

Supplementary Table 1. Expected (Exp.) and actual (Act., from microscopic counts) abundance of species in mock communities (10^5 cells mL⁻¹). Total bacterial abundance from DAPI counts.

Species	Phylum	M1		M2		M3		M4		M5	
		Exp.	Act.	Exp.	Act.	Exp.	Act.	Exp.	Act.	Exp.	Act.
<i>Rhodoluna</i>	Actinobacteria	1.5	0.4	2.4	2.0	3.1	1.5	6.5	4.8	4.7	4.9
<i>lacicola</i>	Microbacteriaceae										
<i>Sphingomonas</i>	Proteobacteria	3.4	2.6	3.3	2.7	1.4	1.0	17.6	16.9	18.2	14.8
sp. AAP5	Alphaproteobacteria										
<i>Flavobacterium</i>	Bacteroidetes	0.08	0.8	0.08	3.7	0.7	1.6	8.8	11.1	22.7	20.5
sp.	Flavobacteriia										
<i>Gemmatimonas</i>	Gemmaminonadetes	0.05	0.1	1.1	2.5	4.7	2.5	17.2	18.0	7.8	8.7
<i>phototrophica</i>											
Total bacterial abundance		5.1	3.9	6.9	11.1	9.8	6.7	50.0	50.8	53.4	48.9