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Monitoramento da biodiversidade por código de barras de DNA: potenciais e limitações com os fungos liquenizados da Ilha Rei George, Antártica Marítima

Bryan Augusto Azevedo Vieira de Resende

São João del-Rei

2020

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Orientadora: Dr. Juliano de Carvalho Cury

Coorientadora: Dra. Aline Pedroso Lorenz

Dissertação apresentada ao Programa de Pós-graduação em Ecologia da Universidade Federal de São João del-Rei, como requisito parcial à obtenção do título de mestre.

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Aprovado em: 02 de dezembro de 2020

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Universidade Federal de São João del-Rei

PROGRAMA DE PÓS-GRADUAÇÃO EM ECOLOGIA
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DECLARAÇÃO

Eu, Prof. Juliano de Carvalho Cury, lotado na Faculdade de Ciências Farmacêuticas, Alimentos e Nutrição, declaro para os devidos fins que presidi, por videoconferência, através da Plataforma Google Meet – link https://meet.google.com/ray-esvt-iqo, a Banca Examinadora de Defesa de Dissertação de Mestrado de Bryan Augusto Azevedo Vieira de Resende, intitulada "Monitoramento da biodiversidade por código de barras de DNA: potenciais e limitações com os fungos liquenizados da Ilha Rei George, Antártica Marítima" no Programa de Pós-Graduação em Ecologia, Nível: Mestrado em Ecologia, ocorrida em 02 de dezembro de 2020. Declaro ainda que compuseram a Banca Examinadora as professoras Natália Mossman Koch e Iara Freitas Lopes, que concordaram plenamente com os termos da Ata de Defesa e da Folha de Aprovação do referido exame preenchidas por mim, que deverão ser transcritas para o SIPAC UFSJ e assinadas por mim e pelos demais membros titulares internos da UFSJ que compuseram a Banca Examinadora, tendo a Banca chegado ao seguinte resultado: **Aprovação por unanimidade.**

São João del – Rei, 02 de dezembro de 2020

Prof. Dr. Juliano de Carvalho Cury

PROGRAMA DE PÓS-GRADUAÇÃO EM ECOLOGIA
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TERMO DE CONCORDÂNCIA

Por meio deste documento, eu, Natália Mossmann Koch, pesquisadora pós-doutoranda na Universidade de Minnesota, EUA, CPF nº 00321676017, RG nº 9078940054 SSP/RS, declaro que no dia 02/12/2020, às 14h (horário de Brasília), participei, por videoconferência como membro titular, da Banca Examinadora de Defesa de Dissertação de Mestrado de Bryan Augusto Azevedo Vieira de Resende, que apresentou o trabalho intitulado "Monitoramento da biodiversidade por código de barras de DNA: potenciais e limitações com os fungos liquenizados da Ilha Rei George, Antártica Marítima", defendida junto ao Programa de Pós-Graduação em Ecologia da Universidade Federal de São João del-Rei. Declaro ainda que concordo plenamente com os termos de preenchimento da Ata de Defesa do referido exame, preenchida pelo professor Juliano de Carvalho Cury – UFSJ, presidente da Banca Examinadora de Defesa de Dissertação de Mestrado, que deverá ser transcrita para o SIPAC-UFSJ e assinada por ele e pelos demais membros titulares internos da UFSJ que compuseram a Banca Examinadora de Defesa de Dissertação acima referida, tendo a Banca chegado ao seguinte resultado: **Aprovado por unanimidade**.

Saint Paul, USA, 02 DE DEZEMBRO DE 2020.

Natália M. Koch

Dra. Natália Mossmann Koch
Universidade de Minnesota, EUA

MINISTÉRIO DA EDUCAÇÃO
UNIVERSIDADE FEDERAL DE SÃO JOÃO DEL-REI
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PROGRAMA DE PÓS-GRADUAÇÃO EM ECOLOGIA

UNIVERSIDADE FEDERAL DE SÃO JOÃO DEL - REI / UFSJ

ATA DE DEFESA DE DISSERTAÇÃO - M.Sc.

ATA DE DEFESA DE DISSERTAÇÃO PARA CONCESSÃO DO GRAU DE MESTRE EM ECOLOGIA

Aos dois dias do mês de dezembro do ano de dois mil e vinte, às 14h00min, pela plataforma Google meet (meet.google.com/zqe-vynp-vib), instalou-se a banca examinadora de dissertação de mestrado do discente **Bryan Augusto Azevedo Vieira de Resende**. A banca examinadora foi composta pelos professores Dra. Natália Mossman Koch (UFMT), examinadora externa, Dra Iara Freitas Lopes (UFSJ), examinadora interna, e Dr. Juliano de Carvalho Cury, (UFMT), orientador. Deu-se início a abertura dos trabalhos, por parte do professor Dr. Juliano de Carvalho Cury, Presidente da Banca, que, após apresentar os membros da banca examinadora e esclarecer a tramitação da defesa solicitou ao candidato que iniciasse a apresentação da dissertação, intitulada "**Monitoramento da biodiversidade por código de barras de DNA: potenciais e limitações com os fungos liquenizados da Ilha Rei George, Antártica Marítima**", marcando um tempo de cinqüenta minutos para a apresentação. Concluída a exposição, o Prof. Juliano de C. Cury, presidente, passou a palavra à examinadora externa, Profa. Natália M Koch, para arguir o candidato, e, em seguida, à examinadora interna, Profa. Iara F. Lopes para que fizesse o mesmo. Concluídos os trabalhos de apresentação e arguição, o candidato foi aprovado conforme as normas vigentes na Universidade Federal de São João del-Rei. A versão final da dissertação deverá ser entregue ao programa, no prazo de 90 dias; contendo as modificações sugeridas pela banca examinadora e constante na folha de correção anexa Resolução Consu Nº 062, de 07 de novembro de 2011, modificada pela Resolução CONSU Nº 005, de 29 de fevereiro de 2016, o candidato não terá o título se não cumprir as exigências acima.

(Assinado digitalmente em 11/01/2021 16:22)
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Sumário

Resumo expandido

Monitoramento da biodiversidade por código de barras de DNA: potenciais e limitações com os fungos liquenizados da Ilha Rei George, Antártica Marítima

Bryan Augusto Azevedo Vieira de Resende[1]*, Aline Pedroso Lorenz[2], Juliano de Carvalho Cury[2]

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Liquens são os organismos mais diversos da "vegetação" na Ilha Rei George (IRG), Antártica Marítima, e podem ser identificados através de características moleculares (Olech, 2004). Uma das técnicas que utilizam essas características é chamada de DNA *barcoding* (Hebert et al., 2003). O uso do DNA *barcoding* tem capacidade de acelerar levantamentos ambientais, porém, é necessário a existência de um banco de dados para referência que contemple toda a comunidade presente no local (Adamowicz et al., 2019; Kelly et al., 2011). No caso dos liquens, o DNA *barcoding* é utilizado para a comparação de sequencias de nucleotídeos do principal fungo que o compõe. A região ITS do DNA nuclear ribossomal (nrDNA) é amplamente utilizada para os fungos (Schoch et al., 2012).

O ITS é uma região do DNA de fácil amplificação, vasto banco de dados para referências (comparado a outras regiões do DNA) e possui capacidade de diferenciar diversas linhagens de organismos (Schoch et al., 2012). Esta diferenciação é realizada através de agrupamentos considerando a similaridade mínima de 97% (Bukin et al., 2019; Geml et al., 2014). Os grupos formados são chamados de MOTUs (*molecular operational taxonomic units*) (Blaxter e Floyd, 2003).

A IRG possui alta diversidade de ambiente e organismos, recentes mudanças climáticas quantificadas, e é de fácil logística para coleta (comparando-a com outras regiões antárticas). Esses fatos fazem da IRG um bom modelo para monitoramento das mudanças regionais. As mudanças ambientais recentes na IRG são fatores potenciais para alteração da comunidade local (Lee et al., 2017; Miranda et al., 2020; Rückamp et al., 2011). O uso do DNA *barcoding* pode acelerar os levantamentos sobre liquens nessa região, porém, para isso é necessário avaliar a aplicabilidade dessa técnica na região. O objetivo deste estudo é investigar a comunidade e o banco de dados de referência de sequencias ITS dos liquens relatados para a IRG, e levantar potencialidades e limitações do uso do DNA *barcoding* na identificação destes liquens.

Para investigar o banco de dados de referência, levantamos as espécies relatadas para a IRG e suas respectivas: sequencias depositadas no GenBank, forma de crescimento, distribuição geográfica, principal fotobionte e substratos. Coletamos também informações sobre as sequencias quanto a voucher de deposito, local de coleta, artigo de referência e código de acesso à sequência. Gênero por gênero, alinhamos as sequencias usando o programa MAFFT v.7 (https://mafft.cbrc.jp/alignment/server/) usando a opção automática (Katoh et al., 2019). Em seguida, eliminamos as porções flanqueadoras do ITS com o programa Geneious® 7.1.3 (Kearse et al., 2012), além das sequencias menores que 80% do tamanho do alinhamento dos sítios ambíguos com o programa GBlocks (http://molevol.cmima.csic.es/castresana/Gblocks_server.html) (Castresana, 2000). Utilizando o programa mothur v.1.44.1 (Schloss et al., 2009), geramos as matrizes de divergência genética (distância *p*) e, com elas, agrupamos as sequencias usando um valor máximo de dissimilaridade de 3%.

Encontramos relatos para 290 táxons, compreendendo 109 gêneros. As características mais frequentes entre os táxons foram: forma de crescimento crostoso

(65%), distribuição geográfica apenas para a Antártica (42%), alga verde como principal fotobionte (90%) e substrato exclusivamente saxícola (58,3%). Após buscas no banco de referências do GenBank para os 290 táxons, obtivemos um total de 2754 sequencias de ITS para 179 táxons, cobrindo 62% dos táxons.

Após seguir o protocolo metodológico, obtivemos 2612 sequencias representando 164 táxons. Para as sequencias, a forma de crescimento mais frequente foi a fruticosa (38%), a localização mais frequente foi a Europa (38,8%) e o fotobionte mais frequente foi alga verde (93%). Para 18,5% das sequencias, informações para voucher e/ou localização não estão disponíveis.

Das MOTUs geradas pelos agrupamentos, 91% foram formadas apenas por um táxon. Já para as MOTUs formadas por mais de um táxon, os gêneros mais frequentes foram *Cladonia*, *Pseudephebe*, *Umbilicaria* e *Usnea*.

A baixa representação de táxons no GenBank (62%) junto com a baixa representatividade de sequencias provindas da Antártica (19%) pode esconder parte da diversidade (Garrido-Benavent et al., 2018). Por isso, é necessário um acréscimo no banco de dados, e que este acréscimo seja representativo para a região antártica. Sequencias com ausência de informações não devem ser utilizadas como referência, pois estas sequências podem significar falsa representação causada por erros humanos (Pleijel et al., 2008).

As principais causas de formação de MOTUs por mais de um táxon são: identificação incorreta dos espécimes, recombinação através de hibridização e introgressão, separação recente do ancestral comum e incapacidade de identificação no nível de espécie apenas utilizando da região ITS (Fontaine et al., 2010; Kelly et al., 2011; Keuler et al., 2020; Lücking et al., 2020). Dentre os 164 táxons avaliados quanto a formação de MOTUs, apenas 40,85% foram formados por apenas uma MOTU,

mostrando que há maior variação genética dentro dos táxons. Para os táxons que compartilharam MOTUs, as principais causas são: maior variação genética dentro do gênero (necessitando do uso de uma região complementar a ITS), identificação incorreta dos espécimes, dificuldade de distinguir a plasticidade fenotípica e variações morfológicas interespecífica, além de existência de espécies crípticas (Kelly et al., 2011; Lutsak et al., 2020; Pino-Bodas et al., 2011).

As mudanças climáticas afetam as comunidades locais, precisamos conhecer a comunidade local e acompanhar suas populações quanto a aumento/decréscimo de indivíduos e expansão/redução de suas áreas de ocorrência (Miranda et al., 2020; Sancho et al., 2017). Um exemplo são os liquens com cianobactérias como principal fotobionte. Aparentemente esses liquens são incapazes de realizar fotossíntese em ambientes abaixo de 0 ºC (Green et al., 2011). Assim, o aumento da temperatura possibilita a expansão desse grupo de liquens. Mesmo sendo representado por 5% dos táxons da IRG, eles representam apenas 2% das sequencias de referência de ITS no GenBank, tornando o monitoramento por DNA *barcoding* inviável.

Em casos onde a utilização apenas do ITS não é capaz de definir a identificação a nível de espécie, uma outra região genética pode ser usada (cox1 ou rpb2, por exemplo), mas devem ser complementares ao uso da região ITS (Kelly et al., 2011; Pino-Bodas et al., 2011). Para reduzir o número de MOTUs formadas por táxon, as relações genéticas internas desses táxons devem ser exploradas a fim de verificar a validação dessa variedade de MOTUs como representantes de um único táxon (Garrido-Benavent et al., 2018; Lutsak et al., 2020). No caso especial do gênero *Usnea*, o uso da região ITS deve ser evitada pela falta de capacidade de delimitação de espécies (Kraichak et al., 2015).

Atualmente, o monitoramento ambiental da IGR por DNA *barcoding* utilizando a região ITS pode gerar bons resultados, mas serão resultados distantes da diversidade real presente no local. Há a necessidade da criação de referências para 111 táxons. Além disso, para muitos outros essas referências devem ser revisadas.

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Biodiversity monitoring by DNA barcoding: potentials and limitations with the lichenized fungi of the King George Island, Maritime Antarctica

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Abstract

Lichens are the most diverse group in the flora of the polars regions. Due to the recent climate changes in these regions a fast and efficient methods is needed to monitoring these communities, as the DNA barcoding. This study aimed to investigate potentials and limitations of use the DNA barcoding (using the available DNA barcode sequences) to monitoring the community of lichenized fungi currently registered for King George Island (KGI) and investigate the coverage of the reference database of this community. To the 290 species, the database cover 179 species (62%), and the principal lacks are to exclusive polar species and crustose species. To the species discrimination inside the genus, 91% of sequences were clustering in groups formed by only one specie. The results showed that implementing a long-term monitoring system of the KGI lichens diversity could be significantly improved using DNA barcoding as a complementary tool.

Key-words: Database accuracy, *ITS* accuracy, *internal transcribed spacer*, lichen monitoring, Antarctic lichens

Introduction

Lichens are ecosystems formed by the interaction of a principal fungus, one or more photosynthetic organism and an indeterminate number of others microscopic organism (Hawksworth and Grube, 2020). The ecosystem is named by the same name of the principal fungus (lichenized fungus). The identification of lichenized fungi can be based on morphological, chemical, or molecular characteristics or by combining them. The identification based on morphological characteristics is specialist-depended and, due to the frequent phylogenetic reclassification, the bibliography is often outdated or has nomenclatural errors (Kelly et al., 2011). Therefore, the identification of lichens using exclusively morphological characteristics practically impossibly the use of lichens' diversity for urgent decisions in environment monitoring (Adamowicz et al., 2019; Kelly et al., 2011). Likewise, the identification based on molecular characters is challenging due to the absence or small coverage of local groups' diversity in the databases. Ideally, GenBank sequences should be accompanied by data on the collection site (preferably with geographical coordinates) and voucher specimens. Besides, ecological information as, for example, substrate where the lichen was collected should also be available, allowing additional analyses (Adamowicz et al., 2019; Creer et al., 2016; Nilsson et al., 2006).

The molecular identification using DNA barcodes uses small sequences (between 500 to 800 bases pair), easily amplified by universal primers, characterized by low intraspecific variation and enough interspecific variation to discriminate different species (Hebert et al., 2003; Stoeckle, 2003). DNA barcoding allows grouping sequences using similarity thresholds, forming groups called MOTUs (Molecular Operational Taxonomic Units), which can or not represent a species (Blaxter, 2004; Blaxter and Floyd, 2003). The most widely used DNA barcode in fungi is the *ITS*

(*internal transcribed spacer*) region of the nuclear ribosomal DNA (nrDNA) (Schoch et al., 2012). This region is the most representative fungal DNA region on databases. The *second largest subunit of RNA polymerase II* (*rpb2*) is a viable alternative barcode marker for fungi. Compared to *ITS* region, *rpb2* presents less coverage in *Ascomycota* and has fewer sequences in the databases (Větrovský et al., 2015); therefore, this marker can improve accuracy as a secondary barcode. In recent years, metabarcoding has been used as a complementary tool to access lichen diversity using environmental DNA (eDNA) sampling. However, due to the lack of representative databases of the species' local diversity, metabarcoding still is a complementary technique in floristic inventories, being necessary to complement it with the classic voucher collection, morphological characterization, and phylogenetic analyses (Wright et al., 2019).

The reliability of the sequence identification depends on various factors, from the collection until the data informed during the submission (Wieczorek et al., 2012; Zhang and Zhang, 2014). In GenBank, strategies to improve the information can be applied to new sequences, but old sequences can still have unclear or inexistent information (Wieczorek et al., 2012). Nilsson et al. (2006) demonstrated that 27% of the fungal *ITS* sequences had incomplete identification, 82% did not present explicit information about the voucher, and 54% did not present information on the specimen's geographical origin.

Even with the some limitations, the DNA barcoding technique is a strong tool that monitoring environmental change, as is Maritime Antarctica case. This region has presented rapid environmental changes (Convey et al., 2009), principally related to local temperature throughout the years (Biskaborn et al., 2019; Turner et al., 2005; Turner et al., 2016). These patterns' changes generate direct impacts in the local community of lichens, which can be positive or negative on their populations and

spatial distribution (Amesbury et al., 2017; Sancho et al., 2017). Therefore, it is fundamental to keep track of changes in the lichen community of this region to make future decisions focused in the best local environmental preservation (Cannone, 2004; Pereira et al., 2018). But, monitoring alterations on the highly diverse lichen communities in Maritime Antarctica is challenging because relatively few specialists are available, and field expeditions are costly and depend on complicated logistics.

Therefore, with the DNA barcoding we can speed up the surveys and help us to predict know how the lichenized fungi community will responds the climate change, there must be a representative and accurate database covering the local diversity properly. In this study, we reviewed the availability of *ITS* sequences from lichenized fungi species that are reported for the King George Island in Maritime Antarctica. Working on public *ITS* database of the lichenized fungi community in KGI, we (a) revealed the community representative, as the growth form, geographic origin, photobiont preferences and substrate; (b) quantify the database covaerage to the community; (c) revealed the representative bias in the current database, as the growth form, geographic origin and photobiont preferences; (d) revealed which species are formed by more than

(KGI) belongs to the South Shetland archipelago in the Maritime Antarctica. The one MOTU and investigate the cause of this; and (e) revealed which genera form MOTUs composed by more than one species and investigate the cause of this.

Materials and methods

Study area and species survey

The King George Island KGI comprises 1,400 km², of which about 5-8% are ice-free (Bölter, 2011; Rakusa-Suszczewski, 2002) and presented a 1.6% ice-free area

expansion between 2000 and 2008 (Rückamp et al., 2011). The climate is cold and humid, with temperatures averaging just above 0º C during the summer (3-4 months) and rarely below -10-12º C for the rest of the year. The snowless period is 15 to 20 weeks a year (Øvstedal and Smith, 2001).

For the initial survey about the diversity of the lichenized fungus species reported for the KGI, we used two comprehensive books, "Lichens of Antarctica and South Georgia: A guide to their identification and ecology" (Øvstedal and Smith, 2001), and "Lichens of King George Island, Antarctica" (Olech, 2004), also considering the infraspecific ranks (varieties, subspecies, and forms). We updated the taxon list searching on the Recent Literature on Lichens website (http://nhm2.uio.no/botanisk/lav/RLL/RLL.HTM), using the keyword "King George" and filtering the results for after January/2001. The search (made on July 30, 2020) resulted in 59 articles, which were individually inspected for the registered taxa. Taxonomic ranks (Phylum, Sub-phylum, Class, Sub-Class, Order, and Family) were reviewed and updated using the Index Fungorum (http://www.indexfungorum.org/names/Names.asp) and Mycobank (http://www.mycobank.org/quicksearch.aspx) sites.

Database

We searched for all species names and synonyms presented in Index Fungorum in the "Nucleotide" GenBank search page (https://www.ncbi.nlm.nih.gov/nucleotide/) using <"*specie name" AND "internal transcribed spacer*">. For each *ITS* sequence retrieved, we extracted information directly on the GenBank record description or in the article associated (if it was already published). The GenBank accession number; voucher; PMed, DOI, or article name; and geographical origin of each sequence were compiled. When informed, we clustered the geographical information by continent:

Africa, Antarctica, Asia, Central America, Europe, North America, Oceania, and South America. We assigned sequences from Russia and Turkey as "Asia" and all sub-Antarctic islands as "Antarctica".

Information about growth form, geographical distribution, substrate, and photobiont associated were obtained in Øvstedal and Smith (2001), Olech (2004), and Singh et al. (2015). Searches on Google Scholar (https://scholar.google.com/) solved data gaps. We separated photobionts into three categories, namely: (a) green algae, (b) cyanobacteria; and (c) green algae and cyanobacteria. To group the photobionts in these three categories, we used algaebase.org/ (Guiry et al., 2014) and liaslight.lias.net/ (Rambold et al., 2014) sites. We did not find information about *Lecidea sciatropha* Hue, *Shackletonia insignis* (Søchting & Øvstedal) Søchting, Frödén and Arup, and *Usnea fasciata* Torr. photobionts; therefore, we assumed they are the same as these genera's remaining species. We separated growth form into five categories, namely: (a) fruticose, (b) foliose, (c) squamulose, (d) crustose; and (e) others (e.g. filamentous and microfruticose).

Sequence alignment

We performed exploratory analyses on alignments assembled by genera with the program MAFFT v.7 (https://mafft.cbrc.jp/alignment/server/), using the auto option, which selects the best algorithm according to the number of sequences and the level of divergence between them (Katoh et al., 2019). The resulted alignments were visually inspected using Geneious® 7.1.3 (Kearse et al., 2012), and the beginnings and ends were trimmed to exclude missing data and the 18S and 28S flanking genes. Highly divergent sequences were inspected using the BLAST tool (Madden, 2013) and removed from further analysis if they showed greater genetic similarity with other genera than their classification on GenBank, as they most likely represent identification

errors. We also removed short sequences from the analyses (below 80% of the total alignment). After these adjustments, we refined the alignments using the GBlocks tool (http://molevol.cmima.csic.es/castresana/Gblocks_server.html), with the less stringent options, to remove the ambiguously aligned sites (Castresana, 2000).

Genetic distance matrices and clustering analyses

We calculated the genetic distance matrices (*p* distance) using the software mothur v.1.44.1 (Schloss et al., 2009), considering only the substitutions. The clustering was made with the same software using the furthest method and a cutoff value of 0.03; that is, sequences belonging to the same MOTU had a maximum divergence of 3% (Bukin et al., 2019; Schloss et al., 2009). This cutoff value was selected because it is widely used for fungal species delimitation since it handles overall interspecific distance values and error generated by PCR (Bukin et al., 2019; Geml et al., 2014). We recorded the number of MOTUs generated by genus and species (here considered a group of co-specific sequences, i.e., sequences under the same species' name in GenBank), and then the number of MOTUs shared. We called "shared MOTUs" those formed by more than one species, and "exclusive MOTUs" if it included only one species.

Results

We found 290 species reported for the King George Island, representing 43 families and 118 genera (Supplementary material 1). The most abundant growth form was crustose (65%), followed by fruticose (15%), foliose (12%), squamulose (4%), and others (4%). Among the species recorded, the majority have geographic distribution restricted to Antarctica (42%) or bipolar (35%), followed by cosmopolitan (12%) and endemic to the southern hemisphere (11%) (Fig.1). Regarding the photobionts, 90% are

described as associated with green algae, 5% with cyanobacteria, and 5% with both (known as tripartite lichens) (Fig.1). These lichens may occur over one or more types of substrates: exclusive saxicolous (58.3%), terricolous or muscicolous (11.7%); exclusive muscicolous (6.9%); and on other substrates and their combinations (23.1%; Supplementary material 1).

In the search for *ITS* sequences from the lichenized fungi registered in the KGI, we found 2754 records in the GenBank database (Supplementary material 2). After the initial alignments, 142 sequences were excluded from the subsequent clustering analyses: 125 short sequences, 15 unique sequences (one for the genus), and two exceedingly divergent sequences, possibly belonging to different genera to which they were assigned. The final dataset included 2612 records, representing 179 (62%) of the 290 species and 70 of the 109 genera reported for the KGI (Supplementary material 1 and 3). Fifteen genera presented just one species with only one sequence each, and were not considered because the clustering analyses need a minimum of two sequences to be realized. The final alignments, assembled by genus, varied between 434 and 565 base pairs.

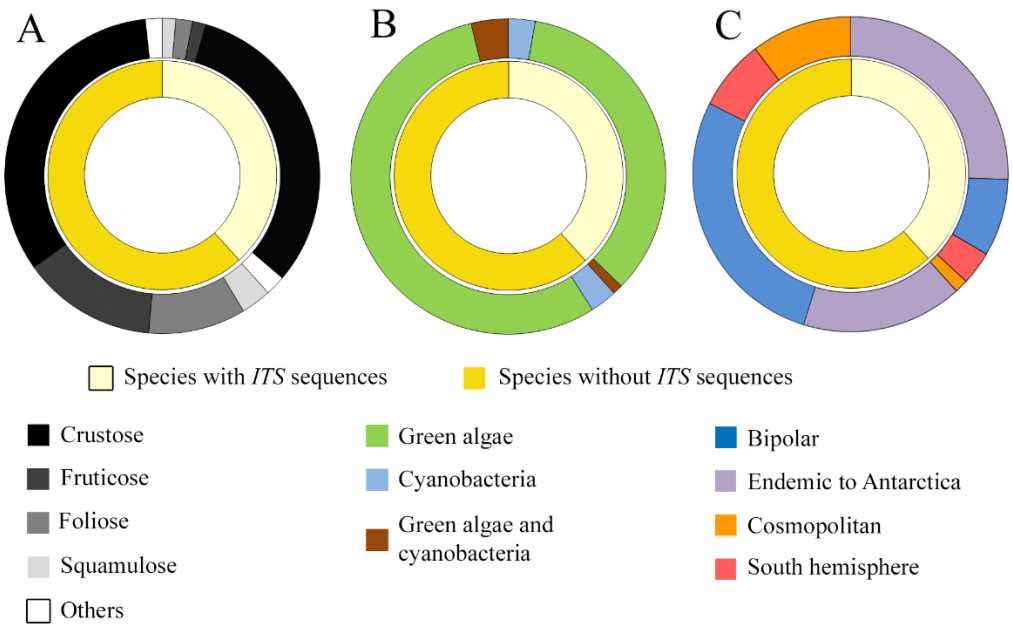

Figure 1: Representativeness of the lichenized fungi species registered in the King George Island in the GenBank *ITS* database. In the inside circle: yellow represents those species with *ITS* sequences available in the GenBank (n=179) and light yellow without (n=111). A) The growth forms of the lichens represented in each database are indicated in black (crustose), dark grey (fruticose), medium grey (foliose), light grey (squamulose), and white (others). B) The photobionts are represented in green (green algae), light blue (cyanobacteria), and brown (green algae and cyanobacteria). C) The geographical distribuition are represented in blue (bipolar), light purple (endemic to Antarctica), orange (cosmopolitan), and pink/red (south hemisphere).

Considering all species reported to the KGI, regardless of the geographical origin of the specimens sequenced, the current *ITS* dataset is predominantly composed of lichenized fungi that form fruticose thalli (38%), followed by crustose (36%), foliose (23%), squamulose (2%), and others (1%). Most of the sequences available were generated from specimens sampled in Europe (38.82%), followed by Antarctica (18.49%), North America (12.1%), not informed (10.64%), South America (9.07%), Asia (8.23%), Oceania (0.84%) and Africa (0.34%). The average number of *ITS* sequence per species was 4.96 (ranging from 0 to 224) for crustose lichens; 18.03 (0 to 243) for foliose; 22.66 (0 to 161) for fruticose; 5 (0 to 31) for squamulose; and 1.82 (0 to 20) for others. Gaps in information about the samples' geographical origin and identification voucher were evident since, among all the sequences retrieved, 81.5% presented both information, 7.9% only the voucher, 6.8% only the collection site, and 3.8% none of them.

The clustering analyses revealed 526 MOTUs among the *ITS* sequences (Table 1), varying between 1 and 38 MOTUs by species, 1 to 90 MOTUs by genera and family with respective everages 3.21, 7.51, and 19.58 (Supplementary material 3, 4, 5 and 6). Regarding the correlation of the taxonomic status assigned to the GenBank sequences

and the MOTUs recovered, it was noteworthy that 97 species investigated presented more than one MOTU, indicating that in the *ITS* datasets assigned as conspecifics, there is significant heterogeneity of evolutionary rates, identification errors, new unrecognized species, or even cryptic lineages. Furthermore, 480 (91.25%) MOTUs were formed by the sequences of one species (exclusive MOTUs), while 46 (8.75%) MOTUs contained sequences of more than one species (2 to 5 species; Table 2).

Table 1: Number of MOTUs retrieved in the clustering analyses of 2612 *ITS* sequences.

Nº MOTUs	Nº of species	% of species
1	67	40.85
2	26	15.85
3	24	14.63
4	4	2.44
5	14	8.54
6	6	3.66
7	6	3.66
8	4	2.44
9	2	1.22
10	2	1.22
11	1	0.61
12	3	1.83
15	2	1.22
19	1	0.61
21	1	0.61
38	1	0.61
526	164	100

Table 2: Genera that presented MOTUs shared by different species.

Genus	Nº of species *	Nº of *ITS* sequences *	Nº MOTUs **	Nº of shared MOTUs
Austroplaca Søchting, Frödén and Arup	5	12	7	1
Cladonia P. Browne	23	392	90	21
Lecania A. Massal.	4	10	4	1
Lecidea Ach.	4	158	23	1
Lecidella Körb.	5	58	30	2
Lepra Scop.	3	5	3	1
Lepraria Ach.	2	6	2	1
Parvoplaca Arup, Søchting and Frödén	2	7	3	1
Placopsis (Nyl.) Linds.	3	54	4	1
Pseudephebe M. Choisy	2	69	7	3
Rhizocarpon Ramond ex DC.	9	32	20	1
Umbilicaria Hoffm.	8	120	19	6
Usnea Dill. ex Adans.	4	243	7	6

*In our dataset after methodological removes

**Considering a maximum divergence of 3%.

Discussion

Database representativeness, limitations and potencial

The *ITS* sequences currently available in the GenBank covered 62% (Fig. 1) of lichenized fungus species from the KGI, one of the richest floras in Maritime Antarctica. The vast majority of sequences were obtained from specimens collected in other continents, with the representativeness of Antarctica collections being only 18.49% to its *ITS* sequence. Consequently, beyond the low taxonomic coverage, there are probably other species still unknown since investigations that include collections in the region often reveal species endemic in Antarctica (Garrido-Benavent et al., 2018). In our database, 18.5% of the sequences are missing localization or voucher information. Voucherless sequences are unquestionable, and those of unknown specimens' collection sites are practically worthless in a phylogenetic study (Pleijel et al., 2008). These gapped or inefficient databases for species-level identification dramatically reduce community monitoring accuracy using the DNA barcoding method.

When we look at lichenized fungi without any deposited ITS sequence, we can see a high percentage of crustose lichens (Fig.1; A), this result can be caused by the difficulty in separating these lichens from the substrate. In relation to the main photobiont, species with and without deposited ITS sequences are relatively similar (Fig.1; B). As for geographic distribution, species with no deposited ITS sequence are formed mainly by endemic species (for Antarctica) and bipolar species (Fig.1; C). Therefore, polar and/or crustose species of lichens need a special improvement in the deposition of ITS sequences, with this, we could occupy most of the lack of basic knowledge to apply DNA barcoding techniques.

As an exemple of potencial application of lichenized fungi monitoring to we get environmental, is the local distribuition of cyanolichens. Cyanolichens are good indicators of warming in polar regions since their photobionts can do photosynthesis only in temperatures above 0 ºC (Green et al., 2011). In polar regions, a new local of occorence of cyanolichens can mean a warming of that local. In the KGI, 5% of the lichenized fungi have cyanobacteria as the principal photobiont; nevertheless, only 8 of these 16 species have ITS sequences in the GenBank. Analyzing the dataset of these cyanolichens we found (a) formation of more than one MOTU in 5 species; (b) the only genus with more than one specie is Leptogium (Ach.) Gray and its dont formed shared MOTUs and (c) we can't investigate Coccotrema cucurbitula (Mont.) Müll. Arg. cause it have only one ITS sequence in database. Monitoring cyanolichens in KGI with DNA barconding shows potential but inside relation in species may be investigated.

Multiple MOTUs species

The formation of more than one MOTUs per taxa can indicate (a) high intraspecific variation; (b) erroneous identification; (c) difficulty in distinguishing phenotypic plasticity and interspecific variation; and (d) the existence of cryptic species (Kelly et al., 2011; Lutsak et al., 2020; Pino-Bodas et al., 2011). Cryptic species present high similarity phenotypic or poorly understood morphological variation, preventing the correct identification using only morphological characters (Boluda et al., 2016; Lutsak et al., 2020; Wirtz et al., 2012). The expressive number of species with multiple MOTUs (Table 2) demonstrates that many of the species present in the KGI can, in fact, belong to a species complex (Garrido-Benavent et al., 2018; Lutsak et al., 2020). Species complexes generally require an integrative taxonomic approach, with extensive sampling and representativeness to be fully detangled.

Sharing of MOTUs among species

The DNA barcoding compares sequences of a previously defined region of DNA, grouping or separating sequences through the similarity or divergence between them. In some cases, the group taxon with phenotypic differences can be grouped. In sequences of lichenized fungi, this grouping can be caused mainly by: (a) erroneous identification; (b) recombination through hybridization and introgression; and (c) recent divergence from the common ancestor (Fontaine et al., 2010; Kelly et al., 2011; Keuler et al., 2020; Lücking et al., 2020).

In this study, the genera with the highest number of shared MOTUs were *Cladonia* P. Browne, *Pseudephebe* M. Choicy, *Umbilicaria* Hoffm., and *Usnea* Dill. ex Adans.. In common, these genera present complex morphological identification and low interspecific genetic variation. Previous studies with *Cladonia* had already detected a wide MOTUs sharing and a great difficulty in delimiting its species through DNA barcoding (Pino-Bodas et al., 2013). Species complexes, morphological convergence (due to similar environmental conditions), and recent diversification are among the causes, not mutually exclusive, of the species overlapping when DNA sequences are compared (Fontaine et al., 2010; Kelly et al., 2011). Therefore, in these cases, a secondary barcode marker can improve accuracy; *cox1* and *rpb2* genes, for example, are potential candidates (Kelly et al., 2011; Pino-Bodas et al., 2013). Concerning *Pseudephebe*, this seems not to be the case since it has already been reported that the species identification using the *ITS* region provided reliable results (Boluda et al., 2016). High morphological similarity, challenging to be detected by non-specialists, may have led to incorrect identifications. The species *Pseudephebe minuscula* (Nyl. ex Arnold) Brodo & D. Hawksw. and *Pseudephebe pubescens* (L.) M. Choisy, for example, can occur in the same area of the KGI and present similar morphological characters (Boluda et al., 2016).

The genus *Usnea*, one of the most abundant and well-known lichenized fungi of Maritime Antarctica, has a well-known and complicated taxonomic delimitation. The low rate of exclusive MOTUs using only *ITS* sequence can be caused by the high speciation rates in the genus (Kraichak et al., 2015). The use of other techniques based on microsatellite and *RADseq* has shown results more accurate (Lagostina et al., 2018; Grewe et al., 2018). And finally, the *Umbilicaria* genus, represented by nine species in the KGI, presented 19 MOTUs in the ITS dataset, 6 of them shared by more than one species. This high sharing of MOTUs suggests that, as well as *Usnea*, to improve the species delimitation, it is necessary to define a second marker as DNA barcode or use alternative molecular markers (Hestmark et al., 2011; Ott et al., 2004).

It is essential to highlight that in this study, we only species with occurrence registered in the KGI. Therefore, the sharing patterns revealed can be even more extensive, as we did not consider sequences of all species of the genera investigated that are available in GenBank. Besides, the low interspecific variation of the ITS region in some genera indicates that, despite representing the genomic region with the higher representativeness of lichenized fungi sequences available in GenBank, the use of only this marker is insufficient to delimit many species. Thus, metabarcoding analyses, which generally use sequences of up to 400 base pairs, in many cases will be restricted to identifying the local diversity up to the genus level, regardless of the availability of reference sequences.

Conclusion

In the scenario of climate change, know the current biodiversity is the base for we can investigate and make predictions about how the communities will respond to local changes. To do this, all the local biodiversity needs to be knowing. In Antarctica

areas, approaches like DNA barcoding can accelerate biodiversity monitoring and reveal new species, as long as there is the availability of barcode sequences representing local diversity in the databases. Regarding the lichenized fungi present in the KGI, this study showed that most species already have at least one sequence available on GenBank; however, most of them were not generated from antarctic specimens. The absence of important information about the available sequences (such as geographical origin and voucher), underrepresented growth forms in the databases (e.g. crustose lichens), the low resolution of the ITS region to delimit species in some genera, and species complexes, were the main limitations detected for the full employment of the DNA barcoding in the KGI. Therefore, we indicate traditional DNA barcoding methods based on local specimens, representing evenly all lichens' growth forms, associated with morphological and chemical analyses to assemble a reference bank of DNA barcode sequences of local species. Besides, a secondary DNA barcode marker can improve the accuracy in genera that only ITS region was not efficient for delimiting species, as the genera Cladonia and Usnea, abundant and widely distributed lichens in the Antarctic landscape. To we can use the DNA barcoding techiques to monitoring the lichenized fungi community under effect of the climate change the reference sequences need to be improved, so we would have something closer to the ideal, which covers the entire local community.

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Suplementary material

Supplementary material 1:King George Island lichens and the report reference

Family	Genus	Epithet and aff. / f. /var. / subsp.	Nº of ITS sequences in GenBank	Geographic Distribution (SH: South Hemisphere, B: Bipolar, E: Endemic, C: Cosmopolitan)	Substratum (RK: Rocks, SL: Soil, E: Epiphytic, O: Other substratum, M: mosses)	Growth Form (C: Crustose, SQ: Squamulose, FO: Foliose, FR: Fruticose, O: Other)	Photobiont (GA: Green algae, Cy: Cyanobacteria, GA & Cy: Green algae AND Cyanobacteria)	Report to King George Island (DOI or reference)
Acarosporaceae	*Acarospora*	*austroshetlandica*	1	E	RK	CR	GA	10.1016/j.polar.2015.07.001
		badiofusca	4	B	RK	CR	GA	10.1016/j.polar.2015.07.001
		convoluta	0	E	RK	CR	GA	10.1016/j.polar.2015.07.001
		macrocyclos	0	E	RK	CR	GA	10.1016/j.polar.2015.07.001
	Eiglera	*flavida*	0	C	RK	CR	GA & Cy	10.1007/s00300-015-1863-0
	Pleopsidium	*chlorophanum*	38	B	RK	CR	GA	10.1016/j.polar.2015.07.001
Arthoniaceae	*Arthonia*	*lapidicola*	0	B	RK	CR	GA	10.1016/j.polar.2015.07.001
		molendoi	0	B	O	O	GA	10.1016/j.polar.2015.07.001
		phaeophysciae	0	B	O	O	GA	10.1016/j.polar.2015.07.001
		rufidula	0	E	O	O	GA	10.1016/j.polar.2015.07.001
		subantarctica	0	E	RK	CR	GA	10.1016/j.polar.2015.07.001
	Arthothelium	*evanescens*	0	E	RK	CR	GA	10.1016/j.polar.2015.07.001
Arthopyreniaceae	*Arthopyrenia*	*maritima*	0	E	RK	CR	GA	10.1016/j.polar.2015.07.001
		praetermissa	0	E	RK	CR	GA	10.1016/j.polar.2015.07.001

Arthrorhaphidaceae	*Arthrorhaphis*	*citrinella*	0	B	SL, M	CR	GA	10.1016/j.polar.2015.07.001
Caliciaceae	*Amandinea*	*augusta*	0	E	RK	CR	GA	10.1016/j.polar.2015.07.001
		babingtonii	0	E	RK	CR	GA	10.1016/j.polar.2015.07.001
		coniops	1	B	RK	CR	GA	10.1016/j.polar.2015.07.001
		falklandica	0	E	RK	CR	GA	10.1016/j.polar.2015.07.001
		isabellina	0	E	RK	CR	GA	10.1016/j.polar.2015.07.001
		latemarginata	0	E	RK	CR	GA	10.1016/j.polar.2015.07.001
		petermannii	1	E	RK	CR	GA	10.1016/j.polar.2015.07.001
		punctata	9	C	E, M	CR	GA	10.1016/j.polar.2015.07.001
	Buellia	*illaetabilis*	0	E	RK	CR	GA	10.1016/j.polar.2015.07.001
		isabellina	0	E	RK	CR	GA	10.1007/s00300-018-2388-0
		perlata	0	E	RK	CR	GA	10.1016/j.polar.2015.07.001
		pycnogonoides	0	E	RK	CR	GA	10.1016/j.polar.2015.07.001
		russa	1	E	RK	CR	GA	10.1016/j.polar.2015.07.001
	Diplotomma	*alboatrum*	11	SH	RK	CR	GA	10.1016/j.polar.2015.07.001
	Tetramelas	*anisomerus*	1	E	RK	CR	GA	10.1016/j.polar.2015.07.001
		cladocarpizus	0	E	RK	CR	GA	10.1016/j.polar.2015.07.001
		granulosus	0	E	RK	CR	GA	10.1016/j.polar.2015.07.001
		grimmiae	0	E	SL, M	CR	GA	10.1016/j.polar.2015.07.001
		nelsonii	0	E	RK	CR	GA	Olech, M., 2004. Lichens from the King George Island, Antarctica. Institute of Botany of the Jagiellonian University, Kraków.
		papillatus	1	B	SL, M	CR	GA	10.1016/j.polar.2015.07.001
		subpedicellatus	0	E	RK	CR	GA	10.1016/j.polar.2015.07.001
Candelariaceae	*Candelaria*	*murrayi*	1	E	RK, M, O	FO	GA	10.1016/j.polar.2015.07.001
	Candelariella	*aurella* f. aurella	10	B	RK	CR	GA	10.1016/j.polar.2015.07.001

		flava	0	E	RK, M , O	CR	GA	10.1016/j.polar.2015.07.001
		vitellina f. vitellina	9	B	RK, SL, M , O	CR	GA	10.1016/j.polar.2015.07.001
Catillariaceae	*Austrolecia*	*antarctica*	1	E	RK	CR	GA	10.1016/j.polar.2015.07.001
	Catillaria	*contristans*	1	B	M, E, O	CR	GA	10.1016/j.polar.2015.07.001
Cladoniaceae	*Cladonia*	*asahinae*	1	B	SL, M	FR	GA	10.1016/j.polar.2015.07.001
		borealis	66	C	SL, M	FR	GA	10.1016/j.polar.2015.07.001
		cariosa	17	B	SL	FR	GA	10.1016/j.polar.2015.07.001
		carneola	2	E	M	FR	GA	Olech, M., 2004. Lichens from the King George Island, Antarctica. Institute of Botany of the Jagiellonian University, Kraków.
		cervicornis subsp. mawsonii	2	E	SL	FR	GA	10.1016/j.polar.2015.07.001
		chlorophaea	18	C	SL, M	FR	GA	10.1016/j.polar.2015.07.001
		cornuta	20	B	SL, E	FR	GA	Olech, M., 2004. Lichens from the King George Island, Antarctica. Institute of Botany of the Jagiellonian University, Kraków.
		deformis	18	B	SL	FR	GA	Olech, M., 2004. Lichens from the King George Island, Antarctica. Institute of Botany of the Jagiellonian University, Kraków.
		fimbriata	18	C	SL, M	FR	GA	10.1016/j.polar.2015.07.001
		galindezii	1	E	SL, M	FR	GA	10.1016/j.polar.2015.07.001
		gracilis	15	B	SL, M	FR	GA	10.1016/j.polar.2015.07.001

metacorallifera	3	C	M	FR	GA	Pereira, A.B., Putzke M.T.P., Putzke, J., 2008. Biological communities of Keller Peninsula, King George Island-Antarctica. Caderno Pesquisa Série Biol. 20, 63-74.
novochlorophaea	3	C	SL, E	FR	GA	Olech, M., 2004. Lichens from the King George Island, Antarctica. Institute of Botany of the Jagiellonian University, Kraków.
pleurota	15	C	M	FR	GA	10.1016/j.polar.2015.07.001
pocillum	51	C	SL, M	FR	GA	10.1016/j.polar.2015.07.001
pyxidata	46	C	SL, M	FR	GA	10.1016/j.polar.2015.07.001
rangiferina	37	B	SL, M	FR	GA	Pereira, A.B., Putzke M.T.P., Putzke, J., 2008. Biological communities of Keller Peninsula, King George Island-Antarctica. Caderno Pesquisa Série Biol. 20, 63-74.
sarmentosa	1	SH	SL, M	FR	GA	10.1016/j.polar.2015.07.001
scabriuscula	30	C	M	FR	GA	17082741
squamosa var. squamosa	8	C	SL, M	FR	GA	10.1016/j.polar.2015.07.001
subulata	36	B	SL, M	FR	GA	10.1016/j.polar.2015.07.001
sulphurina	3	C	M	FR	GA	Olech, M., 2004. Lichens from the King George Island, Antarctica. Institute of Botany of the Jagiellonian University, Kraków.

		weymouthii	2	SH	M	FR	GA	Olech, M., 2004. Lichens from the King George Island, Antarctica. Institute of Botany of the Jagiellonian University, Kraków.
Coccocarpiaceae	*Peltularia*	*austroshetlandica*	0	E	SL, M	SQ	Cy	10.1016/j.polar.2015.07.001
Coccotremataceae	*Coccotrema*	*cucurbitula*	1	SH	RK	CR	Cy	10.1016/j.polar.2015.07.001
Collemataceae	*Enchylium*	*tenax*	0	C	SL, E	FO	Cy	10.1016/j.polar.2015.07.001
	Leptogium	*antarcticum*	1	E	M	FO	Cy	10.1017/S0024282918000269
		marcellii	4	E	SL, M	FO	Cy	10.1017/S0024282918000269
		menziesii	0	SH	E	FO	Cy	Pereira, A.P., Spielmann, A.A., Martins, M.F.N., Francelino, M.R., 2007. Plant communities from ice-free areas of keller peninsula, king george island, antarctica. Oecologia Brasiliensis. 11, 14-22.
		puberulum	9	E	RK	FO	Cy	10.1016/j.polar.2015.07.001
Cystocoleaceae	*Cystocoleus*	*ebeneus*	20	B	SL, E	O	GA	10.1016/j.polar.2015.07.001
Fuscideaceae	*Fuscidea*	*asbolodes*	0	B	RK	CR	GA	10.1016/j.polar.2015.07.001
Gomphillaceae	*Gyalidea*	*antarctica*	0	E	M	CR	GA	Olech, M., 2004. Lichens from the King George Island, Antarctica. Institute of Botany of the Jagiellonian University, Kraków.
Haematommataceae	*Haematomma*	*erythromma*	1	E	RK	CR	GA	10.1016/j.polar.2015.07.001
Hymeneliaceae	*Tremolecia*	*atrata*	3	E	RK	CR	GA	10.1016/j.polar.2015.07.001
Incertae sedis	*Oevstedalia*	*antarctica*	0	E	RK	CR	GA	Olech, M., 2004. Lichens from the King George Island, Antarctica. Institute of Botany of the Jagiellonian University, Kraków.

Koerberiaceae	*Steinera*	*intricata*	18	E	E	FO	Cy	10.1016/j.polar.2015.07.001
		olechiana	0	E	SL, M	SQ	Cy	10.2478/v10183-011-0011-y
Lecanoraceae	*Bryonora*	*castanea*	1	B	M	CR	GA	10.1016/j.polar.2015.07.001
		peltada	0	E	E	CR	GA	10.1016/j.polar.2015.07.001
	Carbonea	*assentiens*	0	B	RK	CR	GA	10.1016/j.polar.2015.07.001
		vorticosa	9	B	RK	CR	GA	10.1016/j.polar.2015.07.001
	Huea	*austroshetlandica*	0	E	RK	CR	GA	Pereira, A.B., Putzke M.T.P., Putzke, J., 2008. Biological communities of Keller Peninsula, King George Island-Antarctica. Caderno Pesquisa Série Biol. 20, 63-74.
		cerussata	1	E	RK	CR	GA	10.1016/j.polar.2015.07.001
		coralligera	0	E	RK	CR	GA	10.1016/j.polar.2015.07.001
		diphyella	0	E	RK	CR	GA	10.1007/s00300-018-2388-0
	Lecanora	*atromarginata*	0	B	RK	CR	GA	10.1016/j.polar.2015.07.001
		dancoensis	0	E	RK	CR	GA	10.1016/j.polar.2015.07.001
		epibryon	4	B	SL, M	CR	GA	10.1016/j.polar.2015.07.001
		flotowiana	1	C	RK	CR	GA	10.1016/j.polar.2015.07.001
		griseosorediata	0	E	RK	CR	GA	10.1016/j.polar.2015.07.001
		intricata	5	B	RK	CR	GA	10.1016/j.polar.2015.07.001
		mawsonii	0	E	RK	CR	GA	10.1016/j.polar.2015.07.001
		parmelinoides	0	SH	SL, M	CR	GA	10.1016/j.polar.2015.07.001
		physciella	3	E	RK	CR	GA	10.1016/j.polar.2015.07.001
		polytropa	22	B	RK	CR	GA	10.1016/j.polar.2015.07.001
		symmicta	4	C	RK	CR	GA	10.11646/phytotaxa.261.2.8
	Lecanora	*stenotropa*	0	B	E	CR	GA	10.1016/j.polar.2015.07.001
	Lecidella	*carpathica*	11	C	RK	CR	GA	17082741

		elaeochroma f. elaeochroma	18	B	E	CR	GA	10.1016/j.polar.2015.07.001
		siplei	6	E	RK	CR	GA	10.1016/j.polar.2015.07.001
		stigmatea	26	B	RK	CR	GA	10.1016/j.polar.2015.07.001
		sublapicida	0	SH	RK, E	CR	GA	10.1016/j.polar.2015.07.001
		wulfenii	1	B	M, E	CR	GA	10.1016/j.polar.2015.07.001
	Myriolecis	*dispersa*	10	C	RK	CR	GA	10.1016/j.polar.2015.07.001
		expectans	0	E	M, E	CR	GA	10.1016/j.polar.2015.07.001
		mons-nivis	0	E	RK	CR	GA	10.1016/j.polar.2015.07.001
		sverdrupiana	0	E	RK	CR	GA	10.1016/j.polar.2015.07.001
		torrida	0	B	RK, O	CR	GA	10.1016/j.polar.2015.07.001
	Rhizoplaca	*aspidophora*	1	E	RK	FO	GA	10.1016/j.polar.2015.07.001
		melanophthalma	161	B	RK	FO	GA	10.1016/j.polar.2015.07.001
Lecideaceae	*Bellemerea*	*alpina*	2	B	RK	CR	GA	10.1016/j.polar.2015.07.001
		pullata	0	E	RK	CR	GA	10.1016/j.polar.2015.07.001
		subsorediza	0	B	RK	CR	GA	10.1016/j.polar.2015.07.001
	Lecidea	*andersonii*	24	E	RK	CR	GA	10.1016/j.polar.2015.07.001
		atrobrunnea	16	B	RK	CR	GA	10.1016/j.polar.2015.07.001
		cancriformis	57	E	RK	CR	GA	10.1016/j.polar.2015.07.001
		lapicida	61	C	RK	CR	GA	10.1016/j.polar.2015.07.001
		sciatropha	0	E	O	CR	GA	10.1017/S0032247418000062
		spheniscidarum	0	E	RK	CR	GA	10.1016/j.polar.2015.07.001
	Poeltidea	*perusta*	5	SH	RK	CR	GA	10.1016/j.polar.2015.07.001
	Porpidia	*austroshetlandica*	0	E	RK	CR	GA	10.1016/j.polar.2015.07.001
		skottsbergiana	0	E	RK	CR	GA	10.1016/j.polar.2015.07.001
		submelinodes	0	E	RK	CR	GA	10.1017/S002428291100017X
Lichinaceae	*Porocyphus*	*coccodes*	0	B	RK	CR	Cy	10.1016/j.polar.2015.07.001

	Zahlbrucknerella	*marionensis*	0	B	RK	O	Cy	10.1016/j.polar.2015.07.001
Massalongiaceae	*Massalongia*	*carnosa*	12	B	E	FO	Cy	10.1016/j.polar.2015.07.001
Megasporaceae	*Aspicilia*	*aquatica*	3	E	RK	CR	GA	10.1007/s00300-015-1863-0
	Megaspora	*verrucosa*	8	B	SL, E	CR	GA	10.1016/j.polar.2015.07.001
Ochrolechiaceae	*Ochrolechia*	*frigida*	21	B	SL, E	CR	GA	10.1016/j.polar.2015.07.001
		parella f. parella	22	B	RK	CR	GA	10.1016/j.polar.2015.07.001
Pannariaceae	*Pannaria*	*caespitosa*	0	B	RK, SL, M	FO	Cy	10.1016/j.polar.2015.07.001
		hookeri	4	B	RK	FO	Cy	10.1016/j.polar.2015.07.001
	Protopannaria	*austro-orcadensis*	0	E	SL, E	FO	Cy	10.1016/j.polar.2015.07.001
	Psoroma	*antarcticum*	31	SH	SL, E, O	SQ	GA	10.1007/s00300-018-2265-x
		buchananii	3	SH	SL, M	SQ	GA & Cy	10.1016/j.polar.2015.07.001
		ciliatum	0	B	M	SQ	GA & Cy	10.1016/j.polar.2015.07.001
		cinnamomeum	7	SH	SL, E	SQ	GA & Cy	10.1016/j.polar.2015.07.001
		hypnorum var. hypnorum	16	C	SL, E	SQ	GA & Cy	10.1016/j.polar.2015.07.001
		saccharatum	1	E	RK	SQ	GA & Cy	10.1016/j.polar.2015.07.001
		tenue	2	SH	M	SQ	GA & Cy	10.1016/j.polar.2015.07.001
Parmeliaceae	*Bryoria*	*forsteri*	0	E	M	FR	GA	10.1016/j.polar.2015.07.001
	Cetraria	*aculeata*	243	B	SL, M	FR	GA	10.1016/j.polar.2015.07.001
	Coelopogon	*epiphorellus*	3	SH	SL, RK, M	FR	GA	10.1016/j.polar.2015.07.001
	Himantormia	*lugubris*	3	E	RK	FR	GA	10.1016/j.polar.2015.07.001
	Hypogymnia	*lugubris* var. lugubris	8	B	SL, M	FO	GA	10.1016/j.polar.2015.07.001
	Neuropogon	*neuropogonoides*	0	SH	SL	FR	GA	10.1080/0028825X.2015.1057185
	Parmelia	*saxatilis*	86	C	RK, SL, M	FO	GA	10.1016/j.polar.2015.07.001
	Protoparmelia	*badia*	15	B	RK	CR	GA	10.1016/j.polar.2015.07.001
		loricata	0	B	RK	CR	GA	10.1016/j.polar.2015.07.001
	Pseudephebe	*minuscula*	39	B	RK	FR	GA	10.1016/j.polar.2015.07.001

		pubescens	31	B	RK	FR	GA	10.1016/j.polar.2015.07.001
	Usnea	*acromelana*	14	SH	RK	FR	GA	Olech, M., 1990. Preliminary studies on ornithocoprophilous lichens of the Arctic and Antarctic regions. Proceedings of the NIPR Symposium on Polar Biology. Vol. 3.
		antarctica	22	SH	RK, M	FR	GA	10.1016/j.polar.2015.07.001
		aurantiacoatra	181	SH	RK	FR	GA	10.1016/j.polar.2015.07.001
		fasciata	0	SH	RK, M	FR	GA	10.1007/s00300-009-0719-x
		trachycarpa	26	SH	RK	FR	GA	10.1016/j.polar.2015.07.001
Peltigeraceae	*Peltigera*	*didactyla*	15	C	SL	FO	Cy	10.1016/j.polar.2015.07.001
Pertusariaceae	*Lepra*	*corallophora*	0	E	RK	CR	GA	10.1016/j.polar.2015.07.001
		dactylina	1	C	SL, M	O	GA	10.1007/s00300-015-1863-0
		erubescens	1	SH	RK	CR	GA	10.1016/j.polar.2015.07.001
		excludens	3	B	RK	CR	GA	10.1016/j.polar.2015.07.001
	Pertusaria	*coccodes*	9	B	RK	CR	GA	10.1016/j.polar.2015.07.001
		pseudoculata	0	E	RK	CR	GA	Olech, M., Słaby, A., 2012. The lichen biota of Antarctic Specially Protected Area No. 151, Lions Rump (King George Island). 67-79.
		signyae	0	E	E	CR	GA	10.1016/j.polar.2015.07.001
	Pertusaria	*oculae-ranae*	0	E	RK	CR	GA	10.1016/j.polar.2015.07.001
Physciaceae	*Phaeophyscia*	*endococcina*	4	B	RK	FO	GA	10.1016/j.polar.2015.07.001
	Phaeorrhiza	*nimbosa*	2	B	SL, M	CR	GA	10.1016/j.polar.2015.07.001
		sareptana	1	B	SL, M	SQ	GA	10.1016/j.polar.2015.07.001
	Physcia	*caesia*	39	C	RK, SL, E, O	FO	GA	10.1016/j.polar.2015.07.001
		dubia	24	B	RK, M, O	FO	GA	10.1016/j.polar.2015.07.001

	Physconia	*muscigena*	17	B	SL, E	FO	GA	10.1016/j.polar.2015.07.001
	Rinodina	*mniaroea* var. mniaroea	4	B	M	CR	GA	10.1016/j.polar.2015.07.001
		olivaceobrunnea	1	B	SL, M	CR	GA	10.1016/j.polar.2015.07.001
		peloleuca	1	SH	RK	CR	GA	10.1016/j.polar.2015.07.001
		turfacea	1	C	SL, M, E	CR	GA	Olech, M., 1994. Lichenological assessment of the Cape Lions Rump, King George Island, South Shetland Islands; a baseline for monitoring biological changes.
Protothelenellaceae	*Protothelenella*	*sphinctrinoidella*	0	B	M	CR	GA	10.1016/j.polar.2015.07.001
Ramalinaceae	*Bacidia*	*chrysocolla*	0	E	RK	CR	GA	10.1007/s00300-015-1863-0
		johnstonii	0	SH	RK	CR	GA	10.1016/j.polar.2015.07.001
		rhodochroa	0	E	M	CR	GA	10.1016/j.polar.2015.07.001
		stipata	0	E	RK	CR	GA	10.1016/j.polar.2015.07.001
		subcoprodes	0	E	RK	CR	GA	10.4202/ppres.2009.18
		tuberculata	0	E	RK, M	CR	GA	10.1016/j.polar.2015.07.001
	Bilimbia	*sabuletorum*	8	B	M	CR	GA	10.1016/j.polar.2015.07.001
	Frutidella	*caesioatra*	6	B	M	CR	GA	10.1016/j.polar.2015.07.001
	Japewia	*tornoensis*	6	B	SL, M, O	CR	GA	10.1016/j.polar.2015.07.001
	Lecania	*brialmontii*	4	E	RK	FR	GA	10.1016/j.polar.2015.07.001
		gerlachei	3	E	RK	FO	GA	10.1016/j.polar.2015.07.001
		glauca	1	E	E	CR	GA	10.1016/j.polar.2015.07.001
		nylanderiana	2	B	RK	CR	GA	10.1016/j.polar.2015.07.001
		subfuscula	0	B	M	CR	GA	10.1016/j.polar.2015.07.001
	Ramalina	*corymbosa*	1	E	RK	FR	GA	10.1016/j.polar.2015.07.001
	Ramalina	*terebrata*	2	E	RK	FR	GA	10.1016/j.polar.2015.07.001

	Thamnolecania	*racovitzae*	1	E	O, RK	SQ	GA	Olech, M., 2004. Lichens from the King George Island, Antarctica. Institute of Botany of the Jagiellonian University, Kraków.
Rhizocarpaceae	*Rhizocarpon*	*badioatrum* var. badioatrum	2	B	RK	CR	GA	10.1016/j.polar.2015.07.001
		copelandii	6	B	RK	CR	GA	10.1016/j.polar.2015.07.001
		disporum	7	B	RK	CR	GA	10.1016/j.polar.2015.07.001
		distinctum	2	B	RK	CR	GA	10.1016/j.polar.2015.07.001
		geminatum	4	B	RK	CR	GA	10.1016/j.polar.2015.07.001
		geographicum	14	C	RK	CR	GA	10.1016/j.polar.2015.07.001
		grande	0	B	RK	CR	GA	10.1016/j.polar.2015.07.001
		nidificum	1	E	RK	CR	GA	10.1016/j.polar.2015.07.001
		polycarpum	1	B	RK	CR	GA	10.1016/j.polar.2015.07.001
		superficiale subsp. superficiale	3	B	RK	CR	GA	10.1016/j.polar.2015.07.001
Sphaerophoraceae	*Sphaerophorus*	*globosus*	26	B	SL, M	FR	GA	10.1016/j.polar.2015.07.001
Sporastatiaceae	*Sporastatia*	*polyspora*	0	B	RK	CR	GA	10.1016/j.polar.2015.07.001
		testudinea	1	B	RK	CR	GA	10.1016/j.polar.2015.07.001
Stereocaulaceae	*Lepraria*	*alpina*	0	C	SL, O	O	GA	10.1007/s00300-015-1863-0
		cacuminum	1	C	SL, M, O	CR	GA	10.1016/j.polar.2015.07.001
		caesioalba	5	E	SL, M	O	GA	10.1007/s00300-015-1863-0
		straminea	0	B	SL, M	CR	GA	10.1016/j.polar.2015.07.001
	Lepraria	*caerulescens*	0	E	SL, M	CR	GA	10.1016/j.polar.2015.07.001
	Stereocaulon	*alpinum*	25	B	SL, RK	FR	GA & Cy	10.1016/j.polar.2015.07.001
		antarcticum	0	SH	SL	FR	GA & Cy	10.1016/j.polar.2015.07.001
		glabrum	7	SH	RK, SL	FR	GA & Cy	10.1016/j.polar.2015.07.001
		vesuvianum	5	C	RK	FR	GA & Cy	10.1016/j.polar.2015.07.001

Stictidaceae	*Absconditella*	*antarctica*	0	E	RK, SL	CR	GA	10.1016/j.polar.2015.07.001
Teloschistaceae	*Athallia*	*holocarpa*	21	B	RK	CR	GA	10.1016/j.polar.2015.07.001
	Austroplaca	*cirrochrooides*	1	E	RK	CR	GA	10.1016/j.polar.2015.07.001
		hookeri	4	E	RK	CR	GA	10.1016/j.polar.2015.07.001
		johnstonii	1	E	RK	CR	GA	10.1016/j.polar.2015.07.001
		lucens	1	E	RK	CR	GA	10.1007/978-3-642-56318-8_12
		millegrana	5	E	RK	CR	GA	10.1016/j.polar.2015.07.001
	Blastenia	*ammiospila*	23	B	M, O	CR	GA	10.1016/j.polar.2015.07.001
	Bryoplaca	*tetraspora*	3	B	RK, M , SL	CR	GA	10.1016/j.polar.2015.07.001
	Calogaya	*saxicola*	20	B	RK	CR	GA	10.1016/j.polar.2015.07.001
	Caloplaca	*anchon-phoeniceon*	0	B	RK	CR	GA	10.1016/j.polar.2015.07.001
		exsecuta	15	B	RK	CR	GA	10.1016/j.polar.2015.07.001
		psoromatis	0	E	RK	CR	GA	10.1016/j.polar.2015.07.001
		schofieldii	0	E	RK	O	GA	10.1007/s00300-015-1863-0
		scolecomarginata	0	E	RK	CR	GA	10.1016/j.polar.2015.07.001
	Catenarina	*iomma*	0	E	RK	CR	GA	10.1016/j.polar.2015.07.001
	Flavoplaca	*citrina*	12	C	E, SL, M, RK	CR	GA	10.1016/j.polar.2015.07.001
	Gondwania	*sublobulata*	1	E	O, RK	CR	GA	10.1016/j.polar.2015.07.001
	Huneckia	*pollinii*	4	B	M	CR	GA	10.1016/j.polar.2015.07.001
	Parvoplaca	*athallina*	1	E	M	CR	GA	10.1016/j.polar.2015.07.001
		tiroliensis	7	B	M, E, O	CR	GA	10.1016/j.polar.2015.07.001
	Polycauliona	*candelaria*	21	B	SL, M, O	FO	GA	10.1016/j.polar.2015.07.001
		coralligera	0	SH	RK	CR	GA	Olech, M., 2002. Plant communities on King George Island. In Geoecology of Antarctic Ice-Free Coastal Landscapes. Springer, Berlin, Heidelberg, 215-231.

		regalis	4	E	RK	FR	GA	10.1016/j.polar.2015.07.001
	Shackletonia	*buelliae*	1	E	RK	CR	GA	10.1016/j.polar.2015.07.001
		hertelii	1	SH	RK, O	CR	GA	Olech, M., Słaby, A., 2012. The lichen biota of Antarctic Specially Protected Area No. 151, Lions Rump (King George Island). 67-79.
		insignis	1	E	RK	O	GA	Olech, M., Słaby, A., 2012. The lichen biota of Antarctic Specially Protected Area No. 151, Lions Rump (King George Island). 67-79.
		sauronii	1	E	O	O	GA	Olech, M., Słaby, A., 2012. The lichen biota of Antarctic Specially Protected Area No. 151, Lions Rump (King George Island). 67-79.
		siphonospora	1	E	RK, SL, M	CR	GA	10.1016/j.polar.2015.07.001
	Villophora	*isidioclada*	1	E	RK	CR	GA	10.1016/j.polar.2015.07.001
	Xanthoria	*elegans*	72	B	RK	FO	GA	10.1016/j.polar.2015.07.001
Tephromelataceae	*Tephromela*	*atra* var. atra	224	C	RK	CR	GA	10.1016/j.polar.2015.07.001
		disciformis	0	C	RK	CR	GA	10.1016/j.polar.2015.07.001
		eatoni	0	E	RK	CR	GA	10.1016/j.polar.2015.07.001
		minor	0	E	RK	CR	GA	10.1016/j.polar.2015.07.001
		parasitica	0	E	RK, O	CR	GA	10.1016/j.polar.2015.07.001
		variabilis	0	E	RK	CR	GA	10.1016/j.polar.2015.07.001
Thelenellaceae	*Thelenella*	*antarctica*	0	E	O, RK	CR	GA	10.1016/j.polar.2015.07.001
		kerguelena	0	E	RK	CR	GA	Olech, M., 2004. Lichens from the King George Island, Antarctica. Institute of Botany of the Jagiellonian University, Kraków.

		mawsonii	0	E	RK	CR	GA	10.1016/j.polar.2015.07.001
		muscorum	0	E	SL, M	CR	GA	10.1016/j.polar.2015.07.001
Thelocarpaceae	*Thelocarpon*	*cyaneum*	0	E	RK	CR	GA	10.1016/j.polar.2015.07.001
Trapeliaceae	*Placopsis*	*antactica*	43	E	RK	CR	GA & Cy	10.1007/s13199-019-00624-4
		contortuplicata	11	SH	RK, M	CR	GA & Cy	10.1016/j.polar.2015.07.001
		parellina f. parellina	1	SH	RK	CR	GA & Cy	10.1016/j.polar.2015.07.001
	Trapelia	*coarctata*	28	C	RK	CR	GA	10.1016/j.polar.2015.07.001
Umbilicariaceae	*Umbilicaria*	*africana*	3	SH	RK	FO	GA	10.1016/j.polar.2015.07.001
		antarctica	44	E	RK	FO	GA	10.1016/j.polar.2015.07.001
		aprina	33	B	RK	FO	GA	10.1016/j.polar.2015.07.001
		cristata	0	E	RK	FO	GA	10.1016/j.polar.2015.07.001
		decussata	14	B	RK	FO	GA	10.1016/j.polar.2015.07.001
		kappenii	7	E	RK	FO	GA	10.1016/j.polar.2015.07.001
		krascheninnikovii	4	B	RK	FO	GA	10.1016/j.polar.2015.07.001
		nylanderiana	11	B	RK	FO	GA	10.1016/j.polar.2015.07.001
		umbilicarioides	5	C	RK	FO	GA	10.1016/j.polar.2015.07.001
Verrucariaceae	*Catapyrenium*	*daedaleum*	3	B	SL, M	SQ	GA	10.1016/j.polar.2015.07.001
	Dermatocarpon	*polyphyllizum*	1	B	RK	FO	GA	10.1016/j.polar.2015.07.001
	Hydropunctaria	*maura*	14	B	RK	CR	GA	10.1016/j.polar.2015.07.001
	Mastodia	*tessellata*	1	B	RK	FO	GA	10.1016/j.polar.2015.07.001
	Placidium	*lachneoides*	0	SH	SL	SQ	GA	10.1016/j.polar.2015.07.001
	Polyblastia	*gothica*	0	B	SL, M	CR	GA	10.1016/j.polar.2015.07.001
	Staurothele	*frustulenta*	4	B	RK	CR	GA	10.1016/j.polar.2015.07.001
		gelida	0	SH	RK	CR	GA	10.1016/j.polar.2015.07.001
	Thelidium	*austroatlanticum*	0	E	RK	CR	GA	10.1016/j.polar.2015.07.001
		pyrenophorum	1	B	RK	CR	GA	10.1016/j.polar.2015.07.001
	Verrucaria	*ceuthocarpa*	2	B	RK	CR	GA	10.1016/j.polar.2015.07.001

cylindrophora	0	E	RK	CR	GA	10.1016/j.polar.2015.07.001
dispartita	0	E	RK	CR	GA	10.1016/j.polar.2015.07.001
elaeoplaca	0	E	RK	CR	GA	10.1016/j.polar.2015.07.001
halizoa	0	B	RK	CR	GA	10.1016/j.polar.2015.07.001
psychrophila	0	E	RK	CR	GA	10.1016/j.polar.2015.07.001
tessellatula	1	B	RK	CR	GA	10.1016/j.polar.2015.07.001

Supplementary material 2: *ITS* sequences list available in GenBank to King George Island lichenized fungi

Genus	**Ephitet**	**f. /var. / subsp.**	**GenBank access code**	**Voucher**	**reference (DOI, PUBMED)**	**pb.**	**Geographical origin**
Absconditella	*antarctica*		NA				
Acarospora	*austroshetlandica*		DQ534451.1	yes	17082741	665	King George Island, Antarctic
Acarospora	*badiofusca*		DQ374125.1	yes	10.1016/j.mycres.2006.01.010	502	Sweden
Acarospora	*badiofusca*		GU184121.1	yes	10.1017/S0024282909990715	844	Spain
Acarospora	*badiofusca*		MK494179.1	yes	unpublished	841	Xinjiang, China
Acarospora	*badiofusca*		MK494180.1	yes	unpublished	842	Xinjiang, China
Acarospora	*convoluta*		NA				
Acarospora	*macrocyclos*		NA				
Amandinea	*augusta*		NA				
Amandinea	*babingtonii*		NA				
Amandinea	*coniops*		KJ607904.1	yes	10.1111/jeu.12159	1349	King George Island, Antarctica
Amandinea	*falklandica*		NA				

Amandinea	*isabellina*	NA				
Amandinea	*latemarginata*	NA				
Amandinea	*petermannii*	AF250779.1	no	10.1006/lich.2000.0297	503	Not informed
Amandinea	*punctata*	AF224353.1	yes	10.2307/3761430	493	Uppsala, Sweden
Amandinea	*punctata*	AF250780.1	yes	10.2307/3761429	496	Not informed
Amandinea	*punctata*	AF540492.1	yes	10.1080/15572536.2004.11833022	499	Steiermark, Oststeirisches Huegelland, Austria
Amandinea	*punctata*	EU681282.1	yes	Book chapter	527	Ukraine
Amandinea	*punctata*	GU553286.1	yes	10.1017/S0024282910000186	477	Donetsk Upland, Ukraine
Amandinea	*punctata*	HQ650627.1	no	10.3852/10-234	568	Not informed
Amandinea	*punctata*	KX512899.1	yes	10.1007/s1322	409	Not informed
Amandinea	*punctata*	MF398994.1	yes	10.1080/12298093.2019.1607657	477	Jeollanam-do, Suncheon-si, South Korea
Amandinea	*punctata*	MG828867.1	no	10.1007/s13225-018-0395-7	516	Sweden
Arthonia	*lapidicola*	NA				
Arthonia	*molendoi*	NA				
Arthonia	*phaeophysciae*	NA				
Arthonia	*rufidula*	NA				
Arthonia	*subantarctica*	NA				
Arthopyrenia	*maritima*	NA				
Arthopyrenia	*praetermissa*	NA				
Arthothelium	*evanescens*	NA				
Arthrorhaphis	*citrinella*	NA				

Aspicilia	*aquatica*	EU057896.1	yes	A preliminary phylogeny of Aspicilia in relation to morphological and secondary product variation	476	Sweden
Aspicilia	*aquatica*	FJ532370.1	yes	10.1017/S002428290900841X	807	Iceland, Sudur-Thingeyjarsysla
Aspicilia	*aquatica*	FJ532371.1	yes	10.1017/S002428290900841X	775	United Kingdom, Wales
Athallia	*holocarpa*	EU639623.1	yes	10.1016/j.mycres.2007.11.005	560	Mallorca, Spain
Athallia	*holocarpa*	FJ346539.1	yes	10.1017/S0024282909008135	519	Sweden
Athallia	*holocarpa*	FJ346540.1	yes	10.1017/S0024282909008135	520	Sweden
Athallia	*holocarpa*	FJ346541.1	yes	10.1017/S0024282909008135	520	Netherlands
Athallia	*holocarpa*	FJ346542.1	yes	10.1017/S0024282909008135	520	Sweden
Athallia	*holocarpa*	FJ346543.1	yes	10.1017/S0024282909008135	520	Sweden
Athallia	*holocarpa*	HM582157.1	yes	10.1017/S0024282911000636	604	Czech Republic
Athallia	*holocarpa*	KR902671.1	yes	10.3906/bot-1502-12	508	Turkey
Athallia	*holocarpa*	KR902672.1	yes	10.3906/bot-1502-12	483	Turkey
Athallia	*holocarpa*	KR902673.1	yes	10.3906/bot-1502-12	520	Turkey
Athallia	*holocarpa*	KR902674.1	yes	10.3906/bot-1502-12	521	Turkey
Athallia	*holocarpa*	KR902675.1	yes	10.3906/bot-1502-12	519	Turkey
Athallia	*holocarpa*	KR902676.1	yes	10.3906/bot-1502-12	520	Turkey
Athallia	*holocarpa*	KR902677.1	yes	10.3906/bot-1502-12	520	Turkey
Athallia	*holocarpa*	KR902678.1	yes	10.3906/bot-1502-12	457	Turkey
Athallia	*holocarpa*	KR902679.1	yes	10.3906/bot-1502-12	519	Turkey
Athallia	*holocarpa*	KT934390.1	yes	Teloschistaceae of the localities Velká kotlina and Petrovy kameny in the Hrubý Jeseník Mts	600	Czech Republic

Athallia	*holocarpa*	KT934391.1	yes	Teloschistaceae of the localities Velká kotlina and Petrovy kameny in the Hrubý Jeseník Mts	599	Czech Republic
Athallia	*holocarpa*	KT934392.1	yes	Teloschistaceae of the localities Velká kotlina and Petrovy kameny in the Hrubý Jeseník Mts	598	Czech Republic
Athallia	*holocarpa*	KX641468.1	yes	10.1515/popore-2016-0022	581	Russia
Athallia	*holocarpa*	MG954144.1	yes	10.11646/phytotaxa.396.1.1	567	Altai, Russia
Austrolecia	*antarctica*	MG925951.1	yes	10.12705/675.1	556	Antarctica Peninsula, Antarctica
Austroplaca	*cirrochrooides*	KC179082.1	yes	10.1111/j.1756-1051.2013.00062.x	502	Chile
Austroplaca	*hookeri*	JQ074201.1	yes	10.1007/s00300-012-1161-z	499	Chile
Austroplaca	*hookeri*	JQ074202.1	yes	10.1007/s00300-012-1161-z	499	Isla Basket, Chile
Austroplaca	*hookeri*	KC179085.1	yes	10.1111/j.1756-1051.2013.00062.x	502	South Shetlands Islands, Antarctica
Austroplaca	*hookeri*	KJ133447.1	yes	10.1556/ABot.56.2014.1-2.12	516	Antarctica
Austroplaca	*johnstonii*	KC179086.1	yes	10.1111/j.1756-1051.2013.00062.x	470	South Shetlands Islands, Antarctica
Austroplaca	*lucens*	KC179087.1	yes	10.1111/j.1756-1051.2013.00062.x	504	Kerguelen Island, France
Austroplaca	*millegrana*	JQ074203.1	yes	10.1007/s00300-012-1161-z	499	Navarino, Chile
Austroplaca	*millegrana*	JQ074204.1	yes	10.1007/s00300-012-1161-z	500	Tierra del Fuego, Chile
Austroplaca	*millegrana*	JQ074205.1	yes	10.1007/s00300-012-1161-z	500	Tierra del Fuego, Chile
Austroplaca	*millegrana*	JQ074206.1	yes	10.1007/s00300-012-1161-z	500	Navarino, Chile
Austroplaca	*millegrana*	KC179088.1	yes	10.1111/j.1756-1051.2013.00062.x	499	Chile

Bacidia	*subcoprodes*	NA				
Bacidia	*chrysocolla*	NA				
Bacidia	*johnstonii*	NA				
Bacidia	*rhodochroa*	NA				
Bacidia	*stipata*	NA				
Bacidia	*tuberculata*	NA				
Bellemerea	*alpina*	AF332116.1	yes	Searching for the correct placement of Megaspora by use of ITS1, 5.8S and ITS2 rDNA sequence data	562	Italy, Friuli
Bellemerea	*alpina*	AF332117.1	yes	Searching for the correct placement of Megaspora by use of ITS1, 5.8S and ITS2 rDNA sequence data	562	Austria, Styria
Bellemerea	*pullata*	NA				
Bellemerea	*subsorediza*	NA				
Bilimbia	*sabuletorum*	AF282069.1	yes	10.1017/S0953756201004269	504	Norway
Bilimbia	*sabuletorum*	AM292670.1	yes	10.1016/j.mycres.2007.03.001	504	Norway
Bilimbia	*sabuletorum*	KT695402.1	yes	10.3897/BDJ.3.e6313	555	Ontario, Waterloo Region, Canada
Bilimbia	*sabuletorum*	MK811845.1	yes	10.3897/BDJ.7.e36252	555	Hedmark, Hamar, Norway
Bilimbia	*sabuletorum*	MK812048.1	yes	10.3897/BDJ.7.e36252	556	Telemark, Skien, Norway
Bilimbia	*sabuletorum*	MK812254.1	yes	10.3897/BDJ.7.e36252	483	Aust-Agder, Bygland, Norway
Bilimbia	*sabuletorum*	MK812294.1	yes	10.3897/BDJ.7.e36252	556	Oslo, Oslo, Norway
Bilimbia	*sabuletorum*	MK812338.1	yes	10.3897/BDJ.7.e36252	506	Buskerud, Gol, Norway
Blastenia	*ammiospila*	EF643515.1	yes	10.1017/S0024282907007098	517	Sweden

Blastenia	*ammiospila*	EF643516.1	yes	10.1017/S0024282907007098	520	Sweden
Blastenia	*ammiospila*	KC179413.1	yes	10.1111/j.1756-1051.2013.00062.x	516	Austria
Blastenia	*ammiospila*	KP314372.1	yes	unpublished	565	Svalbard, Norway
Blastenia	*ammiospila*	KY266873.1	yes	10.3897/mycokeys.11.6670	570	Finnmark, Batsfjord, Batsfjorddalen, Norway
Blastenia	*ammiospila*	MF114603.1	yes	unpublished	518	Not informed
Blastenia	*ammiospila*	MF114715.1	yes	unpublished	497	Not informed
Blastenia	*ammiospila*	MF114721.1	yes	unpublished	387	Not informed
Blastenia	*ammiospila*	MF114746.1	yes	unpublished	439	Not informed
Blastenia	*ammiospila*	MF114747.1	yes	unpublished	517	Not informed
Blastenia	*ammiospila*	MF114749.1	yes	unpublished	517	Not informed
Blastenia	*ammiospila*	MF114756.1	yes	unpublished	518	Not informed
Blastenia	*ammiospila*	MF114765.1	yes	unpublished	517	Not informed
Blastenia	*ammiospila*	MF114770.1	yes	unpublished	517	Not informed
Blastenia	*ammiospila*	MF114798.1	yes	unpublished	520	Not informed
Blastenia	*ammiospila*	MF114825.1	yes	unpublished	520	Not informed
Blastenia	*ammiospila*	MF114827.1	yes	unpublished	517	Not informed
Blastenia	*ammiospila*	MF114837.1	yes	unpublished	518	Not informed
Blastenia	*ammiospila*	MF114839.1	yes	unpublished	515	Not informed
Blastenia	*ammiospila*	MF114840.1	yes	unpublished	516	Not informed
Blastenia	*ammiospila*	MF114841.1	yes	unpublished	516	Not informed
Blastenia	*ammiospila*	MF114844.1	yes	unpublished	516	Not informed
Blastenia	*ammiospila*	MF114846.1	yes	unpublished	517	Not informed
Bryonora	*castanea*	AY541238.1	yes	10.1017/S0953756204009888	563	Austria
Bryonora	*peltada*	NA				

Bryoplaca	*tetraspora*	KC179422.1	yes	10.1111/j.1756-1051.2013.00062.x	522	South Shetlands Islands, Antarctica
Bryoplaca	*tetraspora*	KP314328.1	yes	unpublished	565	Svalbard, Norway
Bryoplaca	*tetraspora*	KP314331.1	yes	unpublished	563	Svalbard, Norway
Bryoria	*forsteri*	NA				
Buellia	*illaetabilis*	NA				
Buellia	*isabellina*	NA				
Buellia	*perlata*	NA				
Buellia	*pycnogonoides*	NA				
Buellia	*russa*	DQ534454.2	yes	17082741	689	King George Island, Antarctica
Calogaya	*saxicola*	EU639636.1	yes	10.1016/j.mycres.2007.11.005	577	Wyoming, USA
Calogaya	*saxicola*	HM800870.1	yes	10.3852/10-120	624	Nebraska, USA
Calogaya	*saxicola*	HM800877.1	yes	10.3852/10-120	528	Nebraska, USA
Calogaya	*saxicola*	HM800878.1	yes	10.3852/10-120	517	Nebraska, USA
Calogaya	*saxicola*	HM800879.1	yes	10.3852/10-120	622	Idaho, USA
Calogaya	*saxicola*	HM800880.1	yes	10.3852/10-120	625	Montana, USA
Calogaya	*saxicola*	HM800881.1	yes	10.3852/10-120	622	Montana, USA
Calogaya	*saxicola*	HM800882.1	yes	10.3852/10-120	622	Northwest Territories, Canada
Calogaya	*saxicola*	HM800886.1	yes	10.3852/10-120	625	Wyoming, USA
Calogaya	*saxicola*	HM800887.1	yes	10.3852/10-120	623	Wyoming, USA
Calogaya	*saxicola*	KT804947.1	yes	10.1017/S0024282916000116	518	Russia
Calogaya	*saxicola*	KY749093.1	yes	10.1007/s11557-018-1402-9	518	Xin-Jiang, China
Calogaya	*saxicola*	KY749094.1	yes	10.1007/s11557-018-1402-9	518	Xin-Jiang, China
Calogaya	*saxicola*	KY749098.1	yes	10.1007/s11557-018-1402-9	519	Turkey
Calogaya	*saxicola*	KY749099.1	yes	10.1007/s11557-018-1402-9	518	Turkey
Calogaya	*saxicola*	KY749100.1	yes	10.1007/s11557-018-1402-9	518	Xin-Jiang, China

Calogaya	*saxicola*		KY749101.1	yes	10.1007/s11557-018-1402-9	518	Xin-Jiang, China
Calogaya	*saxicola*		KY749102.1	yes	10.1007/s11557-018-1402-9	519	Turkey
Calogaya	*saxicola*		KY749103.1	yes	10.1007/s11557-018-1402-9	518	Xin-Jiang, China
Calogaya	*saxicola*		KY749104.1	yes	10.1007/s11557-018-1402-9	518	Xin-Jiang, China
Caloplaca	*anchon-phoeniceon*		NA				
Caloplaca	*exsecuta*		MG954130.1	yes	10.11646/phytotaxa.396.1.1	584	Wyoming, USA
Caloplaca	*exsecuta*		MG954131.1	yes	10.11646/phytotaxa.396.1.2	520	Nebraska, USA
Caloplaca	*exsecuta*		MG954137.1	yes	10.11646/phytotaxa.396.1.3	575	Nebraska, USA
Caloplaca	*exsecuta*		MG954157.1	yes	10.11646/phytotaxa.396.1.4	525	Nebraska, USA
Caloplaca	*exsecuta*		MG954200.1	yes	10.11646/phytotaxa.396.1.5	463	Idaho, USA
Caloplaca	*exsecuta*		MG954210.1	yes	10.11646/phytotaxa.396.1.6	728	Montana, USA
Caloplaca	*exsecuta*		MG954211.1	yes	10.11646/phytotaxa.396.1.7	865	Montana, USA
Caloplaca	*exsecuta*		MG954212.1	yes	10.11646/phytotaxa.396.1.8	517	Northwest Territories, Canada
Caloplaca	*exsecuta*		MG954213.1	yes	10.11646/phytotaxa.396.1.9	518	Wyoming, USA
Caloplaca	*exsecuta*		MG954214.1	yes	10.11646/phytotaxa.396.1.10	518	Wyoming, USA
Caloplaca	*exsecuta*		MG954223.1	yes	10.11646/phytotaxa.396.1.11	521	Russia
Caloplaca	*exsecuta*		MG954224.1	yes	10.11646/phytotaxa.396.1.12	520	Xin-Jiang, China
Caloplaca	*exsecuta*		MG954225.1	yes	10.11646/phytotaxa.396.1.13	522	Xin-Jiang, China
Caloplaca	*exsecuta*		MG954226.1	yes	10.11646/phytotaxa.396.1.14	519	Turkey
Caloplaca	*exsecuta*		MG954227.1	yes	10.11646/phytotaxa.396.1.15	512	Turkey
Caloplaca	*psoromatis*		NA				
Caloplaca	*schofieldii*		NA				
Caloplaca	*scolecomarginata*		NA				
Candelaria	*murrayi*		MH301303.1	no	10.1080/0028825X.2018.1478861	813	James Ross Island, Antarctica
Candelariella	*aurella*	f. aurella	EF535161.1	yes	18006290	477	Oland, Sweden

Candelariella	*aurella*	f. aurella	EF535162.1	yes	18006290	478	Colorado, USA
Candelariella	*aurella*	f. aurella	EF535163.1	yes	18006290	477	Arizona, USA
Candelariella	*aurella*	f. aurella	KT695405.1	yes	10.3897/BDJ.3.e6313	526	Ontario, Canada
Candelariella	*aurella*	f. aurella	MG271778.1	no	unpublished	638	Turkey
Candelariella	*aurella*	f. aurella	MG271780.1	no	unpublished	840	Turkey
Candelariella	*aurella*	f. aurella	MG271781.1	no	unpublished	594	Turkey
Candelariella	*aurella*	f. aurella	MG271784.1	no	unpublished	612	Turkey
Candelariella	*aurella*	f. aurella	MG271792.1	no	unpublished	981	Turkey
Candelariella	*aurella*	f. aurella	MK812178.1	yes	10.3897/BDJ.7.e36252	526	Troms, Norway
Candelariella	*flava*		NA				
Candelariella	*vitellina*	f. vitellina	AJ640084.1	no	unpublished	475	Western Alps, Italy
Candelariella	*vitellina*	f. vitellina	AJ640085.1	no	unpublished	544	Western Alps, Italy
Candelariella	*vitellina*	f. vitellina	EF535199.1	yes	10.1016/j.mycres.2007.08.007	477	Oregon, USA
Candelariella	*vitellina*	f. vitellina	EF535200.1	yes	10.1016/j.mycres.2007.08.007	477	Oland, Sweden
Candelariella	*vitellina*	f. vitellina	MG271775.1	no	unplubished	810	Turkey
Candelariella	*vitellina*	f. vitellina	MG271776.1	no	unplubished	529	Turkey
Candelariella	*vitellina*	f. vitellina	MK811697.1	yes	10.3897/BDJ.7.e36252	518	Vest-Agder, Norway
Candelariella	*vitellina*	f. vitellina	MK811713.1	yes	10.3897/BDJ.7.e36252	521	Nord-Trondelag, Norway
Candelariella	*vitellina*	f. vitellina	MK812582.1	yes	10.3897/BDJ.7.e36252	526	Oslo, Norway
Carbonea	*assentiens*		NA				
Carbonea	*vorticosa*		JN873866.2	yes	10.1127/0029-5035/2012/0017	470	Antarctica, Ross Dependency
Carbonea	*vorticosa*		JN873867.2	yes	10.1127/0029-5035/2012/0017	470	Antarctica, Ross Dependency
Carbonea	*vorticosa*		JN873868.2	yes	10.1127/0029-5035/2012/0017	470	Antarctica, Ross Dependency

Carbonea	*vorticosa*	JN873869.2	yes	10.1127/0029-5035/2012/0017	470	Antarctica, Victoria Land
Carbonea	*vorticosa*	JN873870.2	yes	10.1127/0029-5035/2012/0017	470	Norway, Svalbard
Carbonea	*vorticosa*	JN873871.2	yes	10.1127/0029-5035/2012/0017	470	Antarctica, Ross Dependency
Carbonea	*vorticosa*	JX036052.1	no	10.1111/j.1574-6941.2012.01422.x	765	Antarctica, Victoria Land
Carbonea	*vorticosa*	JX036053.1	no	10.1111/j.1574-6941.2012.01422.x	782	Antarctica, Victoria Land
Carbonea	*vorticosa*	JX036054.1	no	10.1111/j.1574-6941.2012.01422.x	779	Antarctica, Victoria Land
Catapyrenium	*daedaleum*	GQ344596.1	yes	10.3852/09-168	451	Léon, Spain
Catapyrenium	*daedaleum*	GQ344597.1	yes	10.3852/09-168	443	Cuenca, Spain
Catapyrenium	*daedaleum*	JX000099.1	yes	10.1111/j.1096-0031.2012.00429.x	450	Not informed
Catenarina	*iomma*	NA				
Catillaria	*contristans*	MG925962.1	yes	10.12705/675.1	565	Norway
Cetraria	*aculeata*	AF116176.1	yes	Phylogenetic analysis of ITS and group I intron sequences from European and North American samples of cetrarioid lichens	564	Canada, British Columbia
Cetraria	*aculeata*	AF192409.1	yes	Phylogenetic analysis of ITS and group I intron sequences from European and North American samples of cetrarioid lichens	567	Sweden, Scania
Cetraria	*aculeata*	AF228286.1	yes	10.1007/s11557-006-0004-0	494	Germany, Niedersachsen
Cetraria	*aculeata*	AF228287.1	yes	10.1007/s11557-006-0004-0	495	Chile, Region de Magellanes

Cetraria	*aculeata*	AF228288.1	yes	10.1007/s11557-006-0004-0	494	Canada, Nova Scotia
Cetraria	*aculeata*	AF228289.1	yes	10.1007/s11557-006-0004-0	494	Finland, Nylandia
Cetraria	*aculeata*	AF254624.1	yes	Phylogeny and ecology of Cetraria obtusata, Coelopogon epiphorellus, and related taxa (Parmeliaceae, lichenized ascomycetes).	495	Argentina, Tierra del Fuego
Cetraria	*aculeata*	AF254625.1	yes	Phylogeny and ecology of Cetraria obtusata, Coelopogon epiphorellus, and related taxa (Parmeliaceae, lichenized ascomycetes).	494	Argentina, Tierra del Fuego
Cetraria	*aculeata*	AF254626.1	yes	Phylogeny and ecology of Cetraria obtusata, Coelopogon epiphorellus, and related taxa (Parmeliaceae, lichenized ascomycetes).	494	Falkland Islands
Cetraria	*aculeata*	AF451787.1	yes	10.1007/s11557-006-0031-x	494	Spain, Canary Islands
Cetraria	*aculeata*	AF451788.1	yes	10.1007/s11557-006-0031-x	481	Spain, Canary Islands
Cetraria	*aculeata*	AF457921.1	yes	10.1007/s11557-006-0031-x	494	Germany, Mecklemburg-Vorpommern
Cetraria	*aculeata*	AY611111.1	yes	10.1017/S0953756204000723	494	Spain, Zamora
Cetraria	*aculeata*	DQ534458.2	yes	PMID: 17082741	695	Antarctic, King George Island
Cetraria	*aculeata*	EF373589.1	yes	unpublished	575	Not informed

Cetraria	*aculeata*	EU401758.1	yes	10.1017/S0024282909990090	494	Spain, Castilla y Leon
Cetraria	*aculeata*	EU880586.1	yes	unpublished	493	Antarctica
Cetraria	*aculeata*	EU924108.1	yes	unpublished	492	Falkland Islands
Cetraria	*aculeata*	EU924109.1	yes	unpublished	493	Chile
Cetraria	*aculeata*	EU924110.1	yes	unpublished	493	Antarctica
Cetraria	*aculeata*	EU924111.1	yes	unpublished	493	Falkland Islands
Cetraria	*aculeata*	EU924112.1	yes	unpublished	493	Chile
Cetraria	*aculeata*	EU924113.1	yes	unpublished	495	Chile
Cetraria	*aculeata*	EU924114.1	yes	unpublished	492	Turkey
Cetraria	*aculeata*	EU924115.1	yes	unpublished	492	Spain
Cetraria	*aculeata*	EU924116.1	yes	unpublished	492	Spain
Cetraria	*aculeata*	EU924117.1	yes	unpublished	492	Kazakhstan
Cetraria	*aculeata*	EU924118.1	yes	unpublished	492	Spain
Cetraria	*aculeata*	EU924119.1	yes	unpublished	492	Spain
Cetraria	*aculeata*	EU924120.1	yes	unpublished	492	Spain
Cetraria	*aculeata*	EU924121.1	yes	unpublished	492	Kazakhstan
Cetraria	*aculeata*	EU924122.1	yes	unpublished	492	Spain
Cetraria	*aculeata*	EU924123.1	yes	unpublished	490	Canada
Cetraria	*aculeata*	EU924124.1	yes	unpublished	490	Canada
Cetraria	*aculeata*	EU924125.1	yes	unpublished	492	Canada
Cetraria	*aculeata*	EU924126.1	yes	unpublished	491	Turkey
Cetraria	*aculeata*	EU924127.1	yes	unpublished	492	Turkey
Cetraria	*aculeata*	GQ375371.1	yes	unpublished	492	Chile
Cetraria	*aculeata*	GQ375372.1	yes	unpublished	492	Iceland
Cetraria	*aculeata*	GQ375373.1	yes	unpublished	489	Germany
Cetraria	*aculeata*	GQ375374.1	yes	unpublished	492	Iceland
Cetraria	*aculeata*	GQ375375.1	yes	unpublished	491	Norway, Svalbard

Cetraria	*aculeata*	GQ375376.1	yes	unpublished	494	Norway, Svalbard
Cetraria	*aculeata*	GQ375377.1	yes	unpublished	491	Norway, Svalbard
Cetraria	*aculeata*	GQ375378.1	yes	unpublished	494	Norway, Svalbard
Cetraria	*aculeata*	GQ375379.1	yes	unpublished	493	Norway, Svalbard
Cetraria	*aculeata*	GQ375380.1	yes	unpublished	492	Norway, Svalbard
Cetraria	*aculeata*	GQ375381.1	yes	unpublished	491	Iceland
Cetraria	*aculeata*	GQ375382.1	yes	unpublished	491	Iceland
Cetraria	*aculeata*	GQ375383.1	yes	unpublished	491	Iceland
Cetraria	*aculeata*	GQ375384.1	yes	unpublished	492	Iceland
Cetraria	*aculeata*	GQ375385.1	yes	unpublished	491	Norway, Svalbard
Cetraria	*aculeata*	GU124720.1	yes	unpublished	504	Not informed
Cetraria	*aculeata*	GU124721.1	yes	unpublished	504	Not informed
Cetraria	*aculeata*	GU124722.1	yes	unpublished	500	Not informed
Cetraria	*aculeata*	GU124723.1	yes	unpublished	500	Not informed
Cetraria	*aculeata*	GU124724.1	yes	unpublished	504	Not informed
Cetraria	*aculeata*	GU124725.1	yes	unpublished	506	Not informed
Cetraria	*aculeata*	GU124726.1	yes	unpublished	506	Not informed
Cetraria	*aculeata*	GU124727.1	yes	unpublished	506	Not informed
Cetraria	*aculeata*	GU124728.1	yes	unpublished	506	Not informed
Cetraria	*aculeata*	GU124729.1	yes	unpublished	506	Not informed
Cetraria	*aculeata*	GU124730.1	yes	unpublished	504	Not informed
Cetraria	*aculeata*	GU124731.1	yes	unpublished	506	Not informed
Cetraria	*aculeata*	GU124732.1	yes	unpublished	503	Not informed
Cetraria	*aculeata*	GU124733.1	yes	unpublished	506	Not informed
Cetraria	*aculeata*	GU124734.1	yes	unpublished	506	Not informed
Cetraria	*aculeata*	GU124735.1	yes	unpublished	504	Not informed
Cetraria	*aculeata*	GU124736.1	yes	unpublished	508	Not informed

Cetraria	*aculeata*	GU124737.1	yes	unpublished	505	Not informed
Cetraria	*aculeata*	GU124738.1	yes	unpublished	504	Not informed
Cetraria	*aculeata*	GU124739.1	yes	unpublished	504	Not informed
Cetraria	*aculeata*	GU124740.1	yes	unpublished	504	Not informed
Cetraria	*aculeata*	GU124741.1	yes	unpublished	504	Not informed
Cetraria	*aculeata*	GU124742.1	yes	unpublished	505	Not informed
Cetraria	*aculeata*	JN243331.1	yes	10.1007/s00442-013-2670-3	540	Germany
Cetraria	*aculeata*	JN243332.1	yes	10.1007/s00442-013-2670-3	540	Norway, Svalbard
Cetraria	*aculeata*	JN243333.1	yes	10.1007/s00442-013-2670-3	540	Spain
Cetraria	*aculeata*	JN243334.1	yes	10.1007/s00442-013-2670-3	540	Norway, Svalbard
Cetraria	*aculeata*	JN243335.1	yes	10.1007/s00442-013-2670-3	540	Spain
Cetraria	*aculeata*	JN243336.1	yes	10.1007/s00442-013-2670-3	540	Spain
Cetraria	*aculeata*	JN243337.1	yes	10.1007/s00442-013-2670-3	540	Antarctica
Cetraria	*aculeata*	JN243338.1	yes	10.1007/s00442-013-2670-3	537	Norway, Svalbard
Cetraria	*aculeata*	JN243339.1	yes	10.1007/s00442-013-2670-3	536	Spain
Cetraria	*aculeata*	JQ314488.1	yes	10.1093/aob/mcs042	489	Spain
Cetraria	*aculeata*	JQ314489.1	yes	10.1093/aob/mcs042	488	Norway
Cetraria	*aculeata*	JQ314490.1	yes	10.1093/aob/mcs042	491	Spain
Cetraria	*aculeata*	JQ314491.1	yes	10.1093/aob/mcs042	491	Spain
Cetraria	*aculeata*	JQ314492.1	yes	10.1093/aob/mcs042	491	Spain
Cetraria	*aculeata*	JQ314493.1	yes	10.1093/aob/mcs042	492	Spain
Cetraria	*aculeata*	JX840071.1	yes	10.1111/mec.12210	491	Not informed
Cetraria	*aculeata*	JX840072.1	yes	10.1111/mec.12210	492	Not informed
Cetraria	*aculeata*	JX840073.1	yes	10.1111/mec.12210	491	Not informed
Cetraria	*aculeata*	JX840074.1	yes	10.1111/mec.12210	491	Not informed
Cetraria	*aculeata*	JX840075.1	yes	10.1111/mec.12210	491	Not informed

Cetraria	*aculeata*	JX840076.1	yes	10.1111/mec.12210	492	Not informed
Cetraria	*aculeata*	JX840077.1	yes	10.1111/mec.12210	492	Not informed
Cetraria	*aculeata*	JX840078.1	yes	10.1111/mec.12210	491	Not informed
Cetraria	*aculeata*	JX840079.1	yes	10.1111/mec.12210	490	Not informed
Cetraria	*aculeata*	JX840080.1	yes	10.1111/mec.12210	489	Not informed
Cetraria	*aculeata*	JX840081.1	yes	10.1111/mec.12210	491	Not informed
Cetraria	*aculeata*	JX840082.1	yes	10.1111/mec.12210	491	Not informed
Cetraria	*aculeata*	JX840083.1	yes	10.1111/mec.12210	491	Not informed
Cetraria	*aculeata*	JX840084.1	yes	10.1111/mec.12210	491	Not informed
Cetraria	*aculeata*	JX840085.1	yes	10.1111/mec.12210	491	Not informed
Cetraria	*aculeata*	JX840086.1	yes	10.1111/mec.12210	491	Not informed
Cetraria	*aculeata*	JX840087.1	yes	10.1111/mec.12210	489	Not informed
Cetraria	*aculeata*	JX840088.1	yes	10.1111/mec.12210	491	Not informed
Cetraria	*aculeata*	JX840089.1	yes	10.1111/mec.12210	491	Not informed
Cetraria	*aculeata*	JX840090.1	yes	10.1111/mec.12210	491	Not informed
Cetraria	*aculeata*	JX840091.1	yes	10.1111/mec.12210	492	Not informed
Cetraria	*aculeata*	JX840092.1	yes	10.1111/mec.12210	491	Not informed
Cetraria	*aculeata*	JX840093.1	yes	10.1111/mec.12210	489	Not informed
Cetraria	*aculeata*	JX840094.1	yes	10.1111/mec.12210	492	Not informed
Cetraria	*aculeata*	JX840095.1	yes	10.1111/mec.12210	492	Not informed
Cetraria	*aculeata*	JX840096.1	yes	10.1111/mec.12210	492	Not informed
Cetraria	*aculeata*	JX840097.1	yes	10.1111/mec.12210	492	Not informed
Cetraria	*aculeata*	JX840098.1	yes	10.1111/mec.12210	491	Not informed
Cetraria	*aculeata*	JX840099.1	yes	10.1111/mec.12210	491	Not informed
Cetraria	*aculeata*	JX840100.1	yes	10.1111/mec.12210	491	Not informed
Cetraria	*aculeata*	JX840101.1	yes	10.1111/mec.12210	491	Not informed
Cetraria	*aculeata*	JX840102.1	yes	10.1111/mec.12210	491	Not informed

Cetraria	*aculeata*	JX840103.1	yes	10.1111/mec.12210	491	Not informed
Cetraria	*aculeata*	JX840104.1	yes	10.1111/mec.12210	491	Not informed
Cetraria	*aculeata*	JX840105.1	yes	10.1111/mec.12210	488	Not informed
Cetraria	*aculeata*	JX840106.1	yes	10.1111/mec.12210	491	Not informed
Cetraria	*aculeata*	JX840107.1	yes	10.1111/mec.12210	490	Not informed
Cetraria	*aculeata*	JX840108.1	yes	10.1111/mec.12210	489	Not informed
Cetraria	*aculeata*	JX840109.1	yes	10.1111/mec.12210	491	Not informed
Cetraria	*aculeata*	JX840110.1	yes	10.1111/mec.12210	490	Not informed
Cetraria	*aculeata*	JX840111.1	yes	10.1111/mec.12210	491	Not informed
Cetraria	*aculeata*	JX840112.1	yes	10.1111/mec.12210	491	Not informed
Cetraria	*aculeata*	JX840113.1	yes	10.1111/mec.12210	488	Not informed
Cetraria	*aculeata*	JX840114.1	yes	10.1111/mec.12210	491	Not informed
Cetraria	*aculeata*	KT827708.1	yes	10.1007/s13199-015-0351-1	409	Scotland
Cetraria	*aculeata*	KT827709.1	yes	10.1007/s13199-015-0351-1	408	Bolivia
Cetraria	*aculeata*	KT827710.1	yes	10.1007/s13199-015-0351-1	410	Not informed
Cetraria	*aculeata*	KT827711.1	yes	10.1007/s13199-015-0351-1	408	Scotland
Cetraria	*aculeata*	KT827712.1	yes	10.1007/s13199-015-0351-1	407	Scotland
Cetraria	*aculeata*	KT827713.1	yes	10.1007/s13199-015-0351-1	409	Scotland
Cetraria	*aculeata*	KT827714.1	yes	10.1007/s13199-015-0351-1	409	Scotland
Cetraria	*aculeata*	KT827715.1	yes	10.1007/s13199-015-0351-1	407	Spain
Cetraria	*aculeata*	KT827716.1	yes	10.1007/s13199-015-0351-1	409	Scotland
Cetraria	*aculeata*	KT827717.1	yes	10.1007/s13199-015-0351-1	409	Scotland
Cetraria	*aculeata*	KT827718.1	yes	10.1007/s13199-015-0351-1	410	Spain
Cetraria	*aculeata*	KT827719.1	yes	10.1007/s13199-015-0351-1	411	Spain
Cetraria	*aculeata*	KT827720.1	yes	10.1007/s13199-015-0351-1	411	Iran
Cetraria	*aculeata*	KT827721.1	yes	10.1007/s13199-015-0351-1	411	Ukraine, Shatsk Lake National Nature Park

Cetraria	*aculeata*	KT827722.1	yes	10.1007/s13199-015-0351-1	411	Ukraine, Shatsk Lake National Nature Park
Cetraria	*aculeata*	KT827723.1	yes	10.1007/s13199-015-0351-1	411	Ukraine, Shatsk Lake National Nature Park
Cetraria	*aculeata*	KT827724.1	yes	10.1007/s13199-015-0351-1	411	Ukraine, Shatsk Lake National Nature Park
Cetraria	*aculeata*	KT827725.1	yes	10.1007/s13199-015-0351-1	411	Ukraine, Shatsk Lake National Nature Park
Cetraria	*aculeata*	KT827726.1	yes	10.1007/s13199-015-0351-1	408	Ukraine, Luhansk Steppe Nature Reserve
Cetraria	*aculeata*	KT827727.1	yes	10.1007/s13199-015-0351-1	408	Ukraine, Luhansk Steppe Nature Reserve
Cetraria	*aculeata*	KT827728.1	yes	10.1007/s13199-015-0351-1	408	Ukraine, Luhansk Steppe Nature Reserve
Cetraria	*aculeata*	KT827729.1	yes	10.1007/s13199-015-0351-1	408	Ukraine, Luhansk Steppe Nature Reserve
Cetraria	*aculeata*	KT827730.1	yes	10.1007/s13199-015-0351-1	411	Ukraine, Luhansk Steppe Nature Reserve
Cetraria	*aculeata*	KT827731.1	yes	10.1007/s13199-015-0351-1	410	Ireland
Cetraria	*aculeata*	KT827732.1	yes	10.1007/s13199-015-0351-1	410	Ireland
Cetraria	*aculeata*	KT827733.1	yes	10.1007/s13199-015-0351-1	410	Ireland
Cetraria	*aculeata*	KT827734.1	yes	10.1007/s13199-015-0351-1	409	Ethiopia, Bale Mts. National Park
Cetraria	*aculeata*	KT827735.1	yes	10.1007/s13199-015-0351-1	409	Ethiopia, Bale Mts. National Park

Cetraria	*aculeata*	KT827736.1	yes	10.1007/s13199-015-0351-1	409	Kenya, Mt. Elgon National Park
Cetraria	*aculeata*	KT827737.1	yes	10.1007/s13199-015-0351-1	409	Turkey, Izmir
Cetraria	*aculeata*	KU200360.1	yes	unpublished	464	Svalbard
Cetraria	*aculeata*	KU200361.1	yes	unpublished	465	Spain
Cetraria	*aculeata*	KU200362.1	yes	unpublished	466	Spain
Cetraria	*aculeata*	KU200363.1	yes	unpublished	465	United Kingdom
Cetraria	*aculeata*	KU200364.1	yes	unpublished	465	Spain
Cetraria	*aculeata*	KU200366.1	yes	unpublished	465	Ukraine
Cetraria	*aculeata*	KU200367.1	yes	unpublished	462	Ukraine
Cetraria	*aculeata*	KU200368.1	yes	unpublished	465	Ukraine
Cetraria	*aculeata*	KU200369.1	yes	unpublished	465	Ukraine
Cetraria	*aculeata*	KU200370.1	yes	unpublished	465	Ukraine
Cetraria	*aculeata*	KU200371.1	yes	unpublished	464	Ireland
Cetraria	*aculeata*	KU200372.1	yes	unpublished	462	Ukraine
Cetraria	*aculeata*	KU200373.1	yes	unpublished	465	Ukraine
Cetraria	*aculeata*	KU200378.1	yes	unpublished	466	Switzerland
Cetraria	*aculeata*	KU200379.1	yes	unpublished	465	Switzerland
Cetraria	*aculeata*	KU200380.1	yes	unpublished	465	Switzerland
Cetraria	*aculeata*	KU200381.1	yes	unpublished	465	France
Cetraria	*aculeata*	KU200382.1	yes	unpublished	465	Spain
Cetraria	*aculeata*	KU200383.1	yes	unpublished	465	Spain
Cetraria	*aculeata*	KU200384.1	yes	unpublished	465	Spain
Cetraria	*aculeata*	KU200385.1	yes	unpublished	465	Portugal
Cetraria	*aculeata*	KU200386.1	yes	unpublished	466	Portugal
Cetraria	*aculeata*	KU200387.1	yes	unpublished	466	Portugal
Cetraria	*aculeata*	KU200388.1	yes	unpublished	465	France

Cetraria	*aculeata*	KU200389.1	yes	unpublished	462	France
Cetraria	*aculeata*	KU200390.1	yes	unpublished	462	France
Cetraria	*aculeata*	KU200392.1	yes	unpublished	465	Germany
Cetraria	*aculeata*	KU200393.1	yes	unpublished	462	Germany
Cetraria	*aculeata*	KU200394.1	yes	unpublished	464	Germany
Cetraria	*aculeata*	KU200395.1	yes	unpublished	464	Germany
Cetraria	*aculeata*	KU200396.1	yes	unpublished	465	Germany
Cetraria	*aculeata*	KU200397.1	yes	unpublished	463	Turkey
Cetraria	*aculeata*	KU200398.1	yes	unpublished	466	Turkey
Cetraria	*aculeata*	KU240045.1	yes	unpublished	465	France
Cetraria	*aculeata*	KU240046.1	yes	unpublished	465	Portugal
Cetraria	*aculeata*	KY266883.1	yes	10.3897/mycokeys.11.6670	577	Norway, Finnmark
Cetraria	*aculeata*	MG009081.1	yes	unpublished	588	Iceland
Cetraria	*aculeata*	MG009082.1	yes	unpublished	588	Iceland
Cetraria	*aculeata*	MG009083.1	yes	unpublished	588	Iceland
Cetraria	*aculeata*	MG009084.1	yes	unpublished	590	Iceland
Cetraria	*aculeata*	MG009085.1	yes	unpublished	590	Iceland
Cetraria	*aculeata*	MG009086.1	yes	unpublished	588	Iceland
Cetraria	*aculeata*	MG009087.1	yes	unpublished	588	Iceland
Cetraria	*aculeata*	MG009088.1	yes	unpublished	586	Iceland
Cetraria	*aculeata*	MG009089.1	yes	unpublished	588	Iceland
Cetraria	*aculeata*	MG009090.1	yes	unpublished	588	Iceland
Cetraria	*aculeata*	MG009091.1	yes	unpublished	588	Iceland
Cetraria	*aculeata*	MG825770.1	yes	10.1371/journal.pone.0124625	464	Norway, Svalbard
Cetraria	*aculeata*	MG825774.1	yes	10.1371/journal.pone.0124625	464	Spain
Cetraria	*aculeata*	MG825777.1	yes	10.1371/journal.pone.0124625	464	Spain
Cetraria	*aculeata*	MG825778.1	yes	10.1371/journal.pone.0124625	464	Spain, Canary Islands

Cetraria	*aculeata*	MG825779.1	yes	10.1371/journal.pone.0124625	464	Spain
Cetraria	*aculeata*	MG825780.1	yes	10.1371/journal.pone.0124625	465	Ukraine
Cetraria	*aculeata*	MG825781.1	yes	10.1371/journal.pone.0124625	465	Ukraine
Cetraria	*aculeata*	MG825782.1	yes	10.1371/journal.pone.0124625	464	Ireland
Cetraria	*aculeata*	MG825783.1	yes	10.1371/journal.pone.0124625	464	Ireland
Cetraria	*aculeata*	MG825784.1	yes	10.1371/journal.pone.0124625	461	Ukraine
Cetraria	*aculeata*	MG825786.1	yes	10.1371/journal.pone.0124625	464	France
Cetraria	*aculeata*	MG825787.1	yes	10.1371/journal.pone.0124625	464	Spain
Cetraria	*aculeata*	MG825788.1	yes	10.1371/journal.pone.0124625	464	Portugal
Cetraria	*aculeata*	MG825789.1	yes	10.1371/journal.pone.0124625	464	France
Cetraria	*aculeata*	MG825791.1	yes	10.1371/journal.pone.0124625	464	France
Cetraria	*aculeata*	MG825793.1	yes	10.1371/journal.pone.0124625	464	Ethiopia
Cetraria	*aculeata*	MG825794.1	yes	10.1371/journal.pone.0124625	464	Ethiopia
Cetraria	*aculeata*	MG825795.1	yes	10.1371/journal.pone.0124625	461	Germany
Cetraria	*aculeata*	MG825796.1	yes	10.1371/journal.pone.0124625	464	Kenya
Cetraria	*aculeata*	MG825797.1	yes	10.1371/journal.pone.0124625	464	Kenya
Cetraria	*aculeata*	MG825798.1	yes	10.1371/journal.pone.0124625	464	Kenya
Cetraria	*aculeata*	MG825799.1	yes	10.1371/journal.pone.0124625	464	Turkey
Cetraria	*aculeata*	MG825801.1	yes	10.1371/journal.pone.0124625	464	Spain
Cetraria	*aculeata*	MG825803.1	yes	10.1371/journal.pone.0124625	464	France
Cetraria	*aculeata*	MG825805.1	yes	10.1371/journal.pone.0124625	464	Spain
Cetraria	*aculeata*	MG825809.1	yes	10.1371/journal.pone.0124625	464	Spain
Cetraria	*aculeata*	MG825810.1	yes	10.1371/journal.pone.0124625	464	Spain
Cetraria	*aculeata*	MG825811.1	yes	10.1371/journal.pone.0124625	464	Spain
Cetraria	*aculeata*	MK811694.1	yes	10.3897/BDJ.7.e36252	542	Norway, Ostfold
Cetraria	*aculeata*	MK811732.1	yes	10.3897/BDJ.7.e36252	542	Norway, Vest-Agder

Cetraria	*aculeata*	MK811881.1	yes	10.3897/BDJ.7.e36252	543	Norway, Sor-Trondelag
Cetraria	*aculeata*	MK811967.1	yes	10.3897/BDJ.7.e36252	543	Norway, Buskerud
Cladonia	*asahinae*	AF455229.1	yes	10.1111/j.1096-0031.2002.tb00151.x	558	Iceland
Cladonia	*borealis*	AF454434.1	yes	10.1111/j.1096-0031.2002.tb00151.x	565	Finland
Cladonia	*borealis*	AF454435.1	yes	10.1111/j.1096-0031.2002.tb00151.x	563	Iceland
Cladonia	*borealis*	DQ219315.1	yes	unpublished	751	Antarctica
Cladonia	*borealis*	DQ534459.2	yes	17082741	999	King George Island, Antactica
Cladonia	*borealis*	JN863237.1	yes	10.1017/S0954102012000223	2036	King George Island, Antactica
Cladonia	*borealis*	JN863238.1	yes	10.1017/S0954102012000223	2038	King George Island, Antactica
Cladonia	*borealis*	JN863239.1	yes	10.1017/S0954102012000223	2038	King George Island, Antactica
Cladonia	*borealis*	JN863240.1	yes	10.1017/S0954102012000223	2038	King George Island, Antactica
Cladonia	*borealis*	JN863241.1	yes	10.1017/S0954102012000223	2037	King George Island, Antactica
Cladonia	*borealis*	JN863242.1	yes	10.1017/S0954102012000223	2022	King George Island, Antactica
Cladonia	*borealis*	JN863243.1	yes	10.1017/S0954102012000223	2038	King George Island, Antactica
Cladonia	*borealis*	JN863244.1	yes	10.1017/S0954102012000223	2038	King George Island, Antactica
Cladonia	*borealis*	JN863245.1	yes	10.1017/S0954102012000223	2038	King George Island, Antactica
Cladonia	*borealis*	JN863246.1	yes	10.1017/S0954102012000223	2023	King George Island, Antactica

Cladonia	*borealis*	JN863247.1	yes	10.1017/S0954102012000223	2030	King George Island, Antactica
Cladonia	*borealis*	JN863248.1	yes	10.1017/S0954102012000223	2037	King George Island, Antactica
Cladonia	*borealis*	JN863249.1	yes	10.1017/S0954102012000223	2020	King George Island, Antactica
Cladonia	*borealis*	JN863250.1	yes	10.1017/S0954102012000223	2038	King George Island, Antactica
Cladonia	*borealis*	JN863251.1	yes	10.1017/S0954102012000223	2037	King George Island, Antactica
Cladonia	*borealis*	JN863252.1	yes	10.1017/S0954102012000223	2035	King George Island, Antactica
Cladonia	*borealis*	JN863253.1	yes	10.1017/S0954102012000223	2036	King George Island, Antactica
Cladonia	*borealis*	JN863254.1	yes	10.1017/S0954102012000223	2037	King George Island, Antactica
Cladonia	*borealis*	JN863255.1	yes	10.1017/S0954102012000223	2036	King George Island, Antactica
Cladonia	*borealis*	JN863256.1	yes	10.1017/S0954102012000223	2038	King George Island, Antactica
Cladonia	*borealis*	JN863257.1	yes	10.1017/S0954102012000223	2038	King George Island, Antactica
Cladonia	*borealis*	JN863258.1	yes	10.1017/S0954102012000223	2036	King George Island, Antactica
Cladonia	*borealis*	JN863259.1	yes	10.1017/S0954102012000223	2036	King George Island, Antactica
Cladonia	*borealis*	JN863260.1	yes	10.1017/S0954102012000223	2037	King George Island, Antactica
Cladonia	*borealis*	JN863261.1	yes	10.1017/S0954102012000223	2038	King George Island, Antactica
Cladonia	*borealis*	JN863262.1	yes	10.1017/S0954102012000223	2037	King George Island, Antactica

Cladonia	*borealis*	JN863263.1	yes	10.1017/S0954102012000223	2036	King George Island, Antactica
Cladonia	*borealis*	JN863264.1	yes	10.1017/S0954102012000223	2029	King George Island, Antactica
Cladonia	*borealis*	JN863265.1	yes	10.1017/S0954102012000223	2036	King George Island, Antactica
Cladonia	*borealis*	JN863266.1	yes	10.1017/S0954102012000223	2037	King George Island, Antactica
Cladonia	*borealis*	JN863267.1	yes	10.1017/S0954102012000223	2033	King George Island, Antactica
Cladonia	*borealis*	JN863268.1	yes	10.1017/S0954102012000223	2015	King George Island, Antactica
Cladonia	*borealis*	JN863269.1	yes	10.1017/S0954102012000223	2038	Svalbard, Norway
Cladonia	*borealis*	JN863270.1	yes	10.1017/S0954102012000223	1910	Svalbard, Norway
Cladonia	*borealis*	JN863271.1	yes	10.1017/S0954102012000223	2039	King George Island, Antactica
Cladonia	*borealis*	JN863272.1	yes	10.1017/S0954102012000223	2039	King George Island, Antactica
Cladonia	*borealis*	JN863273.1	yes	10.1017/S0954102012000223	2037	King George Island, Antactica
Cladonia	*borealis*	JN863274.1	yes	10.1017/S0954102012000223	2038	King George Island, Antactica
Cladonia	*borealis*	JN863275.1	yes	10.1017/S0954102012000223	2038	King George Island, Antactica
Cladonia	*borealis*	JN863276.1	yes	10.1017/S0954102012000223	2037	King George Island, Antactica
Cladonia	*borealis*	JN863277.1	yes	10.1017/S0954102012000223	2038	King George Island, Antactica
Cladonia	*borealis*	JN863278.1	yes	10.1017/S0954102012000223	2037	King George Island, Antactica
Cladonia	*borealis*	JN863279.1	yes	10.1017/S0954102012000223	2028	King George Island, Antactica

Cladonia	*borealis*	JN863280.1	yes	10.1017/S0954102012000223	2038	King George Island, Antactica
Cladonia	*borealis*	JN863281.1	yes	10.1017/S0954102012000223	2028	Svalbard, Norway
Cladonia	*borealis*	JN863282.1	yes	10.1017/S0954102012000223	2035	Svalbard, Norway
Cladonia	*borealis*	JN863283.1	yes	10.1017/S0954102012000223	2035	Svalbard, Norway
Cladonia	*borealis*	JN863284.1	yes	10.1017/S0954102012000223	2035	Svalbard, Norway
Cladonia	*borealis*	JN863285.1	yes	10.1017/S0954102012000223	2033	Chile
Cladonia	*borealis*	JN863286.1	yes	10.1017/S0954102012000223	2032	Chile
Cladonia	*borealis*	KJ607895.1	yes	10.1111/jeu.12159	1659	King George Island, Antactica
Cladonia	*borealis*	KP314334.1	yes	unpublished	610	Svalbard, Norway
Cladonia	*borealis*	KP314341.1	yes	unpublished	607	Svalbard, Norway
Cladonia	*borealis*	KP314344.1	yes	unpublished	610	Svalbard, Norway
Cladonia	*borealis*	KP314347.1	yes	unpublished	610	Svalbard, Norway
Cladonia	*borealis*	KP314381.1	yes	unpublished	609	Svalbard, Norway
Cladonia	*borealis*	KP314387.1	yes	unpublished	609	Svalbard, Norway
Cladonia	*borealis*	KP314393.1	yes	unpublished	609	Svalbard, Norway
Cladonia	*borealis*	KP314403.1	yes	unpublished	609	Svalbard, Norway
Cladonia	*borealis*	KP314462.1	yes	unpublished	609	Svalbard, Norway
Cladonia	*borealis*	KP314467.1	yes	unpublished	610	Svalbard, Norway
Cladonia	*borealis*	MK300779.1	yes	10.1016/j.bse.2019.04.004	417	Russia: Yakutia
Cladonia	*cariosa*	AF455230.1	yes	10.1111/j.1096-0031.2002.tb00151.x	562	Finland
Cladonia	*cariosa*	JN621906.1	yes	10.1017/S002428291100065X	619	Portugal
Cladonia	*cariosa*	JN621907.1	yes	10.1017/S002428291100065X	595	Spain
Cladonia	*cariosa*	JN621908.1	yes	10.1017/S002428291100065X	610	Spain
Cladonia	*cariosa*	JN621909.1	yes	10.1017/S002428291100065X	608	Spain
Cladonia	*cariosa*	JN621910.1	yes	10.1017/S002428291100065X	612	Spain

Cladonia	*cariosa*		JN621911.1	yes	10.1017/S002428291100065X	619	Spain
Cladonia	*cariosa*		JN621912.1	yes	10.1017/S002428291100065X	608	USA
Cladonia	*cariosa*		JN621913.1	yes	10.1017/S002428291100065X	609	Norway
Cladonia	*cariosa*		JN621915.1	yes	10.1017/S002428291100065X	611	Finland
Cladonia	*cariosa*		JN621916.1	yes	10.1017/S002428291100065X	608	Finland
Cladonia	*cariosa*		JN621917.1	yes	10.1017/S002428291100065X	606	Russia
Cladonia	*cariosa*		JN621934.1	yes	10.1017/S002428291100065X	614	Canada
Cladonia	*cariosa*		MG733137.1	yes	unpublished	811	USA: California
Cladonia	*cariosa*		MK508948.1	yes	10.1016/j.funbio.2019.05.006	678	Sweden
Cladonia	*cariosa*		MK811826.1	yes	10.3897/BDJ.7.e36252	586	Buskerud, Ringerike, Ringerike, Hensmoen, Norway
Cladonia	*cariosa*		MK812622.1	yes	10.3897/BDJ.7.e36252	609	Oppland, Lom, Runningsgrende, Rustahalsen, Norway
Cladonia	*carneola*		AF454452.1	yes	10.1111/j.1096-0031.2002.tb00151.x	564	Finland
Cladonia	*carneola*		KY266855.1	yes	10.3897/mycokeys.11.6670	838	Norway
Cladonia	*cervicornis*	subsp. mawsonii	AF455178.1	yes	10.1111/j.1096-0031.2002.tb00151.x	567	Kerguelen Archipelago
Cladonia	*cervicornis*	subsp. mawsonii	MK179480.1	yes	10.1111/cla.12363	587	New Zealand
Cladonia	*chlorophaea*		DQ530208.1	yes	10.1007/s00239-006-0115-x	534	Canada
Cladonia	*chlorophaea*		DQ534460.2	yes	17082741	994	King George Island, Antactica
Cladonia	*chlorophaea*		FJ756723.1	yes	10.3852/09-030	608	Canada
Cladonia	*chlorophaea*		FJ756724.1	yes	10.3852/09-030	607	Canada
Cladonia	*chlorophaea*		KF378715.1	no	10.1016/j.funbio.2014.08.001	541	UK

Cladonia	*chlorophaea*	KF378717.1	no	10.1016/j.funbio.2014.08.001	527	England, UK
Cladonia	*chlorophaea*	KF378718.1	no	10.1016/j.funbio.2014.08.001	504	Scotland, UK
Cladonia	*chlorophaea*	KX132914.1	yes	10.1139/gen-2015-0189	872	Switzerland
Cladonia	*chlorophaea*	MK179658.1	yes	10.1111/cla.12363	595	Russia
Cladonia	*chlorophaea*	MK300728.1	yes	10.1016/j.bse.2019.04.004	525	Russia
Cladonia	*chlorophaea*	MK300736.1	yes	10.1016/j.bse.2019.04.004	328	Russia
Cladonia	*chlorophaea*	MK300741.1	yes	10.1016/j.bse.2019.04.004	474	Russia
Cladonia	*chlorophaea*	MK300743.1	yes	10.1016/j.bse.2019.04.004	516	Russia
Cladonia	*chlorophaea*	MK300745.1	yes	10.1016/j.bse.2019.04.004	473	Russia
Cladonia	*chlorophaea*	MK300768.1	yes	10.1016/j.bse.2019.04.004	292	Russia
Cladonia	*chlorophaea*	MK300777.1	yes	10.1016/j.bse.2019.04.004	521	Russia
Cladonia	*chlorophaea*	MK812242.1	yes	10.3897/BDJ.7.e36252	607	Buskerud, Hole, Krokkleiva, Norway
Cladonia	*chlorophaea*	MN387008.1	no	10.3390/microorganisms7090335	745	Poland
Cladonia	*cornuta*	AF455196.1	yes	10.1111/j.1096-0031.2002.tb00151.x	562	Chile
Cladonia	*cornuta*	AF455197.1	yes	10.1111/j.1096-0031.2002.tb00151.x	562	Estonia
Cladonia	*cornuta*	DQ530195.1	yes	10.1007/s00239-006-0115-x	560	Canada
Cladonia	*cornuta*	FJ536349.1	yes	10.1017/S0024282909990569	602	Canada
Cladonia	*cornuta*	FJ536350.1	yes	10.1017/S0024282909990569	509	Canada
Cladonia	*cornuta*	FJ536351.1	yes	10.1017/S0024282909990569	600	Canada
Cladonia	*cornuta*	FJ536352.1	yes	10.1017/S0024282909990569	597	Canada
Cladonia	*cornuta*	KC526133.1	yes	10.1111/1755-0998.12086	600	Chile
Cladonia	*cornuta*	KC526134.1	yes	10.1111/1755-0998.12086	571	Finland
Cladonia	*cornuta*	KC526135.1	yes	10.1111/1755-0998.12086	573	Finland
Cladonia	*cornuta*	MK300729.1	yes	10.1016/j.bse.2019.04.004	517	Russia: Yakutia

Cladonia	*cornuta*	MK300730.1	yes	10.1016/j.bse.2019.04.004	517	Russia: Yakutia
Cladonia	*cornuta*	MK300731.1	yes	10.1016/j.bse.2019.04.004	503	Russia: Yakutia
Cladonia	*cornuta*	MK508951.1	yes	10.1016/j.funbio.2019.05.006	465	Sweden
Cladonia	*cornuta*	MK508953.1	yes	10.1016/j.funbio.2019.05.006	489	Sweden
Cladonia	*cornuta*	MK811731.1	yes	10.3897/BDJ.7.e36252	611	Hedmark, Alvdal, Kvernmoen, Norway
Cladonia	*cornuta*	MK812047.1	yes	10.3897/BDJ.7.e36252	611	Telemark, Vinje, 400 m N of Mjolstoyl, Norway
Cladonia	*cornuta*	MK812277.1	yes	10.3897/BDJ.7.e36252	611	Buskerud, Sigdal, Sandvassetra, Norway
Cladonia	*cornuta*	MK812414.1	yes	10.3897/BDJ.7.e36252	611	Hedmark, Kongsvinger, Vinger church, Norway
Cladonia	*cornuta*	MK812497.1	yes	10.3897/BDJ.7.e36252	608	Akershus, Skien, between Tommerhol and Fugleleiken, Norway
Cladonia	*deformis*	AF454448.1	yes	10.1111/j.1096-0031.2002.tb00151.x	565	Finland
Cladonia	*deformis*	KP941533.1	yes	10.3767/003158516X688081	566	USA: New Hampshire
Cladonia	*deformis*	KU053019.1	yes	10.1016/j.ympev.2019.02.014	542	Finland
Cladonia	*deformis*	KU053020.1	yes	10.1016/j.ympev.2019.02.014	542	Czech Republic
Cladonia	*deformis*	KU053026.1	yes	10.1016/j.ympev.2019.02.014	544	Germany
Cladonia	*deformis*	KU053027.1	yes	10.1016/j.ympev.2019.02.014	544	Finland
Cladonia	*deformis*	KU053028.1	yes	10.1016/j.ympev.2019.02.014	544	Czech Republic
Cladonia	*deformis*	KU053029.1	yes	10.1016/j.ympev.2019.02.014	541	Czech Republic

Cladonia	*deformis*	KU053030.1	yes	10.1016/j.ympev.2019.02.014	541	Czech Republic
Cladonia	*deformis*	KU053031.1	yes	10.1016/j.ympev.2019.02.014	541	Jutland, Denmark
Cladonia	*deformis*	MK179566.1	yes	10.1111/cla.12363	612	Finland
Cladonia	*deformis*	MK179567.1	yes	10.1111/cla.12363	613	Russia: Pechenga Lapland
Cladonia	*deformis*	MK179568.1	yes	10.1111/cla.12363	611	Finland
Cladonia	*deformis*	MK179569.1	yes	10.1111/cla.12363	616	Finland
Cladonia	*deformis*	MK179590.1	yes	10.1111/cla.12363	566	USA
Cladonia	*deformis*	MK508922.1	yes	10.1016/j.funbio.2019.05.006	788	Germany: Neuhausen
Cladonia	*deformis*	MK508938.1	yes	10.1016/j.funbio.2019.05.011	538	Sweden
Cladonia	*deformis*	MK508940.1	yes	10.1016/j.funbio.2019.05.013	538	Sweden
Cladonia	*fimbriata*	AF455224.1	yes	10.1111/j.1096-0031.2002.tb00151.x	558	Chile
Cladonia	*fimbriata*	FJ756726.1	no	10.3852/09-030	604	Canada
Cladonia	*fimbriata*	GU188404.1	yes	10.1017/S0024282910000071	559	Germany
Cladonia	*fimbriata*	GU188405.1	yes	10.1017/S0024282910000071	559	Germany
Cladonia	*fimbriata*	GU188406.1	yes	10.1017/S0024282910000071	559	Germany
Cladonia	*fimbriata*	KF378723.1	no	10.1016/j.funbio.2014.08.001	544	England
Cladonia	*fimbriata*	KF378724.1	no	10.1016/j.funbio.2014.08.001	544	Canada
Cladonia	*fimbriata*	KF378725.1	no	10.1016/j.funbio.2014.08.001	474	Canada
Cladonia	*fimbriata*	KF525266.1	no	unpublished	558	Poland
Cladonia	*fimbriata*	KY266953.1	yes	unpublished	556	Norway
Cladonia	*fimbriata*	MK179532.1	yes	10.1111/cla.12363	609	Finland
Cladonia	*fimbriata*	MK300732.1	yes	10.1016/j.bse.2019.04.004	460	Russia: Yakutia
Cladonia	*fimbriata*	MK300740.1	yes	10.1016/j.bse.2019.04.004	492	Russia: Yakutia
Cladonia	*fimbriata*	MK300742.1	yes	10.1016/j.bse.2019.04.004	513	Russia: Yakutia
Cladonia	*fimbriata*	MK300744.1	yes	10.1016/j.bse.2019.04.004	461	Russia: Yakutia

Cladonia	*fimbriata*	MK811629.1	yes	10.3897/BDJ.7.e36252	569	Telemark, Tinn, Rjukan, Krossobanen, Norway
Cladonia	*fimbriata*	MK812488.1	yes	10.3897/BDJ.7.e36252	606	Vest-Agder, Farsund, Kviljoodden O, Norway
Cladonia	*fimbriata*	MN387039.1	no	10.3390/microorganisms7090335	603	Poland
Cladonia	*galindezii*	MK214457.1	yes	10.1111/cla.12363	577	Spain
Cladonia	*gracilis*	DQ219313.1	yes	unpublished	915	Antarctica
Cladonia	*gracilis*	DQ394380.1	yes	unpublished	717	Not informed
Cladonia	*gracilis*	DQ530202.1	yes	10.1007/s00239-006-0115-x	533	Canada
Cladonia	*gracilis*	DQ534462.2	yes	17082741	762	King George Island, Antarctic
Cladonia	*gracilis*	JN863236.1	yes	10.1017/S0954102012000223	2022	South Shetlands
Cladonia	*gracilis*	KJ607896.1	yes	10.1111/jeu.12159	1646	King George Island, Antactica
Cladonia	*gracilis*	KY266906.1	yes	10.3897/mycokeys.11.6670	823	Norway
Cladonia	*gracilis*	MK508930.1	yes	10.1016/j.funbio.2019.05.006	805	Norway
Cladonia	*gracilis*	MK508939.1	yes	10.1016/j.funbio.2019.05.012	802	Sweden
Cladonia	*gracilis*	MK811638.1	yes	10.3897/BDJ.7.e36252	543	Akershus, Skien, between Tommerhol and Fugleleiken, Norway
Cladonia	*gracilis*	MK811813.1	yes	10.3897/BDJ.7.e36252	610	Buskerud, Sigdal, Langevassasen, Norway
Cladonia	*gracilis*	MK812342.1	yes	10.3897/BDJ.7.e36252	309	Sor-Trondelag, Orland, Storfosna, Ola, Norway

Cladonia	*gracilis*	MK812362.1	yes	10.3897/BDJ.7.e36252	583	Sor-Trondelag, Oppdal, hill S of Kongsvoll, Norway
Cladonia	*gracilis*	MN387040.1	no	10.3390/microorganisms7090335	676	Poland
Cladonia	*gracilis*	MN387041.1	no	10.3390/microorganisms7090335	659	Poland
Cladonia	*metacorallifera*	AF453705.1	yes	10.1111/j.1096-0031.2002.tb00151.x	567	Finland
Cladonia	*metacorallifera*	DQ394381.1	yes	unpublished	718	Not informed
Cladonia	*metacorallifera*	JF710651.1	yes	22223171	690	South Korea
Cladonia	*novochlorophaea*	GU188414.1	yes	10.1017/S0024282910000071	565	Germany
Cladonia	*novochlorophaea*	GU188415.1	yes	10.1017/S0024282910000071	565	Sweden
Cladonia	*novochlorophaea*	MK179543.1	yes	10.1111/cla.12363	295	United Kingdom
Cladonia	*pleurota*	AF454442.1	yes	10.1111/j.1096-0031.2002.tb00151.x	565	Canada
Cladonia	*pleurota*	AF454443.1	yes	10.1111/j.1096-0031.2002.tb00151.x	565	USA
Cladonia	*pleurota*	AF454445.1	yes	10.1111/j.1096-0031.2002.tb00151.x	565	Mexico
Cladonia	*pleurota*	AF455165.1	yes	10.1111/j.1096-0031.2002.tb00151.x	565	Australia
Cladonia	*pleurota*	KU053017.1	yes	10.1016/j.ympev.2019.02.014	544	Czech Republic
Cladonia	*pleurota*	KU053018.1	yes	10.1016/j.ympev.2019.02.014	284	Montenegro
Cladonia	*pleurota*	KU053025.1	yes	10.1016/j.ympev.2019.02.014	544	Czech Republic
Cladonia	*pleurota*	KU053032.1	yes	10.1016/j.ympev.2019.02.014	541	Czech Republic
Cladonia	*pleurota*	KU053033.1	yes	10.1016/j.ympev.2019.02.014	544	Austria
Cladonia	*pleurota*	KU053045.1	yes	10.1016/j.ympev.2019.02.014	542	Austria
Cladonia	*pleurota*	KU163444.1	yes	10.1016/j.ympev.2019.02.014	542	Austria
Cladonia	*pleurota*	KY266968.1	yes	10.3897/mycokeys.11.6670	498	Norway

Cladonia	*pleurota*	MK179554.1	yes	10.1111/cla.12363	554	Russia
Cladonia	*pleurota*	MK179555.1	yes	10.1111/cla.12363	615	Russia
Cladonia	*pleurota*	MK179576.1	yes	10.1111/cla.12363	367	New Zealand
Cladonia	*pocillum*	DQ530198.1	yes	10.1007/s00239-006-0115-x	515	Canada
Cladonia	*pocillum*	DQ530204.1	yes	10.1007/s00239-006-0115-x	558	Canada
Cladonia	*pocillum*	DQ530205.1	yes	10.1007/s00239-006-0115-x	537	Canada
Cladonia	*pocillum*	DQ530209.1	yes	10.1007/s00239-006-0115-x	561	Canada
Cladonia	*pocillum*	FJ756728.1	yes	10.3852/09-030	607	Canada
Cladonia	*pocillum*	FJ756729.1	yes	10.3852/09-030	607	Canada
Cladonia	*pocillum*	FJ756730.1	yes	10.3852/09-030	608	Canada
Cladonia	*pocillum*	FJ756731.1	yes	10.3852/09-030	605	Canada
Cladonia	*pocillum*	FJ756732.1	yes	10.3852/09-030	518	Canada
Cladonia	*pocillum*	FJ756733.1	yes	10.3852/09-030	609	Canada
Cladonia	*pocillum*	FJ756734.1	yes	10.3852/09-030	608	Canada
Cladonia	*pocillum*	FJ756735.1	yes	10.3852/09-030	609	Canada
Cladonia	*pocillum*	FJ756736.1	yes	10.3852/09-030	607	Canada
Cladonia	*pocillum*	FJ756737.1	yes	10.3852/09-030	612	Canada
Cladonia	*pocillum*	FJ756740.1	yes	10.3852/09-030	610	Canada
Cladonia	*pocillum*	FJ756741.1	yes	10.3852/09-030	608	Canada
Cladonia	*pocillum*	FJ756742.1	yes	10.3852/09-030	610	Canada
Cladonia	*pocillum*	FJ756743.1	yes	10.3852/09-030	608	Canada
Cladonia	*pocillum*	FJ756744.1	yes	10.3852/09-030	608	Canada
Cladonia	*pocillum*	FJ756745.1	yes	10.3852/09-030	608	Canada
Cladonia	*pocillum*	FJ756746.1	yes	10.3852/09-030	608	Canada
Cladonia	*pocillum*	FJ756747.1	yes	10.3852/09-030	608	Canada
Cladonia	*pocillum*	FJ756763.1	yes	10.3852/09-030	608	Canada
Cladonia	*pocillum*	FJ756766.1	yes	10.3852/09-030	570	Canada

Cladonia	*pocillum*	FJ756767.1	yes	10.3852/09-030	512	Canada
Cladonia	*pocillum*	FJ756768.1	yes	10.3852/09-030	568	Canada
Cladonia	*pocillum*	FJ756769.1	yes	10.3852/09-030	574	Canada
Cladonia	*pocillum*	KC415979.1	yes	10.1111/1755-0998.12086	617	France: Corsica
Cladonia	*pocillum*	KC415981.1	yes	10.1111/1755-0998.12086	573	USA
Cladonia	*pocillum*	KC415982.1	yes	10.1111/1755-0998.12086	615	USA
Cladonia	*pocillum*	KF378728.1	no	10.1016/j.funbio.2014.08.001	539	Canada
Cladonia	*pocillum*	KF378729.1	no	10.1016/j.funbio.2014.08.001	541	Canada
Cladonia	*pocillum*	KP314295.1	yes	unpublished	604	Svalbard, Norway
Cladonia	*pocillum*	KP314301.1	yes	unpublished	603	Svalbard, Norway
Cladonia	*pocillum*	KP314304.1	yes	unpublished	603	Svalbard, Norway
Cladonia	*pocillum*	KP314306.1	yes	unpublished	604	Svalbard, Norway
Cladonia	*pocillum*	KP314326.1	yes	unpublished	604	Svalbard, Norway
Cladonia	*pocillum*	KP314361.1	yes	unpublished	600	Svalbard, Norway
Cladonia	*pocillum*	KP314384.1	yes	unpublished	604	Svalbard, Norway
Cladonia	*pocillum*	KP314385.1	yes	unpublished	604	Svalbard, Norway
Cladonia	*pocillum*	KP314398.1	yes	unpublished	604	Svalbard, Norway
Cladonia	*pocillum*	KP314401.1	yes	unpublished	604	Svalbard, Norway
Cladonia	*pocillum*	KP314407.1	yes	unpublished	604	Svalbard, Norway
Cladonia	*pocillum*	KP314436.1	yes	unpublished	603	Svalbard, Norway
Cladonia	*pocillum*	KP314438.1	yes	unpublished	602	Svalbard, Norway
Cladonia	*pocillum*	KP314451.1	yes	unpublished	603	Svalbard, Norway
Cladonia	*pocillum*	KP314468.1	yes	unpublished	603	Svalbard, Norway
Cladonia	*pocillum*	MK508935.1	yes	10.1016/j.funbio.2019.05.008	682	Norway
Cladonia	*pocillum*	MK508941.1	yes	10.1016/j.funbio.2019.05.014	533	Dalhalla, Sweden
Cladonia	*pocillum*	MK508947.1	yes	10.1016/j.funbio.2019.05.006	805	Sweden
Cladonia	*pocillum*	MK508959.1	yes	10.1016/j.funbio.2019.05.006	556	United Kingdom

Cladonia	*pyxidata*	AF455208.1	yes	10.1111/j.1096-0031.2002.tb00151.x	566	Mexico
Cladonia	*pyxidata*	AF455223.1	yes	10.1111/j.1096-0031.2002.tb00151.x	561	Iceland
Cladonia	*pyxidata*	DQ530199.1	yes	10.1007/s00239-006-0115-x	560	Canada
Cladonia	*pyxidata*	DQ534463.2	yes	17082741	758	King George Island, Antarctic
Cladonia	*pyxidata*	EU034665.1	yes	10.5423/PPJ.2009.25.1.038	723	Hungary
Cladonia	*pyxidata*	FJ756738.1	yes	10.3852/09-030	619	Canada
Cladonia	*pyxidata*	FJ756739.1	yes	10.3852/09-030	614	Canada
Cladonia	*pyxidata*	FJ756748.1	yes	10.3852/09-030	550	Canada
Cladonia	*pyxidata*	FJ756749.1	yes	10.3852/09-030	611	Canada
Cladonia	*pyxidata*	FJ756750.1	yes	10.3852/09-030	568	Canada
Cladonia	*pyxidata*	FJ756751.1	yes	10.3852/09-030	611	Canada
Cladonia	*pyxidata*	FJ756752.1	yes	10.3852/09-030	604	Canada
Cladonia	*pyxidata*	FJ756753.1	yes	10.3852/09-030	604	Canada
Cladonia	*pyxidata*	FJ756754.1	yes	10.3852/09-030	605	Canada
Cladonia	*pyxidata*	FJ756756.1	yes	10.3852/09-030	618	Canada
Cladonia	*pyxidata*	FJ756757.1	yes	10.3852/09-030	611	Canada
Cladonia	*pyxidata*	FJ756758.1	yes	10.3852/09-030	68	Canada
Cladonia	*pyxidata*	FJ756759.1	yes	10.3852/09-030	608	Canada
Cladonia	*pyxidata*	FJ756760.1	yes	10.3852/09-030	614	Canada
Cladonia	*pyxidata*	FJ756761.1	yes	10.3852/09-030	608	Canada
Cladonia	*pyxidata*	FJ756762.1	yes	10.3852/09-030	609	Canada
Cladonia	*pyxidata*	FJ756764.1	yes	10.3852/09-030	564	Canada
Cladonia	*pyxidata*	FJ756765.1	yes	10.3852/09-030	609	Canada
Cladonia	*pyxidata*	KC415980.1	yes	10.1111/1755-0998.12086	571	Ukraine
Cladonia	*pyxidata*	KC415983.1	yes	10.1111/1755-0998.12086	594	Greenland

Cladonia	*pyxidata*	KF378730.1	no	10.1016/j.funbio.2014.08.001	466	Scotland
Cladonia	*pyxidata*	KY266877.1	yes	10.3897/mycokeys.11.6670	611	Norway
Cladonia	*pyxidata*	MK300734.1	yes	10.1016/j.bse.2019.04.004	75	Russia: Yakutia
Cladonia	*pyxidata*	MK300735.1	yes	10.1016/j.bse.2019.04.004	515	Russia: Yakutia
Cladonia	*pyxidata*	MK300737.1	yes	10.1016/j.bse.2019.04.004	485	Russia: Yakutia
Cladonia	*pyxidata*	MK300738.1	yes	10.1016/j.bse.2019.04.004	519	Russia: Yakutia
Cladonia	*pyxidata*	MK300739.1	yes	10.1016/j.bse.2019.04.004	517	Russia: Yakutia
Cladonia	*pyxidata*	MK300746.1	yes	10.1016/j.bse.2019.04.004	513	Russia: Yakutia
Cladonia	*pyxidata*	MK300765.1	yes	10.1016/j.bse.2019.04.004	629	Russia: Yakutia
Cladonia	*pyxidata*	MK300767.1	yes	10.1016/j.bse.2019.04.004	539	Russia: Yakutia
Cladonia	*pyxidata*	MK300769.1	yes	10.1016/j.bse.2019.04.004	532	Russia: Yakutia
Cladonia	*pyxidata*	MK300770.1	yes	10.1016/j.bse.2019.04.004	557	Russia: Yakutia
Cladonia	*pyxidata*	MK300772.1	yes	10.1016/j.bse.2019.04.004	511	Russia: Yakutia
Cladonia	*pyxidata*	MK300773.1	yes	10.1016/j.bse.2019.04.004	596	Russia: Yakutia
Cladonia	*pyxidata*	MK300774.1	yes	10.1016/j.bse.2019.04.004	559	Russia: Yakutia
Cladonia	*pyxidata*	MK300775.1	yes	10.1016/j.bse.2019.04.004	479	Russia: Yakutia
Cladonia	*pyxidata*	MK300776.1	yes	10.1016/j.bse.2019.04.004	488	Russia: Yakutia
Cladonia	*pyxidata*	MK508931.1	yes	10.1016/j.funbio.2019.05.006	534	Norway
Cladonia	*pyxidata*	MK812571.1	yes	10.3897/BDJ.7.e36252	583	Ostfold, Marker, Langnes, Norway
Cladonia	*pyxidata*	MK812676.1	yes	10.3897/BDJ.7.e36252	594	Oslo, Oslo, Tormodsvei 19B, Norway
Cladonia	*pyxidata*	MN172448.1	yes	Lichens and lichenicolous fungi, Sipman,H.J. and Raus,T.; (in) Biel,B. and Tan,K. (Eds.); FLORA OF AMORGOS;	863	Greece
Cladonia	*rangiferina*	DQ001278.1	yes	15995639	724	Yunnan, China

Cladonia	*rangiferina*	DQ394367.1	yes	unpublished	660	Not informed
Cladonia	*rangiferina*	EU266113.1	yes	unpublished	747	Not informed
Cladonia	*rangiferina*	GU169225.1	yes	10.1139/B10-027	561	Canada
Cladonia	*rangiferina*	JQ695918.1	yes	10.2509/naf2012.007.003	562	USA
Cladonia	*rangiferina*	JQ695919.1	yes	10.2509/naf2012.007.003	562	USA
Cladonia	*rangiferina*	JQ695920.1	yes	10.2509/naf2012.007.003	522	USA
Cladonia	*rangiferina*	KP001190.1	yes	10.1017/S0024282915000572	563	India
Cladonia	*rangiferina*	KP001191.1	yes	10.1017/S0024282915000572	562	Canada
Cladonia	*rangiferina*	KP001192.1	yes	10.1017/S0024282915000572	563	Canada
Cladonia	*rangiferina*	KP001193.1	yes	10.1017/S0024282915000572	563	Canada
Cladonia	*rangiferina*	KP001194.1	yes	10.1017/S0024282915000572	562	Canada
Cladonia	*rangiferina*	KP001195.1	yes	10.1017/S0024282915000572	466	Canada
Cladonia	*rangiferina*	KP001197.1	yes	10.1017/S0024282915000572	562	USA
Cladonia	*rangiferina*	KP001198.1	yes	10.1017/S0024282915000572	543	Canada
Cladonia	*rangiferina*	KP001199.1	yes	10.1017/S0024282915000572	541	Canada
Cladonia	*rangiferina*	KP001200.1	yes	10.1017/S0024282915000572	563	Canada
Cladonia	*rangiferina*	KP001201.1	yes	10.1017/S0024282915000572	562	Canada
Cladonia	*rangiferina*	KP001202.1	yes	10.1017/S0024282915000572	562	Canada
Cladonia	*rangiferina*	KP031549.1	yes	unpublished	562	Canada
Cladonia	*rangiferina*	KT792787.1	yes	10.13158/heia.28.2.2015.445	371	Germany
Cladonia	*rangiferina*	KT792788.1	yes	10.13158/heia.28.2.2015.445	541	Germany
Cladonia	*rangiferina*	KT792789.1	yes	10.13158/heia.28.2.2015.445	553	Germany
Cladonia	*rangiferina*	KT792790.1	yes	10.13158/heia.28.2.2015.445	551	Germany
Cladonia	*rangiferina*	KT792791.1	yes	10.13158/heia.28.2.2015.445	554	Germany
Cladonia	*rangiferina*	KT792792.1	yes	10.13158/heia.28.2.2015.445	550	Luxembourg
Cladonia	*rangiferina*	KY119381.1	yes	10.1139/gen-2015-0189	11726	Switzerland
Cladonia	*rangiferina*	KY266884.1	yes	unpublished	857	Norway

Cladonia	*rangiferina*	MK300750.1	yes	10.1016/j.bse.2019.04.004	523	Russia
Cladonia	*rangiferina*	MK508937.1	yes	10.1016/j.funbio.2019.05.010	839	Sweden
Cladonia	*rangiferina*	MK508943.1	yes	10.1016/j.funbio.2019.05.016	830	Sweden
Cladonia	*rangiferina*	MK508944.1	yes	10.1016/j.funbio.2019.05.006	554	Sweden
Cladonia	*rangiferina*	MK508952.1	yes	10.1016/j.funbio.2019.05.006	559	Sweden
Cladonia	*rangiferina*	MK811708.1	yes	10.3897/BDJ.7.e36252	611	Sor-Trondelag, Norway
Cladonia	*rangiferina*	MK811970.1	yes	10.3897/BDJ.7.e36252	611	Troms, Norway
Cladonia	*rangiferina*	MK812260.1	yes	10.3897/BDJ.7.e36252	611	Nord-Trondelag, Norway
Cladonia	*rangiferina*	MK812460.1	yes	10.3897/BDJ.7.e36252	587	Akershus, Norway
Cladonia	*sarmentosa*	DQ219314.1	yes	unpublished	770	Antarctica
Cladonia	*scabriuscula*	AF455215.1	yes	10.1111/j.1096-0031.2002.tb00151.x	566	Chile
Cladonia	*scabriuscula*	AF455216.1	yes	10.1111/j.1096-0031.2002.tb00151.x	567	Canada
Cladonia	*scabriuscula*	AF455217.1	yes	10.1111/j.1096-0031.2002.tb00151.x	565	Newfoundland, Canada
Cladonia	*scabriuscula*	AF455218.1	yes	10.1111/j.1096-0031.2002.tb00151.x	564	China
Cladonia	*scabriuscula*	AF455219.1	yes	10.1111/j.1096-0031.2002.tb00151.x	565	Chile
Cladonia	*scabriuscula*	DQ394382.1	yes	unpublished	726	Not informed
Cladonia	*scabriuscula*	DQ534464.2	yes	unpublished	986	Not informed
Cladonia	*scabriuscula*	EU113282.1	yes	Phylogenetics of lichens in the genus Cladonia (Cladoniaceae) Phylogenetics of lichens in the genus Cladonia (Cladoniaceae) in Northern and Northeastern Thailand	582	Doi Inthanon National Park, Thailand

Cladonia	*scabriuscula*		KR818309.1	yes	10.1017/S0024282915000225	593	Nova Scotia, Canada
Cladonia	*scabriuscula*		KR818311.1	yes	10.1017/S0024282915000225	591	Alaska, USA
Cladonia	*scabriuscula*		KR818321.1	yes	10.1017/S0024282915000225	591	Pennsylvania, USA
Cladonia	*scabriuscula*		KR818325.1	yes	10.1017/S0024282915000225	563	Region XII, Chile
Cladonia	*scabriuscula*		KR818327.1	yes	10.1017/S0024282915000225	570	Region XII, Chile
Cladonia	*scabriuscula*		KR818329.1	yes	10.1017/S0024282915000225	566	Region XII, Chile
Cladonia	*scabriuscula*		KR818337.1	yes	10.1017/S0024282915000225	591	Otago, New Zealand
Cladonia	*scabriuscula*		KR818338.1	yes	10.1017/S0024282915000225	568	West Coast, New Zealand
Cladonia	*scabriuscula*		KR818339.1	yes	10.1017/S0024282915000225	591	Hawaii, USA
Cladonia	*scabriuscula*		KR818341.1	yes	10.1017/S0024282915000225	592	Southland, New Zealand
Cladonia	*scabriuscula*		KR818343.1	yes	10.1017/S0024282915000225	592	Southland, New Zealand
Cladonia	*scabriuscula*		KR818347.1	yes	10.1017/S0024282915000225	523	Southland, New Zealand
Cladonia	*scabriuscula*		KR818349.1	yes	10.1017/S0024282915000225	585	Kamchatka, Russia
Cladonia	*scabriuscula*		KR818350.1	yes	10.1017/S0024282915000225	538	Dagestan, Russia
Cladonia	*scabriuscula*		KR818351.1	yes	10.1017/S0024282915000225	581	Kamchatka, Russia
Cladonia	*scabriuscula*		KR818366.1	yes	10.1017/S0024282915000225	594	Alaska, USA
Cladonia	*scabriuscula*		KR818367.1	yes	10.1017/S0024282915000225	594	Alaska, USA
Cladonia	*scabriuscula*		KR818374.1	yes	10.1017/S0024282915000225	591	Alaska, USA
Cladonia	*scabriuscula*		KR818375.1	yes	10.1017/S0024282915000225	585	Hawaii, USA
Cladonia	*scabriuscula*		KR818380.1	yes	10.1017/S0024282915000225	535	Otago, New Zealand
Cladonia	*scabriuscula*		KR818381.1	yes	10.1017/S0024282915000225	591	Scotland, UK
Cladonia	*scabriuscula*		MK179637.1	yes	10.1111/cla.12364	574	New Zealand
Cladonia	*squamosa*	var. squamosa	AF457886.1	yes	10.1111/j.1096-0031.2002.tb00151.x	562	Sweden

Cladonia	*squamosa*	var. squamosa	DQ001280.1	yes	15995639	899	Yunnan, China
Cladonia	*squamosa*	var. squamosa	KX132952.1	yes	10.1139/gen-2015-0189	873	Switzerland
Cladonia	*squamosa*	var. squamosa	KY266973.1	yes	10.3897/mycokeys.11.6670	828	Norway: Finnmark
Cladonia	*squamosa*	var. squamosa	MG241452.1	yes	unpublished	10889	USA: California
Cladonia	*squamosa*	var. squamosa	MK811958.1	yes	10.3897/BDJ.7.e36252	586	Troms, Balsfjord, Berg, at the boulder 'piggsteinen', Norway
Cladonia	*squamosa*	var. squamosa	MK812303.1	yes	10.3897/BDJ.7.e36252	561	Buskerud, Sigdal, NE slope of Mt Steinfantnatten, Norway
Cladonia	*squamosa*	var. squamosa	MK812360.1	yes	10.3897/BDJ.7.e36252	611	Akershus, Enebakk, 650 m NE of Durud, Norway
Cladonia	*subulata*		AF455180.1	yes	10.1111/j.1096-0031.2002.tb00151.x	567	Finland
Cladonia	*subulata*		AF455181.1	yes	10.1111/j.1096-0031.2002.tb00151.x	567	Germany
Cladonia	*subulata*		FN868566.1	yes	10.5248/113.311	910	Spain
Cladonia	*subulata*		FN868567.1	yes	10.5248/113.311	696	Spain
Cladonia	*subulata*		FN868568.1	yes	10.5248/113.311	878	Sweden
Cladonia	*subulata*		FN868569.1	yes	10.5248/113.311	858	Sweden
Cladonia	*subulata*		FN868570.1	yes	10.5248/113.311	872	Spain
Cladonia	*subulata*		FN868571.1	yes	10.5248/113.311	824	Spain
Cladonia	*subulata*		FN868572.1	yes	10.5248/113.311	654	Portugal
Cladonia	*subulata*		FN868573.1	no	10.5248/113.311	576	Netherlands

Cladonia	*subulata*	FN868574.1	yes	10.5248/113.311	880	Czech Republic
Cladonia	*subulata*	FN868575.1	yes	10.5248/113.311	873	Denmark
Cladonia	*subulata*	FN868576.1	no	10.5248/113.311	870	Austria
Cladonia	*subulata*	FN868577.1	yes	10.5248/113.311	367	Spain
Cladonia	*subulata*	FN868578.1	yes	10.5248/113.311	365	Chile
Cladonia	*subulata*	FN868579.1	yes	10.5248/113.311	408	France
Cladonia	*subulata*	GU188418.1	yes	10.1017/S0024282910000071	567	Poland
Cladonia	*subulata*	GU188419.1	yes	10.1017/S0024282910000071	567	Germany
Cladonia	*subulata*	GU188420.1	yes	10.1017/S0024282910000071	568	Poland
Cladonia	*subulata*	GU188421.1	yes	10.1017/S0024282910000071	568	Germany
Cladonia	*subulata*	GU188422.1	yes	10.1017/S0024282910000071	568	Germany
Cladonia	*subulata*	GU188423.1	yes	10.1017/S0024282910000071	568	Germany
Cladonia	*subulata*	GU188424.1	yes	10.1017/S0024282910000071	562	Sweden
Cladonia	*subulata*	GU188425.1	yes	10.1017/S0024282910000071	568	Poland
Cladonia	*subulata*	KF525256.1	yes	10.2478/s11535-014-0286-1	567	Poland
Cladonia	*subulata*	KF525262.1	yes	10.2478/s11535-014-0286-1	566	Poland
Cladonia	*subulata*	KF525263.1	yes	10.2478/s11535-014-0286-1	568	Poland
Cladonia	*subulata*	KF525264.1	yes	10.2478/s11535-014-0286-1	567	Poland
Cladonia	*subulata*	KF525265.1	yes	10.2478/s11535-014-0286-1	566	Poland
Cladonia	*subulata*	MK179686.1	yes	10.1111/cla.12363	614	Finland
Cladonia	*subulata*	MK508919.1	yes	10.1016/j.funbio.2019.05.006	605	Hungary
Cladonia	*subulata*	MK508946.1	yes	10.1016/j.funbio.2019.05.006	669	Sweden
Cladonia	*subulata*	MK811787.1	yes	10.3897/BDJ.7.e36252	584	Telemark, Tinn, Norway
Cladonia	*subulata*	MK811811.1	yes	10.3897/BDJ.7.e36252	590	Inarin Lappi, Norway
Cladonia	*subulata*	MK812279.1	yes	10.3897/BDJ.7.e36252	589	Akershus, Enebakk, Norway

Cladonia	*subulata*	MK812581.1	yes	10.3897/BDJ.7.e36252	591	Sor-Trondelag, Norway
Cladonia	*sulphurina*	AF454449.1	yes	10.1111/j.1096-0031.2002.tb00151.x	563	Greenland
Cladonia	*sulphurina*	KY266846.1	yes	10.3897/mycokeys.11.6670	647	Finnmark, Gii'sagai'as, Norway
Cladonia	*sulphurina*	MK508929.1	yes	10.1016/j.funbio.2019.05.006	572	Norway
Cladonia	*weymouthii*	AF453689.1	yes	10.1111/j.1096-0031.2002.tb00151.x	566	New Caledonia
Cladonia	*weymouthii*	MK179688.1	yes	10.1111/cla.12364	621	New Zealand
Coccotrema	*cucurbitula*	AF329162.1	yes	10.1006/lich.2001.0325	555	Argentina
Coelopogon	*epiphorellus*	AF254632.1	yes	Phylogeny and ecology of Cetraria obtusata, Coelopogon epiphorellus, and related taxa (Parmeliaceae, lichenized ascomycetes).	499	Argentina, Tierra del Fuego
Coelopogon	*epiphorellus*	AF254633.1	yes	Phylogeny and ecology of Cetraria obtusata, Coelopogon epiphorellus, and related taxa (Parmeliaceae, lichenized ascomycetes).	499	Argentina, Tierra del Fuego
Coelopogon	*epiphorellus*	KR995276.1	yes	10.1111/nph.13553	594	Argentina
Cystocoleus	*ebeneus*	GU067643.1	no	10.1017/S0024282909990752	384	Slovenia
Cystocoleus	*ebeneus*	GU067644.1	no	10.1017/S0024282909990754	597	Slovenia
Cystocoleus	*ebeneus*	GU067645.1	no	10.1017/S0024282909990752	689	Austria
Cystocoleus	*ebeneus*	GU067646.1	no	10.1017/S0024282909990753	688	Austria
Cystocoleus	*ebeneus*	GU067647.1	no	10.1017/S0024282909990752	554	Austria
Cystocoleus	*ebeneus*	GU067648.1	no	10.1017/S0024282909990752	687	Austria

Cystocoleus	*ebeneus*	GU067649.1	no	10.1017/S0024282909990752	399	Austria
Cystocoleus	*ebeneus*	GU067650.1	no	10.1017/S0024282909990752	436	Austria
Cystocoleus	*ebeneus*	GU067651.1	no	10.1017/S0024282909990752	648	Austria
Cystocoleus	*ebeneus*	GU067652.1	no	10.1017/S0024282909990752	690	Austria
Cystocoleus	*ebeneus*	GU067653.1	no	10.1017/S0024282909990752	688	Austria
Cystocoleus	*ebeneus*	GU067654.1	no	10.1017/S0024282909990752	689	Austria
Cystocoleus	*ebeneus*	GU067655.1	no	10.1017/S0024282909990752	540	Austria
Cystocoleus	*ebeneus*	GU067656.1	no	10.1017/S0024282909990752	535	Austria
Cystocoleus	*ebeneus*	GU067657.1	no	10.1017/S0024282909990752	689	Austria
Cystocoleus	*ebeneus*	GU067658.1	no	10.1017/S0024282909990752	588	Austria
Cystocoleus	*ebeneus*	GU067659.1	no	10.1017/S0024282909990752	690	Austria
Cystocoleus	*ebeneus*	GU067660.1	no	10.1017/S0024282909990752	690	Austria
Cystocoleus	*ebeneus*	GU067672.1	no	10.1017/S0024282909990752	496	Austria
Cystocoleus	*ebeneus*	MK811795.1	yes	10.3897/BDJ.7.e36252	495	Norway
Dermatocarpon	*polyphyllizum*	AF333170.1	yes	10.1017/s0953756203007652	550	Iceland
Diplotomma	*alboatrum*	AF224350.1	yes	10.2307/3761430	485	Sudre, Sweden
Diplotomma	*alboatrum*	AF224351.1	yes	10.2307/3761429	510	Uppsala, Sweden
Diplotomma	*alboatrum*	AF408677.1	yes	10.1006/lich.2001.0349	527	Sweden
Diplotomma	*alboatrum*	AF540508.1	yes	21149015	502	Sodermanland, Alandsskar, Sweden
Diplotomma	*alboatrum*	AJ549958.1	yes	10.1080/15572536.2004.11833022	502	Devon, Pudcombe Cove, Coleton Fishacre, UK
Diplotomma	*alboatrum*	AJ549959.1	yes	10.1080/15572536.2004.11833022	499	Sweden
Diplotomma	*alboatrum*	DQ198357.1	yes	10.1017/S0024282905015434	516	Sweden
Diplotomma	*alboatrum*	DQ812145.1	yes	unpublished	540	Not informed

Diplotomma	*alboatrum*	GU553287.1	yes	22121298	619	Donetsk Upland, Ukraine
Diplotomma	*alboatrum*	KX512924.1	yes	10.1007/s13225-016-0372-y	736	Not informed
Diplotomma	*alboatrum*	MK812220.1	yes	10.3897/BDJ.7.e36252	499	innmark, Lebesby, Underfossen, Norway
Eiglera	*flavida*	NA				
Enchylium	*tenax*	NA				
Flavoplaca	*citrina*	DQ173222.1	yes	10.1017/S0024282905005402	535	Xin-Jiang, China
Flavoplaca	*citrina*	DQ173223.1	yes	10.1017/S0024282905005402	533	-
Flavoplaca	*citrina*	DQ173224.1	yes	10.1017/S0024282905005402	533	Western Sayan, Russia
Flavoplaca	*citrina*	DQ173225.1	yes	10.1017/S0024282905005402	533	Western Sayan, Russia
Flavoplaca	*citrina*	DQ173226.1	yes	10.1017/S0024282905005402	533	Altai, Russia
Flavoplaca	*citrina*	EU563387.1	yes	10.1017/S0024282909008317	636	Tuva, Russia
Flavoplaca	*citrina*	JN813425.1	no	unpublished	605	Gurktaler Alpen, Austria
Flavoplaca	*citrina*	KT934382.1	yes	unpublished	381	Not informed
Flavoplaca	*citrina*	KT934387.1	yes	unpublished	588	Sogn og Fjordane, Norway
Flavoplaca	*citrina*	MF595943.1	yes	Caloplaca sol (Teloschistaceae), a new coastal lichen from Great Britain	528	Not informed
Flavoplaca	*citrina*	MK811952.1	yes	10.3897/BDJ.7.e36252	537	Not informed
Flavoplaca	*citrina*	MK812194.1	yes	10.3897/BDJ.7.e36252	578	Not informed
Frutidella	*caesioatra*	MG925971.1	yes	10.12705/675.1	796	Norway
Frutidella	*caesioatra*	MK811625.1	yes	10.3897/BDJ.7.e36252	503	Sogn og Fjordane, Aurland, Norway
Frutidella	*caesioatra*	MK812163.1	yes	10.3897/BDJ.7.e36252	512	Troms, Storfjord, Norway

Frutidella	*caesioatra*	MK812346.1	yes	10.3897/BDJ.7.e36252	497	Nordland, Rana, Norway
Frutidella	*caesioatra*	MK812446.1	yes	10.3897/BDJ.7.e36252	512	Nordland, Saltdal, Norway
Frutidella	*caesioatra*	MK812561.1	yes	10.3897/BDJ.7.e36252	488	Oppland, Vang, Norway
Fuscidea	*asbolodes*	NA				
Gondwania	*sublobulata*	DQ534455.2	yes	17082741	701	Artic, Russia
Gyalidea	*antarctica*	NA				
Haematomma	*erythromma*	DQ534465.2	yes	PMID: 17082741	939	King George Island, Antarctica
Himantormia	*lugubris*	AY251421.1	no	10.1007/s11557-006-0100-1	463	Antarctica
Himantormia	*lugubris*	DQ219309.1	no	unpublished	682	Antarctica
Himantormia	*lugubris*	DQ534466.2	no	PMID: 17082741	684	Antarctica, King George Island
Huea	*austroshetlandica*	NA				
Huea	*cerussata*	KJ021248.1	yes	10.1556/ABot.56.2014.1-2.10	533	Antarctica, King George Island
Huea	*coralligera*	NA				
Huea	*diphyella*	NA				
Huneckia	*pollinii*	KJ021336.1	yes	10.1556/ABot.56.2014.1-2.10	515	Eastern Carpathians, Ukraine
Huneckia	*pollinii*	KJ021337.1	yes	10.1556/ABot.56.2014.1-2.10	513	Barents Sea coast, Russia
Huneckia	*pollinii*	KJ021338.1	yes	10.1556/ABot.56.2014.1-2.10	513	Alaska, USA
Huneckia	*pollinii*	MF114596.1	yes	10.1111/jse.12503	524	Alaska, USA
Hydropunctaria	*maura*	FJ664873.1	yes	unpublished	1718	Wales, UK
Hydropunctaria	*maura*	JN638261.1	yes	10.1017/S0024282911000867	811	Nordur-Thingeyjarsysla, Seydisfjordur, Iceland

Hydropunctaria	*maura*		JN638262.1	yes	10.1017/S0024282911000867	850	Sorvagur, Sorvagsfjordur, Faroe Islands
Hydropunctaria	*maura*		JN638263.1	yes	10.1017/S0024282911000867	815	Troms, Skjervoy kommune, Norway
Hydropunctaria	*maura*		JN638264.1	yes	10.1017/S0024282911000867	814	Troms, Skjervoy kommune, Norway
Hydropunctaria	*maura*		JN638265.1	yes	10.1017/S0024282911000867	1772	Finnmark, Alta kommune, Alta, Norway
Hydropunctaria	*maura*		JN638266.1	yes	10.1017/S0024282911000867	816	Finnmark, Alta kommune, Alta, Norway
Hydropunctaria	*maura*		JN638267.1	yes	10.1017/S0024282911000867	818	Finnmark, Alta kommune, Alta, Norway
Hydropunctaria	*maura*		JN638268.1	yes	10.1017/S0024282911000867	1250	Wales, UK
Hydropunctaria	*maura*		JN638269.1	yes	10.1017/S0024282911000867	840	Wales, UK
Hydropunctaria	*maura*		JN638270.1	yes	10.1017/S0024282911000867	746	Wales, UK
Hydropunctaria	*maura*		JN638271.1	yes	10.1017/S0024282911000867	382	Wales, UK
Hydropunctaria	*maura*		JN638288.1	yes	10.1017/S0024282911000867	825	Finnmark, Alta kommune, Alta, Norway
Hydropunctaria	*maura*		KY697129.1	yes	10.11646/phytotaxa.306.1.3	595	Iceland
Hypogymnia	*lugubris*	var. lugubris	HQ725077.1	yes	10.1639/0007-2745-114.2.392	508	Not informed
Hypogymnia	*lugubris*	var. lugubris	HQ725091.1	yes	10.1639/0007-2745-114.2.392	542	Not informed
Hypogymnia	*lugubris*	var. lugubris	KR995281.1	yes	10.1111/nph.13553	541	Australia
Hypogymnia	*lugubris*	var. lugubris	MG692827.1	yes	10.1111/jbi.13554	494	New Zealand
Hypogymnia	*lugubris*	var. lugubris	MG692828.1	yes	10.1111/jbi.13554	496	New Zealand
Hypogymnia	*lugubris*	var. lugubris	MG692829.1	yes	10.1111/jbi.13554	482	New Zealand
Hypogymnia	*lugubris*	var. lugubris	MG692830.1	yes	10.1111/jbi.13554	449	New Zealand

Hypogymnia	*lugubris*	var. lugubris	MG692831.1	yes	10.1111/jbi.13554	497	New Zealand
Japewia	*tornoensis*		EF495163.1	yes	10.1017/S0024282907006974	492	Canada
Japewia	*tornoensis*		HQ650656.1	yes	10.3852/10-234	724	Canada
Japewia	*tornoensis*		MG925974.1	yes	10.12705/675.1	257	Norway
Japewia	*tornoensis*		MK812546.1	yes	10.3897/BDJ.7.e36252	499	Buskerud, Ovre eiker, Norway
Japewia	*tornoensis*		MK812668.1	yes	10.3897/BDJ.7.e36252	505	Buskerud, Al, Kulu, Norway
Japewia	*tornoensis*		MN483113.1	yes	unpublished	691	Yukon, Canada
Lecania	*brialmontii*		AF282066.1	yes	10.1017/S0953756201004269	497	South Sandwish Islands, Antarctica
Lecania	*brialmontii*		AM292676.1	yes	10.1016/j.mycres.2007.03.001	497	South Sandwish Islands, Antarctica
Lecania	*brialmontii*		AM292677.1	yes	10.1016/j.mycres.2007.03.001	497	Not informed
Lecania	*brialmontii*		DQ534467.2	yes	17082741	699	King George Island, Antarctica
Lecania	*gerlachei*		AM292686.1	yes	10.1016/j.mycres.2007.03.001	497	South Shetland Islands, Antarctica
Lecania	*gerlachei*		AM292687.1	yes	10.1016/j.mycres.2007.03.001	497	Not informed
Lecania	*gerlachei*		DQ534468.2	yes	17082741	700	King George Island, Antarctica
Lecania	*glauca*		AM292688.1	yes	10.1016/j.mycres.2007.03.001	505	South Shetland Islands, Antarctica
Lecania	*nylanderiana*		AM292692.1	yes	10.1016/j.mycres.2007.03.001	549	Tibel, Sweden
Lecania	*nylanderiana*		MG925979.1	yes	10.12705/675.1	561	Sweden
Lecania	*subfuscula*		NA				
Lecanora	*atromarginata*		NA				
Lecanora	*dancoensis*		NA				
Lecanora	*epibryon*		AY541251.1	yes	10.1017/S0953756204009888	564	Canada

Lecanora	*epibryon*	DQ534469.1	yes	PMID: 17082741	787	Antarctica, King George Island
Lecanora	*epibryon*	KP314307.1	yes	unpublished	559	Norway, Svalbard
Lecanora	*epibryon*	KP314368.1	yes	unpublished	556	Norway, Svalbard
Lecanora	*flotowiana*	AF070034.1	no	unpublished	506	-
Lecanora	*griseosorediata*	NA				
Lecanora	*intricata*	AF070022.1	no	unpublished	507	-
Lecanora	*intricata*	AY398703.1	no	10.1017/s0953756203008724	554	Austria
Lecanora	*intricata*	KP889123.1	no	10.1007/s00248-015-0579-6	479	Austria
Lecanora	*intricata*	KY266891.1	yes	10.3897/mycokeys.11.6670	489	Norway, Finnmark
Lecanora	*intricata*	KY266975.1	yes	10.3897/mycokeys.11.6670	785	Norway, Finnmark
Lecanora	*mawsonii*	NA				
Lecanora	*parmelinoides*	NA				
Lecanora	*physciella*	JN873878.1	yes	10.1127/0029-5035/2012/0017	476	Antarctica, Quenn Maud Mountains
Lecanora	*physciella*	JN873879.1	yes	10.1127/0029-5035/2012/0017	476	Antarctica, Victoria Land
Lecanora	*physciella*	JN873880.1	yes	10.1127/0029-5035/2012/0017	476	Antarctica, Victoria Land
Lecanora	*polytropa*	AF070017.1	no	unpublished	505	Not informed
Lecanora	*polytropa*	DQ534470.2	yes	PMID: 17082741	908	Antarctica, King George Island
Lecanora	*polytropa*	HQ650643.1	yes	10.3852/10-234	599	Not informed
Lecanora	*polytropa*	JN873881.1	yes	10.1127/0029-5035/2012/0017	473	USA, California
Lecanora	*polytropa*	KP314294.1	yes	unpublished	545	Norway, Svalbard
Lecanora	*polytropa*	KP314299.1	yes	unpublished	545	Norway, Svalbard
Lecanora	*polytropa*	KP314319.1	yes	unpublished	545	Norway, Svalbard
Lecanora	*polytropa*	KP314321.1	yes	unpublished	549	Norway, Svalbard
Lecanora	*polytropa*	KP314322.1	yes	unpublished	549	Norway, Svalbard

Lecanora	*polytropa*	KP314323.1	yes	unpublished	549	Norway, Svalbard
Lecanora	*polytropa*	KP314338.1	yes	unpublished	549	Norway, Svalbard
Lecanora	*polytropa*	KP314358.1	yes	unpublished	547	Norway, Svalbard
Lecanora	*polytropa*	KP314376.1	yes	unpublished	549	Norway, Svalbard
Lecanora	*polytropa*	KP314458.1	yes	unpublished	547	Norway, Svalbard
Lecanora	*polytropa*	KP314461.1	yes	unpublished	549	Norway, Svalbard
Lecanora	*polytropa*	KP889120.1	no	10.1007/s00248-015-0579-6	475	Austria
Lecanora	*polytropa*	KP889121.1	no	10.1007/s00248-015-0579-6	420	Austria
Lecanora	*polytropa*	KP889122.1	no	10.1007/s00248-015-0579-6	397	Austria
Lecanora	*polytropa*	KP889124.1	no	10.1007/s00248-015-0579-6	435	Austria
Lecanora	*polytropa*	KP889125.1	no	10.1007/s00248-015-0579-6	422	Austria
Lecanora	*polytropa*	KP889129.1	no	10.1007/s00248-015-0579-6	396	Austria
Lecanora	*polytropa*	KP889130.1	no	10.1007/s00248-015-0579-6	437	Austria
Lecanora	*symmicta*	AF070024.1	no	unpublished	503	Not informed
Lecanora	*symmicta*	GU480113.1	no	10.1007/s11557-010-0660-y	486	Germany
Lecanora	*symmicta*	KT695370.1	yes	10.3897/BDJ.3.e6313	524	Canada
Lecanora	*symmicta*	MH481912.1	yes	unpublished	793	Japan, Kanto
Lecanora	*stenotropa*	NA				
Lecidea	*atrobrunnea*	EU259897.1	yes	10.1017/S0954102010000477	617	Greenland, Nikolaj Nielsen Kyst
Lecidea	*atrobrunnea*	GU074455.1	yes	10.1017/S0954102010000477	508	Antarctica, Antarctic Peninsula
Lecidea	*atrobrunnea*	GU074457.1	yes	10.1017/S0954102010000477	507	Antarctica, Antarctic Peninsula
Lecidea	*atrobrunnea*	HQ650657.1	yes	10.3852/10-234	621	Not informed
Lecidea	*atrobrunnea*	KF570276.1	no	unpublished	548	Turkey, Trabzon
Lecidea	*atrobrunnea*	KX120206.1	yes	10.13158/heia.29.2.2016.596	504	Argentina, Provincia de Chubhut
Lecidea	*atrobrunnea*	KX550101.1	no	unpublished	608	Not informed

Lecidea	*atrobrunnea*	MK590689.1	yes	unpublished	634	China
Lecidea	*atrobrunnea*	MK620076.1	yes	10.1101/699942	503	Antarctica, Antarctic Peninsula
Lecidea	*atrobrunnea*	MK620079.1	yes	10.1101/699942	504	Antarctica, Antarctic Peninsula
Lecidea	*atrobrunnea*	MK620083.1	yes	10.1101/699942	504	Antarctica, Antarctic Peninsula
Lecidea	*atrobrunnea*	MK620100.1	yes	10.1101/699942	617	Argentina, Tierra del Fuego
Lecidea	*atrobrunnea*	MK620222.1	yes	10.1101/699942	516	Argentina, Provincia de Chubhut
Lecidea	*atrobrunnea*	MK620240.1	yes	10.1101/699942	516	Argentina, Provincia de Rio Negro
Lecidea	*atrobrunnea*	MK620265.1	yes	10.1101/699942	519	Norway, Svalbard
Lecidea	*atrobrunnea*	MK990105.1	yes	10.1639/0007-2745-122.2.315	540	USA
Lecidea	*lapicida*	HQ650665.1	yes	10.3852/10-234	553	Not informed
Lecidea	*lapicida*	KX120200.1	yes	10.13158/heia.29.2.2016.596	506	Argentina, Tierra del Fuego
Lecidea	*lapicida*	KX120201.1	yes	10.13158/heia.29.2.2016.596	506	Chile, Tierra del Fuego
Lecidea	*lapicida*	KX120202.1	yes	10.13158/heia.29.2.2016.596	505	Argentina, Tierra del Fuego
Lecidea	*lapicida*	KX120203.1	yes	10.13158/heia.29.2.2016.596	505	Chile, Patagonia Chilena
Lecidea	*lapicida*	MK620093.1	yes	10.1101/699942	518	Antarctica, Livingston Island
Lecidea	*lapicida*	MK620094.1	yes	10.1101/699942	519	Antarctica, Livingston Island
Lecidea	*lapicida*	MK620098.1	yes	10.1101/699942	496	Antarctica, Southern Victoria Land

Lecidea	*lapicida*	MK620103.1	yes	10.1101/699942	517	Argentina, Tierra del Fuego
Lecidea	*lapicida*	MK620104.1	yes	10.1101/699942	518	Chile, Isla Navarino
Lecidea	*lapicida*	MK620107.1	yes	10.1101/699942	518	Chile, Isla Navarino
Lecidea	*lapicida*	MK620108.1	yes	10.1101/699942	518	Chile, Isla Navarino
Lecidea	*lapicida*	MK620110.1	yes	10.1101/699942	518	Chile, Isla Navarino
Lecidea	*lapicida*	MK620113.1	yes	10.1101/699942	518	Chile, Isla Navarino
Lecidea	*lapicida*	MK620114.1	yes	10.1101/699942	518	Chile, Isla Navarino
Lecidea	*lapicida*	MK620116.1	yes	10.1101/699942	518	Chile, Isla Navarino
Lecidea	*lapicida*	MK620117.1	yes	10.1101/699942	518	Argentina, Tierra del Fuego
Lecidea	*lapicida*	MK620118.1	yes	10.1101/699942	519	Argentina, Tierra del Fuego
Lecidea	*lapicida*	MK620121.1	yes	10.1101/699942	517	Argentina, Tierra del Fuego
Lecidea	*lapicida*	MK620122.1	yes	10.1101/699942	518	Argentina, Tierra del Fuego
Lecidea	*lapicida*	MK620125.1	yes	10.1101/699942	518	Argentina, Tierra del Fuego
Lecidea	*lapicida*	MK620126.1	yes	10.1101/699942	518	Argentina, Tierra del Fuego
Lecidea	*lapicida*	MK620128.1	yes	10.1101/699942	518	Argentina, Tierra del Fuego
Lecidea	*lapicida*	MK620129.1	yes	10.1101/699942	517	Argentina, Tierra del Fuego
Lecidea	*lapicida*	MK620131.1	yes	10.1101/699942	517	Argentina, Tierra del Fuego
Lecidea	*lapicida*	MK620135.1	yes	10.1101/699942	518	Argentina, Tierra del Fuego

Lecidea	*lapicida*	MK620138.1	yes	10.1101/699942	517	Argentina, Tierra del Fuego
Lecidea	*lapicida*	MK620139.1	yes	10.1101/699942	518	Argentina, Tierra del Fuego
Lecidea	*lapicida*	MK620142.1	yes	10.1101/699942	517	Chile, Region de Magallanes y de la Antartica Chilena
Lecidea	*lapicida*	MK620143.1	yes	10.1101/699942	517	Chile, Region de Magallanes y de la Antartica Chilena
Lecidea	*lapicida*	MK620148.1	yes	10.1101/699942	517	Chile, Region de Magallanes y de la Antartica Chilena
Lecidea	*lapicida*	MK620149.1	yes	10.1101/699942	517	Chile, Region de Magallanes y de la Antartica Chilena
Lecidea	*lapicida*	MK620150.1	yes	10.1101/699942	517	Chile, Region de Magallanes y de la Antartica Chilena
Lecidea	*lapicida*	MK620151.1	yes	10.1101/699942	517	Chile, Region de Magallanes y de la Antartica Chilena
Lecidea	*lapicida*	MK620154.1	yes	10.1101/699942	517	Chile, Region de Magallanes y de la Antartica Chilena
Lecidea	*lapicida*	MK620155.1	yes	10.1101/699942	517	Chile, Region de Magallanes y de la Antartica Chilena
Lecidea	*lapicida*	MK620156.1	yes	10.1101/699942	517	Chile, Region de Magallanes y de la Antartica Chilena
Lecidea	*lapicida*	MK620157.1	yes	10.1101/699942	517	Chile, Region de Magallanes y de la Antartica Chilena

Lecidea	*lapicida*	MK620171.1	yes	10.1101/699942	517	Argentina, Provinzia de Santa Cruz
Lecidea	*lapicida*	MK620175.1	yes	10.1101/699942	517	Argentina, Provinzia de Santa Cruz
Lecidea	*lapicida*	MK620193.1	yes	10.1101/699942	517	Argentina, Provinzia de Santa Cruz
Lecidea	*lapicida*	MK620197.1	yes	10.1101/699942	517	Argentina, Provinzia de Santa Cruz
Lecidea	*lapicida*	MK620202.1	yes	10.1101/699942	516	Argentina, Provincia de Chubhut
Lecidea	*lapicida*	MK620206.1	yes	10.1101/699942	517	Argentina, Provincia de Chubhut
Lecidea	*lapicida*	MK620208.1	yes	10.1101/699942	517	Argentina, Provincia de Chubhut
Lecidea	*lapicida*	MK620213.1	yes	10.1101/699942	517	Argentina, Provincia de Chubhut
Lecidea	*lapicida*	MK620233.1	yes	10.1101/699942	518	Argentina, Provincia de Rio Negro
Lecidea	*lapicida*	MK620234.1	yes	10.1101/699942	518	Argentina, Provincia de Rio Negro
Lecidea	*lapicida*	MK620236.1	yes	10.1101/699942	517	Argentina, Provincia de Rio Negro
Lecidea	*lapicida*	MK620237.1	yes	10.1101/699942	516	Argentina, Provincia de Rio Negro

Lecidea	*lapicida*	MK620239.1	yes	10.1101/699942	517	Argentina, Provincia de Rio Negro
Lecidea	*lapicida*	MK620242.1	yes	10.1101/699942	517	Argentina, Provincia de Rio Negro
Lecidea	*lapicida*	MK620255.1	yes	10.1101/699942	516	Austria, Salzburg
Lecidea	*lapicida*	MK620256.1	yes	10.1101/699942	518	Austria, Salzburg
Lecidea	*lapicida*	MK620257.1	yes	10.1101/699942	518	Austria, Salzburg
Lecidea	*lapicida*	MK620259.1	yes	10.1101/699942	516	Austria, Salzburg
Lecidea	*lapicida*	MK620261.1	yes	10.1101/699942	518	Austria, Salzburg
Lecidea	*lapicida*	MK620264.1	yes	10.1101/699942	518	Norway, Svalbard
Lecidea	*lapicida*	MK620266.1	yes	10.1101/699942	525	Norway, Svalbard
Lecidea	*lapicida*	MK620269.1	yes	10.1101/699942	518	Norway, Svalbard
Lecidea	*lapicida*	MK970683.1	yes	10.1101/718262	518	Antarctica, Southern Victoria Land
Lecidea	*spheniscidarum*	NA				
Lecidea	*andersonii*	EU257683.1	yes	10.1017/S0954102010000477	604	Antarctica, Victoria Land
Lecidea	*andersonii*	EU257684.1	yes	10.1017/S0954102010000477	572	Antarctica, Victoria Land
Lecidea	*andersonii*	EU257685.1	yes	10.1017/S0954102010000477	552	Antarctica, Victoria Land
Lecidea	*andersonii*	EU257686.1	yes	10.1017/S0954102010000477	552	Antarctica, Victoria Land
Lecidea	*andersonii*	EU257687.1	yes	10.1017/S0954102010000477	556	Antarctica, Victoria Land
Lecidea	*andersonii*	GU074442.1	yes	10.1017/S0954102010000477	499	Norway, Svalbard
Lecidea	*andersonii*	GU074443.1	yes	10.1017/S0954102010000477	508	Antarctica, Windmill Islands
Lecidea	*andersonii*	GU074444.1	yes	10.1017/S0954102010000477	507	Antarctica, Windmill Islands

Lecidea	*andersonii*	GU074445.1	yes	10.1017/S0954102010000477	507	Antarctica, Dronning Maud Land
Lecidea	*andersonii*	GU074446.1	yes	10.1017/S0954102010000477	505	Antarctica, Dronning Maud Land
Lecidea	*andersonii*	GU074447.1	yes	10.1017/S0954102010000477	505	Antarctica, Victoria Land
Lecidea	*andersonii*	GU074448.1	yes	10.1017/S0954102010000477	505	Antarctica, Victoria Land
Lecidea	*andersonii*	GU074449.1	yes	10.1017/S0954102010000477	505	Antarctica, Victoria Land
Lecidea	*andersonii*	GU074450.1	yes	10.1017/S0954102010000477	505	Antarctica, Victoria Land
Lecidea	*andersonii*	GU074451.1	yes	10.1017/S0954102010000477	507	Antarctica, Victoria Land
Lecidea	*andersonii*	GU074452.1	yes	10.1017/S0954102010000477	507	Antarctica, Victoria Land
Lecidea	*andersonii*	GU074453.1	yes	10.1017/S0954102010000477	507	Antarctica, Victoria Land
Lecidea	*andersonii*	GU074454.1	yes	10.1017/S0954102010000477	507	Antarctica, Victoria Land
Lecidea	*andersonii*	MK590966.1	yes	unpublished	432	China
Lecidea	*andersonii*	MK620084.1	yes	10.1101/699942	503	Antarctica, Dronning Maud Land
Lecidea	*andersonii*	MK970673.1	yes	10.1101/718262	519	Antarctica, Southern Victoria Land
Lecidea	*andersonii*	MK990112.1	yes	10.1639/0007-2745-122.2.315	541	USA
Lecidea	*andersonii*	MK990113.1	yes	10.1639/0007-2745-122.2.315	534	USA
Lecidea	*andersonii*	MK990114.1	yes	10.1639/0007-2745-122.2.315	541	USA
Lecidea	*cancriformis*	AY667582.1	yes	10.1111/j.1469-8137.2004.01199.x	644	Antarctica, Ross Sea Coast

Lecidea	*cancriformis*	EU249496.1	yes	10.1017/S0954102010000477	523	Antarctica, Victoria Land
Lecidea	*cancriformis*	EU257670.1	yes	10.1017/S0954102010000477	551	Antarctica, Victoria Land
Lecidea	*cancriformis*	EU257671.1	yes	10.1017/S0954102010000477	608	Antarctica, Ross Dependency
Lecidea	*cancriformis*	EU257672.1	yes	10.1017/S0954102010000477	571	Antarctica, Ross Dependency
Lecidea	*cancriformis*	EU257673.1	yes	10.1017/S0954102010000477	531	Antarctica, Ross Dependency
Lecidea	*cancriformis*	EU257674.1	yes	10.1017/S0954102010000477	558	Antarctica, Ross Dependency
Lecidea	*cancriformis*	EU257675.1	yes	10.1017/S0954102010000477	571	Antarctica, Ross Dependency
Lecidea	*cancriformis*	EU257676.1	yes	10.1017/S0954102010000477	572	Antarctica, Ross Dependency
Lecidea	*cancriformis*	EU257677.1	yes	10.1017/S0954102010000477	606	Antarctica, Victoria Land
Lecidea	*cancriformis*	EU257678.1	yes	10.1017/S0954102010000477	570	Antarctica, Victoria Land
Lecidea	*cancriformis*	GU074429.1	yes	10.1017/S0954102010000477	510	Antarctica, Victoria Land
Lecidea	*cancriformis*	GU074430.1	yes	10.1017/S0954102010000477	509	Antarctica, Victoria Land
Lecidea	*cancriformis*	GU074431.1	yes	10.1017/S0954102010000477	509	Antarctica, Victoria Land
Lecidea	*cancriformis*	GU074432.1	yes	10.1017/S0954102010000477	509	Antarctica, Victoria Land
Lecidea	*cancriformis*	GU074433.1	yes	10.1017/S0954102010000477	509	Antarctica, Victoria Land
Lecidea	*cancriformis*	GU074434.1	yes	10.1017/S0954102010000477	508	Antarctica, Ross Dependency
Lecidea	*cancriformis*	GU074435.1	yes	10.1017/S0954102010000477	509	Antarctica, Ross Dependency

Lecidea	*cancriformis*	GU074436.1	yes	10.1017/S0954102010000477	509	Antarctica, Ross Dependency
Lecidea	*cancriformis*	GU074437.1	yes	10.1017/S0954102010000477	509	Antarctica, Ross Dependency
Lecidea	*cancriformis*	GU074438.1	yes	10.1017/S0954102010000477	509	Antarctica, Ross Dependency
Lecidea	*cancriformis*	GU074439.1	yes	10.1017/S0954102010000477	509	Antarctica, Ross Dependency
Lecidea	*cancriformis*	GU074440.1	yes	10.1017/S0954102010000477	509	Antarctica, Princess Elizabeth Land
Lecidea	*cancriformis*	GU170841.1	yes	unpublished	611	Antarctica, Ross Dependency
Lecidea	*cancriformis*	GU170842.1	yes	unpublished	611	Antarctica, Ross Dependency
Lecidea	*cancriformis*	JX036044.1	yes	10.1111/j.1574-6941.2012.01422.x	585	Antarctica, Victoria Land
Lecidea	*cancriformis*	JX036045.1	yes	10.1111/j.1574-6941.2012.01422.x	567	Antarctica, Victoria Land
Lecidea	*cancriformis*	MK620078.1	yes	10.1101/699942	505	Antarctica, Ellsworth Land
Lecidea	*cancriformis*	MK620080.1	yes	10.1101/699942	505	Antarctica, Princess Elizabeth Land
Lecidea	*cancriformis*	MK620087.1	yes	10.1101/699942	505	Antarctica, Mac.Robertson Land
Lecidea	*cancriformis*	MK620088.1	yes	10.1101/699942	505	Antarctica, Mac.Robertson Land
Lecidea	*cancriformis*	MK620096.1	yes	10.1101/699942	505	Antarctica, Victoria Land
Lecidea	*cancriformis*	MK620147.1	yes	10.1101/699942	523	Chile, Region de Magallanes y de la Antartica Chilena

Lecidea	*cancriformis*	MK620153.1	yes	10.1101/699942	520	Chile, Region de Magallanes y de la Antartica Chilena
Lecidea	*cancriformis*	MK620160.1	yes	10.1101/699942	518	Argentina, Provincia de Santa Cruz
Lecidea	*cancriformis*	MK620161.1	yes	10.1101/699942	518	Argentina, Provincia de Santa Cruz
Lecidea	*cancriformis*	MK620162.1	yes	10.1101/699942	518	Argentina, Provincia de Santa Cruz
Lecidea	*cancriformis*	MK620167.1	yes	10.1101/699942	517	Argentina, Provincia de Santa Cruz
Lecidea	*cancriformis*	MK620176.1	yes	10.1101/699942	517	Argentina, Provincia de Santa Cruz
Lecidea	*cancriformis*	MK620177.1	yes	10.1101/699942	520	Argentina, Provincia de Santa Cruz
Lecidea	*cancriformis*	MK620182.1	yes	10.1101/699942	517	Argentina, Provincia de Santa Cruz
Lecidea	*cancriformis*	MK620183.1	yes	10.1101/699942	517	Argentina, Provincia de Santa Cruz
Lecidea	*cancriformis*	MK620184.1	yes	10.1101/699942	517	Argentina, Provincia de Santa Cruz
Lecidea	*cancriformis*	MK620185.1	yes	10.1101/699942	517	Argentina, Provincia de Santa Cruz
Lecidea	*cancriformis*	MK620191.1	yes	10.1101/699942	520	Argentina, Provincia de Santa Cruz

Lecidea	*cancriformis*	MK620198.1	yes	10.1101/699942	519	Argentina, Provincia de Chubhut
Lecidea	*cancriformis*	MK620200.1	yes	10.1101/699942	520	Argentina, Provincia de Chubhut
Lecidea	*cancriformis*	MK620204.1	yes	10.1101/699942	520	Argentina, Provincia de Chubhut
Lecidea	*cancriformis*	MK620205.1	yes	10.1101/699942	519	Argentina, Provincia de Chubhut
Lecidea	*cancriformis*	MK620228.1	yes	10.1101/699942	521	Argentina, Provincia de Chubhut
Lecidea	*cancriformis*	MK659868.1	yes	10.1101/699942	519	Argentina, Tierra del Fuego
Lecidea	*cancriformis*	MK970677.1	yes	10.1101/718267	522	Antarctica, Victoria Land
Lecidea	*cancriformis*	MK970678.1	yes	10.1101/718266	522	Antarctica, Victoria Land
Lecidea	*cancriformis*	MK970679.1	yes	10.1101/718265	521	Antarctica, Victoria Land
Lecidea	*cancriformis*	MK970680.1	yes	10.1101/718264	521	Antarctica, Victoria Land
Lecidea	*cancriformis*	MK970681.1	yes	10.1101/718263	498	Antarctica, Victoria Land
Lecidea	*cancriformis*	MK970682.1	yes	10.1101/718262	500	Antarctica, Victoria Land
Lecidea	*sciatropha*	NA				
Lecidella	*carpathica*	AY541274.1	yes	10.1017/S0953756204009888	559	Austria
Lecidella	*carpathica*	DQ534471.2	yes	PMID: 17082741	926	Antarctica, King George Island
Lecidella	*carpathica*	JN873882.1	yes	10.1127/0029-5035/2012/0017	510	Austria, Karnten

Lecidella	*carpathica*		KF570279.1	no	10.5505/TurkHijyen.2015.23540	492	Turkey, Trabzon
Lecidella	*carpathica*		KP314410.1	yes	unpublished	553	Norway, Svalbard
Lecidella	*carpathica*		KT453738.1	yes	10.1007/s13225-015-0354-5	524	China, Xinjiang
Lecidella	*carpathica*		KT453739.1	yes	10.1007/s13225-015-0354-5	542	China, Inner Mongolia
Lecidella	*carpathica*		KT453740.1	yes	10.1007/s13225-015-0354-5	543	China, Xinjiang
Lecidella	*carpathica*		KT453741.1	yes	10.1007/s13225-015-0354-5	571	China, Xinjiang
Lecidella	*carpathica*		KT695322.1	yes	10.3897/BDJ.3.e6313	525	Canada, Ontario
Lecidella	*carpathica*		KT695353.1	yes	10.3897/BDJ.3.e6313	517	Canada, Ontario
Lecidella	*elaeochroma*	f. elaeochroma	AY541275.1	yes	10.1017/S0953756204009888	563	Austria
Lecidella	*elaeochroma*	f. elaeochroma	EU266082.1	yes	ID=KR2009004636	611	Hungary
Lecidella	*elaeochroma*	f. elaeochroma	HQ605936.1	yes	10.5505/TurkHijyen.2015.23540	547	Turkey, Trabzon
Lecidella	*elaeochroma*	f. elaeochroma	HQ605938.1	yes	10.5505/TurkHijyen.2015.23540	539	Turkey, Kayseri
Lecidella	*elaeochroma*	f. elaeochroma	HQ650605.1	yes	10.3852/10-234	807	-
Lecidella	*elaeochroma*	f. elaeochroma	KT453749.1	yes	10.1007/s13225-015-0354-5	486	China, Xinjiang
Lecidella	*elaeochroma*	f. elaeochroma	KX132987.1	yes	10.1139/gen-2015-0189	592	Switzerland
Lecidella	*elaeochroma*	f. elaeochroma	MG828907.1	yes	10.1007/s13225-018-0395-7	525	United Kingdom
Lecidella	*elaeochroma*	f. elaeochroma	MN103148.1	yes	unpublished	835	
Lecidella	*elaeochroma*	f. elaeochroma	MN387028.1	yes	10.3390/microorganisms7090335	684	Poland
Lecidella	*elaeochroma*	f. elaeochroma	MN387029.1	yes	10.3390/microorganisms7090335	660	Poland

Lecidella	*elaeochroma*	f. elaeochroma	MN387030.1	yes	10.3390/microorganisms7090335	693	Poland
Lecidella	*elaeochroma*	f. elaeochroma	MN387031.1	yes	10.3390/microorganisms7090335	672	Poland
Lecidella	*elaeochroma*	f. elaeochroma	MN387032.1	yes	10.3390/microorganisms7090335	622	Poland
Lecidella	*elaeochroma*	f. elaeochroma	MN387033.1	yes	10.3390/microorganisms7090335	640	Poland
Lecidella	*elaeochroma*	f. elaeochroma	MN387034.1	yes	10.3390/microorganisms7090335	717	Poland
Lecidella	*elaeochroma*	f. elaeochroma	MN387035.1	yes	10.3390/microorganisms7090335	691	Poland
Lecidella	*elaeochroma*	f. elaeochroma	MN387036.1	yes	10.3390/microorganisms7090335	835	Poland
Lecidella	*siplei*		JN873895.1	yes	10.1127/0029-5035/2012/0017	505	Antarctica, Victoria Land
Lecidella	*siplei*		JN873896.1	yes	10.1127/0029-5035/2012/0017	505	Antarctica, Victoria Land
Lecidella	*siplei*		JN873897.1	yes	10.1127/0029-5035/2012/0017	505	Antarctica, Quenn Maud Mountains
Lecidella	*siplei*		JN873898.1	yes	10.1127/0029-5035/2012/0017	505	Antarctica, Quenn Maud Mountains
Lecidella	*siplei*		JN873899.1	yes	10.1127/0029-5035/2012/0017	505	Antarctica, Victoria Land
Lecidella	*siplei*		JN873900.1	yes	10.1127/0029-5035/2012/0017	505	Norway, Svalbard
Lecidella	*stigmatea*		HQ605935.1	yes	10.5505/TurkHijyen.2015.23540	532	Turkey: Rize
Lecidella	*stigmatea*		HQ605937.1	yes	10.5505/TurkHijyen.2015.23540	563	Turkey, Kayseri
Lecidella	*stigmatea*		JN873901.1	yes	10.1127/0029-5035/2012/0021	506	Austria, Karnten
Lecidella	*stigmatea*		JN873902.1	yes	10.1127/0029-5035/2012/0021	504	Austria, Salzburg
Lecidella	*stigmatea*		KP314439.1	yes	unpublished	549	Norway, Svalbard

Lecidella	*stigmatea*	KT453758.1	yes	10.1007/s13225-015-0354-5	513	China, Xinjiang
Lecidella	*stigmatea*	KT453759.1	yes	10.1007/s13225-015-0354-5	429	China, Xinjiang
Lecidella	*stigmatea*	KT453760.1	yes	10.1007/s13225-015-0354-5	526	China, Xinjiang
Lecidella	*stigmatea*	KT453762.1	yes	10.1007/s13225-015-0354-5	528	China, Jilin
Lecidella	*stigmatea*	KT453763.1	yes	10.1007/s13225-015-0354-5	522	China, Xinjiang
Lecidella	*stigmatea*	KT453764.1	yes	10.1007/s13225-015-0354-5	542	China, Xinjiang
Lecidella	*stigmatea*	KT453765.1	yes	10.1007/s13225-015-0354-5	433	China, Xinjiang
Lecidella	*stigmatea*	KT453766.1	yes	10.1007/s13225-015-0354-5	538	China, Xinjiang
Lecidella	*stigmatea*	KT453768.1	yes	10.1007/s13225-015-0354-5	213	China, Xinjiang
Lecidella	*stigmatea*	MK620109.1	yes	10.1101/699942	498	Chile, Isla Navarino
Lecidella	*stigmatea*	MK620136.1	yes	10.1101/699942	498	Argentina, Tierra del Fuego
Lecidella	*stigmatea*	MK620141.1	yes	10.1101/699942	500	Chile: Region de Magallanes y de la Antartica Chilena
Lecidella	*stigmatea*	MK620144.1	yes	10.1101/699942	499	Chile: Region de Magallanes y de la Antartica Chilena
Lecidella	*stigmatea*	MK620152.1	yes	10.1101/699942	499	Chile: Region de Magallanes y de la Antartica Chilena
Lecidella	*stigmatea*	MK620163.1	yes	10.1101/699942	501	Argentina, Provinzia de Santa Cruz
Lecidella	*stigmatea*	MK620166.1	yes	10.1101/699942	499	Argentina, Provinzia de Santa Cruz
Lecidella	*stigmatea*	MK620186.1	yes	10.1101/699942	499	Argentina, Provinzia de Santa Cruz

Lecidella	*stigmatea*	MK620188.1	yes	10.1101/699942	498	Argentina, Provinzia de Santa Cruz
Lecidella	*stigmatea*	MK620189.1	yes	10.1101/699942	499	Argentina, Provinzia de Santa Cruz
Lecidella	*stigmatea*	MK620190.1	yes	10.1101/699942	498	Argentina, Provinzia de Santa Cruz
Lecidella	*stigmatea*	MK620216.1	yes	10.1101/699942	499	Argentina, Provincia de Chubhut
Lecidella	*sublapicida*	NA				
Lecidella	*wulfenii*	JN873903.1	yes	10.1127/0029-5035/2012/0017	511	Austria, Salzburg
Lepra	*corallophora*	NA				
Lepra	*dactylina*	DQ782843.1	yes	10.1038/nature05110	489	Not informed
Lepra	*erubescens*	DQ219303.1	yes	unpublished	901	Antarctica
Lepra	*excludens*	DQ534475.2	yes	unpublished	1007	Not informed
Lepra	*excludens*	MK811670.1	yes	10.3897/BDJ.7.e36252	510	Nord-Trondelag, Steinkjer, Norway
Lepra	*excludens*	MK812675.1	yes	10.3897/BDJ.7.e36252	493	Sor-Trondelag, Orland, Norway
Lepraria	*alpina*	NA				
Lepraria	*cacuminum*	AF517888.1	yes	10.1017/S0953756202006718	514	Norway
Lepraria	*caesioalba*	AF517901.1	yes	10.1017/S0953756202006718	516	Norway
Lepraria	*caesioalba*	EU008609.1	yes	10.1111/j.1469-8137.2007.02241.x	494	USA
Lepraria	*caesioalba*	EU008610.1	yes	10.1111/j.1469-8137.2007.02241.x	483	USA
Lepraria	*caesioalba*	EU008611.1	yes	10.1111/j.1469-8137.2007.02241.x	485	USA

Lepraria	*caesioalba*	EU008612.1	yes	10.1111/j.1469-8137.2007.02241.x	493	USA
Lepraria	*straminea*	NA				
Lepraria	*caerulescens*	NA				
Leptogium	*antarcticum*	KY171869.1	yes	10.1017/S0024282918000269	552	Antarctica
Leptogium	*marcellii*	KX397621.1	yes	no	457	Antarctica
Leptogium	*marcellii*	KX397622.1	yes	no	486	Antarctica
Leptogium	*marcellii*	KY171871.1	yes	10.1017/S0024282918000269	499	Antarctica
Leptogium	*marcellii*	KY171872.1	yes	10.1017/S0024282918000269	499	Antarctica
Leptogium	*menziesii*	NA				
Leptogium	*puberulum*	KX397619.1	yes	no	457	Antarctica
Leptogium	*puberulum*	KX397620.1	yes	no	441	Antarctica
Leptogium	*puberulum*	KY171873.1	yes	10.1017/S0024282918000269	495	Antarctica
Leptogium	*puberulum*	KY171874.1	yes	10.1017/S0024282918000269	495	Antarctica
Leptogium	*puberulum*	KY171875.1	yes	10.1017/S0024282918000269	495	Antarctica
Leptogium	*puberulum*	KY171876.1	yes	10.1017/S0024282918000269	495	Antarctica
Leptogium	*puberulum*	KY171877.1	yes	10.1017/S0024282918000269	495	Antarctica
Leptogium	*puberulum*	KY171878.1	yes	10.1017/S0024282918000269	495	Antarctica
Leptogium	*puberulum*	KY171879.1	yes	10.1017/S0024282918000269	495	Antarctica
Massalongia	*carnosa*	EU558697.1	yes	Phylogenetic relationships and evolution of photobiont associations in the Lobariaceae (Peltigerales, Lecanoromycetes, Ascomycota)	473	Finland
Massalongia	*carnosa*	MG243599.1	yes	10.3897/mycokeys.60.37725	635	Greenland
Massalongia	*carnosa*	MG243600.1	yes	10.3897/mycokeys.60.37725	622	Norway
Massalongia	*carnosa*	MG243601.1	yes	10.3897/mycokeys.60.37725	619	Norway
Massalongia	*carnosa*	MG243602.1	yes	10.3897/mycokeys.60.37725	406	Austria

Massalongia	*carnosa*	MG243603.1	yes	10.3897/mycokeys.60.37725	611	Greenland
Massalongia	*carnosa*	MK811716.1	yes	10.3897/BDJ.7.e36252	559	Norway, Buskerud
Massalongia	*carnosa*	MK812187.1	yes	10.3897/BDJ.7.e36252	560	Norway, Aust-Agder
Massalongia	*carnosa*	MN708327.1	yes	10.3897/mycokeys.60.37725	1446	USA, Alaska
Massalongia	*carnosa*	MN708328.1	yes	10.3897/mycokeys.60.37725	1445	USA, Alaska
Massalongia	*carnosa*	MN708329.1	yes	10.3897/mycokeys.60.37725	1446	Norway
Massalongia	*carnosa*	MN708330.1	yes	10.3897/mycokeys.60.37725	1445	Russia, Sakhalin
Mastodia	*tessellata*	MN952977.1	yes	unpublished	587	Alaska, USA
Megaspora	*verrucosa*	AF332121.1	yes	Searching for the correct placement of Megaspora by use of ITS1, 5.8S and ITS2 rDNA sequence data	547	Austria, Styria
Megaspora	*verrucosa*	AF332122.1	yes	Searching for the correct placement of Megaspora by use of ITS1, 5.8S and ITS2 rDNA sequence data	547	Austria, Styria
Megaspora	*verrucosa*	KC667053.1	yes	10.1017/S0024282913000108	462	USA, Colorado
Megaspora	*verrucosa*	KP314329.1	yes	unpublished	534	Norway, Svalbard
Megaspora	*verrucosa*	KP314333.1	yes	unpublished	534	Norway, Svalbard
Megaspora	*verrucosa*	KP314363.1	yes	unpublished	534	Norway, Svalbard
Megaspora	*verrucosa*	KT443785.1	yes	unpublished	554	China, Xinjiang
Megaspora	*verrucosa*	KT443786.1	yes	unpublished	556	China, Xinjiang
Myriolecis	*dispersa*	EU266081.1	yes	ID=KR2009004636	777	Hungary
Myriolecis	*dispersa*	JQ993728.1	yes	10.1639/0007-2745-115.2.265	509	Poland
Myriolecis	*dispersa*	JQ993729.1	yes	10.1639/0007-2745-115.2.265	498	Hungary
Myriolecis	*dispersa*	JQ993730.1	yes	10.1639/0007-2745-115.2.265	509	Hungary
Myriolecis	*dispersa*	JQ993731.1	yes	10.1639/0007-2745-115.2.265	509	Not informed
Myriolecis	*dispersa*	JQ993732.1	yes	10.1639/0007-2745-115.2.265	509	Not informed

Myriolecis	*dispersa*	JQ993733.1	yes	10.1639/0007-2745-115.2.265	509	Not informed
Myriolecis	*dispersa*	JQ993734.1	yes	10.1639/0007-2745-115.2.265	509	Hungary
Myriolecis	*dispersa*	KT453733.1	yes	10.1007/s13225-015-0354-5	562	USA, Illinois
Myriolecis	*dispersa*	KT453734.1	yes	10.1007/s13225-015-0354-5	561	United Kingdom
Myriolecis	*expectans*	NA				
Myriolecis	*mons-nivis*	NA				
Myriolecis	*sverdrupiana*	NA				
Myriolecis	*torrida*	NA				
Neuropogon	*neuropogonoides*	NA				
Ochrolechia	*frigida*	DQ534474.2	yes	10.1006/lich.2000.0306	748	Antarctica
Ochrolechia	*frigida*	HQ650675.1	yes	10.3852/10-234	631	Not informed
Ochrolechia	*frigida*	KP314302.1	yes	unpublished	532	Norway, Svalbard
Ochrolechia	*frigida*	KP314342.1	yes	unpublished	533	Norway, Svalbard
Ochrolechia	*frigida*	KP314348.1	yes	unpublished	532	Norway, Svalbard
Ochrolechia	*frigida*	KP314352.1	yes	unpublished	532	Norway, Svalbard
Ochrolechia	*frigida*	KP314354.1	yes	unpublished	532	Norway, Svalbard
Ochrolechia	*frigida*	KP314360.1	yes	unpublished	533	Norway, Svalbard
Ochrolechia	*frigida*	KP314373.1	yes	unpublished	531	Norway, Svalbard
Ochrolechia	*frigida*	KP314392.1	yes	unpublished	533	Norway, Svalbard
Ochrolechia	*frigida*	KP314400.1	yes	unpublished	532	Norway, Svalbard
Ochrolechia	*frigida*	KP314404.1	yes	unpublished	533	Norway, Svalbard
Ochrolechia	*frigida*	KP314435.1	yes	unpublished	533	Norway, Svalbard
Ochrolechia	*frigida*	KP314445.1	yes	unpublished	532	Norway, Svalbard
Ochrolechia	*frigida*	KP314449.1	yes	unpublished	533	Norway, Svalbard
Ochrolechia	*frigida*	KP314459.1	yes	unpublished	532	Norway, Svalbard
Ochrolechia	*frigida*	KP314469.1	yes	unpublished	533	Norway, Svalbard
Ochrolechia	*frigida*	KP314475.1	yes	unpublished	531	Norway, Svalbard
Ochrolechia	*frigida*	KP954318.1	yes	10.1515/popore-2015-0012	488	Russia
Ochrolechia	*frigida*	KR017062.1	yes	10.1007/s13225-015-0332-y	555	USA, Alaska

Ochrolechia	*frigida*		KY266952.1	yes	10.3897/mycokeys.11.6670	536	Norway, Finnmark
Ochrolechia	*parella*	f. parella	AF329174.1	no	10.1006/lich.2001.0325	437	France, Brittany
Ochrolechia	*parella*	f. parella	AF332123.1	yes	Searching for the correct placement of Megaspora by use of ITS1, 5.8S and ITS2 rDNA sequence data	548	Canary Island
Ochrolechia	*parella*	f. parella	KJ607905.1	yes	10.1111/jeu.12159	1342	Antarctica, King George Island
Ochrolechia	*parella*	f. parella	KY948009.1	yes	10.12705/666.2	2677	Not informed
Ochrolechia	*parella*	f. parella	MH485186.1	yes	10.11646/phytotaxa.371.2.6	497	United Kingdom, Great Britain
Ochrolechia	*parella*	f. parella	MH485187.1	yes	10.11646/phytotaxa.371.2.6	497	Italy, Sicily
Ochrolechia	*parella*	f. parella	MH485188.1	yes	10.11646/phytotaxa.371.2.6	497	Norway
Ochrolechia	*parella*	f. parella	MH485189.1	yes	10.11646/phytotaxa.371.2.6	496	Norway
Ochrolechia	*parella*	f. parella	MH485190.1	yes	10.11646/phytotaxa.371.2.6	497	United Kingdom, Great Britain
Ochrolechia	*parella*	f. parella	MH485191.1	yes	10.11646/phytotaxa.371.2.6	497	United Kingdom, Great Britain
Ochrolechia	*parella*	f. parella	MH485192.1	yes	10.11646/phytotaxa.371.2.6	497	Turkey
Ochrolechia	*parella*	f. parella	MH485193.1	yes	10.11646/phytotaxa.371.2.6	497	Sweden
Ochrolechia	*parella*	f. parella	MH485194.1	yes	10.11646/phytotaxa.371.2.6	497	Italy, Sicily
Ochrolechia	*parella*	f. parella	MH485195.1	yes	10.11646/phytotaxa.371.2.6	499	Morocco
Ochrolechia	*parella*	f. parella	MH485196.1	yes	10.11646/phytotaxa.371.2.6	498	Morocco
Ochrolechia	*parella*	f. parella	MH485197.1	yes	10.11646/phytotaxa.371.2.6	498	Italy, Sardinia
Ochrolechia	*parella*	f. parella	MH485198.1	yes	10.11646/phytotaxa.371.2.6	498	Greece
Ochrolechia	*parella*	f. parella	MH485199.1	yes	10.11646/phytotaxa.371.2.6	498	Italy, Sardinia
Ochrolechia	*parella*	f. parella	MH485200.1	yes	10.11646/phytotaxa.371.2.6	498	Portugal, Madeira
Ochrolechia	*parella*	f. parella	MK811779.1	yes	10.3897/BDJ.7.e36252	498	Norway, Sor-Trondelag

Ochrolechia	*parella*	f. parella	MK811835.1	yes	10.3897/BDJ.7.e36252	494	Norway, Nordland
Ochrolechia	*parella*	f. parella	MN965787.1	yes	unpublished	547	Not informed
Oevstedalia	*antarctica*		NA				
Pannaria	*caespitosa*		NA				
Pannaria	*hookeri*		AF429282.1	yes	10.1139/b02-043		Norway
Pannaria	*hookeri*		KY350562.1	yes	10.1007/s00300-018-2265-x	1547	Norway
Pannaria	*hookeri*		MG786563.1	yes	Pannaria hookeri (lichenised Ascomycetes)-a remarkable new record for Australia	1429	Australia, Tasmania
Pannaria	*hookeri*		MK812291.1	yes	10.3897/BDJ.7.e36252	479	Norway, Nordland
Parmelia	*saxatilis*		AF058037.1	no	10.1006/lich.1998.0143	559	Not informed
Parmelia	*saxatilis*		AF141370.1	yes	10.1006/lich.1999.0231	787	Canada, British Columbia
Parmelia	*saxatilis*		AF350020.1	yes	10.1017/S095375620200610X	657	Antarctica: South Shetlands
Parmelia	*saxatilis*		AF350021.1	yes	10.1017/S095375620200610X	659	Antarctica: South Shetlands
Parmelia	*saxatilis*		AF350022.1	yes	10.1017/S095375620200610X	657	Antarctica, Leonie Is.
Parmelia	*saxatilis*		AF350023.1	yes	10.1017/S095375620200610X	654	Russia, Peninsula de Kola
Parmelia	*saxatilis*		AF350024.1	yes	10.1017/S095375620200610X	655	Spain, Castilla y Leon
Parmelia	*saxatilis*		AF350025.1	yes	10.1017/S095375620200610X	655	Chile, Patagonia
Parmelia	*saxatilis*		AF350026.1	yes	10.1017/S095375620200610X	655	Chile, Patagonia
Parmelia	*saxatilis*		AF350027.1	yes	10.1017/S095375620200610X	655	Sweden, Umea
Parmelia	*saxatilis*		AF350028.1	yes	10.1017/S095375620200610X	656	Sweden, Umea
Parmelia	*saxatilis*		AF350029.1	yes	10.1017/S095375620200610X	653	China, Altay
Parmelia	*saxatilis*		AF350030.1	yes	10.1017/S095375620200610X	655	Switzerland
Parmelia	*saxatilis*		AF350032.1	yes	10.1017/S095375620200610X	659	Spain, Castilla y Leon

Parmelia	*saxatilis*	AF350033.1	yes	10.1017/S095375620200610X	659	USA, New Hampshire
Parmelia	*saxatilis*	AF350034.1	yes	10.1017/S095375620200610X	658	USA, New Hampshire
Parmelia	*saxatilis*	AF350035.1	yes	10.1017/S095375620200610X	656	United Kingdom
Parmelia	*saxatilis*	AF350036.1	yes	10.1017/S095375620200610X	468	Not informed
Parmelia	*saxatilis*	AF350039.1	yes	10.1017/S095375620200610X	468	Spain, Castilla y Leon
Parmelia	*saxatilis*	AF350042.1	yes	10.1017/S095375620200610X	468	United Kingdom
Parmelia	*saxatilis*	AF350043.1	yes	10.1017/S095375620200610X	471	Switzerland
Parmelia	*saxatilis*	AF350045.1	yes	10.1017/S095375620200610X	468	Spain, Canary Island
Parmelia	*saxatilis*	AF410835.2	yes	Parmelia ernstiae - a new macrolichen from Germany	728	Finland, Varsinais-Suomi
Parmelia	*saxatilis*	AF410836.2	yes	Parmelia ernstiae - a new macrolichen from Germany	729	Finland, Ruovesi
Parmelia	*saxatilis*	AF410837.2	yes	Parmelia ernstiae - a new macrolichen from Germany	729	Chile
Parmelia	*saxatilis*	AF412309.2	yes	Parmelia ernstiae - a new macrolichen from Germany	729	Chile, Glacia Serrano
Parmelia	*saxatilis*	AF412310.2	yes	Parmelia ernstiae - a new macrolichen from Germany	729	Chile, Milodon H hle
Parmelia	*saxatilis*	AF451770.1	yes	10.1007/s11557-006-0031-x	729	Chile, Region de Magallanes
Parmelia	*saxatilis*	AF451771.1	yes	10.1007/s11557-006-0031-x	728	Estonia, Saarema
Parmelia	*saxatilis*	AF451772.1	yes	10.1007/s11557-006-0031-x	728	Finland, Regio Aboensis
Parmelia	*saxatilis*	AY036989.1	yes	10.1017/S095375620200610X	495	Russia
Parmelia	*saxatilis*	AY036990.1	yes	10.1017/S095375620200610X	495	Russia
Parmelia	*saxatilis*	AY114359.1	yes	10.1017/S095375620200610X	681	Spain, Cadiz
Parmelia	*saxatilis*	EU034668.1	yes	10.5423/PPJ.2009.25.1.038	617	Not informed
Parmelia	*saxatilis*	HM016989.1	yes	10.1016/j.ympev.2010.04.014	509	Sweden

Parmelia	*saxatilis*	HM016990.1	yes	10.1016/j.ympev.2010.04.014	506	Sweden
Parmelia	*saxatilis*	HM016991.1	yes	10.1016/j.ympev.2010.04.014	506	Sweden
Parmelia	*saxatilis*	HM016992.1	yes	10.1016/j.ympev.2010.04.014	495	Sweden
Parmelia	*saxatilis*	HM016993.1	yes	10.1016/j.ympev.2010.04.014	486	Sweden
Parmelia	*saxatilis*	HM016994.1	yes	10.1016/j.ympev.2010.04.014	507	Sweden
Parmelia	*saxatilis*	HM016995.1	yes	10.1016/j.ympev.2010.04.014	497	Sweden
Parmelia	*saxatilis*	HM016996.1	yes	10.1016/j.ympev.2010.04.014	506	Sweden
Parmelia	*saxatilis*	HM016997.1	yes	10.1016/j.ympev.2010.04.014	476	Sweden
Parmelia	*saxatilis*	HM016998.1	yes	10.1016/j.ympev.2010.04.014	486	Sweden
Parmelia	*saxatilis*	HM016999.1	yes	10.1016/j.ympev.2010.04.014	495	Sweden
Parmelia	*saxatilis*	HM017000.1	yes	10.1016/j.ympev.2010.04.014	498	Sweden
Parmelia	*saxatilis*	JN609440.1	yes	10.1007/s13127-011-0060-4	490	United Kingdom, Scotland
Parmelia	*saxatilis*	JN609441.1	yes	10.1007/s13127-011-0060-4	490	United Kingdom, Scotland
Parmelia	*saxatilis*	JN609442.1	yes	10.1007/s13127-011-0060-4	490	USA, Montana
Parmelia	*saxatilis*	JN609443.1	yes	10.1007/s13127-011-0060-4	490	USA, Montana
Parmelia	*saxatilis*	KT625511.1	yes	unpublished	498	Canada
Parmelia	*saxatilis*	KT625512.1	yes	unpublished	498	Canada
Parmelia	*saxatilis*	KT625513.1	yes	unpublished	493	Canada
Parmelia	*saxatilis*	KT625514.1	yes	unpublished	498	Canada
Parmelia	*saxatilis*	KT625515.1	yes	unpublished	498	Canada
Parmelia	*saxatilis*	KT625516.1	yes	unpublished	498	Canada
Parmelia	*saxatilis*	KT625517.1	yes	unpublished	498	Canada
Parmelia	*saxatilis*	KT892944.1	yes	10.1111/boj.12358	535	Spain
Parmelia	*saxatilis*	KT892945.1	yes	10.1111/boj.12358	498	Spain
Parmelia	*saxatilis*	KU845666.1	yes	10.11646/phytotaxa.383.2.3	465	Poland
Parmelia	*saxatilis*	KU845667.1	yes	10.11646/phytotaxa.383.2.3	495	Czech Republic, North Bohemia
Parmelia	*saxatilis*	KX132946.1	yes	10.1139/gen-2015-0189	583	Switzerland

Parmelia	*saxatilis*	KY419143.1	yes	unpublished	798	Sweden, Scania
Parmelia	*saxatilis*	MG676387.1	yes	10.11646/phytotaxa.383.2.3	459	Finland
Parmelia	*saxatilis*	MG676389.1	yes	10.11646/phytotaxa.383.2.3	475	Ossowska, Poland
Parmelia	*saxatilis*	MG676390.1	yes	10.11646/phytotaxa.383.2.3	456	Ossowska, Poland
Parmelia	*saxatilis*	MG676391.1	yes	10.11646/phytotaxa.383.2.3	495	Ossowska, Poland
Parmelia	*saxatilis*	MG676392.1	yes	10.11646/phytotaxa.383.2.3	499	Ossowska, Poland
Parmelia	*saxatilis*	MG676393.1	yes	10.11646/phytotaxa.383.2.3	499	Ossowska, Poland
Parmelia	*saxatilis*	MG676394.1	yes	10.11646/phytotaxa.383.2.3	428	Ossowska, Poland
Parmelia	*saxatilis*	MG676395.1	yes	10.11646/phytotaxa.383.2.3	408	Ossowska, Poland
Parmelia	*saxatilis*	MG676396.1	yes	10.11646/phytotaxa.383.2.3	447	Ossowska, Poland
Parmelia	*saxatilis*	MG676397.1	yes	10.11646/phytotaxa.383.2.3	446	Ossowska, Poland
Parmelia	*saxatilis*	MG676398.1	yes	10.11646/phytotaxa.383.2.3	488	Ossowska, Poland
Parmelia	*saxatilis*	MG676399.1	yes	10.11646/phytotaxa.383.2.3	456	Ossowska, Poland
Parmelia	*saxatilis*	MK567163.1	yes	The morphologically cryptic lichen species Parmelia ernstiae and P. serrana new to Norway	796	Norway, Sor-Trondelag
Parmelia	*saxatilis*	MK567164.1	yes	The morphologically cryptic lichen species Parmelia ernstiae and P. serrana new to Norway	520	Norway, Buskerud
Parmelia	*saxatilis*	MK778630.1	yes	unpublished	775	Russia
Parmelia	*saxatilis*	MK778631.1	yes	unpublished	500	Russia
Parmelia	*saxatilis*	MK778632.1	yes	unpublished	718	Russia
Parmelia	*saxatilis*	MN387122.1	yes	10.3390/microorganisms7090335	591	Poland
Parmelia	*saxatilis*	MN387123.1	yes	10.3390/microorganisms7090335	622	Poland
Parmelia	*saxatilis*	MN387124.1	yes	10.3390/microorganisms7090335	617	Poland

Parmelia	*saxatilis*	MN412801.1	yes	10.3897/mycokeys.61.38175	721	Sweden
Parmelia	*saxatilis*	MN483072.1	yes	unpublished	404	USA, Alaska
Parmelia	*saxatilis*	NR_119437.2	yes	unpublished	569	Sweden, Umea
Parvoplaca	*athallina*	KC179111.1	yes	10.1111/j.1756-1051.2013.00062.x	514	Antarctic Peninsula, Antarctica
Parvoplaca	*tiroliensis*	GQ344617.1	yes	10.3852/09-168	466	Austria
Parvoplaca	*tiroliensis*	KC179116.1	yes	10.1111/j.1756-1051.2013.00062.x	517	Sweden
Parvoplaca	*tiroliensis*	KT161991.1	yes	10.1017/S0024282915000389	519	Sweden
Parvoplaca	*tiroliensis*	KT161992.1	yes	10.1017/S0024282915000389	517	Norway
Parvoplaca	*tiroliensis*	MG954162.1	yes	10.11646/phytotaxa.396.1.1	565	Altai, Russia
Parvoplaca	*tiroliensis*	MG954202.1	yes	10.11646/phytotaxa.396.1.1	481	Altai, Russia
Parvoplaca	*tiroliensis*	MK778595.1	yes	unpublished	667	Russia
Peltigera	*didactyla*	AF350295.1	yes	unpublished	740	Not informed
Peltigera	*didactyla*	AY266027.1	yes	10.1639/01	561	Canada
Peltigera	*didactyla*	AY266029.1	yes	10.1639/01	561	Canada
Peltigera	*didactyla*	FJ527258.1	yes	Taxonomy, phylogeny and biogeography of the lichen genus Peltigera in Papua New Guinea	560	Papua New Guinea
Peltigera	*didactyla*	KX354710.1	yes	unpublished	664	China, Daxinganling
Peltigera	*didactyla*	KX354711.1	yes	unpublished	672	China, Shennongjia
Peltigera	*didactyla*	MH758240.1	yes	10.12705/675.3	670	Belgium
Peltigera	*didactyla*	MH758241.1	yes	10.12705/675.3	667	New Zealand, Campbell Island
Peltigera	*didactyla*	MH758242.1	yes	10.12705/675.3	665	Canada
Peltigera	*didactyla*	MH758243.1	yes	10.12705/675.3	502	China, Sichuan
Peltigera	*didactyla*	MH758244.1	yes	10.12705/675.3	668	Norway

Peltigera	*didactyla*	MH758245.1	yes	10.12705/675.3	665	USA
Peltigera	*didactyla*	MH758246.1	yes	10.12705/675.3	667	USA
Peltigera	*didactyla*	MK811844.1	yes	10.3897/BDJ.7.e36252	610	Norway, Telemark
Peltigera	*didactyla*	MK982203.1	yes	unpublished	591	USA, Albany
Peltularia	*austroshetlandica*	NA				
Pertusaria	*coccodes*	MN387081.1	no	10.3390/microorganisms7090335	600	Poland
Pertusaria	*coccodes*	MN387082.1	no	10.3390/microorganisms7090335	636	Poland
Pertusaria	*coccodes*	MN387083.1	no	10.3390/microorganisms7090335	629	Poland
Pertusaria	*coccodes*	MN387084.1	no	10.3390/microorganisms7090335	617	Poland
Pertusaria	*coccodes*	MN387085.1	no	10.3390/microorganisms7090335	628	Poland
Pertusaria	*coccodes*	MN387086.1	no	10.3390/microorganisms7090335	638	Poland
Pertusaria	*coccodes*	MN387087.1	no	10.3390/microorganisms7090335	638	Poland
Pertusaria	*coccodes*	MN387088.1	no	10.3390/microorganisms7090335	632	Poland
Pertusaria	*coccodes*	MN387089.1	no	10.3390/microorganisms7090335	629	Poland
Pertusaria	*pseudoculata*	NA				
Pertusaria	*signyae*	NA				
Pertusaria	*oculae-ranae*	NA				
Phaeophyscia	*endococcina*	AF224444.1	yes	10.1017/S0024282916000359	726	Not informed
Phaeophyscia	*endococcina*	EF582753.1	yes	10.5735/085.045.0106	465	Chile, Araucaria
Phaeophyscia	*endococcina*	GU247168.1	yes	unpublished	500	Not informed
Phaeophyscia	*endococcina*	MK812217.1	yes	10.3897/BDJ.7.e36252	539	Norway, Finnmark
Phaeorrhiza	*nimbosa*	AF224363.1	yes	10.1006/lich.2000.0297	508	Not informed

Phaeorrhiza	*nimbosa*	AF250800.1	yes	10.1006/lich.2000.0297	485	Not informed
Phaeorrhiza	*sareptana*	AF250801.1	yes	10.1006/lich.2000.0297	485	Not informed
Physcia	*caesia*	AF224379.1	yes	10.2307/3761655	720	Finland, Etela-Savo
Physcia	*caesia*	AF224384.1	yes	10.2307/3761655	731	Sweden, Uppland
Physcia	*caesia*	AF224385.1	yes	10.2307/3761655	734	Finland, Uusima
Physcia	*caesia*	AF224386.1	yes	10.2307/3761655	724	Finland, Aland
Physcia	*caesia*	AF224387.1	yes	10.2307/3761655	727	Sweden, Uppland
Physcia	*caesia*	AF224388.1	yes	10.2307/3761655	726	Not informed
Physcia	*caesia*	AF224389.1	yes	10.2307/3761655	726	Finland, Uusima
Physcia	*caesia*	AF224435.1	yes	10.2307/3761655	729	Romania, Transylvania
Physcia	*caesia*	AF224436.1	yes	10.2307/3761655	727	Russia, Sakha
Physcia	*caesia*	AF224437.1	yes	10.2307/3761655	733	Russia, Komi
Physcia	*caesia*	AF224438.1	yes	10.2307/3761655	728	Mexico
Physcia	*caesia*	AF250804.1	yes	10.1006/lich.2000.0297	479	Not informed
Physcia	*caesia*	AF540530.1	yes	10.1080/15572536.2004.11833022	478	Germany, Bayern
Physcia	*caesia*	AY303131.1	yes	unpublished	759	Not informed
Physcia	*caesia*	AY303134.1	yes	unpublished	763	Not informed
Physcia	*caesia*	AY498690.1	yes	unpublished	811	Not informed
Physcia	*caesia*	DQ534476.2	yes	PMID: 17082741	896	Antarctic, King George Island
Physcia	*caesia*	EF582749.1	yes	10.5735/085.045.0106	474	Russia, Adygeya
Physcia	*caesia*	EF582750.1	yes	10.5735/085.045.0106	478	Greenland, Cass Fjord
Physcia	*caesia*	EU670213.1	yes	unpublished	786	Not informed
Physcia	*caesia*	EU682186.1	yes	10.5735/085.046.0104	481	Not informed
Physcia	*caesia*	EU682187.1	yes	10.5735/085.046.0104	481	Not informed
Physcia	*caesia*	EU682188.1	yes	10.5735/085.046.0104	481	Not informed

Physcia	*caesia*	EU682189.1	yes	10.5735/085.046.0104	468	Not informed
Physcia	*caesia*	EU682193.1	yes	10.5735/085.046.0104	486	Not informed
Physcia	*caesia*	EU682194.1	yes	10.5735/085.046.0104	482	Not informed
Physcia	*caesia*	EU682195.1	yes	10.5735/085.046.0104	482	Not informed
Physcia	*caesia*	EU682196.1	yes	10.5735/085.046.0104	482	Not informed
Physcia	*caesia*	EU682197.1	yes	10.5735/085.046.0104	482	Not informed
Physcia	*caesia*	GU247175.1	yes	unpublished	479	Not informed
Physcia	*caesia*	GU247180.1	yes	unpublished	478	Not informed
Physcia	*caesia*	KP314379.1	yes	unpublished	524	Norway, Svalbard
Physcia	*caesia*	KP314425.1	yes	unpublished	524	Norway, Svalbard
Physcia	*caesia*	MK811883.1	yes	10.3897/BDJ.7.e36252	524	Norway, Telemark
Physcia	*caesia*	MK812056.1	yes	10.3897/BDJ.7.e36252	476	Norway, Oslo
Physcia	*caesia*	MK812325.1	yes	10.3897/BDJ.7.e36252	499	Norway, Akershus
Physcia	*caesia*	MK812524.1	yes	10.3897/BDJ.7.e36252	524	Norway, Sor-Trondelag
Physcia	*caesia*	MN103156.1	yes	unpublished	579	Not informed
Physcia	*caesia*	MN959976.1	yes	unpublished	530	Not informed
Physcia	*dubia*	AF224399.1	yes	unpublished	739	Not informed
Physcia	*dubia*	AF224400.1	yes	unpublished	736	Not informed
Physcia	*dubia*	AF224401.1	yes	10.1080/00275514.2000.12061212	736	Not informed
Physcia	*dubia*	AF224402.1	yes	unpublished	737	Not informed
Physcia	*dubia*	AF224403.1	yes	unpublished	737	Not informed
Physcia	*dubia*	AF224411.1	yes	unpublished	710	Not informed
Physcia	*dubia*	AF224412.1	yes	10.1080/00275514.2000.12061212	732	Not informed
Physcia	*dubia*	AF224413.1	yes	unpublished	732	Not informed
Physcia	*dubia*	AF224418.1	yes	unpublished	736	Not informed
Physcia	*dubia*	AF224419.1	yes	unpublished	735	Not informed

Physcia	*dubia*	AF224420.1	yes	unpublished	736	Not informed
Physcia	*dubia*	AF224421.1	yes	unpublished	731	Not informed
Physcia	*dubia*	AF224439.1	yes	unpublished	733	Not informed
Physcia	*dubia*	AF224440.1	yes	unpublished	732	Not informed
Physcia	*dubia*	DQ534477.2	yes	PMID: 17082741	903	Antarctic, King George Island
Physcia	*dubia*	GU247179.1	yes	unpublished	480	Not informed
Physcia	*dubia*	JQ301695.1	yes	10.1016/j.ympev.2012.01.012	799	Finland
Physcia	*dubia*	KP314427.1	yes	unpublished	523	Norway, Svalbard
Physcia	*dubia*	KP747675.1	yes	10.1556/ABot.57.2015.1.2.11	508	Ukraine, Bila Tserkva
Physcia	*dubia*	KP747676.1	yes	10.1556/ABot.57.2015.1.2.11	506	Ukraine, Korostyshiv
Physcia	*dubia*	KX550105.1	yes	unpublished	803	Not informed
Physcia	*dubia*	MK811700.1	yes	10.3897/BDJ.7.e36252	483	Norway, Oppland
Physcia	*dubia*	MK812017.1	yes	10.3897/BDJ.7.e36252	462	Norway, Oppland
Physcia	*dubia*	MN959914.1	yes	unpublished	477	Not informed
Physconia	*muscigena*	AF224369.1	yes	10.1080/00275514.2000.12061212	505	Not informed
Physconia	*muscigena*	AY368134.1	yes	10.1017/S095375620400975X	484	Canada, British Columbia
Physconia	*muscigena*	AY368135.1	yes	10.1017/S095375620400975X	484	USA, Montana
Physconia	*muscigena*	AY368136.1	yes	10.1017/S095375620400975X	484	Canada
Physconia	*muscigena*	AY368137.1	yes	10.1017/S095375620400975X	485	USA, Oregon
Physconia	*muscigena*	DQ534478.2	yes	PMID: 17082741	888	Antarctic, King George Island
Physconia	*muscigena*	EF582772.1	yes	10.5735/085.045.0106	467	Russia, Kamehatka
Physconia	*muscigena*	EF582774.1	yes	10.5735/085.045.0106	484	Norway, Svalbard

Physconia	*muscigena*	EF594743.1	yes	The phylogenetic position of two new species of Physconia (lichenized Ascomycetes) from Russia	484	Not informed
Physconia	*muscigena*	GU247161.1	yes	unpublished	487	Not informed
Physconia	*muscigena*	JQ301696.1	yes	10.1016/j.ympev.2012.01.012	568	Canada
Physconia	*muscigena*	KP314365.1	yes	unpublished	530	Norway, Svalbard
Physconia	*muscigena*	KP314434.1	yes	unpublished	529	Norway, Svalbard
Physconia	*muscigena*	KY266849.1	yes	10.3897/mycokeys.11.6670	772	Norway, Finnmark
Physconia	*muscigena*	KY266925.1	yes	10.3897/mycokeys.11.6670	533	Norway, Finnmark
Physconia	*muscigena*	MK811781.1	yes	10.3897/BDJ.7.e36252	533	Norway, Sor-Trondelag
Physconia	*muscigena*	MN103155.1	yes	unpublished	597	Not informed
Placidium	*lachneoides*	NA				
Placopsis	*antarctica*	MH670289.1	yes	10.1007/s13199-019-00624-4	1080	King George Island, South Shetland Islands, Antarctica
Placopsis	*antarctica*	MH670290.1	yes	10.1007/s13199-019-00624-4	1080	King George Island, South Shetland Islands, Antarctica
Placopsis	*antarctica*	MH670291.1	yes	10.1007/s13199-019-00624-4	1080	King George Island, South Shetland Islands, Antarctica
Placopsis	*antarctica*	MH670292.1	yes	10.1007/s13199-019-00624-4	1080	King George Island, South Shetland Islands, Antarctica
Placopsis	*antarctica*	MH670293.1	yes	10.1007/s13199-019-00624-4	1079	King George Island, South

						Shetland Islands, Antarctica
Placopsis	*antarctica*	MH670294.1	yes	10.1007/s13199-019-00624-4	1080	King George Island, South Shetland Islands, Antarctica
Placopsis	*antarctica*	MH670295.1	yes	10.1007/s13199-019-00624-4	1080	King George Island, South Shetland Islands, Antarctica
Placopsis	*antarctica*	MH670296.1	yes	10.1007/s13199-019-00624-4	1080	King George Island, South Shetland Islands, Antarctica
Placopsis	*antarctica*	MH670297.1	yes	10.1007/s13199-019-00624-4	1079	King George Island, South Shetland Islands, Antarctica
Placopsis	*antarctica*	MH670298.1	yes	10.1007/s13199-019-00624-4	1080	King George Island, South Shetland Islands, Antarctica
Placopsis	*antarctica*	MH670299.1	yes	10.1007/s13199-019-00624-4	1080	King George Island, South Shetland Islands, Antarctica
Placopsis	*antarctica*	MH670300.1	yes	10.1007/s13199-019-00624-4	1079	King George Island, South Shetland Islands, Antarctica
Placopsis	*antarctica*	MH670301.1	yes	10.1007/s13199-019-00624-4	1079	King George Island, South Shetland Islands, Antarctica

Placopsis	*antarctica*	MH670302.1	yes	10.1007/s13199-019-00624-4	1080	Livingston Island, South Shetland Islands, Antarctica
Placopsis	*antarctica*	MH670303.1	yes	10.1007/s13199-019-00624-4	1080	Livingston Island, South Shetland Islands, Antarctica
Placopsis	*antarctica*	MH670304.1	yes	10.1007/s13199-019-00624-4	1080	Deception Island, South Shetland Islands, Antarctica
Placopsis	*antarctica*	MH670305.1	yes	10.1007/s13199-019-00624-4	1080	Deception Island, South Shetland Islands, Antarctica
Placopsis	*antarctica*	MH670306.1	yes	10.1007/s13199-019-00624-4	1080	Deception Island, South Shetland Islands, Antarctica
Placopsis	*antarctica*	MH670307.1	yes	10.1007/s13199-019-00624-4	1079	Deception Island, South Shetland Islands, Antarctica
Placopsis	*antarctica*	MH670308.1	yes	10.1007/s13199-019-00624-4	1071	Deception Island, South Shetland Islands, Antarctica
Placopsis	*antarctica*	MH670309.1	yes	10.1007/s13199-019-00624-4	1071	Deception Island, South Shetland Islands, Antarctica
Placopsis	*antarctica*	MH670310.1	yes	10.1007/s13199-019-00624-4	1079	Robert Island, South Shetland Islands, Antarctica
Placopsis	*antarctica*	MH670311.1	yes	10.1007/s13199-019-00624-4	1080	King George Island, South Shetland Islands, Antarctica
Placopsis	*antarctica*	MH670312.1	yes	10.1007/s13199-019-00624-4	1080	King George Island, South Shetland Islands, Antarctica

Placopsis	*antarctica*	MH670313.1	yes	10.1007/s13199-019-00624-4	1080	King George Island, South Shetland Islands, Antarctica
Placopsis	*antarctica*	MH670314.1	yes	10.1007/s13199-019-00624-4	1080	King George Island, South Shetland Islands, Antarctica
Placopsis	*antarctica*	MH670315.1	yes	10.1007/s13199-019-00624-4	1080	King George Island, South Shetland Islands, Antarctica
Placopsis	*antarctica*	MH670316.1	yes	10.1007/s13199-019-00624-4	1080	King George Island, South Shetland Islands, Antarctica
Placopsis	*antarctica*	MH670317.1	yes	10.1007/s13199-019-00624-4	1080	King George Island, South Shetland Islands, Antarctica
Placopsis	*antarctica*	MH670318.1	yes	10.1007/s13199-019-00624-4	1080	Deception Island, South Shetland Islands, Antarctica
Placopsis	*antarctica*	MH670319.1	yes	10.1007/s13199-019-00624-4	1080	King George Island, South Shetland Islands, Antarctica
Placopsis	*antarctica*	MH670320.1	yes	10.1007/s13199-019-00624-4	1080	King George Island, South Shetland Islands, Antarctica
Placopsis	*antarctica*	MH670321.1	yes	10.1007/s13199-019-00624-4	903	King George Island, South Shetland Islands, Antarctica

Placopsis	*antarctica*	MH670322.1	yes	10.1007/s13199-019-00624-4	1078	King George Island, South Shetland Islands, Antarctica
Placopsis	*antarctica*	MH670323.1	yes	10.1007/s13199-019-00624-4	1080	Robert Island, South Shetland Islands, Antarctica
Placopsis	*antarctica*	MH670324.1	yes	10.1007/s13199-019-00624-4	1080	Livingston Island, South Shetland Islands, Antarctica
Placopsis	*antarctica*	MH670325.1	yes	10.1007/s13199-019-00624-4	1080	Livingston Island, South Shetland Islands, Antarctica
Placopsis	*antarctica*	MH670326.1	yes	10.1007/s13199-019-00624-4	1080	Deception Island, South Shetland Islands, Antarctica
Placopsis	*antarctica*	MH670327.1	yes	10.1007/s13199-019-00624-4	1080	Deception Island, South Shetland Islands, Antarctica
Placopsis	*antarctica*	MH670328.1	yes	10.1007/s13199-019-00624-4	1080	Deception Island, South Shetland Islands, Antarctica
Placopsis	*antarctica*	MH670329.1	yes	10.1007/s13199-019-00624-4	1080	King George Island, South Shetland Islands, Antarctica
Placopsis	*antarctica*	MH670330.1	yes	10.1007/s13199-019-00624-4	1080	King George Island, South Shetland Islands, Antarctica
Placopsis	*antarctica*	MH670331.1	yes	10.1007/s13199-019-00624-4	1080	Livingston Island, South Shetland Islands, Antarctica
Placopsis	*contortuplicata*	AY212818.1	no	21148990	562	Not informed
Placopsis	*contortuplicata*	DQ219305.1	yes	unpublished	676	Antarctica

Placopsis	*contortuplicata*		DQ534479.2	yes	17082741	692	Antarctica, King George Island
Placopsis	*contortuplicata*		KC414624.1	yes	10.5248/126.31	492	Antarctica
Placopsis	*contortuplicata*		KT601492.1	no	10.5248/132.831	504	Antarctica
Placopsis	*contortuplicata*		MH670332.1	yes	10.1007/s13199-019-00624-4	1365	Deception Island, South Shetland Islands, Antarctica
Placopsis	*contortuplicata*		MH670333.1	yes	10.1007/s13199-019-00624-4	1389	Deception Island, South Shetland Islands, Antarctica
Placopsis	*contortuplicata*		MH670334.1	yes	10.1007/s13199-019-00624-4	607	King George, South Shetland Islands, Antarctica
Placopsis	*contortuplicata*		MH670335.1	yes	10.1007/s13199-019-00624-4	607	Livingston Island, South Shetland Islands, Antarctica
Placopsis	*contortuplicata*		MH670336.1	yes	10.1007/s13199-019-00624-4	617	King George Island, South Shetland Islands, Antarctica
Placopsis	*contortuplicata*		MH670337.1	yes	10.1007/s13199-019-00624-4	1371	King George Island, South Shetland Islands, Antarctica
Placopsis	*parellina*	f. parellina	AY212822.1	no	21148990	558	Not informed
Pleopsidium	*chlorophanum*		AY853384.2	yes	10.1016/j.mycres.2006.01.010	1583	Sweden
Pleopsidium	*chlorophanum*		DQ525473.1	yes	10.1007/s00239-005-0179-z	839	Friuli, Italy
Pleopsidium	*chlorophanum*		DQ525474.1	yes	10.1007/s00239-005-0179-z	811	Hordaland, Norway
Pleopsidium	*chlorophanum*		DQ525475.1	yes	10.1007/s00239-005-0179-z	812	Hordaland, Norway
Pleopsidium	*chlorophanum*		DQ525476.1	yes	10.1007/s00239-005-0179-z	812	Central Siberia, Russia
Pleopsidium	*chlorophanum*		DQ525477.1	yes	10.1007/s00239-005-0179-z	821	Styria, Austria
Pleopsidium	*chlorophanum*		DQ525478.1	yes	10.1007/s00239-005-0179-z	824	Troms, Norway

Pleopsidium	*chlorophanum*	DQ525479.1	yes	10.1007/s00239-005-0179-z	823	Hordaland, Norway
Pleopsidium	*chlorophanum*	DQ525480.1	yes	10.1007/s00239-005-0179-z	820	Steiermark, Austria
Pleopsidium	*chlorophanum*	DQ525481.1	yes	10.1007/s00239-005-0179-z	814	Victoria Land, Antarctica
Pleopsidium	*chlorophanum*	DQ525482.1	yes	10.1007/s00239-005-0179-z	805	Osttirol, Austria
Pleopsidium	*chlorophanum*	DQ525483.1	yes	10.1007/s00239-005-0179-z	816	Styria, Austria
Pleopsidium	*chlorophanum*	DQ525484.1	yes	10.1007/s00239-005-0179-z	794	Oppland, Norway
Pleopsidium	*chlorophanum*	DQ525485.1	yes	10.1007/s00239-005-0179-z	761	Maud Land, Dronning, Antarctica
Pleopsidium	*chlorophanum*	DQ525486.1	yes	10.1007/s00239-005-0179-z	810	Mont Senym, Spain
Pleopsidium	*chlorophanum*	DQ525487.1	yes	10.1007/s00239-005-0179-z	799	Torne Lappmark, Sweden
Pleopsidium	*chlorophanum*	DQ525488.1	yes	10.1007/s00239-005-0179-z	782	Baikal, Russia
Pleopsidium	*chlorophanum*	DQ525489.1	yes	10.1007/s00239-005-0179-z	798	Lapponia, Finland
Pleopsidium	*chlorophanum*	DQ525498.1	yes	10.1007/s00239-005-0179-z	898	Arkhangay, Mongolia
Pleopsidium	*chlorophanum*	DQ525499.1	yes	10.1007/s00239-005-0179-z	909	Uummannaq, Greenland
Pleopsidium	*chlorophanum*	DQ525501.1	yes	10.1007/s00239-005-0179-z	893	Hordaland, Norway
Pleopsidium	*chlorophanum*	DQ525505.1	yes	10.1007/s00239-005-0179-z	935	Arizona, USA
Pleopsidium	*chlorophanum*	DQ525506.1	yes	10.1007/s00239-005-0179-z	619	Arizona, USA
Pleopsidium	*chlorophanum*	DQ525509.1	yes	10.1007/s00239-005-0179-z	575	Colorado, USA
Pleopsidium	*chlorophanum*	DQ525518.1	yes	10.1007/s00239-005-0179-z	571	Arizona, USA
Pleopsidium	*chlorophanum*	DQ525520.1	yes	10.1007/s00239-005-0179-z	578	Arizona, USA
Pleopsidium	*chlorophanum*	DQ525523.1	yes	10.1007/s00239-005-0179-z	558	Töv Aimak, Mongolia
Pleopsidium	*chlorophanum*	DQ525524.1	yes	10.1007/s00239-005-0179-z	550	Töv Aimak, Mongolia
Pleopsidium	*chlorophanum*	EF535222.1	yes	10.1016/j.mycres.2007.08.007	479	Salzburg, Austria
Pleopsidium	*chlorophanum*	EU870691.1	yes	10.1111/j.1096-0031.2009.00240.x	482	Torne Lappmark, Sweden

Pleopsidium	*chlorophanum*	FJ959356.1	yes	10.1017/S0024282909990156	479	Torne Lappmark, Sweden
Pleopsidium	*chlorophanum*	KY266860.1	yes	Unpublished	528	Finnmark, Vadso, Klubben, Norway
Pleopsidium	*chlorophanum*	MF188904.1	yes	unpublished	549	China
Pleopsidium	*chlorophanum*	MF188906.1	yes	unpublished	558	China
Pleopsidium	*chlorophanum*	MK811850.1	yes	10.3897/BDJ.7.e36255	524	Troms, Kafjord, Norway
Pleopsidium	*chlorophanum*	MK812117.1	yes	10.3897/BDJ.7.e36254	525	Nord-Trondelag, Steinkjer, Mokk, Norway
Pleopsidium	*chlorophanum*	MK812213.1	yes	10.3897/BDJ.7.e36253	527	Telemark, Vinje, Norway
Pleopsidium	*chlorophanum*	MK812354.1	yes	10.3897/BDJ.7.e36252	524	Sor-Trondelag, Roros, Norway
Poeltidea	*perusta*	MK620106.1	yes	10.1101/699942	516	Chile, Isla Navarino
Poeltidea	*perusta*	MK620111.1	yes	10.1101/699942	516	Chile, Isla Navarino
Poeltidea	*perusta*	MK620112.1	yes	10.1101/699942	516	Chile, Isla Navarino
Poeltidea	*perusta*	MK620127.1	yes	10.1101/699942	516	Argentina, Tierra del Fuego
Poeltidea	*perusta*	MK620132.1	yes	10.1101/699942	516	Argentina, Tierra del Fuego
Polyblastia	*gothica*	NA				
Polycauliona	*candelaria*	AJ320138.1	yes	10.1046/j.1469-8137.2003.00740.x	558	Antarctica
Polycauliona	*candelaria*	AM263343.1	yes	unpublished	541	Rensselaer Bugt, Greenland
Polycauliona	*candelaria*	AM292825.1	yes	unpublished	543	Myvatn, Iceland
Polycauliona	*candelaria*	AM292833.1	yes	unpublished	542	Nove Mesto, Slovakia
Polycauliona	*candelaria*	AM408404.1	yes	unpublished	541	Zuoz, Switzerland

Polycauliona	*candelaria*	AM408416.1	yes	unpublished	541	Langwies, Fondei, Switzerland
Polycauliona	*candelaria*	AM408418.2	yes	unpublished	537	Admirality Island, USA
Polycauliona	*candelaria*	AM408427.1	yes	unpublished	542	Sea Lion Island, Alaska, USA
Polycauliona	*candelaria*	AY081154.1	no	Revision of Xanthomendoza (Teloschistaceae, Lecanorales) based on morphology, anatomy, secondary metabolites and molecular data	503	Not informed
Polycauliona	*candelaria*	DQ534489.2	yes	17082741	530	King George Island, Antarctica
Polycauliona	*candelaria*	EU639625.1	yes	10.1016/j.mycres.2007.11.005	563	Auvergne, Puy de Dôme, Chastreix, France
Polycauliona	*candelaria*	EU681321.1	yes	A phylogenetic analysis of xanthorioid lichens (Teloschistaceae, Ascomycota) based on ITS and mtSSU sequences BOOK CHAPTER	499	Sweden
Polycauliona	*candelaria*	EU681322.1	yes	A phylogenetic analysis of xanthorioid lichens (Teloschistaceae, Ascomycota) based on ITS and mtSSU sequences BOOK CHAPTER	500	Sweden

Polycauliona	*candelaria*	EU681323.1	yes	A phylogenetic analysis of xanthorioid lichens (Teloschistaceae, Ascomycota) based on ITS and mtSSU sequences BOOK CHAPTER	555	USA
Polycauliona	*candelaria*	EU681324.1	yes	A phylogenetic analysis of xanthorioid lichens (Teloschistaceae, Ascomycota) based on ITS and mtSSU sequences BOOK CHAPTER	559	USA
Polycauliona	*candelaria*	EU681328.1	yes	A phylogenetic analysis of xanthorioid lichens (Teloschistaceae, Ascomycota) based on ITS and mtSSU sequences BOOK CHAPTER	547	Sweden
Polycauliona	*candelaria*	JN984132.1	no	unpublished	534	Kyiv oblast, Ukraine
Polycauliona	*candelaria*	KC179379.1	yes	10.1111/j.1756-1051.2013.00062.x	527	Iceland
Polycauliona	*candelaria*	MK811915.1	yes	10.3897/BDJ.7.e36252	401	Akershus, As, Norway
Polycauliona	*candelaria*	MK811959.1	yes	10.3897/BDJ.7.e36252	546	Sor-Trondelag, Oppdal, Kongsvoll, Norway
Polycauliona	*candelaria*	MK812066.1	yes	10.3897/BDJ.7.e36252	532	Buskerud, Sigdal, Norway
Polycauliona	*coralligera*	NA				
Polycauliona	*regalis*	EU161240.1	yes	10.1007/s00300-007-0394-8	1476	King George Island, Antarctica

Polycauliona	*regalis*	KC179103.1	yes	10.1111/j.1756-1051.2013.00062.x	503	Antarctic Peninsula, Antarctica
Polycauliona	*regalis*	KJ133462.1	yes	10.1556/ABot.56.2014.1-2.12	512	Weaver Penie, Antarctica
Polycauliona	*regalis*	KJ133463.1	yes	10.1556/ABot.56.2014.1-2.12	513	Weaver Penie, Antarctica
Porocyphus	*coccodes*	NA				
Porpidia	*austroshetlandica*	NA				
Porpidia	*skottsbergiana*	NA				
Porpidia	*submelinodes*	NA				
Protopannaria	*austro-orcadensis*	NA				
Protoparmelia	*badia*	AF070023.1	no	unpublished	510	Not informed
Protoparmelia	*badia*	EU075539.1	yes	10.1127/0029-5035/2008/0086-0023	706	Austria, Styria
Protoparmelia	*badia*	EU075540.1	yes	10.1127/0029-5035/2008/0086-0023	701	Austria, Styria
Protoparmelia	*badia*	JN009728.1	yes	10.1017/S0024282911000478	788	USA
Protoparmelia	*badia*	KF562191.1	yes	10.1016/j.funbio.2013.08.001	510	Austria, Karnten
Protoparmelia	*badia*	KF562194.1	yes	10.1016/j.funbio.2013.08.001	556	Norway, Sor-Trondelag
Protoparmelia	*badia*	KY066254.1	yes	10.1111/nph.14366	780	USA
Protoparmelia	*badia*	KY066255.1	yes	10.1111/nph.14366	662	Norway
Protoparmelia	*badia*	KY066256.1	yes	10.1111/nph.14366	664	Norway
Protoparmelia	*badia*	KY066257.1	yes	10.1111/nph.14366	757	Spain
Protoparmelia	*badia*	KY066258.1	yes	10.1111/nph.14366	822	New Zealand
Protoparmelia	*badia*	KY066259.1	yes	10.1111/nph.14366	580	Spain
Protoparmelia	*badia*	KY266939.1	yes	10.3897/mycokeys.11.6670	759	Norway, Finnmark
Protoparmelia	*badia*	KY266945.1	yes	10.3897/mycokeys.11.6670	498	Norway, Finnmark
Protoparmelia	*badia*	MH481906.1	yes	unpublished	816	Japan, Kanto
Protoparmelia	*loricata*	NA				

Protothelenella	*sphinctrinoidella*	NA				
Pseudephebe	*minuscula*	AY251446.1	yes	10.1007/s11557-006-0100-1	497	Italy
Pseudephebe	*minuscula*	KJ947962.1	yes	10.1017/S0024282914000346	496	Russia, Franz Josef Land
Pseudephebe	*minuscula*	KU647290.1	yes	10.1017/S0024282916000426	481	Falkland Islands
Pseudephebe	*minuscula*	KU647291.1	yes	10.1017/S0024282916000426	481	Falkland Islands
Pseudephebe	*minuscula*	KU647292.1	yes	10.1017/S0024282916000426	480	USA, Alaska
Pseudephebe	*minuscula*	KU647293.1	yes	10.1017/S0024282916000426	480	USA, Alaska
Pseudephebe	*minuscula*	KU647294.1	yes	10.1017/S0024282916000426	482	USA, Nevada
Pseudephebe	*minuscula*	KU647295.1	yes	10.1017/S0024282916000426	477	USA, California
Pseudephebe	*minuscula*	KU647296.1	yes	10.1017/S0024282916000426	477	USA, Montana
Pseudephebe	*minuscula*	KU647297.1	yes	10.1017/S0024282916000426	328	USA, Montana
Pseudephebe	*minuscula*	KU647298.1	yes	10.1017/S0024282916000426	477	USA, Oregon
Pseudephebe	*minuscula*	KU647299.1	yes	10.1017/S0024282916000426	483	USA, Washington
Pseudephebe	*minuscula*	KU647300.1	yes	10.1017/S0024282916000426	481	Chile
Pseudephebe	*minuscula*	KU647301.1	yes	10.1017/S0024282916000426	482	Chile
Pseudephebe	*minuscula*	KU647302.1	yes	10.1017/S0024282916000426	482	Norway
Pseudephebe	*minuscula*	KU647303.1	yes	10.1017/S0024282916000426	482	Norway
Pseudephebe	*minuscula*	KU647304.1	yes	10.1017/S0024282916000426	476	Sweden
Pseudephebe	*minuscula*	KU647305.1	yes	10.1017/S0024282916000426	482	Sweden
Pseudephebe	*minuscula*	KU647306.1	yes	10.1017/S0024282916000426	484	Sweden
Pseudephebe	*minuscula*	KU647307.1	yes	10.1017/S0024282916000426	483	Austria
Pseudephebe	*minuscula*	KU647308.1	yes	10.1017/S0024282916000426	483	Romania
Pseudephebe	*minuscula*	KU647309.1	yes	10.1017/S0024282916000426	483	Portugal
Pseudephebe	*minuscula*	KU647310.1	yes	10.1017/S0024282916000426	483	Portugal
Pseudephebe	*minuscula*	KU647311.1	yes	10.1017/S0024282916000426	482	Spain
Pseudephebe	*minuscula*	KU647312.1	yes	10.1017/S0024282916000426	458	Spain
Pseudephebe	*minuscula*	KU647313.1	yes	10.1017/S0024282916000426	459	Spain
Pseudephebe	*minuscula*	KX160146.1	yes	10.1017/S0024282916000426	730	Portugal, Minho

Pseudephebe	*minuscula*	KX160147.1	yes	10.1017/S0024282916000426	726	USA, Oregon
Pseudephebe	*minuscula*	MH134514.1	yes	10.13158/heia.31.1.2018.700	1066	Germany, Saxony-Anhalt
Pseudephebe	*minuscula*	MH134515.1	yes	10.13158/heia.31.1.2018.700	1066	Germany, Saxony-Anhalt
Pseudephebe	*minuscula*	MH134516.1	yes	10.13158/heia.31.1.2018.700	1066	Germany, Saxony-Anhalt
Pseudephebe	*minuscula*	MH134517.1	yes	10.13158/heia.31.1.2018.700	1066	Germany, Saxony-Anhalt
Pseudephebe	*minuscula*	MH134518.1	yes	10.13158/heia.31.1.2018.700	1067	Germany, Saxony-Anhalt
Pseudephebe	*minuscula*	MH134520.1	yes	10.13158/heia.31.1.2018.700	832	Germany, Saxony-Anhalt
Pseudephebe	*minuscula*	MH134521.1	yes	10.13158/heia.31.1.2018.700	836	Germany, Saxony-Anhalt
Pseudephebe	*minuscula*	MH134522.1	yes	10.13158/heia.31.1.2018.700	836	Germany, Saxony-Anhalt
Pseudephebe	*minuscula*	MH134523.1	yes	10.13158/heia.31.1.2018.700	1067	Germany, Lower Saxony
Pseudephebe	*minuscula*	MK811997.1	yes	10.3897/BDJ.7.e36252	547	Norway, Sor-Trondelag
Pseudephebe	*minuscula*	MK812067.1	yes	10.3897/BDJ.7.e36252	548	Norway, Oppland
Pseudephebe	*pubescens*	AF451737.1	yes	10.1007/s11557-006-0031-x	497	Finland, Reg. Abo.
Pseudephebe	*pubescens*	AF451738.1	yes	10.1007/s11557-006-0031-x	735	Chile, Prov. Valdivia
Pseudephebe	*pubescens*	AY611125.1	yes	10.1017/S0953756204000723	504	Spain: Zamora
Pseudephebe	*pubescens*	DQ534480.2	yes	PMID: 17082741	928	Antarctic, King George Island
Pseudephebe	*pubescens*	HQ402676.1	yes	10.1017/S0024282911000132	452	USA, Alaska
Pseudephebe	*pubescens*	KJ947963.1	yes	10.1017/S0024282914000346	496	USA, Alaska
Pseudephebe	*pubescens*	KJ947964.1	yes	10.1017/S0024282914000346	498	USA, Alaska
Pseudephebe	*pubescens*	KJ947965.1	yes	10.1017/S0024282914000346	496	Russia, Franz Josef Land

Pseudephebe	*pubescens*	KP314415.1	yes	unpublished	540	Norway, Svalbard
Pseudephebe	*pubescens*	KP314481.1	yes	unpublished	540	Norway, Svalbard
Pseudephebe	*pubescens*	KP314490.1	yes	unpublished	522	Norway, Svalbard
Pseudephebe	*pubescens*	KU647314.1	yes	10.1017/S0024282916000426	480	Norway
Pseudephebe	*pubescens*	KU647315.1	yes	10.1017/S0024282916000426	483	Norway
Pseudephebe	*pubescens*	KU647316.1	yes	10.1017/S0024282916000426	482	Norway
Pseudephebe	*pubescens*	KU647317.1	yes	10.1017/S0024282916000426	471	Sweden
Pseudephebe	*pubescens*	KU647318.1	yes	10.1017/S0024282916000426	483	Switzerland
Pseudephebe	*pubescens*	KU647319.1	yes	10.1017/S0024282916000426	483	Spain
Pseudephebe	*pubescens*	KU647320.1	yes	10.1017/S0024282916000426	483	Spain
Pseudephebe	*pubescens*	KU647321.1	yes	10.1017/S0024282916000426	475	Spain
Pseudephebe	*pubescens*	KU647322.1	yes	10.1017/S0024282916000426	483	Spain
Pseudephebe	*pubescens*	KU647323.1	yes	10.1017/S0024282916000426	483	Spain
Pseudephebe	*pubescens*	KU647324.1	yes	10.1017/S0024282916000426	483	Spain
Pseudephebe	*pubescens*	KU647325.1	yes	10.1017/S0024282916000426	483	Portugal
Pseudephebe	*pubescens*	KU647326.1	yes	10.1017/S0024282916000426	483	Spain
Pseudephebe	*pubescens*	KY266914.1	yes	10.3897/mycokeys.11.6670	814	Norway, Finnmark
Pseudephebe	*pubescens*	KY266938.1	yes	10.3897/mycokeys.11.6670	787	Norway, Finnmark
Pseudephebe	*pubescens*	MH134519.1	yes	10.13158/heia.31.1.2018.700	837	Germany, Saxony-Anhalt
Pseudephebe	*pubescens*	MK811888.1	yes	10.3897/BDJ.7.e36252	536	Norway, Oppland
Pseudephebe	*pubescens*	MK812150.1	yes	10.3897/BDJ.7.e36252	546	Norway, Oppland
Pseudephebe	*pubescens*	MK812357.1	yes	10.3897/BDJ.7.e36252	466	Norway, Troms
Pseudephebe	*pubescens*	MK812652.1	yes	10.3897/BDJ.7.e36252	547	Norway, Buskerud
Psoroma	*antarcticum*	KY350563.1	yes	10.1007/s00300-018-2265-x	1466	Antarctica
Psoroma	*antarcticum*	KY350564.1	yes	10.1007/s00300-018-2265-x	1466	Antarctica
Psoroma	*antarcticum*	KY350565.1	yes	10.1007/s00300-018-2265-x	1466	Antarctica
Psoroma	*antarcticum*	KY350566.1	yes	10.1007/s00300-018-2265-x	1466	Antarctica
Psoroma	*antarcticum*	KY350567.1	yes	10.1007/s00300-018-2265-x	1466	Antarctica

Psoroma	*antarcticum*	KY350568.1	yes	10.1007/s00300-018-2265-x	1463	Antarctica
Psoroma	*antarcticum*	KY350569.1	yes	10.1007/s00300-018-2265-x	1460	Antarctica
Psoroma	*antarcticum*	KY350570.1	yes	10.1007/s00300-018-2265-x	1460	Antarctica
Psoroma	*antarcticum*	KY350571.1	yes	10.1007/s00300-018-2265-x	1460	Antarctica
Psoroma	*antarcticum*	KY350572.1	yes	10.1007/s00300-018-2265-x	1460	Antarctica
Psoroma	*antarcticum*	KY350573.1	yes	10.1007/s00300-018-2265-x	1440	Antarctica
Psoroma	*antarcticum*	KY350574.1	yes	10.1007/s00300-018-2265-x	1440	Antarctica
Psoroma	*antarcticum*	KY350575.1	yes	10.1007/s00300-018-2265-x	1440	Antarctica
Psoroma	*antarcticum*	KY350576.1	yes	10.1007/s00300-018-2265-x	1440	Antarctica
Psoroma	*antarcticum*	KY350577.1	yes	10.1007/s00300-018-2265-x	1440	Antarctica
Psoroma	*antarcticum*	KY350578.1	yes	10.1007/s00300-018-2265-x	1440	Antarctica
Psoroma	*antarcticum*	KY350579.1	yes	10.1007/s00300-018-2265-x	1457	Antarctica
Psoroma	*antarcticum*	KY350580.1	yes	10.1007/s00300-018-2265-x	1466	Antarctica
Psoroma	*antarcticum*	KY350581.1	yes	10.1007/s00300-018-2265-x	1466	Antarctica
Psoroma	*antarcticum*	KY350582.1	yes	10.1007/s00300-018-2265-x	1466	Antarctica
Psoroma	*antarcticum*	KY350583.1	yes	10.1007/s00300-018-2265-x	1466	Antarctica
Psoroma	*antarcticum*	KY350584.1	yes	10.1007/s00300-018-2265-x	1466	Antarctica
Psoroma	*antarcticum*	KY350585.1	yes	10.1007/s00300-018-2265-x	1466	Antarctica
Psoroma	*antarcticum*	KY350586.1	yes	10.1007/s00300-018-2265-x	1466	Antarctica
Psoroma	*antarcticum*	KY350587.1	yes	10.1007/s00300-018-2265-x	1466	Antarctica
Psoroma	*antarcticum*	KY350588.1	yes	10.1007/s00300-018-2265-x	1466	Antarctica
Psoroma	*antarcticum*	KY350589.1	yes	10.1007/s00300-018-2265-x	1466	Antarctica
Psoroma	*antarcticum*	KY350590.1	yes	10.1007/s00300-018-2265-x	1466	Antarctica
Psoroma	*antarcticum*	KY350591.1	yes	10.1007/s00300-018-2265-x	1466	Antarctica
Psoroma	*antarcticum*	KY350592.1	yes	10.1007/s00300-018-2265-x	1466	Antarctica
Psoroma	*antarcticum*	NR_164247.1	yes	10.1007/s00300-018-2265-x	618	Antarctica
Psoroma	*buchananii*	GQ927298.1	yes	10.1017/S0024282910000083	1456	Chile, Región de Magallanes

Psoroma	*buchananii*		GQ927299.1	yes	10.1017/S0024282910000083	1456	Chile, Región de Magallanes
Psoroma	*buchananii*		GQ927300.1	yes	10.1017/S0024282910000083	1456	Chile, Región de Magallanes
Psoroma	*ciliatum*		NA				
Psoroma	*cinnamomeum*		GQ927292.1	yes	10.1017/S0024282910000083	1841	Chile, Región de Magallanes
Psoroma	*cinnamomeum*		GQ927293.1	yes	10.1017/S0024282910000083	1807	Chile, Región de Magallanes
Psoroma	*cinnamomeum*		KP314303.1	yes	unpublished	523	Norway, Svalbard
Psoroma	*cinnamomeum*		KP314364.1	yes	unpublished	522	Norway, Svalbard
Psoroma	*cinnamomeum*		KP314367.1	yes	unpublished	522	Norway, Svalbard
Psoroma	*cinnamomeum*		KP314470.1	yes	unpublished	523	Norway, Svalbard
Psoroma	*cinnamomeum*		MK811978.1	yes	10.3897/BDJ.7.e36252	443	Norway, Sor-Trondelag
Psoroma	*hypnorum*	var. hypnorum	AF429272.1	yes	10.1139/b02-043	462	Norway, Svalbard
Psoroma	*hypnorum*	var. hypnorum	AF429273.1	yes	10.1139/b02-043	475	Norway, Svalbard
Psoroma	*hypnorum*	var. hypnorum	EU885309.1	yes	10.1016/j.mycres.2008.06.025	460	Argentina
Psoroma	*hypnorum*	var. hypnorum	EU885310.1	yes	10.1016/j.mycres.2008.06.025	446	Argentina
Psoroma	*hypnorum*	var. hypnorum	EU885312.1	yes	10.1016/j.mycres.2008.06.025	448	Argentina
Psoroma	*hypnorum*	var. hypnorum	GQ927294.1	yes	10.1017/S0024282910000083	1710	Antarctica, King George Island
Psoroma	*hypnorum*	var. hypnorum	GQ927295.1	yes	10.1017/S0024282910000083	1432	Antarctica, King George Island
Psoroma	*hypnorum*	var. hypnorum	GQ927296.1	yes	10.1017/S0024282910000083	1437	Antarctica, King George Island
Psoroma	*hypnorum*	var. hypnorum	GQ927297.1	yes	10.1017/S0024282910000083	1468	Antarctica, King George Island

Psoroma	*hypnorum*	var. hypnorum	KC618732.1	yes	unpublished	474	Not informed
Psoroma	*hypnorum*	var. hypnorum	KP314343.1	yes	unpublished	520	Norway, Svalbard
Psoroma	*hypnorum*	var. hypnorum	KP314480.1	yes	unpublished	521	Norway, Svalbard
Psoroma	*hypnorum*	var. hypnorum	KY266971.1	yes	unpublished	804	Norway, Finnmark
Psoroma	*hypnorum*	var. hypnorum	MH802363.1	yes	unpublished	1402	Norway
Psoroma	*hypnorum*	var. hypnorum	MK811764.1	yes	10.3897/BDJ.7.e36252	525	Norway, Sor-Trondelag
Psoroma	*hypnorum*	var. hypnorum	MK811800.1	yes	10.3897/BDJ.7.e36252	553	Norway, Sor-Trondelag
Psoroma	*saccharatum*		KC618733.1	yes	unpublished	472	Not informed
Psoroma	*tenue*		GQ927290.1	yes	10.1017/S0024282910000083	1836	Antarctica, King George Island
Psoroma	*tenue*		GQ927291.1	yes	10.1017/S0024282910000083	1836	Antarctica, King George Island
Ramalina	*corymbosa*		DQ534457.2	yes	17082741	703	King George Island, Antarctica
Ramalina	*terebrata*		DQ534481.2	yes	17082741	694	King George Island, Antarctica
Ramalina	*terebrata*		EU161239.1	yes	10.1007/s00300-007-0394-8	1533	King George Island, Antarctica
Rhizocarpon	*badioatrum*	var. badioatrum	KU687450.1	yes	10.1017/S0024282916000347	530	Oppland, Sel, Hovringen, Norway
Rhizocarpon	*badioatrum*	var. badioatrum	KU687453.1	yes	10.1017/S0024282916000347	530	Buskerud, Sigdal, Norway
Rhizocarpon	*copelandii*		AF483617.1	yes	10.1046/j.1095-8312.2002.00127.x	478	Norway
Rhizocarpon	*copelandii*		KU687447.1	yes	10.1017/S0024282916000347	526	Oppland, Lom, Norway

Rhizocarpon	*copelandii*	KU687455.1	yes	10.1017/S0024282916000347	526	Oppland, Dovre, Norway
Rhizocarpon	*copelandii*	KU687456.1	yes	10.1017/S0024282916000347	526	Hedmark, Tynset, Norway
Rhizocarpon	*copelandii*	MH481909.1	yes	unpublished	562	Kanto, Gunma Prefecture, japan
Rhizocarpon	*copelandii*	MH481926.1	yes	unpublished	561	Kanto, Gunma Prefecture, japan
Rhizocarpon	*disporum*	HQ650708.1	no	10.3852/10-234	570	Not informed
Rhizocarpon	*disporum*	KY680774.1	yes	10.1017/S0024282917000469	1092	Altai, Russia
Rhizocarpon	*disporum*	KY680783.1	yes	10.1017/S0024282917000469	1023	Altai, Russia
Rhizocarpon	*disporum*	MH979407.1	yes	unpublished	471	Not informed
Rhizocarpon	*disporum*	MH979408.1	yes	unpublished	471	Not informed
Rhizocarpon	*disporum*	MK629882.1	yes	unpublished	607	China
Rhizocarpon	*disporum*	MK629883.1	yes	unpublished	608	Not informed
Rhizocarpon	*distinctum*	AF483615.1	yes	10.1046/j.1095-8312.2002.00127.x	476	Norway
Rhizocarpon	*distinctum*	MN959977.1	no	unpublished	474	Not informed
Rhizocarpon	*geminatum*	AF483614.1	yes	10.1046/j.1095-8312.2002.00127.x	478	Norway
Rhizocarpon	*geminatum*	KP314320.1	yes	unpublished	526	Svalbard, Norway
Rhizocarpon	*geminatum*	KY266908.1	yes	unpublished	530	Finnmark, Vardo, Norway
Rhizocarpon	*geminatum*	MK629880.1	yes	unpublished	530	China
Rhizocarpon	*geographicum*	AF250805.1	no	10.1006/lich.2000.0297	478	Not informed
Rhizocarpon	*geographicum*	AF483619.1	yes	10.1046/j.1095-8312.2002.00127.x	474	Norway
Rhizocarpon	*geographicum*	DQ534482.1	yes	unpublished	663	Not informed
Rhizocarpon	*geographicum*	KP889168.1	no	10.1007/s00248-015-0579-6	198	Austria
Rhizocarpon	*geographicum*	KP889169.1	no	10.1007/s00248-015-0579-6	213	Austria
Rhizocarpon	*geographicum*	KP889170.1	no	10.1007/s00248-015-0579-6	198	Austria

Rhizocarpon	*geographicum*		KP889171.1	no	10.1007/s00248-015-0579-6	173	Austria
Rhizocarpon	*geographicum*		KP889172.1	no	10.1007/s00248-015-0579-6	202	Austria
Rhizocarpon	*geographicum*		KP889173.1	no	10.1007/s00248-015-0579-6	199	Austria
Rhizocarpon	*geographicum*		KP889174.1	no	10.1007/s00248-015-0579-6	203	Austria
Rhizocarpon	*geographicum*		KP889175.1	no	10.1007/s00248-015-0579-6	185	Austria
Rhizocarpon	*geographicum*		KX550103.1	yes	Identification of some lichenized fungi species of Erciyes Mountain (Kayseri/Turkey) by using ITS (rDNA) marker	574	Turkey
Rhizocarpon	*geographicum*		MH979411.1	yes	unpublished	468	Not informed
Rhizocarpon	*geographicum*		MN959973.1	no	unpublished	510	Not informed
Rhizocarpon	*grande*		NA				
Rhizocarpon	*nidificum*		DQ534483.2	yes	17082741	680	King George Island, Antarctica
Rhizocarpon	*polycarpum*		AF483616.1	yes	10.1046/j.1095-8312.2002.00127.x	470	Norway
Rhizocarpon	*superficiale*	subsp. superficiale	MH979404.1	yes	unpublished	473	Not informed
Rhizocarpon	*superficiale*	subsp. superficiale	MH979405.1	yes	unpublished	473	Not informed
Rhizocarpon	*superficiale*	subsp. superficiale	MH979406.1	yes	unpublished	473	Not informed
Rhizoplaca	*aspidophora*		DQ534484.2	yes	PMID: 17082741	702	Antarctica, King George Island
Rhizoplaca	*melanophthalma*		AF159929.1	no	10.1139/b00-006	505	USA, Arizona
Rhizoplaca	*melanophthalma*		AF159934.1	no	10.1139/b00-006	508	USA, Arizona
Rhizoplaca	*melanophthalma*		AF159935.1	no	10.1139/b00-006	507	Austria
Rhizoplaca	*melanophthalma*		AY509791.1	yes	10.1080/15572536.2006.11832713	775	China, Xinjiang
Rhizoplaca	*melanophthalma*		DQ321747.1	yes	10.1515/znc-2006-5-617	528	Turkey

Rhizoplaca	*melanophthalma*	HM577258.1	yes	10.1016/j.ympev.2011.03.020	546	USA
Rhizoplaca	*melanophthalma*	HM577259.1	yes	10.1016/j.ympev.2011.03.020	546	USA
Rhizoplaca	*melanophthalma*	HM577260.1	yes	10.1016/j.ympev.2011.03.020	546	USA
Rhizoplaca	*melanophthalma*	HM577261.1	yes	10.1016/j.ympev.2011.03.020	546	USA
Rhizoplaca	*melanophthalma*	HM577262.1	yes	10.1016/j.ympev.2011.03.020	549	USA
Rhizoplaca	*melanophthalma*	HM577263.1	yes	10.1016/j.ympev.2011.03.020	546	USA
Rhizoplaca	*melanophthalma*	HM577264.1	yes	10.1016/j.ympev.2011.03.020	546	USA
Rhizoplaca	*melanophthalma*	HM577265.1	yes	10.1016/j.ympev.2011.03.020	549	USA
Rhizoplaca	*melanophthalma*	HM577266.1	yes	10.1016/j.ympev.2011.03.020	546	USA
Rhizoplaca	*melanophthalma*	HM577267.1	yes	10.1016/j.ympev.2011.03.020	546	USA
Rhizoplaca	*melanophthalma*	HM577268.1	yes	10.1016/j.ympev.2011.03.020	546	USA
Rhizoplaca	*melanophthalma*	HM577269.1	yes	10.1016/j.ympev.2011.03.020	546	USA
Rhizoplaca	*melanophthalma*	HM577270.1	yes	10.1016/j.ympev.2011.03.020	546	USA
Rhizoplaca	*melanophthalma*	HM577271.1	yes	10.1016/j.ympev.2011.03.020	546	USA
Rhizoplaca	*melanophthalma*	HM577272.1	yes	10.1016/j.ympev.2011.03.020	546	USA
Rhizoplaca	*melanophthalma*	HM577273.1	yes	10.1016/j.ympev.2011.03.020	546	USA
Rhizoplaca	*melanophthalma*	HM577274.1	yes	10.1016/j.ympev.2011.03.020	547	USA
Rhizoplaca	*melanophthalma*	HM577275.1	yes	10.1016/j.ympev.2011.03.020	546	USA
Rhizoplaca	*melanophthalma*	HM577276.1	yes	10.1016/j.ympev.2011.03.020	547	USA
Rhizoplaca	*melanophthalma*	HM577277.1	yes	10.1016/j.ympev.2011.03.020	546	USA
Rhizoplaca	*melanophthalma*	HM577278.1	yes	10.1016/j.ympev.2011.03.020	546	USA
Rhizoplaca	*melanophthalma*	HM577279.1	yes	10.1016/j.ympev.2011.03.020	549	USA
Rhizoplaca	*melanophthalma*	HM577280.1	yes	10.1016/j.ympev.2011.03.020	546	USA
Rhizoplaca	*melanophthalma*	HM577281.1	yes	10.1016/j.ympev.2011.03.020	549	USA
Rhizoplaca	*melanophthalma*	HM577300.1	yes	10.1016/j.ympev.2011.03.020	547	USA
Rhizoplaca	*melanophthalma*	JN873909.2	yes	10.1127/0029-5035/2012/0017	506	Antarctica, Victoria Land
Rhizoplaca	*melanophthalma*	JN873910.2	yes	10.1127/0029-5035/2012/0017	505	Switzerland, Wallis
Rhizoplaca	*melanophthalma*	JX948229.1	yes	10.1111/jbi.12183	505	USA

Rhizoplaca	*melanophthalma*	JX948230.1	yes	10.1111/jbi.12182	505	USA
Rhizoplaca	*melanophthalma*	JX948231.1	yes	10.1111/jbi.12181	505	USA
Rhizoplaca	*melanophthalma*	JX948232.1	yes	10.1111/jbi.12180	505	Spain
Rhizoplaca	*melanophthalma*	JX948233.1	yes	10.1111/jbi.12179	505	Spain
Rhizoplaca	*melanophthalma*	JX948234.1	yes	10.1111/jbi.12178	505	Chile
Rhizoplaca	*melanophthalma*	JX948235.1	yes	10.1111/jbi.12177	505	Chile
Rhizoplaca	*melanophthalma*	JX948236.1	yes	10.1111/jbi.12176	505	Chile
Rhizoplaca	*melanophthalma*	JX948237.1	yes	10.1111/jbi.12175	505	China
Rhizoplaca	*melanophthalma*	JX948238.1	yes	10.1111/jbi.12174	505	Spain
Rhizoplaca	*melanophthalma*	JX948239.1	yes	10.1111/jbi.12173	505	USA
Rhizoplaca	*melanophthalma*	JX948240.1	yes	10.1111/jbi.12172	505	Chile
Rhizoplaca	*melanophthalma*	JX948241.1	yes	10.1111/jbi.12171	505	Spain
Rhizoplaca	*melanophthalma*	JX948242.1	yes	10.1111/jbi.12170	505	USA
Rhizoplaca	*melanophthalma*	JX948243.1	yes	10.1111/jbi.12169	505	USA
Rhizoplaca	*melanophthalma*	JX948244.1	yes	10.1111/jbi.12168	505	USA
Rhizoplaca	*melanophthalma*	JX948245.1	yes	10.1111/jbi.12167	505	Spain
Rhizoplaca	*melanophthalma*	JX948246.1	yes	10.1111/jbi.12166	505	USA
Rhizoplaca	*melanophthalma*	JX948247.1	yes	10.1111/jbi.12165	505	Spain
Rhizoplaca	*melanophthalma*	JX948248.1	yes	10.1111/jbi.12164	505	Spain
Rhizoplaca	*melanophthalma*	JX948249.1	yes	10.1111/jbi.12163	505	China
Rhizoplaca	*melanophthalma*	JX948250.1	yes	10.1111/jbi.12162	505	Spain
Rhizoplaca	*melanophthalma*	JX948251.1	yes	10.1111/jbi.12161	505	USA
Rhizoplaca	*melanophthalma*	JX948252.1	yes	10.1111/jbi.12160	505	USA
Rhizoplaca	*melanophthalma*	JX948253.1	yes	10.1111/jbi.12159	505	Spain
Rhizoplaca	*melanophthalma*	JX948254.1	yes	10.1111/jbi.12158	505	Chile
Rhizoplaca	*melanophthalma*	JX948255.1	yes	10.1111/jbi.12157	505	Spain
Rhizoplaca	*melanophthalma*	JX948256.1	yes	10.1111/jbi.12156	505	Spain
Rhizoplaca	*melanophthalma*	JX948257.1	yes	10.1111/jbi.12155	505	USA
Rhizoplaca	*melanophthalma*	JX948258.1	yes	10.1111/jbi.12154	505	USA

Rhizoplaca	*melanophthalma*	JX948259.1	yes	10.1111/jbi.12153	505	Spain
Rhizoplaca	*melanophthalma*	JX948260.1	yes	10.1111/jbi.12152	508	Chile
Rhizoplaca	*melanophthalma*	JX948261.1	yes	10.1111/jbi.12151	505	USA
Rhizoplaca	*melanophthalma*	JX948262.1	yes	10.1111/jbi.12150	505	USA
Rhizoplaca	*melanophthalma*	JX948263.1	yes	10.1111/jbi.12149	505	USA
Rhizoplaca	*melanophthalma*	JX948264.1	yes	10.1111/jbi.12148	505	USA
Rhizoplaca	*melanophthalma*	JX948265.1	yes	10.1111/jbi.12147	505	USA
Rhizoplaca	*melanophthalma*	JX948266.1	yes	10.1111/jbi.12146	505	USA
Rhizoplaca	*melanophthalma*	JX948267.1	yes	10.1111/jbi.12145	505	USA
Rhizoplaca	*melanophthalma*	JX948268.1	yes	10.1111/jbi.12144	564	USA
Rhizoplaca	*melanophthalma*	JX948269.1	yes	10.1111/jbi.12143	564	Kazakhstan
Rhizoplaca	*melanophthalma*	JX948270.1	yes	10.1111/jbi.12142	564	Iran
Rhizoplaca	*melanophthalma*	JX948271.1	yes	10.1111/jbi.12141	564	Iran
Rhizoplaca	*melanophthalma*	JX948272.1	yes	10.1111/jbi.12140	564	Kyrgyzstan
Rhizoplaca	*melanophthalma*	JX948273.1	yes	10.1111/jbi.12139	564	Iran
Rhizoplaca	*melanophthalma*	JX948274.1	yes	10.1111/jbi.12138	564	Iran
Rhizoplaca	*melanophthalma*	JX948275.1	yes	10.1111/jbi.12137	564	Iran
Rhizoplaca	*melanophthalma*	JX948276.1	yes	10.1111/jbi.12136	564	Iran
Rhizoplaca	*melanophthalma*	JX948277.1	yes	10.1111/jbi.12135	564	Iran
Rhizoplaca	*melanophthalma*	JX948278.1	yes	10.1111/jbi.12134	564	Iran
Rhizoplaca	*melanophthalma*	JX948279.1	yes	10.1111/jbi.12133	564	Iran
Rhizoplaca	*melanophthalma*	JX948280.1	yes	10.1111/jbi.12132	564	Iran
Rhizoplaca	*melanophthalma*	JX948281.1	yes	10.1111/jbi.12131	564	Iran
Rhizoplaca	*melanophthalma*	JX948282.1	yes	10.1111/jbi.12130	564	Iran
Rhizoplaca	*melanophthalma*	JX948283.1	yes	10.1111/jbi.12129	564	Iran
Rhizoplaca	*melanophthalma*	JX948284.1	yes	10.1111/jbi.12128	564	Kyrgyzstan
Rhizoplaca	*melanophthalma*	JX948285.1	yes	10.1111/jbi.12127	564	Czech Republic
Rhizoplaca	*melanophthalma*	JX948286.1	yes	10.1111/jbi.12126	564	Czech Republic
Rhizoplaca	*melanophthalma*	JX948287.1	yes	10.1111/jbi.12125	564	Iran

Rhizoplaca	*melanophthalma*	JX948288.1	yes	10.1111/jbi.12124	564	Kyrgyzstan
Rhizoplaca	*melanophthalma*	JX948289.1	yes	10.1111/jbi.12123	564	Chile
Rhizoplaca	*melanophthalma*	JX948290.1	yes	10.1111/jbi.12122	564	Iran
Rhizoplaca	*melanophthalma*	JX948291.1	yes	10.1111/jbi.12121	565	Czech Republic
Rhizoplaca	*melanophthalma*	JX948292.1	yes	10.1111/jbi.12120	565	Iran
Rhizoplaca	*melanophthalma*	JX948293.1	yes	10.1111/jbi.12119	526	Russia
Rhizoplaca	*melanophthalma*	JX948294.1	yes	10.1111/jbi.12118	506	USA
Rhizoplaca	*melanophthalma*	KP314423.1	yes	unpublished	552	Norway, Svalbard
Rhizoplaca	*melanophthalma*	KU934656.1	yes	10.1016/j.ympev.2016.03.030	564	USA
Rhizoplaca	*melanophthalma*	KU934657.1	yes	10.1016/j.ympev.2016.03.030	564	USA
Rhizoplaca	*melanophthalma*	KU934658.1	yes	10.1016/j.ympev.2016.03.030	564	Turkey
Rhizoplaca	*melanophthalma*	KU934659.1	yes	10.1016/j.ympev.2016.03.030	564	Russia
Rhizoplaca	*melanophthalma*	KU934660.1	yes	10.1016/j.ympev.2016.03.030	564	Russia
Rhizoplaca	*melanophthalma*	KU934661.1	yes	10.1016/j.ympev.2016.03.030	564	Russia
Rhizoplaca	*melanophthalma*	KU934662.1	yes	10.1016/j.ympev.2016.03.030	564	Russia
Rhizoplaca	*melanophthalma*	KU934663.1	yes	10.1016/j.ympev.2016.03.030	564	Russia
Rhizoplaca	*melanophthalma*	KU934664.1	yes	10.1016/j.ympev.2016.03.030	564	Russia
Rhizoplaca	*melanophthalma*	KU934665.1	yes	10.1016/j.ympev.2016.03.030	564	Russia
Rhizoplaca	*melanophthalma*	KU934666.1	yes	10.1016/j.ympev.2016.03.030	564	Russia
Rhizoplaca	*melanophthalma*	KU934667.1	yes	10.1016/j.ympev.2016.03.030	564	Russia
Rhizoplaca	*melanophthalma*	KU934668.1	yes	10.1016/j.ympev.2016.03.030	564	Kazakhstan
Rhizoplaca	*melanophthalma*	KU934669.1	yes	10.1016/j.ympev.2016.03.030	564	Kazakhstan
Rhizoplaca	*melanophthalma*	KU934670.1	yes	10.1016/j.ympev.2016.03.030	564	Kazakhstan
Rhizoplaca	*melanophthalma*	KU934671.1	yes	10.1016/j.ympev.2016.03.030	564	USA
Rhizoplaca	*melanophthalma*	KU934672.1	yes	10.1016/j.ympev.2016.03.030	563	USA
Rhizoplaca	*melanophthalma*	KU934673.1	yes	10.1016/j.ympev.2016.03.030	564	USA
Rhizoplaca	*melanophthalma*	KU934674.1	yes	10.1016/j.ympev.2016.03.030	564	USA
Rhizoplaca	*melanophthalma*	KU934675.1	yes	10.1016/j.ympev.2016.03.030	564	USA
Rhizoplaca	*melanophthalma*	KU934676.1	yes	10.1016/j.ympev.2016.03.030	564	USA

Rhizoplaca	*melanophthalma*	KU934677.1	yes	10.1016/j.ympev.2016.03.030	564	USA
Rhizoplaca	*melanophthalma*	KU934678.1	yes	10.1016/j.ympev.2016.03.030	564	USA
Rhizoplaca	*melanophthalma*	KU934679.1	yes	10.1016/j.ympev.2016.03.030	564	USA
Rhizoplaca	*melanophthalma*	KU934680.1	yes	10.1016/j.ympev.2016.03.030	563	USA
Rhizoplaca	*melanophthalma*	KU934681.1	yes	10.1016/j.ympev.2016.03.030	564	USA
Rhizoplaca	*melanophthalma*	KU934682.1	yes	10.1016/j.ympev.2016.03.030	565	USA
Rhizoplaca	*melanophthalma*	KU934683.1	yes	10.1016/j.ympev.2016.03.030	564	USA
Rhizoplaca	*melanophthalma*	KU934684.1	yes	10.1016/j.ympev.2016.03.030	564	USA
Rhizoplaca	*melanophthalma*	KU934685.1	yes	10.1016/j.ympev.2016.03.030	564	USA
Rhizoplaca	*melanophthalma*	KU934686.1	yes	10.1016/j.ympev.2016.03.030	564	USA
Rhizoplaca	*melanophthalma*	KU934687.1	yes	10.1016/j.ympev.2016.03.030	564	USA
Rhizoplaca	*melanophthalma*	KU934688.1	yes	10.1016/j.ympev.2016.03.030	564	USA
Rhizoplaca	*melanophthalma*	KU934689.1	yes	10.1016/j.ympev.2016.03.030	564	USA
Rhizoplaca	*melanophthalma*	KU934690.1	yes	10.1016/j.ympev.2016.03.030	564	USA
Rhizoplaca	*melanophthalma*	KU934691.1	yes	10.1016/j.ympev.2016.03.030	564	USA
Rhizoplaca	*melanophthalma*	KU934692.1	yes	10.1016/j.ympev.2016.03.030	564	USA
Rhizoplaca	*melanophthalma*	KU934694.1	yes	10.1016/j.ympev.2016.03.030	534	USA
Rhizoplaca	*melanophthalma*	KU934695.1	yes	10.1016/j.ympev.2016.03.030	534	USA
Rhizoplaca	*melanophthalma*	KU934696.1	yes	10.1016/j.ympev.2016.03.030	535	USA
Rhizoplaca	*melanophthalma*	KU934697.1	yes	10.1016/j.ympev.2016.03.030	529	USA
Rhizoplaca	*melanophthalma*	KU934698.1	yes	10.1016/j.ympev.2016.03.030	534	USA
Rhizoplaca	*melanophthalma*	MK811669.1	yes	10.3897/BDJ.7.e36252	513	Norway, Oppland
Rhizoplaca	*melanophthalma*	MK812478.1	yes	10.3897/BDJ.7.e36252	527	Norway, Finnmark
Rhizoplaca	*melanophthalma*	MN756823.1	yes	10.1186/s12862-019-1571-4#Sec13	11062	USA, Nevada
Rhizoplaca	*melanophthalma*	MN756824.1	yes	10.1186/s12862-019-1571-4#Sec13	11203	USA, Utah
Rhizoplaca	*melanophthalma*	MN756825.1	yes	10.1186/s12862-019-1571-4#Sec13	11071	USA, Utah

Rhizoplaca	*melanophthalma*		MN756826.1	yes	10.1186/s12862-019-1571-4#Sec13	11121	USA, Utah
Rhizoplaca	*melanophthalma*		MN756827.1	yes	10.1186/s12862-019-1571-4#Sec13	11121	USA, Utah
Rhizoplaca	*melanophthalma*		MN756833.1	yes	10.1186/s12862-019-1571-4#Sec13	11075	USA, Colorado
Rhizoplaca	*melanophthalma*		MN764258.1	yes	10.1186/s12862-019-1571-4	503	Not informed
Rhizoplaca	*melanophthalma*		MN764259.1	yes	10.1186/s12862-019-1571-4	505	Not informed
Rhizoplaca	*melanophthalma*		MN764260.1	yes	10.1186/s12862-019-1571-4	505	Not informed
Rhizoplaca	*melanophthalma*		MN764264.1	yes	10.1186/s12862-019-1571-4	505	Not informed
Rhizoplaca	*melanophthalma*		MN764265.1	yes	10.1186/s12862-019-1571-4	505	Not informed
Rhizoplaca	*melanophthalma*		MN764266.1	yes	10.1186/s12862-019-1571-4	505	Not informed
Rhizoplaca	*melanophthalma*		MN764269.1	yes	10.1186/s12862-019-1571-4	505	Not informed
Rhizoplaca	*melanophthalma*		MN764278.1	yes	10.1186/s12862-019-1571-4	505	Not informed
Rhizoplaca	*melanophthalma*		MN764279.1	yes	10.1186/s12862-019-1571-4	505	Not informed
Rhizoplaca	*melanophthalma*		MN764282.1	yes	10.1186/s12862-019-1571-4	507	Not informed
Rhizoplaca	*melanophthalma*		MN764283.1	yes	10.1186/s12862-019-1571-4	505	Not informed
Rhizoplaca	*melanophthalma*		NR_120221.1	yes	10.1093/database/bau061	505	Spain
Rinodina	*mniaroea*	var. mniaroea	AF250811.1	no	10.1006/lich.2000.0297	494	Not informed
Rinodina	*mniaroea*	var. mniaroea	KX015687.1	yes	10.1017/S0024282916000359	461	USA
Rinodina	*mniaroea*	var. mniaroea	KX015692.1	yes	10.1017/S0024282916000359	452	USA
Rinodina	*mniaroea*	var. mniaroea	MK812098.1	yes	10.3897/BDJ.7.e36252	544	Norway, Svalbard
Rinodina	*olivaceobrunnea*		AF540547.1	yes	10.1080/15572536.2004.11833022	475	Antarctica, Lagoon Island
Rinodina	*peloleuca*		DQ849314.1	yes	unpublished	386	New Zealand, Otago
Rinodina	*turfacea*		AF224362.1	yes	10.1080/00275514.2000.12061212	510	Not informed

Shackletonia	*buelliae*	KC179117.1	yes	10.1111/j.1756-1051.2013.00062.x	561	South Shetland Islands, Antarctica
Shackletonia	*hertelii*	KC179118.1	yes	10.1111/j.1756-1051.2013.00062.x	510	Chile
Shackletonia	*insignis*	KC179119.1	yes	10.1111/j.1756-1051.2013.00062.x	561	South Shetland Islands, Antarctica
Shackletonia	*sauronii*	KC179120.1	yes	10.1111/j.1756-1051.2013.00062.x	541	South Shetland Islands, Antarctica
Shackletonia	*siphonospora*	KC179121.1	yes	10.1111/j.1756-1051.2013.00062.x	512	South Shetland Islands, Antarctica
Sphaerophorus	*globosus*	AF282129.1	yes	10.1017/S0953756201004269	497	Not informed
Sphaerophorus	*globosus*	AY256768.1	yes	10.1016/S0748-3007(03)00028-8	1133	North West Territory, Canada
Sphaerophorus	*globosus*	AY256769.1	yes	10.1016/S0748-3007(03)00028-8	1123	Iceland
Sphaerophorus	*globosus*	AY256770.1	yes	10.1016/S0748-3007(03)00028-8	1108	Siberia, Russia
Sphaerophorus	*globosus*	AY256771.1	yes	10.1016/S0748-3007(03)00028-8	1116	Tierra del Fuego, Argentina
Sphaerophorus	*globosus*	AY256772.1	yes	10.1016/S0748-3007(03)00028-8	1114	Tierra del Fuego, Argentina
Sphaerophorus	*globosus*	AY256773.1	yes	10.1016/S0748-3007(03)00028-8	1118	Austria
Sphaerophorus	*globosus*	AY256774.1	yes	10.1016/S0748-3007(03)00028-8	1118	UK
Sphaerophorus	*globosus*	AY256775.1	yes	10.1016/S0748-3007(03)00028-8	1134	Sweden
Sphaerophorus	*globosus*	AY256776.1	yes	10.1016/S0748-3007(03)00028-8	1116	British Columbia, Canada
Sphaerophorus	*globosus*	AY256777.1	yes	10.1016/S0748-3007(03)00028-8	1130	British Columbia, Canada

Sphaerophorus	*globosus*	AY256778.1	yes	10.1016/S0748-3007(03)00028-8	1118	Alaska, USA
Sphaerophorus	*globosus*	AY256779.1	yes	10.1016/S0748-3007(03)00028-8	1126	Alaska, USA
Sphaerophorus	*globosus*	AY256780.1	yes	10.1016/S0748-3007(03)00028-8	1110	British Columbia, Canada
Sphaerophorus	*globosus*	DQ219312.1	yes	unpublished	682	Antarctica
Sphaerophorus	*globosus*	DQ534485.2	yes	17082741	699	King George Island, Antarctica
Sphaerophorus	*globosus*	HQ650622.1	no	10.3852/10-234	569	Not informed
Sphaerophorus	*globosus*	KY266841.1	yes	10.3897/mycokeys.11.6670	548	Finnmark, Vardo, Norway
Sphaerophorus	*globosus*	KY266859.1	yes	10.3897/mycokeys.11.6670	583	Finnmark, Sor-Varanger, Norway
Sphaerophorus	*globosus*	KY266898.1	yes	10.3897/mycokeys.11.6670	583	Finnmark, Vardo, Norway
Sphaerophorus	*globosus*	MK811761.1	yes	10.3897/BDJ.7.e36252	548	Sor-Trondelag, Orland, Norway
Sphaerophorus	*globosus*	MK811784.1	yes	10.3897/BDJ.7.e36252	548	Troms, Balsfjord, Norway
Sphaerophorus	*globosus*	MK812327.1	yes	10.3897/BDJ.7.e36252	548	Nord-Trondelag, Flatanger, Norway
Sphaerophorus	*globosus*	MK812575.1	yes	10.3897/BDJ.7.e36252	548	Telemark, Tinn, Atra, Norway
Sphaerophorus	*globosus*	MK812694.1	yes	10.3897/BDJ.7.e36252	548	Oslo, Oslo, Norway
Sphaerophorus	*globosus*	MN483149.1	yes	unpublished	556	Nord-Troendelag, Flatanger, Norway
Sporastatia	*polyspora*	NA				
Sporastatia	*testudinea*	MN483151.1	yes	unpublished	511	Alaska, Mt. Healy, USA
Staurothele	*frustulenta*	DQ826736.1	yes	10.1038/nature05110	819	Not informed
Staurothele	*frustulenta*	KC990385.1	no	10.1890/13-0253.1	580	Silver City, USA

Staurothele	*frustulenta*	KY697133.1	yes	10.11646/phytotaxa.306.1.3	838	Greenland
Staurothele	*frustulenta*	KY697134.1	yes	10.11646/phytotaxa.306.1.3	842	Iceland
Staurothele	*gelida*	NA				
Steinera	*intricata*	MF893082.1	yes	10.11646/phytotaxa.324.3.1	478	Not informed
Steinera	*intricata*	MH717151.1	yes	10.1007/s00300-019-02486-18	477	Antarctica, James Ross Island
Steinera	*intricata*	MH717152.1	yes	10.1007/s00300-019-02486-17	477	Antarctica, Charcot Island
Steinera	*intricata*	MH717153.1	yes	10.1007/s00300-019-02486-16	476	Antarctica, King George
Steinera	*intricata*	MH717154.1	yes	10.1007/s00300-019-02486-15	477	Antarctica, King George
Steinera	*intricata*	MH717155.1	yes	10.1007/s00300-019-02486-14	477	Antarctica, Greenwish Island
Steinera	*intricata*	MH717156.1	yes	10.1007/s00300-019-02486-13	476	Antarctica, King George
Steinera	*intricata*	MH717157.1	yes	10.1007/s00300-019-02486-12	477	Antarctica, King George
Steinera	*intricata*	MH717158.1	yes	10.1007/s00300-019-02486-11	477	Antarctica, King George
Steinera	*intricata*	MH717159.1	yes	10.1007/s00300-019-02486-10	476	Argentina, Tierra del Fuego National Park
Steinera	*intricata*	MH717160.1	yes	10.1007/s00300-019-02486-9	476	Antarctica, King George
Steinera	*intricata*	MH717161.1	yes	10.1007/s00300-019-02486-8	477	Antarctica, King George
Steinera	*intricata*	MH717162.1	yes	10.1007/s00300-019-02486-7	477	Antarctica, King George
Steinera	*intricata*	MH717163.1	yes	10.1007/s00300-019-02486-6	477	Antarctica, Livingston Island
Steinera	*intricata*	MH717164.1	yes	10.1007/s00300-019-02486-5	477	Antarctica
Steinera	*intricata*	MH717165.1	yes	10.1007/s00300-019-02486-4	476	Antarctica

Steinera	*intricata*	MH717166.1	yes	10.1007/s00300-019-02486-4	476	Argentina, Tierra del Fuego National Park
Steinera	*intricata*	MH717167.1	yes	10.1007/s00300-019-02486-4	577	Antarctica, Livingston Island
Steinera	*olechiana*	NA				
Stereocaulon	*alpinum*	DQ219308.1	yes	unpublished	757	Antarctica
Stereocaulon	*alpinum*	DQ396898.1	yes	10.1016/j.mycres.2006.04.013	549	Italy
Stereocaulon	*alpinum*	DQ396900.1	yes	10.1016/j.mycres.2006.04.013	547	Tierra del Fuego, Argentina
Stereocaulon	*alpinum*	DQ396903.1	yes	10.1016/j.mycres.2006.04.013	548	Tierra del Fuego, Argentina
Stereocaulon	*alpinum*	DQ396915.1	yes	10.1016/j.mycres.2006.04.013	549	Tierra del Fuego, Argentina
Stereocaulon	*alpinum*	DQ396917.1	yes	10.1016/j.mycres.2006.04.013	549	Tierra del Fuego, Argentina
Stereocaulon	*alpinum*	DQ396960.1	yes	10.1016/j.mycres.2006.04.013	525	Austria
Stereocaulon	*alpinum*	DQ534486.2	yes	17082741	740	King George Island, Antarctica
Stereocaulon	*alpinum*	EU161238.1	yes	10.1007/s00300-007-0394-8	1527	King George Island, Antarctica
Stereocaulon	*alpinum*	KP314300.1	yes	unpublished	593	Svalbard, Norway
Stereocaulon	*alpinum*	KP314311.1	yes	unpublished	594	Svalbard, Norway
Stereocaulon	*alpinum*	KP314313.1	yes	unpublished	594	Svalbard, Norway
Stereocaulon	*alpinum*	KP314314.1	yes	unpublished	594	Svalbard, Norway
Stereocaulon	*alpinum*	KP314315.1	yes	unpublished	594	Svalbard, Norway
Stereocaulon	*alpinum*	KP314316.1	yes	unpublished	594	Svalbard, Norway
Stereocaulon	*alpinum*	KP314318.1	yes	unpublished	594	Svalbard, Norway
Stereocaulon	*alpinum*	KP314399.1	yes	unpublished	594	Svalbard, Norway
Stereocaulon	*alpinum*	KP314402.1	yes	unpublished	594	Svalbard, Norway
Stereocaulon	*alpinum*	KP314428.1	yes	unpublished	594	Svalbard, Norway

Stereocaulon	*alpinum*		KP314430.1	yes	unpublished	594	Svalbard, Norway
Stereocaulon	*alpinum*		KP314431.1	yes	unpublished	594	Svalbard, Norway
Stereocaulon	*alpinum*		KP314453.1	yes	unpublished	594	Svalbard, Norway
Stereocaulon	*alpinum*		KP314454.1	yes	unpublished	593	Svalbard, Norway
Stereocaulon	*alpinum*		KP314456.1	yes	unpublished	594	Svalbard, Norway
Stereocaulon	*alpinum*		MK812253.1	yes	10.3897/BDJ.7.e36252	595	Telemark, Vinje, Haukeligrend, Norway
Stereocaulon	*antarcticum*		NA				
Stereocaulon	*glabrum*		DQ396901.1	yes	10.1016/j.mycres.2006.04.013	545	Tierra del Fuego, Argentina
Stereocaulon	*glabrum*		DQ396902.1	yes	10.1016/j.mycres.2006.04.013	547	Tierra del Fuego, Argentina
Stereocaulon	*glabrum*		DQ396906.1	yes	10.1016/j.mycres.2006.04.013	547	Tierra del Fuego, Argentina
Stereocaulon	*glabrum*		DQ396909.1	yes	10.1016/j.mycres.2006.04.013	546	Tierra del Fuego, Argentina
Stereocaulon	*glabrum*		DQ396910.1	yes	10.1016/j.mycres.2006.04.013	548	Tierra del Fuego, Argentina
Stereocaulon	*glabrum*		DQ396911.1	yes	10.1016/j.mycres.2006.04.013	548	Tierra del Fuego, Argentina
Stereocaulon	*glabrum*		DQ396912.1	yes	10.1016/j.mycres.2006.04.013	530	Tierra del Fuego, Argentina
Stereocaulon	*vesuvianum*		DQ396925.1	yes	10.1016/j.mycres.2006.04.013	544	Finland
Stereocaulon	*vesuvianum*		KP314339.1	yes	unpublished	589	Svalbard, Norway
Stereocaulon	*vesuvianum*		KP314353.1	yes	unpublished	590	Svalbard, Norway
Stereocaulon	*vesuvianum*		MN596986.1	yes	unpublished	533	Canada
Stereocaulon	*vesuvianum*		MN596987.1	yes	unpublished	533	Canada
Tephromela	*atra*	var. atra	AY398699.1	no	unpublished	788	Greece
Tephromela	*atra*	var. atra	AY541279.1	yes	10.1007/s13225-013-0271-4	517	France
Tephromela	*atra*	var. atra	DQ394396.1	yes	10.1007/s13225-013-0271-4	490	France
Tephromela	*atra*	var. atra	DQ534487.2	yes	10.1007/s13225-013-0271-4	425	France

Tephromela	*atra*	var. atra	EU558593.1	yes	10.1007/s11557-008-0560-6	517	Austria
Tephromela	*atra*	var. atra	EU558594.1	yes	10.1007/s13225-013-0271-4	515	Finland
Tephromela	*atra*	var. atra	EU558595.1	yes	10.1007/s13225-013-0271-4	515	Finland
Tephromela	*atra*	var. atra	EU558596.1	yes	10.1007/s13225-013-0271-4	515	Estonia
Tephromela	*atra*	var. atra	EU558597.1	yes	10.1007/s13225-013-0271-4	516	Bulgaria
Tephromela	*atra*	var. atra	EU558598.1	yes	10.1007/s13225-013-0271-4	517	Bulgaria
Tephromela	*atra*	var. atra	EU558599.1	yes	10.1007/s13225-013-0271-4	517	Bulgaria
Tephromela	*atra*	var. atra	EU558600.1	yes	10.1007/s13225-013-0271-4	518	Bulgaria
Tephromela	*atra*	var. atra	EU558601.1	yes	10.1007/s13225-013-0271-4	518	Austria
Tephromela	*atra*	var. atra	EU558602.1	yes	10.1007/s13225-013-0271-4	518	Austria
Tephromela	*atra*	var. atra	EU558603.1	no	unpublished	789	Greece
Tephromela	*atra*	var. atra	EU558642.1	yes	10.1007/s13225-013-0271-4	516	Austria
Tephromela	*atra*	var. atra	EU558643.1	yes	10.1007/s13225-013-0271-4	517	Austria
Tephromela	*atra*	var. atra	EU558644.1	yes	10.1007/s13225-013-0271-4	517	Austria
Tephromela	*atra*	var. atra	EU558646.1	yes	10.1007/s13225-013-0271-4	514	USA: Alaska
Tephromela	*atra*	var. atra	EU558647.1	yes	10.1007/s13225-013-0271-4	516	USA: Alaska
Tephromela	*atra*	var. atra	EU558648.1	yes	10.1007/s13225-013-0271-4	516	USA: Alaska
Tephromela	*atra*	var. atra	EU558649.1	yes	10.1007/s13225-013-0271-4	517	USA
Tephromela	*atra*	var. atra	EU558650.1	yes	10.1007/s13225-013-0271-4	414	USA
Tephromela	*atra*	var. atra	EU558655.1	yes	10.1007/s13225-013-0271-4	448	USA
Tephromela	*atra*	var. atra	EU558656.1	yes	10.1007/s13225-013-0271-4	517	Russia
Tephromela	*atra*	var. atra	EU558661.1	yes	10.1007/s13225-013-0271-4	516	Spain
Tephromela	*atra*	var. atra	EU558662.1	yes	10.1007/s11557-008-0560-6	573	Italy
Tephromela	*atra*	var. atra	EU558663.1	yes	10.1007/s11557-008-0560-6	517	Greece
Tephromela	*atra*	var. atra	EU558668.1	yes	10.1007/s11557-008-0560-6	510	Greece
Tephromela	*atra*	var. atra	EU558672.1	yes	10.1007/s11557-008-0560-6	514	Greece
Tephromela	*atra*	var. atra	EU558675.1	yes	10.1007/s11557-008-0560-6	516	Greece
Tephromela	*atra*	var. atra	EU558676.1	yes	10.1007/s11557-008-0560-6	516	Greece
Tephromela	*atra*	var. atra	EU558677.1	yes	10.1007/s11557-008-0560-6	515	Greece

Tephromela	*atra*	var. atra	EU558678.1	yes	10.1007/s11557-008-0560-6	516	Greece
Tephromela	*atra*	var. atra	EU558684.1	yes	10.1007/s11557-008-0560-6	515	Italy
Tephromela	*atra*	var. atra	EU558685.1	yes	10.1007/s11557-008-0560-6	498	Italy
Tephromela	*atra*	var. atra	EU558686.1	yes	10.1007/s11557-008-0560-6	519	Italy
Tephromela	*atra*	var. atra	EU558687.1	yes	10.1007/s11557-008-0560-6	516	Italy
Tephromela	*atra*	var. atra	EU558688.1	yes	10.1007/s11557-008-0560-6	458	Italy
Tephromela	*atra*	var. atra	EU558689.1	yes	10.1007/s11557-008-0560-6	505	Italy
Tephromela	*atra*	var. atra	EU558690.1	yes	10.1007/s11557-008-0560-6	413	Italy
Tephromela	*atra*	var. atra	EU558691.1	yes	10.1007/s13225-013-0271-4	514	Finland
Tephromela	*atra*	var. atra	HQ650606.1	yes	10.1007/s13225-013-0271-4	516	Finland
Tephromela	*atra*	var. atra	HQ650607.1	yes	10.1007/s13225-013-0271-4	515	Finland
Tephromela	*atra*	var. atra	HQ650608.1	yes	10.1007/s13225-013-0271-4	515	Finland
Tephromela	*atra*	var. atra	JF744986.1	yes	10.1007/s13225-013-0271-4	428	France
Tephromela	*atra*	var. atra	KF712264.1	no	unpublished	585	Greece
Tephromela	*atra*	var. atra	KF730516.1	no	unpublished	766	Greece
Tephromela	*atra*	var. atra	KF730517.1	no	unpublished	798	Greece
Tephromela	*atra*	var. atra	KF730518.1	no	unpublished	796	Greece
Tephromela	*atra*	var. atra	KF730519.1	no	unpublished	591	Greece
Tephromela	*atra*	var. atra	KF730520.1	no	unpublished	625	Greece
Tephromela	*atra*	var. atra	KF730521.1	no	unpublished	787	Greece
Tephromela	*atra*	var. atra	KF730522.1	no	unpublished	853	Greece
Tephromela	*atra*	var. atra	KF730523.1	no	unpublished	774	Greece
Tephromela	*atra*	var. atra	KF730524.1	no	unpublished	789	Greece
Tephromela	*atra*	var. atra	KF730525.1	no	unpublished	793	Greece
Tephromela	*atra*	var. atra	KF730526.1	no	unpublished	435	Greece
Tephromela	*atra*	var. atra	KF730527.1	no	unpublished	795	Greece
Tephromela	*atra*	var. atra	KF730528.1	no	unpublished	728	Greece
Tephromela	*atra*	var. atra	KF730529.1	no	unpublished	789	Greece
Tephromela	*atra*	var. atra	KF730530.1	no	unpublished	784	Greece

Tephromela	*atra*	var. atra	KF730531.1	no	unpublished	522	Greece
Tephromela	*atra*	var. atra	KF730532.1	no	unpublished	462	Greece
Tephromela	*atra*	var. atra	KF730533.1	no	unpublished	641	Greece
Tephromela	*atra*	var. atra	KF730534.1	no	unpublished	627	Greece
Tephromela	*atra*	var. atra	KF730535.1	no	unpublished	624	Greece
Tephromela	*atra*	var. atra	KF730536.1	no	unpublished	849	Greece
Tephromela	*atra*	var. atra	KF730537.1	no	unpublished	431	Greece
Tephromela	*atra*	var. atra	KF730538.1	no	unpublished	562	Greece
Tephromela	*atra*	var. atra	KF730539.1	no	unpublished	667	Greece
Tephromela	*atra*	var. atra	KF730540.1	no	unpublished	637	Greece
Tephromela	*atra*	var. atra	KF730541.1	no	unpublished	858	Greece
Tephromela	*atra*	var. atra	KF730542.1	no	unpublished	442	Greece
Tephromela	*atra*	var. atra	KF730543.1	no	unpublished	851	Greece
Tephromela	*atra*	var. atra	KF730544.1	no	unpublished	506	Greece
Tephromela	*atra*	var. atra	KF730545.1	no	unpublished	734	Greece
Tephromela	*atra*	var. atra	KF730546.1	no	unpublished	811	Greece
Tephromela	*atra*	var. atra	KF730547.1	yes	10.3852/10-234	496	Not informed
Tephromela	*atra*	var. atra	KF730548.1	yes	10.3852/10-234	592	Not informed
Tephromela	*atra*	var. atra	KF730549.1	yes	10.3852/10-234	592	Not informed
Tephromela	*atra*	var. atra	KF730550.1	yes	10.1017/s0953756203008724	507	Austria
Tephromela	*atra*	var. atra	KF730551.1	yes	10.1007/s13225-013-0271-4	523	New Zealand
Tephromela	*atra*	var. atra	KF730552.1	yes	10.1007/s13225-013-0271-4	524	Japan
Tephromela	*atra*	var. atra	KF730553.1	yes	10.1007/s13225-013-0271-4	515	Japan
Tephromela	*atra*	var. atra	KF730554.1	yes	10.1007/s13225-013-0271-4	516	United Kingdom
Tephromela	*atra*	var. atra	KF730555.1	yes	10.1007/s13225-013-0271-4	515	United Kingdom
Tephromela	*atra*	var. atra	KF730556.1	yes	10.1007/s13225-013-0271-4	517	United Kingdom
Tephromela	*atra*	var. atra	KF730557.1	yes	10.1007/s13225-013-0271-4	517	United Kingdom
Tephromela	*atra*	var. atra	KF730558.1	yes	10.1007/s13225-013-0271-4	515	United Kingdom
Tephromela	*atra*	var. atra	KF730559.1	yes	10.1007/s13225-013-0271-4	517	United Kingdom

Tephromela	*atra*	var. atra	KF730560.1	yes	10.1007/s13225-013-0271-4	448	United Kingdom
Tephromela	*atra*	var. atra	KF730561.1	yes	10.1007/s13225-013-0271-4	517	United Kingdom
Tephromela	*atra*	var. atra	KF730562.1	yes	10.1007/s13225-013-0271-4	515	United Kingdom
Tephromela	*atra*	var. atra	KF730563.1	yes	10.1007/s13225-013-0271-4	517	United Kingdom
Tephromela	*atra*	var. atra	KF730564.1	yes	10.1007/s13225-013-0271-4	430	United Kingdom
Tephromela	*atra*	var. atra	KF730565.1	yes	10.1007/s13225-013-0271-4	516	United Kingdom
Tephromela	*atra*	var. atra	KF730566.1	yes	10.1007/s13225-013-0271-4	514	Turkey
Tephromela	*atra*	var. atra	KF730567.1	yes	10.1007/s13225-013-0271-4	483	Turkey
Tephromela	*atra*	var. atra	KF730568.1	yes	10.1007/s13225-013-0271-4	516	Sweden
Tephromela	*atra*	var. atra	KF730569.1	yes	10.1007/s13225-013-0271-4	515	Sweden
Tephromela	*atra*	var. atra	KF730570.1	yes	10.1007/s13225-013-0271-4	515	Spain
Tephromela	*atra*	var. atra	KF730571.1	yes	10.1007/s13225-013-0271-4	518	Spain
Tephromela	*atra*	var. atra	KF730572.1	yes	10.1007/s13225-013-0271-4	505	Spain
Tephromela	*atra*	var. atra	KF730573.1	no	unpublished	816	Greece
Tephromela	*atra*	var. atra	KF730574.1	yes	10.1007/s13225-013-0271-4	518	Spain
Tephromela	*atra*	var. atra	KF730575.1	yes	10.1007/s13225-013-0271-4	517	Spain
Tephromela	*atra*	var. atra	KF730576.1	yes	10.1007/s13225-013-0271-4	518	Spain
Tephromela	*atra*	var. atra	KF730577.1	yes	10.1007/s13225-013-0271-4	518	Spain
Tephromela	*atra*	var. atra	KF730578.1	no	unpublished	810	Greece
Tephromela	*atra*	var. atra	KF730579.1	yes	10.1007/s13225-013-0271-4	474	Spain
Tephromela	*atra*	var. atra	KF730580.1	yes	10.1007/s13225-013-0271-4	517	Spain
Tephromela	*atra*	var. atra	KF730581.1	yes	10.1007/s13225-013-0271-4	292	Spain
Tephromela	*atra*	var. atra	KF730582.1	yes	10.1007/s13225-013-0271-4	517	Spain
Tephromela	*atra*	var. atra	KF730583.1	yes	10.1007/s13225-013-0271-4	458	Spain
Tephromela	*atra*	var. atra	KF730584.1	yes	10.1007/s13225-013-0271-4	481	Spain
Tephromela	*atra*	var. atra	KF730585.1	yes	10.1007/s13225-013-0271-4	517	Spain
Tephromela	*atra*	var. atra	KF730586.1	yes	10.1007/s13225-013-0271-4	518	Spain
Tephromela	*atra*	var. atra	KF730587.1	yes	10.1007/s13225-013-0271-4	517	Spain
Tephromela	*atra*	var. atra	KF730588.1	yes	10.1007/s13225-013-0271-4	517	Spain

Tephromela	*atra*	var. atra	KF730589.1	yes	10.1007/s13225-013-0271-4	517	Spain
Tephromela	*atra*	var. atra	KF730590.1	yes	10.1007/s13225-013-0271-4	517	Spain
Tephromela	*atra*	var. atra	KF730591.1	yes	10.1007/s13225-013-0271-4	517	Spain
Tephromela	*atra*	var. atra	KF730592.1	yes	10.1007/s13225-013-0271-4	517	Spain
Tephromela	*atra*	var. atra	KF730593.1	yes	10.1007/s13225-013-0271-4	517	Spain
Tephromela	*atra*	var. atra	KF730594.1	yes	10.1007/s13225-013-0271-4	517	Spain
Tephromela	*atra*	var. atra	KF730595.1	yes	10.1007/s13225-013-0271-4	517	Spain
Tephromela	*atra*	var. atra	KF730596.1	yes	10.1007/s13225-013-0271-4	516	Spain
Tephromela	*atra*	var. atra	KF730597.1	yes	10.1007/s13225-013-0271-4	515	Spain
Tephromela	*atra*	var. atra	KF730598.1	yes	10.1007/s13225-013-0271-4	517	Spain
Tephromela	*atra*	var. atra	KF730599.1	yes	10.1007/s13225-013-0271-4	517	Spain
Tephromela	*atra*	var. atra	KF730600.1	yes	10.1007/s13225-013-0271-4	517	Spain
Tephromela	*atra*	var. atra	KF730601.1	yes	10.1007/s13225-013-0271-4	517	Spain
Tephromela	*atra*	var. atra	KF730602.1	yes	10.1007/s13225-013-0271-4	515	Spain
Tephromela	*atra*	var. atra	KF730603.1	yes	10.1007/s13225-013-0271-4	517	Spain
Tephromela	*atra*	var. atra	KF730604.1	yes	10.1007/s13225-013-0271-4	517	Spain
Tephromela	*atra*	var. atra	KF730605.1	yes	10.1007/s13225-013-0271-4	517	Spain
Tephromela	*atra*	var. atra	KF730606.1	yes	10.1007/s13225-013-0271-4	517	Spain
Tephromela	*atra*	var. atra	KF730607.1	yes	10.1007/s13225-013-0271-4	517	Spain
Tephromela	*atra*	var. atra	KF730608.1	yes	10.1007/s13225-013-0271-4	345	United Kingdom
Tephromela	*atra*	var. atra	KF730609.1	yes	10.1007/s13225-013-0271-4	213	United Kingdom
Tephromela	*atra*	var. atra	KF730610.1	yes	10.1007/s13225-013-0271-4	411	United Kingdom
Tephromela	*atra*	var. atra	KF730611.1	yes	10.1007/s13225-013-0271-4	517	United Kingdom
Tephromela	*atra*	var. atra	KF730612.1	yes	10.1007/s13225-013-0271-4	476	United Kingdom
Tephromela	*atra*	var. atra	KF730613.1	yes	10.1007/s13225-013-0271-4	478	United Kingdom
Tephromela	*atra*	var. atra	KF730614.1	yes	10.1007/s13225-013-0271-4	279	United Kingdom
Tephromela	*atra*	var. atra	KF730615.1	yes	10.1007/s13225-013-0271-4	463	Norway
Tephromela	*atra*	var. atra	KF730618.1	yes	10.1007/s13225-013-0271-4	459	Norway
Tephromela	*atra*	var. atra	KF730619.1	yes	10.1007/s13225-013-0271-4	513	Montenegro

Tephromela	*atra*	var. atra	KF730620.1	yes	10.1007/s13225-013-0271-4	515	Kosovo
Tephromela	*atra*	var. atra	KF730621.1	yes	10.1007/s13225-013-0271-4	515	Italy
Tephromela	*atra*	var. atra	KF730622.1	yes	10.1007/s13225-013-0271-4	510	Italy
Tephromela	*atra*	var. atra	KF730623.1	yes	10.1007/s13225-013-0271-4	515	Italy
Tephromela	*atra*	var. atra	KF730624.1	yes	10.1007/s13225-013-0271-4	515	Italy
Tephromela	*atra*	var. atra	KF730625.1	yes	10.1007/s13225-013-0271-4	393	Italy
Tephromela	*atra*	var. atra	KF730626.1	yes	10.1007/s13225-013-0271-4	396	Italy
Tephromela	*atra*	var. atra	KF730627.1	yes	10.1007/s13225-013-0271-4	515	Italy
Tephromela	*atra*	var. atra	KF730628.1	yes	10.1007/s13225-013-0271-4	515	Italy
Tephromela	*atra*	var. atra	KF730629.1	yes	10.1007/s13225-013-0271-4	387	Italy
Tephromela	*atra*	var. atra	KF730630.1	yes	10.1007/s13225-013-0271-4	515	Italy
Tephromela	*atra*	var. atra	KF730631.1	yes	10.1007/s13225-013-0271-4	515	Italy
Tephromela	*atra*	var. atra	KF730632.1	yes	10.1007/s13225-013-0271-4	515	Italy
Tephromela	*atra*	var. atra	KF730633.1	yes	10.1007/s13225-013-0271-4	519	Italy
Tephromela	*atra*	var. atra	KF730636.1	yes	10.1007/s13225-013-0271-4	483	Italy
Tephromela	*atra*	var. atra	KF730637.1	yes	10.1007/s13225-013-0271-4	440	Italy
Tephromela	*atra*	var. atra	KF730638.1	yes	10.1007/s13225-013-0271-4	457	Italy
Tephromela	*atra*	var. atra	KP889138.1	no	unpublished	790	Greece
Tephromela	*atra*	var. atra	KP889143.1	yes	unpublished	942	Not informed
Tephromela	*atra*	var. atra	KP889144.1	yes	unpublished	672	Not informed
Tephromela	*atra*	var. atra	KP889145.1	no	unpublished	668	Not informed
Tephromela	*atra*	var. atra	KP889146.1	yes	unpublished	564	Portugal
Tephromela	*atra*	var. atra	KP889147.1	yes	unpublished	557	Portugal
Tephromela	*atra*	var. atra	KP889148.1	no	unpublished	828	Turkey
Tephromela	*atra*	var. atra	KX181173.1	yes	10.1007/s11557-008-0560-6	342	Italy
Tephromela	*atra*	var. atra	KX181174.1	yes	10.1007/s13225-013-0271-4	517	Italy
Tephromela	*atra*	var. atra	KX181175.1	yes	10.1007/s11557-008-0560-6	517	Italy
Tephromela	*atra*	var. atra	KX181176.1	yes	10.1007/s13225-013-0271-4	487	Italy
Tephromela	*atra*	var. atra	KX181177.1	yes	10.1007/s11557-008-0560-6	517	Italy

Tephromela	*atra*	var. atra	KX181178.1	yes	10.1007/s11557-008-0560-6	517	Italy
Tephromela	*atra*	var. atra	KX181179.1	yes	10.1007/s11557-008-0560-6	516	Italy
Tephromela	*atra*	var. atra	KX181180.1	yes	10.1007/s11557-008-0560-6	445	Italy
Tephromela	*atra*	var. atra	KX181181.1	yes	10.1007/s13225-013-0271-4	388	Italy
Tephromela	*atra*	var. atra	KX181182.1	yes	10.1007/s11557-008-0560-6	463	Austria
Tephromela	*atra*	var. atra	KX181183.1	yes	10.1007/s13225-013-0271-4	386	Italy
Tephromela	*atra*	var. atra	KX181184.1	yes	10.1007/s13225-013-0271-4	515	Italy
Tephromela	*atra*	var. atra	KX181185.1	yes	10.1007/s13225-013-0271-4	517	Italy
Tephromela	*atra*	var. atra	KX181186.1	yes	10.1007/s13225-013-0271-4	319	Italy
Tephromela	*atra*	var. atra	KX181187.1	yes	10.1007/s13225-013-0271-4	517	Italy
Tephromela	*atra*	var. atra	KX181188.1	yes	10.1007/s11557-008-0560-6	516	Austria
Tephromela	*atra*	var. atra	KX181189.1	yes	10.1007/s11557-008-0560-6	236	Italy
Tephromela	*atra*	var. atra	KX181190.1	yes	10.1007/s11557-008-0560-6	499	Italy
Tephromela	*atra*	var. atra	KX181191.1	yes	10.1007/s11557-008-0560-6	487	Italy
Tephromela	*atra*	var. atra	KX181192.1	yes	10.1007/s13225-013-0271-4	515	Ireland
Tephromela	*atra*	var. atra	KX181193.1	yes	10.1007/s11557-008-0560-6	507	Italy
Tephromela	*atra*	var. atra	KX181194.1	yes	10.1007/s11557-008-0560-6	477	Italy
Tephromela	*atra*	var. atra	KX181195.1	yes	10.1007/s11557-008-0560-6	500	Italy
Tephromela	*atra*	var. atra	KX181196.1	yes	10.1007/s11557-008-0560-6	510	Italy
Tephromela	*atra*	var. atra	KX181197.1	yes	10.1007/s11557-008-0560-6	499	Italy
Tephromela	*atra*	var. atra	KX181198.1	yes	10.1007/s11557-008-0560-6	517	Italy
Tephromela	*atra*	var. atra	KX181199.1	yes	10.1007/s13225-013-0271-4	515	France
Tephromela	*atra*	var. atra	KX181200.1	yes	10.1007/s11557-008-0560-6	517	Italy
Tephromela	*atra*	var. atra	KX181201.1	yes	10.1007/s11557-008-0560-6	401	Italy
Tephromela	*atra*	var. atra	KX181202.1	no	10.1007/s00248-015-0579-6	545	Austria
Tephromela	*atra*	var. atra	KX181203.1	no	10.1007/s00248-015-0579-6	425	Austria
Tephromela	*atra*	var. atra	KX181204.1	no	10.1007/s00248-015-0579-6	356	Austria
Tephromela	*atra*	var. atra	KX181205.1	no	10.1007/s00248-015-0579-6	423	Austria
Tephromela	*atra*	var. atra	KX181206.1	no	10.1007/s00248-015-0579-6	386	Austria

Tephromela	*atra*	var. atra	KX181207.1	no	10.1007/s00248-015-0579-6	402	Austria
Tephromela	*atra*	var. atra	KX181208.1	no	10.1007/s00248-015-0579-6	456	Austria
Tephromela	*atra*	var. atra	KX181209.1	no	10.1007/s00248-015-0579-6	500	Austria
Tephromela	*atra*	var. atra	KX181210.1	no	10.1007/s00248-015-0579-6	495	Austria
Tephromela	*atra*	var. atra	KX181211.1	no	10.1007/s00248-015-0579-6	300	Austria
Tephromela	*atra*	var. atra	KX181212.1	yes	10.1017/s0953756204009888	566	Sweden
Tephromela	*atra*	var. atra	KX181213.1	yes	10.1016/j.ympev.2011.03.021	523	Canada
Tephromela	*atra*	var. atra	KX181214.1	yes	10.3897/mycokeys.11.6670	803	Finnmark, Norway
Tephromela	*atra*	var. atra	KX181215.1	yes	10.3897/BDJ.7.e36252	543	Sor-Trondelag, Orland, Storfosna, Klumpan, Norway
Tephromela	*atra*	var. atra	KX181216.1	yes	10.3897/BDJ.7.e36252	512	Telemark, Bamble, Langesundstangen, Norway
Tephromela	*atra*	var. atra	KX550110.1	no	unpublished	790	Greece
Tephromela	*atra*	var. atra	KY266944.1	no	unpublished	567	Greece
Tephromela	*atra*	var. atra	MK812380.1	no	unpublished	567	Greece
Tephromela	*atra*	var. atra	MK812606.1	no	unpublished	565	Greece
Tephromela	*atra*	var. atra	MN587033.1	no	unpublished	569	Greece
Tephromela	*atra*	var. atra	MN587034.1	no	unpublished	568	Greece
Tephromela	*atra*	var. atra	MN965780.1	no	unpublished	633	Greece
Tephromela	*disciformis*		NA				
Tephromela	*eatoni*		NA				
Tephromela	*minor*		NA				
Tephromela	*parasitica*		NA				
Tephromela	*variabilis*		NA				
Tetramelas	*anisomerus*		DQ534453.1	yes	17082741	970	King George Island, Antarctic
Tetramelas	*cladocarpizus*		NA				
Tetramelas	*granulosus*		NA				

Tetramelas	*grimmiae*	NA				
Tetramelas	*nelsonii*	NA				
Tetramelas	*papillatus*	AF250790.1	no	10.1006/lich.2000.0297	504	Not informed
Tetramelas	*subpedicellata*	NA				
Thamnolecania	*racovitzae*	AM292694.1	yes	10.1016/j.mycres.2007.03.001	497	South Shetland Islands, Antarctica
Thelenella	*antarctica*	NA				
Thelenella	*kerguelena*	NA				
Thelenella	*mawsonii*	NA				
Thelenella	*muscorum*	NA				
Thelidium	*austroatlanticum*	NA				
Thelidium	*pyrenophorum*	EU553500.1	yes	10.1016/j.mycres.2008.05.002	457	Sweden
Thelocarpon	*cyaneum*	NA				
Trapelia	*coarctata*	KP794971.1	yes	10.1017/S002428291500016X	1198	Carinthia, Austria
Trapelia	*coarctata*	KR017058.1	yes	10.1017/S0024282917000639	532	Austria
Trapelia	*coarctata*	KR017066.1	yes	10.1017/S0024282917000639	513	Austria
Trapelia	*coarctata*	KR017072.1	yes	10.1017/S0024282917000639	536	Austria
Trapelia	*coarctata*	KR017073.1	yes	10.1017/S0024282917000639	543	Sweden
Trapelia	*coarctata*	KR017074.1	yes	10.1017/S0024282917000639	522	Sweden
Trapelia	*coarctata*	KR017092.1	yes	10.1017/S0024282917000639	691	Austria
Trapelia	*coarctata*	KR017096.1	yes	10.1017/S0024282917000639	758	Pennsylvania, USA
Trapelia	*coarctata*	KR017097.1	yes	10.1017/S0024282917000639	768	Austria
Trapelia	*coarctata*	KR017098.1	yes	10.1017/S0024282917000639	758	Austria
Trapelia	*coarctata*	KU844705.1	yes	10.1111/mec.13636	707	Styria, Schoeckl, Austria
Trapelia	*coarctata*	KU844706.1	yes	10.1017/S0024282917000639	685	Austria
Trapelia	*coarctata*	KU844772.1	yes	10.1017/S0024282917000639	443	St. Helena
Trapelia	*coarctata*	KX961313.1	yes	10.1017/S0024282917000639	786	Falkland Islands
Trapelia	*coarctata*	KX961314.1	yes	10.1017/S0024282917000639	789	Falkland Islands

Trapelia	*coarctata*	KX961323.1	yes	10.1017/S0024282917000639	784	Wales,UK
Trapelia	*coarctata*	KX961335.1	yes	10.1017/S0024282917000639	786	Falkland Islands
Trapelia	*coarctata*	KX961380.1	yes	10.1017/S0024282917000639	780	Germany
Trapelia	*coarctata*	KX961383.1	yes	10.1017/S0024282917000639	773	Germany
Trapelia	*coarctata*	KX961384.1	yes	10.1017/S0024282917000639	747	Germany
Trapelia	*coarctata*	KY797786.1	yes	10.1017/S0024282917000639	822	Wales, UK
Trapelia	*coarctata*	KY797787.1	yes	10.1017/S0024282917000639	821	Wales, UK
Trapelia	*coarctata*	MH887538.1	yes	10.1639/0007-2745-121.4.498	1929	North Carolina, USA
Trapelia	*coarctata*	MK812177.1	yes	10.3897/BDJ.7.e36252	531	Telemark, Tokke, Norway
Trapelia	*coarctata*	MK812526.1	yes	10.3897/BDJ.7.e36252	469	Hedmark, Stange, Gata, Norway
Trapelia	*coarctata*	MK812584.1	yes	10.3897/BDJ.7.e36252	531	Oslo, Oslo, Lutdalen, Norway
Trapelia	*coarctata*	MN483156.1	yes	unpublished	444	High Peak, Saint Helena
Trapelia	*coarctata*	MN483157.1	yes	unpublished	755	Sergipe, Brasil
Tremolecia	*atrata*	MK811647.1	yes	10.3897/BDJ.7.e36252	574	Norway
Tremolecia	*atrata*	MK812097.1	yes	10.3897/BDJ.7.e36252	574	Norway
Tremolecia	*atrata*	MK812298.1	yes	10.3897/BDJ.7.e36252	537	Norway
Umbilicaria	*africana*	HM161482.1	yes	10.3852/10-012	567	Central Andes
Umbilicaria	*africana*	KY947743.1	yes	10.12705/666.2	1138	Simien Mts. National Park, Ethiopia
Umbilicaria	*africana*	KY947844.1	yes	10.12705/666.2	612	Not informed
Umbilicaria	*antarctica*	AF096213.1	no	10.1017/S0024282999000638	756	Not informed
Umbilicaria	*antarctica*	AJ431592.1	yes	10.1093/oxfordjournals.molbev.a004181	551	Antarctica, Lagoon Island and Adelaide Island,
Umbilicaria	*antarctica*	AJ431593.1	yes	10.1093/oxfordjournals.molbev.a004181	724	Rothera Point, Antarctica

Umbilicaria	*antarctica*	AJ431594.1	yes	10.1093/oxfordjournals.molbev.a004181	571	Rothera Point, Antarctica
Umbilicaria	*antarctica*	AJ431595.1	yes	10.1093/oxfordjournals.molbev.a004181	716	Charcot Island, Antactica
Umbilicaria	*antarctica*	AJ431596.1	yes	10.1093/oxfordjournals.molbev.a004181	724	Charcot Island, Antactica
Umbilicaria	*antarctica*	AJ431601.1	yes	10.1093/oxfordjournals.molbev.a004181	538	Harrow Peak, Antarctica
Umbilicaria	*antarctica*	AJ431602.1	yes	10.1093/oxfordjournals.molbev.a004181	534	Antarctica, Lagoon Island and Adelaide Island,
Umbilicaria	*antarctica*	AJ431603.1	yes	10.1093/oxfordjournals.molbev.a004181	531	Rothera Point, Antarctica
Umbilicaria	*antarctica*	AJ431604.1	yes	10.1093/oxfordjournals.molbev.a004181	531	Thurston Island, Antarctica
Umbilicaria	*antarctica*	AJ431605.1	yes	10.1093/oxfordjournals.molbev.a004181	493	Coffer Island, Antarctica
Umbilicaria	*antarctica*	AJ431607.1	yes	10.1093/oxfordjournals.molbev.a004181	334	Livingston Island, Antarctica
Umbilicaria	*antarctica*	AY603123.1	yes	10.1017/S0024282904014306	542	Antarctica, Lagoon Island and Adelaide Island,
Umbilicaria	*antarctica*	AY603124.1	yes	10.1017/S0024282904014306	494	Antarctica, Lagoon Island and Adelaide Island,
Umbilicaria	*antarctica*	AY603125.1	yes	10.1017/S0024282904014306	586	Antarctica, Lagoon Island and Adelaide Island,
Umbilicaria	*antarctica*	AY603126.1	yes	10.1017/S0024282904014306	513	Antarctica, Lagoon Island and Adelaide Island,
Umbilicaria	*antarctica*	AY603127.1	yes	10.1017/S0024282904014306	567	Antarctica, Lagoon Island and Adelaide Island,

Umbilicaria	*antarctica*	AY603128.1	yes	10.1017/S0024282904014306	590	Antarctica, Lagoon Island and Adelaide Island,
Umbilicaria	*antarctica*	FN185922.1	yes	10.1017/S0024282909990120	585	King George Island, Antarctica
Umbilicaria	*antarctica*	FN185923.1	yes	10.1017/S0024282909990120	585	King George Island, Antarctica
Umbilicaria	*antarctica*	FN185924.1	yes	10.1017/S0024282909990120	583	King George Island, Antarctica
Umbilicaria	*antarctica*	FN185925.1	yes	10.1017/S0024282909990120	585	King George Island, Antarctica
Umbilicaria	*antarctica*	FN185926.1	yes	10.1017/S0024282909990120	585	King George Island, Antarctica
Umbilicaria	*antarctica*	FN185927.1	yes	10.1017/S0024282909990120	585	King George Island, Antarctica
Umbilicaria	*antarctica*	FN185928.1	yes	10.1017/S0024282909990120	585	King George Island, Antarctica
Umbilicaria	*antarctica*	FN185929.1	yes	10.1017/S0024282909990120	585	King George Island, Antarctica
Umbilicaria	*antarctica*	FN185932.1	yes	10.1017/S0024282909990120	585	King George Island, Antarctica
Umbilicaria	*antarctica*	JQ739980.1	no	unpublished	3534	Not informed
Umbilicaria	*antarctica*	KJ607900.1	yes	10.1111/jeu.12159	1343	Barton Peninsula, Antarctica
Umbilicaria	*antarctica*	KJ607901.1	yes	10.1111/jeu.12159	1342	Barton Peninsula, Antarctica
Umbilicaria	*antarctica*	KJ607902.1	yes	10.1111/jeu.12159	1342	Barton and Weaver Peninsulas, King George Island, Antactica
Umbilicaria	*antarctica*	KP954319.1	yes	10.1515/popore−2015−0012	485	South Shetlands, Antarctica

Umbilicaria	*antarctica*	KP954320.1	yes	10.1515/popore−2015−0012	485	South Shetlands, Antarctica
Umbilicaria	*antarctica*	KP954321.1	yes	10.1515/popore−2015−0012	485	South Shetlands, Antarctica
Umbilicaria	*antarctica*	KP954322.1	yes	10.1515/popore−2015−0012	485	South Shetlands, Antarctica
Umbilicaria	*antarctica*	KP954323.1	yes	10.1515/popore−2015−0012	485	South Shetlands, Antarctica
Umbilicaria	*antarctica*	KR053307.1	no	10.13679/j.advps.2015.4.00274	504	Fildes Peninsula and Ardley Island, Antarctica
Umbilicaria	*antarctica*	KR053308.1	no	10.13679/j.advps.2015.4.00274	504	Fildes Peninsula and Ardley Island, Antarctica
Umbilicaria	*antarctica*	KR053309.1	no	10.13679/j.advps.2015.4.00274	504	Fildes Peninsula and Ardley Island, Antarctica
Umbilicaria	*antarctica*	KR053310.1	no	10.13679/j.advps.2015.4.00274	504	Fildes Peninsula and Ardley Island, Antarctica
Umbilicaria	*antarctica*	KR053311.1	no	10.13679/j.advps.2015.4.00274	504	Fildes Peninsula and Ardley Island, Antarctica
Umbilicaria	*antarctica*	KR053312.1	no	10.13679/j.advps.2015.4.00274	503	Fildes Peninsula and Ardley Island, Antarctica
Umbilicaria	*antarctica*	KR053313.1	no	10.13679/j.advps.2015.4.00274	503	Fildes Peninsula and Ardley Island, Antarctica
Umbilicaria	*antarctica*	KY947849.1	yes	10.12705/666.2	1102	Barton Peninsula, Antarctica
Umbilicaria	*aprina*	HM161480.1	yes	10.3852/10-012	563	Norway
Umbilicaria	*aprina*	HM161483.1	yes	10.3852/10-012	555	Bolivia
Umbilicaria	*aprina*	HM161502.1	yes	10.3852/10-012	572	Bolivia
Umbilicaria	*aprina*	JQ739981.1	yes	unpublished	4044	Not informed

Umbilicaria	*aprina*	JX036039.1	no	10.1111/j.1574-6941.2012.01422.x	778	Dry Valleys, Southern Victoria Land, Antarctica
Umbilicaria	*aprina*	JX036040.1	no	10.1111/j.1574-6941.2012.01422.x	778	Dry Valleys, Southern Victoria Land, Antarctica
Umbilicaria	*aprina*	JX036041.1	no	10.1111/j.1574-6941.2012.01422.x	778	Dry Valleys, Southern Victoria Land, Antarctica
Umbilicaria	*aprina*	JX036063.1	no	10.1111/j.1574-6941.2012.01422.x	778	Dry Valleys, Southern Victoria Land, Antarctica
Umbilicaria	*aprina*	JX036064.1	no	10.1111/j.1574-6941.2012.01422.x	778	Dry Valleys, Southern Victoria Land, Antarctica
Umbilicaria	*aprina*	JX036065.1	no	10.1111/j.1574-6941.2012.01422.x	778	Dry Valleys, Southern Victoria Land, Antarctica
Umbilicaria	*aprina*	JX036072.1	no	10.1111/j.1574-6941.2012.01422.x	778	Dry Valleys, Southern Victoria Land, Antarctica
Umbilicaria	*aprina*	JX036075.1	no	10.1111/j.1574-6941.2012.01422.x	778	Dry Valleys, Southern Victoria Land, Antarctica
Umbilicaria	*aprina*	JX036113.1	no	10.1111/j.1574-6941.2012.01422.x	778	Dry Valleys, Southern Victoria Land, Antarctica
Umbilicaria	*aprina*	JX036114.1	no	10.1111/j.1574-6941.2012.01422.x	778	Dry Valleys, Southern Victoria Land, Antarctica
Umbilicaria	*aprina*	JX036121.1	no	10.1111/j.1574-6941.2012.01422.x	778	Dry Valleys, Southern Victoria Land, Antarctica
Umbilicaria	*aprina*	JX036122.1	no	10.1111/j.1574-6941.2012.01422.x	778	Dry Valleys, Southern Victoria Land, Antarctica

Umbilicaria	*aprina*	JX036123.1	no	10.1111/j.1574-6941.2012.01422.x	778	Dry Valleys, Southern Victoria Land, Antarctica
Umbilicaria	*aprina*	JX036129.1	no	10.1111/j.1574-6941.2012.01422.x	778	Dry Valleys, Southern Victoria Land, Antarctica
Umbilicaria	*aprina*	JX036130.1	no	10.1111/j.1574-6941.2012.01422.x	778	Dry Valleys, Southern Victoria Land, Antarctica
Umbilicaria	*aprina*	JX036131.1	no	10.1111/j.1574-6941.2012.01422.x	778	Dry Valleys, Southern Victoria Land, Antarctica
Umbilicaria	*aprina*	JX036137.1	no	10.1111/j.1574-6941.2012.01422.x	778	Dry Valleys, Southern Victoria Land, Antarctica
Umbilicaria	*aprina*	JX036155.1	no	10.1111/j.1574-6941.2012.01422.x	778	Dry Valleys, Southern Victoria Land, Antarctica
Umbilicaria	*aprina*	JX036156.1	no	10.1111/j.1574-6941.2012.01422.x	778	Dry Valleys, Southern Victoria Land, Antarctica
Umbilicaria	*aprina*	KP314351.1	yes	unpublished	528	Svalbard
Umbilicaria	*aprina*	KP314356.1	yes	unpublished	526	Svalbard
Umbilicaria	*aprina*	KP314390.1	yes	unpublished	527	Svalbard
Umbilicaria	*aprina*	KP314395.1	yes	unpublished	528	Svalbard
Umbilicaria	*aprina*	KP314477.1	yes	unpublished	528	Svalbard
Umbilicaria	*aprina*	KP314479.1	yes	unpublished	528	Svalbard
Umbilicaria	*aprina*	KY947808.1	yes	10.12705/666.2	619	Not informed
Umbilicaria	*aprina*	KY947810.1	yes	10.12705/666.2	502	Not informed
Umbilicaria	*aprina*	KY947859.1	yes	10.12705/666.2	599	Not informed
Umbilicaria	*aprina*	KY948014.1	yes	10.12705/666.2	2217	Not informed
Umbilicaria	*cristata*	NA				
Umbilicaria	*decussata*	AF096214.1	yes	10.12705/666.2	753	Not informed

Umbilicaria	*decussata*	AJ431600.1	yes	10.1093/oxfordjournals.molbev.a004181	569	Antarctica, Lagoon Island and Adelaide Island,
Umbilicaria	*decussata*	AY603122.1	yes	10.1017/S0024282904014306	546	Antarctica, Lagoon Island and Adelaide Island,
Umbilicaria	*decussata*	HM161501.1	yes	10.3852/10-012	533	Bolivia
Umbilicaria	*decussata*	HM161510.1	yes	10.3852/10-012	608	Ecuador
Umbilicaria	*decussata*	KP314408.1	yes	unpublished	530	Svalbard
Umbilicaria	*decussata*	KP314429.1	yes	unpublished	529	Svalbard
Umbilicaria	*decussata*	KY947785.1	yes	10.12705/666.2	492	Anatolia, Turkey
Umbilicaria	*decussata*	KY947790.1	yes	10.12705/666.2	529	Altai Mountains, Russia
Umbilicaria	*decussata*	KY947795.1	yes	10.12705/666.2	457	Altai Mountains, Russia
Umbilicaria	*decussata*	KY947809.1	yes	10.12705/666.2	527	Hasuell Island, Antarctica
Umbilicaria	*decussata*	KY948001.1	yes	10.12705/666.2	2301	Altai Mountains, Kazakhstan
Umbilicaria	*decussata*	MK812293.1	yes	10.3897/BDJ.7.e36252	532	Sor-Trondelag, Roros, Roros church, Norway
Umbilicaria	*decussata*	MK812686.1	yes	10.3897/BDJ.7.e36252	532	Oppland, Vang, Mt Raudhorn, Norway
Umbilicaria	*kappenii*	AJ431597.1	yes	10.1093/oxfordjournals.molbev.a004181	570	Antarctica, Lagoon Island and Adelaide Island,
Umbilicaria	*kappenii*	AJ431598.1	yes	10.1093/oxfordjournals.molbev.a004181	715	Rothera Point, Antarctica
Umbilicaria	*kappenii*	AJ431599.1	yes	10.1093/oxfordjournals.molbev.a004181	570	Antarctica, Lagoon Island and Adelaide Island,
Umbilicaria	*kappenii*	AY603129.1	yes	10.1017/S0024282904014306	538	Leonie Island, Antarctica

Umbilicaria	*kappenii*	AY603130.1	yes	10.1017/S0024282904014306	464	Leonie Island, Antarctica
Umbilicaria	*kappenii*	AY603131.1	yes	10.1017/S0024282904014306	559	Antarctica, Lagoon Island and Adelaide Island,
Umbilicaria	*kappenii*	AY603132.1	yes	10.1017/S0024282904014306	604	Livingston Island, Antarctica
Umbilicaria	*krascheninnikovii*	AY603134.1	yes	10.1017/S0024282904014306	587	Livingston Island, Antarctica
Umbilicaria	*krascheninnikovii*	JQ739994.1	no	unpublished	3593	Not informed
Umbilicaria	*krascheninnikovii*	KY947752.1	yes	10.12705/666.2	531	Kamchatka, Russia
Umbilicaria	*krascheninnikovii*	KY947857.1	yes	10.12705/666.2	501	Kamchatka, Russia
Umbilicaria	*nylanderiana*	AF096205.1	yes	10.12705/666.2	748	Not informed
Umbilicaria	*nylanderiana*	AY603133.1	yes	10.1017/S0024282904014306	528	Livingston Island, Antarctica
Umbilicaria	*nylanderiana*	FN185974.1	yes	10.1017/S0024282909990120	583	Tatra Mountains, Poland
Umbilicaria	*nylanderiana*	HM161488.1	yes	10.12705/666.2	609	Bolivia
Umbilicaria	*nylanderiana*	HM161489.1	yes	10.3852/10-012	573	Ecuador
Umbilicaria	*nylanderiana*	KY947796.1	yes	10.12705/666.2	452	Tigireksky Reserve, Russia
Umbilicaria	*nylanderiana*	KY947841.1	yes	10.12705/666.2	589	Rio Negro, Argentina
Umbilicaria	*nylanderiana*	KY947855.1	yes	10.12705/666.2	532	Altai, Russia
Umbilicaria	*nylanderiana*	MK812167.1	yes	10.3897/BDJ.7.e36252	536	Hedmark, Alvdal, Alvdal church, Norway
Umbilicaria	*nylanderiana*	MK812209.1	yes	10.3897/BDJ.7.e36252	535	Hedmark, Folldal, Folldal church, Norway
Umbilicaria	*nylanderiana*	MK812316.1	yes	10.3897/BDJ.7.e36252	535	Buskerud, Sigdal, Mt Steinfantnatten, at the top, Norway

Umbilicaria	*umbilicarioides*	AF096210.1	yes	10.1017/S0024282999000638	763	Not informed
Umbilicaria	*umbilicarioides*	AJ431606.1	yes	10.1093/oxfordjournals.molbev.a004181	495	Antarctica, Lagoon Island and Adelaide Island,
Umbilicaria	*umbilicarioides*	AY603121.1	yes	10.1017/S0024282904014306	780	Antarctica, Lagoon Island and Adelaide Island,
Umbilicaria	*umbilicarioides*	KY947781.1	yes	10.12705/666.2	471	South Africa
Umbilicaria	*umbilicarioides*	KY947842.1	yes	10.12705/666.2	1421	XII Region, Chile
Usnea	*acromelana*	DQ235514.1	yes	10.2307/25065584	496	Argentina, Santa Cruz
Usnea	*acromelana*	DQ235515.1	yes	10.2307/25065584	496	Argentina, Terra do fogo
Usnea	*acromelana*	DQ235516.1	yes	10.2307/25065584	496	Argentina, Terra do fogo
Usnea	*acromelana*	DQ767952.1	yes	10.1017/S0954102007000107	497	Antarctica
Usnea	*acromelana*	JQ314765.1	yes	10.1007/s13127-011-0066-y	474	Argentina, Santa Cruz
Usnea	*acromelana*	JQ314766.1	yes	10.1007/s13127-011-0066-y	474	Argentina, Santa Cruz
Usnea	*acromelana*	JQ314767.1	yes	10.1007/s13127-011-0066-y	474	Argentina, Terra do fogo
Usnea	*acromelana*	JQ314768.1	yes	10.1007/s13127-011-0066-y	474	Argentina, Terra do fogo
Usnea	*acromelana*	JQ314821.1	yes	10.1007/s13127-011-0066-y	474	Argentina, Terra do fogo
Usnea	*acromelana*	JQ314826.1	yes	10.1007/s13127-011-0066-y	474	Argentina, Terra do fogo
Usnea	*acromelana*	JQ314827.1	yes	10.1007/s13127-011-0066-y	474	Argentina, Terra do fogo
Usnea	*acromelana*	JQ314828.1	yes	10.1007/s13127-011-0066-y	474	Argentina, Terra do fogo
Usnea	*acromelana*	JQ314848.1	yes	10.1007/s13127-011-0066-y	474	Argentina, Terra do fogo

Usnea	*acromelana*	JQ314849.1	yes	10.1007/s13127-011-0066-y	474	Argentina, Terra do fogo
Usnea	*antarctica*	AB103541.1	yes	10.1017/S0024282904013830	493	Antarctica, Antarctic Peninsula
Usnea	*antarctica*	AJ748099.1	yes	10.2307/4135560	1397	Antarctica
Usnea	*antarctica*	AJ748100.1	yes	10.2307/4135560	1396	Antarctica, Livingston island
Usnea	*antarctica*	AJ748101.1	yes	10.2307/4135560	1395	French Southern and Antarctic Lands
Usnea	*antarctica*	DQ219311.1	yes	unpublished	902	Antarctica
Usnea	*antarctica*	DQ235517.1	yes	10.2307/25065584	496	Antarctica, Livingston Island
Usnea	*antarctica*	DQ235518.1	yes	10.2307/25065584	496	Antarctica, Livingston Island
Usnea	*antarctica*	DQ235523.1	yes	10.2307/25065584	496	Antarctica
Usnea	*antarctica*	DQ235524.1	yes	10.2307/25065584	496	Argentina, Terra do fogo
Usnea	*antarctica*	DQ767955.1	yes	10.1017/S0954102007000107	491	Antarctica
Usnea	*antarctica*	DQ767956.1	yes	10.1017/S0954102007000107	498	Antarctica
Usnea	*antarctica*	EF116567.1	yes	unpublished	828	Not informed
Usnea	*antarctica*	EF179795.1	yes	10.2307/25065584	845	Not informed
Usnea	*antarctica*	EF179796.1	yes	10.2307/25065584	776	Not informed
Usnea	*antarctica*	HQ650616.1	yes	10.3852/10-234	871	Not informed
Usnea	*antarctica*	JX440312.1	no	unpublished	492	Not informed
Usnea	*antarctica*	JX440321.1	no	unpublished	492	Not informed
Usnea	*antarctica*	JX440322.1	no	unpublished	492	Not informed
Usnea	*antarctica*	JX440323.1	no	unpublished	492	Not informed
Usnea	*antarctica*	KJ607897.1	yes	10.1111/jeu.12159.	1763	King George Island, Barton Peninsula

Usnea	*antarctica*	KJ607898.1	yes	10.1111/jeu.12159.	1763	King George Island, Weaver Peninsula
Usnea	*antarctica*	KJ607899.1	yes	10.1111/jeu.12159	1677	King George Island, Barton Peninsula
Usnea	*aurantiacoatra*	DQ219310.1	yes	unpublished	917	Antarctica
Usnea	*aurantiacoatra*	DQ235519.1	yes	10.2307/25065584	497	Argentina, Terra do fogo
Usnea	*aurantiacoatra*	DQ235520.1	yes	10.2307/25065584	497	Argentina, Terra do fogo
Usnea	*aurantiacoatra*	DQ235521.1	yes	10.2307/25065584	497	Argentina, Terra do fogo
Usnea	*aurantiacoatra*	DQ235522.1	yes	10.2307/25065584	496	Argentina, Terra do fogo
Usnea	*aurantiacoatra*	DQ534488.2	yes	PMID: 17082741	1017	Antarctica, King George Island
Usnea	*aurantiacoatra*	DQ767953.1	yes	10.1017/S0954102007000107	492	Antarctica
Usnea	*aurantiacoatra*	DQ767954.1	yes	10.1017/S0954102007000107	490	Antarctica
Usnea	*aurantiacoatra*	DQ767965.1	yes	10.1017/S0954102007000107	491	Antarctica
Usnea	*aurantiacoatra*	EF179797.1	yes	10.2307/25065584	838	Not informed
Usnea	*aurantiacoatra*	EF179798.1	yes	10.2307/25065584	885	Not informed
Usnea	*aurantiacoatra*	EF179799.1	yes	10.2307/25065584	835	Not informed
Usnea	*aurantiacoatra*	JF283507.1	yes	10.1017/S0024282911000417	526	Not informed
Usnea	*aurantiacoatra*	JF283508.1	yes	10.1017/S0024282911000417	515	Not informed
Usnea	*aurantiacoatra*	JQ314769.1	yes	10.1007/s13127-011-0066-y	474	Argentina, Santa Cruz
Usnea	*aurantiacoatra*	JQ314770.1	yes	10.1007/s13127-011-0066-y	474	Argentina, Santa Cruz
Usnea	*aurantiacoatra*	JQ314771.1	yes	10.1007/s13127-011-0066-y	474	Antarctica, King George Island
Usnea	*aurantiacoatra*	JQ314772.1	yes	10.1007/s13127-011-0066-y	474	Antarctica, Livingston Island

Usnea	*aurantiacoatra*	JQ314773.1	yes	10.1007/s13127-011-0066-y	474	Antarctica, Livingston Island
Usnea	*aurantiacoatra*	JQ314774.1	yes	10.1007/s13127-011-0066-y	474	Antarctica, Livingston Island
Usnea	*aurantiacoatra*	JQ314775.1	yes	10.1007/s13127-011-0066-y	474	Antarctica, Livingston Island
Usnea	*aurantiacoatra*	JQ314776.1	yes	10.1007/s13127-011-0066-y	474	Antarctica, Livingston Island
Usnea	*aurantiacoatra*	JQ314777.1	yes	10.1007/s13127-011-0066-y	474	Antarctica, Livingston Island
Usnea	*aurantiacoatra*	JQ314778.1	yes	10.1007/s13127-011-0066-y	474	Antarctica, Livingston Island
Usnea	*aurantiacoatra*	JQ314779.1	yes	10.1007/s13127-011-0066-y	474	Antarctica, Livingston Island
Usnea	*aurantiacoatra*	JQ314780.1	yes	10.1007/s13127-011-0066-y	474	Antarctica, Livingston Island
Usnea	*aurantiacoatra*	JQ314781.1	yes	10.1007/s13127-011-0066-y	474	Antarctica, Livingston Island
Usnea	*aurantiacoatra*	JQ314782.1	yes	10.1007/s13127-011-0066-y	474	Antarctica, Livingston Island
Usnea	*aurantiacoatra*	JQ314783.1	yes	10.1007/s13127-011-0066-y	474	Antarctica, Livingston Island
Usnea	*aurantiacoatra*	JQ314784.1	yes	10.1007/s13127-011-0066-y	474	Antarctica, Livingston Island
Usnea	*aurantiacoatra*	JQ314785.1	yes	10.1007/s13127-011-0066-y	474	Antarctica, Livingston Island
Usnea	*aurantiacoatra*	JQ314786.1	yes	10.1007/s13127-011-0066-y	474	Antarctica, Livingston Island
Usnea	*aurantiacoatra*	JQ314787.1	yes	10.1007/s13127-011-0066-y	474	Antarctica, Livingston Island
Usnea	*aurantiacoatra*	JQ314788.1	yes	10.1007/s13127-011-0066-y	474	Antarctica, Livingston Island

Usnea	*aurantiacoatra*	JQ314789.1	yes	10.1007/s13127-011-0066-y	474	Antarctica, Livingston Island
Usnea	*aurantiacoatra*	JQ314790.1	yes	10.1007/s13127-011-0066-y	474	Antarctica, Livingston Island
Usnea	*aurantiacoatra*	JQ314791.1	yes	10.1007/s13127-011-0066-y	474	Antarctica, Deception Island
Usnea	*aurantiacoatra*	JQ314792.1	yes	10.1007/s13127-011-0066-y	474	Antarctica, Deception Island
Usnea	*aurantiacoatra*	JQ314793.1	yes	10.1007/s13127-011-0066-y	474	Argentina, Terra do fogo
Usnea	*aurantiacoatra*	JQ314794.1	yes	10.1007/s13127-011-0066-y	474	Argentina, Terra do fogo
Usnea	*aurantiacoatra*	JQ314795.1	yes	10.1007/s13127-011-0066-y	474	Argentina, Terra do fogo
Usnea	*aurantiacoatra*	JQ314796.1	yes	10.1007/s13127-011-0066-y	474	Argentina, Terra do fogo
Usnea	*aurantiacoatra*	JQ314797.1	yes	10.1007/s13127-011-0066-y	474	Argentina, Santa Cruz
Usnea	*aurantiacoatra*	JQ314798.1	yes	10.1007/s13127-011-0066-y	474	Argentina, Santa Cruz
Usnea	*aurantiacoatra*	JQ314799.1	yes	10.1007/s13127-011-0066-y	474	Argentina, Santa Cruz
Usnea	*aurantiacoatra*	JQ314800.1	yes	10.1007/s13127-011-0066-y	474	Argentina, Santa Cruz
Usnea	*aurantiacoatra*	JQ314801.1	yes	10.1007/s13127-011-0066-y	474	Argentina, Santa Cruz
Usnea	*aurantiacoatra*	JQ314802.1	yes	10.1007/s13127-011-0066-y	474	Argentina, Santa Cruz
Usnea	*aurantiacoatra*	JQ314803.1	yes	10.1007/s13127-011-0066-y	474	Argentina, Santa Cruz
Usnea	*aurantiacoatra*	JQ314804.1	yes	10.1007/s13127-011-0066-y	474	Antarctica, Deception Island
Usnea	*aurantiacoatra*	JQ314805.1	yes	10.1007/s13127-011-0066-y	474	Argentina, Terra do fogo

Usnea	*aurantiacoatra*	JQ314806.1	yes	10.1007/s13127-011-0066-y	474	Antarctica, South Orkney Islands
Usnea	*aurantiacoatra*	JQ314807.1	yes	10.1007/s13127-011-0066-y	474	Antarctica, Deception Island
Usnea	*aurantiacoatra*	JQ314808.1	yes	10.1007/s13127-011-0066-y	474	Antarctica, Deception Island
Usnea	*aurantiacoatra*	JQ314809.1	yes	10.1007/s13127-011-0066-y	474	Antarctica, Lapataia Bay
Usnea	*aurantiacoatra*	JQ314810.1	yes	10.1007/s13127-011-0066-y	474	Antarctica, Adelaide Island
Usnea	*aurantiacoatra*	JQ314811.1	yes	10.1007/s13127-011-0066-y	474	Antarctica, Adelaide Island
Usnea	*aurantiacoatra*	JQ314812.1	yes	10.1007/s13127-011-0066-y	474	Antarctica, Adelaide Island
Usnea	*aurantiacoatra*	JQ314813.1	yes	10.1007/s13127-011-0066-y	474	Antarctica, Leonie Island
Usnea	*aurantiacoatra*	JQ314814.1	yes	10.1007/s13127-011-0066-y	474	Antarctica, Leonie Island
Usnea	*aurantiacoatra*	JQ314815.1	yes	10.1007/s13127-011-0066-y	474	Antarctica, King George Island
Usnea	*aurantiacoatra*	JQ314816.1	yes	10.1007/s13127-011-0066-y	474	Antarctica, King George Island
Usnea	*aurantiacoatra*	JQ314817.1	yes	10.1007/s13127-011-0066-y	474	Antarctica, Livingston Island
Usnea	*aurantiacoatra*	JQ314818.1	yes	10.1007/s13127-011-0066-y	474	Antarctica, Livingston Island
Usnea	*aurantiacoatra*	JQ314819.1	yes	10.1007/s13127-011-0066-y	474	Antarctica, Livingston Island
Usnea	*aurantiacoatra*	JQ314820.1	yes	10.1007/s13127-011-0066-y	474	Antarctica, Livingston Island
Usnea	*aurantiacoatra*	JQ314822.1	yes	10.1007/s13127-011-0066-y	474	Argentina, Terra do fogo
Usnea	*aurantiacoatra*	JQ314823.1	yes	10.1007/s13127-011-0066-y	474	Argentina, Terra do fogo

Usnea	*aurantiacoatra*	JQ314824.1	yes	10.1007/s13127-011-0066-y	474	Argentina, Santa Cruz
Usnea	*aurantiacoatra*	JQ314825.1	yes	10.1007/s13127-011-0066-y	474	Argentina, Terra do fogo
Usnea	*aurantiacoatra*	JQ314829.1	yes	10.1007/s13127-011-0066-y	474	Argentina, Santa Cruz
Usnea	*aurantiacoatra*	JQ314830.1	yes	10.1007/s13127-011-0066-y	474	Argentina, Santa Cruz
Usnea	*aurantiacoatra*	JQ314831.1	yes	10.1007/s13127-011-0066-y	474	Antarctica, Livingston Island
Usnea	*aurantiacoatra*	JQ314832.1	yes	10.1007/s13127-011-0066-y	474	Antarctica, Livingston Island
Usnea	*aurantiacoatra*	JQ314833.1	yes	10.1007/s13127-011-0066-y	474	Antarctica, Livingston Island
Usnea	*aurantiacoatra*	JQ314834.1	yes	10.1007/s13127-011-0066-y	474	Antarctica, Livingston Island
Usnea	*aurantiacoatra*	JQ314835.1	yes	10.1007/s13127-011-0066-y	474	Antarctica, Livingston Island
Usnea	*aurantiacoatra*	JQ314836.1	yes	10.1007/s13127-011-0066-y	474	Antarctica, Livingston Island
Usnea	*aurantiacoatra*	JQ314837.1	yes	10.1007/s13127-011-0066-y	474	Antarctica, Deception Island
Usnea	*aurantiacoatra*	JQ314838.1	yes	10.1007/s13127-011-0066-y	474	Antarctica, Deception Island
Usnea	*aurantiacoatra*	JQ314839.1	yes	10.1007/s13127-011-0066-y	474	Argentina, Terra do fogo
Usnea	*aurantiacoatra*	JQ314840.1	yes	10.1007/s13127-011-0066-y	474	Argentina, Terra do fogo
Usnea	*aurantiacoatra*	JQ314841.1	yes	10.1007/s13127-011-0066-y	474	Argentina, Terra do fogo
Usnea	*aurantiacoatra*	JQ314842.1	yes	10.1007/s13127-011-0066-y	474	Argentina, Terra do fogo
Usnea	*aurantiacoatra*	JQ314843.1	yes	10.1007/s13127-011-0066-y	474	Argentina, Terra do fogo

Usnea	*aurantiacoatra*	JQ314844.1	yes	10.1007/s13127-011-0066-y	474	Argentina, Terra do fogo
Usnea	*aurantiacoatra*	JX440309.1	no	unpublished	492	Not informed
Usnea	*aurantiacoatra*	JX440310.1	no	unpublished	492	Not informed
Usnea	*aurantiacoatra*	JX440311.1	no	unpublished	492	Not informed
Usnea	*aurantiacoatra*	JX440313.1	no	unpublished	492	Not informed
Usnea	*aurantiacoatra*	JX440314.1	no	unpublished	492	Not informed
Usnea	*aurantiacoatra*	JX440315.1	no	unpublished	492	Not informed
Usnea	*aurantiacoatra*	JX440316.1	no	unpublished	492	Not informed
Usnea	*aurantiacoatra*	JX440317.1	no	unpublished	492	Not informed
Usnea	*aurantiacoatra*	JX440318.1	no	unpublished	492	Not informed
Usnea	*aurantiacoatra*	JX440319.1	no	unpublished	492	Not informed
Usnea	*aurantiacoatra*	JX440320.1	no	unpublished	492	Not informed
Usnea	*aurantiacoatra*	JX440324.1	no	unpublished	492	Not informed
Usnea	*aurantiacoatra*	JX440325.1	no	unpublished	492	Not informed
Usnea	*aurantiacoatra*	JX440326.1	no	unpublished	492	Not informed
Usnea	*aurantiacoatra*	JX440327.1	no	unpublished	492	Not informed
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Usnea	*aurantiacoatra*	JX440330.1	no	unpublished	492	Not informed
Usnea	*aurantiacoatra*	JX440331.1	no	unpublished	492	Not informed
Usnea	*aurantiacoatra*	JX440332.1	no	unpublished	492	Not informed
Usnea	*aurantiacoatra*	JX440333.1	no	unpublished	492	Not informed
Usnea	*aurantiacoatra*	JX440334.1	no	unpublished	492	Not informed
Usnea	*aurantiacoatra*	JX440335.1	no	unpublished	492	Not informed
Usnea	*aurantiacoatra*	JX440336.1	no	unpublished	492	Not informed
Usnea	*aurantiacoatra*	KP954313.1	yes	10.1515/popore-2015-0012	494	Antarctica
Usnea	*aurantiacoatra*	KP954314.1	yes	10.1515/popore-2015-0012	494	Antarctica, Ardley Island

Usnea	*aurantiacoatra*	KP954315.1	yes	10.1515/popore-2015-0012	494	Antarctica, King George Island
Usnea	*aurantiacoatra*	KP954316.1	yes	10.1515/popore-2015-0012	494	Antarctica, King George Island
Usnea	*aurantiacoatra*	KP954317.1	yes	10.1515/popore-2015-0012	494	Antarctica, King George Island
Usnea	*aurantiacoatra*	KR053314.1	no	unpublished	510	Not informed
Usnea	*aurantiacoatra*	KR053315.1	no	unpublished	510	Not informed
Usnea	*aurantiacoatra*	KR053316.1	no	unpublished	510	Not informed
Usnea	*aurantiacoatra*	KR053317.1	no	unpublished	511	Not informed
Usnea	*aurantiacoatra*	KR053318.1	no	unpublished	510	Not informed
Usnea	*aurantiacoatra*	KR053319.1	no	unpublished	511	Not informed
Usnea	*aurantiacoatra*	KR053320.1	no	unpublished	512	Not informed
Usnea	*aurantiacoatra*	KR053321.1	no	unpublished	511	Not informed
Usnea	*aurantiacoatra*	KR053322.1	no	unpublished	511	Not informed
Usnea	*aurantiacoatra*	KR053323.1	no	unpublished	512	Not informed
Usnea	*aurantiacoatra*	KR053324.1	no	unpublished	511	Not informed
Usnea	*aurantiacoatra*	KR053325.1	no	unpublished	510	Not informed
Usnea	*aurantiacoatra*	KR053326.1	no	unpublished	511	Not informed
Usnea	*aurantiacoatra*	KR053327.1	no	unpublished	511	Not informed
Usnea	*aurantiacoatra*	KR053328.1	no	unpublished	512	Not informed
Usnea	*aurantiacoatra*	KR053329.1	no	unpublished	493	Not informed
Usnea	*aurantiacoatra*	KR053330.1	no	unpublished	512	Not informed
Usnea	*aurantiacoatra*	KR053331.1	no	unpublished	510	Not informed
Usnea	*aurantiacoatra*	KR053332.1	no	unpublished	511	Not informed
Usnea	*aurantiacoatra*	KR053333.1	no	unpublished	511	Not informed
Usnea	*aurantiacoatra*	KR053334.1	no	unpublished	510	Not informed
Usnea	*aurantiacoatra*	KR053335.1	no	unpublished	512	Not informed
Usnea	*aurantiacoatra*	KR053336.1	no	unpublished	513	Not informed

Usnea	*aurantiacoatra*	KR053337.1	no	unpublished	510	Not informed
Usnea	*aurantiacoatra*	KR053338.1	no	unpublished	511	Not informed
Usnea	*aurantiacoatra*	KR053339.1	no	unpublished	509	Not informed
Usnea	*aurantiacoatra*	KR053340.1	no	unpublished	510	Not informed
Usnea	*aurantiacoatra*	KR053341.1	no	unpublished	511	Not informed
Usnea	*aurantiacoatra*	KR053342.1	no	unpublished	509	Not informed
Usnea	*aurantiacoatra*	KR053343.1	no	unpublished	510	Not informed
Usnea	*aurantiacoatra*	KR053344.1	no	unpublished	512	Not informed
Usnea	*aurantiacoatra*	KR053345.1	no	unpublished	512	Not informed
Usnea	*aurantiacoatra*	KR053346.1	no	unpublished	512	Not informed
Usnea	*aurantiacoatra*	KR053347.1	no	unpublished	512	Not informed
Usnea	*aurantiacoatra*	KT187253.1	no	unpublished	494	Not informed
Usnea	*aurantiacoatra*	KT187254.1	no	unpublished	494	Not informed
Usnea	*aurantiacoatra*	KT187255.1	no	unpublished	494	Not informed
Usnea	*aurantiacoatra*	KT187256.1	no	unpublished	494	Not informed
Usnea	*aurantiacoatra*	KT187257.1	no	unpublished	494	Not informed
Usnea	*aurantiacoatra*	KT187258.1	no	unpublished	494	Not informed
Usnea	*aurantiacoatra*	KT187259.1	no	unpublished	495	Not informed
Usnea	*aurantiacoatra*	KT187260.1	no	unpublished	495	Not informed
Usnea	*aurantiacoatra*	KT187261.1	no	unpublished	494	Not informed
Usnea	*aurantiacoatra*	KT187262.1	no	unpublished	494	Not informed
Usnea	*aurantiacoatra*	KT187263.1	no	unpublished	494	Not informed
Usnea	*aurantiacoatra*	KT187264.1	no	unpublished	494	Not informed
Usnea	*aurantiacoatra*	KT187265.1	no	unpublished	497	Not informed
Usnea	*aurantiacoatra*	KT187266.1	no	unpublished	494	Not informed
Usnea	*aurantiacoatra*	KT187267.1	no	unpublished	494	Not informed
Usnea	*aurantiacoatra*	KT187268.1	no	unpublished	494	Not informed
Usnea	*aurantiacoatra*	KX147238.1	yes	10.24425/118749	899	Antarctica, Ardley Island

Usnea	*aurantiacoatra*	KX147239.1	yes	10.24425/118749	898	Antarctica, King George Island
Usnea	*aurantiacoatra*	KX147240.1	yes	10.24425/118749	896	Antarctica, Ardley Island
Usnea	*aurantiacoatra*	KX147241.1	yes	10.24425/118749	909	Antarctica, Ardley Island
Usnea	*aurantiacoatra*	KX147242.1	yes	10.24425/118749	896	Antarctica, King George Island
Usnea	*aurantiacoatra*	KX147243.1	yes	10.24425/118749	903	Antarctica, King George Island
Usnea	*aurantiacoatra*	KX147244.1	yes	10.24425/118749	908	Antarctica, King George Island
Usnea	*aurantiacoatra*	KX147245.1	yes	10.24425/118749	901	Antarctica, King George Island
Usnea	*aurantiacoatra*	KX147246.1	yes	10.24425/118749	908	Antarctica, Nelson Island
Usnea	*aurantiacoatra*	KX147247.1	yes	10.24425/118749	875	Antarctica, Nelson Island
Usnea	*aurantiacoatra*	KX147248.1	yes	10.24425/118749	878	Antarctica, Nelson Island
Usnea	*aurantiacoatra*	KX147249.1	yes	10.24425/118749	931	Antarctica, Nelson Island
Usnea	*aurantiacoatra*	KX147250.1	yes	10.24425/118749	903	Antarctica, King George Island
Usnea	*aurantiacoatra*	KX147251.1	yes	10.24425/118749	909	Antarctica, King George Island
Usnea	*aurantiacoatra*	KX147252.1	yes	10.24425/118749	898	Antarctica, Nelson Island
Usnea	*aurantiacoatra*	KX147253.1	yes	10.24425/118749	903	Antarctica, Nelson Island
Usnea	*fasciata*	NA				
Usnea	*trachycarpa*	AJ748103.1	yes	10.2307/4135560	1398	Chile
Usnea	*trachycarpa*	DQ235496.1	yes	10.2307/25065584	491	Argentina, Terra do Fogo

Usnea	*trachycarpa*	DQ235497.1	yes	10.2307/25065584	496	Argentina, Terra do Fogo
Usnea	*trachycarpa*	DQ235498.1	yes	10.2307/25065584	496	Argentina, Santa Cruz
Usnea	*trachycarpa*	DQ235509.1	yes	10.2307/25065584	496	Argentina, Santa Cruz
Usnea	*trachycarpa*	DQ767964.1	yes	10.1017/S0954102007000107	504	Antarctica
Usnea	*trachycarpa*	EF116568.1	yes	10.2307/25065584	882	Not informed
Usnea	*trachycarpa*	EF179804.1	yes	10.2307/25065584	557	Not informed
Usnea	*trachycarpa*	JQ314699.1	yes	10.1007/s13127-011-0066-y	474	Ecuador, Chimborazo
Usnea	*trachycarpa*	JQ314702.1	yes	10.1007/s13127-011-0066-y	474	Argentina, Rio Negro
Usnea	*trachycarpa*	JQ314703.1	yes	10.1007/s13127-011-0066-y	474	Argentina, Terra do Fogo
Usnea	*trachycarpa*	JQ314716.1	yes	10.1007/s13127-011-0066-y	474	Antarctica, Alexander Island
Usnea	*trachycarpa*	JQ314730.1	yes	10.1007/s13127-011-0066-y	474	Antarctica, Leonie Island
Usnea	*trachycarpa*	JQ314731.1	yes	10.1007/s13127-011-0066-y	474	Antarctica, Alexander Island
Usnea	*trachycarpa*	JQ314738.1	yes	10.1007/s13127-011-0066-y	474	Antarctica, Alexander Island
Usnea	*trachycarpa*	JQ314739.1	yes	10.1007/s13127-011-0066-y	474	Antarctica, Alexander Island
Usnea	*trachycarpa*	JQ314751.1	yes	10.1007/s13127-011-0066-y	474	Argentina, Terra do Fogo
Usnea	*trachycarpa*	JQ314752.1	yes	10.1007/s13127-011-0066-y	474	Argentina, Terra do Fogo
Usnea	*trachycarpa*	JQ314753.1	yes	10.1007/s13127-011-0066-y	474	Argentina, Terra do Fogo
Usnea	*trachycarpa*	JQ314755.1	yes	10.1007/s13127-011-0066-y	474	Argentina, Santa Cruz
Usnea	*trachycarpa*	JQ314756.1	yes	10.1007/s13127-011-0066-y	474	Argentina, Santa Cruz

Usnea	*trachycarpa*	JQ314757.1	yes	10.1007/s13127-011-0066-y	474	Argentina, Santa Cruz
Usnea	*trachycarpa*	JQ314758.1	yes	10.1007/s13127-011-0066-y	474	Argentina, Santa Cruz
Usnea	*trachycarpa*	JQ314760.1	yes	10.1007/s13127-011-0066-y	474	Argentina, Santa Cruz
Usnea	*trachycarpa*	JQ314761.1	yes	10.1007/s13127-011-0066-y	474	Argentina, Santa Cruz
Usnea	*trachycarpa*	JQ314762.1	yes	10.1007/s13127-011-0066-y	474	Argentina, Santa Cruz
Verrucaria	*halizoa*	NA				
Verrucaria	*ceuthocarpa*	FJ664838.1	yes	unpublished	1942	Eyjarfjardarsysla, Iceland
Verrucaria	*ceuthocarpa*	KY697141.1	yes	10.11646/phytotaxa.306.1.3	598	Iceland
Verrucaria	*cylindrophora*	NA				
Verrucaria	*dispartita*	NA				
Verrucaria	*elaeoplaca*	NA				
Verrucaria	*psychrophila*	NA				
Verrucaria	*tessellatula*	MF882947.1	no	10.1111/jbi.13105	582	Tierra del Fuego, Chile
Villophora	*isidioclada*	KC179325.1	yes	10.1111/j.1756-1051.2013.00062.x	503	Chile
Xanthoria	*elegans*	AF278753.1	no	10.1006/lich.2000.0306	639	Vestfold Hills, Antarctica
Xanthoria	*elegans*	AF278754.1	no	10.1006/lich.2000.0306	602	Vestfold Hills, Antarctica
Xanthoria	*elegans*	AF278755.1	no	10.1006/lich.2000.0306	624	Vestfold Hills, Antarctica
Xanthoria	*elegans*	AF278756.1	no	10.1006/lich.2000.0306	610	Vestfold Hills, Antarctica
Xanthoria	*elegans*	AF278757.1	no	10.1006/lich.2000.0306	601	Vestfold Hills, Antarctica
Xanthoria	*elegans*	AF279763.1	no	10.1006/lich.2000.0306	572	UK

Xanthoria	*elegans*	AF279764.1	no	10.1006/lich.2000.0306	574	UK
Xanthoria	*elegans*	AF279765.1	no	10.1017/S0953756202006615	574	UK
Xanthoria	*elegans*	AF279766.1	no	10.1017/S0953756202006615	579	Wyoming, USA
Xanthoria	*elegans*	AF279767.1	no	10.1017/S0953756202006615	594	Wyoming, USA
Xanthoria	*elegans*	AF279768.1	no	10.1017/S0953756202006615	593	Wyoming, USA
Xanthoria	*elegans*	AF279769.1	no	10.1017/S0953756202006615	593	Montana, USA
Xanthoria	*elegans*	AF279770.1	no	10.1017/S0953756202006615	401	Maine, USA
Xanthoria	*elegans*	AF279771.1	no	10.1017/S0953756202006615	578	Alaska, USA
Xanthoria	*elegans*	AF279772.1	no	10.1017/S0953756202006615	579	Signy Island, Antarctica
Xanthoria	*elegans*	AF281306.1	no	10.1006/lich.2000.0306	615	Vestfold Hills, Antarctica
Xanthoria	*elegans*	AJ320139.1	no	10.1046/j.1469-8137.2003.00740.x	550	Winterthur, Switzerland
Xanthoria	*elegans*	AM292835.1	yes	unpublished	536	Manaslu, Nepal
Xanthoria	*elegans*	AM292856.1	yes	unpublished	534	Gemmipass, Switzerland
Xanthoria	*elegans*	AM292860.1	yes	unpublished	537	Bishkek, Kashka-Suu, Kyrgyzstan
Xanthoria	*elegans*	AM408414.1	yes	unpublished	536	Langwies, Fondei, Switzerland
Xanthoria	*elegans*	AM408415.1	yes	unpublished	536	Langwies, Fondei, Switzerland
Xanthoria	*elegans*	AM408417.1	yes	unpublished	536	Alaska, USA
Xanthoria	*elegans*	AM408419.1	yes	unpublished	536	Alaska, USA
Xanthoria	*elegans*	AM408422.1	yes	unpublished	537	Pizol, Switzerland
Xanthoria	*elegans*	AM408424.1	yes	unpublished	536	Arosa, Switzerland
Xanthoria	*elegans*	AM408425.1	yes	unpublished	537	Arosa, Switzerland
Xanthoria	*elegans*	AM697871.1	yes	unpublished	537	Pizol, Switzerland
Xanthoria	*elegans*	AM697872.1	yes	unpublished	537	Pizol, Switzerland

Xanthoria	*elegans*	AY081152.1	yes	Revision of Xanthomendoza (Teloschistaceae, Lecanorales) based on morphology, anatomy, secondary metabolites and molecular data	500	Not informed
Xanthoria	*elegans*	EF423390.1	no	unpublished	633	Not informed
Xanthoria	*elegans*	EU569766.1	no	unpublished	603	Xinjiang Province, China
Xanthoria	*elegans*	EU569767.1	no	unpublished	621	Xinjiang Province, China
Xanthoria	*elegans*	EU569768.1	no	unpublished	613	Xinjiang Province, China
Xanthoria	*elegans*	EU569769.1	no	unpublished	601	Xinjiang Province, China
Xanthoria	*elegans*	EU569770.1	no	unpublished	609	Xinjiang Province, China
Xanthoria	*elegans*	EU569771.1	no	unpublished	603	Xinjiang Province, China
Xanthoria	*elegans*	EU569772.1	no	unpublished	613	Xinjiang Province, China
Xanthoria	*elegans*	EU569773.1	no	unpublished	605	Xinjiang Province, China
Xanthoria	*elegans*	EU569774.1	no	unpublished	603	Xinjiang Province, China
Xanthoria	*elegans*	EU569775.1	no	unpublished	573	Xinjiang Province, China
Xanthoria	*elegans*	EU639642.1	yes	10.1016/j.mycres.2007.11.005	548	Catalunya, Spain
Xanthoria	*elegans*	EU681336.1	yes	A phylogenetic analysis of xanthorioid lichens (Teloschistaceae, Ascomycota) based on ITS and mtSSU sequences	497	Ukraine

Xanthoria	*elegans*	EU681337.1	yes	A phylogenetic analysis of xanthorioid lichens (Teloschistaceae, Ascomycota) based on ITS and mtSSU sequences	552	Iran
Xanthoria	*elegans*	JN984133.1	no	unpublished	520	Canary Islands, Spain
Xanthoria	*elegans*	JN984134.1	no	unpublished	518	Canary Islands, Spain
Xanthoria	*elegans*	JQ074212.1	yes	10.1007/s00300-012-1161-z	521	Greenland
Xanthoria	*elegans*	KC179406.1	yes	10.1111/j.1756-1051.2013.00062.x	525	Russia
Xanthoria	*elegans*	KP314308.1	yes	unpublished	570	Svalbard, Norway
Xanthoria	*elegans*	KP314380.1	yes	unpublished	567	Svalbard, Norway
Xanthoria	*elegans*	KP314412.1	yes	unpublished	568	Svalbard, Norway
Xanthoria	*elegans*	KP314422.1	yes	unpublished	568	Svalbard, Norway
Xanthoria	*elegans*	KP314424.1	yes	unpublished	568	Svalbard, Norway
Xanthoria	*elegans*	KP314426.1	yes	unpublished	570	Svalbard, Norway
Xanthoria	*elegans*	KP314443.1	yes	unpublished	568	Svalbard, Norway
Xanthoria	*elegans*	KR611572.1	no	unpublished	516	Qinghai, China
Xanthoria	*elegans*	KR611573.1	no	unpublished	515	Svalbard, Norway
Xanthoria	*elegans*	KR611574.1	no	unpublished	517	Svalbard, Norway
Xanthoria	*elegans*	KR611575.1	no	unpublished	516	Not informed
Xanthoria	*elegans*	KR611576.1	no	unpublished	516	Not informed
Xanthoria	*elegans*	KX512947.1	yes	10.1007/s13225-016-0372-y	548	Not informed
Xanthoria	*elegans*	MG554678.1	no	unpublished	382	Not informed
Xanthoria	*elegans*	MG954148.1	yes	10.11646/phytotaxa.396.1.1	577	Altai, Russia
Xanthoria	*elegans*	MG954149.1	yes	10.11646/phytotaxa.396.1.1	590	Altai, Russia
Xanthoria	*elegans*	MG954152.1	yes	10.11646/phytotaxa.396.1.1	594	Tuva, Russia
Xanthoria	*elegans*	MG954153.1	yes	10.11646/phytotaxa.396.1.1	445	Tuva, Russia

Xanthoria	*elegans*	MG954154.1	yes	10.11646/phytotaxa.396.1.1	397	Tuva, Russia
Xanthoria	*elegans*	MG954156.1	yes	10.11646/phytotaxa.396.1.1	583	Western Sayan, Russia
Xanthoria	*elegans*	MK812165.1	yes	10.3897/BDJ.7.e36252	570	Sor-Trondelag, Oppdal, Norway
Xanthoria	*elegans*	MK812212.1	yes	10.3897/BDJ.7.e36252	540	Oppland, Lom, Flaklypa, Norway
Xanthoria	*elegans*	MN103181.1	yes	unpublished	610	Helan Mountain, China
Xanthoria	*elegans*	MN103182.1	yes	unpublished	624	Helan Mountain, China
Zahlbrucknerella	*marionensis*	NA				

Supplementary material 3: MOTUs formed by each genera with the respective sequence locations

Family	Genus	MOTU number	How many taxon was formed by? (sp., subsp., f. e var.)	Number of ITS sequences (after methodological removes)	Antarctica	Asia	Africa	South America	Central America	North America	Europe	Oceania	Not informed
Acarosporaceae	*Acarospora*	1	1	4		2					2		
Acarosporaceae	*Acarospora*	2	1	1	1								
Acarosporaceae	*Pleopsidium*	1	1	26	2	2					22		
Acarosporaceae	*Pleopsidium*	2	1	2		2							
Acarosporaceae	*Pleopsidium*	3	1	2		1				1			

Acarosporaceae	*Pleopsidium*	4	1	2				2			
Acarosporaceae	*Pleopsidium*	5	1	2				2			
Acarosporaceae	*Pleopsidium*	6	1	2				1	1		
Acarosporaceae	*Pleopsidium*	7	1	1		1					
Acarosporaceae	*Pleopsidium*	8	1	1		1					
Caliciaceae	*Amandinea*	1	1	2					1		1
Caliciaceae	*Amandinea*	2	1	2					2		
Caliciaceae	*Amandinea*	3	1	1					1		
Caliciaceae	*Amandinea*	4	1	1							1
Caliciaceae	*Amandinea*	5	1	1		1					
Caliciaceae	*Amandinea*	6	1	1					1		
Caliciaceae	*Amandinea*	7	1	1							1
Caliciaceae	*Amandinea*	8	1	1							1
Caliciaceae	*Amandinea*	9	1	1	1						
Caliciaceae	*Diplotoma*	1	1	3					1		2
Caliciaceae	*Diplotoma*	2	1	2					2		
Caliciaceae	*Diplotoma*	3	1	2					2		
Caliciaceae	*Diplotoma*	4	1	1					1		
Caliciaceae	*Diplotoma*	5	1	1					1		
Caliciaceae	*Diplotoma*	6	1	1					1		
Caliciaceae	*Diplotoma*	7	1	1					1		
Caliciaceae	*Tetramelas*	1	1	1	1						
Caliciaceae	*Tetramelas*	2	1	1							1
Candelariaceae	*Candelariella*	1	1	4		2			2		
Candelariaceae	*Candelariella*	2	1	3				1	2		
Candelariaceae	*Candelariella*	3	1	3					3		
Candelariaceae	*Candelariella*	4	1	3				3			

Candelariaceae	*Candelariella*	5	1	1					1			
Candelariaceae	*Candelariella*	6	1	1		1						
Candelariaceae	*Candelariella*	7	1	1		1						
Candelariaceae	*Candelariella*	8	1	1		1						
Candelariaceae	*Candelariella*	9	1	1		1						
Candelariaceae	*Candelariella*	10	1	1		1						
Cladoniaceae	*Cladonia*	1	2	70	44	1	2	2	21			
Cladoniaceae	*Cladonia*	2	5	39	4	2	2	14	15			2
Cladoniaceae	*Cladonia*	3	4	31		1		15	15			
Cladoniaceae	*Cladonia*	4	2	27	1				26			
Cladoniaceae	*Cladonia*	5	2	24		4	2	10	2	5	1	
Cladoniaceae	*Cladonia*	6	2	14					14			
Cladoniaceae	*Cladonia*	7	3	10			1	6	3			
Cladoniaceae	*Cladonia*	8	1	10				2	8			
Cladoniaceae	*Cladonia*	9	1	10		1		6	3			
Cladoniaceae	*Cladonia*	10	1	10				6	4			
Cladoniaceae	*Cladonia*	11	1	8				1	7			
Cladoniaceae	*Cladonia*	12	3	7				4	2	1		
Cladoniaceae	*Cladonia*	13	1	6				1	5			
Cladoniaceae	*Cladonia*	14	2	5		4		1				
Cladoniaceae	*Cladonia*	15	2	5		1			1	2	1	
Cladoniaceae	*Cladonia*	16	1	5					5			
Cladoniaceae	*Cladonia*	17	3	4		1		1	2			
Cladoniaceae	*Cladonia*	18	2	4	1				3			
Cladoniaceae	*Cladonia*	19	1	3					3			
Cladoniaceae	*Cladonia*	20	1	3				3				
Cladoniaceae	*Cladonia*	21	2	3					3			

Cladoniaceae	*Cladonia*	22	2	3		1			2	
Cladoniaceae	*Cladonia*	23	1	3			3			
Cladoniaceae	*Cladonia*	24	1	3					3	
Cladoniaceae	*Cladonia*	25	1	3	1			2		
Cladoniaceae	*Cladonia*	26	1	3					3	
Cladoniaceae	*Cladonia*	27	1	2				2		
Cladoniaceae	*Cladonia*	28	1	2				2		
Cladoniaceae	*Cladonia*	29	1	2				1	1	
Cladoniaceae	*Cladonia*	30	1	2				1	1	
Cladoniaceae	*Cladonia*	31	2	2					2	
Cladoniaceae	*Cladonia*	32	2	2		2				
Cladoniaceae	*Cladonia*	33	2	2		2				
Cladoniaceae	*Cladonia*	34	1	2					2	
Cladoniaceae	*Cladonia*	35	2	2		2				
Cladoniaceae	*Cladonia*	36	2	2		2				
Cladoniaceae	*Cladonia*	37	2	2					2	
Cladoniaceae	*Cladonia*	38	2	2					2	
Cladoniaceae	*Cladonia*	39	1	2				2		
Cladoniaceae	*Cladonia*	40	1	2		1			1	
Cladoniaceae	*Cladonia*	41	1	2					2	
Cladoniaceae	*Cladonia*	42	1	1		1				
Cladoniaceae	*Cladonia*	43	1	1					1	
Cladoniaceae	*Cladonia*	44	1	1		1				
Cladoniaceae	*Cladonia*	45	1	1		1				
Cladoniaceae	*Cladonia*	46	1	1				1		
Cladoniaceae	*Cladonia*	47	1	1				1		
Cladoniaceae	*Cladonia*	48	1	1						1

Cladoniaceae	*Cladonia*	49	1	1			1					
Cladoniaceae	*Cladonia*	50	1	1		1						
Cladoniaceae	*Cladonia*	51	1	1		1						
Cladoniaceae	*Cladonia*	52	1	1			1					
Cladoniaceae	*Cladonia*	53	1	1		1						
Cladoniaceae	*Cladonia*	54	1	1						1		
Cladoniaceae	*Cladonia*	55	1	1	1							
Cladoniaceae	*Cladonia*	56	1	1					1			
Cladoniaceae	*Cladonia*	57	1	1		1						
Cladoniaceae	*Cladonia*	58	1	1					1			
Cladoniaceae	*Cladonia*	59	1	1	1							
Cladoniaceae	*Cladonia*	60	1	1			1					
Cladoniaceae	*Cladonia*	61	1	1								1
Cladoniaceae	*Cladonia*	62	1	1					1			
Cladoniaceae	*Cladonia*	63	1	1			1					
Cladoniaceae	*Cladonia*	64	1	1		1						
Cladoniaceae	*Cladonia*	65	1	1		1						
Cladoniaceae	*Cladonia*	66	1	1			1					
Cladoniaceae	*Cladonia*	67	1	1		1						
Cladoniaceae	*Cladonia*	68	1	1					1			
Cladoniaceae	*Cladonia*	69	1	1			1					
Cladoniaceae	*Cladonia*	70	1	1			1					
Cladoniaceae	*Cladonia*	71	1	1					1			
Cladoniaceae	*Cladonia*	72	1	1					1			
Cladoniaceae	*Cladonia*	73	1	1					1			
Cladoniaceae	*Cladonia*	74	1	1					1			
Cladoniaceae	*Cladonia*	75	1	1			1					

Cladoniaceae	*Cladonia*	76	1	1			1			
Cladoniaceae	*Cladonia*	77	1	1				1		
Cladoniaceae	*Cladonia*	78	1	1			1			
Cladoniaceae	*Cladonia*	79	1	1			1			
Cladoniaceae	*Cladonia*	80	1	1			1			
Cladoniaceae	*Cladonia*	81	1	1			1			
Cladoniaceae	*Cladonia*	82	1	1			1			
Cladoniaceae	*Cladonia*	83	1	1				1		
Cladoniaceae	*Cladonia*	84	1	1					1	
Cladoniaceae	*Cladonia*	85	1	1			1			
Cladoniaceae	*Cladonia*	86	1	1				1		
Cladoniaceae	*Cladonia*	87	1	1			1			
Cladoniaceae	*Cladonia*	88	1	1			1			
Cladoniaceae	*Cladonia*	89	1	1			1			
Cladoniaceae	*Cladonia*	90	1	1		1				
Collemataceae	*Leptogium*	1	1	8	8					
Collemataceae	*Leptogium*	2	1	3	3					
Collemataceae	*Leptogium*	3	1	1	1					
Collemataceae	*Leptogium*	4	1	1	1					
Collemataceae	*Leptogium*	5	1	1	1					
Cystocoleaceae	*Cystocoleus*	1	1	12				12		
Cystocoleaceae	*Cystocoleus*	2	1	2				2		
Cystocoleaceae	*Cystocoleus*	3	1	1				1		
Cystocoleaceae	*Cystocoleus*	4	1	1				1		
Cystocoleaceae	*Cystocoleus*	5	1	1				1		
Hymeneliaceae	*Tremolecia*	1	1	2				2		
Hymeneliaceae	*Tremolecia*	2	1	1				1		

Koerbiaceae	*Steinera*	1	1	17	15		1			1
Koerbiaceae	*Steinera*	2	1	1			1			
Lecanoraceae	*Carbonea*	1	1	4	4					
Lecanoraceae	*Carbonea*	2	1	4	4					
Lecanoraceae	*Carbonea*	3	1	1					1	
Lecanoraceae	*Lecanora*	1	1	7					6	1
Lecanoraceae	*Lecanora*	2	1	4					3	1
Lecanoraceae	*Lecanora*	3	1	3					3	
Lecanoraceae	*Lecanora*	4	1	3		1		1		1
Lecanoraceae	*Lecanora*	5	1	3	3					
Lecanoraceae	*Lecanora*	6	1	2					2	
Lecanoraceae	*Lecanora*	7	1	2					2	
Lecanoraceae	*Lecanora*	8	1	1	1					
Lecanoraceae	*Lecanora*	9	1	1	1					
Lecanoraceae	*Lecanora*	10	1	1				1		
Lecanoraceae	*Lecanora*	11	1	1						1
Lecanoraceae	*Lecanora*	12	1	1						1
Lecanoraceae	*Lecanora*	13	1	1				1		
Lecanoraceae	*Lecanora*	14	1	1					1	
Lecanoraceae	*Lecidella*	1	2	8	6				2	
Lecanoraceae	*Lecidella*	2	2	7		4		2	1	
Lecanoraceae	*Lecidella*	3	1	4			4			
Lecanoraceae	*Lecidella*	4	1	4		1			3	
Lecanoraceae	*Lecidella*	5	1	3			3			
Lecanoraceae	*Lecidella*	6	1	3					3	
Lecanoraceae	*Lecidella*	7	1	2			2			
Lecanoraceae	*Lecidella*	8	1	2					2	

Lecanoraceae	*Lecidella*	9	1	2			2				
Lecanoraceae	*Lecidella*	10	1	2		2					
Lecanoraceae	*Lecidella*	11	1	2					2		
Lecanoraceae	*Lecidella*	12	1	1					1		
Lecanoraceae	*Lecidella*	13	1	1		1					
Lecanoraceae	*Lecidella*	14	1	1		1					
Lecanoraceae	*Lecidella*	15	1	1					1		
Lecanoraceae	*Lecidella*	16	1	1			1				
Lecanoraceae	*Lecidella*	17	1	1					1		
Lecanoraceae	*Lecidella*	18	1	1		1					
Lecanoraceae	*Lecidella*	19	1	1					1		
Lecanoraceae	*Lecidella*	20	1	1							1
Lecanoraceae	*Lecidella*	21	1	1					1		
Lecanoraceae	*Lecidella*	22	1	1					1		
Lecanoraceae	*Lecidella*	23	1	1		1					
Lecanoraceae	*Lecidella*	24	1	1		1					
Lecanoraceae	*Lecidella*	25	1	1		1					
Lecanoraceae	*Lecidella*	26	1	1		1					
Lecanoraceae	*Lecidella*	27	1	1		1					
Lecanoraceae	*Lecidella*	28	1	1		1					
Lecanoraceae	*Lecidella*	29	1	1					1		
Lecanoraceae	*Lecidella*	30	1	1							1
Lecanoraceae	*Myriolecis*	1	1	7				1	4		2
Lecanoraceae	*Myriolecis*	2	1	2					2		
Lecanoraceae	*Myriolecis*	3	1	1							1
Lecanoraceae	*Rhizoplaca*	1	1	99		35	1	60	3		
Lecanoraceae	*Rhizoplaca*	2	1	57	1	2	6	22	15		11

Lecanoraceae	*Rhizoplaca*	3	1	2					2	
Lecanoraceae	*Rhizoplaca*	4	1	1	1					
Lecanoraceae	*Rhizoplaca*	5	1	1				1		
Lecanoraceae	*Rhizoplaca*	6	1	1		1				
Lecanoraceae	*Rhizoplaca*	7	1	1					1	
Lecideaceae	*Bellemerea*	1	1	2					2	
Lecideaceae	*Lecidea*	1	1	35	34		1			
Lecideaceae	*Lecidea*	2	1	29			27		1	1
Lecideaceae	*Lecidea*	3	2	24	20			3	1	
Lecideaceae	*Lecidea*	4	1	23	1		20		2	
Lecideaceae	*Lecidea*	5	1	10			10			
Lecideaceae	*Lecidea*	6	1	9	3	1	3	2		
Lecideaceae	*Lecidea*	7	1	5			5			
Lecideaceae	*Lecidea*	8	1	3	3					
Lecideaceae	*Lecidea*	9	1	3	2		1			
Lecideaceae	*Lecidea*	10	1	2	2					
Lecideaceae	*Lecidea*	11	1	2					2	
Lecideaceae	*Lecidea*	12	1	2					2	
Lecideaceae	*Lecidea*	13	1	1		1				
Lecideaceae	*Lecidea*	14	1	1						1
Lecideaceae	*Lecidea*	15	1	1			1			
Lecideaceae	*Lecidea*	16	1	1			1			
Lecideaceae	*Lecidea*	17	1	1			1			
Lecideaceae	*Lecidea*	18	1	1			1			
Lecideaceae	*Lecidea*	19	1	1					1	
Lecideaceae	*Lecidea*	20	1	1					1	
Lecideaceae	*Lecidea*	21	1	1	1					

Lecideaceae	*Lecidea*	22	1	1		1							
Lecideaceae	*Lecidea*	23	1	1									1
Lecideaceae	*Poetidea*	1	1	5				5					
Massalongiaceae	*Massalongia*	1	1	10		1				4	5		
Massalongiaceae	*Massalongia*	2	1	1							1		
Megasporaceae	*Aspicilia*	1	1	1							1		
Megasporaceae	*Aspicilia*	2	1	1							1		
Megasporaceae	*Aspicilia*	3	1	1							1		
Megasporaceae	*Megaspora*	1	1	7		2					5		
Megasporaceae	*Megaspora*	2	1	1						1			
Ochrolechiaceae	*Ochrolechia*	1	1	18		1	2				14		1
Ochrolechiaceae	*Ochrolechia*	2	1	12	1	1					9		1
Ochrolechiaceae	*Ochrolechia*	3	1	6							6		
Ochrolechiaceae	*Ochrolechia*	4	1	1									1
Ochrolechiaceae	*Ochrolechia*	5	1	1	1								
Ochrolechiaceae	*Ochrolechia*	6	1	1						1			
Ochrolechiaceae	*Ochrolechia*	7	1	1							1		
Ochrolechiaceae	*Ochrolechia*	8	1	1							1		
Ochrolechiaceae	*Ochrolechia*	9	1	1							1		
Ochrolechiaceae	*Ochrolechia*	10	1	1							1		
Pannariaceae	*Pannaria*	1	1	4							3	1	
Pannariaceae	*Psoroma*	1	1	31	31								
Pannariaceae	*Psoroma*	2	1	12	4						7		1
Pannariaceae	*Psoroma*	3	1	5				1			4		
Pannariaceae	*Psoroma*	4	1	3				3					
Pannariaceae	*Psoroma*	5	1	2	2								
Pannariaceae	*Psoroma*	6	1	1				1					

Pannariaceae	*Psoroma*	7	1	1						1			
Pannariaceae	*Psoroma*	8	1	1									1
Pannariaceae	*Psoroma*	9	1	1				1					
Pannariaceae	*Psoroma*	10	1	1				1					
Pannariaceae	*Psoroma*	11	1	1				1					
Pannariaceae	*Psoroma*	12	1	1						1			
Parmeliaceae	*Cetraria*	1	1	85	4	3		10	2	29			37
Parmeliaceae	*Cetraria*	2	1	41		2	5			34			
Parmeliaceae	*Cetraria*	3	1	32		2				22			8
Parmeliaceae	*Cetraria*	4	1	22		1				21			
Parmeliaceae	*Cetraria*	5	1	13									13
Parmeliaceae	*Cetraria*	6	1	10									10
Parmeliaceae	*Cetraria*	7	1	6						6			
Parmeliaceae	*Cetraria*	8	1	3					3				
Parmeliaceae	*Cetraria*	9	1	1						1			
Parmeliaceae	*Coelopogon*	1	1	3				3					
Parmeliaceae	*Himantormia*	1	1	3	3								
Parmeliaceae	*Hypogymnia*	1	1	5							4		1
Parmeliaceae	*Hypogymnia*	2	1	1							1		
Parmeliaceae	*Hypogymnia*	3	1	1							1		
Parmeliaceae	*Hypogymnia*	4	1	1									1
Parmeliaceae	*Parmelia*	1	1	40		4		4	7	23			2
Parmeliaceae	*Parmelia*	2	1	12	2	1		2		7			
Parmeliaceae	*Parmelia*	3	1	9					3	6			
Parmeliaceae	*Parmelia*	4	1	7					2	4			1
Parmeliaceae	*Parmelia*	5	1	4						4			
Parmeliaceae	*Parmelia*	6	1	2		1				1			

Parmeliaceae	*Parmelia*	7	1	2					2			
Parmeliaceae	*Parmelia*	8	1	2					2			
Parmeliaceae	*Parmelia*	9	1	1		1						
Parmeliaceae	*Parmelia*	10	1	1	1							
Parmeliaceae	*Parmelia*	11	1	1					1			
Parmeliaceae	*Parmelia*	12	1	1					1			
Parmeliaceae	*Parmelia*	13	1	1					1			
Parmeliaceae	*Parmelia*	14	1	1					1			
Parmeliaceae	*Parmelia*	15	1	1					1			
Parmeliaceae	*Protoparmelia*	1	1	4		1		1	1	1		
Parmeliaceae	*Protoparmelia*	2	1	3				1	1			1
Parmeliaceae	*Protoparmelia*	3	1	2					2			
Parmeliaceae	*Protoparmelia*	4	1	2					2			
Parmeliaceae	*Protoparmelia*	5	1	1					1			
Parmeliaceae	*Protoparmelia*	6	1	1					1			
Parmeliaceae	*Protoparmelia*	7	1	1					1			
Parmeliaceae	*Protoparmelia*	8	1	1					1			
Parmeliaceae	*Pseudophebe*	1	2	40	1	1	5	4	29			
Parmeliaceae	*Pseudophebe*	2	1	15					15			
Parmeliaceae	*Pseudophebe*	3	1	5				5				
Parmeliaceae	*Pseudophebe*	4	2	4				2	2			
Parmeliaceae	*Pseudophebe*	5	2	2				1	1			
Parmeliaceae	*Pseudophebe*	6	1	2					2			
Parmeliaceae	*Pseudophebe*	7	1	1					1			
Parmeliaceae	*Usnea*	1	2	123	34		5					84
Parmeliaceae	*Usnea*	2	2	82	46		36					
Parmeliaceae	*Usnea*	3	1	18	5		13					

Parmeliaceae	*Usnea*	4	2	10			8				2
Parmeliaceae	*Usnea*	5	3	5	5						
Parmeliaceae	*Usnea*	6	2	3							3
Parmeliaceae	*Usnea*	7	2	2	2						
Peltigeraceae	*Peltigera*	1	1	13		2		5	3	2	1
Peltigeraceae	*Peltigera*	2	1	1				1			
Pertusariaceae	*Lepra*	1	1	2	1						1
Pertusariaceae	*Lepra*	2	1	2					2		
Pertusariaceae	*Lepra*	3	2	1							1
Pertusariaceae	*Pertusaria*	1	1	9					9		
Physciaceae	*Phaeophyscia*	1	1	2					1		1
Physciaceae	*Phaeophyscia*	2	1	1			1				
Physciaceae	*Phaeophyscia*	3	1	1							1
Physciaceae	*Phaeorrhiza*	1	1	2							2
Physciaceae	*Phaeorrhiza*	2	1	1							1
Physciaceae	*Physcia*	1	1	22	1	2		2	10		7
Physciaceae	*Physcia*	2	1	7	1						6
Physciaceae	*Physcia*	3	1	7					1		6
Physciaceae	*Physcia*	4	1	6					2		4
Physciaceae	*Physcia*	5	1	5					2		3
Physciaceae	*Physcia*	6	1	3		1					2
Physciaceae	*Physcia*	7	1	3					2		1
Physciaceae	*Physcia*	8	1	3							3
Physciaceae	*Physcia*	9	1	1							1
Physciaceae	*Physcia*	10	1	1					1		
Physciaceae	*Physcia*	11	1	1							1
Physciaceae	*Physcia*	12	1	1					1		

Physciaceae	*Physcia*	13	1	1						1
Physciaceae	*Physcia*	14	1	1					1	
Physciaceae	*Physcia*	15	1	1						1
Physciaceae	*Physconia*	1	1	6	1				4	1
Physciaceae	*Physconia*	2	1	6				4	1	1
Physciaceae	*Physconia*	3	1	3				1	1	1
Physciaceae	*Physconia*	4	1	1						1
Physciaceae	*Physconia*	5	1	1		1				
Physciaceae	*Rinodina*	1	1	2					1	1
Physciaceae	*Rinodina*	2	1	2					2	
Physciaceae	*Rinodina*	3	1	1						1
Physciaceae	*Rinodina*	4	1	1					1	
Ramalinaceae	*Bilimbia*	1	1	2					2	
Ramalinaceae	*Bilimbia*	2	1	2				1	1	
Ramalinaceae	*Bilimbia*	3	1	2					2	
Ramalinaceae	*Bilimbia*	4	1	1					1	
Ramalinaceae	*Bilimbia*	5	1	1					1	
Ramalinaceae	*Frutidella*	1	1	5					5	
Ramalinaceae	*Frutidella*	2	1	1					1	
Ramalinaceae	*Japewia*	1	1	4				3	1	
Ramalinaceae	*Japewia*	2	1	1					1	
Ramalinaceae	*Lecania*	1	2	7	5					2
Ramalinaceae	*Lecania*	2	1	1	1					
Ramalinaceae	*Lecania*	3	1	1					1	
Ramalinaceae	*Lecania*	4	1	1					1	
Ramalinaceae	*Ramalina*	1	1	2	2					
Ramalinaceae	*Ramalina*	2	1	1	1					

Rhizocarpaceae	*Rhizocarpon*	1	1	4		2				2
Rhizocarpaceae	*Rhizocarpon*	2	1	3						3
Rhizocarpaceae	*Rhizocarpon*	3	1	3					3	
Rhizocarpaceae	*Rhizocarpon*	4	1	2					2	
Rhizocarpaceae	*Rhizocarpon*	5	2	2	1					1
Rhizocarpaceae	*Rhizocarpon*	6	1	2		2				
Rhizocarpaceae	*Rhizocarpon*	7	1	2						2
Rhizocarpaceae	*Rhizocarpon*	8	1	2					2	
Rhizocarpaceae	*Rhizocarpon*	9	1	1						1
Rhizocarpaceae	*Rhizocarpon*	10	1	1					1	
Rhizocarpaceae	*Rhizocarpon*	11	1	1		1				
Rhizocarpaceae	*Rhizocarpon*	12	1	1					1	
Rhizocarpaceae	*Rhizocarpon*	13	1	1						1
Rhizocarpaceae	*Rhizocarpon*	14	1	1						1
Rhizocarpaceae	*Rhizocarpon*	15	1	1						1
Rhizocarpaceae	*Rhizocarpon*	16	1	1		1				
Rhizocarpaceae	*Rhizocarpon*	17	1	1					1	
Rhizocarpaceae	*Rhizocarpon*	18	1	1					1	
Rhizocarpaceae	*Rhizocarpon*	19	1	1		1				
Rhizocarpaceae	*Rhizocarpon*	20	1	1					1	
Sphaerophoraceae	*Sphaerophorus*	1	1	26	2	1	2	6	13	2
Stereocaulaceae	*Lepraria*	1	2	5				4	1	
Stereocaulaceae	*Lepraria*	2	1	1					1	
Stereocaulaceae	*Stereocaulon*	1	1	17					17	
Stereocaulaceae	*Stereocaulon*	2	1	7	2		4		1	
Stereocaulaceae	*Stereocaulon*	3	1	6			6			
Stereocaulaceae	*Stereocaulon*	4	1	5				2	3	

Stereocaulaceae	*Stereocaulon*	5	1	1	1					
Stereocaulaceae	*Stereocaulon*	6	1	1			1			
Teloschistaceae	*Athallia*	1	1	17		8			9	
Teloschistaceae	*Athallia*	2	1	1					1	
Teloschistaceae	*Athallia*	3	1	1		1				
Teloschistaceae	*Athallia*	4	1	1		1				
Teloschistaceae	*Athallia*	5	1	1		1				
Teloschistaceae	*Austroplaca*	1	2	4	2		2			
Teloschistaceae	*Austroplaca*	2	1	2			2			
Teloschistaceae	*Austroplaca*	3	1	2			2			
Teloschistaceae	*Austroplaca*	4	1	1			1			
Teloschistaceae	*Austroplaca*	5	1	1	1					
Teloschistaceae	*Austroplaca*	6	1	1	1					
Teloschistaceae	*Austroplaca*	7	1	1			1			
Teloschistaceae	*Blastenia*	1	1	21					5	16
Teloschistaceae	*Blastenia*	2	1	1						1
Teloschistaceae	*Bryoplaca*	1	1	3	1				2	
Teloschistaceae	*Calogaya*	1	1	13		3		10		
Teloschistaceae	*Calogaya*	2	1	5		5				
Teloschistaceae	*Calogaya*	3	1	2		2				
Teloschistaceae	*Caloplaca*	1	1	3				3		
Teloschistaceae	*Caloplaca*	2	1	3		1		2		
Teloschistaceae	*Caloplaca*	3	1	2		2				
Teloschistaceae	*Caloplaca*	4	1	1				1		
Teloschistaceae	*Caloplaca*	5	1	1				1		
Teloschistaceae	*Caloplaca*	6	1	1				1		
Teloschistaceae	*Caloplaca*	7	1	1				1		

Teloschistaceae	*Caloplaca*	8	1	1				1			
Teloschistaceae	*Caloplaca*	9	1	1		1					
Teloschistaceae	*Caloplaca*	10	1	1		1					
Teloschistaceae	*Flavoplaca*	1	1	10		5			2		3
Teloschistaceae	*Flavoplaca*	2	1	1							1
Teloschistaceae	*Huneckia*	1	1	3		1		1	1		
Teloschistaceae	*Huneckia*	2	1	1				1			
Teloschistaceae	*Parvoplaca*	1	1	4		1			3		
Teloschistaceae	*Parvoplaca*	2	2	2	1	1					
Teloschistaceae	*Parvoplaca*	3	1	1					1		
Teloschistaceae	*Polycauliona*	1	1	12	1			3	8		
Teloschistaceae	*Polycauliona*	2	1	4	4						
Teloschistaceae	*Polycauliona*	3	1	2					2		
Teloschistaceae	*Polycauliona*	4	1	2				1	1		
Teloschistaceae	*Polycauliona*	5	1	2				1	1		
Teloschistaceae	*Polycauliona*	6	1	1							1
Teloschistaceae	*Shackeletonia*	1	1	1	1						
Teloschistaceae	*Shackeletonia*	2	1	1			1				
Teloschistaceae	*Shackeletonia*	3	1	1	1						
Teloschistaceae	*Shackeletonia*	4	1	1	1						
Teloschistaceae	*Shackeletonia*	5	1	1	1						
Teloschistaceae	*Xanthoria*	1	1	14		11			3		
Teloschistaceae	*Xanthoria*	2	1	14		3		4	7		
Teloschistaceae	*Xanthoria*	3	1	12				3	8		1
Teloschistaceae	*Xanthoria*	4	1	5	5						
Teloschistaceae	*Xanthoria*	5	1	4	2	1			1		
Teloschistaceae	*Xanthoria*	6	1	3		1					2

Teloschistaceae	*Xanthoria*	7	1	2	1				1
Teloschistaceae	*Xanthoria*	8	1	2			2		
Teloschistaceae	*Xanthoria*	9	1	2			2		
Teloschistaceae	*Xanthoria*	10	1	1		1			
Teloschistaceae	*Xanthoria*	11	1	1	1				
Teloschistaceae	*Xanthoria*	12	1	1	1				
Teloschistaceae	*Xanthoria*	13	1	1			1		
Teloschistaceae	*Xanthoria*	14	1	1			1		
Teloschistaceae	*Xanthoria*	15	1	1			1		
Teloschistaceae	*Xanthoria*	16	1	1	1				
Teloschistaceae	*Xanthoria*	17	1	1					1
Teloschistaceae	*Xanthoria*	18	1	1	1				
Teloschistaceae	*Xanthoria*	19	1	1			1		
Tephromelataceae	*Tephromela*	1	1	70	1	4	63		2
Tephromelataceae	*Tephromela*	2	1	21	2		19		
Tephromelataceae	*Tephromela*	3	1	17		1	16		
Tephromelataceae	*Tephromela*	4	1	13			13		
Tephromelataceae	*Tephromela*	5	1	11			11		
Tephromelataceae	*Tephromela*	6	1	8			8		
Tephromelataceae	*Tephromela*	7	1	5		1	4		
Tephromelataceae	*Tephromela*	8	1	4	1		3		
Tephromelataceae	*Tephromela*	9	1	3	1		2		
Tephromelataceae	*Tephromela*	10	1	3			3		
Tephromelataceae	*Tephromela*	11	1	3			3		
Tephromelataceae	*Tephromela*	12	1	3			2	1	
Tephromelataceae	*Tephromela*	13	1	3			3		
Tephromelataceae	*Tephromela*	14	1	3			3		

Tephromelataceae	*Tephromela*	15	1	3			3	
Tephromelataceae	*Tephromela*	16	1	2			2	
Tephromelataceae	*Tephromela*	17	1	1			1	
Tephromelataceae	*Tephromela*	18	1	1			1	
Tephromelataceae	*Tephromela*	19	1	1			1	
Tephromelataceae	*Tephromela*	20	1	1			1	
Tephromelataceae	*Tephromela*	21	1	1			1	
Tephromelataceae	*Tephromela*	22	1	1			1	
Tephromelataceae	*Tephromela*	23	1	1			1	
Tephromelataceae	*Tephromela*	24	1	1			1	
Tephromelataceae	*Tephromela*	25	1	1			1	
Tephromelataceae	*Tephromela*	26	1	1			1	
Tephromelataceae	*Tephromela*	27	1	1			1	
Tephromelataceae	*Tephromela*	28	1	1			1	
Tephromelataceae	*Tephromela*	29	1	1			1	
Tephromelataceae	*Tephromela*	30	1	1			1	
Tephromelataceae	*Tephromela*	31	1	1			1	
Tephromelataceae	*Tephromela*	32	1	1			1	
Tephromelataceae	*Tephromela*	33	1	1			1	
Tephromelataceae	*Tephromela*	34	1	1			1	
Tephromelataceae	*Tephromela*	35	1	1			1	
Tephromelataceae	*Tephromela*	36	1	1			1	
Tephromelataceae	*Tephromela*	37	1	1			1	
Tephromelataceae	*Tephromela*	38	1	1			1	
Trapeliaceae	*Placopsis*	1	2	43	43			
Trapeliaceae	*Placopsis*	2	1	8	7			1
Trapeliaceae	*Placopsis*	3	1	2	2			

Trapeliaceae	*Placopsis*	4	1	1							1
Trapeliaceae	*Trapelia*	1	1	13						13	
Trapeliaceae	*Trapelia*	2	1	3				3			
Trapeliaceae	*Trapelia*	3	1	2						2	
Trapeliaceae	*Trapelia*	4	1	1						1	
Trapeliaceae	*Trapelia*	5	1	1						1	
Trapeliaceae	*Trapelia*	6	1	1						1	
Trapeliaceae	*Trapelia*	7	1	1						1	
Trapeliaceae	*Trapelia*	8	1	1					1		
Umbilicariaceae	*Umbilicaria*	1	2	46	44						2
Umbilicariaceae	*Umbilicaria*	2	1	19	19						
Umbilicariaceae	*Umbilicaria*	3	1	10	1	1		3		4	1
Umbilicariaceae	*Umbilicaria*	4	2	7	4	1		1		1	
Umbilicariaceae	*Umbilicaria*	5	1	7		2		1		3	1
Umbilicariaceae	*Umbilicaria*	6	1	6						6	
Umbilicariaceae	*Umbilicaria*	7	2	5						1	4
Umbilicariaceae	*Umbilicaria*	8	2	3			1	2			
Umbilicariaceae	*Umbilicaria*	9	2	3				1			2
Umbilicariaceae	*Umbilicaria*	10	1	3	1			1			1
Umbilicariaceae	*Umbilicaria*	11	1	2		2					
Umbilicariaceae	*Umbilicaria*	12	2	2	2						
Umbilicariaceae	*Umbilicaria*	13	1	1							1
Umbilicariaceae	*Umbilicaria*	14	1	1	1						
Umbilicariaceae	*Umbilicaria*	15	1	1			1				
Umbilicariaceae	*Umbilicaria*	16	1	1		1					
Umbilicariaceae	*Umbilicaria*	17	1	1	1						
Umbilicariaceae	*Umbilicaria*	18	1	1		1					

Umbilicariaceae	*Umbilicaria*	19	1	1	1					
Verrucariaceae	*Catapyrenium*	1	1	3					2	1
Verrucariaceae	*Hydropunctaria*	1	1	12					12	
Verrucariaceae	*Hydropunctaria*	2	1	1					1	
Verrucariaceae	*Staurothele*	1	1	3				1	1	1
Verrucariaceae	*Staurothele*	2	1	1				1		
Verrucariaceae	*Verrucaria*	1	1	2					2	
Verrucariaceae	*Verrucaria*	2	1	1			1			

Supplementary material 4: Genus and their respective total MOTUs formed, total of exclusive MOTUs and the number of *ITS* sequences

Family	Genus	Taxon (sp., subsp., f. e var.)	Number of total MOTUs	Number of exclusive MOTUs	Number of ITS sequences
Acarosporaceae	*Acarospora*	*badiofusca*	1	1	4
Acarosporaceae	*Acarospora*	*austroshetlandica*	1	1	1
Acarosporaceae	*Pleopsidium*	*chlorophanum*	8	8	38
Caliciaceae	*Amandinea*	*punctata*	7	7	9
Caliciaceae	*Amandinea*	*caniopsis*	1	1	1
Caliciaceae	*Amandinea*	*petermannii*	1	1	1
Caliciaceae	*Diplotoma*	*alboatrum*	7	7	11

Caliciaceae	*Tetramelas*	*anisomerus*	1	1	1
Caliciaceae	*Tetramelas*	*papilatus*	1	1	1
Candelariaceae	*Candelariella*	*aurella* f. aurella	5	5	10
Candelariaceae	*Candelariella*	*vitellina* f. vitellina	5	5	9
Cladoniaceae	*Cladonia*	*asahinae*	1	1	1
Cladoniaceae	*Cladonia*	*borealis*	2	1	65
Cladoniaceae	*Cladonia*	*cariosa*	4	4	17
Cladoniaceae	*Cladonia*	*carneola*	1	0	2
Cladoniaceae	*Cladonia*	*cervicornis* subsp. mawsonii	2	1	2
Cladoniaceae	*Cladonia*	*chlorophaea*	12	5	15
Cladoniaceae	*Cladonia*	*cornuta*	7	4	19
Cladoniaceae	*Cladonia*	*deformis*	4	1	18
Cladoniaceae	*Cladonia*	*fimbriata*	10	4	18
Cladoniaceae	*Cladonia*	*galindezii*	1	0	1
Cladoniaceae	*Cladonia*	*gracilis*	3	2	14
Cladoniaceae	*Cladonia*	*metacorallifera*	1	0	3
Cladoniaceae	*Cladonia*	*novochlorophaea*	1	1	2
Cladoniaceae	*Cladonia*	*pleurota*	4	1	12
Cladoniaceae	*Cladonia*	*pocillum*	15	8	51
Cladoniaceae	*Cladonia*	*pyxidata*	21	13	40
Cladoniaceae	*Cladonia*	*rangiferina*	12	12	36
Cladoniaceae	*Cladonia*	*sarmentosa*	1	1	1
Cladoniaceae	*Cladonia*	*scabriuscula*	6	4	30
Cladoniaceae	*Cladonia*	*squamosa* var. squamosa	3	2	8
Cladoniaceae	*Cladonia*	*subulata*	5	3	32
Cladoniaceae	*Cladonia*	*sulphurina*	2	1	3
Cladoniaceae	*Cladonia*	*weymouthii*	1	0	2

Collemataceae	*Leptogium*	*antarcticum*	1	1	1
Collemataceae	*Leptogium*	*marcelii*	2	2	4
Collemataceae	*Leptogium*	*puberulum*	2	2	9
Cystocoleaceae	*Cystocoleus*	*ebeneus*	5	5	17
Hymeneliaceae	*Tremolecia*	*atrata*	2	2	3
Koerbiaceae	*Steinera*	*intricata*	2	2	18
Lecanoraceae	*Carbonea*	*vorticosa*	3	3	9
Lecanoraceae	*Lecanora*	*epibryon*	3	3	4
Lecanoraceae	*Lecanora*	*flotowiana*	1	1	1
Lecanoraceae	*Lecanora*	*intricata*	1	1	4
Lecanoraceae	*Lecanora*	*physciella*	1	1	3
Lecanoraceae	*Lecanora*	*polytropa*	6	6	15
Lecanoraceae	*Lecanora*	*symmicta*	2	2	4
Lecanoraceae	*Lecidella*	*carpathica*	7	5	10
Lecanoraceae	*Lecidella*	*elaeochroma* f. elaeochroma	12	12	18
Lecanoraceae	*Lecidella*	*siplei*	1	0	6
Lecanoraceae	*Lecidella*	*stigmatea*	11	10	23
Lecanoraceae	*Lecidella*	*wulfenii*	1	1	1
Lecanoraceae	*Myriolecis*	*dispersa*	3	3	10
Lecanoraceae	*Rhizoplaca*	*aspidophora*	1	1	1
Lecanoraceae	*Rhizoplaca*	*melanophthalma*	6	6	161
Lecideaceae	*Bellemerea*	*alpina*	1	1	2
Lecideaceae	*Lecidea*	*andersonii*	2	1	24
Lecideaceae	*Lecidea*	*atrobrunnea*	6	6	16
Lecideaceae	*Lecidea*	*cancriformis*	9	8	57
Lecideaceae	*Lecidea*	*lapicida*	7	7	61
Lecideaceae	*Poetidea*	*perusta*	1	1	5

Massalongiaceae	*Massalongia*	*carnosa*	2	2	11
Megasporaceae	*Aspicilia*	*aquatica*	3	3	3
Megasporaceae	*Megaspora*	*verrucosa*	1	1	8
Ochrolechiaceae	*Ochrolechia*	*frigida*	5	5	21
Ochrolechiaceae	*Ochrolechia*	*parella* f. parella	5	5	22
Pannariaceae	*Pannaria*	*hookeri*	1	1	4
Pannariaceae	*Psoroma*	*antarcticum*	1	1	31
Pannariaceae	*Psoroma*	*buchananii*	1	1	3
Pannariaceae	*Psoroma*	*cinnamomeum*	3	3	7
Pannariaceae	*Psoroma*	*hypnorum* var. hypnorum	5	5	16
Pannariaceae	*Psoroma*	*saccharatum*	1	1	1
Pannariaceae	*Psoroma*	*tenue*	1	1	2
Parmeliaceae	*Cetraria*	*aculeata*	9	9	213
Parmeliaceae	*Coelopogon*	*epiphorellus*	1	1	3
Parmeliaceae	*Himantormia*	*lugubris*	1	1	3
Parmeliaceae	*Hypogymnia*	*lugubris* var.lugubris	4	4	8
Parmeliaceae	*Parmelia*	*saxatilis*	15	15	85
Parmeliaceae	*Protoparmelia*	*badia*	8	8	15
Parmeliaceae	*Pseudophebe*	*minuscula*	5	2	38
Parmeliaceae	*Pseudophebe*	*pubescens*	5	2	31
Parmeliaceae	*Usnea*	*acromelana*	3	0	14
Parmeliaceae	*Usnea*	*antarctica*	3	0	22
Parmeliaceae	*Usnea*	*aurantiacoatra*	5	0	181
Parmeliaceae	*Usnea*	*trachycarpa*	3	1	26
Peltigeraceae	*Peltigera*	*didactyla*	2	2	14
Pertusariaceae	*Lepra*	*dactylina*	1	1	1
Pertusariaceae	*Lepra*	*erubescens*	1	0	1

Pertusariaceae	*Lepra*	*excludens*	2	1	3
Pertusariaceae	*Pertusaria*	*coccodes*	1	1	9
Physciaceae	*Phaeophyscia*	*endococcina*	3	3	4
Physciaceae	*Phaeorrhiza*	*nimbosa*	1	1	2
Physciaceae	*Phaeorrhiza*	*sareptana*	1	1	1
Physciaceae	*Physcia*	*caesia*	7	7	39
Physciaceae	*Physcia*	*dubia*	8	8	24
Physciaceae	*Physconia*	*muscigena*	5	5	17
Physciaceae	*Rinodina*	*mniaroea* var. mniaroea	1	1	2
Physciaceae	*Rinodina*	*olivaceobrunnea*	1	1	2
Physciaceae	*Rinodina*	*peloleuca*	1	1	1
Physciaceae	*Rinodina*	*turfacea*	1	1	1
Ramalinaceae	*Bilimbia*	*sabuletorum*	5	5	8
Ramalinaceae	*Frutidella*	*caesioatra*	2	2	6
Ramalinaceae	*Japewia*	*tornoensis*	2	2	5
Ramalinaceae	*Lecania*	*brialmontii*	1	0	4
Ramalinaceae	*Lecania*	*gerlachei*	1	0	3
Ramalinaceae	*Lecania*	*glauca*	1	1	1
Ramalinaceae	*Lecania*	*nylanderiana*	2	2	2
Ramalinaceae	*Ramalina*	*corymbosa*	1	1	2
Ramalinaceae	*Ramalina*	*terebrata*	1	1	1
Rhizocarpaceae	*Rhizocarpon*	*badioatrum* var. badioatrum	1	1	2
Rhizocarpaceae	*Rhizocarpon*	*copelandii*	3	3	6
Rhizocarpaceae	*Rhizocarpon*	*disporum*	3	3	7
Rhizocarpaceae	*Rhizocarpon*	*distinctum*	2	2	2
Rhizocarpaceae	*Rhizocarpon*	*geminatum*	3	3	4
Rhizocarpaceae	*Rhizocarpon*	*geographicum*	6	5	6

Rhizocarpaceae	*Rhizocarpon*	*nidificum*	1	0	1
Rhizocarpaceae	*Rhizocarpon*	*polycarpum*	1	1	1
Rhizocarpaceae	*Rhizocarpon*	*superficiale* subsp. superficiale	1	1	3
Sphaerophoraceae	*Sphaerophorus*	*globosus*	1	1	26
Stereocaulaceae	*Lepraria*	*cacuminum*	1	0	1
Stereocaulaceae	*Lepraria*	*caesioalba*	2	1	5
Stereocaulaceae	*Stereocaulon*	*alpinum*	3	3	25
Stereocaulaceae	*Stereocaulon*	*glabrum*	2	2	7
Stereocaulaceae	*Stereocaulon*	*vesuvianum*	1	1	5
Teloschistaceae	*Athallia*	*holocarpa*	5	5	21
Teloschistaceae	*Austroplaca*	*cirrochrooides*	1	1	1
Teloschistaceae	*Austroplaca*	*hookeri*	2	1	4
Teloschistaceae	*Austroplaca*	*johnstonii*	1	1	1
Teloschistaceae	*Austroplaca*	*lucens*	1	1	1
Teloschistaceae	*Austroplaca*	*millegrana*	3	2	5
Teloschistaceae	*Blastenia*	*ammiospila*	2	2	22
Teloschistaceae	*Bryoplaca*	*tetraspora*	1	1	3
Teloschistaceae	*Calogaya*	*saxiola*	3	3	20
Teloschistaceae	*Caloplaca*	*exsecuta*	10	10	15
Teloschistaceae	*Flavoplaca*	*citrina*	2	2	11
Teloschistaceae	*Huneckia*	*pollinii*	2	2	4
Teloschistaceae	*Parvoplaca*	*athallina*	1	0	1
Teloschistaceae	*Parvoplaca*	*tiroliensis*	3	2	6
Teloschistaceae	*Polycauliona*	*candelaria*	5	5	19
Teloschistaceae	*Polycauliona*	*regalis*	1	1	4
Teloschistaceae	*Shackeletonia*	*buelliae*	1	1	1
Teloschistaceae	*Shackeletonia*	*hertelii*	1	1	1

Teloschistaceae	*Shackeletonia*	*insignis*	1	1	1
Teloschistaceae	*Shackeletonia*	*sauronii*	1	1	1
Teloschistaceae	*Shackeletonia*	*siphonospora*	1	1	1
Teloschistaceae	*Xanthoria*	*elegans*	19	19	68
Tephromelataceae	*Tephromela*	*atra* var. atra	38	38	194
Trapeliaceae	*Placopsis*	*antarctica*	1	0	42
Trapeliaceae	*Placopsis*	*contortuplicata*	3	2	11
Trapeliaceae	*Placopsis*	*parellina* f. parelina	1	1	1
Trapeliaceae	*Trapelia*	*coarctata*	8	8	23
Umbilicariaceae	*Umbilicaria*	*africana*	2	0	3
Umbilicariaceae	*Umbilicaria*	*antarctica*	3	1	43
Umbilicariaceae	*Umbilicaria*	*aprina*	6	3	33
Umbilicariaceae	*Umbilicaria*	*decussata*	3	2	14
Umbilicariaceae	*Umbilicaria*	*kappenii*	3	1	7
Umbilicariaceae	*Umbilicaria*	*krascheninnikovii*	3	1	4
Umbilicariaceae	*Umbilicaria*	*nylanderiana*	2	2	11
Umbilicariaceae	*Umbilicaria*	*umbilicarioides*	3	3	5
Verrucariaceae	*Catapyrenium*	*daedaleum*	1	1	3
Verrucariaceae	*Hydropunctaria*	*maura*	2	2	13
Verrucariaceae	*Staurothele*	*frustulenta*	2	2	4
Verrucariaceae	*Verrucaria*	*ceuthocarpa*	1	1	2
Verrucariaceae	*Verrucaria*	*tessellatula*	1	1	1

Supplementary material 5: Number of MOTUs formed by genus

Genus	nº of MOTUs
Acarospora	2
Amandinea	9
Aspicilia	3
Athallia	5
Austroplaca	7
Bellemerea	1
Bilimbia	5
Blastenia	2
Bryoplaca	1
Calogaya	3
Caloplaca	10
Candelariella	10
Carbonea	3
Catapyrenium	1
Cetraria	9
Cladonia	90
Coelopogon	1
Cystocoleus	5
Diplotoma	7
Flavoplaca	2
Frutidella	2
Himantormia	1
Huneckia	2

Hydropunctaria	2
Hypogymnia	4
Japewia	2
Lecania	4
Lecanora	14
Lecidea	23
Lecidella	30
Lepra	3
Lepraria	2
Leptogium	5
Massalongia	2
Megaspora	2
Myriolecis	3
Ochrolechia	10
Pannaria	1
Parmelia	15
Parvoplaca	3
Peltigera	2
Pertusaria	1
Phaeophyscia	3
Phaeorrhiza	2
Physcia	15
Physconia	5
Placopsis	4
Pleopsidium	8
Poetidea	1

Polycauliona	6
Protoparmelia	8
Pseudophebe	7
Psoroma	12
Ramalina	2
Rhizocarpon	20
Rhizoplaca	7
Rinodina	4
Shackeletonia	5
Sphaerophorus	1
Staurothele	2
Steinera	2
Stereocaulon	6
Tephromela	38
Tetramelas	2
Trapelia	8
Tremolecia	2
Umbilicaria	19
Usnea	7
Verrucaria	2
Xanthoria	19
TOTAL	526
Average	7.514285714

Supplementary material 6: Number of MOTUs formed by family

Family	nº of MOTUs
Acarosporaceae	10
Caliciaceae	18
Candelariaceae	10
Cladoniaceae	90
Collemataceae	5
Cystocoleaceae	5
Hymeneliaceae	2
Koerbiaceae	2
Lecanoraceae	57
Lecideaceae	25
Massalongiaceae	2
Megasporaceae	5
Ochrolechiaceae	10
Pannariaceae	13
Parmeliaceae	52
Peltigeraceae	2
Pertusariaceae	4
Physciaceae	29
Ramalinaceae	15
Rhizocarpaceae	20
Sphaerophoraceae	1
Stereocaulaceae	8
Teloschistaceae	65

Tephromelataceae	38
Trapeliaceae	12
Umbilicariaceae	19
Verrucariaceae	7
TOTAL	526
Average	19.48148148