

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

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Introduction 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.

Response: We added some new references relevant to our study to the Introduction.

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Detailed comments P5, line 19: destructors? Do you mean decomposers? Response: Yes, we meant decomposers. Corrected.

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. Response: We rephrased these two sentences. It is assumed that this pool is fully consumed for forest growth. A simple procedure of leaching nitrogen from soil to ground water is also included in the nitrogen cycle of the model (Chertov et al., 2001). At strong external disasters such as forest fires or clear-cut surplus nitrogen could be immobilized in F horizon of forest floor stimulating decomposers activity.

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