Earth Syst. Dynam. Discuss., https://doi.org/10.5194/esd-2018-85-RC2, 2019 © Author(s) 2019. This work is distributed under the Creative Commons Attribution 4.0 License.



## Interactive comment on "Changes in the future summer Mediterranean climate: contribution of teleconnections and local factors" by Monika J. Barcikowska et al.

## **Anonymous Referee #2**

Received and published: 8 March 2019

Dear editor,

I have read this paper and think it fits the scope of ESD. Moreover, I think the material presented in the paper is an welcome addition to the knowledge on climatic changes in the Mediterranean. My main issues with the current manuscript are in the presentation. I think it is quite long and should be more focused, possibly with a reduction in the number of figures.

Kind regards,

C1

Specific comments: 1. The paper is quite long and elaborate, maybe wise to focus a bit more and reduce the number of figures?

- 2. There are many long sentences throughout the paper, which make it hard to follow the reasoning sometimes. I suggest to have a good look at opportunities to shorten them.
- 3. In many places in the manuscript, geographic names (Levant, Asia Minor, Balkans, Sahara, North Africa, EMED, and many more) are used to describe the model results. This assumes that the reader knows the location of all these places, which is probably not true. I suggest to indicate the relevant places in a figure and to be more specific in the geography when mentioning other places.
- 4. You compare the high resolution model output to NCEP/DOE reanalysis of 2.5 degree resolution. Why not compare it to higher resolution products, such as ERA5?
- 5. Is there a significant difference between the top and bottom panels in Fig 7? It is not clear to me, maybe use a different color scale?
- 6. Indicate different data sources (HIST, PROJ runs) in Fig 11c? Maybe by a vertical line in the plot?
- 7. P21L35, "This may stem from...". I agree that the anthropogenic forcing is not included in the control run and may contribute to this discrepancy. But what about other explanations?

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