

Figure S1. Similarity Percentages (SIMPER) analysis showing the various bacterial genera that contribute to the significant differences between changes of microbial communities over time, based on DNA and RNA analysis. Rapid-Intermediate: contribution to difference between rapid and intermediate patterns; Intermediate-delayed: contribution to difference between rapid and intermediate patterns. Genera of which contributions >2% are displayed.

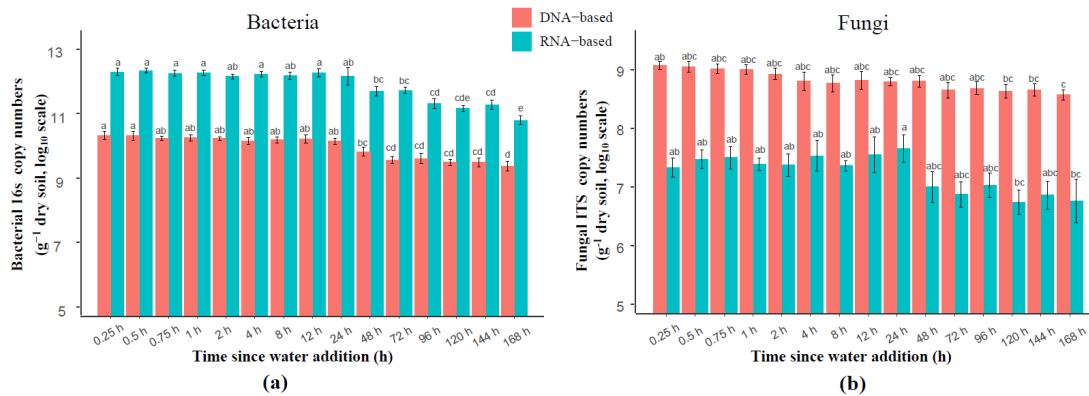


Figure S2. Variation in abundance of bacterial 16s rRNA genes (a) and fungal ITS region (b) based on DNA and RNA. Bars with different letters are significantly different at P=0.05.

Table S1. Bacterial taxa in different response patterns based on either DNA or RNA.

	DNA-based		RNA-based
Patterns	Class	Phylum	Class
Rapid	[Chloracidobacteria] Acidobacteria-6 Acidobacteriia	Acidobacteria	[Chloracidobacteria] Acidobacteria-6 Acidobacteriia

	BPC102		BPC102
	DA052		iii1-8
	iii1-8		RB25
	OS-K		Solibacteres
	RB25		Sva0725
	Solibacteres		
	Sva0725		
	TM1		
	Acidimicrobiia	Actinobacteria	Acidimicrobiia
	Actinobacteria		Actinobacteria
	OPB41		MB-A2-108
	Thermoleophilia		Thermoleophilia
	Chthonomonadetes	Armatimonadetes	Chthonomonadetes
	Anaerolineae	Chloroflexi	Anaerolineae
	C0119		Ellin6529
	Chloroflexi		S085
	Ellin6529		SHA-26
	Ktedonobacteria		TK10
	SHA-26		
	Chloroplast	Cyanobacteria	Chloroplast
			Oscillatoriophyceae
			Synechococcophyceae
		Firmicutes	Clostridia
	Gemm-1	Gemmatimonadetes	Gemm-1
	Gemm-5		
	Nitrospira	Nitrospirae	Nitrospira
	Planctomycetia	Planctomycetes	Planctomycetia
	Alphaproteobacteria	Proteobacteria	Alphaproteobacteria
	Betaproteobacteria		Betaproteobacteria
	Deltaproteobacteria		Deltaproteobacteria
	Gammaproteobacteria		Gammaproteobacteria
	Spirochaetes	Spirochaetes	Spirochaetes
Intermediate	Ktedonobacteria	Chloroflexi	
		Actinobacteria	Actinobacteria
	Bacilli	Firmicutes	Bacilli
	Clostridia		Clostridia
	Betaproteobacteria	Proteobacteria	Betaproteobacteria
Delayed		Fibrobacteres	TG3
	Acidimicrobiia	Actinobacteria	OPB41
	Actinobacteria		
	Thermoleophilia		
		Bacteroidetes	Bacteroidia
	BSV26	Chlorobi	BSV26

		OPB56
Anaerolineae Ktedonobacteria S085	Chloroflexi	Anaerolineae
Chloroplast Nostocophycideae Oscillatoriohycideae	Cyanobacteria	4C0d-2 ML635J-21
Clostridia	Firmicutes	Clostridia
Planctomycetia	Planctomycetes	
Alphaproteobacteria Deltaproteobacteria Gammaproteobacteria	Proteobacteria	Alphaproteobacteria Deltaproteobacteria

Table S2. Phylogenetic structure indices of bacterial groups with different response patterns based on either DNA or RNA. ** $p < 0.01$.

Index	Levels	Patterns	Index value
NRI	DNA-based	Rapid	1.91
		Intermediate	3.03 **
		Delayed	-0.82
	RNA-based	Rapid	-0.36
		Intermediate	4.65 **
		Delayed	2.82 **
NTI	DNA-based	Rapid	2.17 **
		Intermediate	2.75 **
		Delayed	-1.34
	RNA-based	Rapid	-0.04
		Intermediate	3.76 **
		Delayed	1.07