

Table S2. Summary of deep metatranscriptomics of soil samples collected 6 weeks after waterlogging (W6).

Soil ID	Layer	Replicate	No. of sequences									MG-RAST ID	
			total (length ^a (bp))	rRNA	Protein coding genes	<i>pmo</i>	<i>mcr</i>	[FeFe] hydrogenase	[NiFe] hydrogenase	ACD/ACSS	<i>ackA</i>		
W6	S	1	7,240,814 (175±35)	258,259	41,431	86	1	0	4	18	6	4675403.3	
		2	6,017,177 (173±37)	262,640	38,518	35	1	1	2	26	0	4675404.3	
		3	6,968,767 (176±38)	286,426	43,200	58	1	0	8	29	4	4675402.3	
	D	1	5,667,389 (182±37)	281,362	107,208	31	28	14	61	125	36	4678309.3	
		2	5,170,274 (186±37)	189,023	110,956	21	79	30	44	120	30	4678318.3	
		3	6,301,014 (187±36)	304,122	134,976	14	276	15	49	116	43	4678319.3	