

Interactive comment on “Calibration and evaluation of the Canadian Forest Fire Weather Index (FWI) System for improved wildland fire danger rating in the UK” by M. C. De Jong et al.

Anonymous Referee #4

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General comments:

This paper explored the development of a percentile-based calibration and evaluation of the Canadian Forest Fire Weather Index (FWI) System. In general, the research is very well justified, the methodology is properly demonstrated, and the results are carefully discussed. The datasets used, however, are limited in time. The work can be further improved in the future by employing a more extended historical archive of the FWI climatology data and fire data aiming for a better statistical significance. Accordingly, I suggest elaborating more in the current discussion on the use of limited datasets and their possible impact on the analysis and the results.

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Specific comments:

Page 7009 (Line 10): What is the average size of wildfires in the UK (especially between 2010 and 2013). What is the percentage of “minor” wildfires in comparison to “major wildfires”? Please discuss how the use of one or more of the Scottish Government criteria to define wildfire is statistically and analytically acceptable within the context of this research.

Page 7013 line 5: The UK does not normally suffer from large wildfires, but in some years (e.g. in 2013) fires can burn areas larger than 500 ha. How was the size/extent of fires (especially that of exceptionally large burned area) taken into account in the analysis? Why the criterion “largest number of firefighting appliances in attendance” was essentially selected to identify the cases of largest fire incidents.

Page 7036: Citation Kitchen et al 2007 is not referenced. Please double check citations and references in the text.

Page 7034. It is also important to see and discuss the distribution of burned areas and not only the number of wildfire event in the UK by land cover types.

Pages 7034-7051: I suggest reducing the extent of the text in the Table and Figure captions. Large parts of the titles can be embedded in the text.

Interactive comment on Nat. Hazards Earth Syst. Sci. Discuss., 3, 6997, 2015.

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