The Seine plume observed through a satellite image browser

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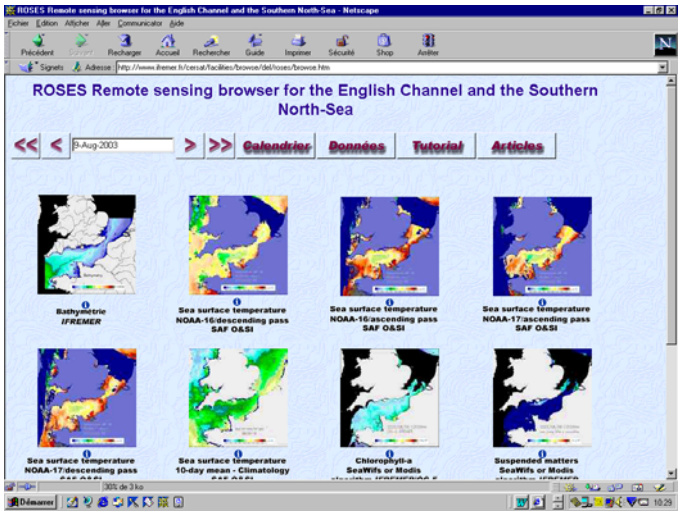
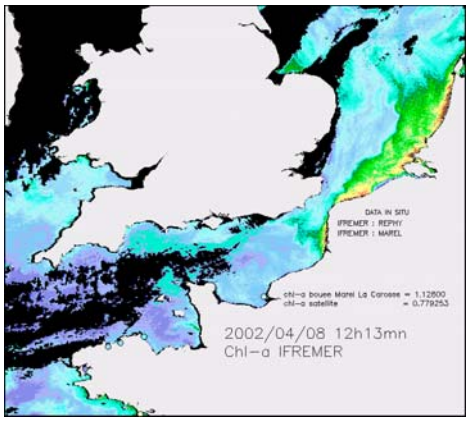


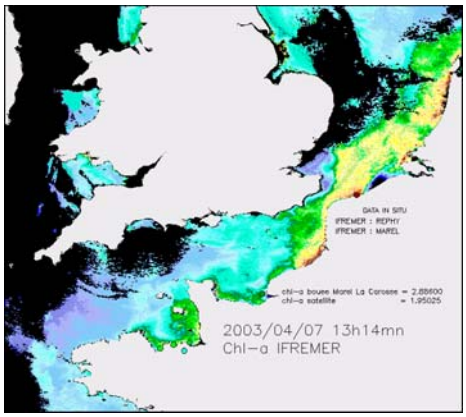
The **environmental background** in the Channel is monitored by satellite and in situ sensors and presented in the ROSES/GMES image browser

ROSES (Real Time Ocean Services for Environment and Security) is a GMES (Global Monitoring for Environment and Security) precursor service funded by the European Space Agency.

All the images in this browser (SeaWiFS and MODIS provided by NASA, AVHRR/NOAA data provided by MétéoFrance) are available for the scientific community.

http://www.ifremer.fr/cersat/facilities/browse/del/roses/browse.htm





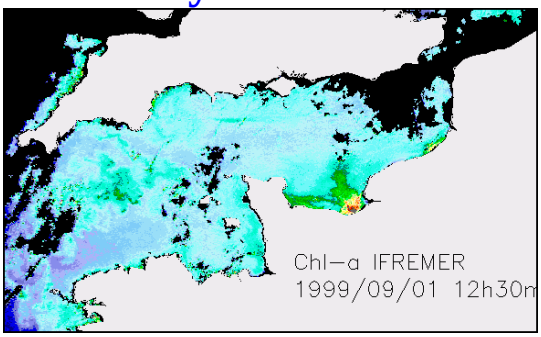
These chlorophyll images, extracted from the browser, on 2002/04/08 (left) and 2003/04/07 show two contrasted situations at the beginning of the production season. Early phytoplankton growth has been observed in spring 2003.

Satellite data are from AVHRR, SeaWiFS, and MODIS. In situ measurements (coloured disks along the coast) are from MAREL (IFREMER), SOMLIT (CNRS/INSU) and REPHY (IFREMER) networks

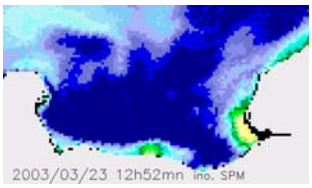
Towards **higher resolution images focusing on the Bay of Seine**

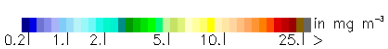
Submitted to a constant flux of nutrients, the Bay of Seine is an highly productive area from the end of March to the end of summer

Image on the right : SeaWiFS derived chlorophyll concentration at the end of summer when the Bay of Seine is the most productive region in the English Channel

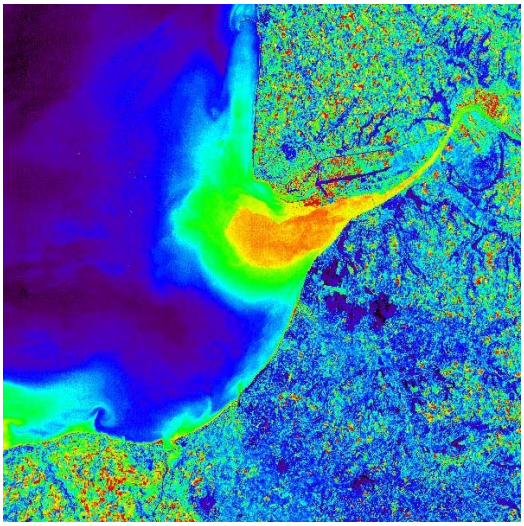


The temporal resolution of SeaWiFS is well-suited for monitoring the fluctuation of the environmental background but the spatial resolution is low. In the frame of the Seine-Aval program, several SPOT images will be calibrated onto the SeaWiFS suspended particulate matter (SPM) maps. These high resolution images will be used for validating the IFREMER hydrosedimentological model.





On the situation observed on 2003/03/23, the XS1 channel of SPOT, (540 nm, shown on the right), displays a proxy of the suspended material at high resolution and can be compared to the SeaWiFS derived SPM with an enhanced resolution along the shore.



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