

## Additional file 1

Salient information on all yeasts used in this study.

DBVPG accession number	Species	Isolation source	Isolation Locality	Optimal growth temperature	Phylum
4325	<i>Candida catenulata</i>	frozen mushrooms	Italy	25°C	Ascomycota
3747	<i>Candida intermedia</i>	artichokes hearts under oil	S. Benedetto del Tronto, Italy	25°C	Ascomycota
3186; 3187	<i>Candida magnoliae</i>	flowers	Venarotta, Ascoli Piceno, Italy	25°C	Ascomycota
3188	<i>Candida magnoliae</i>	flowers	Perugia, Italy	25°C	Ascomycota
3834	<i>Candida magnoliae</i>	fodder yeast	Italy	25°C	Ascomycota
4327; 4409	<i>Candida norvegica</i>	sea water	Italy	25°C	Ascomycota
4624; 4636	<i>Candida norvegica</i>	soil at 850 m alt., 2 cm depth	Bromide Oklahoma, USA	25°C	Ascomycota
4467	<i>Candida oleophila</i>	mandarine orange	Italy	25°C	Ascomycota
4547	<i>Candida oleophila</i>	immature fruit of <i>Rhipsalis cassutha</i> , Cactaceae	Botanical garden, Rio de Janeiro, Brazil	25°C	Ascomycota
4612	<i>Candida pararugosa</i>	sea water	Italy	25°C	Ascomycota
4660 - 4664	<i>Candida saitoana</i>	epicarp of black truffle, <i>Tuber melanosporum</i>	Fabriano, Ancona, Italy	25°C	Ascomycota

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4856	<i>Candida saitoana</i>	cavern soil	Grotta del Vento, Marche, Italy	25°C	Ascomycota
4951	<i>Candida saitoana</i>	commercial compost, end of process, 3.5 months ca	Pietramelina, Perugia, Italy	25°C	Ascomycota
3744; 3745	<i>Candida sake</i>	soil	Bottenangen, Sweden	25°C	Ascomycota
4625	<i>Candida sake</i>	soil at 850 m alt., 2 cm depth	Bromide Oklahoma, USA	25°C	Ascomycota
4882; 4883; 4885	<i>Candida sake</i>	surface of Tuber mescutericum	Italy	25°C	Ascomycota
4648; 4649	<i>Candida santamariae</i>	soil around <i>Corylus avellana</i> in a truffle field, Tuber aestivum	Volperino, Perugia, Italy	25°C	Ascomycota
5182	<i>Candida santamariae</i>	supraglacial sediments	Calderone glacier, Gran Sasso, Abruzzo, Italy	25°C	Ascomycota
5397 - 5399	<i>Candida santamariae</i>	morainic soil	Miage glacier, Mont Blanc, Italian Alps, Italy	25°C	Ascomycota
3724 - 3727	<i>Candida vartiovaarae</i>	soil	Viik, Helsinki, Finland	25°C	Ascomycota
3414; 3415	<i>Candida versatilis</i>	milk	Italy	25°C	Ascomycota
3512	<i>Candida versatilis</i>			25°C	Ascomycota

3731	<i>Candida versatilis</i>	ensiled olive husks	Perugia, Italy	25°C	Ascomycota
4853	<i>Candida versatilis</i>	cavern soil	Grotta del Vento, Marche, Italy	25°C	Ascomycota
3952; 3953	<i>Candida zeylanoides</i>	natural rennet	Italy	25°C	Ascomycota
4137 - 4140	<i>Candida zeylanoides</i>	grape must	Slovenia	25°C	Ascomycota
3417	<i>Citeromyces matritensis</i>	milk	Perugia, Italy	25°C	Ascomycota
7088; 7089	<i>Clavispora opuntiae</i>	Opuntia sp.	Los Pirpinitos, Argentina	25°C	Ascomycota
3177; 3420	<i>Cyberlindnera jadinii</i>	flowers	Venarotta, Ascoli Piceno, Italy	25°C	Ascomycota
3201; 3202; 3738	<i>Cyberlindnera jadinii</i>			25°C	Ascomycota
3344	<i>Cyberlindnera jadinii</i>		Etna, Sicily, Italy	25°C	Ascomycota
3431; 3432	<i>Cyberlindnera jadinii</i>		ex Yugoslavia	25°C	Ascomycota
3709; 3710	<i>Cyberlindnera jadinii</i>		Fumane, Verona, Italy	25°C	Ascomycota
3837	<i>Cyberlindnera jadinii</i>	flowers		25°C	Ascomycota
3124; 3125 - 3130	<i>Cyberlindnera saturnus</i>	soil	The Netherlands	25°C	Ascomycota
3671	<i>Cyberlindnera saturnus</i>	soil	Hyytiala, Finland	25°C	Ascomycota

4561	<i>Cyberlindnera saturnus</i>	flower of Compositae	Pao da Fome, Pedra Branca, Brazil	25°C	Ascomycota
4889	<i>Cyberlindnera saturnus</i>	surface of <i>Tuber imelaia</i>	Italy	25°C	Ascomycota
2507; 3485	<i>Debaryomyces hansenii</i>			25°C	Ascomycota
3326; 3328 - 3332	<i>Debaryomyces hansenii</i>	Limburger cheese	Wageningen, The Netherlands	25°C	Ascomycota
3410	<i>Debaryomyces hansenii</i>		ex Yugoslavia	25°C	Ascomycota
3419	<i>Debaryomyces hansenii</i>	milk	Italy	25°C	Ascomycota
3682 - 3685; 3687; 3688	<i>Debaryomyces hansenii</i>	soil	Viik, Helsinki, Finland	25°C	Ascomycota
3978; 3979	<i>Debaryomyces hansenii</i>	caverns	Italy	25°C	Ascomycota
4276	<i>Debaryomyces hansenii</i>	human oral cavity	Perugia, Italy	25°C	Ascomycota
3145 - 3147	<i>Debaryomyces hansenii</i>	sausages	Italy	25°C	Ascomycota
3241 - 3246	<i>Geotrichum candidum</i>	Limburger cheese	Wageningen, The Netherlands	25°C	Ascomycota
4350	<i>Geotrichum candidum</i>	sea water	Italy	25°C	Ascomycota
3247; 3249; 3250	<i>Magnusiomyces capitatus</i>	Limburger cheese	The Netherlands	25°C	Ascomycota
4541	<i>Hyphopichia burtonii</i>	flower of <i>Miconia</i> sp., Milistomataceae	Angra dos Reis, Brazil	25°C	Ascomycota

6309; 6310	<i>Kazachstania africana</i>			25°C	Ascomycota
3191 - 3193	<i>Kazachstania exigua</i>	Limburger cheese	Maastricht, The Netherlands	25°C	Ascomycota
4384; 4385	<i>Kazachstania exigua</i>	sea water	Italy	25°C	Ascomycota
3423	<i>Kluyveromyces lactis</i>	milk	Italy	25°C	Ascomycota
3882; 3912	<i>Kluyveromyces lactis</i>	phlegm of a tuberculosis patient	Perugia, Italy	25°C	Ascomycota
6030	<i>Kluyveromyces lactis</i>	sputum	Spain	25°C	Ascomycota
4245	<i>Kluyveromyces lactis</i>	fodder additive "Zymoyeast"	Torino, Italy	25°C	Ascomycota
3084; 3211	<i>Kluyveromyces marxianus</i>			25°C	Ascomycota
3391; 3392	<i>Kluyveromyces marxianus</i>	pharynx mucous	Perugia, Italy	25°C	Ascomycota
3436	<i>Kluyveromyces marxianus</i>	milk	Italy	25°C	Ascomycota
3748	<i>Kluyveromyces marxianus</i>	mozzarella cheese	Perugia, Italy	25°C	Ascomycota
3925 - 3929; 3939 - 3941	<i>Kluyveromyces marxianus</i>	natural rennet	Italy	25°C	Ascomycota
4241; 4243; 4246	<i>Kluyveromyces marxianus</i>	food additive	Torino, Italy	25°C	Ascomycota
3362 - 3368	<i>Kodamaea ohmeri</i>	flowers	Perugia, Italy	25°C	Ascomycota

3437	<i>Kodamaea ohmeri</i>	milk	Perugia, Italy	25°C	Ascomycota
3438	<i>Kodamaea ohmeri</i>		Capoterra, Sardinia, Italy	25°C	Ascomycota
3439	<i>Kodamaea ohmeri</i>	grape must	Greece	25°C	Ascomycota
3227; 3228	<i>Kregervanrija fluxuum</i>	soil	Italy	25°C	Ascomycota
3229 - 3232	<i>Kregervanrija fluxuum</i>			25°C	Ascomycota
3761	<i>Kregervanrija fluxuum</i>	artichokes hearts under oil	Montalto di Castro, Viterbo, Italy	25°C	Ascomycota
3765	<i>Kregervanrija fluxuum</i>	ensiled olive and tomato residues	Italy	25°C	Ascomycota
4048	<i>Kregervanrija fluxuum</i>	grape must	ex Yugoslavia	25°C	Ascomycota
4049	<i>Kregervanrija fluxuum</i>	grape must	Verona, Italy	25°C	Ascomycota
4141 - 4146	<i>Kregervanrija fluxuum</i>	grape must	Slovenia	25°C	Ascomycota
3343	<i>Kuraishia capsulata</i>	flowers	Perugia, Italy	25°C	Ascomycota
3674 - 3681; 3721 - 3723	<i>Kuraishia capsulata</i>	soil	Hyytiala, Finland	25°C	Ascomycota
3103 - 3107	<i>Lachancea kluyveri</i>	soil	Italy	25°C	Ascomycota
3108 - 3110	<i>Lachancea kluyveri</i>	soil	The Netherlands	25°C	Ascomycota

3452 - 3454	<i>Lachancea kluyveri</i>	soil	Ultuna, Sweden	25°C	Ascomycota
3470; 3785	<i>Lachancea kluyveri</i>	soil	Okana, Spain	25°C	Ascomycota
4003 - 4005	<i>Lachancea kluyveri</i>	caverns	Italy	25°C	Ascomycota
3174	<i>Lachancea thermotolerans</i>			25°C	Ascomycota
3785; 3395	<i>Lachancea thermotolerans</i>		Delianova, Sardinia, Italy	25°C	Ascomycota
3418	<i>Lachancea thermotolerans</i>	milk	Italy	25°C	Ascomycota
3464; 3465	<i>Lachancea thermotolerans</i>	grapes	Valdepenas, La Mancha, Spain	25°C	Ascomycota
3466 - 3468	<i>Lachancea thermotolerans</i>	grapes	La Encomienda, La Mancha, Spain	25°C	Ascomycota
3469	<i>Lachancea thermotolerans</i>	grapes	Manzanares, La Mancha, Spain	25°C	Ascomycota
3597; 3598	<i>Lachancea thermotolerans</i>		Illasi, Verona, Italy	25°C	Ascomycota
3599	<i>Lachancea thermotolerans</i>		Soave, Verona, Italy	25°C	Ascomycota
3600	<i>Lachancea thermotolerans</i>		Aguilar, Cordoba, Spain	25°C	Ascomycota
3601 - 3603	<i>Lachancea thermotolerans</i>		Moriles Altos, Cordoba, Spain	25°C	Ascomycota
3604; 3605	<i>Lachancea thermotolerans</i>		Sierra Montilla, Cordoba, Spain	25°C	Ascomycota

6193; 6637	<i>Lipomyces starkeyi</i>	soil	USA	25°C	Ascomycota
3247; 3249 - 3253	<i>Magnusiomyces capitatus</i>	Limburger cheese	The Netherlands	25°C	Ascomycota
3158	<i>Magnusiomyces magnusii</i>	sausages	Italy	25°C	Ascomycota
3009	<i>Metschnikowia pulcherrima</i>	grape must	Umbria, Italy	25°C	Ascomycota
3015	<i>Metschnikowia pulcherrima</i>	grape must	Chianti, Italy	25°C	Ascomycota
3032 - 3034	<i>Metschnikowia pulcherrima</i>	grape must	Lucera, Italy	25°C	Ascomycota
3041	<i>Metschnikowia pulcherrima</i>	cherris	Italy	25°C	Ascomycota
3042	<i>Metschnikowia pulcherrima</i>	sour black cherries	Italy	25°C	Ascomycota
3043	<i>Metschnikowia pulcherrima</i>	grape must	Isola d'Elba, Toscana, Italy	25°C	Ascomycota
3086	<i>Metschnikowia pulcherrima</i>	grape must	Trentino, Italy	25°C	Ascomycota
3356 - 3359	<i>Metschnikowia reukaufii</i>	flowers	Venarotta, Ascoli Piceno, Italy	25°C	Ascomycota
3838; 3839	<i>Metschnikowia reukaufii</i>	flowers	Italy	25°C	Ascomycota
3630 - 3633; 3635	<i>Millerozyma farinosa</i>	soil	Teisko, Finland	25°C	Ascomycota
4018	<i>Millerozyma farinosa</i>	wine	Italy	25°C	Ascomycota



3728 - 3730; 3732 - 3735	<i>Nakazawaea wickerhamii</i>	cavern soil	Grotta del Vento, Marche, Italy	25°C	Ascomycota
3669; 3670; 3672; 3673	<i>Ogataea minuta</i>	soil	Hyytiala, Finland	25°C	Ascomycota
4516 - 4518	<i>Ogataea polimorpha</i>			25°C	Ascomycota
3807 - 3809	<i>Pichia fermentans</i>	soil		25°C	Ascomycota
4359; 4360	<i>Pichia fermentans</i>	frozen fava beans	Italy	25°C	Ascomycota
4361 - 4363	<i>Pichia fermentans</i>	sea water	Italy	25°C	Ascomycota
3628; 3629	<i>Pichia fermentans</i>	soil	Teisko, Finland	25°C	Ascomycota
3506	<i>Priceomyces carsonii</i>			25°C	Ascomycota
4526; 4527	<i>Saturnispora silvae</i>	Vriesea friburgensis	Tijuca forest, Brazil	25°C	Ascomycota
4549	<i>Schwanniomyces etchellsii</i>	exudate of <i>Eriobotrya japonica</i> , Rosaceae	Tijuca forest, Brazil	25°C	Ascomycota
3509; 3510	<i>Schwanniomyces occidentalis</i>	soil	Aranjuez, Spain	25°C	Ascomycota
4916	<i>Schwanniomyces occidentalis</i>	root of <i>Quercus pubescens</i> in a truffle field, <i>Tuber aestivum</i>	Volperino, Perugia, Italy	25°C	Ascomycota
3690 - 3694; 3696	<i>Schwanniomyces polymorphus</i>	soil	Teisko, Finland	25°C	Ascomycota

3697; 3699 - 3701	<i>Schwanniomyces polymorphus</i>	soil	Hyytiala, Finland	25°C	Ascomycota
4944	<i>Schwanniomyces polymorphus</i>	<i>Tuber aestivum</i> associated with <i>Corylus avellana</i>	Volperino, Perugia, Italy	25°C	Ascomycota
4122; 4124; 4126	<i>Starmerella bombicola</i>	grape must	Slovenia	25°C	Ascomycota
3711	<i>Starmerella bombicola</i>		Ruedos Aguilar, Cordoba, Spain	25°C	Ascomycota
3016	<i>Zygosaccharomyces bisporus</i>		Colli Romani, Lazio, Italy	25°C	Ascomycota
3018	<i>Zygosaccharomyces bisporus</i>			25°C	Ascomycota
4372; 4373	<i>Buckleyzyma aurantiaca</i>	sea water	Italy	25°C	Basidiomycota
4606; 4608	<i>Buckleyzyma aurantiaca</i>	flower of Compositae	Botanical garden, Rio de Janiero, Brazil	25°C	Basidiomycota
4607	<i>Buckleyzyma aurantiaca</i>	<i>Trigona</i> sp., Apidae	Botanical garden, Rio de Janiero, Brazil	25°C	Basidiomycota
4609; 4610	<i>Buckleyzyma aurantiaca</i>	flower of <i>Piper</i> <i>aduncum</i>	Botanical garden, Rio de Janiero, Brazil	25°C	Basidiomycota
4320; 4321	<i>Bullera alba</i>	sea water	Italy	25°C	Basidiomycota
4614	<i>Bullera alba</i>	soil at 850 m alt., 2 cm depth	Bromide Oklahoma, USA	25°C	Basidiomycota
5297	<i>Bullera alba</i>	supraglacial sediments	Miage glacier, Mont Blanc, Italian Alps, Italy	25°C	Basidiomycota

5438	<i>Bullera alba</i>	snow with superficial sediment	Helbronner peak, Mont Blanc, Italian Alps, Italy	25°C	Basidiomycota
10090	<i>Cutaneotrichosporon moniliiforme</i>	Soil close to juniper tree, depth: 10 cm.	Constantine, Algeria	20°C	Basidiomycota
4724	<i>Cystobasidium laryngis</i>	subglacial sediments	Sforzellina glacier, Ortles Cevedale group, Italian Alps, Sondrio, Italy	25°C	Basidiomycota
4765	<i>Cystobasidium laryngis</i>	glacial ice	Sforzellina glacier, Ortles Cevedale group, Italian Alps, Sondrio, Italy	25°C	Basidiomycota
4772; 4773	<i>Cystobasidium laryngis</i>	glacial ice	Forni glacier, Ortles Cevedale group, Italian Alps, Sondrio, Italy	25°C	Basidiomycota
5035	<i>Cystobasidium laryngis</i>	superficial glacial sediment	Calderone glacier, Gran Sasso, Abruzzo, Italy	25°C	Basidiomycota
5084; 5088; 5098; 5151	<i>Cystobasidium laryngis</i>	deep piping glacial sediments	Calderone glacier, Gran Sasso, Abruzzo, Italy	25°C	Basidiomycota
5287	<i>Cystobasidium laryngis</i>	morainic soil	Miage glacier, Mont Blanc, Italian Alps, Italy	25°C	Basidiomycota
5292; 5363; 5366	<i>Cystobasidium laryngis</i>	supraglacial sediments	Miage glacier, Mont Blanc, Italian Alps, Italy	25°C	Basidiomycota
3234	<i>Cystobasidium minutum</i>		Calabria, Italy	25°C	Basidiomycota

4374	<i>Cystobasidium minutum</i>	sea water	Italy	25°C	Basidiomycota
4375	<i>Cystobasidium minutum</i>	frozen fish	Italy	25°C	Basidiomycota
4562	<i>Cystobasidium minutum</i>	flower of Acanthaceae	Angra dos Reis, Brazil	25°C	Basidiomycota
5227	<i>Cystobasidium minutum</i>	soil near the glacier	E.Point, South Valley, Antarctica	25°C	Basidiomycota
5230 - 5232; 5234	<i>Cystobasidium minutum</i>	ornithogenic soil	E.Point, South Valley, Antarctica	25°C	Basidiomycota
4845	<i>Cystofilobasidium capitatum</i>	glacial melting water	Calderone glacier, Gran Sasso, Abruzzo, Italy	20°C	Basidiomycota
4985; 4987; 4991; 4997; 5002 - 5004; 5008	<i>Cystofilobasidium capitatum</i>	superficial glacial melting water	Calderone glacier, Gran Sasso, Abruzzo, Italy	20°C	Basidiomycota
5214	<i>Cystofilobasidium capitatum</i>	glacial melting water	Calderone glacier, Gran Sasso, Abruzzo, Italy	20°C	Basidiomycota
4296	<i>Cystofilobasidium infirmominiatum</i>	winery surface	Bettona, Perugia, Italy	20°C	Basidiomycota
4884	<i>Cystofilobasidium infirmominiatum</i>	surface of <i>Tuber mescutericum</i>	Italy	20°C	Basidiomycota
5097	<i>Filobasidium oeirense</i>	deep piping glacial sediment	Calderone glacier, Gran Sasso, Abruzzo, Italy	20°C	Basidiomycota
5115	<i>Filobasidium oeirense</i>	superficial glacial melting water	Calderone glacier, Gran Sasso, Abruzzo, Italy	20°C	Basidiomycota

4988	<i>Filobasidium stepposum</i>	superficial glacial melting water	Calderone glacier, Gran Sasso, Abruzzo, Italy	20°C	Basidiomycota
5222; 5223	<i>Filobasidium stepposum</i>	permafrost	Antarctic Dry Valleys, close to the Easter side of the Upper Victoria Lake, Antarctica	20°C	Basidiomycota
5432; 5463	<i>Filobasidium stepposum</i>	snow with superficial sediment	Helbronner peak, Mont Blanc, Italian Alps, Italy	20°C	Basidiomycota
5085; 5089; 5095; 5099; 5153 - 5156	<i>Filobasidium wieringae</i>	deep piping glacial sediments	Calderone glacier, Gran Sasso, Abruzzo, Italy	20°C	Basidiomycota
5455; 5457	<i>Filobasidium wieringae</i>	snow with superficial sediment	Helbronner peak, Mont Blanc, Italian Alps, Italy	20°C	Basidiomycota
4841	<i>Glaciozyma martinii</i>	supraglacial sediments	Calderone glacier, Gran Sasso, Abruzzo, Italy	15°C	Basidiomycota
8018	<i>Glaciozyma martinii</i>	soil	Sothern Victoria land, Antarctica	15°C	Basidiomycota
4726	<i>Glaciozyma watsonii</i>	subglacial sediments	Forni glacier, Ortles Cevedale group, Italian Alps, Sondrio, Italy	15°C	Basidiomycota
4799; 4802	<i>Glaciozyma watsonii</i>	subglacial sediments	Sforzellina glacier, Ortles Cevedale group, Italian Alps, Sondrio, Italy	15°C	Basidiomycota

8014; 8015	<i>Glaciozyma watsonii</i>	soil	Sothern Victoria land, Antarctica	15°C	Basidiomycota
5194; 5196 - 5199; 5201; 5203	<i>Goffeauzyma gastrica</i>	supraglacial sediments	Calderone glacier, Gran Sasso, Abruzzo, Italy	20°C	Basidiomycota
5204 - 5206; 5208 - 5211	<i>Goffeauzyma gastrica</i>	ice	Calderone glacier, Gran Sasso, Abruzzo, Italy	20°C	Basidiomycota
5220	<i>Goffeauzyma gastrica</i>	glacial melting water	Calderone glacier, Gran Sasso, Abruzzo, Italy	20°C	Basidiomycota
5293 ; 5294	<i>Goffeauzyma gastrica</i>	supraglacial sediments	Miage glacier, Mont Blanc, Italian Alps, Italy	20°C	Basidiomycota
5324; 5401	<i>Goffeauzyma gastrica</i>	morainic soil	Miage glacier, Mont Blanc, Italian Alps, Italy	20°C	Basidiomycota
5371; 5381	<i>Goffeauzyma gastrica</i>	supraglacial sediments	Miage glacier, Mont Blanc, Italian Alps, Italy	20°C	Basidiomycota
4708 - 4710; 4712; 4714; 4733 - 4735; 4737; 4738; 4740 - 4749	<i>Goffeauzyma gilvescens</i>	subglacial sediments	Sforzellina glacier, Ortles Cevedale group, Italian Alps, Sondrio, Italy	20°C	Basidiomycota
4750	<i>Goffeauzyma gilvescens</i>	endoglacial sediments	Forni glacier, Ortles Cevedale group, Italian Alps, Sondrio, Italy	20°C	Basidiomycota
5924; 10045	<i>Goffeauzyma gilvescens</i>	supraglacial sediments	Miage glacier, Mont Blanc, Italian Alps, Italy	20°C	Basidiomycota

5965	<i>Goffeauzyma gilvescens</i>	glacial melting water (stagnant)	Miage glacier, Mont Blanc, Italian Alps, Italy	20°C	Basidiomycota
10073	<i>Goffeauzyma gilvescens</i>	sediment	Miage glacier, Mont Blanc, Italian Alps, Italy	20°C	Basidiomycota
4837	<i>Holtermanniella wattica</i>	supraglacial sediments	Calderone glacier, Gran Sasso, Abruzzo, Italy	20°C	Basidiomycota
5079	<i>Holtermanniella wattica</i>	deep piping glacial sediments	Calderone glacier, Gran Sasso, Abruzzo, Italy	20°C	Basidiomycota
5282; 5353; 5408	<i>Holtermanniella wattica</i>	morainic soil	Miage glacier, Mont Blanc, Italian Alps, Italy	20°C	Basidiomycota
5411; 5421	<i>Holtermanniella wattica</i>	ice cores	Miage glacier, Mont Blanc, Italian Alps, Italy	20°C	Basidiomycota
5998	<i>Holtermanniella wattica</i>	supraglacial sediments	Miage glacier, Mont Blanc, Italian Alps, Italy	20°C	Basidiomycota
4794	<i>Leucosporidium creatinivorum</i>	supraglacial sediments	Forni glacier, Ortles Cevedale group, Italian Alps, Sondrio, Italy	20°C	Basidiomycota
5217	<i>Leucosporidium intermedium</i>	glacial melting water	Calderone glacier, Gran Sasso, Abruzzo, Italy	20°C	Basidiomycota
4867	<i>Leucosporidium scottii</i>	surface of <i>Tuber indicatum</i>	China	20°C	Basidiomycota

4979; 4990; 4994; 4999; 5000	<i>Mrakia aquatica</i>	superficial glacial melting water	Calderone glacier, Gran Sasso, Abruzzo, Italy	20°C	Basidiomycota
5179; 5180	<i>Mrakia cryoconiti</i>	supraglacial sediments	Calderone glacier, Gran Sasso, Abruzzo, Italy	20°C	Basidiomycota
5302	<i>Mrakia cryoconiti</i>	superficial glacial melting water	Miage glacier, Mont Blanc, Italian Alps, Italy	20°C	Basidiomycota
4977; 4983; 4995	<i>Mrakia gelida</i>	superficial glacial melting water	Calderone glacier, Gran Sasso, Abruzzo, Italy	15°C	Basidiomycota
5106	<i>Mrakia gelida</i>	deep piping glacial sediments	Calderone glacier, Gran Sasso, Abruzzo, Italy	15°C	Basidiomycota
5306; 5308, 5952; 5953	<i>Mrakia gelida</i>	glacial melting water	Miage glacier, Mont Blanc, Italian Alps, Italy	15°C	Basidiomycota
4728; 4762; 4790	<i>Mrakia robertii</i>	subglacial sediments	Forni glacier, Ortles Cevedale group, Italian Alps, Italy	15°C	Basidiomycota
5309	<i>Mrakia robertii</i>	glacial melting water	Miage glacier, Mont Blanc, Italian Alps, Italy	15°C	Basidiomycota
5336; 5345	<i>Mrakia robertii</i>	morainic soil	Miage glacier, Mont Blanc, Italian Alps, Italy	15°C	Basidiomycota
5922; 5923; 5926	<i>Mrakia robertii</i>	supraglacial sediments	Miage glacier, Mont Blanc, Italian Alps, Italy	15°C	Basidiomycota



4819; 5187; 5193; 5195	<i>Naganishia adeliensis</i>	supraglacial sediments	Calderone glacier, Gran Sasso, Abruzzo, Italy	20°C	Basidiomycota
5081; 5149; 5152	<i>Naganishia adeliensis</i>	deep piping glacial sediments	Calderone glacier, Gran Sasso, Abruzzo, Italy	20°C	Basidiomycota
5275; 5299; 5300; 5321; 5338; 5394	<i>Naganishia adeliensis</i>	morainic soil	Miage glacier, Mont Blanc, Italian Alps, Italy	20°C	Basidiomycota
5296; 5382	<i>Naganishia adeliensis</i>	supraglacial sediments	Miage glacier, Mont Blanc, Italian Alps, Italy	20°C	Basidiomycota
5967; 5973; 10001	<i>Naganishia adeliensis</i>	supraglacial melting water	Miage glacier, Mont Blanc, Italian Alps, Italy	20°C	Basidiomycota
10060	<i>Naganishia adeliensis</i>	sediment	Miage glacier, Mont Blanc, Italian Alps, Italy	20°C	Basidiomycota
4910 - 4915	<i>Naganishia albida</i>	truffle, <i>Tuber aestivum</i> , associated with <i>Quercus pubescens</i>	Volperino, Perugia, Italy	25°C	Basidiomycota
4917 - 4919	<i>Naganishia albida</i>	soil	Volperino, Perugia, Italy	25°C	Basidiomycota
4939; 4940	<i>Naganishia albida</i>	mycorrhizae of <i>Tuber aestivum</i> associated with <i>Corylus avellana</i>	Volperino, Perugia, Italy	25°C	Basidiomycota
4942	<i>Naganishia albida</i>	soil around <i>Corylus avellana</i> in a truffle field, <i>Tuber aestivum</i>	Volperino, Perugia, Italy	25°C	Basidiomycota

3184	<i>Naganishia albida</i>	flowers	Venarotta, Ascoli Piceno, Italy	25°C	Basidiomycota
3190	<i>Naganishia albida</i>			25°C	Basidiomycota
4345	<i>Naganishia albida</i>	sea water	Italy	25°C	Basidiomycota
5270 - 5274; 5276 - 5278; 5281; 5283; 5314 - 5316; 5318; 5322	<i>Naganishia antarctica</i>	morainic soil	Miage glacier, Mont Blanc, Italian Alps, Italy	20°C	Basidiomycota
4736	<i>Naganishia vaughanmartinae</i>	supraglacial sediments	Sforzellina glacier, Ortles Cevedale group, Italian Alps, Sondrio, Italy	20°C	Basidiomycota
4584; 4601	<i>Papiliotrema laurentii</i>	blackberry, <i>Rubus</i> sp.	Horco Molle, Tucuman, Argentina	25°C	Basidiomycota
4586; 4588; 4592; 4596	<i>Papiliotrema laurentii</i>	contaminated water near a dam	El Frontal Dam, Sgo del Estero, Argentina	25°C	Basidiomycota
4593; 4594; 4600; 4602; 4603; 4605	<i>Papiliotrema laurentii</i>	red fruit	Horco Molle, Tucuman, Argentina	25°C	Basidiomycota
4597; 4598	<i>Papiliotrema laurentii</i>	Flores borravino	Horco Molle, Tucuman, Argentina	25°C	Basidiomycota
5449	<i>Papiliotrema laurentii</i>	snow with superficial sediment	Helbronner peak, Mont Blanc, Italian Alps, Italy	25°C	Basidiomycota
5006	<i>Rhodosporidiobolus colostri</i>	superficial glacial melting water	Calderone glacier, Gran Sasso, Abruzzo, Italy	20°C	Basidiomycota

5982	<i>Rhodospiridiobolus colostri</i>	supraglacial melting water	Miage glacier, Mont Blanc, Italian Alps, Italy	20°C	Basidiomycota
3984; 3985	<i>Rhodotorula glutinis</i>	caverns		25°C	Basidiomycota
3044; 4304	<i>Rhodotorula glutinis</i>			25°C	Basidiomycota
3090	<i>Rhodotorula glutinis</i>	grape must	Conegnano, Veneto, Italy	25°C	Basidiomycota
3235; 3236	<i>Rhodotorula glutinis</i>	Limburger cheese	Wageningen, The Netherlands	25°C	Basidiomycota
3380	<i>Rhodotorula glutinis</i>	flowers	Venarotta, Ascoli Piceno, Italy	25°C	Basidiomycota
3442; 3443	<i>Rhodotorula glutinis</i>	milk	Italy	25°C	Basidiomycota
4529; 4611	<i>Rhodotorula glutinis</i>	water of <i>Quesnelia quesneliana</i> , mangrove	Coroa Grande, Brazil	25°C	Basidiomycota
4949; 4964	<i>Rhodotorula glutinis</i>	mature domestic compost	Perugia, Italy	25°C	Basidiomycota
4958	<i>Rhodotorula glutinis</i>	commercial compost, 16 m into the process (Temp. 59°C)	Pietramelina, Perugia, Italy	25°C	Basidiomycota
4530	<i>Rhodotorula glutinis</i>	flower of Poaceae	Tijuca forest, Brazil	25°C	Basidiomycota
4531	<i>Rhodotorula glutinis</i>	flower of <i>Pachystachys riedeliana</i> , Acanthaceae	Botanical garden, Rio de Janeiro, Brazil	25°C	Basidiomycota

4620	<i>Rhodotorula graminis</i>	soil at 850 m alt., 2 cm depth	Bromide Oklahoma, USA	25°C	Basidiomycota
4203	<i>Rhodotorula mucilaginosa</i>	vineyard soil	Italy	25°C	Basidiomycota
4376	<i>Rhodotorula mucilaginosa</i>	frozen chicken	Italy	25°C	Basidiomycota
4377; 4408	<i>Rhodotorula mucilaginosa</i>	sea water	Italy	25°C	Basidiomycota
4378	<i>Rhodotorula mucilaginosa</i>	frozen fish	Italy	25°C	Basidiomycota
4618; 4629	<i>Rhodotorula mucilaginosa</i>	soil at 850 m alt., 2 cm depth	Bromide Oklahoma, USA	25°C	Basidiomycota
4898	<i>Rhodotorula mucilaginosa</i>	surface of <i>Tuber indicatum</i>	China	25°C	Basidiomycota
4920; 4945 - 4947	<i>Rhodotorula mucilaginosa</i>	<i>Tuber aestivum</i> associated with <i>Corylus avellana</i>	Volperino, Perugia, Italy	25°C	Basidiomycota
4950; 4952; 4956; 4957	<i>Rhodotorula mucilaginosa</i>	mature domestic compost	Perugia, Italy	25°C	Basidiomycota
4962; 4963	<i>Rhodotorula mucilaginosa</i>	commercial compost, 15 m into the process (Temp. 63°C)	Pietramelina, Perugia, Italy	25°C	Basidiomycota
5235	<i>Rhodotorula mucilaginosa</i>	soil near the glacier	E.Point, North Valley, Antarctica	25°C	Basidiomycota
4466	<i>Rhodotorula mucilaginosa</i>	lemon skin	Italy	25°C	Basidiomycota
4536	<i>Rhodotorula mucilaginosa</i>	flower of <i>Ixora coccinea</i> , Rubiaceae, infested by	Botanical garden, Rio de Janeiro, Brazil	25°C	Basidiomycota

		insects			
4669	<i>Rhodotorula mucilaginosa</i>	epicarp of <i>Tuber magnatum</i> Pico	Campello su Clitunno, Perugia, Italy	25°C	Basidiomycota
3045	<i>Rhodotorula mucilaginosa</i>	selected starter for cheese production	Italy	25°C	Basidiomycota
3237	<i>Rhodotorula mucilaginosa</i>	grape must	Calabria, Italy	25°C	Basidiomycota
3238; 3239	<i>Rhodotorula mucilaginosa</i>	Limburger cheese	Wageningen, The Netherlands	25°C	Basidiomycota
3381; 3382	<i>Rhodotorula mucilaginosa</i>	flowers	Venarotta, Ascoli Piceno, Italy	25°C	Basidiomycota
3383; 3384	<i>Rhodotorula mucilaginosa</i>	flowers	Perugia, Italy	25°C	Basidiomycota
3444 - 3446	<i>Rhodotorula mucilaginosa</i>	milk	Italy	25°C	Basidiomycota
3538	<i>Rhodotorula mucilaginosa</i>	soil	Ultuna, Sweden	25°C	Basidiomycota
5839	<i>Solicoccozyma aeria</i>	soil close to plum tree, depth: 35 cm. Agricultural soil: presence of important vegetation, some fallen fruit (plum) rotting and insects	District of Hamma Bouziane, Constantine, Algeria	20°C	Basidiomycota
5150	<i>Solicoccozyma aeria</i>	deep piping glacial sediments	Calderone glacier, Gran Sasso, Abruzzo, Italy	20°C	Basidiomycota

5291; 5367	<i>Solicoccozyma aeria</i>	supraglacial sediments	Miage glacier, Mont Blanc, Italian Alps, Italy	20°C	Basidiomycota
5690	<i>Solicoccozyma aeria</i>	snow from trench	Helbronner peak, Mont Blanc, Italian Alps, Italy	20°C	Basidiomycota
10019	<i>Solicoccozyma aeria</i>	supraglacial sediments	Miage glacier, Mont Blanc, Italian Alps, Italy	20°C	Basidiomycota
10094	<i>Solicoccozyma aeria</i>	soil close to eucalyptus tree, depth: 10 cm. Forest soil: presence of important vegetation, some insects	Constantine, Algeria	20°C	Basidiomycota
5344; 5403	<i>Solicoccozyma terreus</i>	morainic soil	Miage glacier, Mont Blanc, Italian Alps, Italy	20°C	Basidiomycota
4812; 4814	<i>Solicoccozyma terricola</i>	subglacial sediments	Forni glacier, Ortles Cevedale group, Italian Alps, Sondrio, Italy	20°C	Basidiomycota
5280; 5311 - 5313; 5317; 5319; 5320; 5341; 5346; 5350	<i>Solicoccozyma terricola</i>	morainic soil	Miage glacier, Mont Blanc, Italian Alps, Italy	20°C	Basidiomycota
5368; 5870; 5907; 5925; 10017	<i>Solicoccozyma terricola</i>	supraglacial sediments	Miage glacier, Mont Blanc, Italian Alps, Italy	20°C	Basidiomycota

5224	<i>Sporobolomyces metaroseus</i>	permafrost	Antarctic Dry Valleys, close to the Easter side of the Upper Victoria Lake, Antarctica	20°C	Basidiomycota
4387	<i>Sporobolomyces roseus</i>	sea water	Italy	25°C	Basidiomycota
5010; 5018; 5020; 5022; 5029; 5120	<i>Sporobolomyces roseus</i>	superficial glacial sediment	Calderone glacier, Gran Sasso, Abruzzo, Italy	25°C	Basidiomycota
3254 - 3258	<i>Tausonia pullulans</i>	Limburger cheese	The Netherlands	20°C	Basidiomycota
4822; 4836; 5172	<i>Tausonia pullulans</i>	supraglacial sediments	Calderone glacier, Gran Sasso, Abruzzo, Italy	20°C	Basidiomycota
4969; 4970; 4872; 5007	<i>Tausonia pullulans</i>	superficial glacial melting water	Calderone glacier, Gran Sasso, Abruzzo, Italy	20°C	Basidiomycota
5105; 5108; 5170; 5171	<i>Tausonia pullulans</i>	deep piping glacial sediments	Calderone glacier, Gran Sasso, Abruzzo, Italy	20°C	Basidiomycota
5215	<i>Tausonia pullulans</i>	glacial melting water	Calderone glacier, Gran Sasso, Abruzzo, Italy	20°C	Basidiomycota
5298; 5871	<i>Tausonia pullulans</i>	supraglacial sediments	Miage glacier, Mont Blanc, Italian Alps, Italy	20°C	Basidiomycota
5873	<i>Tausonia pullulans</i>	glacial melting water	Miage glacier, Mont Blanc, Italian Alps, Italy	20°C	Basidiomycota

5959	<i>Tausonia pullulans</i>	glacial melting water (stagnant)	Miage glacier, Mont Blanc, Italian Alps, Italy	20°C	Basidiomycota
10065; 10070; 10071	<i>Ustilentyloma graminis</i>	sediment	Miage glacier, Mont Blanc, Italian Alps, Italy	20°C	Basidiomycota
4923 - 4838	<i>Vanrija humicola</i>	<i>Tuber aestivum</i> associated with <i>Corylus avellana</i>	Volperino, Perugia, Italy	25°C	Basidiomycota
4941; 4943	<i>Vanrija humicola</i>	soil around <i>Corylus avellana</i> in a truffle field, <i>Tuber aestivum</i>	Volperino, Perugia, Italy	25°C	Basidiomycota
5111	<i>Vishniacozyma tephrensis</i>	deep piping glacial sediment	Calderone glacier, Gran Sasso, Abruzzo, Italy	20°C	Basidiomycota
5475	<i>Vishniacozyma tephrensis</i>	snow with superficial sediment	Helbronner peak, Mont Blanc, Italian Alps, Italy	20°C	Basidiomycota
4826	<i>Vishniacozyma victoriae</i>	<i>Tuber aestivum</i> associated with <i>Corylus avellana</i>	Volperino, Perugia, Italy	20°C	Basidiomycota
4830; 4835	<i>Vishniacozyma victoriae</i>	deep piping glacial sediments	Calderone glacier, Gran Sasso, Abruzzo, Italy	20°C	Basidiomycota
4965; 4967	<i>Vishniacozyma victoriae</i>	superficial glacial melting water	Calderone glacier, Gran Sasso, Abruzzo, Italy	20°C	Basidiomycota
4968; 4973; 4978; 4986; 5013; 5015; 5017; 5055 - 5057; 5132	<i>Vishniacozyma victoriae</i>	superficial glacial melting water	Calderone glacier, Gran Sasso, Abruzzo, Italy	20°C	Basidiomycota



5207; 5212; 5301	<i>Vishniacozyma victoriae</i>	ice	Calderone glacier, Gran Sasso, Abruzzo, Italy	20°C	Basidiomycota
5354	<i>Vishniacozyma victoriae</i>	morainic soil	Miage glacier, Mont Blanc, Italian Alps, Italy	20°C	Basidiomycota