

Interactive comment on “Comment on “Growth responses of trees and understory plants to nitrogen fertilization in a subtropical forest in China” by Tian et al. (2017)” by Taiki Mori

Anonymous Referee #1

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In this commentary, Taiki Mori questioned the paper of “growth responses of trees and understory plants to nitrogen fertilization in a subtropical forest in China” by Tian et al. 2017. Generally speaking, I don’t agree with the author on the questions. First, the author suggests that the reduced understory plant growth is caused by “fertilizer burn”. If this is the case, there must be lots of “burned leaves” for the understory plants. However, Tian et al. didn’t report any “burned leaves” in the paper. Second, the author argues “The canopy cover did not increase in their experiment, indicating that the reduced light availability is not likely to explain the reduced understory.” I don’t agree on this. “The canopy cover did not increase” does not necessarily lead to the unchanged “light availability”. Understory vegetation itself can cause light competition.

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Third, the author argued that “soil total N content and understory biomass were not corrected”, so “the elevated N content in their experiment does not necessarily explain the decrease in understory”. In Aber et al. (1989), the N saturation concept is not defined using soil total N content, but N input rate. Based on the above reasons, I don’t think Mori’s questions make sense.

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