

Interactive comment on “Spatial patterns of some trace elements in four Swedish stream networks” by J. Temnerud et al.

Anonymous Referee #2

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The purpose of this paper is not clear and the description on the background of this study is insufficient. Why did they try to characterize the spatial variability of range of trace elements ? Is there any environmental problem in water quality other than acidification ? The ambiguity of purpose resulted in the difficulty of understanding the scientific meaning and of evaluation for the validity of methodology and statistical analysis. In the chemical analysis, filtration was not conducted before analysis. The authors described some reasons for the use of unfiltered samples, but it was invalid. In addition, there was no description on the geology of the catchment areas. It is well known that the water quality, especially in trace elements such as As, is affected by bedrock types. Therefore, geological factors not only soil types should be included to conduct the spatial analysis on water quality.

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Liming activity is also an important point to understand the water quality. But, no detail description about when, how, how much of liming was found.

As mentioned above, some important information for evaluation of the scientific meaning of this paper was lacked. Then, I recommend the authors to reconstruct the contents with a clear purpose for this research.

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