

Flora of Lichenicolous Fungi

Volume 2 · Hyphomycetes

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SUPPLEMENTARY MATERIAL

National Museum of Natural History

Luxembourg · 2024

Methods

For each phylogenetic tree presented in the volume, a Maximum Likelihood (ML) analysis was performed on the dataset using RAxML v.8.2.12 (Stamatakis 2014) on the CIPRES Web Portal (Miller et al. 2010) with 1000 ML bootstrap iterations (ML-BS) and the GTRGAMMA model. Multilocus datasets were divided into partitions corresponding to the loci. Internodes with ML-BS ≥ 70 were considered to be significant and their branches represented in bold-face. Phylogenetic trees were visualized using FigTree v.1.4.2 (Rambaut 2012).

References

- Miller, M. A., W. Pfeiffer & T. Schwartz. 2010. Creating the CIPRES Science Gateway for inference of large phylogenetic trees. In: Proceedings of the Gateway Computing Environments Workshop (GCE), 14 November 2010, New Orleans, pp. 1–8.
- Rambaut, A. 2012. FigTree v1.4.2. Available from: <http://tree.bio.ed.ac.uk/software/figtree/>
- Stamatakis, A. 2014. RAxML version 8: a tool for phylogenetic analysis and post-analysis of large phylogenies. *Bioinformatics* 30: 1312–1313.

Acremonium

by P. Diederich, D. Ertz, W. von Brackel, P. Pinault, J. Boers, J. D. Lawrey & D. Hawksworth

Supplementary document S1. Species, GenBank accession numbers (nuLSU) and specimen information (only for lichenicolous taxa and for *Trichothecium roseum*) of fungi used in the phylogenetic analysis of the *Hypocreales* (page 42). Newly produced sequences in bold font.

Species	nuLSU	Country	Host	Specimen
<i>Acremonium acutatum</i>	NG056976			
<i>Acremonium alternatum</i>	NG056977			
<i>Acremonium brachypenium</i>	HQ232004			
<i>Acremonium egyptiacum</i>	NG057139			
<i>Acremonium psychrophilum</i>	OQ055395	Antarctica	<i>Mastodia tessellata</i>	ex-holotype (CBS 732.92)
<i>Acremonium 'psychrophilum'</i>	OP883935	Antarctica	<i>Mastodia tessellata</i>	Etayo 31294
<i>Bionectria grammicospora</i>	AF193238			
<i>Blastophorum aquaticum</i>	NG066172			
<i>Bryocentria metzgeriae</i>	EU940106			
<i>Bulbithecium arxii</i>	NG057892			
<i>Bulbithecium hyalosporum</i>	AF096187			
<i>Calonectria cylindrospora</i>	U17409			
<i>Cosmospora coccinea</i>	AY489734			
<i>Cyanonectria cyanostoma</i>	FJ474081			
<i>Cylindromonium alloxyl</i>	NG074482			
<i>Cylindromonium dirinariae</i>	LC731274	Japan	<i>Dirinaria applanata</i>	ex-holotype (TNS-L-131533)
<i>Cylindromonium eugeniicola</i>	NG068337			
<i>Cylindromonium everniae</i>	NG081339	Netherlands	<i>Evernia prunastri</i>	ex-holotype (CBS 148255)
<i>Cylindromonium lichenicola</i> 1	MH871429	Germany	not lichenicolous	culture from Gams 1119 (CBS 303.70)
<i>Cylindromonium lichenicola</i> 2	LC744399	Germany	corticulous lichens	culture (CBS 188.70)
<i>Cylindromonium lichenophilum</i>	OR717026	South Africa	<i>Parmelina tiliacea</i>	ex-holotype (CBS 150063)
<i>Emericellopsis glabra</i>	GQ505993			
<i>Emericellopsis maritima</i>	FJ176861			
<i>Geosmithia lavendula</i>	KT155289			
<i>Geosmithia putterillii</i>	KT155185			
<i>Gliocephalotrichum bulbilium</i>	U17412			
<i>Gliomastix roseogrisea</i>	HQ232122			
<i>Globonectria cochensis</i> 1	MT153976	Bolivia	<i>Lobariella crenulata</i>	Flakus 26012 (KRAM)
<i>Globonectria cochensis</i> 2	MT153978	Bolivia	<i>Lobariella crenulata</i>	Etayo IX-9 (LPU)
<i>Hapsidospora flava</i>	HQ232037			
<i>Hapsidospora globosa</i>	AF096195			
<i>Hapsidospora inversa</i>	NG059437			
<i>Hydropisphaera aurantiaca</i>	U17429			
<i>Hydropisphaera peziza</i>	AY489730			

Supplementary document S1. (Continued)

Species	nuLSU	Country	Host	Specimen
<i>Illosporium carneum</i>	PP738021	Switzerland	<i>Peltigera didactyla</i>	Diederich 17317 (BR)
<i>Kylindria chinensis</i>	NG073619			
<i>Lasionectria lecanodes</i>	KP899119	unknown	unknown	Lechat, culture CLL14062
<i>Lasionectria mantuana</i>	GQ505994			
<i>Lasionectriella rubioi</i>	KU593581			
<i>Microcera larvarum</i>	NG081285			
<i>Microcera physciae</i>	NG081335	Netherlands	<i>Physcia tenella</i>	ex-holotype (CBS 148283)
<i>Nectria aurantiaca</i>	HM534892			
<i>Nectria cinnabarina</i>	HM534894			
<i>Nectriopsis rexiana</i>	GQ505986			
<i>Nectriopsis violacea</i>	AF193242			
<i>Ochronectria calami</i>	AF193243			
<i>Paracosmospora physciae</i>	NG149077			
<i>Persiciospora africana</i>	AY015631			
<i>Pronectria</i> cf. <i>echinulata</i>	PP795295	Spain, Mallorca	<i>Dirina ceratoniae</i>	Diederich 16919 (BR)
<i>Pronectria loweniae</i>	OR133232	France	<i>Solorina saccata</i>	Rodriguez-Flakus 4000 (KRAM)
<i>Pronectria robergei</i> 1	PP738024	Luxembourg	<i>Peltigera rufescens</i>	Ertz 17633 (BR)
<i>Pronectria robergei</i> 2	MH876199	Luxembourg	<i>Peltigera rufescens</i>	Diederich 16884 (BR)
<i>Protocreopsis pertusa</i>	GQ506002			
<i>Pseudocosmospora vilior</i>	AY015626			
<i>Pseudonectria rousseliana</i>	U17416			
<i>Reticulascus tulasneorum</i>	AF178547			
<i>Roselliniella atlantica</i>	GQ888763	UK, Scotland	<i>Melanohalea exasperata</i>	Coppins 15370 (E)
<i>Roselliniella euparmeliicola</i>	GQ888764	China	<i>Parmelia meiophora</i>	holotype (BM)
<i>Roumegueriella rufula</i>	EF469082			
<i>Sarcopodium macalpinei</i>	DQ119566			
<i>Sarocladium bactrocephalum</i>	HQ231994			
<i>Sarocladium kiliense</i>	HQ232052			
<i>Sarocladium strictum</i>	HQ232141			
<i>Scolecofusarium ciliatum</i>	ON763202			
<i>Selinia pulchra</i>	AF193246			
<i>Stephanonectria keithii</i>	AY489727			
<i>Stilbocrea macrostoma</i>	AY489725			
<i>Stilbocrea walteri</i>	MH562717			
<i>Thyronectria berlinensis</i>	HM534893			
<i>Thyronectria coryli</i>	HM534895			
<i>Trichonectria anisospora</i>	OR510609	Poland	<i>Hypogymnia physodes</i>	Darmostuk (KRAM L-74391)
<i>Trichonectria epimegalosporae</i>	OR514879	Bolivia	<i>Megalospora sulphurata</i>	holotype (KRAM)
<i>Trichonectria pertusariae</i>	OR510603	Bolivia	<i>Pertusaria</i> sp.	Flakus (KRAM L-74380)
<i>Trichonectria puncteliae</i>	OR514878	Bolivia	<i>Punctelia borreri</i>	holotype (KRAM)

Supplementary document S1. (Continued)

Species	nuLSU	Country	Host	Specimen
<i>Trichonectria pyrenaica</i>	OR510611	Portugal	<i>Usnea</i> sp.	Sira (KRAM L-74393)
<i>Trichonectria rectipila</i>	MH873746			
<i>Trichonectria rubefaciens</i> 1	HQ232120	Austria	<i>Cladonia</i> sp.	ex-type of <i>Acremonium rhabdosporum</i> (CBS 438.66)
<i>Trichonectria rubefaciens</i> 2	OR510601	Spain	<i>Parmelina tiliacea</i>	Etayo 29085
<i>Trichonectria setadpressa</i> 1	MT154012	Bolivia	<i>Lobariella crenulata</i>	Flakus 28886 (KRAM)
<i>Trichonectria setadpressa</i> 2	MT154014	Bolivia	<i>Lobariella pallida</i>	Flakus 29612-2 (KRAM)
<i>Trichonectria usneicola</i>	OR510604	Bolivia	<i>Usnea</i> sp.	Flakus (KRAM L-74383)
<i>Trichothecium roseum</i> 1	MH866481	Netherlands	unknown	culture (CBS 281.28)
<i>Trichothecium roseum</i> 2	MT613711	China	not lichenicolous	culture
<i>Verrucostoma freycinetiae</i>	GQ506013			
<i>Xenoacremonium recifei</i>	HQ232106			
<i>Waltergamsia fusidioides</i>	NG056984			
<i>Waltergamsia hennebertii</i>	NG056987			

Cladophialophora

by P. Diederich, D. Ertz, J. Boers & P. Pinault

Supplementary document S2. Species, GenBank accession numbers (ITS) and specimen information (only for lichenicolous taxa) of fungi used in the phylogenetic analysis of the *Chaetothyriales* (page 119). Newly produced sequences in bold font.

Species	ITS	Country	Host	Specimen
<i>Capronia acutiseta</i>	AF050241			
<i>Capronia austrocedri</i>	MH809169			
<i>Capronia camelliae-yunnanensis</i>	MH807377			
<i>Capronia capucina</i>	MH809170			
<i>Capronia coronata</i>	JF747040			
<i>Capronia dactylotricha</i>	AF050243			
<i>Capronia epimyces</i>	AY156968			
<i>Capronia fungicola</i>	AF050246			
<i>Capronia kleinmondensis</i>	KF916004			
<i>Capronia leucadendri</i>	MH863227			
<i>Capronia lijiangensis</i>	OK487581			
<i>Capronia mansonii</i>	AF050247			
<i>Capronia munkii</i>	AF050250			
<i>Capronia nigerrima</i>	AF050251			
<i>Capronia parasitica</i>	AF050253			
<i>Capronia pilosella</i>	DQ826737			
<i>Capronia pulcherrima</i>	AF050256			
<i>Capronia rubiginosa</i>	MH809171			
<i>Capronia semiimmersa</i>	AJ853749			
<i>Capronia villosa</i>	AF050261			
<i>Cladophialophora abundans</i>	KC776601			
<i>Cladophialophora aquatica</i>	MH844808			
<i>Cladophialophora arxii</i>	EU103986			
<i>Cladophialophora australiensis</i>	EU137331			
<i>Cladophialophora bantiana</i>	KP131826			
<i>Cladophialophora behniae</i>	MZ064414			
<i>Cladophialophora boppii</i>	KP131828			
<i>Cladophialophora bromeliacearum</i>	MW794272			
<i>Cladophialophora cabanerensis</i>	MN310213			
<i>Cladophialophora carrionii</i>	EU137309			
<i>Cladophialophora chaetospora</i> 1	EU137333			
<i>Cladophialophora chaetospora</i> 2	MH859813			
<i>Cladophialophora denigrans</i> 1	PP790294	Netherlands	<i>Diploicia canescens</i>	culture from Boers 4 (BR)
<i>Cladophialophora denigrans</i> 2	PP790295	Netherlands	<i>Diploicia canescens</i>	Boers 4 (BR)

Supplementary document S2. (Continued)

Species	ITS	Country	Host	Specimen
<i>Cladophialophora denigrans</i> 3	PP790296	Netherlands	<i>Cliostomum griffithii</i>	Boers 6 (BR)
<i>Cladophialophora devriesii</i>	EU103985			
<i>Cladophialophora emmonsii</i>	AY857518			
<i>Cladophialophora endolichena</i> 1	OQ921032			
<i>Cladophialophora endolichena</i> 2	OQ921041			
<i>Cladophialophora endolichena</i> 3	OQ921028			
<i>Cladophialophora eucalypti</i>	MK876380			
<i>Cladophialophora exuberans</i>	KY680429			
<i>Cladophialophora flavoparmeliae</i>	OP828646			
<i>Cladophialophora guttulata</i>	OP828644			
<i>Cladophialophora haematommatis</i>	PP790297	Netherlands	<i>Haematomma ochroleucum</i>	holotype (BR)
<i>Cladophialophora heterodermiae</i> 1	OP828649			
<i>Cladophialophora heterodermiae</i> 2	OP828650			
<i>Cladophialophora holosericea</i> 1	OP828643			
<i>Cladophialophora holosericea</i> 2	OP828645			
<i>Cladophialophora hostae</i>	KX822478			
<i>Cladophialophora humicola</i>	EU035408			
<i>Cladophialophora immunda</i>	EU137318			
<i>Cladophialophora lichenis</i> 1	OP828651			
<i>Cladophialophora lichenis</i> 2	OP828652			
<i>Cladophialophora minourae</i> 1	EU103988			
<i>Cladophialophora minourae</i> 2	AY251087			
<i>Cladophialophora minutissima</i>	EF016381			
<i>Cladophialophora modesta</i>	GU225939			
<i>Cladophialophora mongoliae</i>	OP828648			
<i>Cladophialophora moniliformis</i>	OP828642			
<i>Cladophialophora mycetomatis</i>	KY680417			
<i>Cladophialophora nyingchiensis</i>	MG012699			
<i>Cladophialophora olivacea</i>	OP828647			
<i>Cladophialophora parmeliae</i>	JQ342180.2	Azores	<i>Hypotrachyna imbricatula</i>	Diederich 17055 (BR)
<i>Cladophialophora</i> aff. <i>parmeliae</i>	MT586970			
<i>Cladophialophora potulentorum</i>	EU137325			
<i>Cladophialophora psammophila</i>	AY857517			
<i>Cladophialophora pucciniophila</i>	JF263533			
<i>Cladophialophora rupestricola</i>	OP903465			
<i>Cladophialophora samoensis</i>	EU137291			
<i>Cladophialophora saturnica</i>	EU103983			
<i>Cladophialophora scillae</i>	EU137329			
<i>Cladophialophora sribuabanensis</i>	OQ991178			
<i>Cladophialophora subtilis</i>	FJ385273			

Supplementary document S2. (Continued)

Species	ITS	Country	Host	Specimen
<i>Cladophialophora sylvestris</i>	EU035413			
<i>Cladophialophora tengchongensis</i> 1	MG012702			
<i>Cladophialophora tengchongensis</i> 2	MG012703			
<i>Cladophialophora thailandensis</i>	OP903468			
<i>Cladophialophora yegresii</i>	EU137322			
<i>Cladophialophora yunnanensis</i> 1	OP828638			
<i>Cladophialophora yunnanensis</i> 2	OP828641			
<i>Cladophialophora</i> L359	FJ265750			
<i>Exophiala dermatitidis</i>	NR_121268			
<i>Exophiala jeanselmei</i>	NR_111129			
<i>Exophiala nigra</i>	NR_154974			
<i>Exophiala pisciphila</i>	NR_121269			
<i>Exophiala salmonis</i>	NR_121270			
<i>Fonsecaea monophora</i>	EU938579			
<i>Fonsecaea pedrosoi</i>	EU938587			
<i>Knufia peltigerae</i>	HQ709322	Luxembourg	<i>Peltigera rufescens</i>	Diederich 16353 (BR)
<i>Neophaeococomyces catenatus</i>	JN040512			
<i>Paracladophialophora lichenicola</i> 1	OQ921013			
<i>Paracladophialophora lichenicola</i> 2	OQ921016			
<i>Pseudocladosporium proteae</i>	EU035411			
rock isolate TRN508	AY843187			

Cladosporium

by P. Diederich, D. Ertz & U. Braun

Supplementary document S3. Species, GenBank accession numbers (nuLSU) and specimen information (only for lichenicolous taxa and for *Cladosporium macrocarpum*) of fungi used in the phylogenetic analysis of the *Dothideomycetes* (page 138).

Species	nuLSU	Country	Host	Specimen
<i>Acrodontium crateriforme</i>	MF613959			
<i>Antennariella placitae</i>	GQ303299			
<i>Apenidiella strumelloidea</i>	EU019277			
<i>Araucasphaeria foliorum</i>	MH327829			
<i>Austroafricana associata</i>	KF901824			
<i>Austroafricana parva</i>	EU707875			
<i>Austrostigmidium mastodiae</i>	KP282862	Chile	<i>Mastodia tessellata</i>	Perez-Ortega (MA 18213)
<i>Batcheloromyces proteae</i>	EU019247			
<i>Brunneosphaerella protearum</i>	GU214397			
<i>Camarosporula persooniae</i>	JF770461			
<i>Capnodium coartatum</i>	JN832614			
<i>Capnodium coffeae</i>	DQ247800			
<i>Catenulostroma hermanusense</i>	MH876536			
<i>Catenulostroma protearum</i>	GU214401			
<i>Chaetocapnodium siamensis</i>	KP744479			
<i>Cladosporium antarcticum</i>	OR670016	unknown	unknown	‘isolate HH3’
<i>Cladosporium cladosporioides</i>	KX375779			
<i>Cladosporium herbarum</i>	NG069890			
<i>Cladosporium iridis</i> (= <i>Davidiella macrospora</i>)	DQ008148			
<i>Cladosporium licheniphilum</i>	NG069947	Germany	<i>Phaeophyscia orbicularis</i> and <i>Physcia</i> sp.	ex-epitype (CBS 125990)
<i>Cladosporium macrocarpum</i>	NG069891	USA	not lichenicolous	ex-neotype (CBS 121623)
<i>Constantinomyces virgultus</i>	NG070827			
<i>Cystocoleus ebeneus</i>	EU048578			
<i>Davidiellomyces australiensis</i>	NG059164			
<i>Dissoconium aciculare</i>	GU214419			
<i>Dothidea insculpta</i>	DQ247802			
<i>Elasticomyces elasticus</i>	GU250375			
<i>Friedmanniomyces endolithicus</i>	GU250367			
<i>Friedmanniomyces simplex</i>	GU250368			
<i>Haniomyces dodonaeae</i>	MW264191			
<i>Hortaea werneckii</i>	GU301818			
<i>Hyweljonesia indica</i>	MF322775			
<i>Lapidomyces hispanicus</i>	KF310016			
<i>Lawreya glyphidiphila</i> 1	MK693147	USA, Florida	<i>Glyphis scyphulifera</i>	Common 9506N (BR)

Supplementary document S3. (Continued)

Species	nuLSU	Country	Host	Specimen
<i>Lawreya glyphidiphila</i> 2	MK693148	USA, Florida	<i>Glyphis scyphulifera</i>	Common 10000B (BR)
<i>Leptoxyphium cacuminum</i>	JN832602			
<i>Microxyphium citri</i>	GU301848			
<i>Monticola elongata</i>	GU250398			
<i>Mycosphaerella punctiformis</i>	DQ470968			
<i>Myrtapendiella eucalypti</i>	MH874813			
<i>Neocatenulostroma abietis</i>	DQ678092			
<i>Neocatenulostroma microsporum</i>	EU019255			
<i>Neocladosporium leucadendri</i>	NG057949			
<i>Neocladosporium osteospermi</i>	NG074494			
<i>Neocladosporium syringae</i>	NG074421			
<i>Neodevriesia agapanthi</i>	JX069859			
<i>Neodevriesia cycadicola</i>	MK876438			
<i>Neodevriesia strelitziae</i>	EU436763			
<i>Neophaeothecoidea proteae</i>	NG058072			
<i>Nothodevriesia narthecii</i>	ON603799			
<i>Pallidocercospora acaciigena</i>	GQ852599			
<i>Parapendiella pseudotasmaniensis</i>	GU214452			
<i>Pendiella columbiana</i>	EU019274			
<i>Phaeothecoidea eucalypti</i>	EU019280			
<i>Phragmocapnias philippinensis</i>	KP744503			
<i>Polychaeton citri</i>	GU214469			
<i>Pseudocercospora robusta</i>	DQ204767			
<i>Pseudoteratosphaeria secundaria</i>	EU019306			
<i>Rachicladosporium corymbiae</i>	MK047503			
<i>Rachicladosporium mcmurdoi</i>	GU323978			
<i>Rachicladosporium pini</i>	JF951165			
<i>Rapidomyces narthecii</i>	ON811589			
<i>Rasutoria pseudotsugae</i>	EF114704			
<i>Readeriella novaezelandiae</i>	DQ246239			
<i>Recurvomyces mirabilis</i>	GU250372			
<i>Salinomyces thailandica</i>	MH875167			
<i>Schizothyrium pomi</i>	EF134947			
<i>Septoria senecionis</i>	GQ852678			
<i>Stenella araguata</i>	EU019250			
<i>Suberoteratosphaeria suberosa</i>	GU214512			
<i>Suberoteratosphaeria xenosuberosa</i>	MH877563			
<i>Teratoramularia kirschneriana</i>	GQ852627			
<i>Teratosphaeria destructans</i>	GU214702			
<i>Teratosphaeria hortaea</i>	FJ790299			

Supplementary document S3. (Continued)

Species	nuLSU	Country	Host	Specimen
<i>Teratosphaeria juvenalis</i>	FJ493217			
<i>Teratosphaeria nubilosa</i>	NG057854			
<i>Teratosphaeria stellenboschiana</i>	EU019295			
<i>Toxicocladosporium cacti</i>	NG069452			
<i>Toxicocladosporium chlamydosporum</i>	FJ790301			
<i>Toxicocladosporium immaculatum</i>	NG058459			
<i>Trimmatostroma salinum</i>	NG064176			
<i>Uwebraunia communis</i>	EU019267			
<i>Verrucocladosporium carpobroti</i>	NG074493			
<i>Verrucocladosporium dirinae</i>	KP671739	UK, England	<i>Dirina massiliensis</i>	ex-holotype (CBS 112794)
<i>Verrucocladosporium visseri</i>	NG068322			
<i>Xanthoriicola physciae</i> 1	JN040491	UK, England	<i>Xanthoria parietina</i>	Hawksworth (MAF-LICH 16886)
<i>Xanthoriicola physciae</i> 2	KF176965	Luxembourg	<i>Xanthoria parietina</i>	Diederich 16713 (BR)
<i>Xenomeris juniperi</i>	EF114709			
<i>Xenophacidiella pseudocatenata</i>	NG057908			

Epithamnolia

by A. Suija, P. Diederich, V. Darmostuk, J. Etayo, A. Flakus & E. Zimmermann

Supplementary document S4. Species, GenBank accession numbers (ITS and nuLSU) and specimen information (only for lichenicolous taxa) of fungi used in the phylogenetic analyses of the *Leotiales* and *Mniaeciaceae* (page 179). Newly produced sequences in bold font.

Species	ITS	nuLSU	Country	Host	Specimen
<i>Alatospora acuminata</i>		MH873811			
<i>Aotearomyces nothofagi</i>		MG807387			
<i>Aotearomyces nothofagi</i>		MG807388			
<i>Claussenomyces atrovirens</i>		LC429384			
<i>Claussenomyces prasinulus</i>		MN082657			
<i>Collophorina africa</i>		MK314582			
<i>Collophorina rubra</i>		GQ154607			
<i>Epithamnolia brevicladoniae</i>	KY814531	KY814512	Austria	<i>Cladonia squamosa</i>	Berger 28669
<i>Epithamnolia karatyginii</i>	PP213517	PQ063827	Switzerland	<i>Thamnolia vermicularis</i>	Zimmermann 4711
<i>Epithamnolia khersonica</i>	PP213516	PP192019	Ukraine	<i>Cladonia foliacea</i>	holotype (KHER 11639)
<i>Epithamnolia rangiferinae</i>	KY814537	KY814516	Switzerland	<i>Cladonia rangiferina</i>	holotype (G)
<i>Epithamnolia xanthoriae</i> 1	KY814532	KY814513	Netherlands	<i>Candelaria concolor</i>	van den Boom 50227
<i>Epithamnolia xanthoriae</i> 2	PP213515	PP192017	France	<i>Lecanora chlarotera</i>	Brackel 7733
<i>Epithamnolia xanthoriae</i> 3	KY814526	KY814508	Iceland	<i>Lecanora symmicta</i>	Diederich 17562 (BR)
<i>Epithamnolia xanthoriae</i> 4	PP213513	PP192018	Germany	<i>Phaeophyscia orbicularis</i>	Cezanne-Eichler 10925
<i>Epithamnolia xanthoriae</i> 5	PP213514	PP192016	Germany	<i>Punctelia jeckeri</i>	Cezanne-Eichler 10935
<i>Epithamnolia xanthoriae</i> 6		KY814509	Netherlands	<i>Punctelia subrudecta</i>	van den Boom 49424
<i>Epithamnolia xanthoriae</i> 7	KY814525		Netherlands	<i>Punctelia subrudecta</i>	van den Boom 49369
<i>Epithamnolia xanthoriae</i> 8		KY828443	Austria	<i>Xanthoria parietina</i>	Berger 28798
<i>Epithamnolia xanthoriae</i> 9	KY814536		Luxembourg	<i>Xanthoria parietina</i>	Diederich 18191 (BR)
<i>Flagellospora leucorhynchus</i>		KC834025			
<i>Gelatinomyces siamensis</i>		JX219381			
<i>Leotia lubrica</i>	JX178635	MH668044			
<i>Microglossum macrosporum</i>		MK591992			
<i>Microglossum truncatum</i>		KC834025			
<i>Mniaecia gloeocapsae</i>	MH863968	MH875423			
<i>Mniaecia gloeocapsae</i>	MH863969	MH875424			
<i>Mniaecia jungermanniae</i>		EU940109			
<i>Mniaecia nivea</i>		EU940115			
<i>Pallidophorina paarla</i>		OL839201			
<i>Pseudeurotium zonatum</i>		MH867318			
<i>Pseudogymnoascus appendiculatus</i>		OR485253			
<i>Pseudogymnoascus verrucosus</i>		OR485039			
<i>Thuemenidium atropurpureum</i>	OM985828	JQ256441			

Supplementary document S4. (Continued)

Species	ITS	nuLSU	Country	Host	Specimen
<i>Tympanis piceina</i>		MH869052			
<i>Tympanis prunicola</i>		MH869053			

Gonatophragmium

by D. Ertz, U. Braun & P. Diederich

Supplementary document S5. Species, GenBank accession numbers (ITS, nuLSU) and specimen information (only for lichenicolous taxa) of fungi used in the phylogenetic analysis of the *Acrospermaceae* (page 202). Newly produced sequences in bold font.

Species	ITS	nuLSU	Country	Host	Specimen
<i>Acrospermum adeanum</i>	EU940180	EU940104			
<i>Acrospermum bolivianum</i> 1	OR198830	OR198835	Bolivia	corticolous <i>Porina</i> sp.	A. Flakus 29003 (KRAM)
<i>Acrospermum bolivianum</i> 2	OR198836	OR198831	Bolivia	sterile crustose lichen	A. Flakus 27646 (KRAM)
<i>Acrospermum compressum</i>	EU940161	EU940084			
<i>Acrospermum gorditum</i> 1	MK561995	MK561981			
<i>Acrospermum gorditum</i> 2	MK561996				
<i>Acrospermum gramineum</i>	EU940162	EU940085			
<i>Acrospermum leucocephalum</i> 1	MK562005	MK561988			
<i>Acrospermum leucocephalum</i> 2	MK562008	MK561990			
<i>Acrospermum longisporum</i>		MG815827			
<i>Acrospermum maxonii</i> 1	MK561994	MK561980			
<i>Acrospermum maxonii</i> 2	MK561999	MK561983			
<i>Acrospermum maxonii</i> 3	MK562006	MK561989			
<i>Acrospermum urticae</i>		MN597994			
<i>Acrospermum</i> sp. 1	MT111828	MT111828			
<i>Acrospermum</i> sp. 2	MN816228	MN816228			
<i>Acrospermum</i> sp. 3	MK335823	MK754265			
<i>Gonatophragmium epilobii</i> 1	MT223798	MT223893			
<i>Gonatophragmium epilobii</i> 2	MH863183	MH874728			
<i>Gonatophragmium lichenophilum</i> 1 (as <i>G. physciae</i> on GenBank)	ON603773	ON603793	Netherlands	<i>Physcia tenella</i>	J. Boers (CPC 41464)
<i>Gonatophragmium lichenophilum</i> 2 (as <i>G. physciae</i> on GenBank)	ON603774	ON603794	Netherlands	<i>Physcia tenella</i>	J. Boers (CPC 41466)
<i>Gonatophragmium lichenophilum</i> 3	PP790298	PP790300	Austria	<i>Xanthoria parietina</i>	Berger 37815 (BR)
<i>Gonatophragmium lichenophilum</i> 4	PP790299		Belgium	<i>Xanthoria parietina</i>	Geyselings (BR)
<i>Gonatophragmium mori</i> 1	OP023322	OP023330			
<i>Gonatophragmium mori</i> 2	OP026081	OP035835			
<i>Gonatophragmium triuniae</i> 1	KP004451	KP004479			
<i>Gonatophragmium triuniae</i> 2	MW193329	MW144438			
<i>Phaeodactylium stadleri</i> 1		MH878341			
<i>Phaeodactylium stadleri</i> 2	HF678526	HF678536			
<i>Pseudoacrospermum goniomae</i>	MW883446	MW883837			
<i>Pseudovirgaria grisea</i> 1	JF957605	JF957610			
<i>Pseudovirgaria grisea</i> 2	JF957606	JF957611			
<i>Pseudovirgaria hyperparasitica</i> 1	MH863146	MH874697			

Supplementary document S5. (Continued)

Species	ITS	nuLSU	Country	Host	Specimen
<i>Pseudovirgaria hyperparasitica</i> 2	EU041767	EU041824			
<i>Radulidium epichloes</i>	EU041785	EU041842			
<i>Radulidium subulatum</i> 1	EU041787	EU041844			
<i>Radulidium subulatum</i> 2	EU041789	EU041846			

Hobsoniopsis

by D. Ertz & P. Diederich

Supplementary document S6. Species, GenBank accession numbers (nuSSU) and specimen information (only for lichenicolous taxa) of fungi used in the phylogenetic analysis of the *Dothideomycetes* (page 221).

Species	nuSSU	Country	Host	Specimen
<i>Abrothallus parmeliarum</i>	KF816221	Estonia	<i>Parmelia sulcata</i>	Suija (TUF 045857)
<i>Acidiella uranophila</i>	KF857169			
<i>Acidomyces richmondensis</i>	AY374300			
<i>Aureobasidium pullulans</i>	DQ278883			
<i>Austrostigmidium mastodiae</i>	KP282864	Chile	<i>Mastodia tessellata</i>	Perez-Ortega (MA 18213)
<i>Batcheloromyces leucadendri</i>	GU214515			
<i>Batcheloromyces proteae</i>	AY251102			
<i>Baudoinia compniacensis</i>	EF494252			
<i>Botryosphaeria</i> cf. <i>ribis</i>	FJ215703			
<i>Bryochiton perpusillus</i>	EU940058			
<i>Caliciopsis pinea</i>	AF242260			
<i>Camarops ustulinoides</i>	DQ470989			
<i>Capronia pulcherrima</i>	AJ232944			
<i>Catenulostroma elginense</i>	GU214517			
<i>Cladophialophora boppii</i>	AJ232946			
<i>Coccodinium bartschii</i>	U77668			
<i>Coniothyrium insitivum</i>	AY642516			
<i>Constantinomyces virgultus</i>	NG070857			
<i>Cordyceps nabanheensis</i>	NG148885			
<i>Cryomyces antarcticus</i>	NG061042			
<i>Devriesia staurophora</i>	EF137359			
<i>Dichomera saubinetii</i>	KF766236			
<i>Dothidea insculpta</i>	U42474			
<i>Elasticomyces elasticus</i>	GU250353			
<i>Epibryon diaphanum</i>	EU940028			
<i>Friedmanniomyces endolithicus</i>	GU250326			
<i>Friedmanniomyces simplex</i>	NG016527			
<i>Gnomonia gnomon</i>	DQ471019			
<i>Granulopyrenis seawardii</i>	EF411059			
<i>Hobsoniopsis santessonii</i>	AF289658	Sweden	<i>Peltigera scabrosa</i>	Heidmarsson 550
<i>Hortaea werneckii</i>	Y18700			
<i>Hysterium pulicare</i>	AF164358			
<i>Meristemomyces frigidus</i>	NG061096			
<i>Mycocalicium subtile</i>	JX000072			
<i>Mycosphaerella punctiformis</i>	AY490775			

Supplementary document S6. (Continued)

Species	nuSSU	Country	Host	Specimen
<i>Nectria cinnabarina</i>	AB003949			
<i>Neodevriesia strelitziae</i>	NG078729			
<i>Normandina pulchella</i>	KF972463			
<i>Onygena corvina</i>	AB075364			
<i>Penidiella columbiana</i>	NG061089			
<i>Phragmogibbera herbicola</i>	FJ501954			
<i>Plowrightia periclymeni</i>	FJ215709			
<i>Pseudocercospora platanigena</i>	GU214598			
<i>Pseudotaeniolina globosa</i>	NG062782			
<i>Pyrenula aspistea</i>	EF411060			
<i>Rachicladosporium mcmurdoi</i>	NG064940			
<i>Recurvomyces mirabilis</i>	NG061094			
<i>Scutellinia scutellata</i>	U53387			
<i>Stenocybe pullatula</i>	U86692			
<i>Stylodothis puccinioides</i>	AY016353			
<i>Suberoteratosphaeria pseudosuberosa</i>	GU214611			
<i>Suberoteratosphaeria suberosa</i>	GU214614			
<i>Sydowia polyspora</i>	AY544718			
<i>Teratosphaeria alcornii</i>	NG065572			
<i>Teratosphaeria epicoccoides</i>	GU214616			
<i>Tubeufia helicomyces</i>	AY856922			
<i>Verrucaria cyanea</i>	EF689866			
<i>Xylaria hypoxylon</i>	AY544692			
<i>Zalaria alba</i>	KX579111			

Illosporium

by D. Ertz, P. Diederich & J. C. Zamora

Supplementary document S7. Species, GenBank accession numbers (ITS and nuLSU) and specimen information (for lichenicolous taxa, *Cylindromonium lichenicola* and *Scolecofusarium ciliatum*) of fungi used in the phylogenetic analysis of the *Bionectriaceae* (page 229–230). Newly produced sequences in bold font.

Species	ITS	nuLSU	Country	Host	Specimen
<i>Acremonium alternatum</i>	MH859959	NG056977			
<i>Acremonium sclerotigenum</i>	PP384994	NG057139			
<i>Ascopolyporus villosus</i>		AY886544			
<i>Beauveria caledonica</i>		AF339520			
<i>Blackwellomyces pseudomilitaris</i>		MF416534			
<i>Blastophorum aquaticum</i>		NG066172			
<i>Bryocentria brongniartii</i>		EU940125			
<i>Bryocentria metzgeriae</i>		EU940106			
<i>Bulbithecium hyalosporum</i>	OQ429508	AF096187			
<i>Calonectria cylindrospora</i>		U17409			
<i>Clonostachys grammicospora</i>	MH862392	AF193238			
<i>Cordyceps kyusyuensis</i>		EF468813			
<i>Cosmospora coccinea</i>		AY489734			
<i>Cyanonectria cyanostoma</i>		FJ474081			
<i>Cylindrocladiella microcylindrica</i>		AY793432			
<i>Cylindromonium everniae</i>		NG081339	Netherlands	<i>Evernia prunastri</i>	ex-holotype (CBS 148255)
<i>Cylindromonium lichenicola</i>	MH859549	MH871429	Germany	not lichenicolous	culture from Gams 1119 (CBS 303.70)
<i>Emericellopsis glabra</i>	MH858185	GQ505993			
<i>Emericellopsis maritima</i>	AY632670	FJ176861			
<i>Geonectria subalpina</i>		MH155487			
<i>Geosmithia lavendula</i>	MH859054	KT155289			
<i>Geosmithia putterillii</i>	MH855435	KT155185			
<i>Gliomastix masseei</i>	MH859431	HQ232060			
<i>Gliomastix roseogrisea</i>	OQ513904	HQ232122			
<i>Heleococcum japonense</i>	JX158420	U17429			
<i>Hydropisphaera peziza</i>	MH858575	AY489730			
<i>Hydropisphaera suffulta</i>		KU237207			
<i>Ijuhya faveliana</i>	KY607541	KY607556			
<i>Ijuhya fourrieri</i>		KP899118			
<i>Ijuhya peristomialis</i>	KY607544	KY607559			
<i>Illosporium carneum</i> 1	PP740368	PP738021	Switzerland	<i>Peltigera didactyla</i>	Diederich 17317 (BR)
<i>Illosporium carneum</i> 2	PP740369	PP738022	Switzerland	<i>Peltigera didactyla</i>	Diederich 17347 (BR)
<i>Illosporium carneum</i> 3	PP740370	PP738023	France	<i>Peltigera rufescens</i>	Bertrand 7049 (BR)
<i>Illosporium carneum</i> 4	PP740371		Austria	<i>Peltigera elisabethae</i>	Hafellner 75985 (GZU)

Supplementary document S7. (Continued)

Species	ITS	nuLSU	Country	Host	Specimen
<i>Illosporium carneum</i> 5	PP740372		Belgium	<i>Peltigera</i> cf. <i>rufescens</i>	Ertz 12372 (BR)
<i>Illosporium carneum</i> 6	PP740373		Belgium	<i>Peltigera didactyla</i>	Van den Broeck 1358 (BR)
<i>Illosporium carneum</i> 7	PP740374		Belgium	<i>Peltigera didactyla</i>	Van den Broeck 1449 (BR)
<i>Kylindria chinensis</i>		NG073619			
<i>Lasionectria lecanodes</i>	MK045660		Estonia	<i>Peltigera</i> sp.	Suija (TUF 065582)
<i>Lasionectria lecanodes</i>		KP899119	unknown	unknown	Lechat, culture CLL14062
<i>Lasionectria mantuana</i>	HM484858	GQ505994			
<i>Lasionectriella rubioi</i>	OQ429699	KU593581			
<i>Leuconectria clusiae</i>		U17412			
<i>Leucosphaerina arxii</i>	MH861832	NG057892			
<i>Microcera larvarum</i>		NG081285			
<i>Microcera physciae</i>		NG081335	Netherlands	<i>Physcia tenella</i>	ex-holotype (CBS 148283)
<i>Mycoarachis inversa</i>	NR_189454	NG059437			
<i>Nectria aurantiaca</i>		HM534892			
<i>Nectria cinnabarina</i>		HM534894			
<i>Nectriopsis exigua</i>	HM484865	GQ505986			
<i>Nectriopsis violacea</i>	MH859978	AF193242			
<i>Neocosmospora haematococca</i>		DQ119558			
<i>Neocosmospora vasinfecta</i>		U17406			
<i>Nigrosabulum globosum</i>	MH859826	AF096195			
<i>Ochronectria calami</i>	OQ429753	AF193243			
<i>Paracosmospora physciae</i>		NG149077			
<i>Persiciospora africana</i>		AY015631			
<i>Pronectria loweniae</i>	OR116443	OR133232	France	<i>Solorina saccata</i>	Rodriguez-Flakus 4000 (KRAM)
<i>Pronectria robergei</i> 1		PP738024	Luxembourg	<i>Peltigera rufescens</i>	Ertz 17633 (BR)
<i>Pronectria robergei</i> 2		MH876199	Luxembourg	<i>Peltigera rufescens</i>	Diederich 16884 (BR)
<i>Protocreopsis korffii</i>		KT852955			
<i>Protocreopsis pertusa</i>	OQ429805	GQ506002			
<i>Pseudocosmospora vilior</i>		AY015626			
<i>Reticulascus tulasneorum</i>		AF178547			
<i>Roselliniella atlantica</i>		GQ888763	UK, Scotland	<i>Melanohalea exasperata</i>	Coppins 15370 (E)
<i>Roselliniella euparmeliicola</i>		GQ888764	China	<i>Parmelia meiophora</i>	holotype (BM)
<i>Roumegueriella rufula</i>	OQ429827	EF469082			
<i>Sarcopodium macalpinei</i>		DQ119566			
<i>Scolecofusarium ciliatum</i>		ON763202	Ukraine	not lichenicolous	culture (CBS 148938)
<i>Selinia pulchra</i>	HM484859	AF193246			
<i>Simplicillium lamellicola</i>		AF339552			
<i>Stephanonectria keithii</i>	MH859783	AY489727			
<i>Stilbocrea macrostoma</i>	OQ429873	AY489725			
<i>Stilbocrea walteri</i>	MH562717	MH562717			

Supplementary document S7. (Continued)

Species	ITS	nuLSU	Country	Host	Specimen
<i>Synnemellisia aurantia</i>	KX866395	KX866396			
<i>Trichonectria rectipila</i>		MH873746			
<i>Trichonectria setadpressa</i>		MT154012	Bolivia	<i>Lobariella crenulata</i>	Flakus 28886 (KRAM)
<i>Verrucostoma freycinetiae</i>	HM484866	GQ506013			
<i>Verrucostoma martinicensis</i>	OQ429934	KP192672			
<i>Volutella buxi</i>		U17416			
<i>Waltergamsia fusidioides</i>		NG056984			
<i>Waltergamsia hennebertii</i>		NG056987			

Lawreya

by P. Diederich, D. Ertz & U. Braun

See supplementary document S3 in chapter *Cladosporium* (page 249).

Lichenostigma

by P. Diederich & D. Ertz

Supplementary document S8. Species, GenBank accession numbers (nuLSU, mtSSU) and specimen information (only for lichenicolous taxa) of fungi used in the phylogenetic analysis of the *Arthoniomycetes* (page 265).

Species	nuLSU	mtSSU	Country	Host	Specimen
<i>Alyxoria ochrocheila</i>	EU704100	EU704072			
<i>Alyxoria varia</i>	EU704103	EU704075			
<i>Antarctolichenia onofrii</i> 1	NG_148992				
<i>Antarctolichenia onofrii</i> 2	MZ005694				
<i>Antarctolichenia onofrii</i> 3	MW991430				
<i>Arthonia apatetica</i>	KJ851045	KJ850992			
<i>Arthonia didyma</i>	EU704083	EU704047			
<i>Arthonia dispersa</i>	AY571381	AY571383			
<i>Arthothelium norvegicum</i>	KJ851038	KJ851003			
<i>Briancoppinsia cytospora</i>	JF830770	JF830772	Belgium	<i>Evernia prunastri</i>	Ertz 15244 (BR)
<i>Bryostigma muscigenum</i>	KJ851052	KJ850991			
<i>Capnodium coffeae</i>	DQ247800	FJ190609			
<i>Chiodecton natalense</i>	EU704085	EU704051			
<i>Chrysothrix caesia</i>	FJ469668	FJ469671			
<i>Chrysothrix chrysophthalma</i>	HQ454519	KF176966			
<i>Coniarthonia eos</i>	KJ851053	KJ850987			
<i>Cryptothecia candida</i>	HQ454520	EU704052			
<i>Dendrographa leucophaea</i>	AY548810	AY548811			
<i>Dimidiographa longissima</i>	EU704097	EU704069			
<i>Enterographa crassa</i>	EU704088	EU704056			
<i>Enterographa zonata</i>	EU704109	EU704081			
<i>Erythrodecton granulatum</i>	EU704090	EU704058			
<i>Etayoa trypethelii</i> 1	KF176940	KF176967	USA, Florida	<i>Dyplolabia afzelii</i> and <i>Phaeographis major</i>	Common 9200G (BR)
<i>Etayoa trypethelii</i> 2	KF176941	KF176968	USA, Florida	<i>Phaeographis major</i> and <i>P. schizoloma</i>	Common 9215P (BR)
<i>Etayoa trypethelii</i> 3	KF176942	KF176969	USA, Florida	<i>Graphis caesiella</i>	Common 9434K (BR)
<i>Felipes leucopellaeus</i>	KJ851033	KJ850984			
<i>Friedmanniomyces endolithicus</i>	GU250367	GU250415			
<i>Lecanactis abietina</i>	AY548812	AY548813			
<i>Lichenostigma alpinum</i> 1	KF176944	KF176971	Croatia	<i>Lepra albescens</i>	Diederich 17379 (BR)
<i>Lichenostigma alpinum</i> 2	KF176945	KF176972	France	<i>Lepra albescens</i>	Ertz 17522 (BR)
<i>Lichenostigma alpinum</i> 3	KF176946	KF176973	France	<i>Fuscidea cyathoides</i>	Ertz 17519 (BR)
<i>Lichenostigma chlaroterae</i> 1		KF176976	Canada, BC	<i>Lecanora chlarotera</i>	Goward 12-30 (BR)
<i>Lichenostigma chlaroterae</i> 2	KF176949	KF176977	Canada, BC	<i>Lecanora chlarotera</i>	Goward 12-42 (BR)
<i>Lichenostigma chlaroterae</i> 3	KF176948	KF176975	Luxembourg	<i>Lecanora argentata</i>	Neuberg (BR)
<i>Lichenostigma chlaroterae</i> 4	KF176947	KF176974	Switzerland	<i>Lecanora chlarotera</i>	Diederich 17329 (BR)

Supplementary document S8. (Continued)

Species	nuLSU	mtSSU	Country	Host	Specimen
<i>Lichenostigma maureri</i> 1 (sexual)	KF176953	KF176979	Switzerland	<i>Usnea</i> sp.	Diederich 17326 (BR)
<i>Lichenostigma maureri</i> 2 (asexual)	KF176952		Switzerland	<i>Usnea</i> sp.	Diederich 17337 (BR)
<i>Lichenostigma maureri</i> 3 (asexual)	KF176951	KF176978	Switzerland	<i>Letharia vulpina</i>	Diederich 17306 (BR)
<i>Lichenostigma maureri</i> 4 (sexual)	KF176954	KF176980	Switzerland	<i>Usnea</i> sp.	Diederich 17337 (BR)
<i>Lichenostigma</i> sp. 1	KF176955	KF176981	Luxembourg	<i>Fuscidea lightfootii</i>	Diederich 17240 (BR)
<i>Lichenostigma</i> sp. 2	KF176961	KF176987	France	<i>Phaeographis smithii</i>	Ertz 17591 (BR)
<i>Melarthonis piceae</i>	KJ851080	KJ851016			
<i>Opegrapha vermicellifera</i>	EU704105	EU704077			
<i>Opegrapha vulgata</i>	EU704108	EU704080			
<i>Phaeococcomyces eucalypti</i>	KC005791				
<i>Phaeococcomyces nigricans</i>	AF361048				
<i>Phaeococcomyces</i> cf. <i>nigricans</i>	AJ276065				
<i>Reichlingia leopoldii</i>	HQ454581	JF830773			
<i>Rocella fuciformis</i>	AY584654	EU704082			
<i>Schismatomma pericleum</i>	AF279408	AY571390			
<i>Tylophoron hibernicum</i>	JF295083	JF830778			
<i>Xanthoriicola physciae</i>	KF176965	KF176990	Luxembourg	<i>Xanthoria parietina</i>	Diederich 16713 (BR)
<i>Zwackhia viridis</i>	EU704106	EU704078			
rock isolate TRN 213		GU324040			
rock isolate TRN 452	GU323985	GU324048			
rock isolate TRN 456	GU323986	GU324049			
rock isolate TRN 529	GU323987	GU324050			

Microcera

by D. Ertz, P. Diederich & H.-J. van der Kolk

Supplementary document S9. Species, GenBank accession numbers (nuLSU) and specimen information (for lichenicolous taxa, *Cylindromonium lichenicola* and *Scolecofusarium ciliatum*) of fungi used in the phylogenetic analyses of the *Nectriaceae* and *Microcera* (pages 277).

Species	nuLSU	Country	Host	Specimen
<i>Calonectria cylindrospora</i>	U17409			
<i>Chaetopsina fulva</i>	DQ119554			
<i>Cosmospora coccinea</i>	AY489734			
<i>Cosmospora vilior</i>	AY015626			
<i>Cyanonectria cyanostoma</i>	FJ474081			
<i>Cylindrocladiella microcylindrica</i>	AY793432			
<i>Cylindromonium dirinariae</i>	LC731274	Japan	<i>Dirinaria applanata</i>	ex-holotype (TNS-L-131533)
<i>Cylindromonium eugeniicola</i>	NG068337			
<i>Cylindromonium everniae</i>	NG081339	Netherlands	<i>Evernia prunastri</i>	ex-holotype (CBS 148255)
<i>Cylindromonium lichenicola</i>	MH871429	Germany	not lichenicolous	culture from Gams 1119 (CBS 303.70)
<i>Dialonectria episphaeria</i>	AY015625			
<i>Globonectria cochensis</i> 1	MT153976	Bolivia	<i>Lobariella crenulata</i>	Flakus 26012 (KRAM)
<i>Globonectria cochensis</i> 2	MT153978	Bolivia	<i>Lobariella crenulata</i>	Etayo IX-9 (LPU)
<i>Leuconectria clusiae</i>	U17412			
<i>Microcera chrysomphaludis</i>	NG242085			
<i>Microcera coccophila</i> 1	KM231703			
<i>Microcera coccophila</i> 2	KC291784			
<i>Microcera kuwanaspidis</i>	NG148986			
<i>Microcera larvarum</i> 1	NG081285			
<i>Microcera larvarum</i> 2	AB586984			
<i>Microcera lichenicola</i> 1	ON811561	Netherlands	<i>Parmelia sulcata</i>	ex-holotype (CBS 149169)
<i>Microcera lichenicola</i> 2	ON811562	Netherlands	<i>Physcia tenella</i>	culture (CBS 148313)
<i>Microcera physciae</i> 1	NG081335	Netherlands	<i>Physcia tenella</i>	ex-holotype (CBS 148283)
<i>Microcera physciae</i> 2	OQ990065	Netherlands	lichen on brick wall	culture (CBS 149570)
<i>Microcera physciae</i> 3	OK663767	Netherlands	<i>Physcia tenella</i>	culture (CBS 148288)
<i>Microcera pseudaulacaspidis</i>	NG242084			
<i>Microcera rubra</i>	NG058100			
<i>Nectria aurantiaca</i>	HM534892			
<i>Nectria cinnabarina</i>	HM534894			
<i>Nectria pseudotrichia</i>	HM534899			
<i>Nectriopsis violacea</i>	AF193242			
<i>Neocosmospora haematococca</i>	DQ119558			
<i>Neocosmospora vasinfecta</i>	U17406			
<i>Neonectria coccinea</i>	AY677327			

Supplementary document S9. (Continued)

Species	nuLSU	Country	Host	Specimen
<i>Neonectria ditissima</i>	AY677330			
<i>Neonectria punicea</i>	HM534901			
<i>Neonectria ramulariae</i>	HM042436			
<i>Penicillifer diparietispora</i>	AY489735			
<i>Persiciospora africana</i>	AY015631			
<i>Pronectria loweniae</i>	OR133232	France	<i>Solorina saccata</i>	Rodriguez-Flakus 4000 (KRAM)
<i>Pronectria robergei</i>	MH876199	Luxembourg	<i>Peltigera rufescens</i>	Diederich 16884 (BR)
<i>Roselliniella atlantica</i>	GQ888763	UK, Scotland	<i>Melanohalea exasperata</i>	Coppins 15370 (E)
<i>Roselliniella euparmeliicola</i>	GQ888764	China	<i>Parmelia meiophora</i>	holotype (BM)
<i>Sarcopodium macalpinei</i>	DQ119566			
<i>Scolecofusarium ciliatum</i> 1	ON763202	Ukraine	not lichenicolous	culture (CBS 148938)
<i>Scolecofusarium ciliatum</i> 2	MW827677	Germany	not lichenicolous	ex-neotype (CBS 191.65)
<i>Scolecofusarium ciliatum</i> 3	AF228349	Germany	not lichenicolous	ex-neotype (CBS 191.65)
<i>Thyronectria aquifolii</i>	HM534891			
<i>Thyronectria berolinensis</i>	HM534893			
<i>Thyronectria coryli</i>	HM534895			
<i>Thyronectria lamyi</i>	HM534898			
<i>Thyronectria sinopica</i>	HM534900			
<i>Trichonectria rectipila</i>	MH873746			
<i>Trichonectria setadpressa</i>	MT154012	Bolivia	<i>Lobariella crenulata</i>	Flakus 28886 (KRAM)
<i>Volutella buxi</i>	U17416			

Supplementary document S10. Species, GenBank accession numbers (ITS) and specimen information (only for lichenicolous taxa) of fungi used in the phylogenetic analysis of the *Nectriaceae* and *Microcera* (page 278).

Species	ITS	Country	Host	Specimen
<i>Macroconia leptosphaeriae</i>	HQ897810			
<i>Microcera chrysomphaludis</i> 1	OQ434281			
<i>Microcera chrysomphaludis</i> 2	OQ434282			
<i>Microcera coccophila</i> 1	OL653055			
<i>Microcera coccophila</i> 2	HQ897794			
<i>Microcera coccophila</i> 3	MN075255			
<i>Microcera coccophila</i> 4	KC291754			
<i>Microcera coccophila</i> 5	KC291753			
<i>Microcera coccophila</i> 6	MH855540			
<i>Microcera coccophila</i> 7	JQ240473			
<i>Microcera coccophila</i> 8	JQ240474			
<i>Microcera coccophila</i> 9	JQ582400			
<i>Microcera coccophila</i> 10	KC338994			
<i>Microcera coccophila</i> 11	KC338995			
<i>Microcera coccophila</i> 12	KC338996			
<i>Microcera coccophila</i> 13	KC338997			
<i>Microcera diploa</i> 1	HQ897817			
<i>Microcera diploa</i> 2	MW827623			
<i>Microcera kuwanaspidis</i> 1	MW484993			
<i>Microcera kuwanaspidis</i> 2	MZ029437			
<i>Microcera larvarum</i> 1	NR173402			
<i>Microcera larvarum</i> 2	EU860064			
<i>Microcera larvarum</i> 3	EU860063			
<i>Microcera larvarum</i> 4	AB586984			
<i>Microcera larvarum</i> 5	MT107902			
<i>Microcera larvarum</i> 6	KM231825			
<i>Microcera larvarum</i> 7	MH855100			
<i>Microcera larvarum</i> 8	KC291751			
<i>Microcera larvarum</i> 9	MH857678			
<i>Microcera larvarum</i> 10	MK804348			
<i>Microcera larvarum</i> 11	KC349903			
<i>Microcera larvarum</i> 12	KC344733			
<i>Microcera larvarum</i> 13	KC349902			
<i>Microcera larvarum</i> 14	KC354704			
<i>Microcera larvarum</i> 15	KC354705			
<i>Microcera lichenicola</i> 1	ON811502	Netherlands	<i>Parmelia sulcata</i>	ex-holotype (CBS 149169)
<i>Microcera lichenicola</i> 2	ON811503	Netherlands	<i>Physcia tenella</i>	culture (CBS 148313)
<i>Microcera physciae</i> 1	NR175225	Netherlands	<i>Physcia tenella</i>	ex-holotype (CBS 148283)

Supplementary document S10. (Continued)

Species	ITS	Country	Host	Specimen
<i>Microcera physciae</i> 2	OK664728	Netherlands	<i>Physcia tenella</i>	culture (CBS 148288)
<i>Microcera physciae</i> 3	OQ990114	Netherlands	lichen on brick wall	culture (CBS 149570)
<i>Microcera pseudaulacaspidis</i>	OQ434280			
<i>Microcera rubra</i> 1	NR111604			
<i>Microcera rubra</i> 2	EU860069			
<i>Microcera rubra</i> 3	EU860070			
<i>Microcera rubra</i> 4	EU860072			
<i>Microcera rubra</i> 5	EU860073			
<i>Microcera rubra</i> 6	EU860074			
<i>Microcera rubra</i> 7	EU860068			
<i>Microcera rubra</i> 8	MH861019			
<i>Microcera rubra</i> 9	OP023228			
<i>Microcera</i> cf. <i>rubra</i>	MZ855423			
<i>Microcera</i> sp. 1	KF564779			
<i>Microcera</i> sp. 2	MT076120			
<i>Microcera</i> sp. 3	OP135957			
<i>Scolecofusarium ciliatum</i> 1	HQ897818			
<i>Scolecofusarium ciliatum</i> 2	OK090963			
<i>Scolecofusarium ciliatum</i> 3	KU516464			
<i>Scolecofusarium ciliatum</i> 4	OR879315			
<i>Scolecofusarium ciliatum</i> 5	MW827635			
<i>Scolecofusarium ciliatum</i> 6	MW827636			
<i>Scolecofusarium ciliatum</i> 7	ON763205			
<i>Scolecofusarium ciliatum</i> 8	KX893356			
<i>Scolecofusarium ciliatum</i> 9	MN121578			

Neobaryopsis

by D. Ertz, A. Flakus & P. Diederich

Supplementary document S11. Species, GenBank accession numbers (nuLSU, nuSSU, RPB1) and specimen information (only for lichenicolous taxa) of fungi used in the phylogenetic analysis of the *Hypocreales* (page 320).

Species	nuLSU	nuSSU	RPB1	Country	Host	Specimen
<i>Akanthomyces aculeatus</i>	MF416520	MF416572				
<i>Akanthomyces</i> cf. <i>coccidioperi-theciatus</i>	EU369043	EU369109	EU369066			
<i>Akanthomyces lecanii</i>	AF339555	AF339604	DQ522407			
<i>Ascopolyporus polychrous</i>	DQ118737		DQ127236			
<i>Ascopolyporus villosus</i>	AY886544		DQ127241			
<i>Beauveria caledonica</i>	AF339520	AF339570	EF469086			
<i>Blackwellomyces cardinalis</i>	AY184962	AY184973	DQ522370			
<i>Blackwellomyces pseudomilitaris</i>	MF416534	MF416588				
<i>Cladobotryum asterophorum</i>	AJ583469		FN868776			
<i>Claviceps fusiformis</i>		DQ522539	DQ522366			
<i>Cordyceps bifusispora</i>	EF468806	EF468952	EF468854			
<i>Cordyceps farinosa</i>	MF416554	AY526474	MF416656			
<i>Cordyceps kyusyuensis</i>	EF468813	EF468960	EF468863			
<i>Cordyceps militaris</i>	AY184966	AY184977	DQ522377			
<i>Gibellula pulchra</i>	EU369035	EU369099	EU369056			
<i>Hevansia novoguineensis</i>	EU369032	EU369095	EU369052			
<i>Hypocrella calendulina</i>	JN940909	JN940986	JN987887			
<i>Hypocrella nectrioides</i>	DQ518772	U32409	DQ522393			
<i>Hypocrella oxystoma</i>	DQ384943	JN940983				
<i>Hypomyces aurantius</i>	AF160230					
<i>Hypomyces polyporinus</i>	AF543793	AF543771	AY489663			
<i>Lecanicillium aranearum</i>	AF339537	AF339586	EF468887			
<i>Lecanicillium tenuipes</i>	AF339526	AF339576	DQ522387			
<i>Lichenobarya usneae</i>	KP899625			Canada	<i>Usnea</i> sp.	Buck 61451 (NY)
<i>Neobarya parasitica</i>	KP899626					
<i>Neobarya</i> sp.	AY346293					
<i>Neobaryopsis andensis</i> 1	NG068701			Bolivia	<i>Lobariella pallida</i>	holotype (KRAM)
<i>Neobaryopsis andensis</i> 2	MT153985			Bolivia	<i>Lobariella pallida</i>	holotype (KRAM)
<i>Perennicordyceps cuboidea</i>	JN941416	JN941725	JN992459			
<i>Perennicordyceps prolifica</i>	JN941434	JN941707	JN992441			
<i>Perennicordyceps ryogamiensis</i>	JN941438	JN941703	JN992437			
<i>Simplicillium lamellicola</i>	AF339552	AF339601	DQ522404			
<i>Simplicillium lanosoniveum</i>	AF339554	AF339603	DQ522405			
<i>Torrubiella ratticaudata</i>	DQ518777	DQ522562	DQ522408			

Supplementary document S11. (Continued)

Species	nuLSU	nuSSU	RPB1	Country	Host	Specimen
<i>Torrubiella wallacei</i>	AY184967	AY184978	EF469102			
<i>Trichoderma citrinum</i>	JN941455	JN941687	JN992420			
<i>Trichoderma pulvinatum</i>	JN941472	JN941673	JN992403			
<i>Trichoderma sulphureum</i>	JN941473	JN941672	JN992402			

Psammia

by H.-J. van der Kolk, D. Ertz & P. Diederich

Supplementary document S12. Species, GenBank accession numbers (ITS, nuLSU, mtSSU) and specimen information (only for lichenicolous taxa and for *Psammia*) of fungi used in the phylogenetic analysis of the *Dothideomycetes* and *Eurotiomycetes* (page 332). Newly produced sequences in bold font.

Species	ITS	nuLSU	mtSSU	Country	Host	Specimen
<i>Acanthostigma chiangmaiense</i>	JN865209	NG_056999				
<i>Acrospermum maxonii</i>	MK562006	MK561989	MK562040			
<i>Arthrocatena tenebrio</i>	KF309948	GU250385	GU250426			
<i>Ascochyta medicaginicola</i>	KF181255	KF181220	KF181231			
<i>Aureobasidium melanogenum</i>	MG589216	OK353609	OK360970			
<i>Batcheloromyces proteae</i>	JF746163	EU019247				
<i>Bryochiton microscopicus</i>	KM186806	EU940149	EU940289			
<i>Bryochiton monascus</i>	KM186811	EU940132	EU940276			
<i>Camarosporidiella laburnicola</i>	OP680989	OP680988				
<i>Capnobotryella renispora</i>	AY220613	GQ852582				
<i>Capnodium coffeae</i>	DQ491515		FJ190609			
<i>Capronia pulcherrima</i>	OP037946	OP037920				
<i>Castanedospora pachyanthicola</i>	MH036004	MH036005				
<i>Chaetocapnodium siamensis</i>	MN749252	MN749181				
<i>Chaetothyria spondiadis</i>	MT339448	MT339447				
<i>Cladosporium cladosporioides</i>		DQ678057	FJ190628			
<i>Clypeostroma hemisphaericum</i>	MK039700	MK039716	MK039713			
<i>Constantinomyces virgultus</i>		GU323964	GU324025			
<i>Corynespora cassiicola</i>	MT053115	MN625310	MN965751			
<i>Cyphellophora laciniata</i>	MH858019	MH869581	FJ225737			
<i>Dendrographa leucophaea</i>	AY548802	AY548810	AY548811			
<i>Dendryphion europaeum</i>	NR_158390	NG_059120				
<i>Dothidea insculpta</i>	AF027764	DQ247802				
<i>Extremus antarcticus</i>	KF309978	GU250360				
<i>Friedmanniomyces endolithicus</i>	JN885544	GU250367	GU250415			
<i>Gonatophragmium physciae</i>	ON603773	ON603793		Netherlands	<i>Physcia caesia</i>	ex-holotype (CBS 149048)
<i>Helicosporium nanjingense</i>	OR066419	OR066426				
<i>Hortaea werneckii</i>	MH861027	MH872799	GU561844			
<i>Incertomyces vagans</i>	KF309964	KF310009				
<i>Lecanactis abietina</i>	AY548804	AY548812	AY548813			
<i>Megalotremis verrucosa</i>		GU327718	GU327694			
<i>Meristemomyces frigidus</i>	KF309967	GU250389	GU250429			
<i>Monascostroma innumerosum</i>		GU301850				
<i>Monascostroma sphagnophilum</i>		EU940094	EU940246			

Supplementary document S12. (Continued)

Species	ITS	nuLSU	mtSSU	Country	Host	Specimen
<i>Monticola elongata</i>	KF309969	GU250398	GU250436			
<i>Mycoporum antecellens</i>			OQ683094			
<i>Mycosphaerella eurypotami</i>		GU301852	GU566746			
<i>Mycosphaerella musae</i>	EU514264	LC121204	EU514429			
<i>Neocatenulostroma abietis</i>		DQ678092	FJ190648			
<i>Neodevriesia strelitziae</i>	MH863206	MH874737	GU561845			
<i>Neodidymelliopsis camporesii</i>	MN244199	MN244169				
<i>Petrophila incerta</i>		GU323961	GU324022			
<i>Phaeotheca fissurella</i>	MH864116	MH875576				
<i>Phialophora verrucosa</i>		EF413615	FJ225751			
<i>Psammia bommerae</i>		MH878435				
<i>Psammia filamentosa</i> 1	PP769744	PP769755	PP769749	Belgium	green algae	Ertz 25774 (BR)
<i>Psammia filamentosa</i> 2	PP769745	PP769756	PP769750	Netherlands	green algae	van der Kolk 3319 (BR)
<i>Psammia inflata</i> 1			PP769751	Netherlands	green algae	van der Kolk 3276 (BR)
<i>Psammia inflata</i> 2	PP769746	PP769757	PP769752	Netherlands	green algae	van der Kolk 3277 (BR)
<i>Psammia stipitata</i> 1	PP769747	PP769758	PP769753	Netherlands	green algae	van der Kolk 3275 (BR)
<i>Psammia stipitata</i> 2	PP769748		PP769754	Netherlands	green algae	van der Kolk 3282 (BR)
<i>Pseudocercospora robusta</i>	MH862873	KF902020				
<i>Rachicladosporium inconspicuum</i>	NR_144966	NG_059443	GU250428			
<i>Racodium rupestre</i>	GU067666	EU048583	EU048588			
<i>Ramichloridium punctatum</i>	OQ625988	OQ625942				
<i>Rasutoria tsugae</i>	EF114688	EF114705				
<i>Saccothecium australianum</i>	OR452101	OR452104				
<i>Schizothyrium pomi</i>	MH856716	MH868235				
<i>Schizothyrium wisconsinense</i>	MH863740	MH874600				
<i>Sclerococcum glaucomarioides</i>	OQ991232	OR033169	OR035764	China	<i>Ochrolechia akagiensis</i>	(KUN-L 88756)
<i>Sclerococcum stygium</i>	MK759886		MK759904			
<i>Speiropsis pedatospora</i>	MH857901	MH869443				
<i>Suberoteratosphaeria suberosa</i>	MH862368	MH874032				
<i>Teratoramularia kirschneriana</i>	GU214669	GQ852627				
<i>Teratosphaeria hortaea</i>	MH863358	MH874881				
<i>Torula hollandica</i>	KF443406	MH877717				
<i>Toxicocladosporium chlamydosporum</i>	MH863359	NG_069916				
<i>Trypetheliopsis kalbii</i>		JN887406	GU327703			
<i>Tubeufia cerea</i>		DQ470982	FJ190634			
<i>Vermiconidia calcicola</i>	KP791762	KR781049				
<i>Vermiconidia flagrans</i>		GU323971	GU324032			
<i>Vermiconidia foris</i>	KF309981	GU250390	GU250431			
<i>Xanthoriicola physciae</i>		KF176965	KF176990	Luxembourg	<i>Xanthoria parietina</i>	Diederich 16713 (BR)

Sclerococcum

by P. Diederich, D. Ertz, J. Etayo & M. P. Zhurbenko

Supplementary document S13. Species, GenBank accession numbers (ITS, nuLSU, mtSSU) and specimen information (only for lichenicolous taxa) of fungi used in the phylogenetic analysis of the *Dactylosporaceae* (page 362). Newly produced sequences in bold font.

Species	ITS	nuLSU	mtSSU	Country	Host	Specimen
<i>Caliciopsis orientalis</i>	NR145392	NG058741	FJ190654			
<i>Cylindroconidiis aquaticus</i>	NR169674	NG068561				
<i>Fusichalara minuta</i>	KX537754	KX537758	KX537762			
<i>Gamsomyces aquaticus</i>	MN335228	MN335230				
<i>Gamsomyces longisporus</i>	MT020865	MT020877				
<i>Gamsomyces stilboideus</i>	MT020867	MT020879				
<i>Pseudosclerococcum golindoi</i>	NR171236	NG073673	MK759897			
<i>Pyrgillus javanicus</i>	DQ826741	DQ823103	FJ225774			
<i>Rhopalophora clavispora</i>	NR152542	KX537757	KX537761			
<i>Sclerococcum ahtii</i>	KY661630	KY661659	KY661686	Iceland	<i>Cladonia uncialis</i> subsp. <i>biuncialis</i>	Högnabba 1325a (H)
<i>Sclerococcum Chiangraiensis</i>	NR163755	NG066422				
<i>Sclerococcum fusiformis</i>	NR163756	NG066423				
<i>Sclerococcum glaucomarioides</i>	KY661632	KY661660	KY661683	Russia	<i>Ochrolechia akagiensis</i>	Zhurbenko 13107 (LE)
<i>Sclerococcum haliotrephum</i>		FJ176855	KJ766382			
<i>Sclerococcum lobariellum</i> 1		MH698498	MH698502	Austria	<i>Lobaria pulmonaria</i>	Diederich 17708 (BR)
<i>Sclerococcum lobariellum</i> 2		MH698499	MH698503	France	<i>Lobaria pulmonaria</i>	Diederich 18109 (BR)
<i>Sclerococcum lobariellum</i> 3			PP795294	France	<i>Lobaria pulmonaria</i>	Diederich 18110 (BR)
<i>Sclerococcum mangrovei</i>		FJ176890	KJ766383			
<i>Sclerococcum martynii</i>	MZ221610	MZ221619				
cf. <i>Sclerococcum montagnei</i>		EF210108		Austria	<i>Lecanora rupicola</i>	isolate ALr1 (Brunauer et al. 2007)
<i>Sclerococcum parasiticum</i> 1		MH698500	MH698504	Belgium	<i>Ochrolechia turneri</i>	Ertz 16080 (BR)
<i>Sclerococcum parasiticum</i> 2	KY661646	KY661666	KY661690	Russia	<i>Ochrolechia</i> sp.	Tugi (LE 260868)
<i>Sclerococcum parasiticum</i> 3		MH698501	MH698505	Canary Islands	cf. <i>Pertusaria flavicans</i>	van den Boom 46349
<i>Sclerococcum parasiticum</i> 4		MK759892	MK759899	Spain	unknown	Olariaga (ARAN-Fungi 2724)
<i>Sclerococcum pseudobactrodesmium</i>	OR514693	OR514702	OR588036			
<i>Sclerococcum ricasoliae</i> 1	MT153964	MT153993	MT153925	Panama	<i>Lobariella</i> cf. <i>pallida</i>	Flakus Fla6b (KRAM)
<i>Sclerococcum ricasoliae</i> 2	MT153961	MT153990	MT153922	Bolivia	<i>Lobariella pallida</i>	Flakus 25611 (KRAM)
<i>Sclerococcum ricasoliae</i> 3	MT153955	MT153984	MT153921	Bolivia	<i>Ricasolia patinifera</i>	Flakus 27774 (KRAM)
<i>Sclerococcum simplex</i>	MZ664325	MZ655912	MZ676669	China	cortic. <i>Pertusaria</i> sp.	(MFLU 21-0117)
<i>Sclerococcum sphaerale</i> 1		JX081672	JX081677	Luxembourg	<i>Lepra corallina</i>	Diederich 17279 (BR)
<i>Sclerococcum sphaerale</i> 2		JX081673	JX081678	Luxembourg	<i>Lepra corallina</i>	Diederich 17283 (BR)
<i>Sclerococcum sphaerale</i> 3		JX081674	JX081676	Belgium	<i>Lepra corallina</i>	Ertz 17425 (BR)
<i>Sclerococcum stygium</i>		MK759896	MK759903			

Supplementary document S13. (Continued)

Species	ITS	nuLSU	mtSSU	Country	Host	Specimen
<i>Sclerococcum vrijmoediae</i>	NR138396	KC692153				
<i>Sclerococcum</i> sp. 1006262 (as <i>Dactylospora</i>)	MZ365317	MZ365317				
<i>Sclerococcum</i> sp. 1206034 (as <i>D.</i>)	MZ375533	MZ375533				
<i>Sclerococcum</i> sp. 1405197 (as <i>D.</i>)	MZ520667	MZ520667				
<i>Sclerococcum</i> sp. 1410112 (as <i>D.</i>)	MZ365319	MZ365319				
<i>Sclerococcum</i> sp. 1507053 (as <i>D.</i>)	MZ536219	MZ536219				
<i>Sclerococcum</i> sp. 1507131 (as <i>D.</i>)	MZ520637	MZ520637				
<i>Sclerococcum</i> sp. 1508285 (as <i>D.</i>)	OM337785	OM337785				
<i>Sclerococcum</i> sp. 1602244 (as <i>D.</i>)	MZ481929	MZ481929				
<i>Sclerococcum</i> sp. 160312 (as <i>D.</i>)	MZ326836	MZ326836				
<i>Sclerococcum</i> sp. 1808022 (as <i>D.</i>)	MZ493182	MZ493182				
<i>Sclerococcum</i> sp. 1902262 (as <i>D.</i>)	MZ520670	MZ520670				
<i>Sclerococcum</i> sp. 1909053 (as <i>D.</i>)	MZ481930	MZ481930				
<i>Sclerococcum</i> sp. 22062814 (as <i>D.</i>)	OR039777	OR039777				
<i>Sclerococcum</i> sp. 2210292 (as <i>D.</i>)	OQ983984	OQ983984				
<i>Sclerococcum</i> sp. AM007		LC631622				
<i>Sclerococcum</i> sp. RP391		KY661664	KY661689	Chile	<i>Cladonia rangiferina</i>	Buck 60495a (H)
<i>Trichocoma paradoxa</i>	JN899398	FJ358290	FJ225782			
Beetle associate isolate 1	KM242300	KM242300				
Beetle associate isolate 2	KM242358	KM242358				

Reference

- Brunauer G., J. Blaha, A. Hager, R. Turk, E. Stocker-Wörgötter & M. Grube. 2007. An isolated lichenicolous fungus forms lichenoid structures when co-cultured with various coccoid algae. *Symbiosis* 44: 127–136.

Taeniolella and Talpapellis

by B. Heuchert, U. Braun, P. Diederich & D. Ertz

Supplementary document S14. Species, GenBank accession numbers (nuLSU) and specimen information (only for lichenicolous taxa) of fungi used in the phylogenetic analysis of the *Asterinales* (page 411).

Species	nuLSU	Country	Host	Specimen
<i>Asterina cesticola</i>	GU586215			
<i>Asterina fuchsiae</i>	GU586216			
<i>Asterina magnoliae</i>	MG844186			
<i>Asterina siphocampyli</i>	HQ701140			
<i>Asterina weinmanniae</i>	GU586218			
<i>Asterina zanthoxyli</i>	GU586219			
<i>Asterotexis cucurbitacearum</i>	KP143734			
<i>Batistinula gallesiae</i>	KM111255			
<i>Blastacervulus eucalyptorum</i>	MN162176			
<i>Blastacervulus metrosideri</i>	NG068290			
<i>Buelliella minimula</i>	KX244959	USA, North Carolina	<i>Pertusaria tetralthalamia</i>	Lendemer 35969 (NY)
<i>Buelliella physciicola</i>	KP456147	Belgium	<i>Phaeophyscia orbicularis</i>	Ertz 18113 (BR)
<i>Capnodium coffeae</i>	DQ247800			
<i>Cirsosia mangiferae</i>	NG148995			
<i>Cladoriella paleospora</i>	MH874922			
<i>Cladoriella rubrigena</i>	MH874921			
<i>Cladoriella xanthorrhoeae</i>	MK442516			
<i>Delphinella strobiligena</i>	MH872074			
<i>Dothidea insculpta</i>	DQ247802			
<i>Hemigrapha atlantica</i>	KP456151	Canary Islands	<i>Sticta canariensis</i>	Ertz 14014 (BR)
<i>Inocyclus angularis</i>	KP143731			
<i>Karschia cezannei</i> 1	KP456152			
<i>Karschia cezannei</i> 2	KP456154			
<i>Karschia talcophila</i>	KP456155	Switzerland	<i>Diploschistes scruposus</i>	Diederich 16749 (BR)
<i>Labrocarpon canariense</i>	KP456157	Canary Islands	saxicolous <i>Pertusaria</i> sp.	Ertz 16308 (BR)
<i>Lembosia albersii</i>	KM386982			
<i>Lembosia mimusopis</i>	MN565982			
<i>Lembosia xyliae</i>	KT283685			
<i>Melaspilea lekae</i>	KP456162	Thailand	<i>Sarcographa labyrinthica</i>	Ertz 17325 (BR)
<i>Melaspilea</i> sp. 1	KX244962			
<i>Melaspilea</i> sp. 2	KX244963			
<i>Melaspilea</i> sp. 3	KX244964	Réunion	<i>Pyrenula</i> sp.	Ertz 18012 (BR)
<i>Melaspilea</i> sp. 4	KX244965			
<i>Melaspilea</i> sp. 6	KX244967	Dem. Rep. Congo	<i>Pyrenula</i> sp.	Van den Broeck 3684 (BR)
<i>Melaspilella proximella</i>	KY654747			

Supplementary document S14. (Continued)

Species	nuLSU	Country	Host	Specimen
<i>Melaspileopsis</i> cf. <i>diplospora</i>	KP456164			
<i>Melaspileopsis</i> sp.	KP456167			
<i>Morenoina calamicola</i>	KY511424			
<i>Morenoina palmicola</i>	MK120272			
<i>Neobuelliella poetschii</i>	KP456149	Belgium	<i>Endocarpon</i> sp.	Ertz 18115 (BR)
<i>Neomackenziella juncicola</i>	OP681181			
<i>Paraopeba schefflerae</i>	KY952165			
<i>Parmularia styracis</i>	KP143730			
<i>Pirozynskiella laurissilvatica</i>	KY853520			
<i>Stictographa lentiginosa</i>	KP456170	France	<i>Phaeographis</i> sp.	Ertz 17570 (BR)
<i>Taeniolella commonii</i>	KX244979	Rwanda	cf. <i>Phaeographis</i> sp.	Ertz 11026 (BR)
<i>Taeniolella fissurinae</i>	KX244975	Azores	<i>Fissurina dumastii</i>	Diederich 17044 (BR)
<i>Taeniolella hawksworthiana</i>	KX244970	USA, Florida	<i>Phaeographis</i> cf. <i>brasiliensis</i>	Common 9199B (BR – holotype)
<i>Taeniolella punctata</i> 1	KX244971	Luxembourg	<i>Graphis scripta</i>	Diederich 16714 (BR)
<i>Taeniolella punctata</i> 2	KX244972	Belgium	<i>Arthonia atra</i>	Ertz 17390 (BR)
<i>Taeniolella punctata</i> 3	KX244973	Luxembourg	<i>Graphis scripta</i>	Diederich 16040 (M, CPC12201)
<i>Taeniolella punctata</i> 4	KX244974	Germany	<i>Pertusaria</i> cf. <i>leioplaca</i>	Cezanne-Eichler 7279 (CPC14809)
<i>Taeniolella pyrenulae</i>	KX244976	Azores	<i>Pyrenula hibernica</i>	Diederich 17075 (BR)
<i>Taeniolella toruloides</i> 1	KX244977	Azores	<i>Thelotrema antoninii</i>	Diederich 17047 (BR – holotype)
<i>Taeniolella toruloides</i> 2	KX244978	Azores	<i>Thelotrema antoninii</i>	Diederich 17048 (BR)
<i>Thyrinula dunnii</i>	MN162228			
<i>Thyrinula eucalypti</i>	MN162243			
<i>Thyrinula eucalyptina</i>	MN162245			
<i>Thyrinula parasitica</i>	MN162286			

Taitaia

by P. Diederich, D. Ertz, F. Berger & A. Suija

Supplementary document S15. Species, GenBank accession numbers (mtSSU) and specimen information (only for lichenicolous taxa) of fungi used in the phylogenetic analysis of the *Gomphillaceae* (*Graphidales*) (page 478). Newly produced sequences in bold font.

Species	mtSSU	Country	Host	Specimen
<i>Actinoplaca strigulacea</i>	MZ827235			
<i>Aderkomycetes heterellus</i>	KF833342			
<i>Asterothyrium longisporum</i>	AY341363			
<i>Aulaxina quadrangula</i>	AY341364			
<i>Aulaxina submuralis</i>	MZ827224			
<i>Aulaxinella minuta</i>	MZ827230			
<i>Calenia depressa</i>	MZ827256			
<i>Calenia lobulata</i>	MZ827242			
<i>Calenia phyllogena</i>	AY341366			
<i>Caleniella triseptata</i>	MZ827298			
<i>Corticifraga peltigerae</i> 1	KY661684	India	<i>Peltigera elisabethae</i>	Zhurbenko 1353 (LE 260537)
<i>Corticifraga peltigerae</i> 2	PP769798	Austria	<i>Peltigera</i> sp.	Ertz 20499 (BR)
<i>Corticifraga ramalinae</i> 1	PP769799	France	<i>Ramalina fraxinea</i>	isotype (BR)
<i>Corticifraga ramalinae</i> 2	PP769800	France	<i>Ramalina fraxinea</i>	isotype (MARSSJ)
<i>Echinoplaca campanulata</i>	MZ827250			
<i>Echinoplaca epiphylla</i>	MZ827282			
<i>Fissurina aggregatula</i>	JX421036			
<i>Fissurina astroisidiata</i>	JX421040			
<i>Fissurina nigrolabiata</i>	JF828961			
<i>Gomphillus calycioides</i>	KF833341			
<i>Gomphillus hyalinus</i>	AY341371			
<i>Gyalectidium catenulatum</i>	KF833335			
<i>Gyalectidium denticulatum</i>	MZ827272			
<i>Gyalectidium filicinum</i>	MZ827174			
<i>Gyalectidium imperfectum</i>	MZ827270			
<i>Gyalidea fritzei</i>	HM244744			
<i>Gyalidea</i> ‘ <i>hyalinus</i> ’	DQ972996			
<i>Jamesiella anastomosans</i>	MZ827304			
<i>Microxyphiomces lancicarpus</i>	MZ827275			
<i>Microxyphiomces vainioi</i>	MZ827284			
<i>Monocalenia monospora</i>	KF833339			
<i>Roselvira purulhensis</i>	MZ827231			
<i>Rubrotricha subhelminthospora</i>	MZ827215			
<i>Sipmanidea neotropica</i>	MZ827299			

Supplementary document S15. (Continued)

Species	mtSSU	Country	Host	Specimen
<i>Sporocybomyces leucotrichoides</i>	MZ827268			
<i>Taitaia aurea</i> 1	MF372798	Kenya	<i>Crocodia</i> cf. <i>clathrata</i>	Rikkinen 16260 [but 16259 on GenBank] (TUF 056327)
<i>Taitaia aurea</i> 2	MF372799	Kenya	<i>Crocodia</i> cf. <i>clathrata</i>	Kirika 5103 [but 1503 on GenBank] (EA)
<i>Tricharia longispora</i>	AY341374			
<i>Tricharia paraguayensis</i>	MZ827273			
<i>Tricharia urceolata</i>	MZ827261			
<i>Verruciplaca calcarea</i>	MZ827233			
<i>Verruciplaca verrucifera</i>	MZ827196			
<i>Vezdamyces vulgaris</i>	AY584618			

Verrucocladosporium

by P. Diederich, D. Ertz, H. van der Kolk & U. Braun

See supplementary document S3 in chapter *Cladosporium* (page 516).

Xanthoriicola

by P. Diederich, D. Ertz & D. Hawksworth

See supplementary document S3 in chapter *Cladosporium* (page 521).