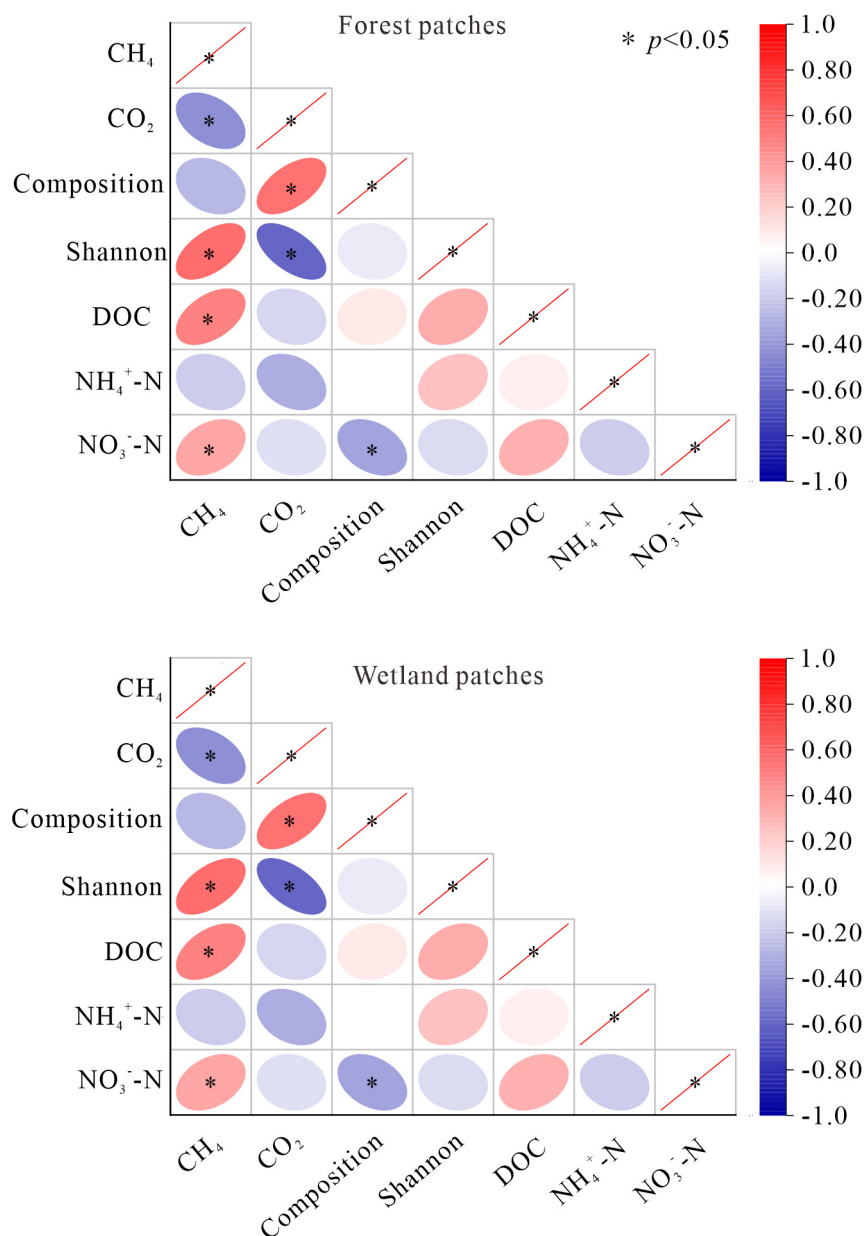


**Table S1.** Three-way factorial ANOVA of the effects of FTC amplitude, FTC frequency, patch type, and their interactions on CO<sub>2</sub> and CH<sub>4</sub> emission rates.

	CO <sub>2</sub>		CH <sub>4</sub>	
	<i>F</i>	<i>P</i>	<i>F</i>	<i>P</i>
FTC amplitude	142.336	<0.001	39.462	<0.001
FTC frequency	122.550	<0.001	79.613	<0.001
Patch type	173.475	<0.001	271.980	<0.001
FTC amplitude×FTC frequency	14.391	0.021	8.609	0.002
FTC frequency×Patch type	14.566	0.011	17.985	<0.001
FTC amplitude×Patch type	7.272	0.560	0.012	0.012
FTC amplitude×FTC frequency×Patch type	4.100	0.544	12.532	<0.001

**Table S2.** Three-way ANOVA for evaluating the effects of FTC amplitude, FTC frequency, patch type, and their interactions on DOC, NH<sub>4</sub><sup>+</sup>-N, and NO<sub>3</sub><sup>-</sup>-N contents.

	DOC		NH <sub>4</sub> <sup>+</sup> -N		NO <sub>3</sub> <sup>-</sup> -N	
	<i>F</i>	<i>P</i>	<i>F</i>	<i>P</i>	<i>F</i>	<i>P</i>
FTC amplitude	<0.001	0.990	0.770	0.389	9.199	0.006
FTC frequency	3.776	0.038	0.103	0.902	6.392	0.006
Patch type	11.038	0.003	1.171	0.290	3.797	0.063
FTC amplitude×FTC frequency	0.964	0.396	2.279	0.124	3.587	0.043
FTC frequency×Patch type	0.430	0.656	0.233	0.794	0.094	0.911
FTC amplitude×Patch type	0.319	0.577	<0.001	0.988	0.120	0.732
FTC amplitude×FTC frequency×Patch type	1.060	0.362	0.287	0.753	0.202	0.818



**Figure S1.** Pearson correlations among soil carbon emissions, bacterial diversity, and substrates in forest and wetland patches. Red indicates positive correlations, and blue indicates negative correlations. \* indicated significant correlations at the 0.05 level.