



Biogeochemistry of a late marginal coccolithophorid bloom in the Bay of Biscay

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Coccolithophores, among which *Emiliana huxleyi* (Ehux) is the most abundant and widespread species, are the dominant calcifying phytoplankton in the temperate zone of the world's oceans. Within the framework of the "Climate and Atmosphere" Belgian Federal Science Policy Office programme, the continental margin of the Northern Bay of Biscay (North Atlantic Ocean) was visited in June 2006 during a multidisciplinary investigation of a late-spring bloom dominated by Ehux. Field sampling was assisted by daily transmission to the RV Belgica of remote sensing images, indicating the bloom development in the area.

Various stations on the shelf and the shelf-break were sampled for the vertical distributions of nutrients, Transparent Exopolymer Particles (TEP), chlorophyll-a and particulate carbon concentrations. These data will be presented, here, in relation with ¹⁴C based integrated primary production, dissolved esterase activity and the bacterial community structure to emphasize the importance of coccolithophorid blooms in the biogeochemistry of the Northern Atlantic's continental shelf.