Supplement of Biogeosciences, 20, 4241–4258, 2023 https://doi.org/10.5194/bg-20-4241-2023-supplement © Author(s) 2023. CC BY 4.0 License.





## Supplement of

## Differentiation of cognate bacterial communities in thermokarst landscapes: implications for ecological consequences of permafrost degradation

Ze Ren et al.

Correspondence to: Ze Ren (renzedyk@gmail.com)

The copyright of individual parts of the supplement might differ from the article licence.

## **Supplementary Information**

Figure S1 Map of the 44 sampling sites of permafrost soil and thermokarst lakes across the Qinghai-Tibet Plateau. The distribution of the permafrost was cited from Zou et al., 2017. This map was cited from Ren et al, 2022a.

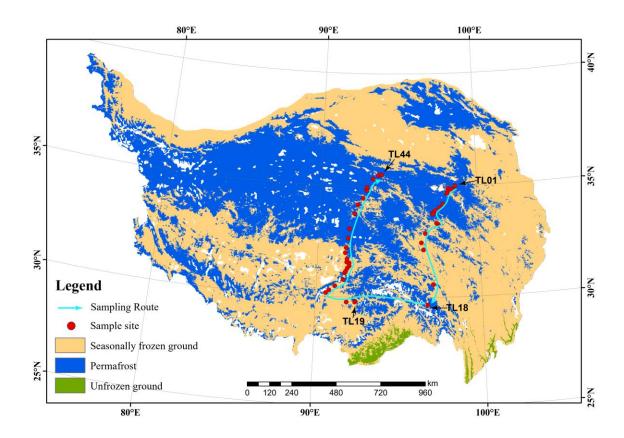


Figure S2 (a) Venn diagram showing the unique and shared OTUs among distinct bacterial communities in permafrost soil (PB), lake sediment (SB), and lake water (WB). (b) The volcano plot showing the shared OTUs that significantly (t-test, P < 0.05) enriched in a certain habitat. The volcano plot was constructed using  $\log_2$  (fold change) on x-axis and  $-\log_{10}$  (p-values of t-test) on y-axis.

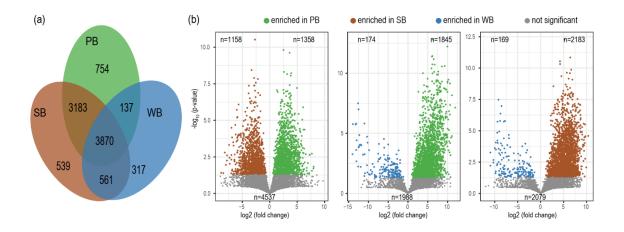


Figure S3 Distance-decay curves showing community similarity of bacterial communities in permafrost soil (PB), lake sediment (SB), and lake water (WB) against geographic distances between sampling sites. Solid lines denote the ordinary least-squares linear regressions.

