

Supplementary material for

Effects of plant invaders on rhizosphere microbial attributes depend on plant identity and growth stage

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Table S1 A layout of the properties and metrics referring to the architecture of the network

| | | |
|---|------------------------|--|
| Cohesion: Assesses the extent of connectivity of the entire network | Density | The total of all values divided by the number of ties. |
| | Shortest path length | The distance between two nodes is the number of ties contained in the shortest path that connects them. |
| | Clustering Coefficient | It measures how much neighbors of each node are also neighbors of each other. The clustering coefficient of a node is the density of its open neighborhood. The overall clustering coefficient is the mean of the clustering coefficient of all the nodes. |
| | Small-world | A real network is a small-world network if it has a similar mean shortest path length but greater clustering of nodes than a random graph with the same number of nodes and average density. It reflects the importance of each node |
| Modularity: Assesses the possibility of various nodes to be grouped together | Eigenvector centrality | Connections to nodes with higher number of connections contribute more to the score of the ego node than equal number of connections but to nodes with lower number of connections |
| | Neighbor connectivity | Connectivity of a node equals to the number of nodes directly connected with it. |
| | | Neighborhood connectivity is the average connectivity of all nodes. |

Table S2 The significance of the explanatory power of continuous and categorical variables and their overlaps to the variation in soil enzymes. The lowercase letters a, b, c indicate the fractions of variation and d, e, f, g the overlaps between a and b, b and c, a and c, a and b and c respectively

| | F | p |
|---------------|-----|-------|
| a+b+c+d+e+f+g | 4.8 | 0.002 |
| a | 4.1 | 0.002 |
| b | 3.6 | 0.024 |
| c | 2.3 | 0.068 |
| a+d | 3.9 | 0.002 |
| b+e | 3.0 | 0.028 |
| c+f | 4.5 | 0.002 |