

# Author's reply on "Underestimation of boreal soil carbon stocks by mathematical soil carbon models linked to soil nutrient status" by B. Ľupek et al. 12<sup>th</sup> July 2016

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Dr. Alexey V. Eliseev, Editor:

Dear authors,

please make the following technical corrections before final acceptance of the paper:

*#Dear Dr. Alexey V. Eliseev,*

*thank you for the technical corrections which we followed as requested.*

- l.90: 'into' -> 'until it reaches'
- l.167: insert the matching bracket after 'TR'
- l.311: insert 'SOC for the' between 'The' and 'remaining'
- l.324: change the first letter in 'nitrogen' to lowercase
- l.577: 'out of' -> 'from the'

*#we changed text as requested*

- ll.579-583: please reformulate the sentence starting from 'The fAPAR70...' - it is very difficult to read

*#we reformulated text:*

The  $f_{APAR70}$  values specific for pine, spruce, and deciduous stands were modeled with latitude and site productivity index (H100) in two steps. Firstly, the  $f_{APAR70LAT}$  and the  $f_{APAR70H100}$  values were modeled separately by regression models with latitude and with site productivity index (H100) (Table A1). Secondly, the  $f_{APAR70LAT}$  was reduced by the difference between the  $f_{APAR70H100}$  and the maximum  $f_{APAR70H100}$  ( $f_{APAR70} = f_{APAR70LAT} + f_{APAR70H100} - \text{maximum } f_{APAR70H100}$ ). The  $f_{APAR70}$  equaled the  $f_{APAR70LAT}$  only for the maximum site productivity index, otherwise it was reduced.

- l.609: please explain 'AIC'

*#we added:*

Akaike's information criterion (AIC)

- Table A1, columns 'a+-SE' and 'b+-SE', sect. 'fAPAR70LAT', lines 'pine' and 'spruce': The number of digits is excessive. Please leave only the digits before the decimal points;

- Table B1, columns 'a+-SE' and 'b+-SE', all lines: the same as for Table A1

*#we reduced the number of decimals as requested*

- Please double check the language of the paper. It has some mixture between the British and American variants of English. For instance, in some places the word 'modeled' is used, and in other you use 'modelled'

*#we double checked language consistency for U.S. English*