Reviews, and response to reviews, of the essay on:

Permafrost

Reviewer #1

		14. Permafrost
Page No.	Line No.	Comment

General comments: No specific comments. The editors note that no general comments were provided. Nor did the reviewer provide any specific comments in the table.

Reviewer #2

		14. Permafrost
Page No.	Line No.	Comment
83	2495	In the figure legend, please add "permafrost" before temperature as this is what you refer to in Fig 49 and I think it is good to be extra clear that you talk about permafrost temperatures or ground temperatures. This has been done.
84	2528	Should be "warming" This has been done. Thanks for spotting the spelling error.
84	2533	Please again add either permafrost or ground before temperatures. This has been done.
84	2537	I assume that it should be "since then" rather than "since when" as it says now. This has been modified.

General comments: This is a well-structured and well-written chapter that gives a great update on the state of permafrost from all parts of the Arctic. I have only very few minor comments listed above.

Reviewer #3

		14. Permafrost
Page No.	Line No.	Comment

General comments: The editors note that no general comments were provided. Nor did the reviewer provide any specific comments in the table.

Reviewer #4

		14. Permafrost
Page No.	Line No.	Comment
84	2545	Authors report that despite strong increase of permafrost temperature the increase of permafrost active layer thickness had been not so strong. What are the reasons? The editors note that the above statement is the reviewer's own interpretation of the observations presented in the essay. The authors do not make such a statement. Nonetheless, the editors contacted the author for his thoughts, and the response was: (1) there is no strong evidence of changes in the ground surface vegetation cover at the CALM

		research sites during the last few decades that will help to test the hypothesis suggested by the reviewer; and (2) that the active layer depth is not increasing at all locations where the increase of the permafrost temperatures is observed may be explained by possible surface subsidence upon thawing of the upper ice-rich permafrost at these locations. It is the editors' opinion that there is no need to supplement the text with this information.

General comments: It is very good chapter. As recommendation to answer the question at comment may be it have a sense to analyze the changes of vegetation at permafrost areas due to climate change, which, follow Anisimov et al, 1996, could lead to changes in heat conductivity and heat capacity of the soil upper layer.

Reviewer #5

		14. Permafrost
Page No.	Line No.	Comment

General comments: The editors note that no general comments were provided. Nor did the reviewer provide any specific comments in the table.

Reviewer #6

		14. Permafrost
Page No.	Line No.	Comment

General comments: The editors note that no general comments were provided. Nor did the reviewer provide any specific comments in the table.