Supplementary for:

Compositional variations of active autotrophic microbes in paddy soils with elevated CO_2 and temperature

Table list:

Table S1 Table 1 Soil properties (0-20 cm) collected 5 years after the start of the Simulated Climate Change (SCC) experiment

Table S1 Soil properties (0-20 cm) collected 5 years after the start of the Simulated Climate Change (SCC) experiment: aCO_2-aTemp: ambient CO_2 and temperature; eTemp: elevated temperature; eCO_2: elevated CO_2; eCO_2-eTemp: elevated CO_2 and elevated temperature.

	aCO_2-aTemp	eTemp	eCO_2	eCO_2-eTemp
pH	7.46±0.03 b	7.64±0.01 a	7.41±0.05 b	7.15±0.02 c
TN (g kg^{-1})	1.5±0.04 c	1.4±0.01 d	1.7±0.01 b	2.0±0.04 a
SOC (g kg^{-1})	15.0±0.3 c	14.3±0.0 d	17.8±0.3 b	20.4±0.5 a
C: N	9.93±0.07 b	10.2±0.11 a	10.4±0.22 a	10.3±0.14 a
EC (ms cm^{-1})	427±20.8 bc	563±26.6 a	376±56.7 c	475±5.58 b
NH_4^+ (mg N kg^{-1})	1.92±0.08 b	2.21±0.16 a	2.24±0.13 a	2.02±0.11 ab
NO_3^- (mg N kg^{-1})	15.1±0.42 b	17.2±0.76 a	14.1±0.39 b	18.4±1.10 a

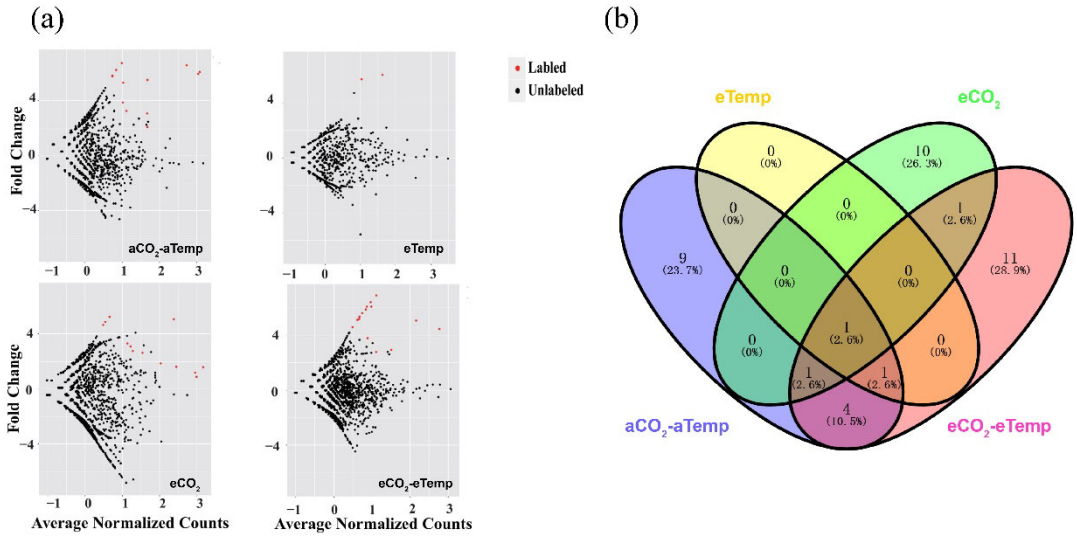
Values are the means of three replicates ± standard error. Means followed by the same letter for a given soil property are not significantly different ($p < 0.05$). TN represents soil total nitrogen, SOC represents soil organic carbon, EC represents soil electrical conductivity, NH_4^+ and NO_3^- represent ammonium nitrogen and nitrate nitrogen, respectively.

Figures list:

Figure S1 (a)MA-plot Labeled OTUs included in the heavy buoyant density fraction $^{13}CO_2$ microcosms compared with of $^{12}CO_2$ microcosms for each fertilization treated soil as determined by differential abundance analysis. Each point represents an individual OTU, and the y axis represents the abundance fold change compared with $^{12}CO_2$ treated control. (b)Venn plot represent numbers of differentially labeled OTUs of $^{13}CO_2$ microcosms between each treated soil compared with $^{12}CO_2$ microcosms.

Figure S2 Redundancy analysis (RDA) of 16S rRNA based on OTU matrices from different treatments. Mantel test is made among the soil factors and community composition of 16S rRNA. The red arrows with soil factors represent significant correlations; The black arrows with soil factors represent nonsignificant effects.

Figure S3 Neighbour-joining analysis of labeled OTUs form differently treated soils after 56 days' incubations with ^{13}C-CO_2.



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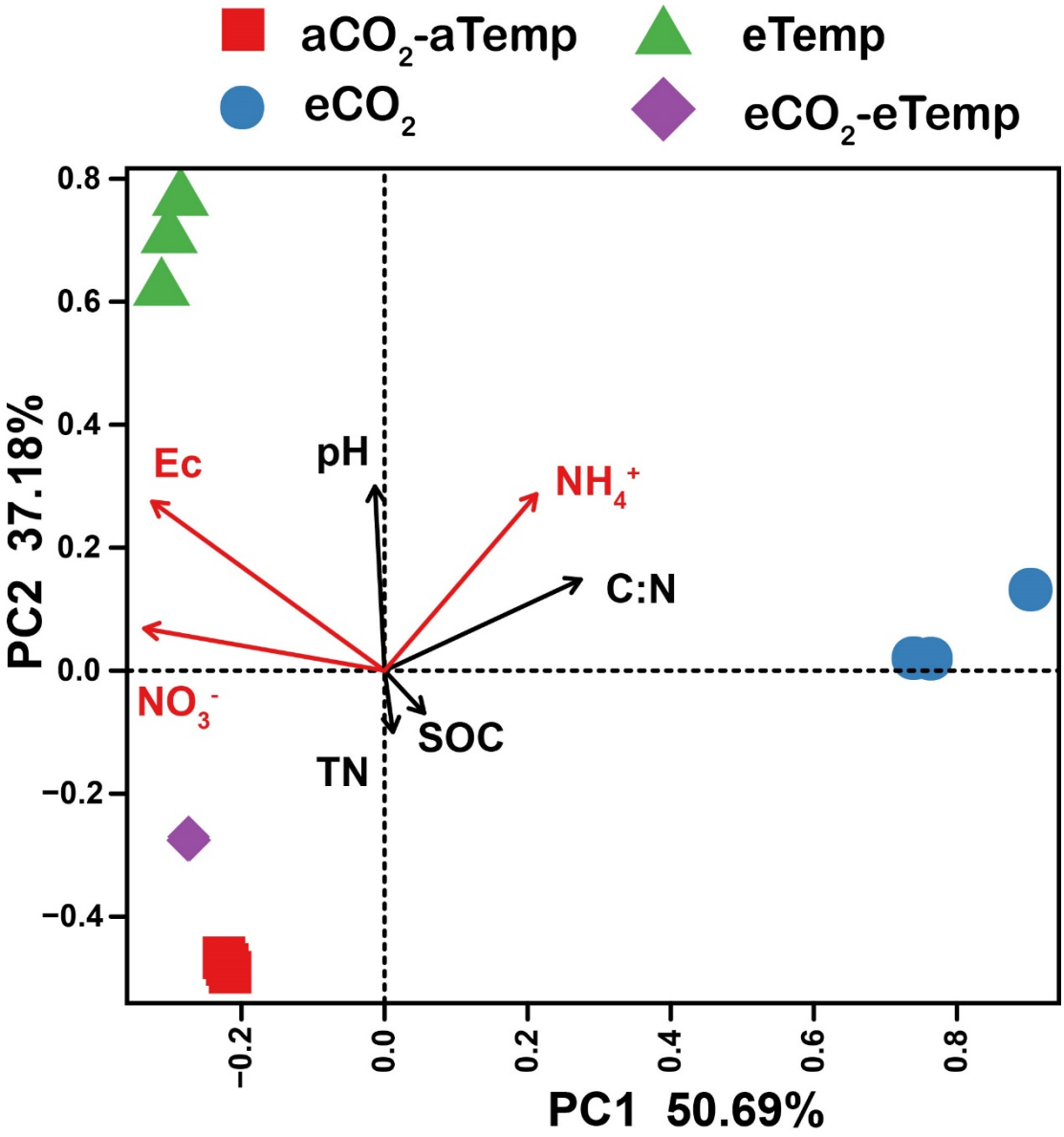

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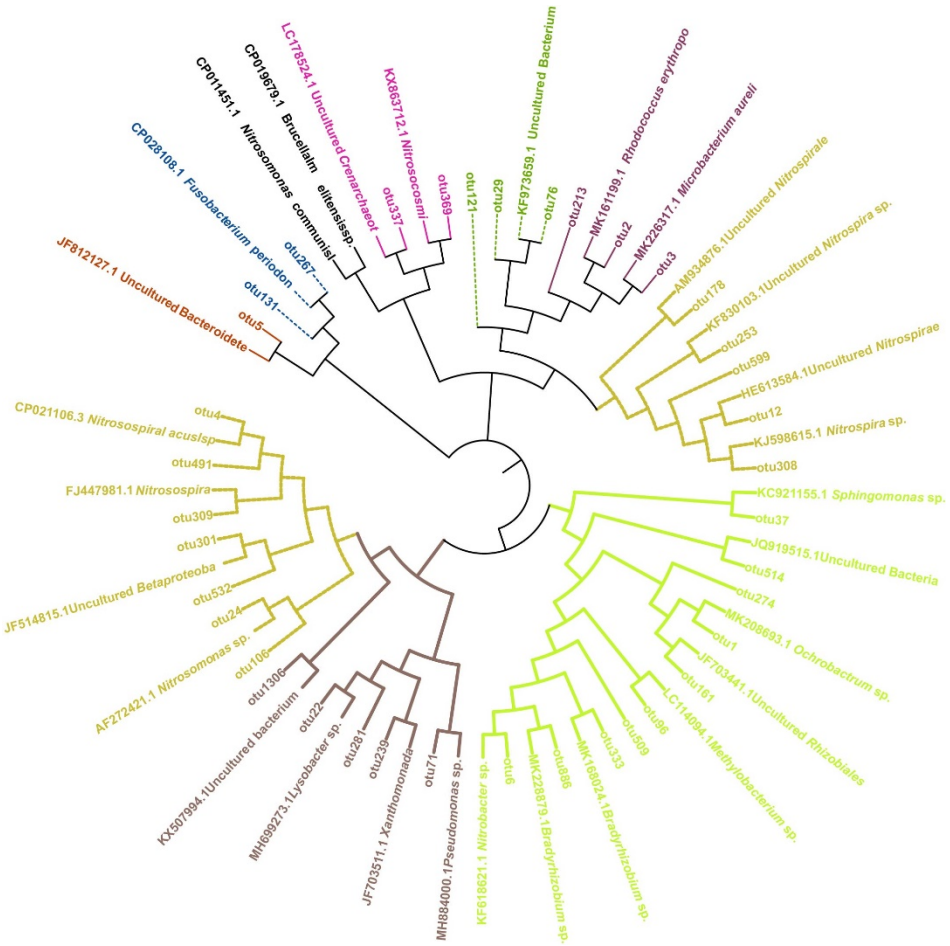

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