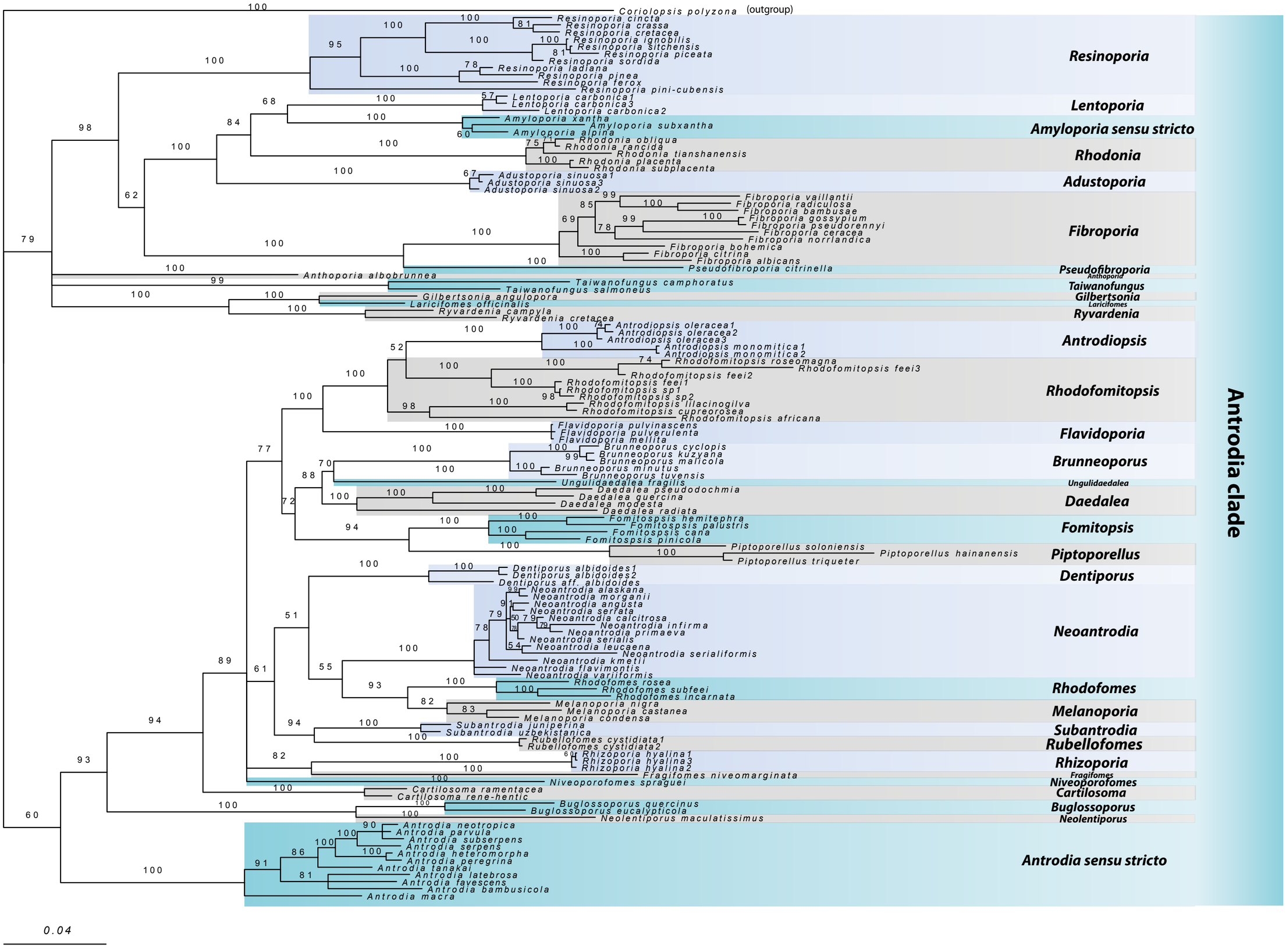

Figure : The 50% majority-rule consensus tree from combined sequences of ITS+nLSU + nSSU + mtSSU + *tef*1 + *rpb*2+ *rpb*1 calculated by the software MrBayes (Ronquist et al., 2012 ; 8 000 000 generations). Shade of mauve: my new genera already described.

Materials and methods

All sequences were downloaded from GenBank (Table) and were aligned using GeneDoc version 2.7.000 (Nicholas & Nicholas 1997) with DeGap Sequences option and not manually adjusted. The missing sequences were noted as — in the Table1. Sequences of Coriolopsis polyzona (Pers.) Ryvarden obtained from GenBank were used as outgroup to root tree. Phylogenetic tree was visualized using FigTree version 1.4.2 (Rambaut 2014) with probability in percent at the nodes. Visualization has been improved by the software Adobe Illustrator version 15.1.0 from CS5.

Bayesian inference was calculated with MrBayes version 3.2.6 x64 (Ronquist et al., 2012) with a general time reversible (GTR) model of DNA substitution and a gamma distribution rate variation across sites (Ronquist and Huelsenbeck 2003).
Four Markov chains were run for 2 runs from random starting trees for 8 million generations (ITS + nLSU + nSSU + mtSSU + *tef*1 + *rpb*2 + *rpb*1) and trees were sampled every 100 generations. The first 20000 generations were discarded as burn-in (25% of the trees).
A majority rule consensus tree of all remaining trees was calculated. From Han & al 2015 : Best model for the combined ITS + nLSU + nSSU + mtSSU + tef1 + rpb2 sequence dataset estimated and applied in the Bayesian analysis was: GTR + I + G with equal frequency of nucleotides. I adopted that model because my novelties are embedded in these genera and also I use these genes : (ITS + nLSU + nSSU + mtSSU + *tef*1 + *rpb*2 + *rpb*1). Exactly the same as Han & al 2015 plus *rpb*1.

My parameters for MrBayes analyses are : lset nst = 6, rates = invgamma; prset statefreqpr=Dirichlet(100,100,100,100).

Bayesian analysis with an average standard deviation of split frequencies = 0.018876(BI) higher than the standard of <0.01 but it is accepted between 0.01 and 0.05. Here I focus on my already described new genera with the stronger terminal branch.

LITERATURE CITED

A. Rambaut, FigTree v1.4.2, A Graphical Viewer of Phylogenetic Trees. Available from ⟨http://tree.bio.ed.ac.uk/software/figtree/⟩,2014.

Han, ML; Chen, YY; Shen, LL; Song, J; Vlasák, J; Dai, YC; Cui, BK. 2016. Taxonomy and phylogeny of the brown-rot fungi: *Fomitopsis* and its related genera. Fungal Diversity. 80:343-373.

Nicholas KB, Nicholas HB Jr (1997) GeneDoc: a tool for editing and annotating multiple sequence alignments. Distributed by the authors. http://www.psc.edu/ biomed/genedoc.

Ronquist F, Huelsenbeck JP (2003) MRBAYES 3: Bayesian phylogenetic inference under mixed models. Bioinformatics 19:1572–1574. doi:10.1093/bioinformatics/btg180

Ronquist, Fredrik & Teslenko, Maxim & Mark, Paul & Ayres, Daniel & Darling, Aaron & Höhna, Sebastian & Larget, Bret & Liu, Liang & Suchard, Marc & Huelsenbeck, John. (2012). MrBayes 3.2: Efficient Bayesian Phylogenetic Inference and Model Choice Across a Large Model Space. Systematic biology. 61. 539-42. 10.1093/sysbio/sys029.

Table 1 A list of species and GenBank accession numbers of sequences used in this study

Adopted names	**Denominations in the tree**	**GenBank accession numbers**						
		ITS	**nLSU**	**nSSU**	**mtSSU**	***tef1***	***rpb2***	***rpb1***
Antrodiopsis oleracea	*Antrodiopsis oleracea 1*	NR_159601	KC585119	—	—	—	—	KY948986
Antrodiopsis oleracea	*Antrodiopsis oleracea 2*	MN430923	—	—	—	—	—	—
Antrodiopsis oleracea	*Antrodiopsis oleracea 3*	KC585293	KC585117	—	—	—	—	KY948987
Antrodiopsis monomitica	*Antrodiopsis monomitica 1*	KY421733	KY421735	MG787781	MG787711	MG787869	MG787826	—
Antrodiopsis monomitica	*Antrodiopsis monomitica 2*	KY421732	KY421734	MG787780	MG787710	MG787868	—	—
Brunneoporus cyclopis		NR_154715	MG787627	MG787737	—	KU866242	MG787802	—
Brunneoporus kuzyana		KU866246	MG787629	MG787738	MG787681	KU866240	—	KY948992 (Antrodia malicola)
Brunneoporus malicola		MG787585	MG787630	MG787740	MG787683	KU866239	KT988994	—
Brunneoporus minutus		KU866250	MG787633	MG787743	MG787685	KU866235	MG787808	KY948993
Brunneoporus tuvensis		KU866259	—	—	—	KU866237	—	—
Dentiporus albidoides	*Dentiporus albidoides 1*	KC543175	—	—	—	—	—	—
Dentiporus albidoides	*Dentiporus albidoides 2*	KC543147	KC543147	—	—	—	—	—
Dentiporus aff. albidoides		KC543176	KC543176	—	—	—	—	—
Flavidoporia pulvinascens		MG787589	JQ700291	MG787746	MG787688	—	MG787811	KY948995
Flavidoporia pulverulenta		MG787588	JQ700280	MG787745	MG787687	MG787855	MG787810	—
Flavidoporia mellita		KC543140	KC595897	—	—	—	—	KY948994
Neoantrodia alaskana		KT995123	KT995146	MG787754	—	KU052719	MG787816	—
Neoantrodia angusta		MG787597	KT995150	MG787756	MG787696	KU052718	MG787818	—
Neoantrodia calcitrosa		KT995125	KT995148	MG787757	MG787697	KU052723	MG787819	KY948998 (Antrodia serialis)
Neoantrodia flavimontis		KU052740	—	MG787758	MG787698	KU052738	—	—
Neoantrodia infirma		JQ837941	JQ700294	—	—	—	—	—
Neoantrodia kmetii		NR_158298	KT995152	MG787759	—	KU052733	—	—
Neoantrodia leucaena		JQ700289	JQ700278	—	—	—	—	—
Neoantrodia morganii		KT995130	—	—	—	KU052722	—	—
Neoantrodia primaeva		MG787598	MG787645	MG787761	—	—	MG787820	—
Neoantrodia serialiformis		MG787599	KT995151	MG787762	—	KU052737	—	KY949000 (Antrodia serialis)

Neoantrodia serialis		NR_154676	KT995144	KR605912	DQ491444	KU052725	DQ491390	—
Neoantrodia serrata		KT995118	KT995138	MG787764	—	KU052728	—	—
Neoantrodia variiformis		KC585308	MG787647	MG787766	MG787701	KU052736	DQ491391	KY948997
Resinoporia cincta		MG787604	KT711029	—	MG787703	KT711071	—	—
Resinoporia crassa		KT711004	KT711030	—	—	KT711069	—	—
Resinoporia cretacea		KT711010	KT711032	MG787771	—	KT711066	—	—
Resinoporia ignobilis		NR_158321	KT711038	—	MG787705	KT711062	—	—
Resinoporia sitchensis		KT711025	KT711051	—	—	KT711065	—	—
Resinoporia sordida		KT711027	EU232289	—	—	KT711063	—	—
Resinoporia piceata		NR_158323	KT711041	MG787775	—	KT711056	—	—
Resinoporia ladiana		NR_158322	KT711040	MG787774	MG787706	nothing	MG787828	—
Resinoporia pinea		KT711019	MG787649	MG787776	MG787707	MG787871	—	—
Resinoporia ferox		KT711011	KT711035	MG787772	MG787704	KT711074	MG787827	—
Resinoporia pini-cubensis		KT711020	KT711049	—	—	KT711076	—	—
Rhizoporia hyalina	*Rhizoporia hyalina 1*	JQ700284	JQ700284	—	—	—	—	KY949008
Rhizoporia hyalina	*Rhizoporia hyalina 2*	JQ700283	JQ700283	—	—	—	—	—
Rhizoporia hyalina	*Rhizoporia hyalina 3*	—	—	—	—	—	—	KY949007
Subantrodia juniperina		KC585282	MH867551	MG787782	MG787712	MG787873	MG787831	KY948991
Subantrodia uzbekistanica		KX958183	KX958187	—	—	—	—	—
Antrodia neotropica		NR_154708	KT970453	—	MG787673	MG787848	MG787797	—
Antrodia parvula		MK343496	MK119766	—	—	—	—	—
Antrodia subserpens		NR_158313	KP715325	MG787734	MG787678	KP715340	MG787801	—
Antrodia serpens		KC543166	KY948884	MG787731	MG787674	KC543183	MG787798	KY949012
Antrodia heteromorpha		KP715304	KP715322	MG787728	AF352888	KC543181	DQ491388	KY949010
Antrodia peregrina		MK119767	MK119767	—	—	—	—	—
Antrodia latebrosa		MK119769	MK119769	—	—	—	—	—
Antrodia tanakai		KC543174	KC543142	KR605915	KR606016	KC543193	KR610835	—
Antrodia favescens		KC543128	MG787622	MG787729	MG787670	KC543182	MG787795	KY949009
Antrodia macra		KR605810	KR605749	KR605909	—	KC543185	—	—
Antrodia bambusicola		MG787580	MG787620	MG787727	MG787667	MG787846	MG787792	—
Lentoporia carbonica	*Lentoporia carbonica 1*	—	AF287844	AF026570	—	—	—	—
Lentoporia carbonica	*Lentoporia carbonica 2*	KR605816	KR605755	KR605917	KR606017	KR610745	—	—
Lentoporia carbonica	*Lentoporia carbonica 3*	KC585243	KC585065	—	—	—	—	KY949013

Adustoporia sinuosa	*Adustoporia sinuosa 1*	KC585251	KC585073	MG787717	MG787656	MG787832	—	KY949019
Adustoporia sinuosa	*Adustoporia sinuosa 2*	AY966450	AY333831	—	—	—	—	—
Adustoporia sinuosa	*Adustoporia sinuosa 3*	KC585244	KC585066	—	—	KT711075	KT895894	KY949018
Rhodonia obliqua		KX900927	KX900997	KX901145	—	—	—	—
Rhodonia tianshanensis		MF462023	MG210493	—	—	—	MG199963	—
Rhodonia placenta		KF699129	KC585222	—	—	KT893748	KT893746	KY949028
Rhodonia rancida		KX900928	KX900998	KX901148	KX901072	KX901279	KX901241	—
Rhodonia subplacenta		KX900930	KX901000	KX901150	KX901074	—	—	—
Amyloporia xantha		NR_164224	NG_057023	MG787724	DQ491451	MG787844	MG787789	KY949016
Amyloporia subxantha		MG787576	MG787614	MG787721	MG787663	MG787841	KT895896	—
Amyloporia alpina		EU232207	EU232282	—	—	—	—	—
Cartilosoma ramentacea		KC951178	MG787640	MG787752	MG787694	MG787861	MG787814	KY949002
Cartilosoma rene-hentic		KM068101	—	—	—	—	—	—
Anthoporia albobrunnea		EU232215	EU232299	—	—	—	—	KY949020
Fibroporia vaillantii		KX449478	MH870383	AJ488583	—	—	—	KY949035
Fibroporia radiculosa		EU232201	EU232292	KR605923	KU550519	KU550572	KT895899	KY949034
Fibroporia gossypium		KF725876	KU550495	KU550534	KU550516	KU550567	KT895902	KY949029
Fibroporia citrina		KU550473	KT988993	KU550533	KU550512	KU550568	KU550551	—
Fibroporia albicans		NR_153980	KR605758	NG_065068	KU550505	KU550557	KU550542	—
Fibroporia ceracea		—	NG_060425	NG_065077	KU550510	KU550563	KU550547	—
Fibroporia pseudorennyi		KC595928	KC595928	—	—	—	—	KY949031
Fibroporia norrlandica		KP814248	KC595907	—	—	—	—	—
Fibroporia bambusae		KU550479	KU550486	KU550528	KU550507	KU550561	KU550544	—
Fibroporia bohemica		HM590887	KF112876	KU550529	KU550509	KU550562	KT895900	—
Pseudofibroporia citrinella		KU550478	KU550501	NG_061226	KU550521	KU550574	KU550556	—
Taiwanofungus camphoratus		MK764938	AY333841	—	—	—	—	—
Taiwanofungus salmoneus		EU232202	EU232278	—	—	—	—	—
Gilbertsonia angulopora		KC585354	KC585182	—	—	—	—	—
Ryvardenia campyla		MH409988	JX090141	—	—	—	—	—
Ryvardenia cretacea		—	JX090139	—	—	—	—	—
Laricifomes officinalis		KU535650	KC585184	KR605930	—	KR610757	KR610847	—
Daedalea pseudodochmia		FJ403210	—	—	—	—	—	—
Daedalea quercina		KR605792	KR605731	KR605885	DQ491452	KR610718	KR610808	KY948989
Daedalea radiata		KR605793	KP171233	KR605888	KR605991	KR610720	KR610811	—

Daedalea modesta		KR605791	KR605730	KR605882	KR605985	KR610715	KR610805	—
Rhodofomitopsis roseomagna		KX423689	—	—	—	—	—	—
Rhodofomitopsis lilacinogilva		KR605773	KR605712	KR605846	KR605951	KR610680	KR610774	—
Rhodofomitopsis feei	*Rhodofomitopsis feei 1*	KF999924	KF999928	KR605839	KR605945	KR610672	KR610769	—
Rhodofomitopsis feei	*Rhodofomitopsis feei 2*	KC844851	KC844856	KR605837	KR605943	KR610671	KR610767	—
Rhodofomitopsis feei	*Rhodofomitopsis feei 3*	KC844850	KC844855	KR605838	KR605944	KR610670	KR610768	—
Rhodofomitopsis sp.	*Rhodofomitopsis sp1*	MK461953	MK461957	MK461965	MK461961	MK463987	—	—
Rhodofomitopsis sp.	*Rhodofomitopsis sp2*	MK461952	MK461956	MK461964	MK461960	MK463986	MK463984	—
Rhodofomitopsis cupreorosea		DQ491400	AY515325	—	DQ491427	—	DQ491373	—
Rhodofomitopsis africana		DQ491422	—	—	DQ491449	—	DQ491395	—
Rhodofomes rosea		KC507162	KC507172	KR605859	KR605963	KR610692	KR610783	KY949003
Rhodofomes subfeei		KR605789	KR605728	KR605869	KR605972	KR610701	KR610793	—
Rhodofomes incarnata		KC844848	KC844853	KR605844	KR605949	KR610679	KR610773	—
Niveoporofomes spraguei		KR605784	KR605724	KR605862	KR605966	KR610696	KR610786	—
Rubellofomes cystidiata	*Rubellofomes cystidiata 1*	KF937288	KF937291	KR605832	KR605938	KR610667	KR610765	—
Rubellofomes cystidiata	*Rubellofomes cystidiata 2*	KR605769	KR605708	KR605833	KR605939	KR610668	—	—
Ungulidaedalea fragilis		KF937286	KF937290	KR605840	KR605946	KR610674	KR610770	—
Fomitopsis hemitephra		KR605770	KR605709	KR605841	KR605947	KR610675	—	—
Fomitopsis palustris		KP171213	KP171236	KR605854	KR605958	KR610687	KR610778	—
Fomitopsis cana		JX435777	JX435775	KR605826	KR605934	KR610661	KR610761	—
Fomitopsis pinicola		KR605781	KR605720	KR605856	KR605960	KR610689	KR610780	AY864874
Fragifomes niveomarginata		—	KR605717	KR605851	KR605955	KR610684	KR610776	—
Buglossoporus quercinus		KR605800	KR605739	KR605898	KR606001	KR610729	KR610819	—
Buglossoporus eucalypticola		KR605808	KR605748	KR605907	KR606008	KR610737	KR610826	—
Neolentiporus maculatissimus		—	AF518632	AF334921	AF334884	—	—	—
Piptoporellus soloniensis		KR605802	KR605741	KR605900	KR606003	KR610732	KR610821	—
Piptoporellus hainanensis		KR605806	KR605745	KR605904	KR606005	KR610735	KR610824	—

Piptoporellus triqueter		KR605807	KR605746	KR605905	KR606006	KR610738	KR610827	—
Melanoporia nigra		KC585356	KC585186	AF082674	DQ491447	—	DQ491393	—
Melanoporia castanea		KC595926	—	—	—	—	—	—
Melanoporia condensa		KT156692	—	—	—	—	—	—
Coriolopsis polyzona (outgroup)		KR605824	KR605767	KR605932	KR606029	KR610760	KR610849	KX880836