

Table S1. Relative abundance of soil bacteria under different tree species.

| Soil depths              | 0-20cm    |        |        |        |        | 20-40cm |        |        |        |        |
|--------------------------|-----------|--------|--------|--------|--------|---------|--------|--------|--------|--------|
|                          | Treatment | L1     | L2     | L3     | L4     | average | L1     | L2     | L3     | L4     |
| <i>Actinobacteria</i>    | 32.30%    | 34.62% | 33.48% | 33.95% | 33.59% | 30.03%  | 25.67% | 32.88% | 32.26% | 30.21% |
| <i>Proteobacteria</i>    | 28.25%    | 21.59% | 30.07% | 29.45% | 27.34% | 15.57%  | 14.75% | 14.92% | 20.62% | 16.47% |
| <i>Acidobacteria</i>     | 15.70%    | 17.61% | 11.88% | 12.38% | 14.39% | 22.93%  | 23.90% | 18.93% | 14.10% | 19.97% |
| <i>Chloroflexi</i>       | 7.08%     | 10.31% | 8.53%  | 6.91%  | 8.21%  | 13.58%  | 15.25% | 12.37% | 8.92%  | 12.53% |
| <i>Firmicutes</i>        | 5.19%     | 5.12%  | 2.63%  | 4.80%  | 4.44%  | 3.12%   | 3.30%  | 4.99%  | 5.07%  | 4.12%  |
| <i>Gemmatimonadetes</i>  | 1.85%     | 1.87%  | 2.54%  | 2.93%  | 2.30%  | 3.78%   | 4.25%  | 3.73%  | 6.09%  | 4.46%  |
| <i>Myxococcota</i>       | 2.28%     | 1.91%  | 2.15%  | 1.78%  | 2.03%  | 1.76%   | 1.39%  | 2.37%  | 2.74%  | 2.07%  |
| <i>Bacteroidota</i>      | 2.19%     | 2.04%  | 1.42%  | 1.53%  | 1.79%  | 0.89%   | 0.88%  | 0.49%  | 0.99%  | 0.82%  |
| <i>Verrucomicrobiota</i> | 0.58%     | 0.77%  | 0.76%  | 1.57%  | 0.92%  | 1.19%   | 2.59%  | 1.44%  | 1.13%  | 1.59%  |
| <i>Methylomirabilota</i> | 1.63%     | 1.66%  | 1.97%  | 1.72%  | 1.75%  | 2.60%   | 3.40%  | 3.40%  | 3.96%  | 3.34%  |

Note: L1: Liaodong oak, David's poplar; L2: David's poplar; L3: Liaodong oak, white birch; L4: Liaodong oak, white birch, and Mongolian birch