

Table S1: Testing Nematode-trapping fungi

Species name	Genera	Trap structure	Conidia type	Strain number
<i>A. arthrobotryoides</i>	<i>Arthrobotrys</i>	Adhesive networks	Arthrobotrys-shaped	47
<i>A. botryospora</i>			Arthrobotrys-shaped	15
<i>A. cladodes</i>			Arthrobotrys-shaped	36
<i>A. conoides</i>			Arthrobotrys-shaped	237
<i>A. eryuanensis</i>			Arthrobotrys-shaped	3
<i>A. javanica</i>			Arthrobotrys-shaped	91
<i>A. jindingensis</i>			Arthrobotrys-shaped	2
<i>A. jinpingensis</i>			Arthrobotrys-shaped	2
<i>A. Latispora</i>			Arthrobotrys-shaped	6
<i>A. musiformis</i>			Arthrobotrys-shaped	350
<i>A. oligospora</i>			Arthrobotrys-shaped	457
<i>A. polycephala</i>			Arthrobotrys-shaped	3
<i>A. pyriformis</i>			Arthrobotrys-shaped	2
<i>A. robusta</i>			Arthrobotrys-shaped	1
<i>A. shuifuensis</i>			Arthrobotrys-shaped	3
<i>A. superba</i>			Arthrobotrys-shaped	276
<i>A. tongdianensis</i>			Arthrobotrys-shaped	2
<i>A. vermicola</i>			Arthrobotrys-shaped	82
<i>A. cystosporia</i>			Monacrosporium-shaped	8
<i>A. elegans</i>			Monacrosporium-shaped	4
<i>A. eudermata</i>			Monacrosporium-shaped	43
<i>A. fusiformis</i>			Monacrosporium-shaped	1
<i>A. gampsospora</i>			Monacrosporium-shaped	3
<i>A. gongshanensis</i>			Monacrosporium-shaped	6
<i>A. janus</i>			Monacrosporium-shaped	1
<i>A. lanpingensis</i>			Monacrosporium-shaped	3
<i>A. longiphora</i>			Monacrosporium-shaped	8
<i>A. luquanensis</i>			Monacrosporium-shaped	3
<i>A. luzhangensis</i>			Monacrosporium-shaped	4
<i>A. megalospora</i>			Monacrosporium-shaped	3
<i>A. microscaphoides</i>			Monacrosporium-shaped	7
<i>A. obovata</i>			Monacrosporium-shaped	27
<i>A. oudemansii</i>			Monacrosporium-shaped	8
<i>A. reticulata</i>			Monacrosporium-shaped	44

<i>A. scaphoides</i>			Monacrosporium-shaped	54
<i>A. sinensis</i>			Monacrosporium-shaped	15
<i>A. sphaeroides</i>			Monacrosporium-shaped	49
<i>A. thaumasia</i>			Monacrosporium-shaped	91
<i>A. xiangyunensis</i>			Monacrosporium-shaped	187
<i>A. zhaoyangensis</i>			Monacrosporium-shaped	2
<i>A. uliformis</i>			Dactylella-shaped	2
<i>Dr. brochopaga</i>			Arthrobotrys-shaped	3
<i>Dr. dactyloides</i>			Arthrobotrys-shaped	30
<i>Dr. aphrobrocha</i>			Monacrosporium-shaped	24
<i>Dr. bembicodes</i>			Monacrosporium-shaped	7
<i>Dr. coelobrocha</i>			Monacrosporium-shaped	31
<i>Dr. daliensis</i>	<i>Drechslerella</i>	Constricting rings	Monacrosporium-shaped	2
<i>Dr. doedycoides</i>			Monacrosporium-shaped	4
<i>Dr. effusa</i>			Monacrosporium-shaped	2
<i>Dr. heterospora</i>			Monacrosporium-shaped	1
<i>Dr. stenobrocha</i>			Monacrosporium-shaped	1
<i>Dr. xiaguanensis</i>			Monacrosporium-shaped	2
<i>Da. cangshanensis</i>			Monacrosporium-shaped	4
<i>Da. drechsleri</i>			Monacrosporium-shaped	54
<i>Da. dulongensis</i>			Monacrosporium-shaped	2
<i>Da. ellispsora</i>		Adhesive knobs	Monacrosporium-shaped	71
<i>Da. multiseptata</i>			Monacrosporium-shaped	1
<i>Da. parvicolla</i>			Monacrosporium-shaped	6
<i>Da. phymatopaga</i>	<i>Dactylellina</i>		Monacrosporium-shaped	1
<i>Da. yushanensis</i>			Monacrosporium-shaped	5
<i>Da. illaqueata</i>		Adhesive knobs and non-constricting rings	Monacrosporium-shaped	1
<i>Da. sichuanensis</i>			Monacrosporium-shaped	7
<i>Da. cionopaga</i>			Monacrosporium-shaped	3
<i>Da. robusta</i>		Adhesive branches	Monacrosporium-shaped	2
<i>Da. gephyropaga</i>			Monacrosporium-shaped	5
65 species	3 genera	5 types of trapping structures	3 types of conidia	2457 strains

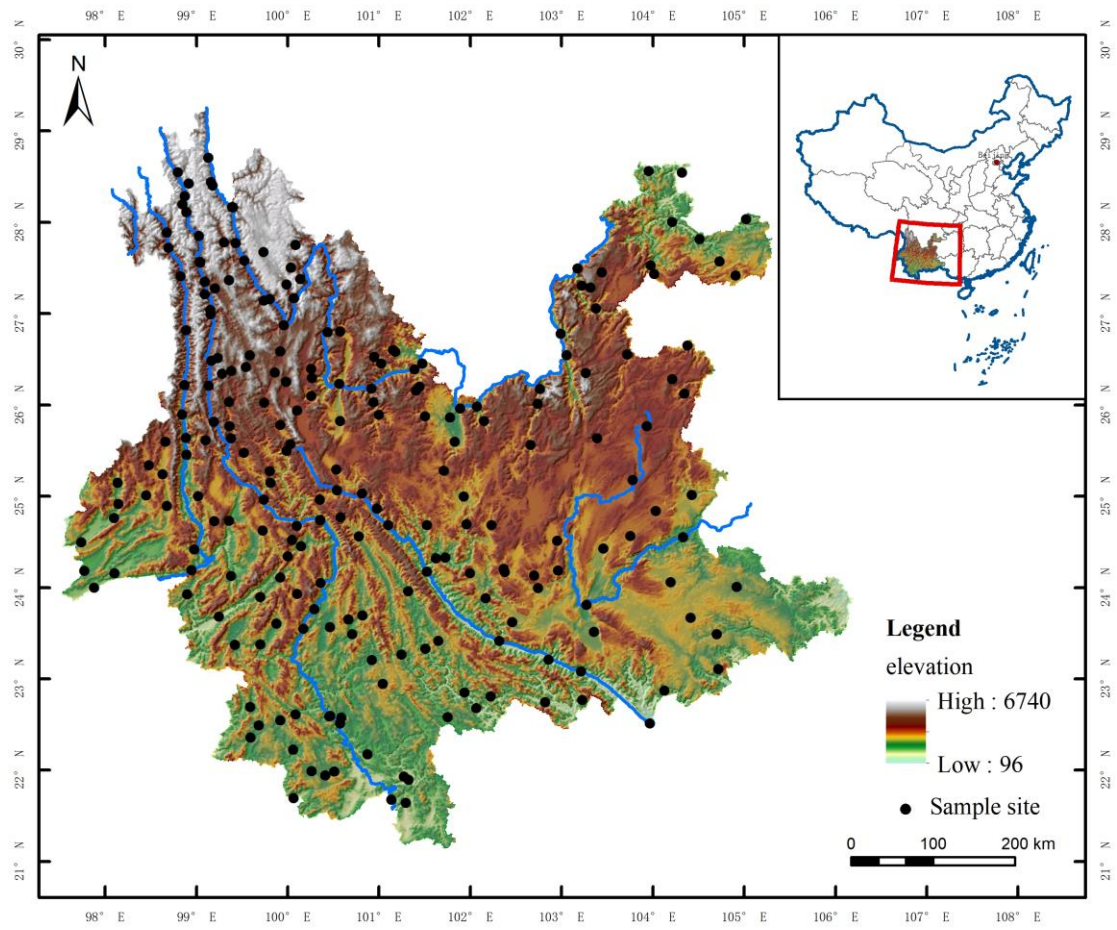


Figure S1. The source distribution map of the strains involved in this study.