Supplementary Materials

Effect of vegetation distribution driven by hydrological fluctuation on sedimental stoichiometry regulating N_2O emissions in freshwater wetland

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Table S1. Chemical characteristics of sediments in different vegetations during high and low water levels. Data is means ± standard errors (n = 3).

Water level	Sampling site	TOC (g kg^{-1})	TN (g kg^{-1})	NH_4^+-N (mg kg^{-1})	NO_3^--N (mg kg^{-1})	C:N Ratio
Low	Reed	36.147±0.999	0.711±0.008	19.158±1.266	4.158±1.241	50.802±0.847
	Carex	32.053±1.219	0.695±0.008	16.880±0.581	1.398±1.654	46.117±1.234
	Phalaris	42.743±0.384	1.617±0.023	44.121±3.599	5.579±0.544	26.443±0.172
	Nymphoides	34.050±0.733	1.408±0.018	25.769±1.587	4.994±0.133	24.174±0.219
	Mud flat	13.597±0.326	0.660±0.013	40.759±2.496	6.204±0.303	20.583±0.146
High	Reed	37.080±0.336	1.661±0.014	43.719±1.266	13.702±2.241	22.320±0.063
	Carex	37.067±2.923	1.397±0.010	29.479±0.581	11.773±1.654	26.542±2.274
	Phalaris	43.747±2.089	1.881±0.009	49.099±3.599	10.092±0.544	23.262±1.134
	Nymphoides	66.710±1.924	3.304±0.062	66.434±1.587	7.014±0.133	20.187±0.355
	Mud flat	32.890±1.023	1.510±0.024	56.350±2.496	10.985±0.303	21.773±0.499

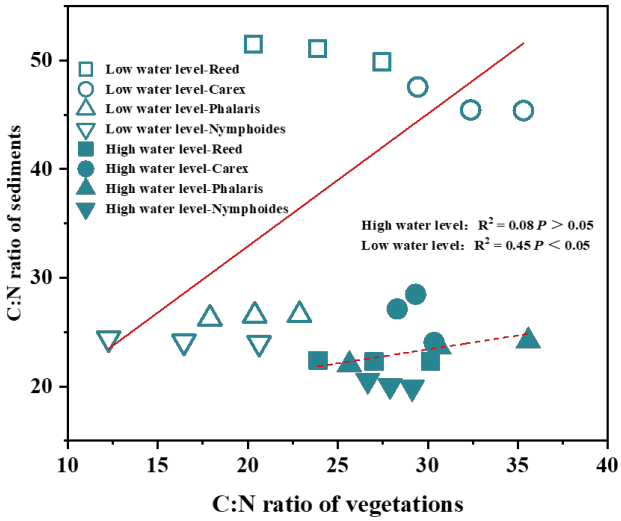

Fig. S1. Relationship between C:N ratio of sediments and C:N ratio of vegetation during high and low water levels.

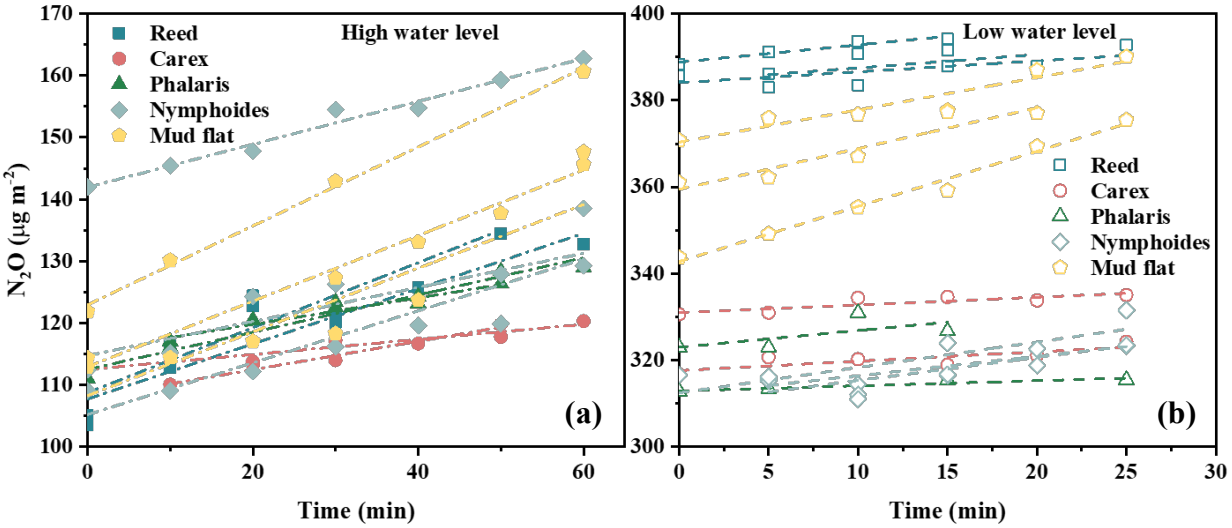

Fig. S2. Measurement for N_2O emission fluxes in vegetation zones during high (a) and low (b) water levels.

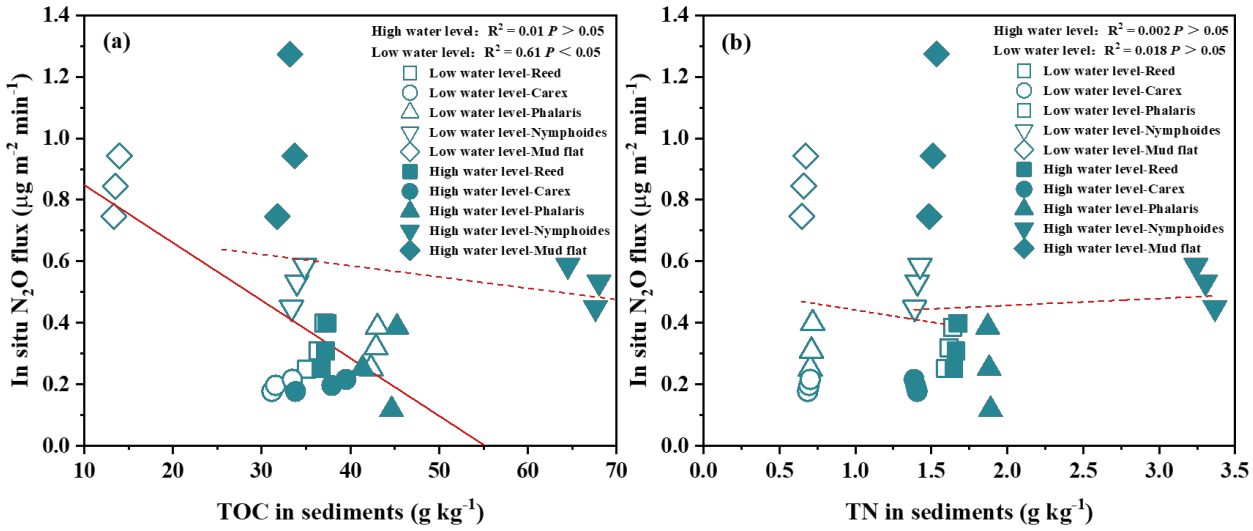

Fig. S3. Relationships between the N_2O emission fluxes and concentration of TOC (a), and TN (b) in sediments of vegetation zones during different water levels.

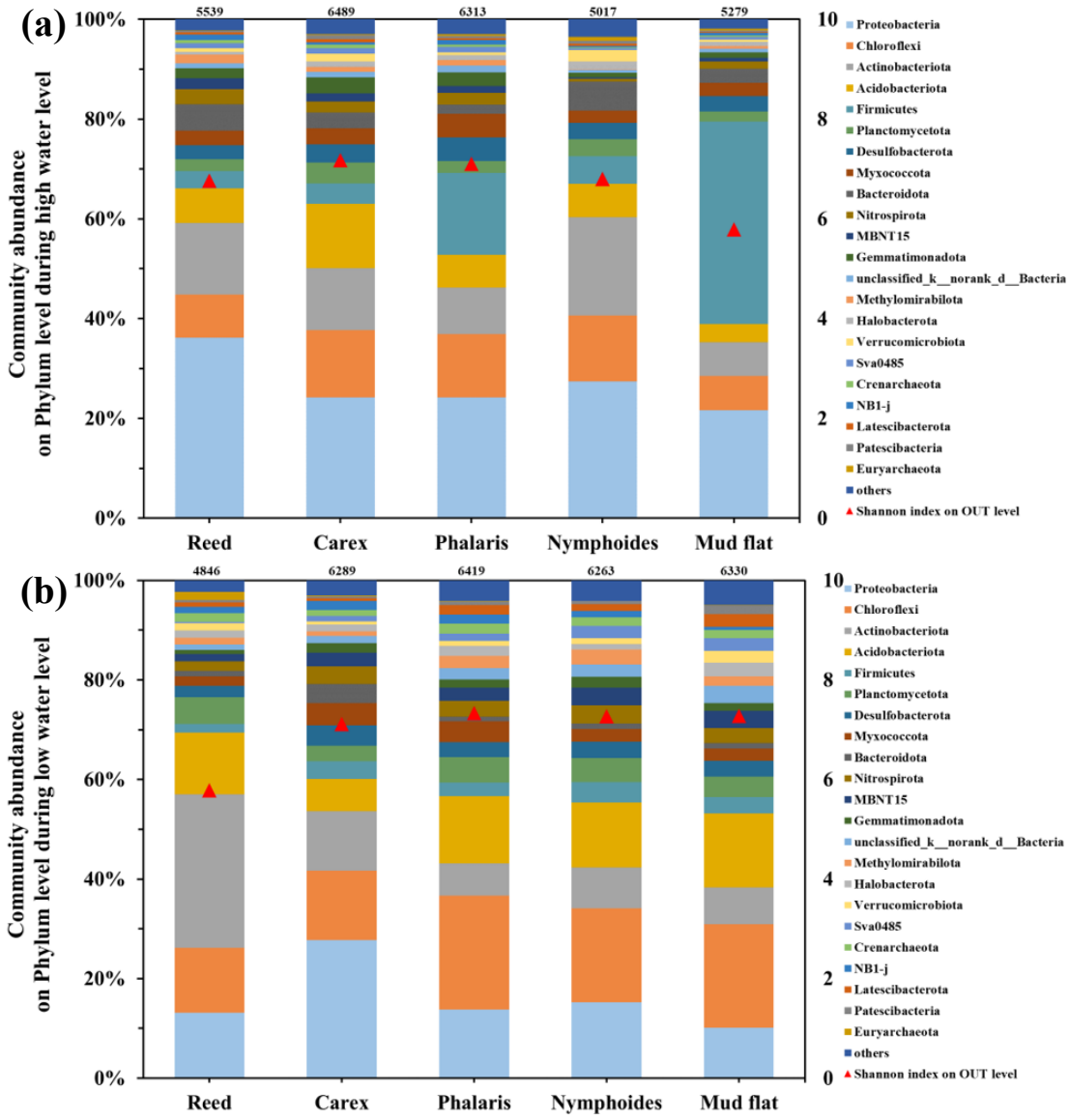

Fig. S4. Relative abundance and diversity of bacterial phyla (> 1.0%) in sediments of vegetation zones during high (a) and low (b) water levels. Different colors represent different phyla. The “number” above the bar plot represents total number of enriched OTUs in the corresponding treatment. The “triangle” represents the Shannon index (OTU level) of the bacterial community.