

Supplementary Material

Diversity and distribution of fungal communities in the marine sediments of Kongsfjorden, Svalbard (High Arctic)

Tao Zhang¹, Neng Fei Wang², Yu-Qin Zhang¹, Hong-Yu Liu¹ & Li-Yan Yu^{1*}

1. China Pharmaceutical Culture Collection, Institute of Medicinal Biotechnology, Chinese Academy of Medical Sciences & Peking Union Medical College, Beijing 100050, PR China

2. Key Lab of Marine Bioactive Substances, First Institute of Oceanography, State Oceanic Administration, Qingdao 266061, PR China

* Corresponding Author E-mail: yly@cpcc.ac.cn; Tel/fax:+86 10 63187118

Table S1. Information on the OTUs found in the 8 sediment samples, including their frequency, number of reads and BLASTn top hits with accession numbers in GenBank.

OTU ID	Freq.	Reads	phylum	Order	Family	Indendification	Close GenBank match / Accession	Similarity	Originally reported habitat
1	7	17046	Ascomycota	Hypocreales	Nectriaceae	<i>Fusarium redolens*</i>	Uncultured fungus clone FN397215	550/553(99%)	Soil in France
							<i>Fusarium redolens</i> KC989062	546/553(99%)	Roots in Sweden
2	1	24	Basidiomycota	Trechisporales	Unassigned	Trechisporales	Uncultured Trechisporales clone JF691126	324/356(91%)	Plant roots in Reunioin
3	1	3	Ascomycota	Chaetosphaeriales	Chaetosphaeriaceae	<i>Chloridium**</i>	Uncultured <i>Chloridium</i> clone JX545202	224/225(99%)	Soil in USA
4	8	5695	Ascomycota	Hypocreales	Nectriaceae	<i>Fusarium proliferatum*</i>	<i>Fusarium proliferatum</i> FN868470	392/402(98%)	Spanish stands of <i>Pinus halepensis</i>
5	3	7	Ascomycota	Eurotiales	Aspergillaceae	<i>Aspergillus oryzae*</i>	<i>Aspergillus oryzae</i> EU301638	270/271(99%)	Forest soilin China
6	1	5	Glomeromycota	Unassigned	Unassigned	Glomeromycota	Uncultured Glomeromycota clone KF939961	270/295(92%)	Plant root in Tibet
7	1	2	Unassigned	Unassigned	Unassigned	Fungus	Uncultured fungus clone KF800416	305/369(83%)	Soil
8	6	80	Ascomycota	Hypocreales	Nectriaceae	<i>Fusarium**</i>	Uncultured <i>Fusarium</i> clone GQ280339	240/245(98%)	Plant roots
9	1	3	Ascomycota	Saccharomycetales	Metschnikowiaceae	Metschnikowiaceae	<i>Metschnikowia cibodasensis</i> AB236922	357/390(92%)	Plant flowers in Indonesia
10	7	95	Ascomycota	Pleosporales	Pleosporaceae	<i>Alternaria alternata*</i>	<i>Alternaria alternata</i> FJ872066	521/521(100%)	Plant roots of <i>Pinus mugo</i>
11	2	18	Basidiomycota	Malasseziales	Malasseziaceae	<i>Malassezia**</i>	Uncultured eukaryote clone GU941443	485/486(99%)	South China Sea
							Uncultured <i>Malassezia</i> clone KC785585	486/491(99%)	Soil in Antarctica
12	1	2	Ascomycota	Unassigned	Unassigned	Ascomycota	Uncultured fungus clone JX043002	345/368(94%)	Ectomycorrhiza in USA
							Uncultured Ascomycota clone EU490097	339/393(86%)	Savanna soil
13	1	3	Unassigned	Unassigned	Unassigned	Fungus	Uncultured soil fungus clone JX489834	299/374(80%)	Soil in China
14	5	39	Ascomycota	Hypocreales	Nectriaceae	<i>Fusarium**</i>	Uncultured <i>Fusarium</i> clone GQ280339	427/434(98%)	Plant roots
15	2	37	Ascomycota	Helotiales	Unassigned	<i>Gloeotinia temulenta*</i>	Uncultured eukaryote clone KJ182739	533/534(99%)	Surface sea water
							<i>Gloeotinia temulenta</i> DQ235697	532/534(99%)	Plant seed
16	1	3	Ascomycota	Hypocreales	Clavicipitaceae	<i>Paecilomyces carneus*</i>	<i>Paecilomyces</i> sp. GQ241283	243/249(98%)	Wastes
							<i>Paecilomyces carneus</i> EU553292	214/219(98%)	Unreported
17	1	6	Basidiomycota	Sebacinales	Unassigned	Sebacinales	Uncultured Sebacinales clone FN663669	404/411(98%)	Plant roots
18	1	16	Basidiomycota	Sebacinales	Unassigned	Sebacinales	Uncultured Sebacinales clone FJ475786	366/392(93%)	Forest soil in Sweden

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19	1	8	Basidiomycota	Unassigned	Unassigned	Basidiomycota	Uncultured Basidiomycota clone HM240234	463/492(94%)	Grassland soil in USA
20	1	3	Ascomycota	Unassigned	Unassigned	Dothideomycetes	Uncultured soil fungus clone EU490120	471/504(93%)	Savanna soil
							Dothideomycetes sp. AB847071	418/448(93%)	Plant roots in Japan
21	2	7	Ascomycota	Hypocreales	Nectriaceae	<i>Fusarium solani</i> *	<i>Fusarium solani</i> KM229706	363/374(97%)	Unreported
22	2	10	Ascomycota	Capnodiales	Davidiellaceae	<i>Cladosporium cladosporioides</i> *	<i>Cladosporium</i> sp. HG008746	467/468(99%)	Air sample in France
							<i>Cladosporium cladosporioides</i> GU566222	467/468(99%)	Rhizosphere in Czech
23	3	13	Ascomycota	Capnodiales	Davidiellaceae	<i>Davidiella tassiana</i> *	<i>Davidiella tassiana</i> GU566225	558/559(99%)	Rhizosphere
24	2	6	Basidiomycota	Cystofilobasidiales	Cystofilobasidiaceae	<i>Mrakia blollopis</i> *	<i>Mrakia blollopis</i> AB916516	406/410(99%)	Arctic bird feather in Norway
25	4	17	Ascomycota	Hypocreales	Nectriaceae	<i>Fusarium equiseti</i> *	<i>Fusarium</i> sp. EU330614	544/544(100%)	Mangrove plant in China
							<i>Fusarium equiseti</i> HQ332532	530/530(100%)	Plant
26	4	9	Ascomycota	Eurotiales	Aspergillaceae	<i>Aspergillus tubingensis</i> *	<i>Aspergillus</i> sp. HM801881	455/456(99%)	Rock phosphate mine landfills
							<i>Aspergillus tubingensis</i> HQ728255	449/449(100%)	Tea
27	2	12	Unassigned	Unassigned	Unassigned	Fungus	Uncultured fungus clone AM260830	377/449(84%)	Peat in United Kingdom
28	1	5	Ascomycota	Chaetothyriales	Unassigned	Chaetothyriales	Uncultured Chaetothyriales clone HM136629	247/266(93%)	Rhizosphere soil
29	7	217	Ascomycota	Saccharomycetales	Phaffomycetaceae	<i>Pichia pastoris</i> *	<i>Pichia pastoris</i> FR839630	368/379(97%)	Unassigned
30	1	2	Basidiomycota	Sporidiobolales	Unassigned	<i>Rhodotorula glutinis</i> *	<i>Rhodotorula glutinis</i> AB025993	508/513(99%)	Deep sea environments around the northwest Pacific Ocean
31	3	6	Ascomycota	Pleosporales	Didymellaceae	<i>Phoma medicaginis</i> *	<i>Phoma medicaginis</i> KF293988	521/521(100%)	Plant stem in China
32	1	61	Basidiomycota	Agaricales	Entolomataceae	<i>Nolanea conferenda</i> *	<i>Nolanea</i> sp. JQ272420	451/458(98%)	USA
							<i>Nolanea conferenda</i> AF538624	408/413(99%)	Unreported
33	1	21	Ascomycota	Helotiales	Helotiaceae	Helotiaceae	Uncultured Helotiaceae clone FJ440900	447/494(90%)	Plant roots
34	8	3147	Ascomycota	Saccharomycetales	Phaffomycetaceae	<i>Pichia pastoris</i> *	<i>Pichia pastoris</i> FR839631	384/387(99%)	Unreported
35	1	15	Basidiomycota	Thelephorales	Thelephoraceae	Thelephoraceae	Thelephoraceae sp. HE814222	279/281(99%)	Root tips in China
36	1	3	Basidiomycota	Sebacinales	Sebacinaceae	<i>Sebacina</i> **	Uncultured <i>Sebacina</i> clone JQ318631	220/222(99%)	Plant

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37	1	4	Unassigned	Unassigned	Unassigned	Fungus	Uncultured fungus clone EF619893	395/424(93%)	Forest soil in USA
38	8	1645	Ascomycota	Saccharomycetales	Phafomycetaceae	<i>Pichia pastoris</i> *	<i>Pichia pastoris</i> FN392325	393/400(98%)	Unreported
39	5	1810	Unassigned	Unassigned	Unassigned	Fungus	Uncultured soil fungus clone EU480016	305/386(79%)	Rhizosphere soil in USA
40	1	64	Ascomycota	Helotiales	Unassigned	Helotiales	Uncultured Helotiales clone FJ827172	348/350(99%)	Ectomycorrhiza in China
41	3	6	Ascomycota	Hypocreales	Nectriaceae	<i>Fusarium verticillioides</i> *	Uncultured <i>Fusarium</i> clone GQ280339 <i>Fusarium verticillioides</i> JX915250	393/401(98%) 391/401(98%)	Plant roots Soils
42	1	5	Ascomycota	Helotiales	Dermateaceae	Demateaceae	Uncultured Demateaceae clone FJ553813	510/512(99%)	Forest soil in Canada
43	1	82	Basidiomycota	Atheliales	Atheliaceae	<i>Piloderma</i> **	<i>Piloderma</i> sp. JQ711967	489/510(96%)	Ectomycorrhiza in Canada
44	1	4	Ascomycota	Hypocreales	Unassigned	<i>Acremonium</i> **	<i>Acremonium</i> sp. EF577237	443/447(99%)	Unreported
45	1	6	Ascomycota	Chaetothyriales	Herpotrichiellaceae	Herpotrichiellaceae	<i>Cladophialophora chaetospora</i> KF359558	394/440(90%)	Plant root
46	6	262	Ascomycota	Hypocreales	Nectriaceae	<i>Fusarium</i> **	<i>Fusarium</i> sp. KC748302	397/405(98%)	Compost
47	1	4	Basidiomycota	Sebacinales	Unassigned	Sebacinales	Sebacinales sp. HE814123	395/404(98%)	Root tips in China
48	1	10	Basidiomycota	Polyporales	Polyporaceae	<i>Trametes polyzona</i> *	<i>Trametes polyzona</i> JN164980	400/410(98%)	Unreported
49	1	27	Ascomycota	Chaetothyriales	Herpotrichiellaceae	Herpotrichiellaceae	<i>Cladophialophora chaetospora</i> KF359558	482/526(92%)	Plant root in USA
50	1	313	Basidiomycota	Sebacinales	Sebacinaceae	<i>Sebacina</i> **	Uncultured <i>Sebacina</i> mycobiont JQ420983	463/480(96%)	Plant
51	2	5	Ascomycota	Pleosporales	Pleosporaceae	<i>Epicoccum</i> **	<i>Epicoccum</i> sp. JX014389	513/514(99%)	Plant leaf
52	4	131	Basidiomycota	Malasseziales	Malasseziaceae	<i>Malassezia restricta</i> *	<i>Malassezia restricta</i> EU400587	445/447(99%)	Plant
53	1	3	Unassigned	Unassigned	Unassigned	Fungus	Uncultured fungus clone KF800591	397/482(82%)	Indoor air in USA
54	1	2	Basidiomycota	Tremellales	Unassigned	<i>Trichosporon porosum</i> *	<i>Trichosporon porosum</i> KF285994	404/405(99%)	Netherlands
55	1	5	Ascomycota	Helotiales	Hyaloscyphaceae	Hyaloscyphaceae	Hyaloscyphaceae sp. KF359568	357/363(98%)	Plant root in USA
56	1	17	Basidiomycota	Thelephorales	Thelephoraceae	Thelephoraceae	Uncultured Thelephoraceae clone AB769919	461/472(98%)	Ectomycorrhizal root tip
57	1	17	Ascomycota	Chaetothyriales	Herpotrichiellaceae	Herpotrichiellaceae	<i>Cladophialophora chaetospora</i> EU035405	383/406(94%)	Plant roots
58	2	68	Ascomycota	Helotiales	Unassigned	Helotiales	Uncultured Leotiomyces clone HM230871 Uncultured Helotiales clone AB636433	504/516(98%) 492/516(95%)	Mycorrhiza Ectomycorrhizal root tip

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59	1	16	Ascomycota	Unassigned	Unassigned	Ascomycota	Uncultured fungus clone JX987750	374/376(99%)	Soil in China
							<i>Stromatonectria caraganae</i> HQ112288	374/406(85%)	Unreported
60	1	8	Ascomycota	Chaetothyriales	Unassigned	Chaetothyriales	Uncultured Chaetothyriales clone KF385366	404/427(95%)	Rhizosphere soil
61	1	38	Ascomycota	Unassigned	Unassigned	Ascomycota	Ascomycota sp. JF273509	469/469(100%)	Ectomycorrhiza
62	1	5	Ascomycota	Hypocreales	Cordycipitaceae	<i>Engyodontium**</i>	<i>Engyodontium album</i> HQ115665	404/423(96%)	Wall after water damage
63	1	7	Ascomycota	Unassigned	Unassigned	Ascomycota	Uncultured Ascomycota clone JQ991643	385/396(97%)	Ectomycorrhizal root tips
64	1	4	Basidiomycota	Agaricales	Tricholomataceae	Tricholomataceae	Tricholomataceae sp. EF060532	349/349(100%)	Sea water in USA (Hawaii)
65	1	15	Basidiomycota	Sebacinales	Sebacinaceae	<i>Sebacina**</i>	Uncultured <i>Sebacina</i> mycobiont JQ420983	421/436(97%)	Plant
66	1	22	Zygomycota	Mortierellales	Mortierellaceae	<i>Mortierella humilis*</i>	<i>Mortierella humilis</i> JF439486	394/397(99%)	Soil
67	1	8	Ascomycota	Pezizales	Pezizaceae	Pezizaceae	Pezizaceae sp. HE814085	316/317(99%)	Plant roots in China
68	5	41	Ascomycota	Eurotiales	Aspergillaceae	<i>Eurotium amstelodami*</i>	<i>Eurotium</i> sp. KF367488	540/540(100%)	Untreated drinking water sources
							<i>Eurotium amstelodami</i> HQ728257	534/541(99%)	Pu-erh tea
69	1	16	Ascomycota	Helotiales	Hyaloscyphaceae	Hyaloscyphaceae	Hyaloscyphaceae sp. JQ272392	375/388(97%)	Plant root
70	1	5	Ascomycota	Hypocreales	Unassigned	<i>Acremonium tubakii*</i>	Uncultured eukaryote clone GU942191	523/526(99%)	South China Sea
							<i>Acremonium tubakii</i> KC426993	466/467(99%)	Soil
71	1	2	Ascomycota	Chaetothyriales	Herpotrichiellaceae	<i>Cladophialophora**</i>	<i>Cladophialophora chaetospira</i> EU035405	387/406(95%)	Soil in Germany
72	1	14	Ascomycota	Unassigned	Unassigned	Dothideomycetes	Dothideomycetes sp. JQ759518	447/447(100%)	Plant in USA
73	1	2	Unassigned	Unassigned	Unassigned	Fungus	Uncultured fungus clone JX334538	314/386(81%)	Soi
74	2	109	Ascomycota	Helotiales	Unassigned	Helotiales	Uncultured Helotiales clone JQ991730	470/471(99%)	Ectomycorrhizal root tips
75	1	19	Ascomycota	Saccharomycetales	Phaffomycetaceae	<i>Pichia pastoris*</i>	<i>Pichia pastoris</i> FR839631	236/244(97%)	Unreported
76	2	77	Unassigned	Unassigned	Unassigned	Fungus	Uncultured fungus clone HQ662845	435/509(85%)	Soil in South Korea
77	1	5	Unassigned	Unassigned	Unassigned	Fungus	Uncultured fungus clone HQ436041	292/295(99%)	Axonopus compressus soil
78	7	156	Unassigned	Unassigned	Unassigned	Fungus	Uncultured fungus clone JX344420	296/386(77%)	Soil
79	2	167	Ascomycota	Helotiales	Helotiaceae	Helotiaceae	Uncultured Leotiomycetes clone HM230895	460/510(90%)	Mycorrhiza

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							Uncultured Helotiaceae clone FJ440900	445/494(90%)	Plant roots in USA
80	1	25	Unassigned	Unassigned	Unassigned	Fungus	Uncultured soil fungus clone HM037647	421/433(97%)	Soil in Netherlands
81	1	4	Ascomycota	Pleosporales	Venturiaceae	<i>Venturia</i> **	Uncultured <i>Venturia</i> clone FJ553146	420/433(97%)	Forest soil in Canada
82	1	78	Ascomycota	Helotiales	Hyaloscyphaceae	Hyaloscyphaceae	Uncultured Hyaloscyphaceae clone JX317338	460/467(99%)	Plant roots
83	1	2	Ascomycota	Xylariales	Amphisphaeriaceae	<i>Pestalotiopsis vismiae</i> *	<i>Pestalotiopsis</i> sp. HE608797	369/369(100%)	Marine sponge
							<i>Pestalotiopsis vismiae</i> EF451801	366/369(99%)	Medicinal plant from Brazil
84	1	4	Ascomycota	Rhytismatales	Rhytismataceae	Rhytismataceae	Rhytismataceae sp. JQ272405	283/289(98%)	Plant root in USA
85	1	3	Basidiomycota	Agaricales	Amanitaceae	<i>Amanita fritillaria</i> *	<i>Amanita fritillaria</i> JF273505	424/425(99%)	Ectomycorrhiza in China
86	1	66	Ascomycota	Helotiales	Unassigned	Helotiales	Uncultured Helotiales clone AB636433	465/466(99%)	Ectomycorrhizal root tip in China
87	5	277	Ascomycota	Hypocreales	Nectriaceae	<i>Fusarium solani</i> *	<i>Fusarium solani</i> JN232143	542/545(99%)	Unreported
88	8	3005	Ascomycota	Saccharomycetales	Phaffomycetaceae	<i>Pichia pastoris</i> *	<i>Pichia pastoris</i> FR839630	389/401(97%)	Unreported
89	1	4	Unassigned	Unassigned	Unassigned	Fungus	Uncultured fungus clone JX898595	346/365(95%)	Cave and mine
90	1	31	Chytridiomycota	Rhizophydiales	Unassigned	Rhizophydiales	<i>Betamyces americaemerdionalis</i> EF585664	441/515(86%)	Unreported
91	1	5	Unassigned	Unassigned	Unassigned	Fungus	Uncultured soil fungus clone JQ666673	269/338(80%)	Forest soil in China (Changbai)
92	1	33	Unassigned	Unassigned	Unassigned	Fungus	Uncultured fungus clone FN391362	399/494(81%)	Ground soil in France
93	5	138	Ascomycota	Hypocreales	Nectriaceae	<i>Fusarium</i> **	Uncultured <i>Fusarium</i> clone GQ280339	379/387(98%)	Roots
94	1	26	Basidiomycota	Boletales	Boletaceae	<i>Boletellus obscurococcineus</i> *	<i>Boletellus obscurococcineus</i> AB973723	348/350(99%)	Macro fungi in Japan
95	8	3321	Ascomycota	Hypocreales	Nectriaceae	<i>Fusarium oxysporum</i> *	<i>Fusarium</i> sp. KF472154	547/547(100%)	Ectomycorrhiza in coastal forest
							<i>Fusarium oxysporum</i> KM005082	546/547(99%)	Plant in Mexico
96	1	59	Ascomycota	Helotiales	Unassigned	Helotiales	Uncultured fungus clone KF007259	508/515(99%)	Root tip in Portugal
							Helotiales sp. HE814129	448/448(100%)	Root tips in China
97	1	4	Basidiomycota	Tremellales	Unassigned	Tremellales	Tremellales sp. EF060950	366/377(97%)	Sea water in USA (Palmyra Atoll)
98	1	9	Ascomycota	Chaetosphaeriales;	Chaetosphaeriaceae	<i>Chloridium virescens</i> *	Uncultured <i>Chaetosphaeria</i> clone JX317418	519/528(98%)	Plant roots in Forest
							<i>Chloridium virescens</i> JX684009	466/475(98%)	Decaying wood-saprophyte

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99	1	7	Basidiomycota	Sebacinales	Unassigned	Sebacinales	Sebacinales sp. KF359622	345/355(97%)	Plant roots in USA
100	1	7	Basidiomycota	Sporidiobolales	Unassigned	<i>Curvibasidium cygneicollum</i> *	Sporidiobolales sp. EF060827 <i>Curvibasidium cygneicollum</i> AF444525	355/367(97%) 325/328(99%)	Sea water in USA (Hawaii) Unreported
101	5	452	Unassigned	Unassigned	Unassigned	Fungus	Uncultured soil fungus clone EU480016	292/371(79%)	Semiarid grassland
102	2	3	Ascomycota	Thelebolales	Thelebolaceae	<i>Thelebolus globosus</i> *	<i>Thelebolus globosus</i> JX171196	368/372(99%)	Antarctica
103	1	164	Ascomycota	Saccharomycetales	Unassigned	Saccharomycetales	<i>Metschnikowia pulcherrima</i> AY301026	378/425(89%)	Unreported
104	2	13	Basidiomycota	Atheliales	Altheliaceae	Atheliaceae	Uncultured Atheliaceae clone JQ991648	467/467(100%)	Ectomycorrhizal root tips in China
105	1	3	Ascomycota	Hypocreales	Nectriaceae	<i>Fusarium</i> **	Uncultured <i>Fusarium</i> clone KF752620	232/239(97%)	Plant roots in China
106	2	1357	Unassigned	Unassigned	Unassigned	Fungus	Uncultured eukaryote clone GU941366 Uncultured fungus clone AB615542	363/434(84%) 192/200(96%)	South China Sea Marine subsurface sediments in Japan
107	3	32	Unassigned	Unassigned	Unassigned	Fungus	Uncultured fungus clone JX369635	288/379(76%)	Soil
108	1	695	Unassigned	Unassigned	Unassigned	Fungus	Uncultured eukaryote clone GU941366 Uncultured fungus clone AB615542	367/440(83%) 189/197(96%)	South China Sea Marine subsurface sediments in Japan
109	3	9	Chytridiomycota	Unassigned	Unassigned	Chytridiomycota	Uncultured Chytridiomycota clone HQ219419	333/431(77%)	Dimictic and eutrophic lake in France
110	3	448	Basidiomycota	Russulales	Unassigned	Russulales	Russulales sp. AB846966	136/158(86%)	Plant roots
111	5	48	Unassigned	Unassigned	Unassigned	Fungus	Uncultured fungus clone JX342287 Uncultured Chytridiaceae clone EU754999	296/389(76%) 179/212(84%)	Soil Soil and roots of oilseed rape
112	2	11	Unassigned	Unassigned	Unassigned	Fungus	Uncultured eukaryote clone KJ181484	174/179(97%)	South China Sea
113	2	4	Unassigned	Unassigned	Unassigned	Fungus	Uncultured fungus clone AB615542	174/179(97%)	Marine subsurface sediments in Japan

*species accepted (sequence identities $\geq 97\%$); **genus accepted (sequence identities between 95% and 97%).

Table S2. Distribution of the 113 OTUs found in the 8 sediment samples, including their number of reads.

OTU ID	K1	K2	K3	K4	K5	K6	K7	K8
1	2469	2289	2854	2832	12	0	7	6583
2	0	0	0	0	0	24	0	0
3	0	0	0	0	0	3	0	0
4	1075	665	931	853	3	30	11	2127
5	0	0	0	0	1	5	1	0
6	0	0	0	0	0	5	0	0
7	0	0	0	0	0	0	0	2
8	6	6	20	16	0	1	0	31
9	0	3	0	0	0	0	0	0
10	6	10	3	0	19	32	21	4
11	0	0	0	0	3	0	15	0
12	0	0	0	0	0	2	0	0
13	0	0	0	0	3	0	0	0
14	2	2	15	14	0	0	0	6
15	0	0	0	0	0	25	12	0
16	0	0	0	0	0	3	0	0
17	0	0	0	0	0	6	0	0
18	0	0	0	0	0	16	0	0
19	0	0	0	0	0	8	0	0
20	0	0	0	3	0	0	0	0
21	0	0	1	0	0	0	0	6
22	0	1	0	0	0	9	0	0
23	0	0	0	0	4	7	0	2
24	0	0	0	0	0	2	0	4
25	0	1	0	4	3	9	0	0
26	3	2	0	1	3	0	0	0
27	0	0	0	0	1	11	0	0
28	0	0	0	0	0	5	0	0
29	36	34	6	0	3	1	132	5
30	0	0	0	0	2	0	0	0
31	0	0	0	0	1	2	0	3
32	0	0	0	0	0	61	0	0
33	0	0	0	0	0	21	0	0
34	121	165	19	3	1	11	2824	3
35	0	0	0	0	0	15	0	0
36	0	0	0	0	0	3	0	0
37	0	0	0	0	0	4	0	0
38	511	333	84	7	9	17	677	7
39	0	24	0	0	3	59	1696	28
40	0	0	0	0	0	64	0	0

OTU ID	K1	K2	K3	K4	K5	K6	K7	K8
41	0	3	0	2	0	0	0	1
42	0	0	0	0	0	5	0	0
43	0	0	0	0	0	82	0	0
44	0	0	0	0	0	0	4	0
45	0	0	0	0	0	6	0	0
46	43	40	41	40	0	10	0	88
47	0	0	0	0	0	4	0	0
48	0	0	0	0	0	10	0	0
49	0	0	0	0	0	27	0	0
50	0	0	0	0	0	313	0	0
51	0	0	0	0	2	3	0	0
52	0	7	1	0	2	121	0	0
53	0	0	0	0	0	3	0	0
54	0	0	0	0	0	2	0	0
55	0	0	0	0	0	5	0	0
56	0	0	0	0	0	17	0	0
57	0	0	0	0	0	17	0	0
58	0	0	0	0	0	28	40	0
59	0	0	0	0	0	16	0	0
60	0	0	0	0	0	8	0	0
61	0	0	0	0	0	38	0	0
62	0	0	0	0	0	5	0	0
63	0	0	0	0	0	7	0	0
64	0	0	0	0	0	4	0	0
65	0	0	0	0	0	15	0	0
66	0	0	0	0	0	22	0	0
67	0	0	0	0	0	8	0	0
68	33	3	2	2	1	0	0	0
69	0	0	0	0	0	16	0	0
70	0	0	0	0	5	0	0	0
71	0	0	0	0	0	2	0	0
72	0	0	0	0	0	14	0	0
73	2	0	0	0	0	0	0	0
74	0	4	0	0	0	105	0	0
75	0	0	0	0	0	0	19	0
76	0	0	0	0	0	65	12	0
77	0	0	0	0	0	5	0	0
78	11	45	0	4	36	25	30	5
79	0	0	0	0	0	55	112	0
80	0	0	0	0	0	25	0	0
81	0	0	0	0	0	4	0	0
82	0	0	0	0	0	78	0	0
83	0	0	0	0	0	2	0	0

OTU ID	K1	K2	K3	K4	K5	K6	K7	K8
84	0	0	0	0	0	4	0	0
85	0	0	0	0	0	3	0	0
86	0	0	0	0	0	66	0	0
87	44	51	34	25	0	0	0	123
88	526	371	91	8	6	27	1970	6
89	0	0	0	0	0	4	0	0
90	0	0	0	0	0	31	0	0
91	0	0	0	0	5	0	0	0
92	0	0	0	0	0	33	0	0
93	17	23	12	16	0	0	0	70
94	0	0	0	0	0	26	0	0
95	610	405	631	566	4	1	5	1099
96	0	0	0	0	0	59	0	0
97	0	0	0	0	0	0	4	0
98	0	0	0	0	0	9	0	0
99	0	0	0	0	0	7	0	0
100	0	0	0	0	0	7	0	0
101	1	13	0	0	0	120	314	4
102	0	0	0	0	0	1	2	0
103	0	0	0	0	0	0	164	0
104	0	0	0	0	0	3	10	0
105	0	0	0	0	0	0	0	3
106	0	1	0	0	1356	0	0	0
107	0	1	0	0	0	6	25	0
108	0	0	0	0	695	0	0	0
109	3	1	0	0	5	0	0	0
110	0	0	1	0	6	440	0	1
111	7	1	0	1	32	0	0	7
112	0	0	0	0	2	9	0	0
113	1	3	0	0	0	0	0	0

Table S3. Dissimilarity test (multiple response permutation procedure, MRPP) for significant differences in fungal community composition among the 3 basins using QIIME 1.8.0 software.

	group A	groupB	groupC	groupA vs. groupB vs. groupC	groupA vs. groupB	groupA vs. groupC	groupB vs. groupC
delta	0.1324	0.2782	0.9557	-	-	-	-
n [#]	2	3	3	-	-	-	-
A-value	-	-	-	0.3048	0.1921	0.2658	0.2626
Observed delta	-	-	-	0.4958	0.2199	0.6263	0.617
Expected delta	-	-	-	0.7132	0.2722	0.8531	0.8367
Significance of delta	-	-	-	0.005	0.086	0.086	0.107

group A: K1, and K2

group B: K3, K4, and K8

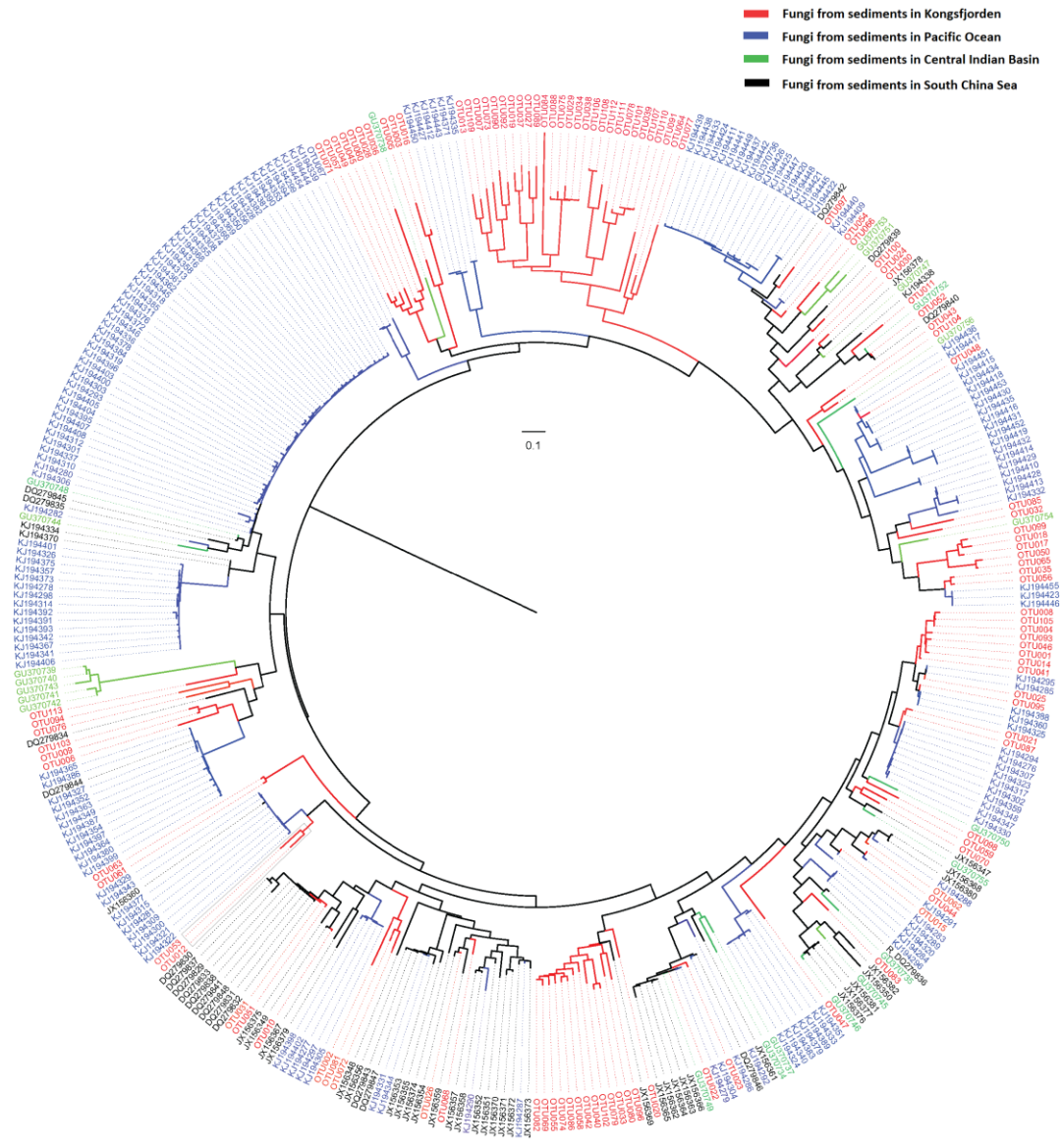
group C: K5, K6, and K7

Number of samples in each group

Based on 999 permutations

Table S4. Primers used for 454 pyrosequencing of the 8 sediment samples.

Sample ID	Forward Primer (5'-adaptor A-barcode-ITS1F-3')	Reverse Primer (5'-adaptor B-ITS4-3')
K1	CCATCTCATCCCTGCGTGTCTCCGACGACT- AGCAGATG -CTTGGTCATTTAGAGGAAGTAA	CCTATCCCCTGTGTGCCTTGGCAGTCGACT-TCCTCCGCTT ATTGATATGC
K2	CCATCTCATCCCTGCGTGTCTCCGACGACT - AGCTACGT -CTTGGTCATTTAGAGGAAGTAA	CCTATCCCCTGTGTGCCTTGGCAGTCGACT-TCCTCCGCTT ATTGATATGC
K3	CCATCTCATCCCTGCGTGTCTCCGACGACT - AGACACAG -CTTGGTCATTTAGAGGAAGTAA	CCTATCCCCTGTGTGCCTTGGCAGTCGACT-TCCTCCGCTT ATTGATATGC
K4	CCATCTCATCCCTGCGTGTCTCCGACGACT - ACTGCTCT -CTTGGTCATTTAGAGGAAGTAA	CCTATCCCCTGTGTGCCTTGGCAGTCGACT-TCCTCCGCTT ATTGATATGC
K5	CCATCTCATCCCTGCGTGTCTCCGACGACT - AGCAGATG -CTTGGTCATTTAGAGGAAGTAA	CCTATCCCCTGTGTGCCTTGGCAGTCGACT-TCCTCCGCTT ATTGATATGC
K6	CCATCTCATCCCTGCGTGTCTCCGACGACT - ACACACTG -CTTGGTCATTTAGAGGAAGTAA	CCTATCCCCTGTGTGCCTTGGCAGTCGACT-TCCTCCGCTT ATTGATATGC
K7	CCATCTCATCCCTGCGTGTCTCCGACGACT - ACACGTCA -CTTGGTCATTTAGAGGAAGTAA	CCTATCCCCTGTGTGCCTTGGCAGTCGACT-TCCTCCGCTT ATTGATATGC
K8	CCATCTCATCCCTGCGTGTCTCCGACGACT - AGTCGTCA -CTTGGTCATTTAGAGGAAGTAA	CCTATCCCCTGTGTGCCTTGGCAGTCGACT-TCCTCCGCTT ATTGATATGC



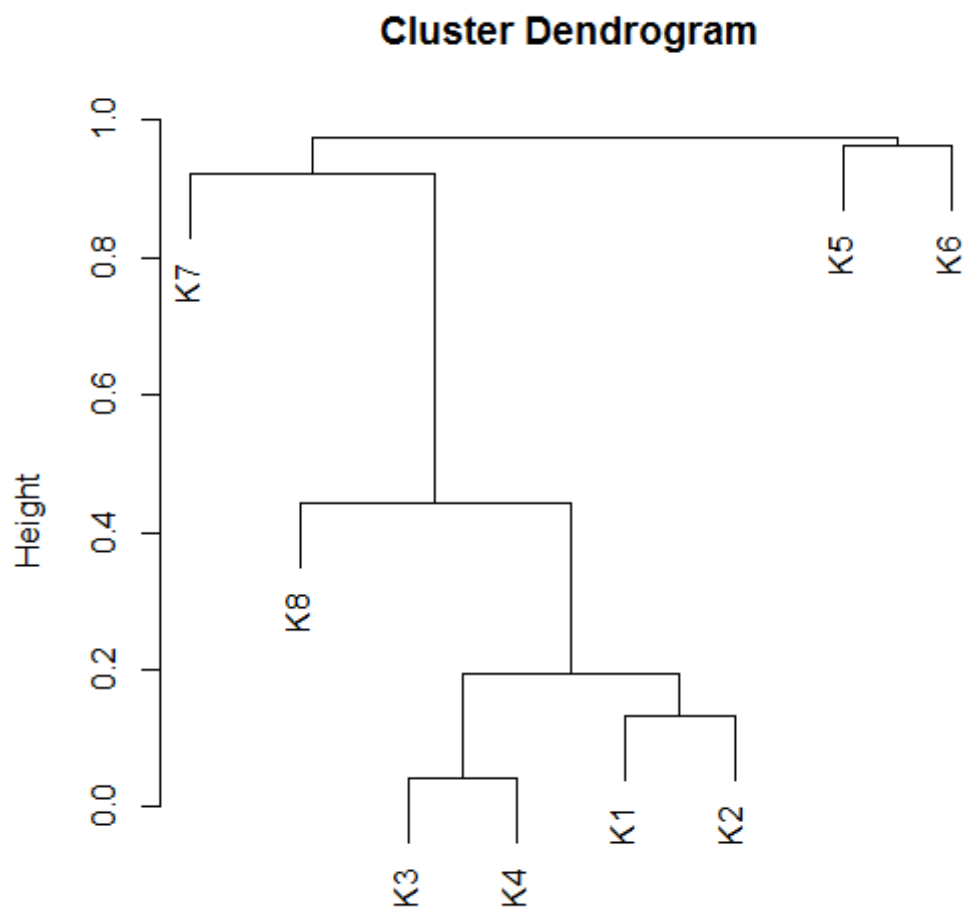


Figure S2. Hierarchical clustering analysis of fungal communities in the 8 sediment samples based Bray-Curis-transformed abundance data for OTUs using R 3.1.1 statistical software.