

Interactive comment on “Sensitivity and evaluation of current fire risk and future projections due to climate change: the case study of Greece” by A. Karali et al.

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This paper investigates the relationship between meteorology and fire risk in current conditions, making use of the Canadian Fire Weather Index. The index is validated against several sites, and its behaviour decomposed in terms of its sensitivity to specific meteorological conditions. Implications for near- and long-term future changes are explored via regional model projections.

This is a well-written and interesting paper. It addresses a question of high importance and will be of wider Mediterranean interest. I believe it will be acceptable with relatively

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minor changes.

——Abstract Future projections: please state the scenario

——section 2 p4781, l9: what are the implications of the decreasing continentality?

l19: we only see results from three stations. Although these are described as representative, it would be useful to see more (suggestion at end).

p4782, l3: 'The model uses 40 levels' - are you talking about the RCM here (as opposed to ECHAM5)?

l 4: Please clarify '95.85' - if that means the number of boxes, perhaps you can just quote the horizontal resolution, viz: '...40 vertical levels and has a horizontal resolution of 25km'

——section 2.4 Please mention spin-up of the FWI index

p4786, l26-28: Presumably this could be due to a variety of reasons, including ignitions and fuel/topography?

——Figures

The labels are generally a bit too small.

Figure 4: please use same x-axis scale on each panel. What are the error bars on this Figure?

Figure 4: perhaps an extra panel would be useful: - e.g. showing the polynomial fits for all stations on the same panel, perhaps coloured according to the region (WG, NG, EG). - Or, a panel showing all polynomial fits, but with the fit for each location divided by mean number of fires at FWI=10 for that location. This would highlight the acceleration in fire occurrence with FWI you see above this sort of threshold, and would help motivate the thresholds used in Figure 5.

Figure 5: I think you need to use the same colour scale on the bottom two rows: I was

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mightily confused for a while - it looks like the fire risk is larger in the near term than the distant future. Also, the current colour scale is not ideal as there is a rather sudden change between green and yellow/red. Perhaps you could cut out much of the blue end. Please also define near-term and distant future in Figure caption.

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