

Table S1. Geographical origin and sources, and *loci* sequenced and accession numbers (GenBank/EMBL) for their nucleotide sequences of the fungi isolated in this study.

Species	Strain	Culture collection	Country	Sample*/ Isolation source	GenBank accession numbers					Reference
					ITS	LSU	<i>rpb2</i>	<i>tub2</i>	<i>tef1</i>	
<i>Acremonium domschii</i>	FMR 19485	-	Spain	M4	OX431181	-	-	-	-	This study
<i>Acrophialophora</i> sp.	-	-	Spain	C3	-	-	-	-	-	This study
<i>Allophoma labilis</i>	FMR 18605	-	Spain	M4	-	-	OY101427	-	-	This study
<i>Allophoma labilis</i>	FMR 18606	-	Spain	M5	-	-	OY101428	-	-	This study
<i>Allophoma labilis</i>	FMR 18613	-	Spain	P2	-	-	OX345722	-	-	This study
<i>Allophoma labilis</i>	FMR 18621	-	Spain	R3	-	-	OX345725	-	-	This study
<i>Alternaria infectoria</i>	FMR 18710	-	Spain	P2	OX336879	-	-	-	-	This study
<i>Alternaria</i> spp.	-	-	Spain	C1, C2, C4, C5, M1, M2, M3, M4, P1, P2, P3, P4, P5, R1, R2, R4, R5, S1, S3, S5	-	-	-	-	-	This study
<i>Angustimassarina rosarum</i>	FMR 18796	-	Spain	P4	-	-	-	-	OX346378	This study
<i>Apiospora marii</i>	FMR 18616	-	Spain	R1	OX336876	-	-	-	-	This study
<i>Aplosporella</i> sp.	-	-	Spain	R2	-	-	-	-	-	This study
<i>Arthrinium</i> spp.	-	-	Spain	C2, C5	-	-	-	-	-	This study
<i>Aspergillus</i> sect. <i>Nidulata</i>	-	-	Spain	P4	-	-	-	-	-	This study
<i>Aspergillus</i> sect. <i>Nigri</i>	-	-	Spain	R2, R3	-	-	-	-	-	This study
<i>Aspergillus</i> sect. <i>Versicolores</i>	-	-	Spain	C4	-	-	-	-	-	This study
<i>Aspergillus</i> sp.	-	-	Spain	S1	-	-	-	-	-	This study
<i>Aureobasidium pullulans</i>	FMR 18808	-	Spain	S2	OX346306	-	-	-	-	This study
<i>Aureobasidium pullulans</i>	FMR 19740	-	Spain	R3	OX346314	-	-	-	-	This study
<i>Aureobasidium pullulans</i>	FMR 19755	-	Spain	R1	-	-	OX346389	-	-	This study
<i>Aureobasidium</i> spp.	-	-	Spain	P4, S2, S3, S5	-	-	-	-	-	This study
<i>Beauveria pseudobassiana</i>	FMR 18975	-	Spain	S1	-	-	-	-	OX346387	This study
<i>Beauveria</i> sp.	-	-	Spain	S2	-	-	-	-	-	This study
<i>Candida davisiana</i>	FMR 19484	-	Spain	M4	OX346398	-	-	-	-	This study
<i>Cladosporium</i> spp.	-	-	Spain	C1, C2, C4, C5, M1, M2, M3, M4, M5, P1, P2, P3,	-	-	-	-	-	This study

P4, P5, R1, R2, R3, R4, S1, S2, S3, S4, S5										
<i>Clonostachys solani f. nigrovirens</i>	FMR 19742	-	Spain	M4	OX346399	-	-	-	This study	
<i>Coccodomyces pleosporus</i>	FMR 18827	CBS 149014 ^T	Spain	S2	OW273979	OW370575	-	-	This study	
<i>Coniochaeta leucoplaca</i>	FMR 18813	-	Spain	P5	-	OX346308	-	-	This study	
<i>Coniosporium apollinis</i>	FMR 18714	-	Spain	C5	OX346304	-	-	-	This study	
<i>Coniosporium uncinatum</i>	FMR 18792	-	Spain	P2	-	-	OX431254	-	This study	
<i>Coniosporium uncinatum</i>	FMR 18794	-	Spain	S1	-	-	OX628948	-	This study	
<i>Coniosporium uncinatum</i>	FMR 19658	CBS 100219 ^T	France	Stone	-	-	-	-	[108]	
<i>Cosmospora lavitskiae</i>	FMR 19486	-	Spain	R4	OX346313	-	-	-	This study	
<i>Curvularia</i> sp.	-	-	Spain	S1	-	-	-	-	This study	
<i>Cystofilobasidium capitatum</i>	FMR 19756	-	Spain	R3	OX346400	-	-	-	This study	
<i>Didymella glomerata</i>	FMR 18789	-	Spain	M4	-	-	OX346409	-	This study	
<i>Didymella glomerata</i>	FMR 18805	-	Spain	P2	-	-	OX346380	-	This study	
<i>Didymella microchlamydospora</i>	FMR 18600	-	Spain	M1	-	-	OY101425	-	This study	
<i>Didymella microchlamydospora</i>	FMR 18626	-	Spain	R4	-	-	OX345728	-	This study	
<i>Didymella pomorum</i>	FMR 18814	-	Spain	M4	-	-	OX346384	-	This study	
<i>Didymella</i> sp.	-	-	Spain	M3	-	-	-	-	This study	
<i>Dimorphoma saxea</i>	FMR 18611	-	Spain	C5	-	-	OX345720	-	This study	
<i>Dimorphoma saxea</i>	FMR 18612	-	Spain	P1	-	-	OX345721	-	This study	
<i>Dimorphoma saxea</i>	FMR 18614	-	Spain	P3	-	-	OX345723	-	This study	
<i>Dimorphoma saxea</i>	FMR 18617	-	Spain	R1	OX336877	-	-	-	This study	
<i>Dimorphoma saxea</i>	FMR 18628	-	Spain	R5	OX336878	-	-	-	This study	
<i>Dothiora mahoniae</i>	FMR 19656	CBS 264.92 ^T	USA	<i>Mahonia repens</i>	MH862357	OX346371	-	-	[109]	
<i>Dothiorella sarmentorum</i>	FMR 18713	-	Spain	R1	OX336880	-	-	-	This study	
<i>Epicoccum</i> spp.	-	-	Spain	C4, P1, R1, R5, S3, S5	-	-	-	-	This study	
<i>Exophiala caementiphila</i>	FMR 18977		Spain	S3	OX380503	OX380504	-	OX380502	OX380501	This study
<i>Exophiala multiformis</i>	FMR 18809	CBS 149013 ^T	Spain	S2	OU624179	OU624180	-	OU624443	OU624442	This study
<i>Exophiala xenobiotica</i>	FMR 18810	-	Spain	S2	OX346307	-	-	-	This study	
<i>Exophiala xenobiotica</i>	FMR 18979	-	Spain	P2	OX346311	-	-	-	This study	
<i>Exophiala xenobiotica</i>	FMR 19066	-	Spain	P5	OX346312	-	-	-	This study	
<i>Exophiala xenobiotica</i>	FMR 19661	CBS 118157 ^T	Venezuela	Oil sludge	NR_111203	-	-	-	[30]	
<i>Fusarium acuminatum</i>	FMR 18812	-	Spain	S5	-	-	OX346383	-	This study	

<i>Fusarium babinda</i>	FMR 18804	-	Spain	M4	-	-	-	-	OX346379	This study
<i>Fusarium salinense</i>	FMR 18620	-	Spain	R2	-	-	-	-	OX345724	This study
<i>Fusarium</i> spp.	-	-	Spain	M1, M3, M4, P1, R1, R2, R4, S5	-	-	-	-	-	This study
<i>Gonatobotryum apiculatum</i>	FMR 20101	CBS 182.68	Canada	Soil under <i>Pinus strobus</i>	OX346374	OX346375	-	-	-	[110]
<i>Juxtiphoma yunnanensis</i>	FMR 18815	-	Spain	P2	-	-	OX346385	-	-	This study
<i>Aureobasidium microstictum</i>	FMR 19067	-	Spain	S2	-	-	OX346388	-	-	This study
<i>Knufia epidermidis</i>	FMR 18978	-	Spain	S3	OX346310	-	-	-	-	This study
<i>Knufia perfecta</i>	FMR 18715	-	Spain	C5	OX346305	-	-	-	-	This study
<i>Lithohypha guttulata</i>	FMR 18791	-	Spain	P2	OX431178	OX431179	-	OX431253	OX431252	This study
<i>Lithophila guttulata</i>	FMR 20100	CBS 139723 ^f	Italy	Cortile della Pigna, Vatican Museum	-	-	-	OX346320	OX346319	[7]
<i>Mucor fragilis</i>	FMR 18770	-	Spain	R3	OX336881	-	-	-	-	This study
<i>Mucor</i> sect. <i>Mucido</i>	-	-	Spain	R3	-	-	-	-	-	This study
<i>Neocatenulostroma abietis</i>	FMR 19657	CBS 459.93 ^f	Germany	<i>Abies</i> sp.	-	MH874081	OX431256	-	-	[111]
<i>Neocatenulostroma germanicum</i>	FMR 19655	CBS 539.88 ^f	Germany	Stone	-	MH873835	OX431255	-	-	[111]
<i>Neocatenulostroma microsporum</i>	FMR 19659	CBS 101951 ^f	South Africa	<i>Protea cynaroides</i> , living leaf	-	KF901814	OX431256	-	-	[111]
<i>Neocatenulostroma pinorum</i>	FMR 19653	CBS 174.90 ^f	France	<i>Pinus insignis</i> , needles	-	GU301802	GU371737	-	-	[112]
<i>Neocatenulostroma spinulosum</i>	FMR 18793		Spain	S4	OX628944	OX628945	OX628946	-	OX628947	This study
<i>Neodevriesia fraseriae</i>	FMR 19662	CBS 128217 ^f	Australia	<i>Melaleuca</i> sp., leaves	OX346372	OX346373	OX346372	OX346373	-	[113]
<i>Neodevriesia longicatenulospora</i>	FMR 18825		Spain	P5	OX342400	OX342401	OX342225	OX342226	-	This study
<i>Neodevriesia stirlingiae</i>	FMR 19654	CBS 133581 ^f	Australia	<i>Stirlingia latifolia</i> , leaves	OX346369	NG_042755	OX346315	OX346410	-	[114]
<i>Neodidymelliopsis faroknejadii</i>	FMR 18601	-	Spain	M2	-	-	OY101426	-	-	This study
<i>Neoscytalidium dimidiatum</i>	FMR 18624	-	Spain	R4	-	-	OX345726	-	-	This study
<i>Nothophoma quercina</i>	FMR 18625	-	Spain	R4	-	-	OX345727	-	-	This study
<i>Paraconiothyrium brasiliense</i>	FMR 18712	-	Spain	P5	-	-	OX345732	-	-	This study
<i>Paradevriesia holothallica</i>	FMR 18795	CBS 149012^f	Spain	P4	OX031242	OX031243	OX031309	-	-	This study

<i>Paraphoma fineti</i>	FMR 18816	-	Spain	S5	-	-	OX346386	-	-	This study
<i>Penicillium brevicompactum</i>	FMR 18741	-	Spain	R3	-	-	-	OX345733	-	This study
<i>Penicillium brevicompactum</i>	FMR 18811	-	Spain	S5	-	-	-	OX346382	-	This study
<i>Penicillium hordei</i>	FMR 18806	-	Spain	S1	-	-	-	OX346381	-	This study
<i>Penicillium</i> sect. <i>Aspergilloides</i>	-	-	Spain	R2, R3, R5, S5,	-	-	-	-	-	This study
<i>Penicillium</i> sect. <i>Furcatum</i>	-	-	Spain	C2, P1, P5, R3, S1	-	-	-	-	-	This study
<i>Penicillium</i> spp.	-	-	Spain	C2, M3, P4, R3, R5, S1, S3, S4	-	-	-	-	-	This study
<i>Phaeococcomyces kinklidomatophilus</i>	FMR 18615	CBS 147696 ^t	Spain	P5	HG995431	HG995460	-	-	-	[90]
<i>Pseudoseptoria obscura</i>	FMR 18976	-	Spain	S1	OX346309	-	-	-	-	This study
<i>Sordaria clematidis</i>	FMR 18629	-	Spain	R5	-	-	-	-	OX345729	This study
<i>Stemphylium vesticarium</i>	FMR 18655	-	Spain	P1	-	-	OX345731	-	-	This study
<i>Talaromyces ramulosus</i>	FMR 18654	-	Spain	C4	-	-	-	OX345730	-	This study
<i>Talaromyces</i> sp.	-	-	Spain	C3	-	-	-	-	-	This study
<i>Thyridium vestitum</i>	FMR 19738	-	Spain	R1	OX431181	-	-	-	-	This study
<i>Trichoderma</i> sp.	-	-	Spain	S4	-	-	-	-	-	This study

*See Table 1. ^T, type strain. New species are **in bold**. Sequences obtained in this study are **in bold**. CBS, CBS-KNAW Westerdijk Fungal Biodiversity Institute (Utrecht, Netherlands). FMR, Facultat de Medicina (Reus, Spain).

References

7. Isola D, Zucconi L, Onofri S, Caneva G, de Hoog GS, Selbmann L. Extremotolerant rock inhabiting black fungi from Italian monumental sites. *Fungal Divers.* 2015;76:75–96. <https://doi.org/10.1007/s13225-015-0342-9>
30. de Hoog GS, Zeng JS, Harrak MJ, Sutton DA. *Exophiala xenobiotica* sp. nov., an opportunistic black yeast inhabiting environments rich in hydrocarbons. *Antonie Van Leeuwenhoek.* 2006;90:257–68. <https://doi.org/10.1007/s10482-006-9080-z>
90. Crous PW, Osieck ER, Jurjević, Boers J, Van Iperen AL, Starink-Willemse M, et al. Fungal Planet description sheets: 1284–1382. *Persoonia.* 2021;47:178–374. <https://doi.org/10.3767/persoonia.2021.47.06>
108. De Leo F, Urzì C, de Hoog GS. Two *Coniosporium* species from rock surfaces. *Stud Mycol* [Internet]. 1999;1999:70–9. Available from: https://www.researchgate.net/publication/258925914_Two_Coniosporium_species_from_rock_surfaces
109. Crous PW, Wingfield MJ, Carnegie AJ, Lombard L, Roux J, Barreto RW, et al. Fungal Planet description sheets : 785 – 867. *Persoonia.* 2018;41:238–417. <https://doi.org/10.3767/persoonia.2018.41.12>
110. Hughes SJ. Conidiophores, conidia, and classification. *Can J Bot.* 1953;31:577–659. <https://doi.org/https://doi.org/10.1139/b53-046>
111. Quaedvlieg W, Binder M, Groenewald JZ, Summerell BA, Carnegie AJ, Burgess TI, et al. Introducing the consolidated species concept to resolve species in the Teratosphaeriaceae. *Persoonia.* 2014;33:1–40. <https://doi.org/10.3767/003158514X681981>
112. von Arx JA, Müller E. Über die neue Ascomycetengattung *Aulographina*. *Sydowia* [Internet]. 1960;14:330–3. Available from: https://www.zobodat.at/pdf/Sydowia_14_0330-0333.pdf
113. Wang MM, Shenoy BD, Li W, Cai L. Molecular phylogeny of *Neodevriesia*, with two new species and several new combinations. *Mycologia* [Internet]. 2017;109(6):965–74. Available from: <https://doi.org/10.1080/00275514.2017.1415075>
114. Crous PW, Schumacher RK, Wingfield MJ, Lombard L, Giraldo A, Christensen M, et al. Fungal systematics and evolution: FUSE 1. *Sydowia.* 2015;67(December 15):118. <https://doi.org/10.12905/0380.sydowia67-2015-0081>

Table S2: Geographical origin, sources, *loci* and accession numbers of nucleotide sequences of fungal strains included in the phylogenetic analysis.

Species	Culture collection	Country	Isolation source	GenBank accession numbers		
				ITS	LSU	<i>rpb2</i>
<i>Amycosphaerella africana</i>	CBS 116154 ^T	India	<i>Eucalyptus viminalis</i> , leaves	KF901700	KF902047	-
<i>Aureobasidium pullulans</i>	CBS 584.75 ^T	France	<i>Vitis vinifera</i> , fruit	-	NG_055734	-
<i>Austroafricana associata</i>	CBS 120730 ^T	Australia	<i>Corymbia henryii</i> , leaves	-	KF901824	-
<i>Austroafricana parva</i>	CBS 122892 ^T	Australia	<i>Eucalyptus globulus</i> , leaves	-	MH874775	-
<i>Brunneosphaeria jonkershoekensis</i>	CBS 130594	South Africa	<i>Protea repens</i> , leaves	NR_156244	NG_058654	-
<i>Capronia mansonii</i>	CBS 101.67 ^T	Sweden	<i>Populus tremula</i>	-	MH870591	-
<i>Cladophora bantiana</i>	CBS 100429	Unknown	Human, brain abscess	KF155212	MH877849	-
<i>Cladophora bantiana</i>	CBS 101158	Japan	Human, brain infection	AY857516	-	-
<i>Cladophora carrionii</i>	CBS 260.83	Uganda	Human, skin lesion	MH861582	MH873312	-
<i>Devriesia staurophora</i>	CBS 375.81	Colombia	Paramo soil	-	KF901963	-
<i>Devriesia tardicrescens</i>	CBS 128770 ^T	South Africa	<i>Phaenocoma prolifera</i> , leaf bracts	NR_137771	NG_059091	-
<i>Dothidea sambuci</i>	CBS 198.58	Switzerland	<i>Acer pseudoplatanus</i>	AY930109	AF382387	-
<i>Dothiora maculans</i>	CBS 301.76	Canada	<i>Populus tremuloides</i> , leaf litter	-	MH872751	-
<i>Exophiala alcalophila</i>	CBS 122256	Denmark	Human, toenail	JF747044	-	-
<i>Exophiala alcalophila</i>	CBS 521.82	Japan	Soil	JF747042	-	-
<i>Exophiala alcalophila</i>	CBS 520.82 ^T	Japan	Soil	NR_111624	NG_059189	-
<i>Exophiala angulospora</i>	CBS 482.92 ^T	Japan	Water from drinking well	NR_111625	NG_070601	-
<i>Exophiala angulospora</i>	CBS 146.93	Germany	<i>Tilia platyphylla</i> , wood	JF747053	-	-
<i>Exophiala angulospora</i>	CBS 122264	Denmark	Human, toenail	JF747052	-	-
<i>Exophiala asiatica</i>	CBS 122847 ^T	China	Human, wound infection of tonsils	NR_111332	-	-
<i>Exophiala bergeri</i>	CBS 353.52 ^T	Canada	Human, chromomycosis	NR_165997	NG_059199	-
<i>Exophiala bergeri</i>	CBS 526.76	USA	Human, subepidermal cyst	MH861000	-	-
<i>Exophiala castellanii</i>	CBS 158.58 ^T	Sri Lanka	Human	MH857734	NG_070513	-
<i>Exophiala crusticola</i>	CBS 119970 ^T	USA	Soil, biological soil crust sample	NR_159867	NG_059220	-
<i>Exophiala dermatidis</i>	CBS 109154	South Korea	Human, brain	AY857525	-	-
<i>Exophiala dermatidis</i>	CBS 686.92	Germany	Human	MF320155	-	-

<i>Exophiala dermatidis</i>	CBS 120473	USA	Human, brain	MF320159	-	-
<i>Exophiala dermatidis</i>	CBS 207.35 ^T	Japan	Human, subcutaneous phaeohyphomycosis	MH855649	NG_059225	-
<i>Exophiala halophila</i>	CBS 121512 ^T	USA	Human, skin axillary	NR_111628	-	-
<i>Exophiala heteromorpha</i>	CBS 633.69	Canada	Railway tie, wood of <i>Pinus banksiana</i>	AY857522	MH871160	-
<i>Exophiala heteromorpha</i>	CBS 116.97	USA	Soil polluted with petroleum	AY857521	-	-
<i>Exophiala jeanselmei</i>	CBS 677.76	England	Human, skin, abscess of foot	JN625228	-	-
<i>Exophiala jeanselmei</i>	CBS 507.90 ^T	Uruguay	Human, mycetoma	NR_111129	MH873915	-
<i>Exophiala jeanselmei</i>	CBS 528.76	Unknown	Human, skin, hand	AY857530	-	-
<i>Exophiala lecanii-corni</i>	CBS 102400	USA	Air supply passed through filter	AY857527	-	-
<i>Exophiala lecanii-corni</i>	CBS 232.39	Brazil	Human, chromomycosis	FJ974061	MH867492	-
<i>Exophiala mesophila</i>	CBS 402.95 ^T	Germany	Silicone seal, in shower room of hospital	NR_121461	KX712349	-
<i>Exophiala mesophila</i>	CBS 121507	USA	Human, hair	JF747120	-	-
<i>Exophiala mesophila</i>	CBS 836.95	Germany	Slime on floor outdoor swimming-pool	JF747112	-	-
<i>Exophiala oligosperma</i>	CBS 725.88 ^T	Germany	Human, tumour of sphenoidal cavity	NR_111134	NG_059201	-
<i>Exophiala oligosperma</i>	CBS 658.76	USA	Unknown	AY857532	-	-
<i>Exophiala oligosperma</i>	CBS 265.49	France	Honey	MH856519	MH868049	-
<i>Exophiala phaeomuriphormis</i>	CBS 131.88 ^T	Unknown	Human, phaeohyphomycosis	AJ244259	MH873815	-
<i>Exophiala spinifera</i>	CBS 356.83	Egypt	Unknown	AY156961	MH870977	-
<i>Exophiala spinifera</i>	CBS 425.92	Germany	Apple juice	AY156962	-	-
<i>Exophiala spinifera</i>	CBS 899.68 ^T	USA	Human, nasal granuloma	NR_111131	-	-
<i>Exophiala xenobiotica</i>	CBS 117753	USA	Human, leg wound	JN625227	-	-
<i>Exophiala xenobiotica</i>	CBS 117648	USA	Sclera	EF025407	-	-
<i>Gonatobotryum apiculatum</i>	CBS 182.68	Canada	Soil, under <i>Pinus strobus</i>	MH859103	MH870816	-
<i>Helotium subcorticale</i>	CBS 248.62	France	Unknown	-	MH869740	-
<i>Hormonema macrosporum</i>	CBS 536.94 ^T	Russia	<i>Rutilus rutilus</i> , gills	-	NG_064169	-
<i>Hormonema merioides</i>	CBS 906.85 ^T	Canada	<i>Pseudotsuga menziesii</i> , needle	MH861924	MH873614	-
<i>Kabatina thujae</i>	CBS 238.66 ^T	Germany	<i>Thuja occidentalis</i> , withering shoot	-	NG_064053	-
<i>Neocatenulostroma castaneae</i>	MFLUCC 17-2188 ^T	Italy	<i>Castanea sativa</i>	-	NG_081524	-
<i>Neocatenulostroma pinorum</i>	CBS 302.71	France	<i>Pinus maritima</i>	GU214622	GU214393	GU371766
<i>Neodevriesia agapanthi</i>	CBS 132689 ^T	South Africa	<i>Agapanthus africanus</i> , leaves	NR_111766	NG_042688	-

<i>Neodevriesia bulbillosa</i>	CBS 118285 ^T	Spain	Limestone rock, surface	NR_144953	KF310029	-
<i>Neodevriesia cladophorae</i>	CGMCC 3.17901 ^T	China	<i>Cladophora</i> sp., intertidal zone	KU578112	KU578114	-
<i>Neodevriesia coccolobae</i>	CBS 145064 ^T	Puerto Rico	<i>Coccoloba uvifera</i> , leaves	NR_161126	NG_066285	-
<i>Neodevriesia grateloupiae</i>	CGMCC 3.14281 ^T	China	<i>Grateloupia</i> sp., intertidal zone	KU578118	KU578120	-
<i>Neodevriesia hilliana</i>	CBS 123187 ^T	New Zeland	<i>Macrozamia communis</i> , leaves	NR_145098	MH874801	-
<i>Neodevriesia imbrexigena</i>	CAP1373 ^T	Portugal	Glazed decorative tiles in association with <i>Trebouxia</i> sp.	JX915747	JX915751	-
<i>Neodevriesia knozdavesii</i>	CBS 122898 ^T	South Africa	<i>Protea</i> sp., leaves	MH863254	MH874778	-
<i>Neodevriesia lagerstroemiae</i>	CBS 125422 ^T	USA	<i>Lagerstroemia indica</i>	MH863701	KF902149	-
<i>Neodevriesia metrosideri</i>	CBS 145084 ^T	New Zeland	<i>Metrosideros</i> sp	NR_161141	NG_066296	-
<i>Neodevriesia modesta</i>	CBS 137182 ^T	Italy	Rock	NR_144975	MH878597	-
<i>Neodevriesia queenslandica</i>	CBS 129527 ^T	Australia	<i>Scaevola taccada</i> , leaves	JF951148	KF901839	-
<i>Neodevriesia shakazului</i>	CBS 133579 ^T	South Africa	<i>Aloe</i> sp., leaves	NR_111825	NG_042753	-
<i>Neodevriesia simplex</i>	CBS 137183 ^T	Italy	Rock	NR_155464	KF310027	-
<i>Neodevriesia strelitziae</i>	CBS 122379 ^T	South Africa	<i>Strelitzia nicolai</i> , leaves	MH863206	EU436763	-
<i>Neodevriesia xanthorrhoeae</i>	CBS 128219 ^T	Australia	<i>Xanthorrhoea australis</i> , leaves	NR_144962	HQ599606	-
<i>Paradevriesia americana</i>	CBS 117726 ^T	USA	Air	NR_159866	NG_059077	-
<i>Paradevriesia compacta</i>	CBS 118294 ^T	Spain	Limestone rock, surface	NR_144955	NG_059089	-
<i>Paradevriesia pseudoamericana</i>	CBS 126270 ^T	Germany	<i>Malus domestica</i> , fruit surface	NR_171743	NG_064229	-
<i>Phaeocryptopus nudus</i>	CBS 268.37	Germany	<i>Abies balsamea</i>	EU700371	GU301856	-
<i>Phialophora ellipsoidea</i>	CBS 286.47 ^T	Brazil	Human, mycetoma hand	-	AF050282	-
<i>Pseudoteratosphaeria africana</i>	CBS 144595 ^T	Angola	Leaf spot on unidentified host	NR_163380	MK442558	-
<i>Pseudoteratosphaeria flexuosa</i>	CBS 111012 ^T	Colombia	<i>Eucalyptus globulus</i>	-	NG_069169	-
<i>Rhinocladiella fasciculata</i>	CBS 132.86 ^T	India	Decayed wood	-	NG_057784	-
<i>Rhizosphaera kalkhofii</i>	ATCC 26605	USA	<i>Picea pungens</i> , blue spruce needles	-	EF114706	-
<i>Rhizosphaera kalkhofii</i>	ATCC 46388	France	<i>Picea glauca</i> needles	AY183366	-	-
<i>Rhizosphaera macrospora</i>	CBS 208.79 ^T	France	<i>Abies alba</i> , needle on dead twig	NR_166003	NG_064115	-
<i>Rhizosphaera macrospora</i>	CBS 467.82	Switzerland	<i>Abies alba</i> , endophyte	EU700368	-	-
<i>Rhizosphaera oudemansii</i>	CBS 427.82	Switzerland	<i>Abies alba</i> , endophyte	EU700367	-	-
<i>Rhizosphaera oudemansii</i>	CBS 226.83	Spain	<i>Abies pinsapo</i> , needle	EU700366	-	-
<i>Rhizosphaera pini</i>	CBS 206.79	France	<i>Abies alba</i> , needle on dead twig	EU700370	-	-

<i>Rhizosphaera pseudotsugae</i>	CBS 101222	Unknown	<i>Pseudotsuga menziesii</i> , needles	EU700369	-	-
<i>Roesleria subterranea</i>	CBS 320.33	Netherlands	<i>Malus sylvestris</i> , root	-	MH866908	-
<i>Scleroconidioma sphagnicola</i>	UAMH 9731	Canada	<i>Sphagnum fuscum</i> , lesions on thalli	NR_121294	-	-
<i>Stylodothis puccinioides</i>	CBS 193.58	Switzerland	<i>Viburnum lantana</i>	KY929139	-	-
<i>Thyrynula eucalypti</i>	CBS 145894 ^T	Australia	<i>Eucalyptus cloeziana</i> , leaves	-	HM535600	MN162605
<i>Thyrynula eucalyptina</i>	CPC 13748	Australia	<i>Eucalyptus globulus</i>	-	MN162255	MN162608
<i>Xenodevriesia strelitzicola</i>	CBS 122480 ^T	South Africa	<i>Strelitzia</i> sp.	-	MH874744	-
<i>Xenomeris abietis</i>	CBS 799.72	Canada	<i>Pseudotsuga menziesii</i>	-	MH872299	-

^T, type strain. ATCC, American Type Culture Collection (Manassas, VA, USA). CAP, Culture Collection of Alan Phillips, housed at the Lab Bugworkers | M&B-BiolSI | Tec Labs – Innovation Centre, University of Lisbon (Lisbon, Portugal). CBS, CBS-KNAW Westerdijk Fungal Biodiversity Institute (Utrecht, Netherlands). CGMCC, China General Microbiological Culture Collection Center (Beijin, China). CPC, working collection of Pedro Crous, housed at the Westerdijk Fungal Biodiversity Institute (Utrecht, Netherlands). MFLUCC, Mae Fah Luang Culture Collection (Chiang Rai, Thailand). UAMH, University of Alberta Mold Herbarium and Culture Collection (Edmonton, Canada)

Table S3: Carbon source assimilation.

TEST	CARBON SOURCE ASSIMILATION																																																		
	GLY (Glycerol)	ERY (Erythritol)	DARA (D-arabinose)	LARA (L-arabinose)	RIB (D-ribose)	DXYL (D-xylose)	LXYL (L-xylose)	ADO (D-adonitol)	MDX (methyl-4-D-xylopyranoside)	GAL (D-galactose)	GLU (D-glucose)	FRU (D-fructose)	MNE (D-mannose)	SBE (L-sorbose)	RHA (L-rhamnose)	DUL (Dulcitol)	INO (Inositol)	MAN (D-mannitol)	SOR (D-sorbitol)	MDM (methyl-D-mannopyranoside)	MDG (methyl-D-glucopyranoside)	NAG (N-acetylglucosamine)	AMY (Amygdalin)	ARB (Arbutin)	ESC (Esculin)	SAL (Salicin)	CEL (D-cellobiose)	MAL (D-maltose)	LAC (D-lactose)	MEL (D-melibiose)	SAC (D-saccharose)	TRE (D-trehalose)	INU (Inulin)	MLZ (D-melezitose)	RAF (D-raffinose)	AMD (Amidon)	GLYG (Glycogen)	XLT (Xylitol)	GEN (Gentiobiose)	TUR (D-turanose)	LYX (D-lyxose)	TAG (D-tagatose)	DFUC (D-fucose)	LFUC (L-fucose)	DARL (D-arabitol)	LARL (L-arabitol)	GNT (potassiumgluconate)	2KG (potassium-2-keto-gluconate)	5KG (potassium-5-keto-gluconate)		
A. microstrictum FMR 19067	+	+	-	+	+	+	w	-	-	-	w	w	-	w	+	-	+	+	+	-	+	+	+	+	w	+	+	+	+	+	-	-	+	+	w	+	+	+	+	+	-	+	-	-	w	w	w	-	w		
A. pullulans FMR 18808	-	+	-	+	-	+	w	-	+	+	+	+	w	-	+	-	+	+	+	+	w	+	+	+	+	+	+	+	+	-	w	+	+	-	+	+	+	+	+	+	+	-	-	-	+	+	+	+	-	+	
C. pleiosporus FMR 18827	w	w	+	+	+	+	-	-	-	-	+	+	+	w	w	w	w	+	+	-	w	w	w	-	+	-	+	+	+	+	+	+	+	w	+	-	w	w	w	+	+	-	w	-	w	w	w	+	-	-	
E. caementiphila FMR 18977	+	-	-	-	-	w	-	w	-	w	+	+	+	+	-	-	w	+	w	-	-	-	+	+	-	w	w	-	w	-	-	w	-	-	-	-	w	w	w	+	-	+	-	-	+	+	+	+	-	+	
E. multiformis FMR 18809	+	-	-	w	+	+	+	+	-	-	+	+	+	+	+	+	-	+	+	w	+	+	+	+	+	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	-	+	+	+	+	-	+	
E. xenobiotica FMR 18810	+	-	-	w	-	+	-	w	w	+	+	+	+	+	-	-	w	-	-	+	+	-	-	-	-	-	-	w	w	w	+	+	+	+	-	-	-	+	-	+	+	+	+	w	+	w	+	-	w	-	-
E. xenobiotica FMR 19066	+	+	+	-	+	-	-	-	+	+	+	+	+	-	-	-	-	-	-	-	-	w	w	+	+	+	+	+	w	-	w	+	+	-	-	+	+	+	+	+	+	w	+	w	w	-	w	-	-	-	-
E. xenobiotica CBS 118157	+	+	+	-	+	-	-	-	+	+	+	+	+	-	-	-	-	-	-	-	-	w	w	+	+	+	+	+	w	-	w	+	+	+	-	-	+	+	+	+	w	+	w	w	-	w	-	-	-	-	

<i>K. epidermidis</i> FMR 18978	-	+	w	+	w	-	+	+	+	-	+	+	+	-	-	-	w	-	-	-	+	-	-	+	+	-	+	-	-	-	-	-	-	-	-	-	-	w	+	+	+							
<i>K. perfecta</i> FMR 18715	+	-	-	+	-	+	-	w	-	w	-	-	+	+	-	-	-	+	+	-	w	-	-	-	-	w	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-						
<i>P. kinklidomatop hilus</i> CBS 147696	+	-	-	+	-	+	-	+	-	-	w	w	w	-	-	-	-	+	+	-	-	-	-	-	-	-	+	+	-	+	+	+	-	w	+	w	+	-	w	+	-	-	-	-	-	-	-	-

+, growth. w, slow or low growth. -, no-growth.

Table S4: Nitrogen source assimilation, osmotolerance, cycloheximide resistance, urease and DNase production, acid from glucose and sugar fermentation for the fungal strains tested.

TEST	NITROGEN SOURCE ASSIMILATION																				GLUCOSE ASSIMILATION										OSMOTOLE-RANCE		CICLOHEXI-MIDE TOLERANCE		UREASE	DNase	ACID PRODUCTION	CARBON SOURCE FERMENTATION									
	STRAIN	KNO ₃	NaNO ₂	(NH4) ₂ SO ₄	L-Lysine	Creatinine	Creatine	L-Tryptophan	L-Proline	L-Leucine	L-Ornithine	Arginine	0.1%	0.25%	0.5%	1.0%	2.0%	3.0%	4.0%	5.0%	7.5%	10%	50%	60%	0.01%	0.05%	0.1%	Glucose	Galactose	Sacarose	Maltose	Lactose	Raffinose	Trehalose				Manose	Inulin								
A. microstrictum FMR 19067	w	-	+	+	+	w	+	+	+	+	+	w	+	+	+	+	+	+	+	+	+	+	+	-	-	-	+	-	+	+	w	+	+	w	+	+	+										
A. pullulans FMR 18808	+	+	+	+	-	w	+	+	+	+	+	w	+	+	+	+	+	+	+	+	+	+	w	-	-	-	+	-	+	+	+	+	+	w	+	+	+	+									
C. pleiosporus FMR 18827	-	-	-	-	w	-	w	+	w	-	w	+	+	+	+	+	+	+	+	+	+	w	w	-	-	-	-	-	+	+	-	+	+	-	+	w	w	-									
E. caementiphila FMR 18977	-	-	w	-	-	+	+	+	+	+	+	w	w	w	+	+	+	+	+	w	+	-	-	-	-	-	+	-	-	+	+	w	w	+	w	+	w	w									
E. multiformis FMR 18809	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	-	-	-	-	-	+	-	-	+	w	w	+	-	w	+	+	w									
E. xenobiotica FMR 18810	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	w	-	-	-	-	+	-	-	+	+	+	+	+	w	+	+	w									
E. xenobiotica FMR 19066	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	w	+	+	+	+	+	-	-	+	w	+	+	+	+	+	+	w									
E. xenobiotica CBS 118157	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	w	+	+	+	+	-	-	+	+	+	+	+	+	+	+	+										
K. epidermidis FMR 18978	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	w	-	+	+	+	w	-	-	w	-	+	w	-	w	w	w	-									
K. perfecta FMR 18715	-	-	-	-	-	-	-	-	-	-	-	+	+	w	w	w	w	w	w	w	w	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-										
P. kinklidomatophilus CBS 147696	-	-	-	-	-	-	-	-	-	-	-	+	w	w	+	+	+	+	+	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-										

+ = growth, w = slow or low growth, - = no-growth.

Table S5: Halotolerance, thermotolerance, pH tolerance, and gelatinase production for the fungal strains tested.

[illegible]

<i>E. xenobiotica</i> CBS 118157	+	+	-	+	+	+	+	+	-	4 ± 0.0	7.5 ± 0.5	9.5 ± 0.5	15. 5 ± 0.5	10 ± 1	-	-	-	-	+	+	+	+	+	+	+	+	+	-	-
<i>K. epidermidis</i> FMR 18978	+	-	-	+	+	+	+	+	-	-	6 ± 0.0	9.5 ± 0.5	14. 5 ± 0.5	10. 5 ± 0.5	-	-	-	-	w	+	+	+	+	+	+	+	+	-	-
<i>K. perfecta</i> FMR 18715	-	-	-	+	w	-	-	-	-	-	3.5 ± 0.5	3 ± 0.0	2 ± 0.0	-	-	-	-	-	-	+	+	+	+	+	+	+	+	+	-
<i>P. kinklidomatophi</i> <i>lus</i> CBS 147696	-	-	-	w	-	-	-	-	-	-	2.5 ± 0.5	2.5 ± 0.5	2.7 5 ± 0.2 5	-	-	-	-	-	+	+	+	w	-	-	-	-	-	-	± 0.5

+ = growth, w = slow or low growth, - = no-growth, mm = millimeters.