

Interactive comment on “Impacts of trait variation through observed trait-climate relationships on performance of a representative Earth System model: a conceptual analysis” by L. M. Verheijen et al.

Anonymous Referee #3

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General: Well written. Pleasure to read. Useful work. Publish after minor revisions.

Specific:

- 1) p. 18910, line 29: change "plant" to "plants"
- 2) Section 2.4: Advantage of running coupled? I could see simulations 1, 2, and 3 in offline mode to remove feedbacks with climate. Then repeat the 3rd simulation in coupled mode to permit the feedbacks.
- 3) Section 3.2, you say "for each grid cell, only trait values of the dominant pfts are
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selected..." Maybe I misunderstood, but why not weight the values according to each pft's weight in the grid cell, instead of using the values of the dominant?

4) Sections 3.2-3.5: Do you isolate which results are due to climate changes? This may be my greatest concern, because it may require offline simulations to be addressed.

5) p. 18926, lines 7-8: not clear as written. In the next sentence, you say "limited and mainly based on soil N". Is this what you mean in the prev. sentence when you say "cannot be separated from nutrient effects"?

6) p. 18927, line 9: not clear as written and possibly wrong usage of these words. Does "modeled" refer to "default" and "natural" to "observed"?

7) p. 18927, line 26: does "indirect" mean from changes in climate?

Interactive comment on Biogeosciences Discuss., 9, 18907, 2012.