

## **Answer to comment on “Determination of heavy metal fractions in the sediments of oxbow lakes to detect the human impact on the fluvial system (Tisza River, SE Hungary)” by M. Tamás and A. Farsang**

### **Answer to Anonymous Referee #1**

Thank you for the Referees, that they found our article worthy to be considered amongst researchers interested in environmental chemistry.

„The paper focuses too much on presenting the analytical results. There is almost no discussion about the environmental implications of the findings.” – We shortened the analytical methods significantly and the analytical results slightly. The discussion part has been amended by focusing on the elements’ environmental impact.

„There are several language issues throughout the text, making it sometimes difficult to understand what the authors are attempting to say. There are also several spelling errors. The paper would thus benefit from a thorough revision.”- The linguistic issues corrected and reviewed by a native speaker.

„There are also problems with the structure of the paper. The objectives are not clearly stated. Methods are described in the introduction and new results are presented in the discussion section.” – We reviewed the structure of the article and we applied the re-structuring suggested by the Referee.

Other minor problems include:

„Abstract: lack of definition of BCR when it first appears.” – We cited the definition.

„Introduction: the description of oxbow lakes is not very clear, especially the ones “inside the dams”, it took me a while to understand what were the dams” – Clarified in the introduction.

„Introduction: references are sometimes displayed incorrectly in the body of the text and do not correspond to what is listed in the respective section (ex. Tamás et al., 2012, instead of Tamás and Farsang, 2012)” – We fixed it.

„Study area: for those unfamiliar with the study region, some descriptions are not very clear, for example, “cutoff number 84 in 1860”; the authors should provide some explanation” – Due to shorten and re-wording this part was reconsidered.

„Study area: a description of Lower-Tisza area characteristics that could influence the findings should be presented, including factors leading to the contamination of the oxbow lakes” – We added some information about the main impacts of oxbow lakes depending on the characteristics of Lower-Tisza valley.

„Figure 1, which illustrates the study area, needs to be improved. It lacks an overall reference of the study area location, a clear scale, and a legend indicating what the lines represent.” – We corrected of Figure 1.

„Results: Discussion paper: results in paragraph 1 are associated to references of other studies. The results presented are not original? Or what is the innovative aspect of the work under review?” – Some small part of the result has already published, because the new result on built on previous results.

„Results: Discussion: as mentioned before, in the discussion section, processes that can influence the observed results and differences between oxbow lake types are very poorly explored.” – We amended the implications and conclusions of the article.

Thanks for the Referees for their suggestions to improve our article.

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Regards:

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