

Interactive comment on “Comparative analysis of the influence of climate change and nitrogen deposition on carbon sequestration in forest ecosystems in European Russia: simulation modelling approach” by A. S. Komarov and V. N. Shanin

Anonymous Referee #3

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This is an interesting modelling study on the combined role of climate change and increased N deposition on C sequestration in forest ecosystems.

The great merit of the model is to distinguish between different trees species and showing their differing behaviour, leading to changes in the species composition of the forests under study in response to CC and N deposition.

The introduction setting the scene and explaining the issues at stake should be more

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developed. It should refer to the paper by Butterbach-Bahl et al 2011 (ENA chapter 6), a multi-authored paper making a synthesis of this question for European sites. Also, the paper by Sutton et al, 2008 (Glob Change Biol) should be cited as it very well summarizes the controversies existing in the field.

Detailed comments

P5, line 19: destructors? Do you mean decomposers?

P 5. line 25 et sqq

I see here contradictory statements: The released nutrients are completely absorbed by plant, but there is a surplus which is immobilized in soil? Moreover there is leaching??? You should more clearly rephrase these two paragraphs.

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