

## ***Interactive comment on “Flood history of the Bavarian Alpine Foreland since the late Middle Ages in the context of internal and external climate forcing factors” by O. Böhm et al.***

**Ph.D. Elleder (Referee)**

elleder@chmi.cz

Received and published: 21 November 2014

General evaluation: This paper presents an analysis and interpretation of the documentary sources on floods for Bavarian Alps foreland. Whereas in Bavaria, the systematic records of flood levels go back to 1821, using the documentary sources, authors succeeded in extension of the flood analysis to the 13th century. I consider the paper as very interesting and valuable.

Specific comments and points to be addressed: 1. I strongly suggest the authors to include the overall summary of used data. How many flood events (without specifica-

Full Screen / Esc

Printer-friendly Version

Interactive Discussion

Discussion Paper



tion of locality) were recorded during the examined period? I mean the flood event as specified on example of flood event of 1501 (7418/ pp. 10–15). 2. The authors should stress in how many sites (profiles – being either hydrological sites or sites mentioned in chronicles) were the flood events recorded in the IBT database. It is not clear if these are the 9 sites presented by Fig. 1 (Kempten (Iller), Augsburg, Landsberg- (river Lech), Munich, Landshut (Isar), Innsbruck, Wasserburg (Inn), Salzburg, Burghausen (Salzach)? If it is the case, it should be explicitly mentioned in the text. Or are these above mentioned sites just the most important places where the floods were mentioned, or are these just places with water gauges? This should be clarified in the text. If there are more important places relevant for the topic, they should be described and adequately marked in Fig. 1. 3. The authors should provide more detailed information on the documentary data on floods at disposal for the above profiles – particularly interesting is the time span of the data and count of the documentary sources. 4. Bohm (2006) provided the analysis of flood frequencies separately for Munich and Augsburg, similarly Schmocker et al. (2010) analysed the flood series separately for Switzerland. In this paper, in contrast, the data is merged and analysed jointly. Why? What is the reason? Is there any benefit for merging the data? And how about the limitations? With respect to the point 1. of my review, it is desirable to clarify what are these flood events presented in the graphs showing 31-year standardized frequency. How were the flood events selected – what criteria did the authors select – please, specify in the text. 5. The authors should explain the acronym “EIP” time series. 6. I suggest the authors to compare their results with the results of similar analyses published for Switzerland, and particularly for the Czech Republic, where significant similarity in flood frequency can be anticipated. 7. The authors should clearly denote the flood rich periods (the area above the polynomial function) in Fig. 3 – some appropriate tool for accentuation of the area should be used (shades of grey, #1-#9, colour).

Minor corrections – Fig. 2 a, b – monthly maxima should rather be presented by the bar chart – it would be more transparent – Fig. 3 – the x-axis should begin in the year of 1250, the polynomial approximation is pointless – Fig. 4a – do the

authors mean Fig. 2a? – 7425 compared

---

Interactive comment on Hydrol. Earth Syst. Sci. Discuss., 11, 7409, 2014.

**HESD**

11, C5228–C5230, 2014

---

Interactive  
Comment

Full Screen / Esc

Printer-friendly Version

Interactive Discussion

Discussion Paper

C5230

