Reply to Anonymous Referee #3

B. Abis and V. Brovkin

Dear Referee,

Thank you for your positively constructive review and for your insightful comments. In this document, we will provide an answer to your comments and queries.

Best regards,

B. Abis and V. Brovkin

- C1. "Please add citations to the sentence '... and to ecosystems exhibiting potential alternative tree cover states under the same environmental conditions...' on page 2, line 5."
- A1. We will add citations.
- C2. "Table 2, 4 contains many acronyms without complete name in the table caption. The figures or tables should stand alone. Suggest to add complete names to table captions or to the table. What do you mean by 'very low, medium low, very high and medium high' in Table 4? Please quantify or specify them."
- A2. Dear Referee, to make Table 4 more readable, we initially thought to include only qualitative information, introduced in the text, and to include the actual ranges only in the supplementary material. However, we will change this and make Table 4 more complete, with all the ranges and the number of gridcells per class. Furthermore, as you suggested, we will expand the captions to make the tables and the figures stand alone.
- C3. "The results or findings in abstract are too general, e.g. "we find that environmental conditions exert a strong control...", "we find that the relationship between tree cover and environment is different within the four boreal regions...", and etc. Please be specific."
- A3. We will reformulate the abstract to make it more readable, with clear and specific statements about our findings.

- C4. "Conclusions (lines 2–29 on page 15) are too long, more like summary. Please shorten this section."
- A4. Dear Referee, as you suggested, we will shorten the conclusions by limiting the discussion and generalisations in them and keeping only our key findings.