

Table S1. Specimens used in the phylogenetic analysis.

Species	Specimen No.	GenBank No.		
		ITS	LSU	RPB1
<i>Astrothelium aenascens</i>	HRK93	LC127385	LC127403	LC128036
<i>A. aenascens</i>	HRK98	LC127386	LC127404	LC128037
<i>A. aeneum</i>	MPN302		KX215606	
<i>A. cinereorosellum</i>	MPN199C		KX215610	
<i>A. cinnamomeum</i>	DUKE	DQ782839	AY584652	DQ782824
<i>A. confusum</i>			GU327710	
<i>A. crassum</i>	MPN335		KM453761	
<i>A. croceum</i>	MPN55		KX215611	
<i>A. degenerans</i>	MPN266		KX215613	
<i>A. degenerans</i>	F16657		KX215612	
<i>A. eustomum</i>	MPN258		KM453762	
<i>A. flavocoronatum</i>	KY859	LC127381	LC127398	LC128030
<i>A. flavocoronatum</i>	TSL63	AB758900	LC127397	LC128031
<i>A. floridanum</i>	MPN216		KX215618	
<i>A. floridanum</i>	MPN214		KX215617	
<i>A. galbineum</i>	MPN260		KM453763	
<i>A. grossum</i>	MPN751		KX215623	
<i>A. grossum</i>	MPN657		KX215622	
<i>A. grossum</i>	MPN264		KX215621	
<i>A. grossum</i>	MPN263		KX215620	
<i>A. grossum</i>	MPN262		KX215619	
<i>A. jiangxiense</i> sp. nov.	LCUF JX19042	OP289105	OP289121	OP313732
<i>A. jiangxiense</i> sp. nov.	LCUF JX19053	OP289106	OP289122	OP313733
<i>A. kunzei</i>	MPN203B		KX215625	
<i>A. kunzei</i>	MPN201B		KX215624	
<i>A. leucoconicum</i>	MPN42		KM453764	
<i>A. leucosessile</i>	MPN58C		KX215627	
<i>A. leucosessile</i>	MPN265		KX215626	
<i>A. luminothallinum</i> sp. nov.	GZ18347	OP289110	OP289123	--
<i>A. luminothallinum</i> sp. nov.	HMAS-L 0154761	OP289109	--	--
<i>A. macrocarpum</i>	MPN57C		KX215631	
<i>A. macrocarpum</i>	MPN339		KX215630	
<i>A. macrocarpum</i>	MPN261		KX215629	
<i>A. macrocarpum</i>	MPN131		KX215628	
<i>A. macrocarpum</i>	NSR6	AB759880	LC127402	LC128033
<i>A. macrocarpum</i>	UBN37	LC127384	LC127400	LC128032
<i>A. macrocarpum</i>	UBN43	LC127383	LC127399	LC128034
<i>A. macrocarpum</i>	UBN113	LC127382	LC127401	LC128035
<i>A. macrostiolatum</i>	PHL84	LC127389	LC127407	LC128040
<i>A. megaspermum</i>	MPN234		KX215633	
<i>A. megaspermum</i>	MPN138		KX215632	
<i>A. meristosporum</i>	MPN198		KX215634	
<i>A. neogalbineum</i>	MPN51		KX215635	
<i>A. neoinspersum</i>	MPN61C		KX215636	
<i>A. neglectum</i>	TAK8	LC127392	LC127410	LC128043
<i>A. neglectum</i>	TAK12	LC127393	LC127411	LC128044
<i>A. neglectum</i>	TAK17	LC127394	LC127412	LC128045
<i>A. neovariolosum</i>	KY777	LC127390	LC127408	LC128041
<i>A. neovariolosum</i>	KY848	LC127391	LC127409	LC128042
<i>A. nicaraguense</i>	MPN213		KX215639	
<i>A. nicaraguense</i>	MPN211		KX215638	
<i>A. nicaraguense</i>	MPN205		KX215637	
<i>A. nitidiusculum</i>	MPN768		KX215640	
<i>A. aff. norisianum</i>	MPN23B		KX215607	
<i>A. aff. obscurum</i>	MPN194		KX215608	

<i>A. obiectum</i>	MPN422		KM453767	
<i>A. phlyctaena</i>	MPN386		KX215644	
<i>A. phlyctaena</i>	MPN381		KX215643	
<i>A. phlyctaena</i>	MPN376		KX215642	
<i>A. phlyctaena</i>	MPN373		KX215641	
<i>A. pseudocrassum</i> sp. nov.	LCUF GD19061	OP289108	OP289125	OP313735
<i>A. pseudocrassum</i> sp. nov.	HMAS-L 0154762	OP289107	OP289124	OP313734
<i>A. robustum</i>	MPN223		KX215649	
<i>A. robustum</i>	MPN222		KX215648	
<i>A. robustum</i>	MPN221		KX215647	
<i>A. robustum</i>	MPN212		KX215646	
<i>A. robustum</i>	MPN209		KX215645	
<i>A. cf. robustum</i>	MPN754		KM453760	
<i>A. rufescens</i>	MPN346		KX215652	
<i>A. rufescens</i>	MPN345		KX215651	
<i>A. rufescens</i>	MPN143		KX215650	
<i>A. siamense</i>	KRB105	LC127387	LC127405	LC128038
<i>A. siamense</i>	KRB139	LC127388	LC127406	LC128039
<i>A. sanguinarium</i>	MPN767		KX215654	
<i>A. sanguinarium</i>	MPN766		KX215653	
<i>A. aff. scorioides</i>	MPN703		KM453765	
<i>A. scoria</i>	MPN310		KX215655	
<i>A. scorioides</i>	MPN770		KM453766	
<i>A. aff. sepultum</i>	MPN229		KX215609	
<i>A. sp.</i>	MPN96		KX215614	
<i>A. sp.</i>	MPN390		KX215658	
<i>A. sp.</i>	MPN162		KX215657	
<i>A. sp.</i>	MPN133		KX215656	
<i>A. subendochryseum</i>	MPN202B		KX215659	
<i>A. subinterjectum</i>	MPN157		KX215660	
<i>A. subeustominspersum</i> sp. nov.	HMAS-L 0152000	OP289118	OP289126	OP313736
<i>A. subeustominspersum</i> sp. nov.	HMAS-L 0152001	OP289119	OP289127	OP313737
<i>A. subeustominspersum</i> sp. nov.	HMAS-L 0152002	OP289120	OP289128	OP313738
<i>A. subrufescens</i> sp. nov.	GD19065	OP289111	--	--
<i>A. subrufescens</i> sp. nov.	GD19067	OP289112	OP289129	--
<i>A. subrufescens</i> sp. nov.	GD19086	OP289113	OP289130	--
<i>A. subrufescens</i> sp. nov.	GD19094	OP289114	--	--
<i>A. subrufescens</i> sp. nov.	HMAS-L 0152007	OP289115	--	--
<i>A. subrufescens</i> sp. nov.	HMAS-L 0152041	OP289116	--	--
<i>A. subrufescens</i> sp. nov.	HMAS-L 0152042	OP289117	--	--
<i>A. subscoria</i>	MPN325		KX215661	
<i>A. variolosum</i>	MPN41		KX215662	
<i>A. variolosum</i>	MPN43		KM453768	
<i>A. versicolor</i>	MPN259		KM453769	
<i>Bathelium madreporiforme</i>	NAN95	LC127396	LC127414	LC128047
<i>B. madreporiforme</i>	UBN147	LC127395	LC127413	LC128046

¹ The new sequences generated in this study were in bold.