

Interactive comment on “Observed drought and wetness trends in Europe: an update” by I. Bordi et al.

Anonymous Referee #3

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General

This a good/excellent and updated paper that deals with precipitation anomalies referring to both drought and wet periods. SPI is applied to reanalysis data from NCEP/NCAR relative to Europe. The SPI-3 and -24 are adopted for the analysis. The methods are appropriate, discussions are good, and conclusions are well drawn.

Details

1- page 3892, lines 25-26: the terms drought and dry spell are used in the same sentence without giving the respective concepts. They are different phenomena and it is important to provide their concepts, simply, to avoid misleading interpretations by

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readers. This is also important because droughts and dry spells may be differently affected by climate change, which is discussed on the next page.

2- Page 3894 lines 24-25. Following the advice of a open reviewer, it seems appropriate to elaborate on the methodology for data reanalysis despite an appropriate reference is given

3- Page 3897: why to introduce the term “western Eurasia”?

4- Page 3898 lines 5-6: Quote some of the referred “previous papers”

5- Sections 3.1 and 3.2 have titles referring to meteorological and hydrological drought and wetness and refer to time scales of respectively 3 and 24 months. However it is hard to believe that a 24 month time scale of SPI refer to hydrological droughts or wetnesses. It may very well refer to a meteorological drought (wetness). The SPI-3 month may very well do not correspond to a drought but to dry spells. Therefore, I suggest the authors either to discuss the concepts of meteorological and hydrological drought and wetness before using these in a section title, or to change these titles to reflect the time scale of the analyzed SPI.

6- Figure 3 could be discussed with more detail and the figure caption could have a bit more indication for readers about the meanings of results presented, i.e. where the trend is for dry or wet periods

7- Fig 4a is referred in the caption only as first loading; thus any reader must go in the text to understand what is presented. I suggest that the figure caption is more explanatory since a figure must be understandable by itself

8- The paragraph starting in last line of page 3900 ends 5th line of 3902. Why not to ease reading breaking it into 2 or 3 paragraphs?

9- It could be good to add some references to papers referring to the verification of trends or no trends relative to droughts or wet periods in any region of Europe.

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This paper is fully in agreement with the criteria for evaluation of HESS papers. Therefore, it is my advice that the paper is acceptable with only minor improvements.

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