

Review of “Multiyear high-frequency physical and environmental observations at the Guadiana Estuary” by Garel and Ferreira, submitted to ESSD

General comments

This paper describes the time series of the SIMPATICO buoy located at the Guadiana Estuary, which are publicly available through PANGEA.

Data access and download were very easy. Files could be edited using several programs. Probe files would be easier to use if files extension was changed to “.txt” (tab format is mostly used by GIS programs). Metadata in each file contain all the needed information.

The data set was previously used for process study purpose by the authors (Garel and Ferreira, 2011a and 2011b), and can be of interest for the community. However in this paper times series are not really discussed except for their lack of data. My main concern is the data quality check. It should be more described, in particular with regard to the context of the station location. Considering the known processes in this area should help in data quality control design (range for valid data?,...).

Also, the figures should be improved.

I therefore suggest that the following points are addressed carefully before publication.

Specific comments

Valid probe data seem to be only available over a few months, especially during the first part of the time series. This should be quantified in the text. Table 1 could also include an information related to the dates of good data availability, so that the user knows the periods to consider (there is more than one major data gap).

If you zoom in on the time series plot, are there some drifts or bias in the salinity? Figure 3 from Garel and Ferreira (2011a) provides a temporal zoom. I am not sure about the nature of the increase in maximum salinity of October 2008 and May 2009. Salinity data validity is thus not obvious, and I recommend to have a more detailed look at the data. As mentioned by the author, biofouling and other factors could be responsible for bad data. I recommend to flag those salinity data as dubious or bad.

Data quality is expressed as 1 or 0 flag in the ADP files and as “/” in the probe files. More international data quality codes should be used, with more values (good and bad is not enough, you may need to indicate if data are probably good or dubious, corrected,...). This way you could also put a dedicated flag for missing values.

Technical corrections

Figure 2 is too small to be read. Also, the time series should be synchronized and share the same time axis to be considered together.