

Nat. Hazards Earth Syst. Sci. Discuss., referee comment RC2
<https://doi.org/10.5194/nhess-2021-143-RC2>, 2021
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Comment on nhess-2021-143

Anonymous Referee #2

Referee comment on "Past and future trends in fire weather for the UK" by Matthew C. Perry et al., Nat. Hazards Earth Syst. Sci. Discuss.,
<https://doi.org/10.5194/nhess-2021-143-RC2>, 2021

The authors reconstructed the historical fire weather in the UK and project the future changes at 2 °C and 4 °C global warming. Annual and seasonal variations in fire weather and spatial distribution of fire weather were analyzed. These were done by analyzing two fire weather indexes: ISI for spring fires and FWI for summer fires, which were calculated using historical and future climate data. The authors showed the historical patterns and projected that future "very high" fire weather in the UK would largely increase, especially in summer and in a larger warming scenario.

Major comments

In general, this paper was clearly and well written and provided a detailed analysis of the past and future trends in fire weather in the UK, which was not much focused on in the past. This is nice, of course. But as the authors claimed in the manuscript, fire weather does not represent actual fire events (i.e., differences in historical observed burned area and fire weather). If the authors would like to link more their results to policy suggestions on fires in the UK (this should be an important part for a regional study), more discussions about other drivers of "real" fire events will help, for example, how ignition patterns, fuel amount, land-use change, and fragmentations, suppression activities will change in the future and possible effects on fire events. I understand this is not your main focus, but I think including a separate paragraph in the Discussion regarding these other drivers will improve the broad accessibility of the paper.

Minor comments

L224: What do you mean by "annual cycle"? multiple-year-mean for every month?

L293-295: Replication with figure legend, delete.

L364: Is this the 20-year mean value for panel (a)?