



**Figure S1.** Reconstructed productivities (PP) in June and dissolved oxygen concentrations at the surface (*do*) compared to the atmospheric greenhouse gas methane (CH<sub>4</sub>) record (from Köhler et al., 2017 a and b, Continuous record of the atmospheric greenhouse gas methane (CH<sub>4</sub>), final spline-smoothed data of calculated radiative forcing (Version 2); PANGAEA, <https://doi.org/10.1594/PANGAEA.876009>). Yellow vertical bands identify periods of high methane concentrations. Blue and grey vertical bands as in previous Figures. (For the color used in this figure, the reader is referred to the Web version of this article.).

## References

1. Köhler, P.; Nehrbass-Ahles, C.; Schmitt, J.; Stocker, T.F.; Fischer, H. A 156 kyr 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* **2017a**, *9*, 363–387, <https://doi.org/10.5194/essd-9-363-2017>.
2. Köhler, P.; Nehrbass-Ahles, C.; Schmitt, J.; Stocker, T.; Fischer, H. Continuous record of the atmospheric greenhouse gas methane (CH<sub>4</sub>), final spline-smoothed data of calculated radiative forcing (Version 2). PANGAEA, 2017b, <https://doi.org/10.1594/PANGAEA.876009>