

Interactive comment on “A comparison of interpolation methods on the basis of data obtained from a bathymetric survey of Lake Vrana, Croatia” by A. Šiljeg et al.

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Author Response: Based on the reviewer's suggestions, we propose the next changes:

- a correction of the Fig. 8 legend (and, if necessary, any others)
- reduce the size of the chapter dealing with gear and technology description, as well as the chapter dealing with bathymetric data gathering (chapter 2.1.)
- in the Table 7, change the units from ha to km² (due to consistency)
- instead of “mnm”, use “meters above sea level” as a unit

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- reduce the size of the text relating to the bathymetric data gathering
- make a list of interpolation methods in the introductory chapter
- modify the title of the paper in order to make the focus more precise and avoid misunderstandings related to the most important aims
- reduce the number of aims, from 6 to 3:
 - (1) to compare the efficiency of 16 methods of interpolation in order to determine the most appropriate interpolators for the development of a raster model of the lake, (2) to calculate the surface area, volume of the lake and develop the first bathymetric map of Lake Vrana (3) to develop a scenario for changes in water level in order to determine the potentially flooded areas

Also, to achieve a better organization of the paper, and according to the suggestions of the reviewer, we suggest the following changes:

- remove the aims and purpose of the research from the chapter 2.1. (sub-chapter 2.1.2.) in order to avoid repetition
- move the part of the text from “The bathymetric... bathymetric map” to the chapter “Research Methods”, since it relates to a specific method we used in the research – page 4
- move the part of the text “This research 2007” in the same manner – pages 4 and 5
- in the chapter “Research Results”, move the part of the text “In order ... parameters” to the “Research Methods” chapter, since it explains the way we obtained the results – page 12
- in the sub-chapter “Surface Area and Volume of the Lake”, move the part of the text “The final phase ... methods used” to “Research Methods”, since the part relates to the methodological explanation – page 16

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- remove exact numerical data relating to the results from the “Discussion”, in order to avoid repetition

We believe it is evident that we have implemented most of the reviewer's suggestions and hope that this will make the paper more appropriate and better in quality. We hope that you will accept such version of the paper as appropriate for the publication in HESS.

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