

Supplementary Materials

Table S1. BLAST analysis of rDNA ITS of keratinophilic and keratinolytic fungi occurring in selected caves in Slovakia. All E values were zero).

No.	Fungal species	Isolate	GenBank Accession No.	Product size (bp)	Identity with Sequence from GenBank		
					Query Cover, %	Identity, %	Accession
1.	<i>Pseudogymnoascus pannorum</i>	UWR_265	OL362050	470	100.00	99.79	MK421366.1
2.	<i>Keratinophyton wagneri</i>	UWR_266	OL362051	508	100.00	100.00	NR_173387.1
3.	<i>Pseudogymnoascus pannorum</i>	UWR_267	OL362052	411	100.00	100.00	MH469520.1
4.	<i>Arthroderma quadrifidum</i>	UWR_268	OL362053	411	100.00	99.76	MG561441.1
5.	<i>Pseudogymnoascus pannorum</i>	UWR_269	OL362054	497	100.00	99.80	MH865434.1
6.	<i>Penicillium griseofulvum</i>	UWR_270	OL362055	496	100.00	100.00	MN545450.1
7.	<i>Penicillium brevicompactum</i>	UWR_271	OL362056	495	100.00	100.00	KY401133.1
8.	<i>Metapochonia suchlasporia</i>	UWR_272	OL362057	498	100.00	100.00	MT079164.1
9.	<i>Arthroderma quadrifidum</i>	UWR_273	OL362058	521	100.00	99.42	MG561441.1
10.	<i>Penicillium chrysogenum</i>	UWR_274	OL362059	490	100.00	100.00	MT594471.1
11.	<i>Aphanoascus keratinophilus</i>	UWR_275	OL362060	510	100.00	100.00	MW616942.1
12.	<i>Pseudogymnoascus pannorum</i>	UWR_276	OL362061	497	100.00	100.00	MH865434.1
13.	<i>Chrysosporium siglerae</i>	UWR_277	OL362062	446	100.00	99.78	KT155909.1
14.	<i>Penicillium charlesii</i>	UWR_278	OL362063	483	100.00	100.00	MT309660.1
15.	<i>Arthroderma multifidum</i>	UWR_279	OL362064	502	100.00	100.00	MH860194.1
16.	<i>Cosmospora viridescens</i>	UWR_280	OL362065	415	100.00	99.28	MK911617.1
17.	<i>Chrysosporium europae</i>	UWR_281	OL362066	533	100.00	100.00	NR_077134.1
18.	<i>Pseudogymnoascus pannorum</i>	UWR_282	OL362067	388	100.00	99.23	KY432734.1
19.	<i>Arthroderma multifidum</i>	UWR_283	OL362068	536	100.00	100.00	MH860194.1
20.	<i>Arthroderma quadrifidum</i>	UWR_284	OL362069	527	100.00	99.24	MG561441.1
21.	<i>Pseudogymnoascus pannorum</i>	UWR_285	OL362070	505	100.00	100.00	MT573491.1
22.	<i>Arthroderma insingulare</i>	UWR_286	OL362071	482	100.00	99.79	MW084975.1
23.	<i>Cordyceps fumosorosea</i>	UWR_287	OL362072	527	100.00	100.00	MT079165.1
24.	<i>Arthroderma quadrifidum</i>	UWR_288	OL362073	362	100.00	99.72	MK298678.1
25.	<i>Arthroderma quadrifidum</i>	UWR_289	OL362074	533	100.00	99.44	MG561441.1
26.	<i>Pseudogymnoascus pannorum</i>	UWR_290	OL362075	365	100.00	100.00	MT003118.1
27.	<i>Chrysosporium merdarium</i>	UWR_291	OL362076	448	100.00	100.00	MW710148.1
28.	<i>Arthroderma quadrifidum</i>	UWR_292	OL362077	498	100.00	99.40	MG561441.1
29.	<i>Pseudogymnoascus pannorum</i>	UWR_293	OL362078	429	100.00	99.77	MT573491.1
30.	<i>Aspergillus fumigatus</i>	UWR_294	OL362079	456	100.00	99.78	MH864580.1
31.	<i>Arthroderma eboreum</i>	UWR_295	OL362080	489	100.00	99.80	KC008579.1
32.	<i>Arthroderma quadrifidum</i>	UWR_296	OL362081	474	100.00	99.79	MK298678.1

Table S2. Number of keratinophilic and keratinolytic fungal species isolated from the studied locations of Slovakia caves and the Shannon diversity index for the interior study sites. ¹See Figure 1 for locations (I – outside underground facilities, II-VIII – inside underground facilities).

Study sites ¹	Number of keratinophilic and keratinolytic fungal species		
	Brestovská Cave	Demänovská Ľadová Cave	Demänovská Slobody Cave
I	1	2	1
II	1	2	2
III	3	3	3
IV	1	4	1
V	3	2	3
VI	1	1	3
VII	3	3	4
VIII	1	2	2
Shannon index	0.784	0.814	0.816