



## Supplement of

## Physically controlled $CO_2$ effluxes from a reservoir surface in the upper Mekong River Basin: a case study in the Gongguoqiao Reservoir

Lin Lin et al.

Correspondence to: Xixi Lu (geoluxx@nus.edu.sg) and Kaidao Fu (kdfu@ynu.edu.cn)

The copyright of individual parts of the supplement might differ from the CC BY 4.0 License.

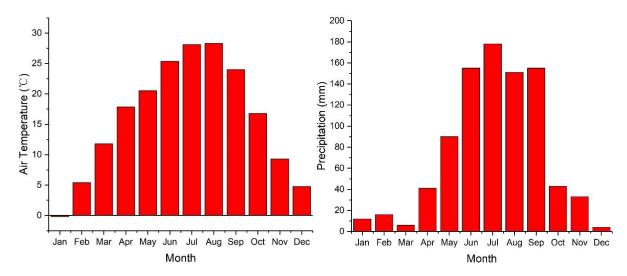


Fig S1 Variation of monthly-average air temperature and of the Gongguo Town (left panel) and variation of monthly-average precipitation of the Dali City in 2016

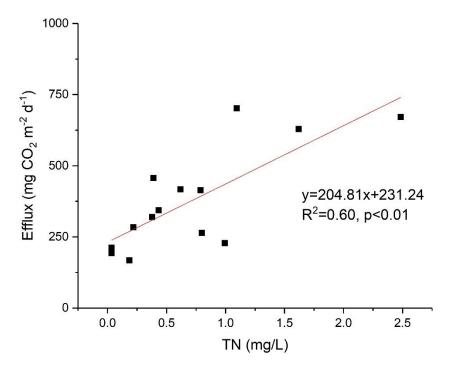


Fig S2 The positive relation between TN concentration and efflux at the littoral zone (Point L)

	TN <sup>a</sup>	TP	DOC	$\mathrm{DO}^{\mathrm{b}}$	Cond	Temp	pCO <sub>2</sub>	pН	Talk	SPS	Efflux
Chl a	-0.040 <sup>c</sup>	0.518**	0.082	0.264*	-0.233**	0.058	0.042	-0.027	0.236**	0.467**	-0.104
TN		-0.176*	-0.192*	-0.135	-0.015	-0.108	0.330**	-0.296**	-0.036	-0.103	0.041
TP			0.451**	0.298**	-0.537**	0.353**	-0.018	0.017	0.095	0.819**	-0.199*
DOC				0.201	-0.293**	0.402**	-0.179*	0.101	-0.086	0.488**	-0.281**
DO					-0.112	-0.565**	-0.291*	0.264*	-0.047	0.490**	-0.183
Cond						-0.442**	0.151	0.126	0.356**	-0.607**	0.188*
Temp							0.105	-0.168	-0.064	0.319**	-0.407**
pCO2								-0.717**	0.273**	-0.120	0.058
pee2									0.307**	0.023	-0.054
Talk										0.021	0.098
SPS											-0.257**

Table S1 Correlation coefficients among efflux, pCO2 and water properties

a Totally 127 samples were used for the correlation analysis among TN, TP, DOC, Temp, pH, Talk, SPS and Efflux.

b Totally 77 samples were used for the correlation analysis between DO and other parameters.

c When the correlation is significant at 0.01 level, the coefficient is flagged with double star marks. When the correlation is significant at 0.05 level, the coefficient is flagged with single star mark.