“ CARBON FLUXES IN SOUTH ATLANTIC OCEAN : BENGUELA PROVINCE”

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Abstract.

The partial pressure of CO2 in the atmosphere and in the seawater together with the temperature, salinity, oxygen and chlorophyll *a* in surface seawater along the QUIMA-VOS line from Felixstowe (UK) to Cape Town (South Africa) have been determined between July 2005 and August 2006 on board the MSC-MARTINA, MSC-GINA and MSC-BENEDETTA. This poster presents the distribution of the biogeochemical variables from the Equator to Cape Town and the carbon fluxes determination for the different provinces (ETRA, BENG, SATL) establishing the seasonal trends and the processes controlling the observed variability. Especial emphasis is presented for the Benguela province where the effects of upwelling and coastal shelf waters increase the CO2 variability.

Carbon fluxes have been calculated by a weekly maps of CO2 exchange coefficients at 1° resolution are derived from satellite wind speeds (from QSCAT wind speeds) in near real time, according to methods developed in collaboration between LOCEAN laboratory and IFREMER, using two different parameterisation. The CO_2 solubility was deduced from SST fields generated at the National Meteorological center.