

Table 1. Accession numbers and origins of the specimens sequenced in the study.

Species	Specimen	Origin	Accession number	
			ITS	RPB2
<i>C. boreotrichus</i>	KK 644/18	Finland	MN841273	
<i>C. casimiri</i>	KK 1246/06	Finland	MN841034	MN807953
<i>C. casimiri</i>	S. Huhtinen 04/54	Finland	MN841035	
<i>C. casimiri</i>	KK 495/03	Finland	MN841036	MN807954
<i>C. casimiri</i>	KK 503/05	Finland	MN841037	MN807955
<i>C. casimiri</i>	KK330/17	Iceland	MN841039	
<i>C. casimiri</i>	KK336/17	Iceland	MN841040	MN807956
<i>C. casimiri</i>	<i>C. subsertipes</i> , Romagnesi 51239	France	MN841038	
<i>C. castaneus</i>	neotype, P. Moënne-Loccoz 275	France	MN841089	
<i>C. castaneus?</i>	KK 826/18	Switzerland	MN841088	MN807967
<i>C. comatus</i>	KK 45/03	Finland	MN841049	MN807962
<i>C. comatus</i>	KK 117/08	Finland	MN841050	MN807963
<i>C. comatus</i>	KK 425/16	Finland	MN841051	
<i>C. comatus</i>	KK 138/06	Finland	MN841052	
<i>C. comatus</i>	KK 624/03	Finland	MN841053	MN807964
<i>C. comatus</i>	KK 834/18	Switzerland	MN841054	MN807965
<i>C. comatus</i>	E. Campo 14.VIII.2017	Italy	MN841055	MN807966
<i>C. comatus</i>	<i>C. rusticellus</i> , A. Bidaud 05-08-18	France	MN841048	
<i>C. comatus</i>	lectotype, J. Favre 146a	Switzerland	MN759730	
<i>C. croceocingulatus</i>	KK 167/06	Finland	MN841151	
<i>C. croceocingulatus</i>	KK 244/06	Finland	MN841152	MN807997
<i>C. croceocingulatus</i>	KK 1329/12	Finland	MN841153	MN807998
<i>C. croceocingulatus</i>	<i>C. phaeopygmaeus</i> , Ohenoja 11.VIII.88/2	Svalbard	MN841154	
<i>C. cucumisporus</i>	holotype, M. Moser 1965/48	Austria	MN841061	
<i>C. cucumisporus</i>	KK 1378/16	Sweden	MN841060	
<i>C. cucumisporus</i>	KK 56/19	Switzerland	MN841085	
<i>C. aff. decipiens</i>	KK 510/05	Finland	MN841091	MN807968
<i>C. aff. decipiens</i>	KK 510/04 & J. Vauras	Finland	MN841103	MN807977
<i>C. aff. decipiens</i>	KK 658/18	Finland	MN841104	
<i>C. aff. decipiens</i>	T. Rahko 14.IX.2004	Finland	MN841105	MN807984
<i>C. decipiens</i>	KK 1380/16	Sweden	MN841094	MN807969
<i>C. decipiens</i>	KK 24.IX.2002	Finland	MN841095	MN807970
<i>C. decipiens</i>	KK459/05	Finland	MN841096	MN807971
<i>C. decipiens</i>	KK 146/06	Finland	MN841097	MN807972
<i>C. decipiens</i>	J. Vauras 17593	Finland	MN841098	
<i>C. decipiens</i>	KK 666/18	Finland	MN841099	MN807973
<i>C. decipiens</i>	KK 212/05	Finland	MN841100	MN807974
<i>C. decipiens</i>	KK 661/18	Finland	MN841101	MN807975
<i>C. decipiens</i>	KK 823/18	Switzerland	MN841102	MN807976
<i>C. decipiens</i>	KK 60/19	Switzerland	MN841117	
<i>C. diasemospermus</i>	KK 548/07 & J. Vauras	Finland	MN841065	
<i>C. diasemospermus</i>	KK 312/16	Norway	MN841066	
<i>C. diasemospermus</i>	KK 288/17	Switzerland	MN841067	
<i>C. diasemospermus</i>	holotype, D. Lamoure 19.VIII.1969	France	MN841086	
<i>C. diasemospermus</i> coll.	KK 235/06	Finland	MN841062	
<i>C. diasemospermus</i> coll.	KK 263/17	Switzerland	MN841063	
<i>C. diasemospermus</i> coll.	KK 353/17	Iceland	MN841064	
<i>C. diasemospermus</i> coll.	KK 476/05	Finland	MN841068	
<i>C. diasemospermus</i> coll.	KK 290/06	Finland	MN841069	
<i>C. diasemospermus</i> coll.	KK 538/07 & J. Vauras	Finland	MN841070	
<i>C. diasemospermus</i> coll.	KK 275/06	Finland	MN841071	

<i>C. diasemospermus</i> coll.	KK 355/17	Iceland	MN841072	
<i>C. diasemospermus</i> coll.	KK 511/05	Finland	MN841084	
<i>C. diasemospermus</i> coll.	KK 252/04	Finland	MN841073	
<i>C. diasemospermus</i> coll.	KK 313/17	Switzerland	MN841074	
<i>C. diasemospermus</i> coll.	KK 246/06	Finland	MN841077	
<i>C. diasemospermus</i> coll.	KK 160/06	Finland	MN841078	
<i>C. aff. erubescens</i>	KK 578/07	Finland	MN841242	
<i>C. aff. erubescens</i>	KK 278/17	Switzerland	MN841241	
<i>C. erubescens</i>	J. Vauras 25222	Finland	MN841243	
	<i>C. erythrinus</i> , E. Campo 11.X.2006	Italy	MN841257	
	<i>C. erythrinus</i> , E. Campo 2.VIII.2014	Italy	MN841148	MN807995
	<i>C. erythrinus</i> , N. Arnold 6024/2	Germany	MN841247	
<i>C. fistularis</i>	P. Moëgne-Loccoz 4134	France	MN841254	
<i>C. flexipes</i> coll.	KK 509/04	Finland	MN841058	
<i>C. flexipes</i> coll.	KK 547/16	Finland	MN841059	
<i>C. friesianus</i>	holotype, X. Carteret 97112425	France	MN841220	
<i>C. friesianus</i>	<i>C. flexibilifolius</i> holotype, XC 2003-58	France	MN841219	
	<i>C. fulvescens</i> , N. Arnold A155/89	Germany	MN841269	
	<i>C. fulvescens</i> , N. Arnold A53/89	Germany	MN841270	
	<i>C. fulvescens</i> , N. Arnold A12/91	Germany	MN841271	
	<i>C. fulvescens</i> , N. Arnold A94/89	Germany	MN841272	
<i>C. fulvopaludosus</i>	KK 619/03	Finland	MN841246	
<i>C. fulvopaludosus</i>	J. Vauras 19599	Italy	MN841245	
<i>C. fuscoflexipes</i>	holotype, M. Moser 1983/384	USA	MN841106	
<i>C. fuscoflexipes</i>	KK 509/05	Finland	MN841109	MN807980
<i>C. fuscoflexipes</i>	KK 417/05	Finland	MN841108	MN807979
<i>C. fuscoflexipes</i>	J. Vauras 22884 & KK	Finland	MN841107	MN807978
<i>C. galerinoides</i>	holotype, D. Lamoure 19.VIII.1971	France	MN841263	
<i>C. galerinoides</i>	KK 44/19	Switzerland	MN841261	
<i>C. galerinoides</i>	KK 310/17	Switzerland	MN841262	
<i>C. galerinoides</i>	KK 296/17	Switzerland	MN841264	
<i>C. gausapatus</i>	lectotype, J. Favre 147b	Switzerland	MN759731	
<i>C. gausapatus</i>	J. Favre 147a	Switzerland	MN841265	
<i>C. gausapatus</i>	KK 262/17	Switzerland	LR760790	
<i>C. gausapatus</i>	KK 931/18	Switzerland	LR760791	
<i>C. gossypinus</i>	KK 618/16	Finland	MN841121	
<i>C. gossypinus</i>	KK 332/17	Iceland	MN841122	
<i>C. gossypinus</i>	KK 762/03	Finland	MN841123	
<i>C. gossypinus</i>	KK 797/03	Finland	MN841124	
<i>C. gossypinus</i>	KK 38/02	Finland	MN841125	
<i>C. gossypinus</i>	KK 285/03	Finland	MN841126	
<i>C. gossypinus</i>	KK 1230/12	Finland	MN841127	
<i>C. gossypinus</i>	KK 125/02	Finland	MN841129	
<i>C. gossypinus</i>	KK 418/05	Finland	MN841130	
<i>C. gossypinus</i>	KK 783/03	Finland	MN841131	
<i>C. gossypinus</i>	KK 131/02	Finland	MN841132	
<i>C. gossypinus</i>	<i>C. mucronatus</i> holotype	USA	MN841128	
<i>C. gossypinus</i>	<i>C. atomatus</i> ad int., A. Bidaud 96-08-36	France	MN841120	
<i>C. helobius</i>	P. Moëgne-Loccoz 052	France	MN841260	
<i>C. helobius</i>	<i>C. inhonestus</i> , P. Moëgne-Loccoz 603	France	MN841258	
<i>C. helobius</i>	<i>C. inhonestus</i> , P. Moëgne-Loccoz 606	France	MN841259	
<i>C. hinnuleus</i> var. <i>minutalis</i>	lectotype, J. Favre 1.IX.1953	Switzerland	MN841266	
<i>C. hinnuleus</i> var. <i>minutalis</i>	KK 514/05	Finland	MN841267	
<i>C. inops</i>	lectotype, J. Favre 155a	Switzerland	MN841134	
<i>C. inops</i>	KK 292/17	Switzerland	MN841135	MN807987
<i>C. inops</i>	E. Campo 3.VIII.2017	Italy	MN841133	
<i>C. inops</i>	E. Campo 23.VIII.2006	Italy		MN807996

<i>C. inops</i>	KK 68/19	Switzerland	MN841149	
<i>C. inops</i> coll.	KK 277/03	Finland	MN841138	MN807989
<i>C. inops</i> coll.	KK 208/07	Finland	MN841139	MN807990
<i>C. inops</i> coll.	KK 255/04	Finland	MN841140	MN807991
<i>C. inops</i> coll.	KK 265/04	Finland	MN841141	
<i>C. inops</i> coll.	KK 281/17	Switzerland	MN841142	MN807992
<i>C. inops</i> coll.	KK 280/04	Finland	MN841143	MN807993
<i>C. inops</i> coll.	KK 1395/16	Sweden	MN841144	
<i>C. inops</i> coll.	M.-L. & P. Heinonen 20-2011	Finland	MN841147	MN807994
<i>C. inops</i> coll.	KK 38/19	Switzerland	MN841150	
<i>C. inops</i> coll.	<i>C. erythrinus</i> , N. Arnold A8/88	Germany	MN841145	
<i>C. inops</i> coll.	<i>C. erythrinus</i> , N. Arnold A31/90	Germany	MN841146	
<i>C. lacustris</i> f. <i>alboanulatus</i>	isotype, P. Moëgne-Loccoz 1165	France	MN841244	
<i>C. lamoureae</i>	holotype, D. Lamoure 20.VIII.1973	Italy	MN841268	
<i>C. minusculus</i>	KK 698/03	Finland	MN841172	
<i>C. minusculus</i>	KK 327/17	Iceland	MN841173	
<i>C. neglectus</i>	holotype, X. Carteret 2009-62	France	MN841256	
<i>C. neofallax</i>	KK 409/08	Finland	MN841155	MN807999
<i>C. neofallax</i>	KK 819/18	Finland	MN841156	MN808000
<i>C. parvannulatus</i>	KK 1404/16	Sweden	MN841158	
<i>C. parvannulatus</i>	KK 284/08	Finland	MN841159	
<i>C. parvannulatus</i>	KK 818/18	Finland	MN841160	MN808002
<i>C. parvannulatus</i>	KK 99/09 & J. Vauras	Finland	MN841161	
<i>C. parvannulatus</i>	KK 105/08 & J. Vauras	Finland	MN841162	
<i>C. parvannulatus</i>	KK 356/17	Iceland	MN841163	
<i>C. parvannulatus</i>	KK 618/03	Finland	MN841164	
<i>C. parvannulatus</i>	KK 130/02	Finland	MN841165	
<i>C. parvannulatus</i>	KK 46/02	Finland	MN841166	
<i>C. parvannulatus</i>	KK 817/18	Finland	MN841167	MN808003
<i>C. parvannulatus</i>	KK 127/02	Finland	MN841168	MN808004
<i>C. parvannulatus</i>	KK 358/17	Iceland	MN841169	MN808005
<i>C. parvannulatus</i>	KK 438/08	Finland	MN841171	
<i>C. parvannulatus</i>	KK 52/19	Switzerland	MN841236	
<i>C. paululus</i>	KK 568/07 & J. Vauras	Finland	MN841174	MN808006
<i>C. paululus</i>	KK 305/17	Switzerland	MN841175	MN808007
<i>C. paululus</i>	holotype, KK 414/03	Finland	MN841176	MN808008
<i>C. paululus</i>	KK 143/09	Finland	MN841177	MN808009
<i>C. paululus</i>	KK 460/03	Finland	MN841178	MN808010
<i>C. paululus</i>	KK 177/06	Finland	MN841179	
<i>C. paululus</i>	KK 415/03	Finland	MN841180	
<i>C. paululus</i>	KK 95/08 & J. Vauras	Finland	MN841181	
<i>C. paululus</i>	KK 87/19	Finland	MN841198	
<i>C. paulus</i>	holotype, KK 314/08	Finland	MN841185	MN808013
<i>C. paulus</i>	KK 617/16	Finland	MN841186	MN808014
<i>C. paulus</i>	KK 413/03	Finland	MN841187	
<i>C. paulus</i>	KK 621/03	Finland	MN841188	MN808015
<i>C. paulus</i>	KK 36/02	Finland	MN841189	
<i>C. paulus</i>	KK 751/03	Finland	MN841190	
<i>C. paulus</i>	KK 854/03	Finland	MN841191	
<i>C. aff. pauperculus</i>	KK 504/05	Finland	MN841194	MN808017
<i>C. aff. pauperculus</i>	KK 507/05	Finland	MN841195	MN808018
<i>C. aff. pauperculus</i>	KK 37/19	Switzerland	MN841197	
<i>C. pauperculus</i>	lectotype, J. Favre 159a	Switzerland	MN841183	
<i>C. pauperculus</i>	KK 157/06	Finland	MN841182	MN808011
<i>C. pauperculus</i>	KK 285/17	Switzerland	MN841184	MN808012
<i>C. perzonatus</i>	holotype, P. Moëgne-Loccoz 5255	France	MN841252	
<i>C. pseudofallax</i>	KK 531/16	Finland	MN841157	MN808001

<i>C. pseudofusisporus</i>	holotype, A. Bidaud 92-10-262	France	MN841090	
<i>C. pulchripes</i>	lectotype, J. Favre 19.IX.1940	Switzerland	MN841092	
<i>C. pulchripes</i>	<i>C. albonigrellus</i> holotype, Favre 5.IX.1953	Switzerland	MN841093	
<i>C. pulchripes</i>	KK 249/03	Finland	MN841110	MN807981
<i>C. pulchripes</i>	KK 295/17	Switzerland	MN841111	
<i>C. pulchripes</i>	KK 287/08	Finland	MN841112	MN807982
<i>C. pulchripes</i>	KK 458/05	Finland	MN841113	MN807983
<i>C. pulchripes</i>	KK 289/17	Switzerland	MN841114	
<i>C. pulchripes</i>	KK 22/19	Switzerland	MN841115	
<i>C. pulchripes</i>	KK 58/19	Switzerland	MN841116	
<i>C. pulchripes</i>	KK 134/02	Finland	MN841118	MN807985
<i>C. pulchripes</i>	KK 690/03	Finland	MN841119	MN807986
<i>C. rufescentipes</i>	holotype, A. Bidaud no. 5095	France	MN841255	
<i>C. rufoanuliferus</i>	holotype, M. Moser 27.VIII.1983	USA	MN841170	
<i>C. rufostriatus</i>	part of holotype, J. Favre 164a	Switzerland	MN841024	
<i>C. rufostriatus</i>	part of holotype, J. Favre 164a-X	Switzerland	MN841025	
<i>C. rufostriatus</i>	<i>C. hemitrichoides</i> isotype, AB 90-08-118	France	MN841026	
<i>C. rufostriatus</i>	KK 619/16	Finland	MN841027	MN807950
<i>C. rufostriatus</i>	KK 466/05	Finland	MN841028	
<i>C. rufostriatus</i>	KK 718/03	Finland	MN841029	MN807951
<i>C. rufostriatus</i>	KK 301/06	Finland	MN841030	
<i>C. rufostriatus</i>	KK 334/17	Iceland	MN841031	MN807952
<i>C. rufostriatus</i>	KK 465/05	Finland	MN841032	
<i>C. rufostriatus</i>	KK 79/19	Finland	MN841033	
<i>C. rufostriatus</i>	KK 276/17	Switzerland		MN807957
<i>C. rusticelloides</i>	holotype, KK 136/02	Finland	MN841216	
<i>C. rusticelloides</i>	KK 135/02	Finland	MN841217	MN808024
<i>C. rusticelloides</i>	KK 12/13	Finland	MN841218	MN808025
<i>C. rusticellus</i>	KK 663/03	Finland	MN841199	MN808020
<i>C. rusticellus</i>	KK 674/03	Finland	MN841200	
<i>C. rusticellus</i>	KK 285/09	Finland	MN841201	MN808021
<i>C. rusticellus</i>	KK 367/16	Sweden	MN841202	
<i>C. rusticellus</i>	KK 268/17	Switzerland	MN841203	
<i>C. rusticellus</i>	KK 269/17	Switzerland	MN841204	MN808022
<i>C. rusticellus</i>	KK 287/17	Switzerland	MN841205	
<i>C. rusticellus</i>	KK 282/17	Switzerland	MN841206	
<i>C. rusticellus</i>	KK 150/06	Finland	MN841207	MN808023
<i>C. rusticellus</i>	KK 699/03	Finland	MN841208	
<i>C. rusticellus</i>	KK 311/06	Finland	MN841209	
<i>C. rusticellus</i>	KK 765/03	Finland	MN841210	
<i>C. rusticellus</i>	KK 921/03	Finland	MN841211	
<i>C. rusticellus</i>	KK 497/05	Finland	MN841212	
<i>C. rusticellus</i>	KK 282/09	Finland	MN841213	
<i>C. rusticellus</i>	<i>C. pseudofusisporus</i> , AB 97-10-418	France	MN841214	
<i>C. rusticellus</i>	<i>C. pseudofusisporus</i> , AB 97-10-417	France	MN841215	
<i>C. sagarum</i>	holotype, KK 350/17	Iceland	MN841047	MN807961
<i>C. sagarum</i>	KK 307/16	Norway	MN841046	MN807960
<i>C. sagarum</i>	S. Huhtinen 83/139	Svalbard	MN841045	
<i>C. aff. saniosus</i>	KK 307/17	Switzerland	MN841232	
<i>C. aff. saniosus</i>	KK 35/19	Switzerland	MN841233	
<i>C. saniosus</i>	KK 1060/03	Finland	MN841221	
<i>C. saniosus</i>	KK 39/02	Finland	MN841222	
<i>C. saniosus</i>	KK 347/16	Norway	MN841223	
<i>C. saniosus</i>	KK 767/06	Finland	MN841224	
<i>C. saniosus</i>	KK 1384/16	Sweden	MN841225	
<i>C. saniosus</i>	KK 154/03	Finland	MN841226	
<i>C. saniosus</i>	KK 508/05	Finland	MN841228	

<i>C. saniosus</i>	<i>C. bavaricus</i> holotype, Moser 1967/102	Germany	MN841227	
<i>C. saniosus</i>	KK 359/17	Iceland	MN841229	
<i>C. saniosus</i>	KK 513/05	Finland	MN841230	
<i>C. saniosus</i>	KK 6/19	Finland	MN841234	
<i>C. saniosus</i>	KK 100/19	Finland	MN841235	
<i>C. scotoides</i>	KK 833/18	Switzerland	MN841192	MN808016
<i>C. scotoides</i>	KK 47/19	Switzerland	MN841196	MN808019
<i>C. scotoides</i>	<i>C. pauperculoides</i> ad int., PML 2176	France	MN841193	
<i>C. sphagnicola</i>	holotype, P. Moëgne-Locoz 3934	France	MN841240	
<i>C. subcastaneus</i>	holotype, A. Bidaud no.5092	France	MN841253	
<i>C. stenospermus</i>	holotype, D. Lamoure 28.VIII.1963	France	MN841087	
<i>C. stenospermus</i>	KK 835/18	Switzerland	MN841075	
<i>C. stenospermus</i>	KK 106/08 & J. Vauras	Finland	MN841076	
<i>C. stenospermus</i>	KK 1377/16	Sweden	MN841079	
<i>C. stenospermus</i>	KK 66/19	Switzerland	MN841080	
<i>C. stenospermus</i>	KK 351/17	Iceland	MN841081	
<i>C. stenospermus</i>	KK 710/18	Finland	MN841083	
<i>C. stenospermus</i>	<i>C. pauperculus</i> , E. Campo 23.VIII.2006	Italy	MN841082	
<i>C. subsaniosus</i>	KK 246/04	Finland	MN841231	
<i>C. vernus</i>	<i>C. erythrinus</i> , N. Arnold A7/90	Germany	MN841136	
<i>C. vernus</i>	<i>C. castaneus</i> v. <i>monspeliensis</i> , E. Campo	Italy	MN841137	MN807988
<i>C. vienoi</i>	holotype, KK 52/08	Finland	MN841238	
<i>C. vienoi</i>	KK 679/03	Finland	MN841237	
<i>C. vienoi</i>	KK 91/19	Finland	MN841239	
<i>C. vulpicolor</i>	holotype, M. Moser 1983/355	USA	MN841041	
<i>C. vulpicolor</i>	KK 258/06	Finland	MN841042	
<i>C. vulpicolor</i>	KK 464/05	Finland	MN841043	MN807958
<i>C. vulpicolor</i>	KK 309/16	Norway	MN841044	MN807959
<i>Cortinarius</i> sp.	KK 736/03	Finland	MN841056	
<i>Cortinarius</i> sp.	KK 723/03	Finland	MN841057	
<i>Cortinarius</i> sp.	KK 251/06	Finland	MN841248	
<i>Cortinarius</i> sp.	KK 469/05	Finland	MN841249	
<i>Cortinarius</i> sp.	KK 389/05	Finland	MN841250	
<i>Cortinarius</i> sp.	KK 46/09	Switzerland	MN841251	