

Earth Syst. Sci. Data Discuss., referee comment RC2
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Comment on **essd-2022-146**

Anonymous Referee #2

Referee comment on "How to learn more about hydrological conditions and phytoplankton dynamics and diversity in the eastern English Channel and the Southern Bight of the North Sea: the Suivi Régional des Nutriments data set (1992–2021)" by Alain Lefebvre and David Devreker, Earth Syst. Sci. Data Discuss.,
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This is an interesting paper, describing a set of measurements conducted by the SRN network in the Eastern English Channel, and the Southern Bight of the North Sea.

The dataset described in this paper consists of measurements of hydrological and ecological variables, going back to 1992. Such historical datasets contribute to our understanding of long term ecological processes, and improve our ability to monitor and preserve sensitive ecosystems. This is especially important in areas subject to strong anthropogenic pressure, as the one addressed here, making the described dataset interesting and valuable.

The paper is well organized and clear. The authors do well in describing the geographical, hydrological and ecological context, emphasizing the dataset's importance and relevance. The technical aspects of data collection, analysis methods and quality control are, in general, well-described, although some important corrections/clarifications should be made (see comments below). In addition, the authors provide useful description of observed trends, discuss possible interpretation of observed variability patterns, and provide simple codes for data handling.

Overall this is a well written article that describes an important dataset and merits publication in Earth System Science Data. However, I have two concerns that should be addressed before acceptance:

While horizontal aspects of the sampling strategy are well described, it is not clear to me what is the vertical configuration of the sampling strategy. The authors should describe whether the measurements were taken at a single or multiple depths, what the sampling depths are, and what is the rationale behind their selection. This is an important limitation

that has to be addressed both when describing the data collection, and when discussing the observed trends

In the Discussion and Conclusion section the authors provide a review of scientific works conducted using SRN data. Although interesting by itself, to my understanding such a review is not in the scope of a data description paper, and should not be included here.