

Review Sahoo et al., HESS

<https://egusphere.copernicus.org/preprints/2026/egusphere-2026-3206/#discussion>

General comments

This study looks at summer land-atmosphere coupling over Europe comparing multiple Observation-based datasets. These results are very useful since land-atmosphere coupling is difficult to determine in observations due to a lack of data and large uncertainties. The study is generally well and comprehensively written. There is some potential to improve the Figures, they are generally a bit small and less could be more in some cases.

Abbreviations

There are many abbreviations for many variables and datasets. However they are not used consistently. In some figures all of a sudden variable names are spelled out, abbreviations are used in uppercase and lowercase letters. More consistency would help the readers I think.

Figures

In the Lineplots colors are hard to distinguish. Maybe different line styles would help? Letters are also on the small side and could be increased.

e.g. for Figures 3 and 4 you could pick the most important region, increase Figures and lettering and put the other 3 regions into Appendix/Supplementary material?

Colors should have a meaning. E.g. why are subtitles in figure 5 red? Decreases readability

Figure 3A is very distorted

References

The references seem to ignore any rules about capitalization.

Minor comments

L40: dot after reference

L52: I think there is a reference missing after “extremes”.

L53-54: rephrase sentence to “...CMIP model which represent stronger land-atmosphere coupling in the present climate have most likely a tendency to ...”?

L59-60: I would avoid the phrase “In conclusion” in the introduction, maybe “hence”?

L99: no dot before reference

L167: vegetation instead of vegetation

L216: unit missing for SR

L217: units missing for Ra, Tmax, Tmin

L243: annual cycles instead of annual cycle

L252: This sentence is not complete, there are missing articles. Rephrase to e.g. “For the SSM annual cycle (Fig. 2a), SiTHv2 and MERRA2 differ significantly from the rest of the data across all regions. “

L257: missing article before “entire”

L265: missing verb and article, GLEAM versions are about 2 factors less than the rest of

L266: PET variation follows a similar pattern...

L268: missing word between “winter” and “no”, winter with no variability?

L276: missing article, “using the same equation”

L321: double the the

L322: it is not clear which drought event is referred to by “The strong drought event is”. The sentence before mentions 2021 and 2017 so either “these drought events” or specify which one is referred to.

Figure 3 caption: lowercase abbreviations inconsistent with text

L370: missing articles in sentence

Figure 5 caption: missing space before (

Figure 5: I am wondering if it would be better to reduce this to the datasets which provide both variables? From what I understand some of the calculated variables show a different behaviour and do not make the Figure clearer. There are quite a few lines in these plots which are hard to see, so reducing the datasets might help.

L385: the before in situ data not needed

L450: represents is not the right word here, shows?