Author Response to Referee #2

Monitoring abiotic and biotic parameters of forest regrowth under different management regimes on former wildfire sites in northeastern Germany – data from the PYROPHOB project

Marie-Therese Schmehl et al.
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RC: ***Referee Comment***, AR: *Author Response*

Dear referee,

thank you very much for your positive response, and for the time and effort spent to examine the manuscript and the data set.

Your comments, even if minor, are very helpful. Please find a point-by-point reply below.

Kind regards,
Marie-Therese Schmehl (on behalf of the author team)

Comments and responses

RC: ***General comments: In the Abstract and introduction, the authors post the word "holistic monitoring" several times. It would be interesting, if it could be clarified at somewhere what holistic what mean in this context. From a reader and researchers' perspective, it would be extremely good to know for which aspects/analysis the dataset has the highest potential and where it has its weaknesses or where additional data would be needed. (edit: I see that this appears somewhat under 1.3 "Structure" – I think it would fit better to the introduction).***

AR: We will supplement the respective sentences to point out our notion of "holistic". We can see the point and understand your intuition for outlining the importance of the most promising aspects. The respective reference in section 1.3 was misleadingly pointing only to the Conclusions section. We will fix the respective reference to guide the reader also to section "Previous and potential use of the data", explicitly addressing the various potential of the dataset. We suggest to leave the aspect on the potential and the weaknesses of the dataset to this concluding sections, as it largely refers to the presented data and requires their presentation beforehand.

RC: ***One question coming to my mind is: How was the forest structure before burning? Was it homogeneous?***

AR: We will add respective information on the age of the affective forest stands in the description, accompanied by a reference to table 2. Further detailed information on stand properties before the fire is unavailable, as research only started after the event.

RC: ***Specific comments: L. 6-7: UAV-based remote sensing, and photo monitoring: please provide details as for the other groups of data (which parameters/type of data?)***

AR: remote sensing and photo monitoring served "stand structure and spatial overview" and "temporal succession". We will add that to the sentence respectivly.

RC: ***L. 47-48: "PYROPHOB explicitly considers a wider selection of management options to assess their impact on natural regeneration and other related environmental variables." à which ones? Would make sense to list them here imo.***

AR: We will add a reference to Tab. 1 which list the relevant mamangement options.

RC: ***l.101-102: the criteria for the pre-screening is unclear (e.g., similar soil type /geology for all plots, aspect, etc.?)***

AR: The pre-selection for the designation of the study sites aimed at identifying areal entities with reasonable homogeneity in the mentioned properties (burn intensity, soil type, relief, distance to ground water, stand age and type); and also avoiding local untypical singularities to maximize transferability. We will add a respective sentence.

RC: ***Fig. 1: the no removal and unburnt colors are difficult to distinguish***

AR: We used a colorblind friendly scheme according to Crameri et. al (2020), but will try to darken the "unburnt" color, and/or change the thickness of lines to improve the distinguishability.

RC: ***3.1: For all temporal data, it would be useful to include the temporal resolution in the table***

AR: We did not want to overload the table with detail information, as it can be reviewed easily in the accompanying description file of each data set. In order to preserve formatting not bloating the table we will additionally mark all data with regular and fixed temporal resolution using table footnotes.

RC: ***l.267: in table 3.1 it states soil moisture is recorded in 30cm, here it is spatially distinct until 60cm This might be a misunderstanding. Soil moisture is continously measured down to 100cm. Additional punctual campaigns for spatial correction were conducted down to 30cm. This we will clarify by adding depth information to table 2 to better distinguish both datasets.***

RC: ***Technical comments: not sure if it is a BE vs. AE thing, but usually there is a comma after (i.e.,) and (e.g.,)***

AR: We will revise the text accordingly and change to the suggested spelling.

1. References

Crameri, F., G.E. Shephard, and P.J. Heron (2020), The mis-use of colour in science communication, Nature Communications, 11, 5444. doi: 10.1038/s41467-020-19160-7