

**Table S2** Information of collections used for generating the time-calibrated phylogenetic tree.

Species	Voucher	ITS	nLSU	mt-SSU	<i>tefl-a</i>	<i>rpb2</i>
<i>Coltricia abieticola</i>	Cui 10321	KX364785	KX364804	KY693823	KY693911	KX364876
<i>Coltricia austrosinensis</i>	Dai 13093	KU360670	KU360640	KY693826	KY693913	KX364872
<i>Coltricia baoshanensis</i>	Dai 13075	KX364800	KX364820	KY693870	KY693953	KX364912
<i>Coltricia globosa</i>	Cui 7545	KJ540930	KJ000226	KY693873	KY693954	KX364913
<i>Fomitiporella chinensis</i>	Cui 11230	KX181309	KY693759	KY693880	KY693958	KY693910
<i>Fomitiporella sinica</i>	LWZ 20140624-5	KX181302	KX181321			
<i>Fomitiporella subinermis</i>	Dai 15131	KX181307	KX181345			
<i>Fomitiporella tenuissima</i>	Dai 12365	KC456244	KC999901			
<i>Fomitiporia alpina</i>	Dai 15735	KX639627	KX639645		KX639664	KX639680
<i>Fomitiporia gaoligongensis</i>	Cui 16433	MG867712	MG867714		MG867720	MG867717
<i>Fomitiporia punicata</i>	Dai 10640	KX663825	KX639653		KX639667	KX663827
<i>Fomitiporia subrobusta</i>	Dai 13577	KX639618	KX639636		KX639656	KX639673
<i>Fulvifomes dracaenicola</i>	Dai 22097	MW559800	NG_075429			
<i>Fulvifomes fastuosus</i>	Dai 18292	MH390411	MH390381			
<i>Fulvifomes hainanensis</i>	Dai 11573	KC879263	JX866779			
<i>Fulvifomes lloydii</i>	Dai 9642	MH390429	MH390379			
<i>Fuscoporia chinensis</i>	Dai 15713	MN816721	MN810008		MN848846	MN848771
<i>Fuscoporia contigua</i>	Dai 16025	MG008401	MG008454		MH636386	MH079406
<i>Fuscoporia ramulicola</i>	Dai 15723	MH050749	MH050762		MN848824	MH079398
<i>Fuscoporia rhabarbarina</i>	Dai 16550	MN816744	MN810036		MN848836	MN848785
<i>Hirschioporus acontextus</i>	Dai 23793	OQ449141	OQ449200	OQ449123	OQ831439	
<i>Hirschioporus chinensis</i>	Dai 20264	OQ449101	OQ449204	OQ449127	OQ831443	
<i>Hirschioporus pubescens</i>	Dai 23710	OQ512026	OQ449059	OQ449169	OQ857930	
<i>Hirschioporus tianschanicus</i>	Dai 19067	OQ448960	OQ449067	OQ449177	OQ857947	

<i>Hydnoporia gigasetosa</i>	He 1442	KT828670	KT828674			
<i>Hydnoporia lamellata</i>	Cui 7629	JQ279603	JQ279617			
<i>Hydnoporia tabacina</i>	LWZ 20210924-26a	ON063651	ON063851	ON063720	ON089676	ON100685
<i>Hydnoporia tabacinoides</i>	LWZ 20190814-29b	ON063652	ON063852	ON063721		
<i>Hymenochaete asetosa</i>	Dai 10756	JQ279559	JQ279642	KU978829		
<i>Hymenochaete cyclolamellata</i>	Cui 7393	JQ279513	JQ279629	KU978838		
<i>Hymenochaete huangshanensis</i>	LWZ 20201014-27	ON063654	ON063854	ON063723		
<i>Hymenochaete xerantica</i>	LWZ 20190814-13b	ON063657	ON063856	ON063726	ON089680	ON100699
<i>Inonotus griseus</i>	Dai 13436	KX674583	KX364823	KY693881	KY693959	KX364919
<i>Inonotus henanensis</i>	Dai 13157	KX674581	KX832918		MF977776	MF973468
<i>Inonotus obliquus</i>	Dai 10715	MZ484606	OL413405			
<i>Inonotus rickii</i>	Dai 12996	KC479128	MH101019			
<i>Lyomyces crustosus</i>	LWZ 20170815-23	MT319465	MT319201	MT326446	MT326400	MT326275
<i>Pallidohirschioporus biformis</i>	Dai 14531	OQ453313	OQ453539	OQ453514	OQ874737	
<i>Pallidohirschioporus brastagii</i>	Dai 12316	OQ453235	OQ453289	OQ453268	OQ874749	
<i>Pallidohirschioporus polycystidiatus</i>	Dai 14686	OQ453377	OQ453300	OQ453278	OQ874756	
<i>Pallidohirschioporus versicolor</i>	Dai 19332	OQ453387	OQ474952	OQ534102	OQ874763	
<i>Phellinopsis asetosa</i>	Dai 13553	KJ425524	KJ425523			
<i>Phellinopsis conchata</i>	L-7601	KU139188	KU139257		KU139377	KU139315
<i>Phellinopsis lonicericola</i>	Dai 22911	OL473605	OL473618			
<i>Phellinopsis tibetica</i>	LWZ 20190808-31a	ON063660	ON063859	ON063730		
<i>Phellinus castanopsidis</i>	Cui 10153	NR_120108	NG_060099			
<i>Phellinus mori</i>	LWZ 20150825-1	ON063661	ON063861			
<i>Phellinus piceicola</i>	LWZ 20190921-5	ON063662	ON063862	ON063731		ON100695
<i>Phellinus pomaceus</i>	LWZ 20160908-1	ON063663	ON063863	ON063732		
<i>Phylloporia alyxiae</i>	GC 1604-28		LC514408			

<i>Phylloporia alyxiae</i>	Chen 1182		LC514407			
<i>Phylloporia alyxiae</i>	13669	MH151185				
<i>Phylloporia clausenae</i>	Yuan 3528		KJ787795			
<i>Phylloporia clausenae</i>	Cui8463	MH151186	MH165868		MH167424	MH161216
<i>Phylloporia crataegi</i>	Dai 11016		JF712923			
<i>Phylloporia crataegi</i>	Dai 18133	MH151191	MH165865	MH124754	MH167431	MH161224
<i>Phylloporia cylindrispora</i>	Yuan 6144		KJ787797			
<i>Phylloporia cylindrispora</i>	Yuan 6148		KJ787798			
<i>Phylloporia cystidiolophora</i>	Dai13945		MG738798			
<i>Phylloporia cystidiolophora</i>	Dai13953		MG738799	MH124760	MH167438	MH161227
<i>Phylloporia dependens</i>	Dai 13167		KP698746			
<i>Phylloporia flacourtiae</i>	Yuan 6360		KJ787800			
<i>Phylloporia flacourtiae</i>	Yuan 6362		KJ787801			
<i>Phylloporia fontanesiae</i>	Cui12356	MH151188	MH165871			
<i>Phylloporia fontanesiae</i>	LWZ 20201024-3	<b>PP068872</b>	<b>PP068875</b>			
<i>Phylloporia gutta</i>	Dai 16070	MH151183	MH165863	MH124749	MH167423	MH161215
<i>Phylloporia gutta</i>	Cui 6945	MH151182		MH124748	MH167422	MH161214
<i>Phylloporia hainaniana</i>	Dai 9460		JF712928			
<i>Phylloporia hainaniana</i>	Dai 16142		MH165866	MH124759	MH167437	
<i>Phylloporia homocarnica</i>	Yuan 5750	MH151195	KJ787803			
<i>Phylloporia homocarnica</i>	Yuan 5766		KJ787804			
<i>Phylloporia lespedezae</i>	Dai 17067	MH151180	KY242603	MH124747	MH167420	MH161212
<i>Phylloporia lespedezae</i>	Dai 17065	MH151179	KY242602	MH124746	MH167419	MH161211
<i>Phylloporia lonicerae</i>	LWZ 20190809-2	<b>PP068870</b>	MN893899			
<i>Phylloporia lonicerae</i>	LWZ 20190819-1	<b>PP068871</b>	MN893901			
<i>Phylloporia manglietiae</i>	Cui 13709	MF410324	KX242358	MH124753	MH167430	MH161223

<i>Phylloporia manglietiae</i>	Cui 5497		MH165872		MH167435	
<i>Phylloporia minutipora</i>	LWZ 20150531-13	MH151193	KU904465	MH124755	MH167432	
<i>Phylloporia minutipora</i>	Dai 9257		KU904464			
<i>Phylloporia minutissima</i>	Dai 21223		MZ437408			
<i>Phylloporia mori</i>	Wu 1105-2		LC514412			
<i>Phylloporia mori</i>	Wu 1105-3		LC514413			
<i>Phylloporia moricola</i>	Wu1807-1		LC589617			
<i>Phylloporia moricola</i>	Wu1807-5		LC589618			
<i>Phylloporia murrayae</i>	Wu 1404-4		LC514409			
<i>Phylloporia murrayae</i>	Wu 1404-5		LC514410			
<i>Phylloporia nandinae</i>	Dai 10588		JF712930			
<i>Phylloporia nandinae</i>	Dai 10625		JF712931		MH167439	MH161228
<i>Phylloporia oblongospora</i>	Zhou 179	MH151197	JF712932			
<i>Phylloporia oreophila</i>	Cui 2219	MH151196	JF712933	MH124757		
<i>Phylloporia oreophila</i>	LWZ 20190811-27a	ON063665	ON063865	ON063733	ON089684	ON100694
<i>Phylloporia osmanthi</i>	Yuan 5655		KF729938	MH124761		
<i>Phylloporia pendula</i>	Cui 13691	MF410320	KX242357	MH124751	MH167426	MH161218
<i>Phylloporia pendula</i>	Cui 13876	MF410321	KX901670	MH124752	MF977777	MF973471
<i>Phylloporia perangusta</i>	Cui 11306	MF410325	KX242354			
<i>Phylloporia perangusta</i>	Dai 18139	MH151169	MG738803	MH124739	MH167413	MH161204
<i>Phylloporia pseudopectinata</i>	Cui 13749	MF410323	KX242356		MH167429	MH161222
<i>Phylloporia pseudopectinata</i>	Cui 13746	MF410322	KX242355		MH167428	MF973472
<i>Phylloporia pulla</i>	LWZ 20190428-2		MN893898			
<i>Phylloporia pulla</i>	LWZ 20190428-3		MN893897			
<i>Phylloporia radiata</i>	LWZ 20141122-5	MH151198	KU904470	MH124758	MH167434	
<i>Phylloporia radiata</i>	LWZ 20141122-6	MH151194	KU904471	MH124756	MH167433	

<i>Phylloporia rattanicola</i>	Dai 18235	MH151172	MG738808	MH124742	MH167415	MH161207
<i>Phylloporia rattanicola</i>	Dai 18232	MH151170	MG738806	MH124740	MH167414	MH161205
<i>Phylloporia rubiacearum</i>	Chen3580		LC514415			
<i>Phylloporia rubiacearum</i>	Chen 3583		LC514416			
<i>Phylloporia</i> sp.	Cui 13763	MH151190	KX242353			
<i>Phylloporia</i> sp.	Dai 9242	LC528151	JF712936			
<i>Phylloporia</i> sp.	Dai 18366	MH151192				
<i>Phylloporia splendida</i>	Cui 8429		MG738804			
<i>Phylloporia splendida</i>	Dai 6282		MG738805			
<i>Phylloporia subpulla</i>	Cui 5251		KU904468			
<i>Phylloporia subpulla</i>	Dai 9627		KU904469			
<i>Phylloporia terrestris</i>	Yuan 5738		KC778784			
<i>Phylloporia terrestris</i>	He 2359	MH151189	MH165869			MH161220
<i>Phylloporia tiliae</i>	Yuan 5491		KJ787805			
<i>Porodaedalea alpicola</i>	Cui 12272	MG585275	MH152375		MG585294	MH101492
<i>Porodaedalea chrysoloma</i>	Dai 12674	KY000004	MH152354		KY000009	MH101475
<i>Porodaedalea laricis</i>	LWZ 20190724-9	ON063668	ON063868	ON063735		ON100693
<i>Porodaedalea mongolica</i>	Dai 19231	MZ484567	ON529261		MZ514632	ON604673
<i>Sanghuangporus alpinus</i>	Cui 12444	MF772782	MF772800		MF977780	MF973474
<i>Sanghuangporus quercicola</i>	Dai 21763	MZ484583	MZ437413		OL436567	OL436571
<i>Sanghuangporus vaninii</i>	Dai 8236	MF772791	MF772812		MF977792	MF973485
<i>Sanghuangporus weigela</i>	LWZ 20210623-2a	ON063671	ON063870	ON063736	ON089687	ON100697
<i>Xylodon subflaviporus</i>	Dai 16413	MT319567	MT319310	MT326547	MT326415	MT326309

The newly generated sequences are shown in bold.