

Interactive comment on "Quantifying Global N₂O Emissions from Natural Ecosystem Soils Using Trait-Based Biogeochemistry Models" by Tong Yu and Qianlai Zhuang

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In line 15 on page 6, the authors wrote that "In addition, the processes of N deposition, mineralization, and denitrification were also modeled." The detailed modeling approaches for these processes might have been included in the previous publication of the TEM model already, but I think the authors perhaps should present them at least briefly here. Especially, I cannot find how the authors obtain the N deposition data. And how it is incorporated in the models.

Response: Thank you much for your suggestions. Limited by the length of the manuscript, more equations focusing on N2O fluxes and other processes of N cy-

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cle can be referred to a Master thesis of Yu, T. (2016). Tong Yu (2016), Quantifying the global N2O emissions from natural ecosystems using a mechanistically-based biogeochemistry model, MS thesis, http://docs.lib.purdue.edu/dissertations/AAI10145857/ For the second comment about N deposition data, we added a paragraph in Section 2.2 Data. The N deposit data was directly applied as part of input of ammonia and nitrate.

Interactive comment on Biogeosciences Discuss., https://doi.org/10.5194/bg-2018-377, 2018.