

Interactive comment on “Carbon cycle uncertainty in the Alaskan Arctic” by J. B. Fisher et al.

Anonymous Referee #2

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This paper compares the results of a range of models for Alaskan carbon cycling. The goal is to set a benchmark, quantifying the predictive uncertainty in current models.

This paper very closely duplicates the results from a previously published paper:

McGuire, A., Christensen, T., Hayes, D., Herault, A., Euskirchen, E., Kimball, J., Koven, C., Laflour, P., Miller, P., Oechel, W. C., Peylin, P., Williams, M., and Yi, Y.: An assessment of the carbon balance of arctic tundra: comparisons among observations, process models, and atmospheric inversions, *Biogeosciences*, 9, 3185–3204, 10.5194/bg-9-3185-2012, 2012.

The authors of this submission argue that McGuire et al. includes only the results of 3 models. But this is not the case: the McGuire et al. paper includes many other model outputs from the TRENDY project, which are included in this new submission (see their table 7). This duplication is highly problematical.

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The McGuire et al. paper is a more complete product, as it summarises the results from inversion models, and from flux observations, alongside a multi-model comparison; it also covers the entire pan-Arctic, with a breakdown to sub-regions that includes North America. The McGuire et al paper includes detailed discussions of uncertainty. This paper needs to be completely rethought and rewritten to emphasise its novelty.

Interactive comment on *Biogeosciences Discuss.*, 11, 2887, 2014.

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