

Interactive comment on “Wildfires in Northern Eurasia affect the budget of black carbon in the Arctic. A 12-year retrospective synopsis (2002–2013).” by N. Evangeliou et al.

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Dear authors,

Thank you for your contribution, I enjoyed reading your paper. However, one thing puzzles me and I would be happy if you could elaborate on that. In your paper, you come to the following conclusion: "Northern Eurasian vegetation fires (FEI-NE) contributed 85 % (79–91 %) to the BC deposited over the Arctic from all BB sources in the Northern Hemisphere." When I understood the paper correctly, this result is based on the run where you used different fire emission inventories for Northern Eurasia and the rest of the world (FEI-NE+MACCity). Is this statement not dangerous since you showed that the FEI-NE emissions are considerably higher than the MACCity emissions over the

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same region (Northern Eurasia)? Your conclusion could partly be due to the different emission inventories, and you might underestimate the influence of fire emissions from North America. I am looking forward to your answer and some further discussions.

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