

**Table S1.** Species and GenBank accession numbers of DNA sequences used in this study.

Species	Voucher2	Host/Substrate	Country	GenBank accession number				
				ITS	LSU	tefl	ACT	gapdh
Phyllosticta capitalensis species complex								
P. acaciigena	CPC 28295 <sup>†</sup>	Acacia suaveolens	Australia	KY173433	KY173523	NA	KY173570	NA
P. aloecicola	CPC 21020 <sup>†</sup>	Aloe ferox	South Africa	KF154280	KF206214	KF289193	KF289311	KF289124
	CPC 21021	Aloe ferox	South Africa	KF154281	KF206213	KF289194	KF289312	KF289125
P. ardisiicola	NBRC 102261 <sup>†</sup>	Ardisia crenata	Japan	AB454274	NA	NA	AB704216	NA
P.aristolochiicola	BRIP 53316 <sup>†</sup>	Aristolochia acuminata	Australia	JX486129	NA	NA	NA	NA
P. azevinhi	MUCC0088	Ilex pedunculosa	Japan	AB454302	NA	NA	AB704226	NA
P. beaumarisii	CBS 535.87	Muehlenbekia adpressa	Australia	NR_145235	NG_058040	KF766429	KF306232	KF289074
P. brazilianiae	LGMF 330 <sup>†</sup>	Mangifera indica	Brazil	JF343572	KF206217	JF343593	JF343656	JF343758
	LGMF 334	Mangifera indica	Brazil	JF343566	KF206215	JF343587	JF343650	JF343752
P. capitalensis	CBS 114751	Vaccinium sp.	New Zealand	EU167584	EU167584	FJ538407	FJ538465	KF289088
	CBS 128856 <sup>†</sup>	Stanhopea sp.	Brazil	JF261465	KF206304	JF261507	JF343647	JF343776
P. carochlae	CGMCC3.17317 <sup>†</sup>	Caryota ochlandra	China	KJ847422	NA	KF289178	KF289273	KF289092
P. cavendishii	BRIP 57384	Musa cv. Lady finger	Australia	KC117644	KU697330	KF009695	KF014059	KU716085
	BRIP 57383	Musa cv. Lady finger	Australia	KC117643	KU697329	KF009694	KF014058	KU716084
P.cordylinophila	MFLUCC10-0166 <sup>†</sup>	Cordyline fruticosa	Thailand	KF170287	KF206242	KF289172	KF289295	KF289076
	MFLUCC 12-0014	Cordyline fruticosa	Thailand	KF170288	KF206228	KF289171	KF289301	KF289075
P. doitungensis	MFLU 21-0175 <sup>†</sup>	Dasymaschalon obtusipetalum	Thailand	OK661033	OK661034	OL345581	NA	NA
P. eugeniae	CBS 445.82 <sup>†</sup>	Eugenia aromatica	Indonesia	AY042926	KF206288	KF289208	KF289246	KF289139
P. fallopiiae	MUCC0113 <sup>†</sup>	Fallopia japonica	Japan	AB454307	NA	NA	AB704228	NA
P.guangdongensis	CFCC 58144 <sup>†</sup>	Viburnum odoratissimum	China	OQ202160	OQ202170	OQ267758	OQ267764	OQ267770

	CFCC 58766	<i>Viburnum odoratissimum</i>	China	OQ202161	OQ202171	OQ267759	OQ267765	OQ267771
	CFCC 58772	<i>Viburnum odoratissimum</i>	China	OQ202162	OQ202172	OQ267760	OQ267766	OQ267772
<i>P. ilicis-aquifolii</i>	CGMCC 3.14358 <sup>T</sup>	<i>Ilex aquifolium</i>	China	JN692538	NA	JN692526	JN692514	NA
	CGMCC 3.14359	<i>Ilex aquifolium</i>	China	JN692539	NA	JN692527	JN692515	NA
<i>P. maculata</i>	CPC 18347 <sup>T</sup>	<i>Musa</i> cv. <i>Golygoly pot-pot</i>	Australia	JQ743570	NA	KF009700	KF014016	NA
	BRIP 46622	<i>Musa</i> cv. <i>Golygoly pot-pot</i>	Australia	JQ743567	NA	KF009692	KF014013	NA
<i>P. mangiferae</i>	IMI 260576 <sup>T</sup>	<i>Mangifera indica</i>	India	JF261459	KF206222	JF261501	JF343641	JF343748
<i>P. mangifera-indicae</i>	MFLUCC 10-0029 <sup>T</sup>	<i>Mangifera indica</i>	Thailand	KF170305	KF206240	KF289190	KF289296	KF289121
<i>P. musaechinensis</i>	GZAAS 6.1247	<i>Musa</i> sp.	China	KF955294	NA	KM816639	KM816627	KM816633
	GZAAS 6.1384	<i>Musa</i> sp.	China	KF955295	NA	KM816640	KM816628	KM816634
<i>P. musarum</i>	BRIP 57803	<i>Musa</i> sp.	Malaysia	JX997138	NA	KF009737	KF014055	NA
	BRIP 58028	<i>Musa</i> sp.	Australia	KC988377	NA	KF009738	KF014054	NA
<i>P. oblongifoliae</i>	SAUCC210055	<i>Garcinia oblongifolia</i>	China	OM248442	OM232085	OM273890	OM273894	OM273898
	SAUCC210052 <sup>T</sup>	<i>Garcinia oblongifolia</i>	China	OM248445	OM232088	OM273893	OM273897	OM273901
<i>P. paracapitalensis</i>	CPC 26517 <sup>T</sup>	<i>Citrus floridana</i>	Italy	KY855622	KY855796	KY855951	KY855677	KY855735
	CPC 26518	<i>Citrus floridana</i>	Italy	KY855623	KY855797	KY855952	KY855678	KY855736
<i>P. parthenocissi</i>	CBS 111645 <sup>T</sup>	<i>Parthenocissus quinquefolia</i>	USA	EU683672	NA	JN692530	JN692518	NA
<i>P. partricuspidatae</i>	NBRC 9466 <sup>T</sup>	<i>Parthenocissus tricuspidata</i>	Japan	KJ847424	NA	KJ847446	KJ847432	KJ847440
	NBRC 9757	<i>Parthenocissus tricuspidata</i>	Japan	KJ847425	NA	KJ847447	KJ847433	KJ847441
<i>P. philoprina</i>	CBS 587.69	<i>Ilex aquifolium</i>	Spain	KF154278	KF206297	KF289206	KF289250	KF289137
<i>P. phoenicis</i>	CBS 147091	<i>Phoenix reclinata</i>	South Africa	MW883442	MW883833	MW890098	MW890031	MW890050
<i>P. pterospermi</i>	SAUCC210104 <sup>T</sup>	<i>Pterospermum heterophyllum</i>	China	OM249954	OM249956	OM273902	OM273904	OM273906

	SAUCC210106	<i>Pterospermumheterophyllum</i>	China	OM249955	OM249957	OM273903	OM273905	OM273907
<i>P. rhizophorae</i>	NCYUCC 19-0352 <sup>T</sup>	<i>Rhizophora stylosa</i>	China	MT360030	MT360039	NA	MT363248	MT363250
	NCYUCC 19-0358	<i>Rhizophora stylosa</i>	China	MT360031	MT360040	NA	MT363249	MT363251
<i>P. saprophytica</i>	SAUCC 1516-2	<i>the plant saprophytic leaves</i>	China	OR551459	OR686933	OR621091	OR621084	OR704557
	SAUCC 1516-5	<i>the plant saprophytic leaves</i>	China	OR551460	OR686934	OR621093	OR621085	OR704558
<i>P. schimae</i>	CGMCC 3.14354 <sup>T</sup>	<i>Schima superba</i>	China	JN692534	NA	JN692522	JN692510	JN692506
<i>P. schimicola</i>	CGMCC 3.17319 <sup>T</sup>	<i>Schima superba</i>	China	KJ847426	NA	KJ847448	KJ847434	KJ854895
	CGMCC 3.17320	<i>Schima superba</i>	China	KJ847427	NA	KJ847449	KJ847435	KJ854896
<i>P. styracicola</i>	CGMCC3.14985 <sup>T</sup>	<i>Styrax grandiflorus</i>	China	JX025040	NA	JX025045	JX025035	JX025030
	CGMCC3.14989	<i>Styrax grandiflorus</i>	China	JX025041	NA	JX025046	JX025036	JX025031
<i>P. vitis-rotundifoliae</i>	CGMCC 3.17322 <sup>T</sup>	<i>Vitis rotundifolia</i>	USA	KJ847428	NA	KJ847450	KJ847436	KJ847442
	CGMCC 3.17321	<i>Vitis rotundifolia</i>	USA	KJ847429	NA	KJ847451	KJ847437	KJ847443
<b><i>Phyllosticta concentrica</i> species complex</b>								
<i>P. anhuiensis</i>	CFCC 54840 <sup>T</sup>	<i>Quercus aliena</i>	China	OQ202157	OQ202167	OQ267761	OQ267767	OQ267773
	CFCC 55887	<i>Quercus aliena</i>	China	OQ202158	OQ202168	OQ267762	OQ267768	OQ267774
	CFCC 58849	<i>Quercus aliena</i>	China	OQ202159	OQ202169	OQ267763	OQ267769	OQ267775
<i>P. aspidistricola</i>	NBRC 102244 <sup>T</sup>	<i>Aspidistra elatior</i>	Japan	AB454314	NA	NA	AB704204	NA
<i>P. aucubae-japonicae</i>	MAFF 236703 <sup>T</sup>	<i>Aucuba japonica</i>	Japan	KR233300	NA	KR233310	KR233305	NA
<i>P. bifrenariae</i>	CBS 128855 <sup>T</sup>	<i>Bifrenaria harrisoniae</i>	Brazil	JF343565	KF206209	JF343586	JF343649	JF343744
	CPC 17467	<i>Bifrenaria harrisoniae</i>	Brazil	KF170299	KF206260	KF289207	KF289283	KF289138
<i>P. catimbauensis</i>	URM 7672 <sup>T</sup>	<i>Mandevilla catimbauensis</i>	Brazil	MF466160	MF466163	MF466155	MF466157	NA
	URM 7674	<i>Mandevilla catimbauensis</i>	Brazil	MF466161	MF466164	MF466153	MF466158	NA
<i>P. citriasiana</i>	CBS 120486 <sup>T</sup>	<i>Citrus maxima</i>	Thailand	FJ538360	KF206314	FJ538418	FJ538476	JF343686

<i>P. citriasiana</i>	CBS 120487	<i>Citrus maxima</i>	China	FJ538361	KF206313	FJ538419	FJ538477	JF343687
<i>P.citribraziliensis</i>	CBS 100098 <sup>T</sup>	<i>Citrus limon</i>	Brazil	FJ538352	KF206221	FJ538410	FJ538468	JF343691
<i>P. citricarpa</i>	CBS 127454 <sup>T</sup>	<i>Citrus limon</i>	Australia	JF343583	KF206306	JF343604	JF343667	JF343771
<i>P. citrichinensis</i>	ZJUCC 200956 <sup>T</sup>	<i>Citrus reticulata</i>	China	JN791620	NA	JN791459	JN791533	NA
	ZJUCC 2010150	<i>Citrus maxima</i>	China	JN791662	NA	JN791514	JN791582	NA
<i>P. citrimaxima</i>	MFLUCC 10-0137 <sup>T</sup>	<i>Citrus maxima</i>	Thailand	KF170304	KF206229	KF289222	KF289300	KF289157
<i>P. concentrica</i>	CBS 937.70	<i>Hedera helix</i>	Italy	FJ538350	KF206291	FJ538408	KF289257	JF411745
	CPC 18842 <sup>T</sup>	<i>Hedera</i> sp.	Italy	KF170310	KF206256	KF289228	KF289288	KF289163
<i>P. cussonia</i>	CPC 14873 <sup>T</sup>	<i>Cussonia</i> sp.	South Africa	JF343578	KF206279	JF343599	JF343662	JF343764
	CPC 14875	<i>Cussonia</i> sp.	South Africa	JF343579	KF206278	JF343600	JF343663	JF343765
<i>P. elongata</i>	CBS 126.22 <sup>T</sup>	<i>Oxycoccus macrocarpos</i>	USA	FJ538353	NA	FJ538411	FJ538469	KF289164
<i>P. ericarum</i>	CBS 132534 <sup>T</sup>	<i>Erica gracilis</i>	South Africa	KF206170	KF206253	KF289227	KF289291	KF289162
<i>P. fujianensis</i>	SAUCC 1366-3 <sup>T</sup>	<i>Lonicera japonica</i>	China	OR551457	OR686935	OR621090	OR621086	OR704555
	SAUCC 1366-5	<i>Lonicera japonica</i>	China	OR551458	OR686936	OR621091	OR621087	OR704556
<i>P. gardeniicola</i>	MUCC0117	<i>Gardenia jasminoides</i>	Japan	AB454310	NA	NA	AB704230	NA
	MUCC0089	<i>Gardenia jasminoides</i>	Japan	AB454303	NA	NA	NA	NA
<i>P. gwangjuensis</i>	CNUFC NJ1-12 <sup>T</sup>	<i>Torreya nucifera</i>	Korea	OK285195	NA	OM038511	OM001471	NA
	CNUFC NJ1-12-1	<i>Torreya nucifera</i>	Korea	OK285196	NA	OM038512	OM001472	NA
<i>P. hostae</i>	CGMCC 3.14355 <sup>T</sup>	<i>Hosta plantaginea</i>	China	JN692535	NA	JN692523	JN692511	JN692503
	CGMCC 3.14356	<i>Hosta plantaginea</i>	China	JN692536	NA	JN692524	JN692512	JN692504
<i>P.hymenocallidicola</i>	CBS 131309 T	<i>Hymenocallis littoralis</i>	Australia	JQ044423	JQ044443	KF289211	KF289242	KF289142
	CPC 19331	<i>Hymenocallis littoralis</i>	Australia	KF170303	KF206254	KF289212	KF289290	KF289143
<i>P. hypoglossi</i>	CBS 101.72	<i>Ruscus aculeatus</i>	Italy	FJ538365	KF206326	FJ538423	FJ538481	JF343694
	CBS 434.92 <sup>T</sup>	<i>Ruscus aculeatus</i>	Italy	FJ538367	KF206299	FJ538425	FJ538483	JF343695
<i>P. iridigena</i>	CBS 143410 <sup>T</sup>	<i>Iris</i> sp.	South Africa	MG934459	NA	MG934502	MG934466	NA

<i>P. kerriae</i>	MAFF 240047 <sup>†</sup>	<i>Kerria japonica</i>	Japan	AB454266	NA	NA	NA	NA
<i>P. kobus</i>	MUCC0049	<i>Magnolia kobus</i>	Japan	AB454286	NA	NA	AB704221	NA
<i>P. ophiopogonis</i>	KACC 47754	<i>Ophiopogon japonicus</i>	South Korea	KP197057	NA	NA	NA	NA
	LrLF11	<i>Lycoris radiata</i>	China	MG543713	NA	NA	NA	NA
<i>P. paracitricarpa</i>	CPC 27169 <sup>†</sup>	<i>Citrus limon</i>	Greece	KY855635	KY855809	KY855964	KY855690	KY855748
	ZJUCC 200933	<i>Citrus sinensis</i>	China	JN791626	KY855813	JN791468	JN791544	KY855752
<i>P. pilospora</i>	MUCC 2912a <sup>†</sup>	<i>Chamaecyparis pisifera</i> var. <i>plumose</i>	Japan	LC542597	LC543423	LC543445	LC543465	NA
<i>P. speewahensis</i>	BRIP 58044 <sup>†</sup>	Orchids	Australia	KF017269	NA	KF017268	NA	NA
<i>P. spinarum</i>	CBS 292.90	<i>Chamaecyparis pisifera</i>	France	JF343585	KF206301	JF343606	JF343669	JF343773
<i>P. turpiniae</i>	SAUCC2864-3	<i>Turpinia arguta</i>	China	OR551461	OR686931	OR621088	OR704559	OR704553
	SAUCC2864-5	<i>Turpinia arguta</i>	China	OR551462	OR686932	OR621089	OR704560	OR704554
<i>P. westeae</i>	BRIP 72390c <sup>†</sup>	<i>Clerodendrum inerme</i>	Australia	OP599631	NA	OP627090	NA	NA
<b><i>Phyllosticta cruenta</i> species complex</b>								
<i>P. abieticola</i>	CBS 112067	<i>Abies concolor</i>	Canada	KF170306	EU754193	NA	KF289238	NA
<i>P. cornicola</i>	CBS 111639	<i>Cornus florida</i>	USA	KF170307	NA	NA	KF289234	NA
<i>P. cruenta</i>	CBS 858.71	<i>Polygonatum odoratum</i>	Czech Republic	KF170307	NA	MG934501	MG934465	MG934474
<i>P. cruenta</i>	MUCC0206	<i>Polygonatum odoratum</i> var. <i>pluriflorum</i>	Japan	AB454331	NA	NA	AB704237	NA
<i>P. cryptomeriae</i>	KACC 48643	<i>Juniperus chinensis</i> var. <i>sargentii</i>	Not given	MK396559	NA	NA	NA	NA
	MUCC0028	<i>Cryptomeria japonica</i>	Japan	AB454271	NA	NA	AB704213	NA
<i>P. foliorum</i>	CBS 447.68 <sup>†</sup>	<i>Taxus baccata</i>	Netherlands	KF170309	KF206287	KF289201	KF289247	KF289132
<i>P. gaultheriae</i>	CBS 447.70 <sup>†</sup>	<i>Gaultheria humifusa</i>	USA	JN692543	KF206298	JN692531	KF289248	JN692508
<i>P. hakeicola</i>	CBS 143492 <sup>†</sup>	<i>Hakea</i> sp.	Australia	MH107907	MH107953	MH108025	MH107984	MH107999

<i>P. hamamelidis</i>	MUCC149	<i>Hamamelis japonica</i>	Japan	KF170289	NA	NA	KF289309	NA
<i>P. hubeiensis</i>	CGMCC 3.14986 <sup>T</sup>	<i>Viburnum odoratissimum</i>	China	JX025037	NA	JX025042	JX025032	JX025027
	CGMCC 3.14987	<i>Viburnum odoratissimum</i>	China	JX025038	NA	JX025043	JX025033	JX025028
<i>P. illicii</i>	24-1-1 <sup>T</sup>	<i>Illicium verum</i>	China	MF198235	MF198240	MF198237	MF198243	NA
	16-16-1	<i>Illicium verum</i>	China	MF198234	MF198239	MF198236	MF198242	NA
<i>P. leucothoicola</i>	MUCC553 <sup>T</sup>	<i>Leucothoe catesbaei</i>	Japan	AB454370	AB454370	NA	KF289310	NA
<i>P. ligustricola</i>	MUCC0024 <sup>T</sup>	<i>Ligustrum obtusifolium</i>	Japan	AB454269	NA	NA	AB704212	NA
<i>P. minima</i>	CBS 585.84 <sup>T</sup>	<i>Acer rubrum</i>	USA	KF206176	KF206286	KF289204	KF289249	KF289135
<i>P. neopyrolae</i>	CPC 21879 <sup>T</sup>	<i>Pyrola asarifolia</i>	Japan	AB454318	AB454318	NA	AB704233	NA
<i>P. pachysandricola</i>	MUCC124 <sup>T</sup>	<i>Pachysandra terminalis</i>	Japan	AB454317	AB454317	NA	AB704232	NA
<i>P. paxistimae</i>	CBS 112527 <sup>T</sup>	<i>Paxistima mysinites</i>	USA	KF206172	KF206320	KF289209	KF289239	KF289140
<i>P. podocarpicola</i>	CBS 728.79 <sup>T</sup>	<i>Podocarpus maki</i>	USA	KF206173	KF206295	KF289203	KF289252	KF289134
<i>P. pyrolae</i>	IFO 32652	<i>Erica carnea</i>	Not given	AB041242	NA	NA	NA	NA
<i>P. rubella</i>	CBS 111635 <sup>T</sup>	<i>Acer rubrum</i>	USA	KF206171	EU754194	KF289198	KF289233	KF289129
<i>P. sphaeropoidea</i>	CBS 756.70	<i>Aesculus hippocastanum</i>	Germany	AY042934	KF206294	KF289202	KF289253	KF289133
<i>P. telopeae</i>	CBS 777.97 <sup>T</sup>	<i>Telopea speciosissima</i>	Tasmania	KF206205	KF206285	KF289210	KF289255	KF289141
<i>P. yuccae</i>	CBS 112065	<i>Yucca elephantipes</i>	USA	KF206175	NA	NA	KF289237	NA
	CBS 117136	<i>Yucca elephantipes</i>	New Zealand	JN692541	KF766385	JN692529	JN692517	JN692507
<b><i>Phyllosticta owaniana</i> species complex</b>								
<i>P. austroafricana</i>	CBS 144593 <sup>T</sup>	leaf spots of unidentified deciduous tree	South Africa	MK442613	MK442549	MK442704	MK442640	NA
<i>P. carissicola</i>	CPC 25665 <sup>T</sup>	<i>Carissa macrocarpa</i>	South Africa	KT950849	KT950863	KT950879	KT950872	KT950876
<i>P. hagahagaensis</i>	CBS 144592 <sup>T</sup>	<i>Carissa bispinosa</i>	South Africa	MK442614	MK442550	MK442705	MK442641	MK442657
<i>P. owaniana</i>	CBS 776.97 <sup>T</sup>	<i>Brabejum stellatifolium</i>	South Africa	FJ538368	KF206293	FJ538426	KF289254	JF343767
	CPC 14901	<i>Brabejum stellatifolium</i>	South Africa	JF261462	KF206303	JF261504	KF289243	JF343766

<i>P. podocarp</i>	CBS 111646	<i>Podocarpus falcatus</i>	South Africa	AF312013	KF206323	KC357671	KC357670	KF289169
	CBS 111647	<i>Podocarpus lanceolata</i>	South Africa	KF154276	KF206322	KF289232	KF289235	KF289168
<i>P. pseudotsugae</i>	CBS 111649	<i>Pseudotsuga menziesii</i>	USA	KF154277	KF206321	KF289231	KF289236	KF289167
<b><i>Phyllosticta rhodora</i> species complex</b>								
<i>P. mimusopisicola</i>	CBS 138899 <sup>†</sup>	<i>Mimusops zeyheri</i>	South Africa	KP004447	MH878626	NA	NA	NA
<i>P. rhodora</i>	CBS 901.69	<i>Rhododendron</i> sp.	Netherlands	KF206174	KF206292	KF289230	KF289256	KF289166
<b><i>Phyllosticta vaccinii</i> species complex</b>								
<i>P. vaccinii</i>	ATCC 46255 <sup>†</sup>	<i>Vaccinium macrocarpon</i>	China	KC193585	NA	KC193582	KC193580	KC193583
	LC 2795	<i>Vitis macrocarpon</i>	USA	KR233323	NA	NA	NA	NA
<i>P. vacciniicola</i>	CPC 18590 <sup>†</sup>	<i>Vaccinium macrocarpum</i>	USA	KF170312	KF206257	KF289229	KF289287	KF289165
<b>Outgroup</b>								
<i>B. obtusa</i>	CMW 8232 <sup>†</sup>	Conifers	South Africa	AY972105	NA	DQ280419	AY972111	NA
<i>B. stevensii</i>	CBS 112553 <sup>†</sup>	culture from isotype of <i>Diplodia mutila</i>	Not given	AY259093	AY928049	AY573219	NA	NA