

## ***Interactive comment on* “Comparison of catchment grouping methods for flow duration curve estimation at ungauged sites in France” by E. Sauquet and C. Catalogne**

### **Anonymous Referee #2**

Received and published: 25 May 2011

This paper presents different methods for grouping catchments for flow duration curve estimation at ungauged sites. The paper is well written, seems to cover the subject well, and I will recommend publication after some minor revisions.

Minor comments:

P3245 There is a reference to Hydro-EcoRegions, without a reference to how these were derived. I assume there exist a publication, if not there should be some more details about how these were derived. If it was done by the authors, it should be stated explicitly.

P3247 There is an explanation of CCA that is fairly detailed, but still challenging to follow. Maybe a few more lines explaining how to obtain the canonical variables would make it clearer.

P3249 The summary of correlations between canonical variables is hard to read, maybe a table would simplify.

P3249 It is claimed that the hydrological variables are two ratios free from scale effect. I am not sure if this is completely correct, wouldn't the scale at least influence the shape of the curve? The effect would of course still be less pronounced than when comparing area directly with runoff.

Some minor textual comments:

P3225, L19 "These results cannot be ignored"

Informal, rewrite

P3240 "summarize"

summarizing

P3241 L10-11 "Transforming the raw data has been adopted"

The raw data has been transformed to avoid. . .

P3241, L23 "functions"

drop the s

P3243 "outperform among the models"

outperform the other models

P3243 L12 "the EOF model is the only one to be kept"

Change to active language, e.g.: we only kept the EOF model

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P3250 “among the 18 quantitative variables”

among the 18 catchment characteristics described in section 2

P3252 “outperforms only slightly”

only slightly outperforms

P3253 “Despite a greatest”

Despite the greatest or despite a greater

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Interactive comment on Hydrol. Earth Syst. Sci. Discuss., 8, 3233, 2011.

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