

Interactive comment on “Catchment classification: empirical analysis of hydrologic similarity based on catchment function in the eastern USA” by K. Sawicz et al.

Anonymous Referee #1

Received and published: 23 May 2011

The paper covers a very actual topic and presents it in a well structured and consistent way. This paper provides impressive proof that classification based on signatures which are closely linked to catchment functioning results in spatially consistent clustering of catchments. The methods and results are well described. The discussion is very detailed and based on up-to-date knowledge.

The paper shows some minor inaccuracies that should be revised:

Names and abbreviation of signatures may be used in a continuous way. For example Baseflow Index: abbreviation IBF, IBF, BFI

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numbering from 3.1 should be altered (3.1.1 is not a sub-chapter of 3.1!)

page 4503, line 17: no line break

page 4507, lines 11-17: ARI or ARO ?

page 4507, lines 22-25: same as page 4505 line 15-16

page 4508, line 4: RR?

page 4509, lines 28ff: same as in legends for Fig. 4 and 5 without further explanations here

page 4510, line 3: Figure 7: no further explanation or mention in the text. I recommend to drop Fig. 7: It is difficult to read and does not give additional information.

page 4512, line 20: (Fig. 7) or better AG in Fig. 6 ?

Page 4514, line 11: Carillo et al. 2011: not in references

page 4514 line 21: cluster 47 ?? do you mean 4, 7?

page 4516 line 6: Eleven clusters ??

page 4526, Table 1: an alphabetical order of the variables would facilitate finding certain variables

Interactive comment on Hydrol. Earth Syst. Sci. Discuss., 8, 4495, 2011.

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