

Table S3 The spearman correlation analysis of the relative abundance of *Tricholoma* with other fungi in the habitat soil

Fungi genus in soil	Spearman correlation coefficient (r)	Significance(p)
<i>Umbelopsis</i>	0.946	0
<i>Penicillium</i>	0.919	0
<i>Trichoderma</i>	0.809	0
<i>Solicoccozyma</i>	0.78	0
<i>Geomyces</i>	0.749	0
<i>Mucor</i>	0.73	0.001
<i>Apiotrichum</i>	0.715	0.001
<i>Leptodontidium</i>	0.706	0.001
<i>Gibberella</i>	0.694	0.001
<i>Saitozyma</i>	0.692	0.001
<i>Bifiguratus</i>	0.676	0.002
<i>Pseudogymnoascus</i>	0.661	0.003
<i>Cutaneotrichosporon</i>	0.659	0.003
<i>Absidia</i>	0.658	0.003
<i>Dasyscypha</i>	0.649	0.004
<i>Trichocladium</i>	0.631	0.005
<i>Pseudotomentella</i>	0.609	0.007
<i>Cladophialophora</i>	0.607	0.008
<i>Vanrija</i>	0.602	0.008
<i>Russula</i>	-0.832	0.001
<i>Leotia</i>	-0.781	0
<i>Cortinarius</i>	-0.717	0.013
<i>Inocybe</i>	-0.71	0.001
<i>Trechispora</i>	-0.695	0.001
<i>Ilyonectria</i>	-0.695	0.001

<i>Entoloma</i>	-0.666	0.003
<i>Cylindrosympodium</i>	-0.638	0.004
<i>Clitocybe</i>	-0.617	0.006