

Interactive comment on “Streamflow trends in Europe: evidence from a dataset of near-natural catchments” by K. Stahl et al.

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The paper presents a trend analysis on a newly assembled European streamflow dataset. The analysis of annual, monthly and low-flows trends is performed on small catchments with near natural flow regimes. The results show that, for the period 1962–2004: annual trends reflect in many regions the trends of winter flows; positive trends in the north and Alpine area and negative trends in the south can be recognised; positive trends in winter and negative trends in summer characterise a big part of the study area. Through maps, the spatial heterogeneity (and, in many cases, coherence) of these findings is shown.

The paper is synthetic, well organised and well written. The literature review, the in-

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formation on other benchmark studies and the discussion of the results of this work in comparison to them is accurate and, to my knowledge, complete. The strength of the paper is represented by the extended database collected and analysed. Concerning this, it is a pity that some big European countries are missing (e.g., Italy, Balkans, ..., from the 29 countries in FRIEND, only 15 are embodied in this study). Is it a problem of data quality (record length, non-natural regimes...) or the data could not be accessed in those countries?

The trend analysis is quite raw, as the authors admit in Section 3.2. Even if "testing the significance is not the aim of the study", I would anyway use a significance test for the trend and complete Table 2 with columns on the percentage of no significant trend. Alternatively, since the period analysed is the same for all stations, a threshold for the absolute value of the Kendall-Theil slope could be used (e.g., the grey catchments in Fig. 1 could be considered with no-trend in Table 2). In any case I would dedicate some space and discussion on the no-trend regions, if any.

Minor suggestions follow:

A table with a summary on catchment characteristics (or a completion of Table 1) could be added, e.g., max/min/mean catchment area/mean elevation...

Is the work an outcome of the EU-WATCH project? If so, I would describe it into the introduction section.

Page 5781, lines 1-10: please comment further on the south-French case, where more than elsewhere positive and negative trends alternate depending on the period.

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