

Table S5. Taxonomic information of keystone network taxa.

	Module hub	Phylum-Class-Family/Genus	Connector	Phylum-Class
Mar	OTU1382 OTU365 OTU12663 OTU193	Acidobacteria;Acidobacteriia;Granulicella Bacteroidetes;Bacteroidia;Muribaculaceae Firmicutes;Clostridia;Clostridium Bacteroidetes;Flavobacteriia;NS7 marine group		
May	OTU987 OTU152 OTU195 OTU2199 OTU7460 OTU831 OTU89	Actinobacteria;Actinomycetia;Actinomyces dentalis Chloroflexi;Ktedonobacteria;Lachnospiraceae Bacteroidetes;Flavobacteriia;Formosa Proteobacteria;Alphaproteobacteria Firmicutes;Clostridi;Acetobacteraceae Cyanobacteria;Chroobacteria;Cyanobacteriales Proteobacteria;Alphaproteobacteria;OCS116_clade	OTU339 OTU596 OTU667 OTU2083	Actinobacteria;Rubrobacteria;Gaiellales Proteobacteria;Gammaproteobacteria;Acidibacter Proteobacteria;Alphaproteobacteria;Xanthobacteraceae Proteobacteria;Gammaproteobacteria;Pseudomonas
Aug	OTU90	Proteobacteria;Gammaproteobacteria;OM182_clade		