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Catalogue of the Lichenized and Lichenicolous Fungi of Macedonia (FYROM)

By

Helmut Mayrhofer*), Alexander Rohrer*) and Peter O. Bilovitz*)

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Summary


The catalogue is based on a comprehensive evaluation of 147 published sources concerning Macedonia. It includes 593 species (with 5 subspecies and 14 varieties) of lichenized and 19 species of lichenicolous Ascomycota.

Zusammenfassung


Der Katalog basiert auf einer umfassenden Auswertung von 147 Publikationen. Derzeit sind aus Mazedonien 593 Arten (mit 5 Unterarten und 14 Varientäten) lichenisierter und 19 Arten lichenicolier Ascomycota bekannt.

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*) Ao. Univ.-Prof. Mag. Dr. Helmut Mayrhofer (corresponding author), Mag. Alexander Rohrer, Mag. Dr. Peter O. Bilovitz, Institute of Plant Sciences, Karl-Franzens-University Graz, Holteigasse 6, 8010 Graz, Austria, Europe; e-mail: helmut.mayrhofer@uni-graz.at, alexander.rohrer82@gmail.com, pe.bilovitz@uni-graz.at
1. Introduction

This catalogue lists lichenized and lichenicolous fungi from 147 references. The bibliography comprises a diverse scope of papers, but mainly floristic and taxonomic treatments that cite specimens from Macedonia. This paper is a further contribution to a general lichen biodiversity inventory of the Balkan Peninsula.

Up to now there are seven current checklists dealing with the lichenized fungi of the Balkan Peninsula, namely those for Albania (Hafellner 2007), Bosnia and Herzegovina (Bilovitz & Mayrhofer 2011), Bulgaria (Mayrhofer & al. 2005), Greece (Abbott 2009), Montenegro (Knežević & Mayrhofer 2009), Serbia (Savić & Tibell 2006), and Slovenia (Suppan & al. 2000, Mayrhofer 2006).

2. Lichenological Exploration of Macedonia

Cetraria islandica from Ljuboten and Psora decipiens (as Lecidea decipiens) from Kobilic are the first records of lichenized fungi for Macedonia published by Grisebach 1844. Nearly half a century later the two species, Flavocetraria cucullata (as Cetraria cucullata) again from Ljuboten and Ophioparma ventosa (as Haematomma ventosum) from Kobilic, were listed by Wettstein 1892 from collections of J. Dörfler. The next contribution is again based on collections made by J. Dörfler in 1893 from Skopje and its surroundings including the mountain Vodno southwest of the town. Zahlbruckner 1897 studied the 27 samples. This paper was not considered by Kušan 1953. Ranjević 1909 reported 9 species from the Korab mountain range. J. Bornmüller collected a lot of specimens around Skopje including Golešnica Planina in the Jakupica mountain range and Prilep and on the Šar Planina mountain range in 1918. 86 samples were determined by A. Zahlbruckner and published by Bornmüller 1929. The first lichenologist to visit Macedonia was F. Kušan in 1933. He investigated the region Zlatovrh – Prilep – Konjarnik – Kajmakčalan, well known for its gneiss outcrops, and the high mountain Pelister in the Baba mountain range, with granite as the main substrate, and compared them with the Šar Planina mountain range, where calcareous rocks dominate. Kušan 1936a recorded 167 taxa and described the lichen mycota in detail in other papers (Kušan 1934a, 1934b, 1936b). Szatala 1940 studied 75 specimens collected by the bryologist M. Fleischer mainly around Skopje and from the Šar Planina mountain range in 1917. This publication was however also not taken into consideration by Kušan 1953 where 185 taxa were listed from Macedonia. After a long gap Pišút 1967 recorded 26 species.

3. Methods and Arrangement of the Catalogue

The genera and species within each genus are arranged alphabetically. For each taxon, the citations are given in chronological order. Taxonomic judgements were avoided in cases where specimens could not be checked. Ecological and distributional information for many taxa, beyond the local information for Macedonia may be obtained from Nimis 1993, Wirth 1995 and Smith & al. 2009.

Except for changes based on most recent references, the nomenclature follows Santesson & al. 2004. For taxa not occurring in Fennoscandia, Nimis & Martellos 2008 are followed. The nomenclatural authors of taxa are abbreviated according to Kirk & Ansell 1992. In the case of nomenclatural changes, citations are followed by the name used in the original publication in brackets.

4. Lichenized Fungi

Acarospora badiofusca (NyL.) Th. Fr.

Acarospora cervina A. Massal.

Acarospora cinerascens J. Steiner
Murati 1985: 36.
Acarospora fuscata (Schrad.) Th. Fr.

Acarospora glaucocarpa (R. Körb.) Körb.
Murati 1992: 70.

Acarospora impressula Th. Fr.
Mayrhofer & al. 2012: 1, 2.

Acarospora laqueata Stizenb.
Mayrhofer & al. 2012: 1, 2.

Acarospora macrospora (Hepp) Bagl.

Acarospora nitrophila H. Magn.

Acarospora nodulosa (Dubour) Hue
Mayrhofer & al. 2012: 1, 3.

Acarospora schleicheri (A. Massal.
Murati 1992: 75.

Acarospora sulphurata (Arnold) Arnold

Acarospora valdabienis Bagl. & Caresta

Acarospora veronensis A. Massal.
Szatala 1940: 41.

Agonimia tristicula (Nyl.) Zahrle.
Mayrhofer & al. 2012: 1, 3.

Alectoria ochroleuca (Hoffm.) A. Massal.

Alectoria sarmentosa (Ach.) Ach.

Allantoparmelia alpicola (Th. Fr.) Essl.
Hawksworth & al. 2008: 5.

Amandinea punctata (Hoffm.) Coppins & Scheid.

Amylora cervinocuprea (Arnold) Rambold
Murati 1984: 261 (Lecidea c.); Murati 1986: 617 (Lecidea c.).

Anaptychia ciliaris (L.) Körb.
Ranojević 1909: 7; Bornmüller 1929: 104; Kušan 1936a: 180, 200; Szatala 1940: 50; Kušan 1953: 584; Pavletič & Murati 1977: 168; Pavletič & Murati 1978: 248; Murati

*Arthonia dispersa* (Schrad.) Nyl.


*Arthonia punctiformis* Ach.

Szatala 1940: 34 (Naevia p.).

*Arthonia radiata* (Pers.) Ach.


*Arthopyrenia analepta* (Ach.) A. Massal.

Szatala 1940: 34 (Didymella punctiformis f. acerina).

*Aspicilia cinerea* (L.) Korb.


*Aspicilia coronata* (A. Massal.) Anzi

Murati 1984: 261 (Lecanora c.); Murati 1985: 37 (Lecanora c.).

*Aspicilia hartliana* (J. Steiner) Hue

Szatala 1940: 41.

*Aspicilia intermutans* (Nyl.) Arnold


*Aspicilia reticulata* Kremp.


*Aspilidea myrinii* (Fr.) Hafellner


*Atla alpina* S. Savić & Tibell


*Bacidia punica* Llop

Llop 2010: 369 (sub Serbia).

*Bacidia rubella* (Hoffm.) A. Massal.


*Baeomyces placophyllus* Ach.


*Baeomyces rufus* (Huds.) Rebent.


*Bagliettoa baldensis* (A. Massal.) Vězda

Bagliettoa calciseda (DC.) Gueidan & Cl. Roux

Bagliettoa marmorea (Scop.) Gueidan & Cl. Roux
Murati 1993a: 267 (Verrucaria m.).

Bellemerea alpina (Sommerf.) Clauzade & Cl. Roux
Kušan 1936a: 188 (Lecanora a.); Kušan 1953: 354 (Lecanora a.); Murati 1979: 839 (Lecanora a.);

Bilimbia lobulata (Sommerf.) Hafellner & Coppins

Bilimbia sabuletorum (Schrer.) Arnold

Blastodesmia nitida A. Massal.

Brodoa atrofusca (Schaer.) Goward

Brodoa intestiniformis (Vill.) Goward
Kušan 1934a: 61 (Parmelia encausta); Kušan 1934b: 122 (Parmelia encausta); Kušan 1936a: 193 (Parmelia encausta); Kušan 1936b: 171 (Parmelia encausta); Kušan 1953: 427 (Parmelia encausta); Murati 1992: 211; Hawksworth & al. 2008: 6; Rohrer & al. 2012: 170.

Bryoria fuscescens (Gyeln.) Brodo & D. Hawksw.

Buellia aethalea (Ach.) Th. Fr.

Buellia badia (Fr.) A. Massal.

Buellia epigaea (Pers.) Tuck.

Buellia erubescens Arnold
Szatala 1940: 48 (B. zahlbruckneri).

Buellia griseovirens (Sm.) Almb.

Buellia leptoclinoides (Nyl.) J. Steiner


Buellia ocellata (Flot.) Korb.
Scheidegger & Ruef 1988: 462.

Buellia spuria (Schaer.) Anzi

Buellia stellulata (Taylor) Mudd
Murati 1992: 139.

Buellia subsquamosa J. Steiner

Buellia vilis Th. Fr.

Caeruleum heppii (Nägeli ex Korb.) K. Knudsen & L. Arcadia

Caloplaca adnæsa Vězda

Caloplaca adriatica (Zahlbr.) Servit

Caloplaca albopruinosa (Arnold) H. Oliver

Caloplaca aloziza (A. Massal.) Mig.

Caloplaca ammiospila (Wahlenb.) H. Olivier

Caloplaca arenaria Clauzade & Poelt

Caloplaca aractina (Fr.) Haynén
Kušan 1936: 198 (C. viridirufa); Kušan 1953: 527 (C. viridirufa); Murati 1986: 621 (C. fuscoatra); Murati 1993a: 85; Mayrhofer & al. 2012: 5.

Caloplaca arenaria (Pers.) Müll. Arg.

Caloplaca arnoldiiconfusa Gaya & Nav.-Ros.
Gaya 2009: 58.

Caloplaca aurantia (Pers.) Hellb.
Bornmüller 1929: 104 (C. (Gasparrinia) a., C. (Gasparrinia) callopisma); Kušan 1953: 531, 533 (C. callopisma); Murati 1993a: 86; Rohrer & al. 2012: 170.

Caloplaca aurea (Schaer.) Zahlbr.

Caloplaca australis (Arnold) Zahlbr.

Caloplaca biatorina (A. Massal.) J. Steiner
Szatala 1940: 48 (Gasparrinia nideri); Poelt & Hafellner 1980: 226; Poelt & Hinteregger 1993: 85 (map).
Caloplaca bryochryson Poelt
Murati 1993a: 87.
Caloplaca cf. bullata (Müll. Arg.) Zahler.
Caloplaca cacuminum Poelt
Caloplaca cerina (HeDW.) Th. Fr. var. cerina
Caloplaca cerina var. muscorum (A. Massal.) Jatta
Caloplaca cerinella (Nyl.) Flagey
Mayrhofer 1993a: 87.
Caloplaca chalybeia (Fr.) Müll. Arg.
Caloplaca cirrochroa (Ach.) Th. Fr.
Murati 1993a: 89; Gaya 2009: 58, 125.
Caloplaca citrina (Hoffm.) Th. Fr.
Caloplaca coccinea (Müll. Arg.) Poelt
Caloplaca conversa (Kremp.) Jatta
Poelt & Hinteregger 1993: 112 (map).
Caloplaca coronata (Korb.) J. Steiner
Caloplaca crenularia (With.) J. R. Laundon
Caloplaca crenulatella (Nyl.) H. Olivier
Caloplaca decipiens (Arnold) Blomqvist & Forssell
Caloplaca demissa (Korb.) Arup & Grube
Murati 1993c: 230 (Lecanora d.).
Caloplaca diphyodes (Nyl.) Jatta
Caloplaca epithallina Lyng
Caloplaca erythrocarpa (Pers.) Zwakh
Pisút 1967: 54 (C. lallavei); Murati 1993a: 91.
Caloplaca ferruginea (Huds.) Th. Fr.
Caloplaca flavescens (Huds.) J. R. Laundon
Caloplaca flavorubescens (Huds.) J. R. Laundon
Murati 1993a: 92.
Caloplaca flavovirescens (Wulfen) Dalla Torre & Sarnth.
Caloplaca granulosa (Müll. Arg.) Jatta
Caloplaca grimmiae (Nylander) H. Olivier
Caloplaca haematites (St.-Amans) Zwackh
Murati 1993a: 93.
Caloplaca holocarpa (Müll. Arg.) Jatta
Caloplaca irrubescens (Arnold) Zahlbruckner
Caloplaca isidiigera Vězda
Caloplaca lactea (A. Massal.) Zahlbruckner
Murati 1993a: 95.
Caloplaca lobulata (Flörke) Hellb.
Bornmüller 1929: 104; Kušan 1936a: 198; Kušan 1953: 535; Anonymus 1979: 20
(Xanthoria boulyi); Steiner & Poelt 1982: 173 (C. boulyi); Steiner & Peveling 1984:
Caloplaca marmorata (Bagl.) Jatta
Caloplaca pelodella (Nylander) Hasse
Caloplaca percrocata (Arnold) J. Steiner
Caloplaca proteus Poelt
Murati 1993a: 96.
Caloplaca pyracea (Ach.) Th. Fr.
Zahlbruckner 1897: 1; Bornmüller 1929: 103; Kušan 1953: 522; Murati 1986: 621;
Caloplaca rouxi Gaya, Nav.-Ros. & Llimona
Kušan 1936a: 198 (C. murorum var. miniata); Szatala 1940: 48 (Gasparrinia muro-
rum var. miniata); Kušan 1953: 536 (C. murorum var. miniata).
Caloplaca rubelliana (Ach.) Lojka
Caloplaca saxicola (Hoffm.) Nordin
Caloplaca saxifragarum Poelt
Caloplaca schistidii (Anzi) Zahlbruckner
Caloplaca cf. schoeferi Poelt
Mayrhofer & al. 2012: 1, 8.
Caloplaca scotoplanca (Nylander) H. Magn.
Kušan 1936a: 198 (C. caesiorufa); Kušan 1953: 504 (C. caesiorufa); Murati 1993a: 97.
Caloplaca stillicidiorum (Vahl.) Lynge

Caloplaca subpallida s.l.
Mayrhofer & al. 2012: 1, 8.

Caloplaca teicholyta (Ach.) J. Steiner
Murati 1993a: 98.

Caloplaca tiroliensis Zabl.

Caloplaca variabilis (Pers.) Müll. arg.

Caloplaca velana (A. Massal.) Du Ryet

Caloplaca xantholyta (Nyl.) Jatta
Murati 1993a: 100.

Caloplaca xerica Poelt & Vězda
Poelt 1975: 3; Poelt & Hinteregger 1993: 224 (map); Vondrák & Šoun 2008: 217.

Calvitimela aglaea (Sommerf.) Hafellner
Murati 1984: 261 (Lecidea a.); Murati 1985: 35 (Lecidea a.).

Calvitimela armeniaca (Dc.) Hafellner
Kušan 1934b: 123 (Lecidea a.); Kušan 1936a: 183 (Lecidea a.); Kušan 1953: 218 (Lecidea a.); Murati 1992: 227 (Tephromela a.).

Candelariella aurella (Hoffm.) Zahlbr.

Candelariella coralliza (Nyl.) H. Magn.

Candelariella lutella (Vain.) Rasänen

Candelariella medians (Nyl.) A. L. Sm.

Candelariella reflexa (Nyl.) Lettau

Candelariella rhodax Poelt & Vězda
Poelt & Vězda 1976: 90; Poelt & Vězda 1977: 34.

Candelariella vitellina (Hoffm.) Mull. Arg.
Candelariella xanthostigma (Ach.) Lettau

Carbonea atronivea (Arnold) Hertel
Szatala 1940: 37 (Lecidea a.); Hertel 1971: 232 (Lecidea a.).

Catapyrenium cinereum (Pers.) Körb.
Murati 1985: 34 (Dermatocarpon hepaticum); Breuss 1990: 58.

Catapyrenium daedaleum (Kremp.) Stein
Kušan 1936a: 182 (Dermatocarpon cartilagineum); Kušan 1953: 70 (Dermatocarpon d.); Murati 1992: 146.

Catillaria chalybeia (Borrer) A. Massal.

Cetraria aculeata (Schreb.) Fr.

Cetraria ericetorum Opiz
Szatala & Timkó 1926: 173 (C. islandica var. tenuifolia); Szatala 1940: 46 (C. tenuifolia); Mayrhofer & al. 2012: 9.

Cetraria islandica (L.) Ach.

Cetraria muricata (Ach.) Eckfeldt

Cetrelia cetrarioides (Duby) W. L. Culb. & C. F. Culb.

Cetrelia olivetorum (Nyl.) W. L. Culb. & C. F. Culb.

Chaenotheca ferruginea (Sm.) Mig.

Chaenotheca furfuracea (L.) Tibell

Chrysothrix candelaris (L.) J. R. Laundon

Chrysothrix chlorina (Ach.) J. R. Laundon
Circinaria calcarea (L.) A. Nordin, S. Savić & Tubell

Circinaria contorta (Hoffm.) A. Nordin, S. Savić & Tubell subsp. contorta

Circinaria contorta subsp. hoffmanniana S. Ekmans & Fröberg
Murati 1992: 107 (Aspicilia hoffmanni); Mayrhofer & al. 2012: 4 (Aspicilia c. subsp. h.);

Circinaria gibbosa (Ach.) A. Nordin, S. Savić & Tubell

Cladonia arbuscula (Wallr.) Flörke
Kušan 1936a: 186 (C. sylvatica var. eusylvatica); Kušan 1936b: 172 (C. sylvatica); Kušan 1953: 288 (C. sylvatica).

Cladonia caespiticia (Pers.) Flörke

Cladonia chlorophaeas (Sommerf.) Spreng.
Bornmüller 1929: 100; Kušan 1936a: 185; Szatala 1940: 40 (C. c. f. intermedia); Kušan 1953: 310; Murati 1992: 167.

Cladonia coccifera (L.) Willd.

Cladonia coniocraea (Flörke) Spreng.

Cladonia convoluta (Lam.) Anders

Cladonia cyanipes (Sommerf.) Nylander
Murati 1985: 36.

Cladonia digitata (L.) Hoffm.

Cladonia fimbriata (L.) Fr.

Cladonia foliacea (Huds.) Willd.

Cladonia furcata (Huds.) Schrad. var. furcata

Cladonia furcata var. palamaea (ACH.) NYL.
Murati 1985: 35.

Cladonia glauca FLORKE

Cladonia gracilis (L.) Willd. subsp. gracilis

Cladonia gracilis subsp. elongata (WULFEN) VAIN.
Kušan 1936a: 185 (C. g. var. elongata); Kušan 1953: 304 (C. g. var. elongata).

Cladonia macroceras (DeliSe) hahti.

Cladonia macrophyllodes NYL.

Cladonia magyarica VAIN.
Sandstede 1931: 411 (C. m. var. pocilliformis).

Cladonia pocillum (ACH.) O.-J. RICH.

Cladonia polydactyla (FLORKE) SRENG.
Murati 1985: 36.

Cladonia pyxidata (L.) HOFFM.

Cladonia rei SCHAER.
Murati 1985: 36 (C. nemoxyna).

Cladonia stellaris (OPIZ) POUZAŘ & VĚZDA

Cladonia subulata (L.) F. H. WIGG.

Cladonia symphycarpa (FLORKE) Fr.

Clauzadea monticola (SCHAER.) HAFELLNER & BELLUM.
Collema auriforme (With.) Coppins & J. R. Laundon

Collema conglomeratum Hoffm.

Collema crispum (Huds.) Weber ex F. H. Wigg.

Collema cristatum (L.) Weber ex F. H. Wigg.
Pišút 1967: 54 (C. c. var. marginale); Murati 1993a: 114.

Collema flaccidum (Ach.) Ach.

Collema furfuraceum (Arnold) Du Rietz

Collema fuscovirens (With.) J. R. Laundon
Murati 1993a: 116; Mayrhofer & al. 2012: 10

Collema multipartitum Sm.
Pišút 1967: 54.

Collema nigrescens (Huds.) DC.

Collema occultatum Bagl.
Pišút 1967: 54.

Collema parvum Degel.

Collema polycarpon Hoffm. subsp. polycarpon
Szatala 1940: 35; Murati 1985: 34 (C. p. var. polycarpon).

Collema polycarpon subsp. coreyrense (Harm.) Pišút
Pišút 1967: 54 (C. p. var. coreyrense); Pišút 1968: 3.

Collema subflaccidum Degel.

Collema subnigrescens Degel.
Pišút 1967: 54.

Collema tenax (Sw.) Ach. var. tenax
Szatala 1940: 35 (C. granulatum); Murati 1984: 262 (C. pulposum); Murati 1985: 34 (C. pulposum); Murati 1993b: 224.

Collema tenax var. vulgare (Schaer.) Degel.
Pišút 1967: 54.

Collema undulatum Flot.

Cornicularia normoerica (Gunnerus) Du Rietz

Dermatocarpon bachmannii Anders

Dermatocarpon intestiniforme (Korb.) Hasse
Dermatocarpon miniatum (L.) W. Mann

Dimelaena oreina (Ach.) Norman

Diploschistes diacapsis (Ach.) Lumbsch

Diploschistes gypsaceus (Ach.) Zahlbr.
Diploschistes muscorum (Scop.) R. Sant.

Diploschistes ocellatus (Vill.) Norman

Diploschistes scruposus (Schreb.) Norman

Diplotomma alboatrum (Hoffm.) Flot.
Zahlbruckner 1897: 3 (Buellia a.); Bornmüller 1929: 104 (Buellia (D.) epipolia); Kuşan 1953: 552 (Buellia epipolia); Pšút & Hafellner 1980: 226 (Buellia epipolia); Murati 1984: 262 (Buellia epipolia); Murati 1992: 136; Murati 1993b: 224 (Buellia alboatra); Mayrhofer & al. 2012: 11; Rohrer & al. 2012: 171.

Diplotomma hedinii (H. Magn.) P. Clerc & Cl. Roux

Diplotomma venustum Korb.
Zahlbruckner 1897: 3 (Buellia alboatra var. venusta); Szatala 1940: 49 (D. epipolium var. venustum); Mayrhofer & al. 2012: 11; Rohrer & al. 2012: 171.

Endocarpon adscendens (Anzi) Müll. Arg.

Endohyalina insularis (Arnold) Giralt, van den Boom & Eliz

Ephebe lanata (L.) Vain.
Bornmüller 1929: 102 (Parmelia l.).
**Evernia divaricata** (L.) **Ach.**


**Evernia prunastri** (L.) **Ach.**


**Farnoldia jurana** (**Schaefer.**) **Hertel**

**Mayrhofer & al.** 2012: 1, 11.

**Farnoldia micropsis** (**A. Massal.**) **Hertel**

**Szatala** 1940: 38 (**Lecidea rhaetica**); **Mayrhofer & al.** 2012: 12.

**Fellhanera bouteillei** (**Desm.**) **Vézda**

**Szatala** 1940: 38 (**Catillaria b.**). 

**Flavocetraria cucullata** (**Bellardi**) **Kärnefelt & Thell**

**Wettstein** 1892: 95 (**Cetraria c.**); **Kušan** 1936a: 179, 195 (**Cetraria c.**); **Kušan** 1953: 465 (**Cetraria c.**); **Murati** 1992: 156 (**Cetraria c.**).

**Flavocetraria nivalis** (**L.**) **Kärnefelt & Thell**


**Flavoparmelia caperata** (**L.**) **Hale**


**Fulgensia bracteata** (**Hoffm.**) **Rasánen subsp. bracteata**

**Murati** 1992: 198.

**Fulgensia cf. bracteata subsp. deformis** (**Erichsen**) **Poelt**

**Rohrer & al.** 2012: 171.

**Fulgensia fulgens** (**Sw.**) **Elenkin**


**Fulgensia fulgida** (**Nylander**.) **Szatala**

**Pišút** 1967: 54; **Mayrhofer & al.** 2012: 12.

**Fulgensia subbracteata** (**Nylander**.) **Poelt**

**Mayrhofer & al.** 2012: 1, 12.

**Fuscidea kochiana** (**Hepp**) **V. Wirth & Vézda**

**Mayrhofer & al.** 2012: 1, 12.

**Fuscopannaria praetermissa** (**Nylander**.) **P. M. Jorg.**

**Szatala & Timkó** 1926: 162 (**Parmeliella lepidiota**).
Gowardia nigricans (Ach.) Halonen & al.
Kušan 1936a: 195 (Alectoria n.); Kušan 1953 (Alectoria n.): 473; Murati 1992: 79 (Alectoria n.).

Graphis pulverulenta (Pers.) Ach.
Zahlbruckner 1897: 3 (G. scripta var. pulverulenta); Rohrer & al. 2012: 171.

Graphis scripta (L.) Ach.

Gyalecta foveolaris (ach.) Schäer.
Mayrhofer & al. 2012: 1, 12.

Gyalecta ulmi (Sw.) Zahlbr.
Mayrhofer & al. 2012: 1, 12.

Haematomma ochroleucum (Neck.) J. R. Laundon

Halecania lecanorina (Anzi) M. Mayrhofer
Mayrhofer & al. 2012: 1, 12.

Heteroplacidium compactum (A. Massal.) Gueidan & Cl. Roux
Kušan 1936a: 182 (Dermatocarpon c.); Kušan 1953: 69 (Dermatocarpon c.); Murati 1993a: 261 (Verrucaria compacta); Rohrer & al. 2012: 171.

Heteroplacidium zamenhofianum (Clauzade & Cl. Roux) Gueidan & Cl. Roux
Breuss 1994: 19 (Verrucaria zamenhofiana).

Hymenelia melanocarpa (Kremp.) Arnold

Hypogymnia physodes (L.) Nylander

Hypogymnia tubulosa (Schaer.) Hav.

Immersaria athroocarpa (Ach.) Rambold & Pietschm.
Kušan 1936: 183 (Lecidea a.); Kušan 1953: 218 (Lecidea a.); Murati 1992: 308 (Porpidia a.).

Immersaria cupreofratera (Nyland.) Calatayud & Rambold
**Lasallia pustulata** (L.) MÉRAT

**Lecania erysibe** (Ach.) MUD
Pavletić & Murati 1980: 34, 35; Murati 1992: 221.

**Lecania fuscella** (Schaer.) A. MAßAL.
Zahlbruckner 1897: 2 (*L. syringea f. deformis*).

**Lecania inundata** (KORB.) M. MAYRHOFER

**Lecania koerberiana** J. LAHM

**Lecania rabenhorstii** (HEPP) ARNOLD
Mayrhofer 1988: 90.

**Lecanora agardhiana** Ach.

**Lecanora albella** (Pers.) Ach.

**Lecanora albescens** (Hoffm.) Branth & ROSTR.

**Lecanora allophana** NYL.

**Lecanora argentata** (Ach.) MALME

**Lecanora argopholis** (Ach.) Ach.

**Lecanora bicincta** RAMOND

**Lecanora bolcana** (Pollini) POELT

**Lecanora caesiosora** POELT

**Lecanora campestris** (Schaer.) HUE
Lecanora carpinea (L.) VAIN.

KUŠAN 1936a: 189; SZATALA 1940: 42; KUŠAN 1953: 376; MURATI 1984: 260 (L. angulo-


2012: 171.

Lecanora cenisia Ach.

BORNMÜLLER 1929: 101 (L. atrynea); KUŠAN 1936a: 189 (L. atrynea); KUŠAN 1953: 374

Lecanora cerebellina Poelt


Lecanora clarotera Nyl.


Lecanora crenulata Hook.

BORNMÜLLER 1929: 101; KUŠAN 1953: 380; MURATI 1993a: 137; MAYRHOFER & al. 2012:

Lecanora dispersa (Pers.) SOMMERF.

ZAHLBRUCKNER 1897: 2; BORNMÜLLER 1929: 102; SZATALA 1940: 42 (L. d. f. coniotropa);
KUŠAN 1953: 381; POELT & HAFFELNERN 1980: 226; MURATI 1993a: 138; MURATI 1993c:

Lecanora dispersoareolata (SCHAER.) LAMY


Lecanora epibryon (ACH.) Ach.


Lecanora expallens Ach.


Lecanora gangaleoides Nyl.

KUŠAN 1936a: 190; KUŠAN 1953: 382; MURATI 1993a: 139.

Lecanora glabrata (ACH.) MALME


Lecanora hagenii (ACH.) Ach. var. hagenii

SZATALA 1940: 42 (L. h. f. coerulescens); ANONYMUS 1979: 25; MURATI 1993a: 140;

Lecanora hagenii var. fallax Hepp


Lecanora intricata (ACH.) Ach.


Lecanora intumescens (REBENT.) Rabenh.

RANOJEVIĆ 1909: 7; KUŠAN 1936a: 179; SZATALA 1940: 42; MURATI 1979: 839; MURATI
171.

Lecanora lojkaeana Szatala


Lecanora pannonica Szatala


Lecanora perpruinosa Fröberg


Lecanora persimilis (Th. Fr.) Nyl.

Lecanora polytropa (HOFFM.) Rabenh. var. polytropa
Lecanora polytropa var. alpigena (ACH.) Schaer.
Lecanora pruinosa Chaub.
Lecanora pseudistera Nyl.
Lecanora pulicaris (Pers.) Ach.
Kušan 1936a: 190 (L. chlorona, L. coilocarpa, L. pinastri); Szatala 1940: 42 (L. chlorona); Kušan 1953: 378 (L. chlorona), 388 (L. pinastri); Murati 1984: 260 (L. chlorona); Murati 1986: 262 (L. chlorona); Murati 1993a: 144; Mayrhofer & al. 2012: 15.
Lecanora rouxii S. Ekman & Tønsberg
Lecanora rupicola (L.) Zahlbr. subsp. rupicola
Lecanora rupicola subsp. sulphurata (ACH.) Leuckert & Poelt
Kušan 1936a: 191 (L. sulphurata); Kušan 1953: 394 (L. sulphurata); Murati 1993a: 147 (L. sulphurata); Murati 1993b: 225 (L. sulphurata); Mayrhofer & al. 2012: 15.
Lecanora saligna (SCHRAD.) Zahlbr.
Lecanora semipallida H. Magn.
Lecanora sulphurea (HOFFM.) Ach.
Lecanora swartzii (ACH.) Ach.
Kušan 1936a: 191 (L. subradiosa); Kušan 1953: 394 (L. subradiosa); Murati 1993a: 147.
Lecanora umbrosa Degel.
Mayrhofer & al. 2012: 1, 16.
Lecanora varia (HOFFM.) Ach.
Mayrhofer & al. 2012: 1, 16.

Lecidea atrobrunnea (RAMOND ex Lam. & DC.) Schaer.
Lecidea confluens (WEBER) Ach.
Lecidea fuliginosa Taylor
Lecidea fuscoatra (L.) Ach.
Lecidea grisella Flörke

Lecidea laboriosa Mull. Arg.

Lecidea lapicida (Ach.) Ach. var. lapicida
Kušan 1936a: 184 (L. l. f. ecrustacea, L. l. f. ochromeliza); Kušan 1953: 226 (L. l. f. ecrustacea, L. l. f. ochromeliza); Murati 1984: 262 (Lecanora subkochiana); Murati 1992: 231.

Lecidea lapicida var. pantherina Ach.

Lecidea lithophila (Ach.) Ach.

Lecidea paratropoides Mull. Arg.

Lecidea plana (J. Lahm) Nyl.

Lecidea promiscens Nyl.

Lecidea tesselata Flörke var. tesselata

Lecidea umbonata (Hepp) Mudd

Lecidella achristotera (Nyl.) Hertel & Leuckert

Lecidella anomaloides (A. Massal.) Hertel & H. Kilias
Kušan 1936a: 184 (Lecidea goniophila f. pungens); Szatala 1940: 37 (Lecidea goniophila var. pungens); Kušan 1953: 233 (Lecidea pungens); Murati 1984: 261 (Lecidea goniophila); Murati 1985: 35 (Lecidea goniophila); Murati 1992: 239.

Lecidella carpathica Körb.

Lecidella elaeochroma (Ach.) M. Choisy
Zahlbruckner 1897: 3 (Lecidea parasema); Bornmüller 1929: 99 (Lecidea parasema); Kušan 1934b: 123 (Lecidea parasema); Kušan 1936a: 184 (Lecidea parasema); Szatala 1940: 37 (Lecidea parasema); Kušan 1953: 231 (Lecidea parasema); Murati 1979: 839 (Lecidea parasema); Pavletić & Murati 1980: 34 (Lecidea parasema); Murati 1984: 260 (Lecidea parasema); Murati 1986: 617 (Lecidea parasema); Murati 1992: 239; Murati 1993b: 223, 225; Mayrhofer & al. 2012: 17; Rohrer & al. 2012: 172.

Lecidella euphorea (Flörke) Hertel
Lecidella patavina (A. Massal.) Knopf & Leuckert

Lecidella stigmatea (Ach.) Hertel & Leuckert
Zahlbruckner 1897: 3 (Lecidea enteroleuca); Bornmüller 1929: 99 (Lecidea enteroleuca); Szatala 1940: 37 (Lecidea subsequens); Hertel 1970: 56 (sub Albania); Murati 1992: 240; Mayrhofer & al. 2012: 18; Rohrer & al. 2012: 172.

Lempholemma polyanthes (Bernh.) Malme

Lepraria caesioalba (de Lesd.) J. R. Laundon

Lepraria crassissima (Hue) Lettau

Lepraria incana (L.) Ach.

Lepraria lobificans Nyl.
Pavletić & Murati 1977: 168 (L. aeruginosa); Murati 1981: 8 (L. aeruginosa); Murati 1986: 621 (L. aeruginosa).

Lepraria membranacea (Dicks.) Vain.

Lepraria neglecta (Nyl.) Lettau

Leprocaulon microscopicum (Vill.) Gams

Leptogium brebissonii Mont.

Leptogium gelatinosum (With.) J. R. Laundon

Leptogium hildenbrandii (Garov.) Nyl.

Leptogium cf. intermedium (Arnold) Arnold

Leptogium lichenoides (L.) Zahlbr.

Leptogium plicatile (Ach.) Leight.
Szatala 1940: 35 (Collema hydrocharum).

Leptogium pulvinatum (Hoffm.) Otálora

Leptogium saturninum (Dicks.) Nyl.

Letharia vulpina (L.) Hue
Lobaria amplissima (SCOP.) FORSELL. 

Lobaria pulmonaria (L.) Hoffm. 

Lobothallia chadefaudiana (Cl. ROUX) A. NORDIN, Cl. ROUX & SOHRABI 
VŽDA 1979: 4 (Aspicilia cernohorskyana var. macedonica); Slezáková & Pišút 2004: 5 (Aspicilia cernohorskyana var. macedonica).
Lobothallia praeradiosa (NYL.) Hafellner 

Lobothallia radiosa (HOFFM.) Hafellner 

Megaspora verrucosa (ACH.) Hafellner & V. Wirth 

Melanelia disjuncta (ERICSEN) Esp.

Melanelia sorediata (ACH.) Goward & Ahti 

Melanelia stygia (L.) Esp.

Melanelixia fuliginosa (DUBY) O. BLANCO & al. 

Melanelixia glabra (SCHAER.) O. BLANCO & al. 

Melanelixia glabrataula (LAMY) Sandler & Arup 

Melanelixia subargentifera (NYL.) O. BLANCO & al. 
Melanelixia subaurifera (Nyl.) O. Blanco & al.

Melanohalea elegantula (Zahlbr.) O. Blanco & al.

Melanohalea exasperata (De Not.) O. Blanco & al.

Melanohalea exasperatula (Nyl.) O. Blanco & al.

Melanohalea infumata (Nyl.) O. Blanco & al.
Kušan 1936a: 193 (Parmelia i.); Kušan 1953: 442 (Parmelia i.).

Miriquidica garovaglii (Schaer.) Hertel & Rambold
Vézda 1977: 2 (Lecidea g.).

Miriquidica griseoatra (Flot.) Hertel & Rambold
Murati 1992: 230 (Lecidea g.).

Moelleropsis nebulosa (Hoffm.) Gyeln.

Myriospora smaragdula (Wahlenb. ex Ach.) Nägeli ex Uloth
Murati 1992: 74 (Acarospora s.).

Nephroma parile (Ach.) Ach.
Nephroma resupinatum (L.) Ach.

Ochrolechia balcanica Verseghy
Vézda 1975: 3; Kukwa 2009: 57; Kukwa 2011: 100, 279 (map).

Ochrolechia pallescens (L.) A. Massal.

Ochrolechia parella (L.) A. Massal.

Ochrolechia szatalaensis Verseghy

Ochrolechia tartarea (L.) A. Massal.

Opegrapha atra Pers.
Ophioparma ventosa (L.) Norman
Wettstein 1892: 95 (Haematomma ventosum); Bornmüller 1929: 102 (Haematomma ventosum); Kušan 1936a: 179, 192 (Haematomma ventosum); Kušan 1953: 420 (Haematomma ventosum); Pavletič & Murati 1977: 168 (Haematomma ventosum); Pavletič & Murati 1978: 248 (Haematomma ventosum); Murati 1981: 7 (Haematomma ventosum); Murati 1984: 262 (Haematomma ventosum); Murati 1985: 37 (Haematomma ventosum); Murati 1992: 206; Mayrhofer & al. 2012: 20; Rohrer & al. 2012: 172.

Orphniospora moriopsis (A. Massal) D. Hawksw.
Kušan 1936a: 199 (Buellia atrata); Kušan 1953: 544 (Buellia atrata).

Orphniospora mosigii (Körb.) Hertel & Rambold

Parmelia omphalodes (L.) Ach. subsp. pinnatifida (Kurok.) Skult
Kušan 1936: 193 (P. o. var. panniformis).

Parmelia saxatilis (L.) Ach.

Parmelia sulcata Taylor

Parmelina pastillifera (Harm.) Hale

Parmelina quercina (Willd.) Hale

Parmelina tiliacea (Hoffm.) Hale
Bornmüller 1929: 103 (Parmelia scortea); Kušan 1934b: 122 (Parmelia t.); Kušan 1936a: 194 (Parmelia t.); Szatala 1940: 45 (Parmelia scortea); Kušan 1953: 455 (Parmelia scortea); Murati 1979: 839 (Parmelia scortea); Murati 1984: 260 (P. scortea); Murati 1993a: 186; Mayrhofer & al. 2012: 20; Rohrer & al. 2012: 172.

Parmeliopsis ambiguia (Wulfen) Nyl.

Parmotrema reticulatum (Taylor) M. Choisy
Murati 1993a: 183.

Peltigera aphthosa (L.) Willd.
Peltigera canina (L.) Willd.

Peltigera deginii Gyeln.
Vittikainen 1994: 36, 37.

Peltigera didactyla (With.) J. R. Laundon
Ranojević 1909: 7 (P. spuria); Murati 1993b: 223; Kušan 1936a: 179 (P. spuria); Pavletić & Murati 1977: 168 (P. erumpens); Murati 1984: 262 (P. erumpens); Murati 1985: 34 (P. erumpens).

Peltigera elisabethae Gyeln.

Peltigera horizontalis (Huds.) Baumg.

Peltigera leucophlebia (Nyl.) Gyeln.

Peltigera neckeri Hepp ex Müll. Arg.

Peltigera polydactylon (Neck.) Hoffm.
Murati 1981: 6 (P. polydactyla); Murati 1984: 262 (P. polydactyla); Murati 1993b: 223 (P. polydactyla), 224 (P. polydactyla); Vittikainen 1994: 71.

Peltigera praetextata (Flörke ex Sommerf.) Zoff
Pavletić & Murati 1977: 168 (P. carnea); Murati 1992: 271; Murati 1993b: 223; Vitti-

Peltigera rufescens (Weiss) Humb.

Peltigera venosa (L.) Hoffm.

Pertusaria albenscens (Huds.) M. Choisy & Werner var. albenscens

Pertusaria albenscens var. subflotoviana (Erichsen) Poelt

Pertusaria amara (Ach.) Nyl.

Pertusaria chiodectonoides A. Massal.
Kušan 1936a: 188 (P. inquinata); Kušan 1953: 343 (P. inquinata); Murati 1992: 277.

Pertusaria flavicans Lamý
Pertusaria flavida (DC.) J. R. Laundon

Pertusaria hemisphaerica (Flörke) Erichsen

Pertusaria leioplaca DC.


Pertusaria pertusa (Weigel) Tuck.

Pertusaria rupestris (DC.) Scherr.

Pertusaria rupicola (Fr.) Harm.

Pertusaria spilomantha Nył.
Kušan 1936a: 188; Kušan 1953: 353 (Melanaria s.).

Petractis clausa (Hoffm.) Kremp.

Phaeophyscia ciliata (Hoffm.) Moberg

Phaeophyscia endococcina (Körb.) Moberg

Phaeophysica nigricans (Flörke) Moberg

Phaeophyscia orbicularis (Neck.) Moberg

Phaeophyscia sciastra (Ach.) Moberg

Phlyctis agelaea (Ach.) Flot.
Mayrhofer & al. 2012: 1, 22.

Phlyctis argena (Spreng.) Flot.

Physcia adscendens H. Olivier

Physcia aipolia (Humb.) Turnh.
Physcia albinea (Ach.) Nyl.

Physcia caesia (Hoffm.) Furrn.

Physcia clementei (Turner) Lyng
Bornmüller 1929: 104 (P. astroidea); Kušan 1953: 568 (P. clementiana); Murati 1992: 295.

Physcia dimidiata (Arnold) Nyl.

Physcia dubia (Hoffm.) Lettau

Physcia leptalea (Ach.) DC.

Physcia stellaris (L.) Nyl.

Physcia subalbinea Nyl.

Physcia tenella (Scop.) DC.

Physconia detersa (Nyl.) Poelt

Physconia distorta (With.) J. R. Laundon

Physconia enteroxantha (Nyl.) Poelt

Physconia grisea (Lam.) Poelt
Murati 1993c: 231.

Physconia muscigena (Ach.) Poelt

Physconia perisidiosa (Erichsen) Moberg

Physconia venusta (Ach.) Poelt
Kušan 1936a: 200 (Physcia pulverulenta var. venusta); Kušan 1953: 581 (Physcia v.); Murati 1992: 301.

Placidium rufescens (Ach.) A. Massal.
Placidium squamulosum (Ach.) Breuss
Szatala 1940: 34 (Dermatocarpon trapeziiforme); Murati 1979: 839 (Dermatocarpon hepaticum); Murati 1985: 34 (Dermatocarpon hepaticum); Murati 1986: 616 (Dermatocarpon hepaticum); Murati 1992: 147.

Placocarpus schaereri (Fr.) Breuss
Zahlbruckner 1897: 3 (Endopyrenium monstrosum); Bornmüller 1929: 98 (Dermatocarpon monstrosum); Zehetleitner 1978: 707 (map), 719 (Verrucaria s.); Murati 1984: 261 (Endopyrenium monstrosum); Murati 1985: 34 (Dermatocarpon monstrosum); Murati 1986: 616 (Dermatocarpon monstrosum); Mayrhofer & al. 2012: 24; Rohrer & al. 2012: 172.

Placopyrenium bucekii (Nádv. & Serví) Breuss

Placopyrenium fuscellum (Turner) Gueidan & Cl. Roux

Placopyrenium tatrense (Vćzda) Breuss
Murati 1993c: 231 (Placidiopsis tatrensis).

Placynthium filiforme (Garov.) M. Choisy

Placynthium nigrum (Huds.) Gray

Placynthium tremniacum (A. Massal.) Jatta

Platismatia glauca (L.) W. L. Culb & C. F. Culb.
Murati 1979: 840 (Cetraria g.); Murati 1981: 7 (Cetraria g.); Murati 1984: 261 (Cetraria g.); Murati 1986: 620 (Cetraria g.); Murati 1992: 160.

Pleopsidium chlorophanum (Wahlenb.) Zoff

Pleopsidium flavum (Bellardi) Körb.

Pleurosticta acetabulum (Neck.) Elix & Lamisch

Polyblistia microcarpa (Arnold) Lettau

Polysporina cyclocarpa (Anzi) Vćzda
Poelt & Hafellner 1980: 226 (Sarcogyne c.).

Polysporina simplex (Davies) Vćzda

Porpidia macrocarpa (DC.) Hertel & A. J. Schwab Hertel 1971: 242 (Lecidea nigrocruenta); Hertel 1975a: 61 (Haplocarpon nigrocruentum); Hertel 1975b: 122 (Huilia nigrocruenta, map); Murati 1984: 261 (Lecidea m.); Murati 1985: 35 (Lecidea m.).

Porpidia speirea (Ach.) Kremp. Kušan 1936a: 184 (Lecidea s.); Kušan 1953: 233 (Lecidea s.); Murati 1984: 261 (Lecidea s.).


Protoblastenia siebenhaariana (Korb.) J. Steiner Pišút 1971: 168.


Protoparmelia artriseda (Fr.) R. Sant. & V. Wirth Kušan 1936a: 189 (Lecanora a.); Kušan 1953: 386 (Lecanora nephaea); Murati 1993a: 149; Rohrer & al. 2012: 172.


Protoparmeliopsis muralis (Schreb.) M. Choisy var. muralis Zahlbruckner 1897: 2 (Lecanora m., Lecanora m. var. versicolor); Bornmüller 1929: 102 (Lecanora (Placodium) m., Lecanora (Placodium) m. var. versicolor); Kušan 1934b: 120 (Lecanora m.); Kušan 1936a: 191 (Lecanora m., Lecanora m. var. dif-
Psoroma hypnorum (Vahl) Gray
Pavletić & Murati 1977: 168 (Soloriana h.).

Pycnothelia papillaria (Ehrh.) L. M. Dufour
Murati 1993a: 274.

Pyrenula nitida (Weigel) Ach.
**Ramalina calicaris** (L.) Fr.

**Ramalina capitata** (Ach.) Nyl.
Bornmüller 1929: 103 (R. strepsilis); Kušan 1934a: 60, 61 (R. strepsilis); Kušan 1934b: 121, 122 (R. strepsilis); Kušan 1936a: 197 (R. strepsilis); Kušan 1936b: 171 (R. strepsilis); Szatala 1940: 47 (R. strepsilis); Kušan 1953: 483 (R. strepsilis); Murati 1992: 324.

**Ramalina carpathica** Korb.

**Ramalina farinacea** (L.) Ach.

**Ramalina fastigiata** (Pers.) Ach.

**Ramalina fraxinea** (L.) Ach. var. fraxinea

**Ramalina fraxinea** var. calicariformis (Nyl.) Hauk

**Ramalina pollinaria** (Westr.) Ach.

**Ramalina polymorpha** (Lil.) Ach.

**Ramboldia insidiosa** (Th. Fr.) Hafellner

**Rhizocarpon alpicola** (Anzi) Rabenh.

**Rhizocarpon atroflavescens** Lyng

**Rhizocarpon disporum** (Nageli ex Hepp) Müll. Arg.

**Rhizocarpon distinctum** Th. Fr.
Rhizocarpon epispilum (Nyl.) Zahlbr.

Rhizocarpon geminatum Körb.

Rhizocarpon geographicum (L.) DC.

Rhizocarpon lusitanicum (Nyl.) Arnold Poelt & Hafellner 1982: 312, 314.

Rhizocarpon obscuratum (Ach.) A. Massal.

Rhizocarpon petraeum (Wulfen) A. Massal.

Rhizocarpon polycarpum (Hepp) Th. Fr.

Rhizocarpon saanaénse Rasanen
Runemark 1956: 58 (map), 114 (R. sublucidum).

Rhizocarpon tetrasporum Runem.
Runemark 1956: 103; Poelt & Vézda 1977: 222.

Rhizocarpon umbilicatum (Ramond) Flagey
Bornmüller 1929: 104 (Buellia epipolia var. calcarea); Kušan 1953: 279 (R. calcareum); Murati 1985: 35 (R. calcareum); Murati 1992: 336.

Rhizocarpon viridiatrnum (Wulfen) Körb.
Murati 1993b: 222, 225.

Rhizoplaca chrysoleuca (Sm.) Zopf

Rhizoplaca melanophthalma (DC.) Leuckert & Poelt

Rhizoplaca subdiscrepans (Nyl.) R. Sant.

Rimularia insularis (Nyl.) Rambold & Hertel
Rinodina bischoffii (Hepp) A. Massal.

Rinodina calcarea (Arnold) Arnold

Rinodina castanomela (Nybl.) Arnold

Rinodina castanamelodes H. Mayrhofer & Poelt

Rinodina colobina (Ach.) Th. Fr.

Rinodina confragosa (Ach.) Korb.

Rinodina dubyana (Hepp) J. Steiner

Rinodina freyi H. Magn.

Rinodina guzzinii Jatta

Rinodina immersa (Korb.) Zahlbr.
Szatala 1940: 49; Murati 1993a: 218.

Rinodina lecanorina (A. Massal.) A. Massal.

Rinodina milvina (Wahlenbr.) Th. Fr.

Rinodina notabilis (Lyng.) Sheard
Mayrhofer & Poelt 1979: 139 (R. parvula); Poelt & Hafellner 1980: 226 (R. parvula); Murati 1993a: 221 (R. parvula); Scheidegger 1993: 354 (Buellia parvula); Naidyina & al. 2010: 528 (R. parvula); Sheard 2010: 143.

Rinodina oleae Bagl.

Rinodina oxydata (A. Massal.) A. Massal.
Bornmüller 1929: 104 (R. discolor var. candida); Kušan 1953: 559 (R. discolor var. candida); Murati 1993a: 221; Rohrer & al. 2012: 173.

Rinodina parasitica H. Mayrhofer & Poelt

Rinodina pyrina (Ach.) Arnold

Rinodina rinodinoides (Anzi) H. Mayrhofer & Scheid.
**Rinodina sophodes** (Ach.) A. Massal.

**Rinodina trachytica** (A. Massal.) Bagl. & Carestia

**Rinodinella controversa** (A. Massal) H. Mayrhofer & Poelt

**Romjularia lurida** (Ach.) Timdal

**Sarcogyne clavus** (dc.) Kremp.

**Sarcogyne regularis** Korb.
Zahlbruckner 1897: 2 (Biatorella pruinosa); Bornmüller 1929: 100 (Biatorella pruinosa); Kušan 1953: 225 (S. pruinosa); Pišút 1967: 55 (S. pruinosa); Murati 1992: 342 (S. pruinosa); Mayrhofer & al. 2012: 28; Rohrer & al. 2012: 173.

**Schaereria fuscocinerea** (Nybl.) Clauzade & Cl. Roux

**Scoliciosporum umbrinum** (Ach.) Arnold var. corticolum (Anzi) Bagl. & Carestia

**Solorina bispora** Nybl.

**Solorina crocea** (l.) Ach.

**Solorina saccata** (l.) Ach.

**Solorina spongiosa** (Sm.) Anzi

**Sporastatia polyspora** (Nybl.) Grumann
Kušan 1934b: 123 (Biatorella cinerea); Kušan 1936a: 187 (Biatorella cinerea); Kušan 1936c: 241 (Biatorella cinerea); Kušan 1953: 322 (S. cinerea).

**Sporastatia testudinea** (Ach.) A. Massal.

**Squamarina cartilaginea** (With.) P. James
Bornmüller 1929: 102 (Lecanora (Placodium) crassa, Lecanora (Placodium) crassa var. caespitosa); Szatala 1940: 42 (S. crassa var. liparia f. imbricata); Suza 1943: 2

Squamarina concrescens (Mull. Arg.) Poelt
Murati 1992: 34.

Squamarina gypsacea (Sm.) Poelt

Squamarina lentigera (Weber) Poelt

Squamarina stella-petraea Poelt

Staurothele areolata (Ach.) Lettau

Staurothele hymenogonia (Nyl.) Th. Fr.

Staurothele immersa (A. Massal.) Dalla Torre & Sarnth.
Murati 1985: 34.

Staurothele rufa (A. Massal.) Zschacke

Stereocaulon alpinum Laurer

Stereocaulon paschale (L.) Hoffm.

Strigula affinis (A. Massal.) R. C. Harris
Zahlbruckner 1897: 4 (Segestria a.).

Tephromela atra (Huds.) Hafellner var. atra

Tephromela atra var. torulosa (Filot.) Hafellner

Tephromela grumosa (Pers.) Hafellner & Cl. Roux

Thamnolia vermicularis (Sw.) Schaer. var. vermicularis
Thamnolia vermicularis var. subuliformis (Ehrh.) Schær.

Thelenella muscorum (Fr.) Vain.
Vězda 1976: 1 (Microgalena m.); Mayrhofer & Poelt 1985: 36 (Chromatochlamys m.);
Mayrhofer 1987: 71 (Chromatochlamys m.).

Thelidium decipiens (Nyl.) Kremp.

Thelidium incavatum Mudd

Thelocarpon epibulum Nyl.

Thelocarpon laureri (Flot.) Nyl.

Toninia alutacea (Anzi) Jatta

Toninia athallina (Hepp) Timpl

Toninia candida (Weber) Th. Fr.
Szatala & Tinkó 1926: 165; Kušan 1936a: 185; Kušan 1953: 270; Pavletić & Murati

Toninia diffracta (A. Massal.) Zahlbr.

Toninia philippea (Mont.) Timpl
Hafellner 1984: 360 (Kiliasia riparia); Timpl 1991: 79.

Toninia sedifolia (Scop.) Timpl

Toninia taurica (Szatala) Oxner

Toninia tristis (Th. Fr.) Th. Fr.
Pavletić & Murati 1978: 250 (T. tabacina); Murati 1985: 35 (T. tabacina); Murati

Toninia tumidula (Sm.) Zahlbr.

Trapeliopsis wallrothii (Spreng.) Hertel & Gotth. Schneid.

Tremolecia atrata (Ach.) Hertel
Hertel 1977: 353 (map); Murati 1981: 7 (Lecidea dicksonii).
Umbilicaria crustulosa (Ach.) Frey


Umbilicaria cylindrica (L.) Duby var. cylindrica


Umbilicaria cylindrica var. tornata (Ach.) Nyl.

Bornmüller 1929: 100 (Gyrophora tornata); Kušan 1936a: 186; Kušan 1953: 320; Rohrer & al. 2012: 173.

Umbilicaria decussata (Vill.) Zahlbr.


Umbilicaria deusta (L.) Baumg.


Umbilicaria grisea Hoffm.


Umbilicaria hirsuta (Westr.) Hoffm.


Umbilicaria leiocarpa DC.


Umbilicaria nylanderiana (Zahlbr.) H. Magn.

Bornmüller 1929: 100 (Gyrophora corrugata); Kušan 1953: 320 (U. corrugata); Murati 1992: 373; Rohrer & al. 2012: 173.

Umbilicaria polyphylla (L.) Baumg.


Umbilicaria ruebeliana (Du Rietz & Frey) Frey

Věžda 1975: 2.

Umbilicaria subglabra (Nyl.) Harm.

Věžda 1975: 2.

Usnea cavernosa Tuck.


Usnea ceratina Ach.

Kušan 1936a: 197; Kušan 1953: 484; Murati 1993a: 245.
Usnea florida (L.) F. H. Wigg. em. Clerc
Usnea glabrescens (Vain.) Vain.
Usnea hirta (L.) Weber ex F. H. Wigg.
Usnea intermedia (A. Massal.) Jatta
Murati 1993a: 244 (U. carpathica).
Usnea lapponica Vain.
Murati 1993a: 250.
Usnea scabatra Nyk.
Usnea subfloridana Stirt.
Murati 1993a: 252.
Verrucaria confluens A. Massal.
Verrucaria hochstetteri Fr.
Verrucaria macrostoma Dufour ex DC.
Verrucaria muralis Ach.
Zahlbruckner 1897: 3 (V. rupestris f. confluens); Rohrer & al. 2012: 174.
Verrucaria nigrescens Pers.
Verrucaria papillosa Ach.
Zahlbruckner 1897: 3 (V. p. f. meiospora).
Verrucaria poeltii (Servit) Breuss
Verrucaria tristis (A. Massal.) Kremp.
Murati 1979: 839; Murati 1984: 261; Murati 1985: 34.
Verrucula elegantaria (Zehetl.) Nav.-Ros. & Cl. Roux
Verruculopsis lecideoides (A. Massal.) Gueidan & Cl. Roux
Xanthoparmelia conspersa (Ach.) Hale
BörnMüller 1929: 102 (Parmelia c., Parmelia c. var. subconspersa); Kušan 1934a: 60 (Parmelia c.); Kušan 1934b: 119, 120, 122 (Parmelia c.); Kušan 1936a: 192 (Parmelia


*Xanthoparmelia loxodes* (Nyl.) O. Blanco & al. Murati 1993a: 179 (*Neofuscelia l.*).

*Xanthoparmelia pokornyi* (Korb.) O. Blanco & al. Věžda 1983: 7 (*Parmelia pulla var. pokornyi*).


*Xanthoparmelia stenophylla* (Ach.) Ahti & D. Hawksw.


*Xanthoparmelia tinctína* (Maheu & A. Gillet) Hale Mayrhofer & al. 2012: 1, 32.


*Xanthoria calcícola* Oxner Píšút 1967: 55.


Xanthoria fallax (Hepp) Arnold
Xanthoria fulva (Hoffm.) Poelt & Petutschng
Xanthoria papillifera (Vain.) Poelt
Mayrhofer & al. 2012: 1, 32.
Xanthoria parietina (L.) Th. Fr.
Xanthoria sorediata (Vain.) Poelt
Mayrhofer & al. 2012: 1, 32.

Xylographa parallela (Ach. Fr.) Behlen & Desberger
Mayrhofer & al. 2012: 1, 32.

5. Lichenicolous Fungi

Adelococcus interlatens (Arnold) Matzer & Hafellner
Murati 1979: 839 (Verrucaria phaeosperma); Murati 1984: 261 (Verrucaria phaeosperma); Murati 1985: 34 (Verrucaria phaeosperma); Murati 1986: 616 (Verrucaria phaeosperma).

Arthonia intexta Almq.
Arthonia varians (Davies) Nyl.

Carbonea intrudens (H. Magn.) Hafellner
Hafellner 2006: 43
Carbonea vitellinaria (Nyl.) Hertel

Cecidonia umbonella (Nyl.) Triebel & Rambold

Cercidiospora ulothii Korb.

Dactylospora saxatilis (Schaeir.) Korb.
Hafellner 1979: 133; Murati 1984: 262 (Buellia s.).
Endococcus propinquus (Korb.) D. Hawksw.
Murati 1985: 34 (Microthelia ploseliana).

Lichenostigma cosmopolites Hafellner & Calatayud
Hafellner & Calatayud 1999: 112.
Lichenostigma rouxii Nav.-Ros., Catalayud & Hafellner
Catalayud & al. 2002: 1238.

Muellerella pygmaea (Körb.) D. Hawks.
Triebel 1989: 165.

Phacographa glaucomaria (Nyl.) Hafellner
Hafellner 2009: 103, 105.

Phacopsis oxyspora (Tul.) A. Massal.
Hafellner & Catalayud 1999: 112 (Nesolechia o.).

Rhizocarpon malenconianum (Llimona & Werner) Hafellner & H. Mayrhofer

Sagediopsis fissurisedens Hafellner
Hafellner 1993: 759.

Sphinctrina paramerae Muniz & Hladun
Mayrhofer & al. 2012: 1, 33 (erroneously as S. turbinata); Muniz & al. 2013: 140.

Stigmidium cartilagineae Catalayud & Triebel
Catalayud & Triebel 2003: 108.

6. Doubtful records

Alectoria ochroleuca (Hoffm.) A. Massal.
Note: The record of Ranojević 1909 is based on an epiphytic specimen, maybe Alectoria sarmentosa. It is also cited in Kušan 1936a: 180.

Lecanora bambergeri Körb.
Murati 1985: 37.

Lecanora silesiaca Stein
Murati 1984: 262.

Lecanora simulans Kernstock
Murati 1984: 261 (Lecidea s.); Murati 1985: 35 (Lecidea s.).

Lecanora valdobbiensis (Bagl. & Carestia) H. Magn.
Murati 1985: 36.

Parmelia argentiifera (L.) Ach.
Murati 1984: 262 (on siliceous rocks); Murati 1985: 37 (on siliceous rocks).
Note: This doubtful name may refer to Parmelia saxatilis according to the associating species mentioned by Murati 1984. It is also cited in Murati 1985.

Parmelia hypofusca Gyeln.
Gyelnik 1934: 155.

Thelidium quinqueseptatum Nyl. (Arnold)
Murati 1986: 616 (Polyblastia sepulta).

Xanthoparmelia verruculifera (Nyl.) O. Blanco & al.
Murati 1984: 260 (Parmelia v.; on bark).
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