



## Phytoplankton distribution and biodiversity on the shelf of southern Senegal

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### Abstract

Two main reasons make phytoplankton communities' key components of upwelling ecosystems. First of all they are closely linked to small pelagic fish which are microphageous planktivores and dominate these oceanic provinces. They are also tightly coupled to physical and chemical conditions and hence very sensitive to climate change. During the last 5 years a significant effort of observation of these communities has been conducted in the Senegalese coastal waters. During five field trips conducted over the last 5 years (4 during the upwelling season and one at the end of the rainy season), we collected concentrations through underway fluorimetry (Scanfish undulating vehicle, ship fluorometer, fluoroprobe), ocean colour and pigment analyses (HPLC, cytometry). The phytoplankton biodiversity was studied through pigments, microscope taxonomy and metagenomics. We will present here an overview of the different analysis and the actual results obtained in the southern Senegal coastal region.



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