

## ***Interactive comment on “Deglacial carbon cycle changes observed in a compilation of 117 benthic $\delta^{13}\text{C}$ time series (20–6 ka)” by Carlye Peterson and Lorraine Lisiecki***

**Carlye Peterson and Lorraine Lisiecki**

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Dear Carlye and Lorraine,

I have missed the discussion phase of your CPD paper

Peterson, C. and Lisiecki, L.: Deglacial carbon cycle changes observed in a compilation of 117 benthic  $\delta^{13}\text{C}$  time series (20–6 ka), *Clim. Past Discuss.*, <https://doi.org/10.5194/cp-2018-25>, in review, 2018.

Therefore, I like to give you 1 comment via email:

When comparing  $\text{Dd}^{13}\text{C}$  with  $\text{CO}_2$  (your figs 7, A1c) you might consider the  $\text{CO}_2$

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stack I compiled last year, since I tried to find an objective way to deal with the offsets between the different ice cores and used the most recent age models. Maybe you might also prefer our calculated spline for your comparison.

Köhler, P., Nehrbass-Ahles, C., Schmitt, J., Stocker, T. F., and Fischer, H.: A 156-yr smoothed history of the atmospheric greenhouse gases CO<sub>2</sub>, CH<sub>4</sub>, and N<sub>2</sub>O and their radiative forcing, *Earth Syst. Sci. Data*, 9, 363-387, <https://doi.org/10.5194/essd-9-363-2017>, 2017. (link to data in the abstract).

Looking forward for your final paper. Best Peter

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Our response: We thank Peter Köhler for his suggestion to use the CO<sub>2</sub> compilation from his 2017 paper to compare against our  $\delta^{13}\text{C}$  stacks. We have compared the  $\delta^{13}\text{C}$  stacks to the Köhler 2017 CO<sub>2</sub> compilation, and it produces very similar correlation coefficients as the spliced CO<sub>2</sub> record used in our original draft. Therefore, we plan to revise the manuscript using Köhler's CO<sub>2</sub> compilation.

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Interactive comment on *Clim. Past Discuss.*, <https://doi.org/10.5194/cp-2018-25>, 2018.

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