

Interactive comment on “How can effect the synergy of climate change, soil units and vegetation groups the potential global distribution of plants up to 2300: a modelling study for prediction of potential global distribution and migration of the N₂ fixing species *Alnus* spp.” by A. Sakalli

Anonymous Referee #2

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The paper by Sakalli concerns modeling of alder distribution. Due to the ability to fix nitrogen, alder is one of important components of the ecosystem.

The model is too primitive to forecast the future conditions. Although this model concerns the fundamental niche of alder, the realized niche is our main interest for predictions of future conditions. Moreover, since alder spp. are mainly early-successional, a

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model that concerns disturbance is necessary. Thus, if you want to fulfill your aim, it is strongly recommended to use a detailed forest dynamics model and modify it for alder dynamics.

In addition, the author should argue the importance of alder quantitatively, e.g., how much N-fixation of ecosystem made by alder? Regionally? Globally? Why did you choose alder instead of other spp.?

Interactive comment on Biogeosciences Discuss., 12, 815, 2015.