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 information / interpretations.

We thank the reviewer for their positive comments to our manuscript. We followed reviewer's suggestion and restructured some parts of the manuscript to improve readability.

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.

The reviewer raises a good point. We included meteorological variables with the intention of detecting specific processes such as heat wave or wind spells pertaining to wildfire (these processes being mixed in fire weather indices). 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 (see below).

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

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.

More information on how these indices are computed are already available in the literature. A specific reference is provided for each index in the current version of the manuscript. We feel like adding more details on each index would considerably slow down the paper.

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.

Good suggestion. We added in this information in Table 2 (see below). Also, for clarity we moved the correlation between the annual frequency of large wildfires and total burned area to Figure 2.

Table 2. This table provides for each environmental region (first column): the number of wildfires (second column), the number of large wildfires (>100 ha) (third column), the contribution of large wildfires to regional burned area (fourth column) and the contribution of large wildfires to national burned area (fifth column).

Env. Region	# Wildfires	# Large wildfires	Contribution to regional BA	Contribution to national BA
North	49	6	61.8%	1.9%
Alpine	41	8	69.1%	2.3%
West	101	19	63.6%	5.4%
Mediterranean Mountains	289	51	83.9%	34.8%
Mediterranean North	309	59	75.9%	25.7%
Mediterranean South	105	13	72.4%	7.1%

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.

This is a good point. We added in a new table (see below) in the supplementary information illustrating the range (95% confidence interval) of each significant predictor variable during the day of large wildfires for each region. This gives an overall idea of the typical conditions during which large wildfires occurred during the studied period.

Table A1. Typical range of explanatory variables during the day of large wildfires. The range indicates the 2.5 and 97.5 percentile (95% confidence interval) of the composite means obtained from 1,000 bootstrapped datasets.

Env. Region	Predictor 1 (95%CI)	Predictor 2 (95%CI)	Predictor 3 (95%CI)
North	FFMC(76.7;82.5)		
Alpine	SPI(-2.0;-1.1)		
West	DC(661.6;767.4)		
Mediterranean Mountains	DMC (86.1;108.9)	SWI(0.14;0.18)	
Mediterranean North	FWI(26.9;30.9)	ISI(7.0;8.3)	SWI(0.12;0.14)
Mediterranean South	DMC(77.2;131.2)		

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.

We discussed more deeply the absence of wind speed as significant predictor as well as the lack of fire weather signal in some ecoregions:

« […] It is noteworthy that the effect of wind speed on large wildfires is only revealed through the ISI in the Mediterranean North. The absence of wind speed as a significant factor in other regions may arise due to the temperature decrease associated with wind spells in the French Mediterranean (Ruffault et al., 2017b), with contrasting effects on commonly used fire weather indices that were designed to increase with temperature. This may also indicate the stronger role of fuel moisture in these regions in response to slower climatic variations, regardless what short-term fire weather does. »

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

We thank the reviewer for their suggestions that helped improve the manuscript.