Interactive comment on “A global database of soil respiration data” by B. Bond-Lamberty and A. Thomson

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Received and published: 11 May 2010

Dear Dr. Bahn,

We appreciate the thoughtful comments and suggestions from you and all the referees on our manuscript “A global database of soil respiration data” submitted to Biogeosciences.

Enclosed please find a revised manuscript and detailed responses to all reviewer comments. We have attempted to clarify the text, in particular the database structure and data inclusion criteria. Table 1 has been greatly expanded, another table added, one problematic figure removed, a second reworked, and another added. In summary we feel the manuscript is much cleaner and clearer, and as such hope it meets the standards of Biogeosciences.

Response to editorial comments

Describe database more rigorously - Tables 1 and 2 now describe the database in full: its fields, units, etc.

Spatial variability and Fig. 5 - This figure was problematic and confusing, and has been deleted. The relevant database field is better explained simply as “reported error” instead of spatial variability per se; it is now described as such in Table 1.

Place RS on y-axis in Fig. 4; report regression parameters - Changed.

Comparison of different vegetation types within biomes - In general different ecosystem types do not exhibit significantly different linear regression parameters for the relationships shown in Figures 5 and 6 (this is consistent with, e.g., Bond-Lamberty et al. 2004 and Subke et al. 2006). We have thus not provided individual parameters, but do discuss this briefly in the text, emphasizing that more sophisticated analysis would be useful.

Interactive comment on Biogeosciences Discuss., 7, 1321, 2010.