

## **Trends in evapotranspiration and its drivers in Great Britain: 1961 to 2015 by Eleanor M. Blyth et al.**

In this paper, the trends in evapotranspiration and its drivers (precipitation and radiation) in Great Britain are investigated. Furthermore, the trend analysis of the different components of evapotranspiration (bare soil, transpiration, interception) was conducted to see which components of the evaporation are contributing to the trend. For this purpose, the authors used the JULES model to have a long-term dataset of evapotranspiration.

As I see, generally, the paper is irregular, and not well-organized. The methodology and the results are not specified clearly. The results are presented like a report, although they are discussed well.

I think the paper provide a little novelty, maybe the good point of the paper is investigating the trend in evaporation components.

Some questions:

- 1- Page 3, Line 28-31: Authors mentioned that “Assumptions about the processes involved and their interactions (see Wang and Dickinson, 2012 for a review of methods) can have a significant impact on the resulting modelled evaporation (see Schellekens et al, 2017 for overview of model differences).”. But they did not say anything about their idea (or the others’ idea) for this limitation. I, as a reader, would like to know (after this sentence) that if the authors have any recommendation or any idea for this limitation.
- 2- Page 5, Line 11 and Fig. 1: I was wondering why the authors presented the figure here, in methodology section? I think it is better to introduce the model firstly, and then present the maps and graphs in the results section.

Some recommendation:

- 1- The authors used “evapotranspiration” and “evaporation”. Please be clear with these two terms. Where “evapotranspiration” should be used and where “evaporation”?
- 2- The authors should clarify how they calculated the trend. It is a good idea to use the Mann-Kendall test for trend analysis. Furthermore, they can use the modified Mann-Kendall test for the effect of long-term and short-term memory on the trend. The title of the paper shows that the focus of the paper should be on the trend analysis, so one of the most important parts of the methodology should be the trend analysis method.

- 3- It is not needed to provide the results in both table and figure. Skip one of them and keep only the other one (For example, Table 8 and Fig. 14).
- 4- I think it is better to combine the results and discussion sections together. Now, there is an inconsistency between the results and discussion which make it ambiguous for the readers to understand the reasons for your results.
- 5- Page 28, Line 12: Please provide a table in which the differences are shown. It would be easier for the reader to see the differences.

Some typos:

- 1- Page 2, Line 18: “that” → “than”.
- 2- Page 3, Line 28: “sunshine and soil moisture, the intercepted of rainfall by plants.” → “sunshine, soil moisture **and** the **interception** of rainfall by plants.’
- 3- Page 4, Line 16: “while” → “and”.
- 4- Page 5, Line 11: “Figure 1 show maps of the time-average quantities of evapotranspiration” → “Figure 1 shows maps of the time-average quantities of **modelled** evapotranspiration”.
- 5- Page 6, Line 3: “Figure 1. Top and middle rows”: There are only 2 rows in the figure, so “**Top and middle rows**” could be skipped.