

***Interactive comment on* “Spatial variability of
recent sedimentation in Lake Ohrid
(Albania/Macedonia) – a complex interplay of
natural and anthropogenic factors and their
possible impact on biodiversity patterns” by
H. Vogel et al.**

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Comments on “Spatial variability of recent sedimentation in Lake Ohrid (Albania/Macedonia) – a complex interplay of natural and anthropogenic factors and their possible impact on biodiversity patterns” by H. Vogel, M. Wessels, C. Albrecht, H.-B. Stich, and B. Wagner, Biogeosciences Discuss., 7, 3911–3930, 2010.

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General comments: The paper provides spatially distributed surface sediment composition data of Lake Ohrid. The presented study includes novel data which clearly contributes to a better understanding of the recent sedimentation processes in Lake Ohrid and therewith fits well into a quantity of articles focused on Balkan lakes Ohrid and Prespa. The authors have analysed selected proxies (e.g. geochemical parameters, element concentrations, and grain-size distribution) to support the given interpretations and conclusions. However, it is not stated why these used proxies were chosen, and the reader somehow gets the impression that these data were specifically chosen to support some stated conclusions (e.g. a counter-clockwise surface current). A major issue of this paper is the incomplete presented grain-size data. This hampers a comprehensive discussion of the observed sediment composition and its spatial distribution. Figure 3 should therefore be replaced by a complete series of sub-figures showing all gathered data of this study (see detailed comments on Fig. 3) and the text should be supplemented with an elaborated discussion including grain-size data and other controlling processes than a surface current (e.g. turbidity currents or bottom currents). The chosen title of this paper allows expectation of an extensive discussion on the ‘possible impact on biodiversity patterns’ of Lake Ohrid, deduced from the data gathered in this study. The corresponding chapter, however, includes a general literature discussion without using the new surface sediment data. Please include your data in this discussion (see detailed comments on P3921 L1) or change the title of your paper accordingly. In summary, a major revision with regards to content and several technical (see below) corrections is suggested.

Detailed comments and technical corrections: see supplement

Please also note the supplement to this comment:

<http://www.biogeosciences-discuss.net/7/C2449/2010/bgd-7-C2449-2010-supplement.pdf>

Interactive comment on Biogeosciences Discuss., 7, 3911, 2010.

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