Table S1 Analysis of correlation between plants and microorganisms

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Plant species | Microbial species | *F* value | *P* value | Interaction type |
| *S.breviflora* | *Microvirga* | 0.6588  | 0.0055  | pos |
| *unclassified\_f\_\_Beijerinckiaceae* | 0.6735  | 0.0042  | pos |
| *norank\_f\_\_norank\_o\_\_Rhizobiales* | 0.6107  | 0.0120  | pos |
| *norank\_f\_\_Beijerinckiaceae* | 0.7265  | 0.0014  | pos |
| *Skermanella* | 0.7491  | 0.0008  | pos |
| *unclassified\_f\_\_Xanthobacteraceae* | 0.6053  | 0.0130  | pos |
| *norank\_f\_\_norank\_o\_\_Rokubacteriales* | -0.6652  | 0.0049  | neg |
| *norank\_f\_\_LWQ8* | -0.6470  | 0.0067  | neg |
| *unclassified\_f\_\_Nitrosococcaceae* | -0.6078  | 0.0125  | neg |
| *Geminibasidium* | -0.6024  | 0.0135  | neg |
| *Neodidymelliopsis* | -0.6244  | 0.0097  | neg |
| *Phlyctochytrium* | -0.7021  | 0.0024  | neg |
| *N.petinata* | *norank\_f\_\_norank\_o\_\_Gaiellales* | 0.6088  | 0.0123  | pos |
| *unclassified\_f\_\_Nitrosococcaceae* | 0.6829  | 0.0036  | pos |
| *Keissleriella* | 0.7118  | 0.0020  | pos |
| *Neodidymelliopsis* | 0.7246  | 0.0015  | pos |
| *Phlyctochytrium* | 0.8214  | 0.0001  | pos |
| *Microvirga* | -0.6647  | 0.0050  | neg |
| *unclassified\_f\_\_Beijerinckiaceae* | -0.6147  | 0.0113  | neg |
| *norank\_f\_\_Beijerinckiaceae* | -0.6647  | 0.0050  | neg |
| *norank\_f\_\_norank\_o\_\_Elsterales* | -0.6134  | 0.0115  | neg |
| *CL500-29\_marine\_group* | -0.6529  | 0.0061  | neg |
| *Skermanella* | -0.8079  | 0.0002  | neg |
| *norank\_f\_\_Sandaracinaceae* | -0.6490  | 0.0065  | neg |
| *Flavitalea* | -0.6121  | 0.0117  | neg |
| *Ferruginibacter* | -0.7529  | 0.0008  | neg |
| *FFCH7168* | -0.6112  | 0.0119  | neg |
| *Craurococcus-Caldovatus* | -0.6372  | 0.0079  | neg |
| *Blastocatella* | -0.6137  | 0.0115  | neg |
| *Lecythophora* | -0.6255  | 0.0096  | neg |
| *Cephaliophora* | -0.6074  | 0.0126  | neg |
| *Oomyces* | -0.6809  | 0.0037  | neg |
| *Mycocalicium* | -0.7171  | 0.0018  | neg |
| *Dinemasporium* | -0.7644  | 0.0006  | neg |
| *A.scoparia* | *norank\_f\_\_TRA3-20* | 0.7354  | 0.0012  | pos |
| *norank\_f\_\_Microscillaceae* | 0.6245  | 0.0097  | pos |
| *Flavitalea* | 0.7192  | 0.0017  | pos |
| *Ferruginibacter* | 0.6833  | 0.0035  | pos |
| *Neodidymelliopsis* | -0.6088  | 0.0123  | neg |
| *C.songorica* | *unclassified\_p\_\_Chloroflexi* | 0.6013  | 0.0137  | pos |
| *Phaeococcomyces* | 0.7211  | 0.0016  | pos |
| *unclassified\_p\_\_Basidiomycota* | 0.6170  | 0.0109  | pos |
| *norank\_f\_\_Entotheonellaceae* | -0.6078  | 0.0125  | neg |
| *unclassified\_f\_\_Lentitheciaceae* | -0.6233  | 0.0099  | neg |
| *K.prostrata* | *Subgroup\_10* | 0.6927  | 0.0029  | pos |
| *unclassified\_f\_\_Acetobacteraceae* | 0.6334  | 0.0084  | pos |
| *norank\_f\_\_norank\_o\_\_Elsterales* | 0.6106  | 0.0120  | pos |
| *norank\_f\_\_Sandaracinaceae* | 0.6996  | 0.0026  | pos |
| *Lecythophora* | 0.7909  | 0.0003  | pos |
| *Cephaliophora* | 0.6196  | 0.0105  | pos |
| *unclassified\_f\_\_Microbacteriaceae* | -0.6393  | 0.0077  | neg |
| *Fusarium* | -0.6330  | 0.0085  | neg |
| *C.ammannii* | *Didymella* | -0.6450  | 0.0070  | neg |
| *Coniochaeta* | -0.6547  | 0.0059  | neg |
| *unclassified\_f\_\_Stephanosporaceae* | -0.6501  | 0.0064  | neg |
| *Rhizophagus* | -0.6005  | 0.0139  | neg |
| *A.mongolicum* | *norank\_f\_\_Sandaracinaceae* | 0.6830  | 0.0035  | pos |
| *Ferruginibacter* | 0.6387  | 0.0077  | pos |
| *Oomyces* | 0.6159  | 0.0111  | pos |
| *Sporormiella* | -0.6180  | 0.0107  | neg |
| *Trematosphaeria* | -0.6115  | 0.0118  | neg |

Note: Spearman’s rank correlations of the relative abundances of all species between two groups were calculated. pos: positive correlation; neg: negative correlation.