General Comments:

The paper “Simulating the effects of weather and climate on large wildfires in France” makes a nice approach to model wildfire occurrence in France, using meteorological and fire danger indices. On the overall I think the paper is very well structured and written, so the message is quite clear. The methodology is well described and I don’t find major issues regarding the publication of the work. I only have some minor issues, as described below.

We thank the reviewer for their very positive comments to our manuscript.

Specific Comments:

Regarding Fig.2, a few suggestions: 1) Maybe presenting in each panel the total number of large fires (as presented in Table 3) would help the interpretation and context of the plots;

This is a good suggestion. We added in the total number of large fires in the upper-left corner of each panel (see below).

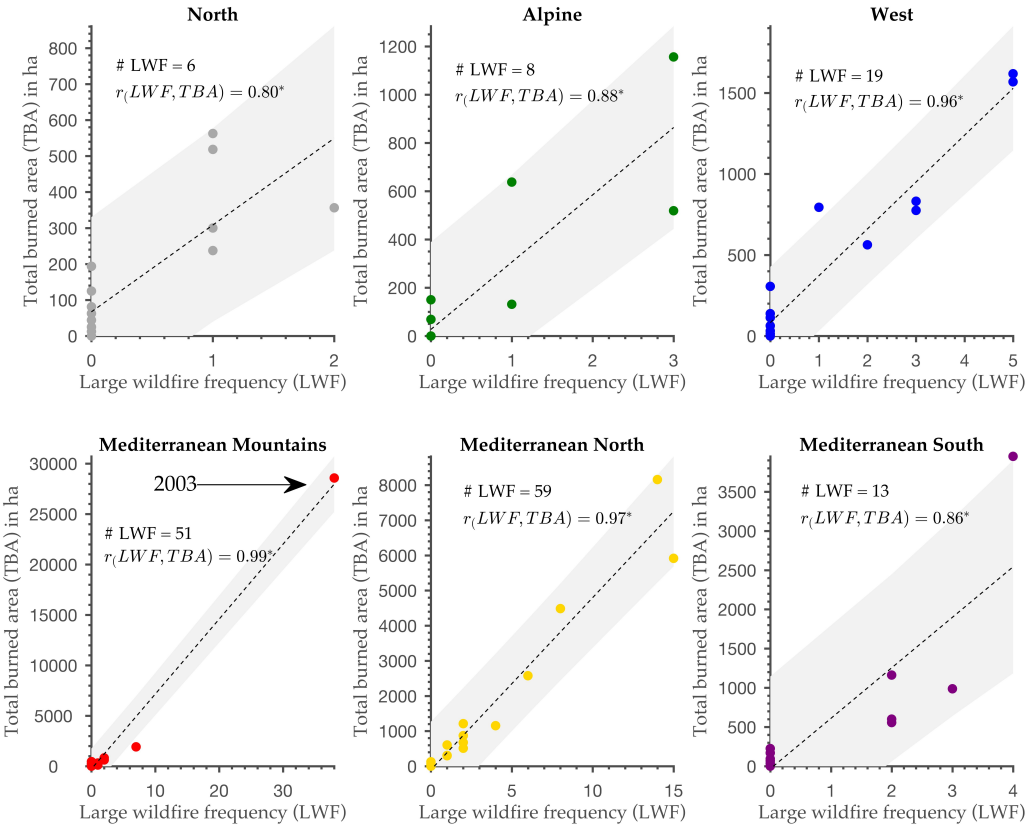

Figure 2. Interannual relationships between the annual frequency of large wildfires (>100 ha) and the total annual burned area. The total number of large wildfires as well as Pearson correlations are indicated for each region. The symbol * indicates significant correlations at the 95% confidence level. The linear fitting and the 95% confidence intervals are also shown.

2) Did the authors tried to look at these plots in log scale? (at least for Mediterranean Mountains region);

Some years in the Mediterranean Mountains regions have seen no wildfires (at least through the lens of MODIS) and the total burned area is equal to 0. The issue when using a log scale is that 0 is undefined. We thus prefer to stick with a linear scale.

3) I find some of the statistically significant correlations between the number of large wildfire frequency and Total Burned Area confusing, with just a few cases, and most of them in the 0 class (the North region is a perfect example)

The reviewer is probably referring to Table 2 (last column). We agree that the caption was unclear. This is actually showing the correlations between the annual frequency of large wildfires and the total annual burned area, as illustrated in Figure 2. For clarity, we moved this information to Figure 2 (see above). Note that the correlations are even higher when using the non-parametric Spearman Rank correlation method, as expected given the non-linear (monotonic) relationship between the annual number of large fires and the total annual burned area.

I wonder if there was the possibility of reducing the pool of predictors? By this, I mean looking for redundant/similar predictors amongst each group (Me variable; Fire- Weather metric; Drought metric). Could it be the case that some of them provide very similar information, and consequently very similar performances for the models? In particularly, when bootstrap is lower and more combinations are possible, are the differences in the performance of these large enough to justify that there are no common predictors amongst models chosen for each area? The methodology is OK and well explained, but I wonder, if that was the case (not shown by the authors), wouldn't more "coherent" models in terms of more restricted predictors be more easily interpreted and also more coherent for further usage in other works and other realms?

The reviewer raises a good point. We believe that both approaches are valuable. The advantage when using a more limited set of predictors is that models are expected to be more coherent from a region to another and more straightforward to run on the future period. However, sticking only with a few indices would raise another question: which indices are the most appropriate in France to track wildfire potential? Each fire weather index is reasoned to have different sensitivities to temperature, wind speed, relative humidity and precipitation, and selecting an index a priori would be subjective. This is the reason why we opted for a "let the data decides" approach. We believe that this approach is well suited for such an exploratory analysis and will serve to support the use of the CFFDRS metrics (and especially the FWI) as well as the SWI in further climate-fire studies in France.

However, meteorological variables were not selected in any ecoregion as significant predictor of large wildfire. This confirms previous findings that biophysical variables are doing a better job in tracking wildfire activity. Based on this finding and reviewer comment, we decided to delete the 6 meteorological variables from the study, thereby reducing the pool to 14 predictors.

Here is the new pool of predictors used in the modelling framework:

Name	Acronym	Category
1. Fine Fuel Moisture Code	FFMC	Fire-Weather metric
2. Duff Moisture Code	DMC	Fire-Weather metric
3. Drought Code	DC	Fire-Weather metric
4. Initial Spread Index	ISI	Fire-Weather metric
5. Build-Up Index	BUI	Fire-Weather metric
6. Fire Weather Index	FWI	Fire-Weather metric
7. Forest McArthur Fire Danger Index	FFDI	Fire-Weather metric
8. F-Index	FINDEX	Fire-Weather metric
9. Nesterov Fire Danger Index	NFDI	Fire-Weather metric
10. Fosberg Fire Weather Index	FFWI	Fire-Weather metric
11. Effective drought Index	EDI	Drought metric
12. Potential Evapotranspiration	PET	Drought metric
13. Standardized Precipitation Index	SPI	Drought metric
14. Soil Wetness Index	SWI	Soil Moisture metric

Besides the prospect of using this scheme for future fire behavior, do the authors think it be usable/adapted on an Operational basis? I would like to see some discussion about this.

Indeed, the idea behind this modelling framework is to provide a basis to simulate future changes to wildfires but the reviewer raises a good point. This model could be used in a real-time fashion. We added in the following sentences in the Results and Discussion section:

"This modelling framework has multiple potential applications. First, it could be implemented in a real-time fashion using meteorological forecasts. This may complement traditional forecasts based on FWI only. Indeed, the FWI only measures the potential intensity of wildfire and this quantity is not always straightforward in the real world. In this regard, our model translates a series of fire weather and drought indices into a probability of occurrence of large wildfire that could be useful in decision-making".

Other Comments:
Line 50: Could the authors introduce the meaning of the SAFRAN acronym in the text?

Done. SAFRAN stands for "Système d'Analyse Fournissant des Renseignements Atmosphériques a la Neige" (Analysis system providing data for snow model).

Line 19: "most extreme years"

Good catch. We corrected.

Line 69: correct the title 2.4.1 "Generalized"

We corrected. Many thanks for this review.