

**Table S1.** Sequences used for phylogenetic analyses. Sequences generated in this study are in bold.

Taxa	Isolate	Gene regions			Taxa	Isolate	Gene regions		
		ITS	BT2	TEF1			ITS	BT2	TEF1
<b>ASCOMYCOTA</b>					<b>Neofusicoccum</b>				
<b>Fusarium</b>					<i>N. batangarum</i>				
<b>(F. sambucinum species complex)</b>					CBS 124924 FJ900607 FJ900653 FJ900634				
<i>F. graminearum</i>	LC 13775	MW016611	MW620072	MW533966	CBS 124923	FJ900608	FJ900654	FJ900635	
<i>F. kyushuense</i>	NRRL 3509	NR_152943	MW233056	–	CMM 1338	JX513630	JX513610	KC794031	
	LC 7000	MW016618	MW620079	MW533972	CMM 1285	JX513628	JX513608	KC794030	
<i>F. musarum</i>	NRRL 28507	–	MW233094	–	CBS 123634	EU821898	EU821868	EU821838	
<i>F. poae</i>	NRRL 25799	AF006345	MW233084	AF006365	CBS 123635	EU821903	EU821873	EU821843	
<i>F. robustum</i>	CBS 637.76	MH861018	MW928842	–	<i>N. dianense</i>	CSF6075	MT028605	MT028771	MT028937
<i>F. sambucinum</i>	CBS 146.95	KM231813	KM231941	KM232078	CSF5840	MT028606	MT028772	MT028938	
	NRRL 31964	–	MW233106	–	<i>N. hongkongense</i>	CERC2968	KX278051	KX278156	KX278260
	NRRL 31969	–	MW233107	–	CERC2973	KX278052	KX278157	KX278261	
	T1Tiar7	MK752404	MK752459	MK752397	<i>N. illicii</i>	CGMCC3.18310	KY350149	–	KY350155
	MF11	KP719144	KP710620	KP710658	CGMCC3.18311	KY350150	KY817756	KY350156	
	<b>FB100</b>	<b>PP467576</b>	<b>PP476173</b>	<b>PP476168</b>	<i>N. italicum</i>	MFLUCC 15-900	KY856755	KY856754	–
	<b>FB040</b>	–	<b>PP476172</b>	–	CBS 140889	MT587479	MT592192	MT592684	
<i>F. venenatum</i>	CBS 458.93	NR_156290	KM231942	KM232079	<i>N. kwambonambensis</i>	CBS 123639	EU821900	EU821870	EU821840
					CBS 123641	EU821919	EU821889	EU821859	
					<i>N. mangiferae</i>	CBS 118531	AY615185	DQ093221	AY615172
<b>(F. solani species complex)</b>					<i>N. occulatum</i>	CBS 128008	EU301030	EU339509	EU339472
<i>F. ambrosium</i>	CBS 571.94	KM231801	KM232063	–	<i>N. occulatum</i>	CBS 128008	EU301030	EU339509	EU339472
<i>F. breviconium</i>	CBS 203.31	LR583706	–	–	MUCC 286	EU736947	EU339511	EU339474	
<i>F. crassum</i>	CBS 144386	LR583709	–	–	<i>N. parvum</i>	CMW 9081	NR_119487	AY236888	AY236917
<i>F. falciforme</i>	CBS 475.67	MG189935	–	–	CMM 3944	JX513636	JX513616	KC794028	
	LC13828	MW016708	MW534050	–	GDTCMF1	MK989991	MT424812	MN022786	
<i>F. lichenicola</i>	CBS 623.92	LR583730	–	–	(= <i>N. algeriense</i> )	CBS137504	KJ657702	KJ657715	KX505915
	IHEM23213	KJ125586	KJ125882	–	CAA 322	KX505906	KX505894	KX505916	
<i>F. solani</i>	CBS 140079	KT313633	–	–	(= <i>N. italicum</i> )	MFLUCC 15-900	KY856755	KY856754	–
	HGUP1833	MK069607	MK069602	–	<b>FB073</b>	<b>PP467573</b>	<b>PP476174</b>	<b>PP476167</b>	
	GuangX15	KY785013	KY785034	–	<b>FB132</b>	<b>PP467570</b>	<b>PP476175</b>	<b>PP476169</b>	
	CBS 101018	NR_154227	KM232062	–	<i>N. ribis</i>	CBS 115475	AY236935	AY236877	AY236906
	<b>FB033</b>	<b>PP467575</b>	<b>PP476171</b>	–	CBS 121.26	AF241177	AY236879	AY236908	
<i>F. suttonianum</i>	CBS 143214	DQ094617	–	–	<i>N. sinoeucalypti</i>	CERC 2005	KX278061	KX278166	KX278270
<i>F. tonkinense</i>	CBS 115.40	MG189941	–	–	CERC3416	KX278064	KX278169	KX278273	
	CIEPA SP 2	ON571655	ON642867	–	<i>N. yunnanense</i>	CSF6142	MT028667	MT028833	MT028999
					CSF6171	MT028666	MT028832	MT028998	

**Table S1.** (continued)

Taxa	Isolate	Gene region		
		ITS	BT2	TEF1
<b>BASIDIOMYCOTA</b>				
<b><i>Chondrostereum</i></b>				
<i>C. coprosmae</i>	PDD:119544	OL709440	–	–
	PDD:119544	OL709440	–	–
<i>C. purpureum</i>	GI-444	OM307825	–	–
	He6088	MW557936	–	–
	SFI-B18	MT535785	–	–
	RGM1326	MK322313	–	–
	RGM137	MK322258	–	–
	CBS_351.53	MH857242	–	–
	ER1601	KT362914	–	–
	Cp	KF681361	–	–
	<b>FB016</b>	<b>PP467577</b>	–	–
	<b>FB137</b>	<b>PP467569</b>	–	–
<b><i>Gloeostereum</i></b>				
<i>G. cimri</i>	CBS 145006	NR_174644	–	–
<b>OOMYCOTA</b>				
<b><i>Phytophthora</i></b>				
<i>P. acerina</i>	CBS 133931	MG518642	MH493901	MH358950
<i>P. capensis</i>	CBS 128319	MG865466	MH493914	MH358965
<i>P. caryae</i>	NJB2013-AF-08	KJ631538	KJ631572	KU695515
<i>P. citricola</i>	CBS 221.88	JX545153	FJ665256	MH358974
<i>P. multivora</i>	CBS 124094	NR_147867	FJ665260	MK864047
	CPHST BL 26	MG865545	MH493983	MH359039
	<b>L-13</b>	<b>PP467571</b>	–	–
	<b>L-16</b>	<b>PP467572</b>	<b>PP476176</b>	<b>PP476170</b>
<i>P. pachypleura</i>	CPHST BL 146	MG865558	MH493991	MH359046
<i>P. pini</i>	CPHST BL 48	MG865565	MH493998	MH359055
<i>P. plurivora</i>	CPHST BL 74	MG865568	MH494001	MH359058
<i>P. tropicalis</i>	CPHST BL 58	MG865596	MH494022	MH359082