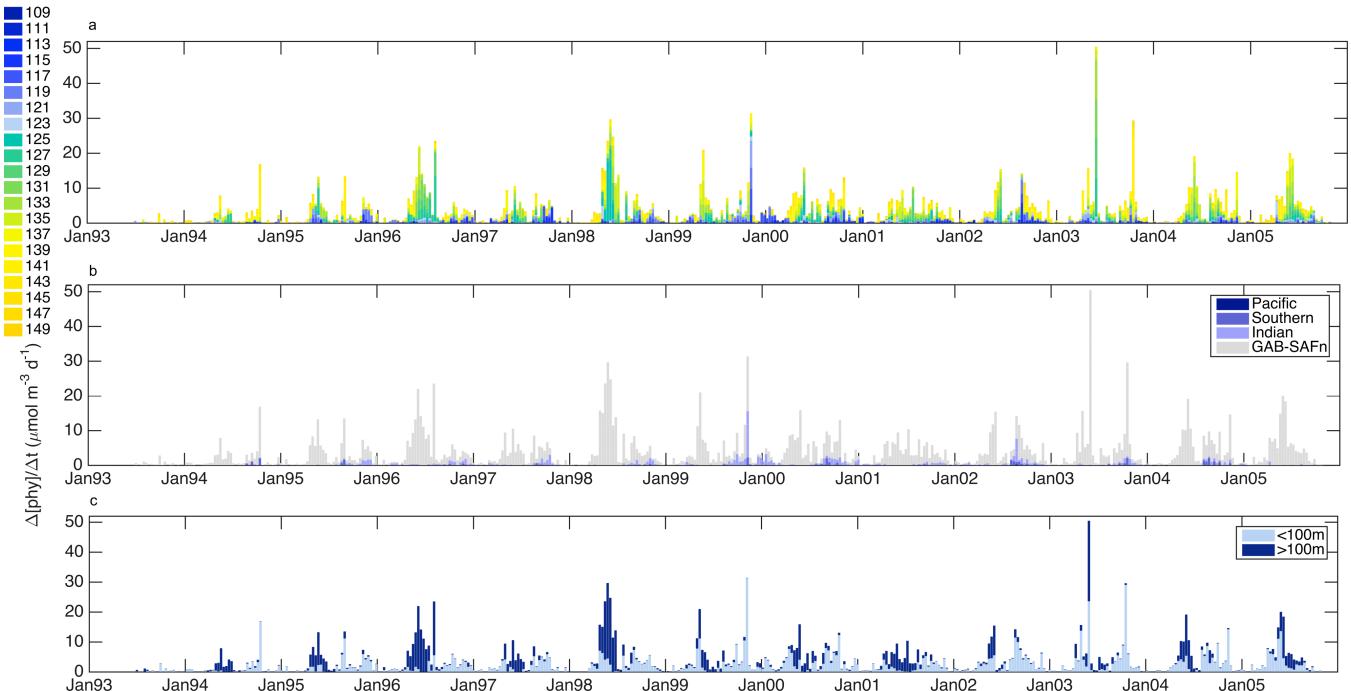


Figure S2. Time series (June 1993-June 2005) of daily increase in phytoplankton associated with extreme phytoplankton blooms; binned every 10 days and coloured by: a) longitude where the episodes occur, b) nitrate source, and c) depth at which the water entered the GAB.

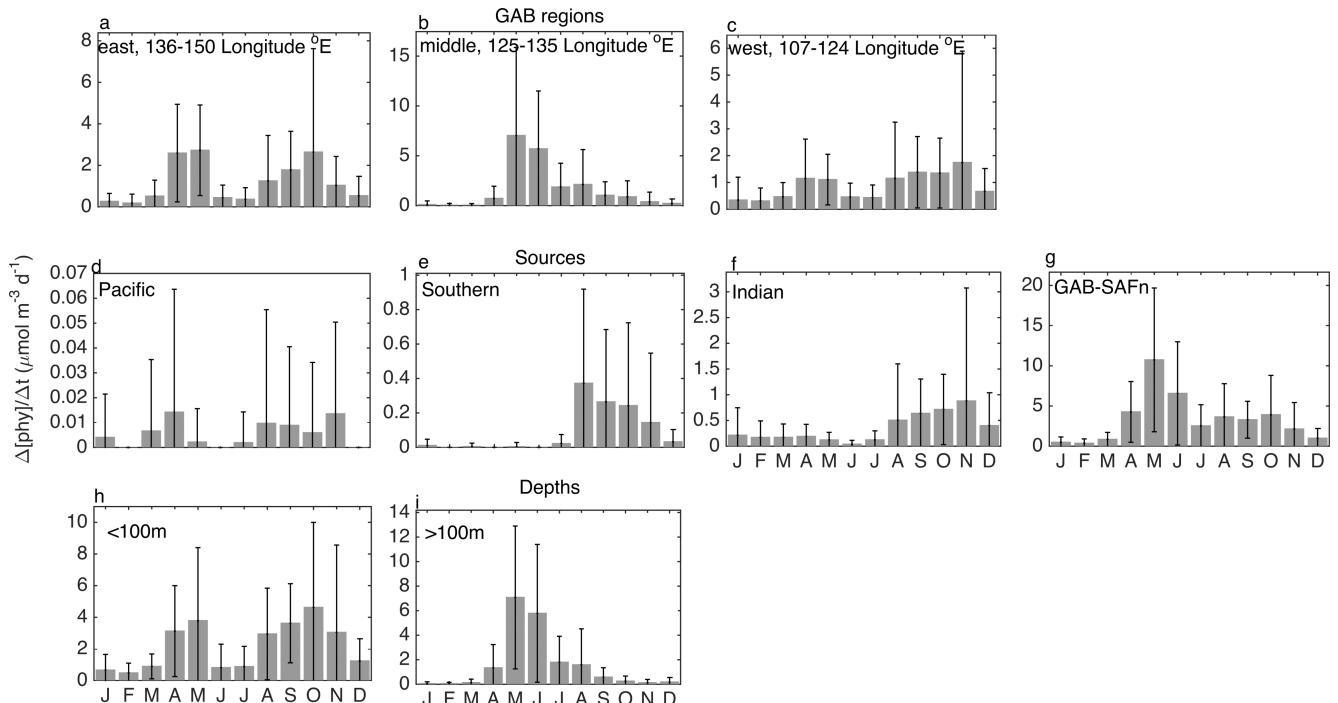


Figure S3. Monthly mean and standard deviation of the daily increase in phytoplankton associated with 1993-2005 extreme phytoplankton blooms grouped by: a-c) longitude where the extreme phytoplankton blooms occur (east, middle and west), d-g) nitrate source, and h-i) depth at which the water entered the GAB.

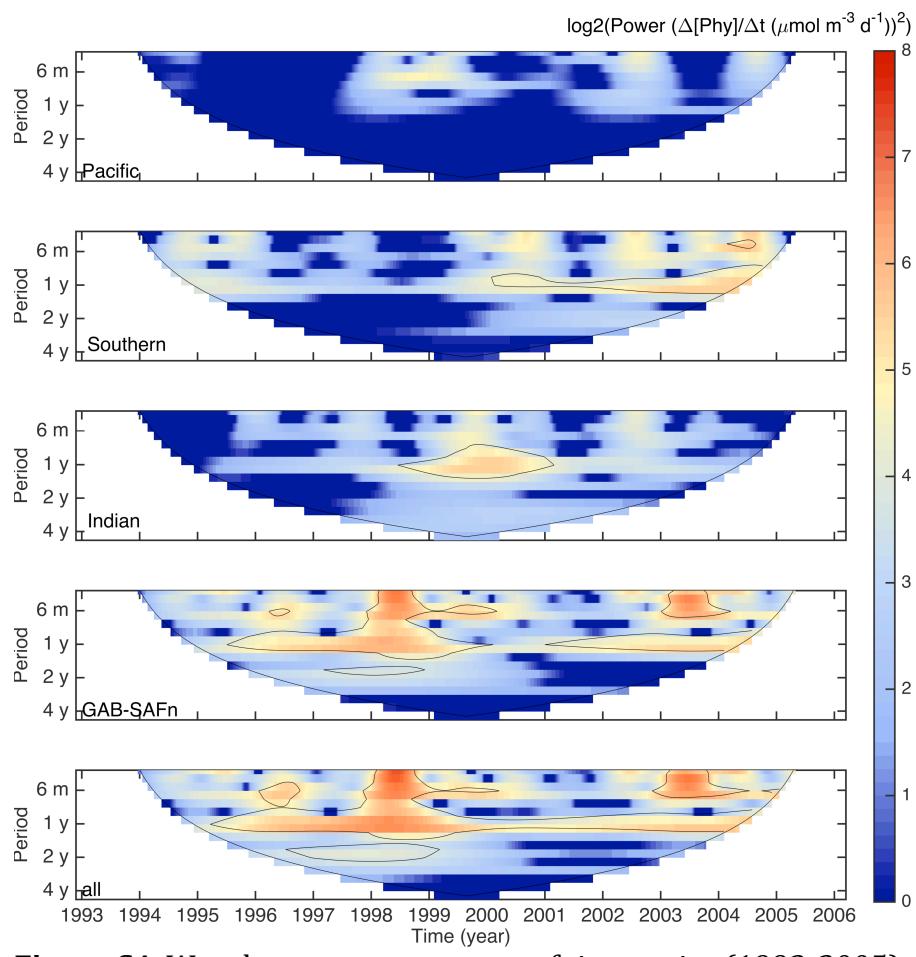


Figure S4. Wavelet power spectrums of time series (1993-2005) of daily increase in phytoplankton concentration associated with extreme phytoplankton blooms for each nitrate source. Significant periodicities are shown by black contours.