Editor's decision for: **Autumn – winter minimum temperature changes in the southern Sikhote-Alin mountain range of northeast Asia since 1509 AD" by Olga N. Ukhvatkina et al.**

Dear Dr. Ukhvatkina,

Thanks you for submitting your manuscript for consideration to "Climate of the Past". As you are aware we have now received three referee comments and after carefully reading through your manuscript, all review comments and your answers, and I am pleased to accept your manuscript with minor revisions.

You have answer the reviewers' comments; but I have below some remarks to your revision and comments.

Both reviewer 1 and 2 suggests that you delete the oldest part of the record where only few data series are available. I agree with you that extending the record as far back in time as possible is valuable. However, here it is imperative to make the readers aware about the significant uncertainty for this older part of the record. You may solve this by adding "Although the record from AD 1529 to 1602 is thus less certain, we here report it as it is very important to extend …" to Line 130 (AR3 version of the ms). Adding this sentence will make it clear to the reader that they need to be more careful when referring to data from the AD 1529-1602 interval.

In relation to this, please also provide information on the uncertainly of the chronology as number of years. E.g., if you mention a cool event from AD 1538-1543, could it for instance be AD 1535-1540 instead? Explaining this will make it easier for non-tree ring specialists to understand the data certainty.

Line 369: You state that the 20-year cycle reflects the PDO. You cannot be sure about this despite the arguments that you present in the following sentence, so please add an "likely", "we suggest" or similar to this sentence. Please also explain how the PDO would influence climate at your study site (temperature, precipitation) though comparison to modern conditions. 1-2 sentences should be sufficient.

I agree with Reviewer 3 that your correlation to solar irradiation cycles is not strong. It is OK to mention the possibility, but firstly you need to 1) make your statements less categorical, making it clear that you suggest the link between solar irradiation and your record due to the comparable timings; 2) provide a short explanation to the mechanism on how changes in solar irradiation would influence climate at your site. The arguments that your provide line 377 and forward that previous papers have shown a link between solar irradiation and climate (mainly at different time scales) is not sufficient evidence for a similar link in your record.

For the 9 year cycle, it is somewhat different than the 11 year solar cycle, and if your chronology is precise is may be a problem. However, the solar cycle is not fully stable, and it is possible that the link is real. Did you make a direct comparison between the instrumental data of the solar irradiation and your data? If not, there is no way that you can be sure that the 9-year cyclicity is linked to solar irradiation.

Also the 189 years cycle in your data is quite far from the 210-year solar cysle, if your chronology is precise. Furthermore, as you acknowledge yourselves, calculating a multi-centennial cyclicity of a record of 486 years is not convincing. So please moderate and tone down your suggested correlation, both in the discussion and the conclusion/abstract.

Language: please check the language of the section lines 369-400, where you have added new text.

Please make sure that all the sites that you mention in the text are provided on your location figure 1.

Kind regards,

Marit-Solveig Seidenkrantz, Editor