

Clim. Past Discuss., referee comment RC2
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Comment on cp-2021-125

Anonymous Referee #2

Referee comment on "Holocene wildfire regimes in western Siberia: interaction between peatland moisture conditions and the composition of plant functional types" by Angelica Feurdean et al., Clim. Past Discuss., <https://doi.org/10.5194/cp-2021-125-RC2>, 2021

This manuscript entitled "Holocene wildfire regimes in forested peatlands in western Siberia: interaction between peatland moisture conditions and the composition of plant functional types" and submitted to Climate of the Past by Feurdean et al., seems to be an original study, providing new elements of thinking on the functioning of borelean forests, in relation to the dynamics of fires, the climate and vegetation on peaty terrain.

Here are my general comments:

- Regarding the layout of the figures, I think there are many: it might be wise to assemble them together, like figure 4 and 5 for example and to grade the same logic: either to everywhere do 1 panel per site, ie superimpose the 2 sites, but for each figure.
- The discussion seems to me to be well constructed, however I find it unfortunate not to have carried out a specific discussion figure, in particular regarding the dynamics of fires, since Feuredean et al., cite several studies on the scale of Siberia but also of Russia, it would have been beneficial to put their results directly in comparison with those cited, within a summary figure.
- I find it more prudent to nuance the conclusion about the water table, given that on the 2 sites studied, only 1 showed a significant result indicating that the fire regime was greater from the 20 cm threshold. And I will add to the conclusion that further studies from different sites would be necessary to regionally confirm this.

Here are more specific comments:

L38: "Pinus **sylvestris**-Betula"

L60: references are missing

L76: You can not write "wildfire regime" and then include human activities within. Rather use just "fire regime".

L176-109: the meaning of the sentence was not very clear, I would suggest: "In this region, the forest is made up of both light taiga (...) but also dark taiga (...), in greater proportions.

L659: I would change "grey rectangle" by "grey time windows".