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.