

## ***Interactive comment on “Plant functional type mapping for earth system models” by B. Poulter et al.***

### **Anonymous Referee #3**

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This paper describes the methodology used to create four different realizations of plant functional types at 0.5 deg resolution, useful for Earth system models, from different data sources. In addition, LPJmL was used to test the sensitivity of biogeochemical cycles to these land-cover maps. The research is significant for global modeling and highlights the uncertainties and difficulties in obtaining land-cover maps for modeling purposes. The paper is well written and the methods are clearly described.

Specific suggestions are listed below.

Page 2082, Line 10: The words "just several classes" might be more clear and quantitative as "usually only 10 to 20 classes".

Page 2084, Line 1: "plant functional types" could be abbreviated as "PFTs".

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Page 2084, Line 2: "ESM models" could be "ESMs".

Page 2084, Lines 11, 16-22: For completeness, the authors may wish to additionally cite the modifications to Bonan et al. (2002) for CLM land-cover described in Lawrence and Chase (2007; doi:10.1029/2006JG000168), particularly for C3/C4 grass distributions.

Page 2084, Line 21: "the one" should be "one".

Page 2095, Lines 22-24: Something is wrong with this sentence.

Page 2098, Line 7: "of ensembles land-cover" should be "of ensembles of land-cover"?

Page 2098, Line 12: Should "i.e." be "e.g."?

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Interactive comment on Geosci. Model Dev. Discuss., 4, 2081, 2011.

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