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

Anonymous Referee #1

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This is a very well written and organized manuscript that described an important contribution to the literature and to an open-source database on soil respiration. I have only a few suggestions for minor improvements of clarity:

1. p. 1323, line 3: Insert “at least” before “twice as much”.

2. Section 3.3: How are differences in depths of measurement of soil temperature for Q10 calculations handled when the Q10 values are binned by temperature range? I see that depths are reported in the database, but are differences among soil depths used for these calculations ignored for the analyses present on page 1329?

3. Section 3.3: I find the last sentence of section 3.3 very confusing. I think this means that, after accounting for variation in reported soil temperature ranges among study
sites, there is no further reduction in sums of squares attributable to the mean annual temperature of the study sites. This wording could be improved. Also, the sentence runs on to a second point about soil temperature maybe having a stronger effect than air temperature. I agree, but I suggest making this statement a separate sentence.

4. Figure 4: I suggest presenting intercepts and slopes for these regression lines, as has been provided in the Figure 6 legend.

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