

Earth Syst. Sci. Data Discuss., referee comment RC1  
<https://doi.org/10.5194/essd-2021-19-RC1>, 2021  
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## Comment on essd-2021-19

Thomas Gloaguen (Referee)

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Referee comment on "Introducing GloRiSe – a global database on river sediment composition" by Gerrit Müller et al., Earth Syst. Sci. Data Discuss.,  
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### + Geral comments

The article and material is of very good quality and very useful, with consistent and comprehensive data. It provides a set of data of a global scope that does not exist so far, very important because referring to sediments and water from the main rivers in the world. In addition, it is an open source publication, which allows interaction with the help of any scientist in the world to expand the data set, seeming very promising.

The source of the data, the different types of material and the methods used are very well described. References are appropriate. The dataset is of high quality, easy to download and use.

The article is well written, with very few errors, and well structured. Some specific problems are described below. The data and the paper complement each other.

### + Specific comments

Line 96: about the sampling date. The authors mention "*The closest information on sampling date is given for each observation*". However, in the "SedimentDatabase\_ID" file, there are many samples with no date. This is the main problem of the dataset.

Line 150-177: I suggested reducing and summarizing (It would be more understandable)

The section on sediment chemistry and CIX is a little too detailed for me. This contrasts with the lack of discussion about the chemical water data. I suggest a better balance in the discussion of the different data sets.

The quality of Figure 1 should be improved.

### **+ Detailed comments**

Line 92: let clear what is Appendix A. Are there other appendices? (not found)

Line 93: it would be better to standardize using only coordinates, without referring to Google Earth or maps (retrieving the coordinates for all locations)

Line 94: What are the 21 samples?

Line 181-182: review the sentence

Line 225: "*T denotes the total concentration*" – remove the parentheses - or complete the sentence

Line 248. Substitute comma by point.