

## Supplementary information

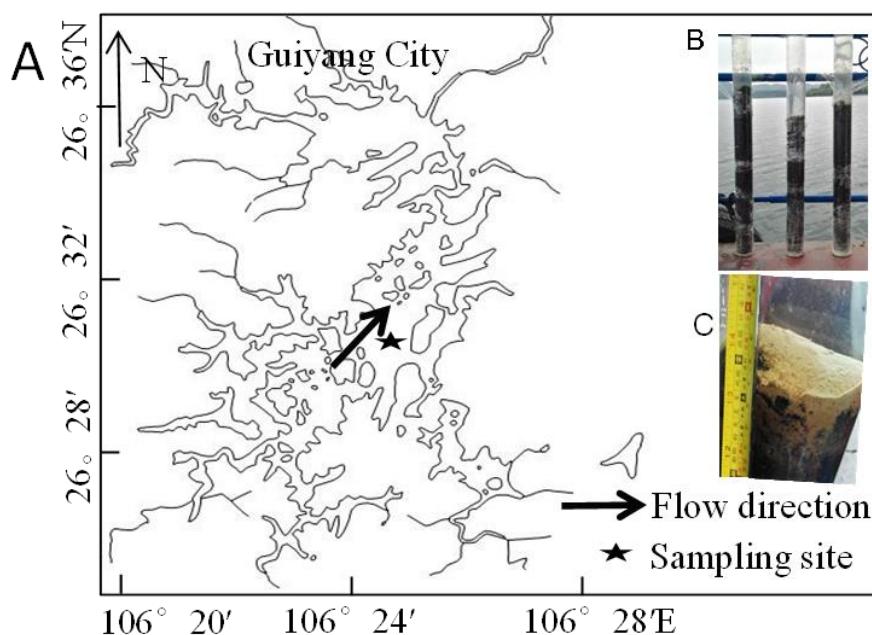
## 2 Intersecting Methane Production and Oxidation Zones in Freshwater Sediments

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4 Chen<sup>c</sup>, Chiquan He<sup>a</sup>, Xiaoyan Liu<sup>a</sup>, Shuang Bai<sup>a</sup>, Fushun Wang<sup>a,\*</sup>

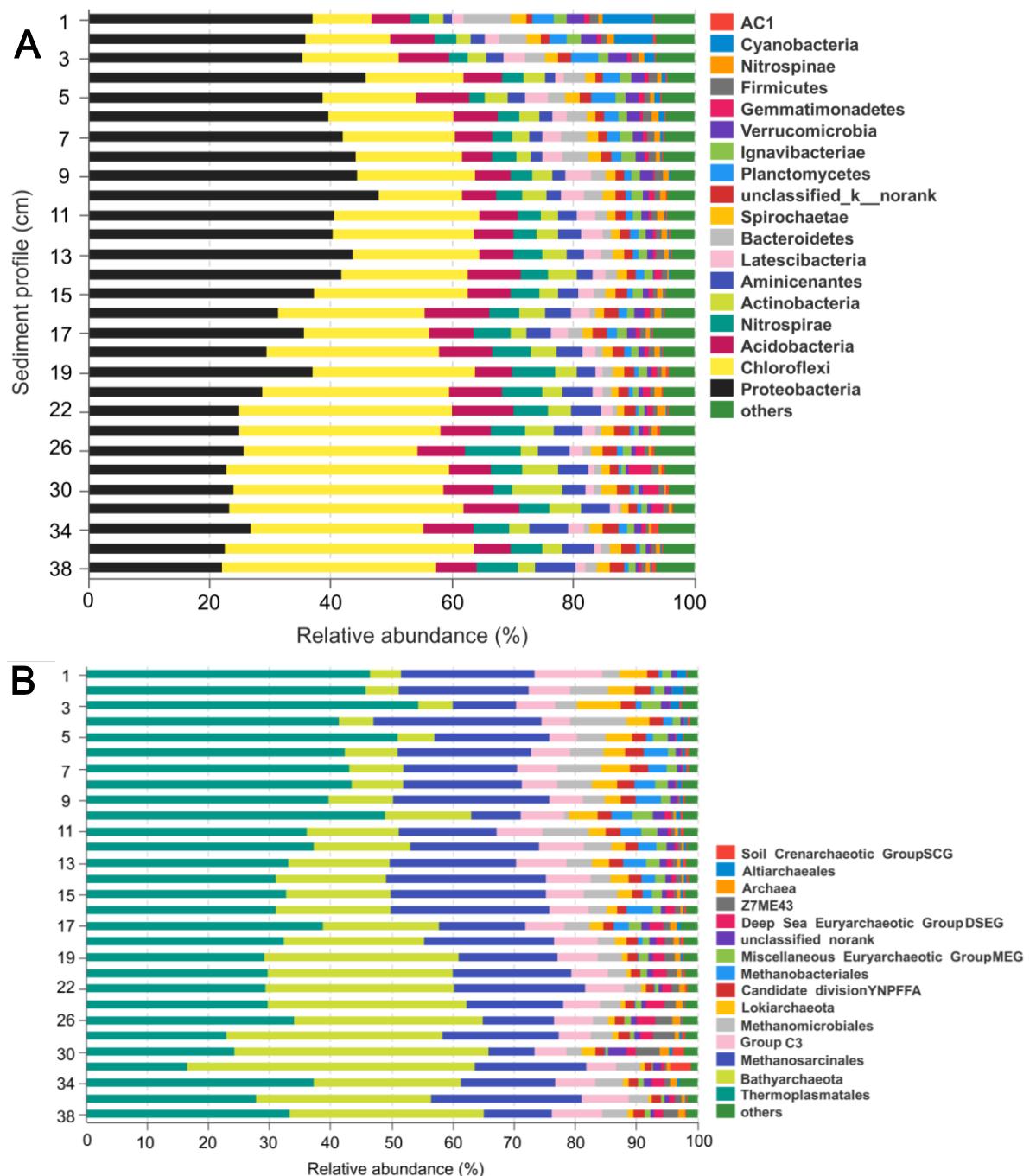
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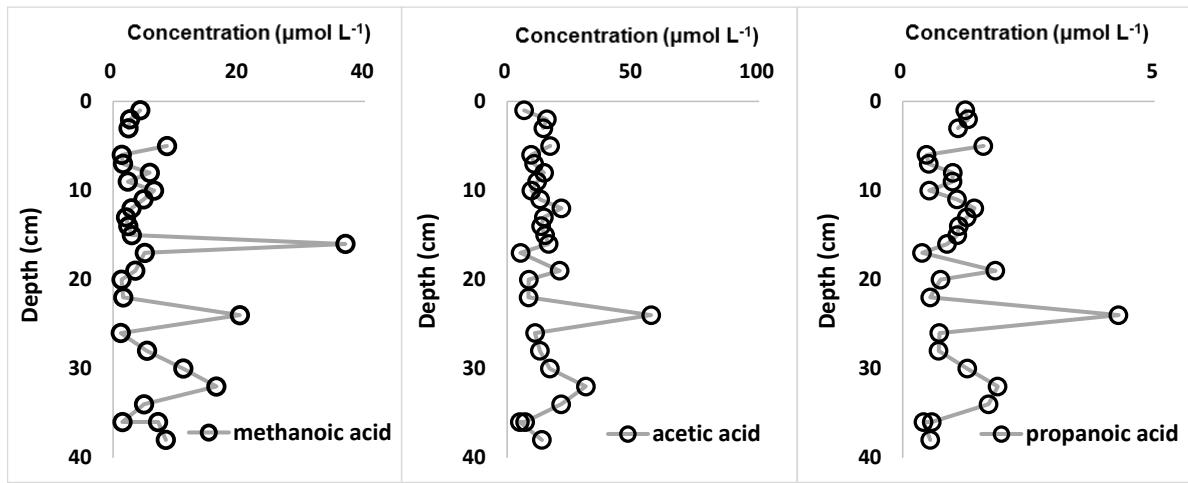


**Fig. S1** Location of the Hongfeng Reservoir and the sampling site (A) and the sediment columns (B). In winter, there is brownish plaque (iron oxide) on the surface of sediment cores (~1 cm) (C).



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15 **Fig. S2** The community composition of bacteria (A) and archaea (B) at phylum and order levels,  
16 respectively.



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18 **Fig. S3** The concentration of methanoic acid, acetic acid, and propanoic acid along the sediment  
19 profile in the Hongfeng Reservoir

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