

## ***Interactive comment on “Monitoring water quality in estuarine environments: lessons from the MAGEST monitoring programme in the Gironde fluvial-estuarine system” by H. Etcheber et al.***

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The referee #2 address pertinent questions about the interaction between the MAGEST network and the previously existing network in the Gironde estuary: “How well does this high frequency monitoring network fit into the previously existing monitoring network? Are the same places used for automatic stations and (monthly) manual samples? If so, do results match?”

Indeed, there is also the SOMLIT (Service d’Observation en Milieu Littoral, INSU-CNRS) program, a long-term monitoring of the Gironde estuary since 1978.

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The SOMLIT survey is based on 10 cruises per year at four locations: PK30, PK52, PK67 and PK82 (see map, blue points). Hydrological parameters (temperature, salinity, SPM, dissolved oxygen, chlorophyll) are measured at each station 10 times per year from surface (1 m below the surface) and bottom waters (1 m above the bottom) at 3-h intervals during tidal cycles (mid-rising/high/mid-ebbing/low tides). The database is available on the dedicated website: [http://www.domino.u-bordeaux.fr/somlit\\_bdd/](http://www.domino.u-bordeaux.fr/somlit_bdd/).

The objectives of these two network are of course to obtain long-term series, but with slight different purposes. The SOMLIT is more devoted to coastal waters and the Gironde stations are part of a national survey along the French coast. The Magest network is more focused on the link with the watershed, the objectives is not only to record long-term changes, but also to offer an operational tool for water management. This explains the choice of the stations: MAGEST being located in the central and fluvial estuary; SOMLIT in the central and down estuary. Anyway it is obvious both are complementary. The central estuary is in fact common with station PK52 in open waters for SOMLIT, and Pauillac on the riverbank for MAGEST. A recent comparison exercise of parameters has been undergone (Ben Mustapha, Master 2 ENVHOL, June 2010). There are good agreements between the two network for temperature and salinity. Turbidity values are less comparable between the two datasets (PK52, Pauillac). This could be in relation with the localisation. But the main explanation is likely the high heterogeneity of this parameter. Nevertheless turbidity values of both survey agree for the occurrence or not of the maximum turbidity zone in the central estuary.

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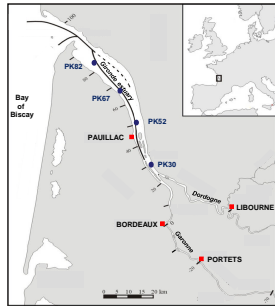


Fig. 1.

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