Biogeosciences
Discussions

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Interactive comment on "What was the source of the atmospheric CO_2 increase during the Holocene?" *by* Victor Brovkin et al.

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In the figures of my previous comment the labels of the top x-axes (time in yr CE) are placed wrong, they need to get shifted by 50 years. Furthermore, the x-axes started at -100 yr BP, that has now been changed to -66 yr BP = 2016 CE, which is the first year with data.

I apologize for any confusion, the corrected figures are attached below, including their full captions.

Fig. 1: Atmospheric CO_2 spline and underlying data (2016 CE to -6050 CE or -66 BP to 8,000 BP). Black spline as published in *Köhler et al.* (2017) against time series (gold) used in *Brovkin et al.* (2019). Error bars around the ice core data points are $\pm 2\sigma$. WDC

data have been adjusted to reduce offsets, see *Köhler et al.* (2017) for details.

Fig. 2: Atmospheric CH_4 spline and underlying data (2016 CE to -6050 CE or -66 BP to 8,000 BP). Black spline as published in *Köhler et al.* (2017) against time series (gold) used in *Brovkin et al.* (2019). Details on plotted data are explained in *Köhler et al.* (2017). The maximum ice core data uncertainty ($\pm 2\sigma$) is sketched in the lower left corner. Latitudinal origin of data is indicated by NH and SH, implying northern and southern hemisphere, respectively.

Fig 3: Atmospheric N_2O spline and underlying data (2016 CE to -6050 CE or -66 BP to 8,000 BP). Black spline as published in *Köhler et al.* (2017) against time series (gold) used in in *Brovkin et al.* (2019). Details on plotted data are explained in in *Köhler et al.* (2017). The maximum ice core data uncertainty ($\pm 2\sigma$) is sketched in the upper right corner. Filled symbols: data taken for spline; open symbols: data not taken for spline.

References

Brovkin, V., S. Lorenz, T. Raddatz, T. Ilyina, I. Stemmler, M. Toohey, and M. Claussen (2019), What was the source of the atmospheric CO_2 increase during the Holocene?, *Biogeosciences Discussions*, *2019*, 1–25, doi:10.5194/bg-2019-64.

Köhler, P., C. Nehrbass-Ahles, J. Schmitt, T. F. Stocker, and H. Fischer (2017), A 156 kyr smoothed history of the atmospheric greenhouse gases CO_2, CH_4, and N_2O and their radiative forcing, *Earth System Science Data*, *9*, 363–387, doi:10.5194/essd-9-363-2017.

Interactive comment on Biogeosciences Discuss., https://doi.org/10.5194/bg-2019-64, 2019.
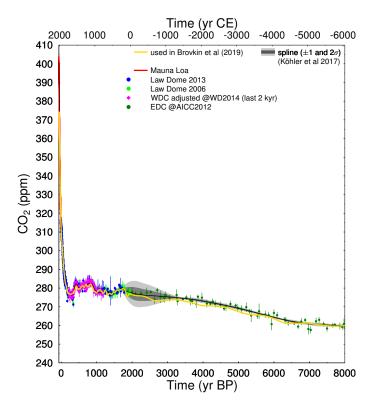
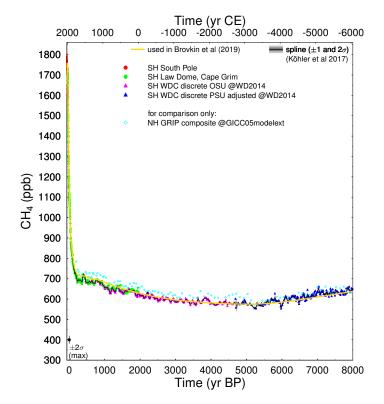**Fig. 1.** Corrected Fig. 1 on CO2 of previous comment
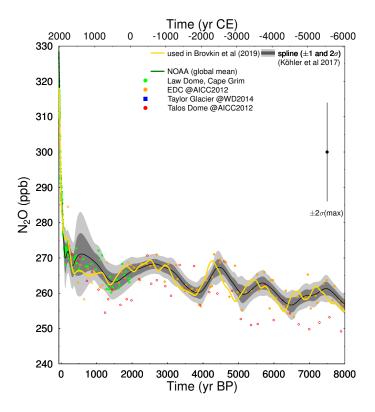
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Fig. 2. Corrected Fig. 2 on CH4 of previous comment

Fig. 3. Corrected Fig. 3 on N2O of previous comment

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