

Interactive comment on “Simulating the effects of weather and climate on large wildfires in France” by Renaud Barbero et al.

Fox (Referee)

fox@unice.fr

Received and published: 21 December 2018

General comments: The manuscript analyses the usefulness of a range of weather related variables in predicting the occurrence of large wildfires (>100 ha). The main fire zone of France is divided into 6 regions and explanatory variables are tested using logistic regression.

The English is generally good but the paper could be improved with some restructuring. In its current state, some Results (fire data, regression equations) are presented in the Methods and much of the Discussion is in the Conclusions. All results of data treatment by authors should be moved out of Methods and into the Results. The Conclusions should summarize the main points of the Results & Discussion but not introduce new

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information / interpretations.

Specific comments: The explanatory variables are a bit confusing. The first 6 Meteorological variables should be deleted from the study; many of these variables are used to calculate the indices/metrics below, so they're accounted for elsewhere (with potential problems of covariance), explaining perhaps why they're of no significance in any of the regressions. How the indices/metrics are calculated should be presented in the paper so that the weather variables used to calculate them are explicit for readers.

Fire data should be presented more extensively in the Results: Table 2 should include total number of fires and burned area per region, number of fires > 100 ha, contribution of fires >100 ha to RBA, contribution of fires >100 ha to NBA.

Explanatory variable characteristics related to fires >100 ha should be described in the Results section so readers working on large fires can relate thresholds to their own context. As it is, the regressions show whether variables are significant or not, but they give no indication of the range of explanatory values involved in large fires.

The absence of wind as an explanatory variable in most of the regions should be discussed more fully. Very large fires occur only in very windy conditions, so it's somewhat surprising that wind is significant only in Mdt North (FWI). Similarly, results of some of the regions suggest that fire-weather is insignificant in large fires and only the state of the vegetation or litter layer counts. This also could be discussed more fully, and significant indices / metrics should be related more explicitly to weather / climate in keeping with the title of the paper.

Technical corrections: A number of minor points / suggestions have been annotated in the manuscript, but these will be sent directly to the authors.

Interactive comment on Nat. Hazards Earth Syst. Sci. Discuss., <https://doi.org/10.5194/nhess-2018-283>, 2018.

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