Supplementary information:

Different bacterial populations associated with the roots and rhizosphere of rice incorporate plant-derived carbon

Marcela Hernández, Marc G. Dumont[#], Quan Yuan and Ralf Conrad

[#]Max Planck Institute for Terrestrial Microbiology, Karl-von-Frisch-Str.10, 35043, Marburg, Germany

Supplementary Table:

Table S1. Barcode and accession numbers of the experiments with their respective biosamples analyzed by 454-pyrosequencing. Raw data were deposited under the study accession number SRP043264 in the NCBI Sequence Read Archive (SRA)

Sample	Barcode	Number of sequences*	Accession
rice root control plant rep1 (CP1-root)	TCAGAG	2634	SRX620410
rice root control plant rep2 (CP2-root)	TCGAGA	1830	SRX620411
rice root control plant rep3 (CP3-root)	TCTCTC	1179	SRX620412
rice root $^{12}CO_2$ heavy rep1 (g12-1-04)	ACACGT	1468	SRX620413
rice root $^{12}CO_2$ heavy rep2 (g12-2-04)	AGAGTC	1830	SRX620414
rice root $^{12}CO_2$ heavy rep3 (g12-3-04)	ATATCG	2025	SRX620415
rice root $^{12}CO_2$ light rep1 (g12-1-08)	ACTGCA	2013	SRX620416
rice root $^{12}CO_2$ light rep2 (g12-2-08)	AGTCAG	4383	SRX620417
rice root $^{12}CO_2$ light rep3 (g12-3-08)	ATGCTA	2440	SRX620418
rice root $^{13}CO_2$ heavy rep1 (g13-1-04)	CACAGT	1409	SRX620419
rice root $^{13}CO_2$ heavy rep2 (g13-2-04)	CGATAT	1756	SRX620420
rice root $^{13}CO_2$ heavy rep3 (g13-3-04)	GACTAG	2083	SRX620421
rice root $^{13}CO_2$ light rep1 (g13-1-08)	CATGAC	2448	SRX620422
rice root $^{13}CO_2$ light rep2 (g13-2-08)	CGTATA	1116	SRX620423
rice root $^{13}CO_2$ light rep3 (g13-3-08)	GATCGA	1904	SRX620424
rice rhizosphere control plant rep1 (CP1-rhizo)	TCAGAG	4216	SRX620425
rice rhizosphere control plant rep2 (CP2-rhizo)	TCGAGA	2137	SRX620426
rice rhizosphere control plant rep3 (CP3-rhizo)	TCTCTC	1550	SRX620427
rice rhizosphere $^{12}CO_2$ heavy rep1 (g12-1-04)	ACACGT	1302	SRX620428
rice rhizosphere $^{12}CO_2$ heavy rep2 (g12-2-04)	AGAGTC	1449	SRX620429
rice rhizosphere $^{12}CO_2$ heavy rep3 (g12-3-04)	ATATCG	2310	SRX620430
rice rhizosphere $^{12}CO_2$ light rep1 (g12-1-08)	ACTGCA	2760	SRX620431
rice rhizosphere $^{12}CO_2$ light rep2 (g12-2-08)	AGTCAG	1719	SRX620432
rice rhizosphere $^{12}CO_2$ light rep3 (g12-3-08)	ATGCTA	3766	SRX620433
rice rhizosphere $^{13}CO_2$ heavy rep1 (g13-1-04)	CACAGT	1822	SRX620434
rice rhizosphere $^{13}CO_2$ heavy rep2 (g13-2-04)	CGATAT	1053	SRX620435
rice rhizosphere $^{13}CO_2$ heavy rep3 (g13-3-04)	GACTAG	1773	SRX620436
rice rhizosphere $^{13}CO_2$ light rep1 (g13-1-08)	CATGAC	1835	SRX620437
rice rhizosphere $^{13}CO_2$ light rep2 (g13-2-08)	CGTATA	1360	SRX620438
rice rhizosphere $^{13}CO_2$ light rep3 (g13-3-08)	GATCGA	2670	SRX620439

*: number of sequences after quality analysis
Partial 16S rRNA primers:
F515 (5'-GTGCCAGCMGCCGCGGTAA), R806 (5'-GGACTACVSGGGTATCTAAT)
Adaptor primers:
forward (5'-GATGGCCATTACGGCC), reverse (5'-GGTGGCCGAGGCGGCC)

Supplementary Figures:

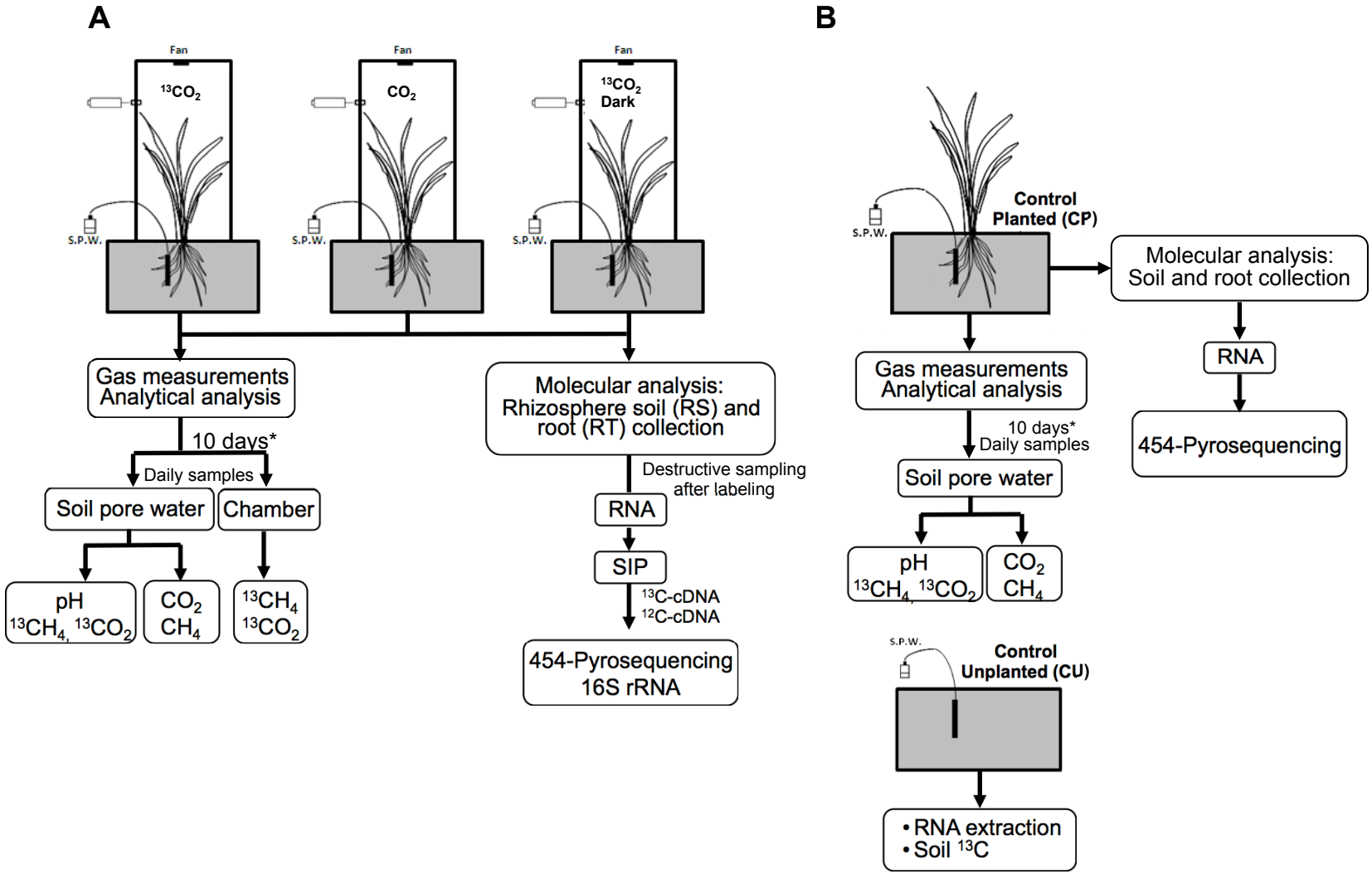

Figure S1. Scheme depicting the set-up of microcosms with elevated $^{13}CO_2$ and $^{12}CO_2$ (A) or control incubations with ambient CO_2 (B).
*End of the experiment: ^{13}C content and TOC were measured for RS and plant samples. Figures modified from Lu and Conrad (1).

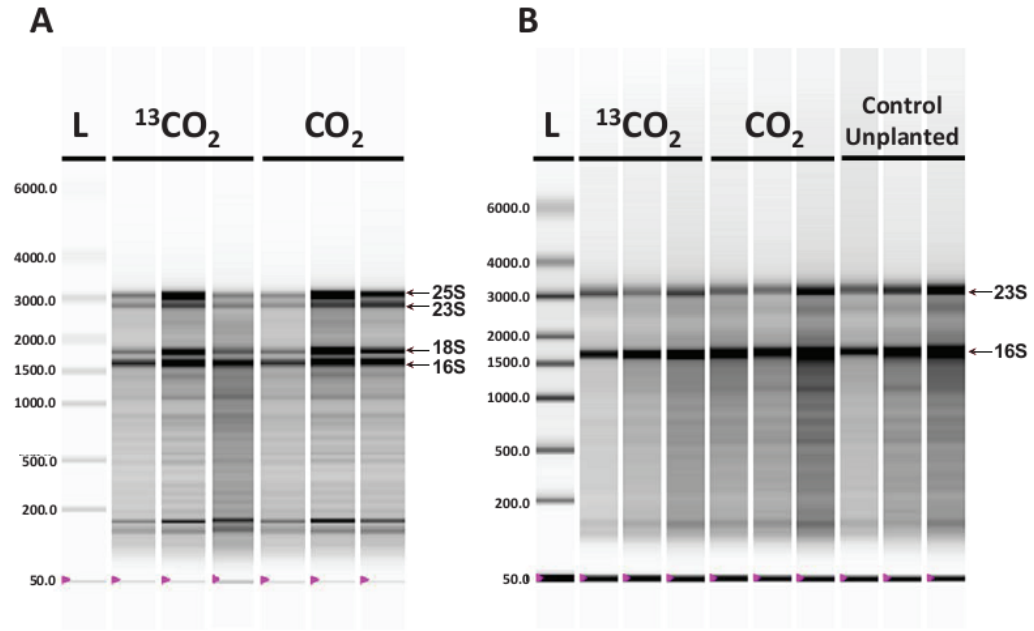

Figure S2. Root (A) and soil (B) RNA extracts visualized by electrophoresis on Experion RNA HighSens Chips.

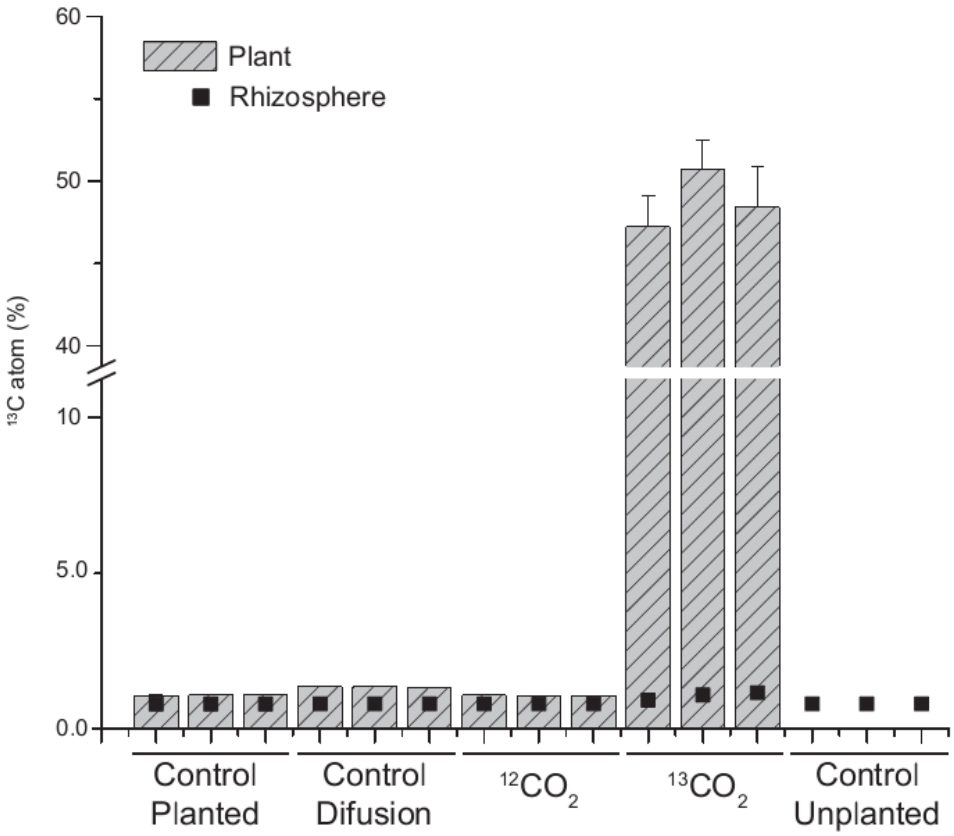

Figure S3. ^{13}C atomic percent in plant biomass and rhizosphere soil after 10 days of labeling. Bars in plant biomass show standard deviation of triplicate technical measurements.

References

1. **LuY, Conrad R.** 2011. Stable isotope probing and plants, p. 151-163. *In* Murrell JC, Whiteley A (ed), Stable Isotope Probing and Related Technologies, ASM Press: Washington.