Comment on nhess-2021-173

Anonymous Referee #2

Referee comment on "Drivers of extreme burnt area in Portugal: fire weather and vegetation" by Tomás Calheiros et al., Nat. Hazards Earth Syst. Sci. Discuss., https://doi.org/10.5194/nhess-2021-173-RC2, 2021

The manuscript from Calheiros et al is very difficult to read. It reads as a series of bullet points linked together and the authors did not even bother at breaking the text into paragraphs or making any effort to increase readability. This is not a result of the authors not being native English speakers (I believe paragraphs also exist in Portuguese) but rather denotes a major lack of attention to detail.

The authors examine thresholds in burnt area associated with DSRp and how they differ across Portugal. The way they present the data is somewhat misleading: they make us believe that DSR has a very high correlation with burnt area. These types of correlations have been described before and they result from the ordering of values (from small to large). If that order is removed and simple scatter plot of burnt area DSR is presented, that relationship usually breaks, or is much weaker. I would thus encourage the authors to be more careful when using these types of analyses.

I'm not familiar with the clustering techniques used by the authors, and I will not comment on those. I will just point out that the results are rather shocking because pretty much all clusters are distributed across all Portugal, but it is well known that fires in N PT differ substantially from S PT (the authors actually state this in their introduction as well).