

Interactive comment on “Nitrogen Cycling in CMIP6 Land Surface Models: Progress and Limitations” by Taraka Davies-Barnard et al.

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Received and published: 31 March 2020

The topic of the paper is relevant to the ongoing evaluation of the sign, magnitude, spatial variability, and potential future trajectory of land ecosystem feedbacks among increasing CO₂, increasing N deposition, physical climate variables, and the global scale cycling of carbon and nutrients.

Some results presented here could help to inform the evaluation of existing models or the development of new modeling approaches, in particular the results summarized in Figure 8.

On the whole, the results are presented in the form of assertions without adequate quantitative support, and without sufficient process-level elucidation of either the be-

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havior of individual models, the differences between models, or the relationship between models and observation-based datasets. The manuscript overall suffers for having too much description and not enough explanation.

A detailed set of review comments is included in the attached annotated pdf.

Please also note the supplement to this comment:

<https://www.biogeosciences-discuss.net/bg-2019-513/bg-2019-513-RC2-supplement.pdf>

Interactive comment on Biogeosciences Discuss., <https://doi.org/10.5194/bg-2019-513>, 2020.

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