

THE FOURTH CHECKLIST OF UKRAINIAN LICHEN-FORMING AND LICHENICOLOUS FUNGI WITH ANALYSIS OF CURRENT ADDITIONS

S. Y. KONDRAKYUK^{1*}, L. P. POPOVA¹, O. Y. KHODOSOVTSSEV²
L. Lőkös³, N. M. FEDORENKO¹ and N. V. KAPETS¹

¹*M. H. Kholodny Institute of Botany, Tereshchenkivska str. 2, 01004 Kiev, Ukraine*

*E-mail: *ksya_net@ukr.net* (*corresponding author*)

²*Kherson State University, 27 Universytetska St., 73000 Kherson, Ukraine*
E-mail: *khodosovtsev@i.ua*

³*Department of Botany, Hungarian Natural History Museum
H-1431 Budapest, Pf. 137, Hungary*

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The “Fourth checklist of lichen-forming and lichenicolous fungi of Ukraine”, including 2150 accepted scientific names based on published records as well as analysis of current additions are provided. Current additions include 439 taxa newly recorded for Ukraine after the third checklist of lichens of Ukraine by Kondratyuk *et al.* (2010) and 262 nomenclatural novelties. Annotations to each taxon of 318 newly recorded to Ukraine are provided in the style of the second checklist by Kondratyuk *et al.* (1998), i.e. data on phytogeographical regions and administrative districts (oblasts) of Ukraine as well as references to published papers are provided. Among current additions 99 taxa were annotated in the Checklist of lichenicolous fungi of Ukraine by Darmostuk and Khodosovtsev (2017) and consequent references to the latter are provided.

The conclusion confirms the earlier recommendation that national checklists of lichens are to be re-published more often than once a decade.

Key words: administrative districts, checklist, current additions, lichen-forming, lichenicolous fungi, Ukraine

INTRODUCTION

The first three checklists of lichen-forming and lichenicolous fungi of Ukraine were published more than a decade ago (Kondratyuk *et al.* 1996, 1998a, 2010). Furthermore data on lichenicolous fungi were summarised in 1999 (Kondratyuk 1999) and in 2017 (Darmostuk and Khodosovtsev 2017a). Additionally data on Eastern Carpathian lichens of Ukraine were included in the catalogue of the whole East Carpathian region (Kondratyuk *et al.* 2003).

The aim of this paper is to provide the fourth checklist of lichen-forming and lichenicolous fungi of Ukraine with references to the previous checklists and to provide special analysis of current additions after the third edition of this list. Annotations on geographical distribution with special references

to published sources or herbarium specimens for newly recorded taxa are provided for a total of 340 taxa, which were not listed in the third checklist (Kondratyuk *et al.* 2010), and which were not included in the former checklist of lichenicolous fungi of Ukraine (Darmostuk and Khodosovtsev 2017a).

MATERIAL AND METHODS

Annotations on geographical distribution with special references to published sources or herbarium specimens to each taxon newly recorded to Ukraine are provided in the style of the second checklist (Kondratyuk *et al.* 1998a), i.e. data on phytogeographical regions and administrative districts of Ukraine as well as reference to the published paper are provided.

Description of each taxon includes the following subchapters: the main (accepted) Latin name; references to previous checklists of lichens of Ukraine (Kondratyuk *et al.* 1998a, 2010), and checklists of lichenicolous fungi (Kondratyuk 1999, Darmostuk and Khodosovtsev 2017a), as well as to catalogue of the Eastern Carpathian lichens (Kondratyuk *et al.* 2003); synonymous names, ecology and distribution in phytogeographical, geomorphological regions and administrative districts of Ukraine with reference to the literature data. Main names are accepted mostly after Index of Fungi or after recent monographic treatments of some taxonomic groups, i.e. Collemataceae, Lecanoraceae, Ramalinaceae, Teloschistaceae, Verrucariaceae etc. including data on multilocus molecular phylogeny of the groups mentioned. Data on distribution after phytogeographical zones as well as administrative districts (oblasts) of Ukraine with references on literature data are provided for each taxon.

Citation of literature sources where details on localities of Ukrainian lichen species given are provided within accepted phytogeographical, geomorphological regions with indication of administrative districts of Ukraine. Totally current list of lichen and lichenicolous fungi of Ukraine based on analysis of more than 800 literature sources, while only some of them are included here.

RESULTS

The total list of lichen-forming and lichenicolous fungi of Ukraine, which is in fact the 4th checklist of lichen-forming and lichenicolous fungi of Ukraine, hitherto includes 2150 accepted scientific names known in Ukraine till 2020. List includes taxa based on published records while the latter can be also very preliminary (i.e. abstracts or proceedings of a conference, etc.). References on herbarium specimens are provided only for a few taxa. There are 2141 species and 9 subspecies and varieties among accepted names. Furthermore three excluded and three dubious records are provided.

Totally 439 taxa (i.e. 20.4% of total number of species) newly recorded for Ukraine after last 3rd checklist of lichens of Ukraine (Kondratyuk *et al.* 2010). A total of 99 taxa of them (or 4.6%) was annotated (i.e. references to original papers were provided) in the Checklist of lichenicolous fungi of Ukraine (Darmostuk and Khodosovtsev 2017a). The other 340 taxa (i.e. 15.8%) are annotated in this paper. Furthermore 262 new nomenclatural names (i.e. 12.2%) are present in this checklist in comparison with the previous one.

Thus totally about 700 new names, i.e. *ca* 33% of names accepted in the 4th checklist of lichen-forming and lichenicolous fungi of Ukraine are new in comparison with the previous checklist (Kondratyuk *et al.* 2010).

List is based mostly on literature records, while some of them are still as preliminary publications (as abstracts or proceedings of conferences, i.e.: Boiko 2012, Chepelevska 2015, Darmostuk 2014, Darmostuk and Khodosovtsev 2017b, Dymytrova *et al.* 2012b, Kapets 2018b, Khodosovtsev and Zavyalova 2011, Naumovych 2009, Pirogov 2015a, Pirogov and Chepelevska 2015) and they are still waiting for confirmation in full size papers.

List of taxa

Subprovinces of the Forest, Forest-Steppe and Steppe zone of Ukraine are accepted similarly to those in the Second checklist of lichens of Ukraine (Kondratyuk *et al.* 1998a). The subprovinces of the Forest zone are abbreviated in the following way: Eastern Carpathian mountain subprovince (A1), Baltic Forest subprovince (A2), Polessian Forest subprovince (A3), Middle-Russian Forest subprovince (A4), Western Ukrainian Forest Province (A5), Podolian-Bessarabian Forest Province (A6); the subprovinces of Forest-Steppe zone: Podolian-Middle-Dnieper Forest-Steppe subprovince (B1), Leftbank-Priednieper Forest-Steppe subprovince (B2), Middle-Russian Forest-Steppe subprovince (B3); as well as of the Steppe zone: belt of grass-*Stipeta-Festuca* Steppes of Priazov-Black Sea subprovince (C1), belt of *Stipeta-Festuca* Steppes of Priazov-Black Sea Steppe subprovince (C2), belt of *Artemisia-Graminae* Steppes of Priazov-Black Sea Steppe subprovince (C3), belt of grass-*Stipeta-Festuca* Steppes of Middle-Don Steppe subprovince (C4), Mediterranean Mountain Crimean Forest subprovince (D) with two subunits Mountain Crimean (MC) and South Bank Crimean (SBC).

The geomorphological regions of the Eastern Carpathian Forest subprovince of Ukraine are accepted similarly to the Checklist of Eastern Carpathian lichens (Kondratyuk *et al.* 2003). The geomorphological regions of the Eastern Carpathian subprovince are abbreviated in the following way: Chyvchyn-Grynyavsky Mts (CG), Chornohora Mts (Ch), Eastern Beskyd and Low Polonynas Mts (EB), Gorgany Mts (G), Marmorosh Mts (M), Svydovets

Mts (S), Volcanic Carpathian Mts (VC), as well as Transcarpathian Plain (TP), Pricarpathan Mts (PM).

Administrative districts of Ukraine and Autonomic Republic of Crimea are abbreviated in the following way: Autonomic Republic of Crimea (ARC), Cherkasy (Chy), Chernihiv (Cnv), Chernivtsi (Cvi), Dnipropetrovska (Dni), Donetsk (Don), Ivano-Frankivsk (IF), Kharkiv (Kha), Kherson (Khe), Khmelnytsky (Khm), Kyiv (Kyi), Kirovogradksa (Kid), Luhansk (Luh), Lviv (Lvi), Mykolaiv (Myk), Odesa (Ode), Poltava (Pol), Rivne (Riv), Sumy (Sum), Ternopil (Ter), Vinnytsia (Vin), Volynska (Vol), Zakarpatska (Zak), Zaporizhzhia (Zap), and Zhytomyr (Zhy).

Checklists are abbreviated in the following way: **1** = Kondratyuk *et al.* (1998a), **2** = Kondratyuk (1999), **3** = Kondratyuk *et al.* (2003), **4** = Kondratyuk *et al.* (2010), **5** = Darmostuk and Khodosovtsev (2017a).

Synonym names are provided only in case if the accepted name is different from the name used in the previous editions of the checklist.

! = Taxa added as new after the 3rd checklist. + = Nomenclatural novelties accepted in these additions. * = Literature records only. LF = Lichenicolous fungi.

- ! ABROTHALLUS bertianus** De Not. [LF] – 5
- Abrothallus caerulescens* Kotte [LF] – 4, 5
- Abrothallus cetrariae* I. Kotte [LF] – 4, 5
- Abrothallus parmeliarum* (Sommerf.) Arnold [LF] – 3, 4
- ! Abrothallus suecicus** (Kirschst.) Nordin [LF] – 5
- ! Abrothallus teloschistis** Brackel, Pérez-Ortega et Suija [LF] – 5
- ! Abrothallus usneae** Rabenh. [LF] – 5
- ABSCONDITELLA annexa** (Arnold) Vězda – 1, 3, 4
- Absconditella delutula* (Nyl.) Coppins et Kilias – 4
- Absconditella lignicola* Vězda et Pišút – 3, 4
- ! Absconditella sphagnorum** Vězda et Poelt – A1: Ch, Zak (Vondrák *et al.* 2010b: 9); G, Zak (Vondrák *et al.* 2010b: 9).
- ! ACAROCONTIUM punctiforme** Kocourk. et D. Hawksw. [LF] – C3: Zap (Khodosovtseva and Darmostuk 2018: 33).
- ACAROSPORA badiofuscata** (Nyl.) Th. Fr. – 1, 3, 4
- Acarospora cervina* A. Massal. – 1, 3, 4
- Acarospora fuscata* (Nyl.) Arnold – 1, 3, 4
- Acarospora gallica* H. Magn. – 1, 3, 4
- Acarospora glaucocarpa* (Ach.) Körb. – 1, 3, 4
- Acarospora heutleriana* Körb. – 1, 4
- Acarospora hospitans* H. Magn. – 1, 3, 4
- Acarospora impressula* Th. Fr. – 1, 3, 4
- Acarospora insolata* H. Magn. – 1, 3, 4
- Acarospora macrospora* (Hepp) A. Massal. ex Bagl. – 1, 3, 4
- Acarospora microcarpa* (Nyl.) Wedd. – 4
- + *Acarospora moenium* (Vain.) Räsänen (as *Aspicilia moenium*) – 1, 3, 4
- Acarospora nitrophila* H. Magn. – 1, 3, 4

- Acarospora nodulosa* (Dufour) Hue – 4
Acarospora oligospora (Nyl.) Arnold – 1, 3, 4
Acarospora peliocypha Th. Fr. – 1, 3, 4
Acarospora rufescens (Ach.) Krempelh. – 1, 3, 4
Acarospora smaragdula (Wahlenb.) A. Massal. – 1, 3, 4
Acarospora strigata (Nyl.) Jatta – 4
Acarospora umbilicata Bagl. – 1, 3, 4
Acarospora veronensis A. Massal. – 1, 3, 4
Acarospora versicolor Bagl. et Carestia – 4
! *ACREMONIUM caloplacae* Khodos. et Darmostuk ad int. [LF] – C3: Khe (Khodosovtsev et al. 2018b: 79).
! *Acremonium lichenicola* Gams s. lat. [LF] – C3: Khe (Khodosovtsev et al. 2018c: 533, Khodosovtsev et al. 2018b: 79).
ACROCORDIA bukowiensis Makar. – 1, 3, 4
Acrocordia cavata (Ach.) R. C. Harris – 4
Acrocordia conoidea (Fr.) Körb. – 1, 3, 4
Acrocordia gemmata (Ach.) A. Massal. – 1, 3, 4
Acrocordia salweyi (Leight. ex Nyl.) A. L. Sm. – 1, 3, 4
Acrocordia subglobosa (Vězda) Poelt et Vězda – 4
! *ADELOCOCCUS interlatens* (Arnold) Matzer et Hafellner – C3: Khe (Darmostuk and Khodosovtsev 2019: 109).
! *ADELOLECIA kolaensis* (Nyl.) Hertel et Rambold – A1: Ch, Zak (Vondrák et al. 2010b: 9).
Adelolecia pilati (Hepp) Hertel et Hafellner – 1, 3, 4
AGONIMIA allobata (Stizenb.) P. James – 1, 3, 4
! *Agonimia borysthениca* Dymytrova, Breuss et S. Y. Kondr. – A1: EB, IF (Czarnota et al. 2018: 175); G, Zak (Malíček et al. 2018a: 155). B1: Kyi (Dymytrova et al. 2011: 26, *Dymytrova et al. 2012a: 16, Dymytrova 2013: 526, *Czarnota et al. 2018: 175).
! *Agonimia flabelliformis* J. P. Halda, Czarnota et Guzow-Krzem. – A1: G, Zak (Malíček et al. 2018a: 155).
+ *Agonimia gelatinosa* (Ach.) M. Brand et Diederich (also as *Polyblastia gelatinosa*) – 4
Agonimia globulifera M. Brand et Diederich – 4
Agonimia opuntiella (Buschardt et Poelt) Vězda – 4
Agonimia repleta Czarnota et Coppins – 3, 4
Agonimia tristicula (Nyl.) Zahlbr. – 1, 3, 4
+ *Agonimia vouauxii* (B. de Lesd.) M. Brand et Diederich (as *Polyblastia vouauxii*) – 4
! *AGRESTIA zerovii* S. Y. Kondr., A. B. Gromakova et Khodos. – B3: Kha (Kondratyuk et al. 2015: 82, *Haji Moniri et al. 2017: 362).
AINOA mooreana (Carroll) Lumbsch et I. Schmitt – 1, 3, 4
ALECTORIA ochroleuca (Hoffm.) A. Massal. – 1, 3, 4
Alectoria mirabilis Mot. – 3
Alectoria sarmentosa (Ach.) Ach. – 1, 3, 4
ALLANTOPARMELIA alpicola (Th. Fr.) Essl. – 1, 3, 4
+ *ALLOCETRARIA madreporiformis* (Anzi) Kärnefelt et A. Thell (as *Dactylina madreporiformis*) – 1, 4
Allocetraria oakesiana Tuck. – 1, 3, 4
+ *ALYXORIA culmigena* (Lib.) Ertz (as *Opegrapha herbarum*) – 1, 3, 4
+ *Alyxoria mougeotii* (A. Massal.) Ertz, Frisch et G. Thor (as *Opegrapha mougeotii*) – 1, 4
! *Alyxoria ochrocheila* (Nyl.) Ertz et Tehler – A1: G, Zak (Malíček et al. 2018a: 155).
+ *Alyxoria varia* (Pers.) Ertz. et Tehler (as *Opegrapha varia*) – 1, 3, 4

- + *Alyxoria variiformis* (Anzi) Ertz (as *Opegrapha variaeformis*) – 1, 4
AMANDINEA punctata (Hoffm.) Coppins et Scheidegger – 1, 3, 4
ANAPTYCHIA bryorum Poelt – 1, 3, 4
Anaptychia ciliaris (L.) Körb. ex A. Massal. – 1, 3, 4
Anaptychia crinalis (Schleich.) Vězda – 4
Anaptychia mereschkowskii (Tomin) Kulakov – 1, 4
Anaptychia setifera (Mereschk.) Räsänen – 1, 4
ANEMA decipiens (A. Massal.) Forssell – 4
Anema notarisi (A. Massal.) Forssell – 1, 4
Anema nummularium (Dufour ex Durieu et Mont.) Nyl. ex Forssell – 4
+ *ANISOMERIDIUM biforme* (Borrer) R. C. Harris (as *Anisomeridium nyssaegenum*) – 3, 4
! *Anisomeridium macrocarpum* (Körb.) V. Wirth – A1: G, Zak (Malíček et al. 2018a: 155).
Anisomeridium polypori (Ellis et Everh.) M. E. Barr – 1, 3, 4
ARCTOMIA fascicularis (L.) Otálora et Wedin – 1, 3
ARCTOPARMELIA centrifuga (L.) Hale – 4
! *Arctoparmelia incurva* (Pers.) Hale – A1: EB, IF (Nyporko et al. 2018: 180).
+ *ARTHONIA apatetica* (A. Massal.) Th. Fr. (also as *Arthonia zinaidae*) – 1, 3, 4
Arthonia atra (Pers.) A. Schneid. – 1, 3, 4
Arthonia byssacea (Weigel) Almq. – 1, 3, 4
+ *Arthonia calcarea* (Turner ex Sm.) Ertz et Diederich (also as *Opegrapha chevallieri*) – 1, 4
Arthonia calcicola Nyl. – 1, 4
Arthonia cinnabarinata (DC.) Wallr. – 1, 3, 4
Arthonia clemens (Tul.) Th. Fr. – 4
! *Arthonia cretacea* Zahlbr. – C3: ARC (Khodosovtsev and Darmostuk 2020b: 246).
Arthonia destruens Rabenh. – 4
Arthonia didyma Körb. – 1, 3, 4
! *Arthonia digitatae* Hafellner – A5: IF (Darmostuk 2020: 20).
Arthonia dispersa (Schrad.) Nyl. – 1, 3, 4
! *Arthonia exilis* (Flörke) Anzi – A1: VC, Zak (Servít and Nádvorník 1936: 6 as *Allarthonia exilis*, *Oxner 1956: 278, *Makarevich et al. 1982: 58). A3: Kyi (Zelenko and Kondratyuk 1994: 106). B1: Chy (Kondratyuk 1984: 47). D: SBC, ARC (Vainio 1899: 331, *Oxner 1956: 278, *Kopachevskaya 1986: 82, *Khodosovtsev and Bohdan 2005: 119 as *Allarthonia exilis*).
! *Arthonia helvola* (Nyl.) Nyl. – A1: G, Zak (Malíček et al. 2018a: 155).
Arthonia ilicina Taylor – 4
Arthonia lecanorina (Almq.) R. Sant. – 4, 5
Arthonia mediella Nyl. – 1, 3, 4
Arthonia nideri (J. Steiner) Clauzade, Diederich et Cl. Roux – 4, 5
Arthonia patellulata Nyl. – 1, 4
Arthonia punctella Nyl. – 4, 5
Arthonia punctiformis Ach. – 1, 3, 4
Arthonia radiata (Pers.) Ach. – 1, 3, 4
Arthonia reniformis (Pers.) Nyl. – 1, 3, 4
Arthonia spadicea Leight. – 1, 3, 4
! *Arthonia subvarians* Nyl. – A1: Ch – Zak (Darmostuk 2018: 175).
Arthonia tenellula Nyl. – 1, 4
Arthonia varians (Davies) Nyl. – 4, 5
Arthonia vinosa Leighton – 3, 4
ARTHOPYRENIA analepta (Ach.) A. Massal. – 1, 3, 4

- Arthopyrenia cerasi* (Schrad.) A. Massal. – 1, 3, 4
Arthopyrenia cinereopruinosa (Schaer.) A. Massal. – 1, 3, 4
Arthopyrenia grisea (Schleich. ex Schaefer.) Körb. – 1, 4
Arthopyrenia inconspicua J. Lahm in Körb. – 1, 3, 4
Arthopyrenia persoonii A. Massal. – 1, 3, 4
Arthopyrenia punctiformis A. Massal. – 1, 3, 4
Arthopyrenia salicis A. Massal. – 1, 3, 4
Arthopyrenia saxicola A. Massal. – 4
ARTHOTHELIUM ruanum (A. Massal.) Körb. – 1, 3, 4
Arthothelium spectabile Flot. ex A. Massal. – 1, 3, 4
! **ARTHORAPHIS aeruginosa** R. Sant. et Tønsberg – 5
+ *Arthrorhaphis alpina* (Schaer.) R. Sant. (as *Bacidia alpina*) – 1, 3, 4
Arthrorhaphis citrinella (Ach.) Poelt – 1, 2, 3, 4
Arthrorhaphis grisea Th. Fr. – 1, 2, 3, 4
ARTHROSPORUM populorum A. Massal. – 1, 3, 4
! **ASCOCHYTA candelariellicola** D. Hawksw. et Kalb – C3: Myk (Darmostuk and Khodosovtsev 2019: 109). C4: Khe (Darmostuk and Khodosovtsev 2019: 109).
ASPICILIA albomarginata De Lesd. – 1, 3, 4
Aspicilia aquatica Körb. – 1, 3, 4
Aspicilia asterias Mereschk. – 1, 4
Aspicilia candida (Anzi) Hue – 1, 4
Aspicilia cinerea (L.) Körb. – 1, 3, 4
Aspicilia coronata (A. Massal.) B. de Lesd. – 4
Aspicilia desertorum (Kremp.) Mereschk. – 1, 4
Aspicilia epiglypta (Norrl. ex Nyl.) Hue – 4
Aspicilia intermutans (Nyl.) Arnold – 4
Aspicilia laevata (Ach.) Arnold – 1, 3, 4
+ *Aspicilia lapponica* (Zahlbr.) Oxner (also as *Aspicilia adunans*) – 1, 4
Aspicilia maculata (H. Magn.) Oxner – 4
Aspicilia mirabilis Mereschk. – 1, 4
Aspicilia pavimentas (Nyl.) Hue – 1, 4
Aspicilia reticulata Krempelh. ap. Arnold – 1, 3, 4
Aspicilia subdepressa (Nyl.) Arnold – 1, 3, 4
! *Aspicilia subfarinosa* (J. Steiner) Senkard. et Sohrabi – C1: Myk (Khodosovtsev and Darmostuk 2018: 34). D: MC, ARC (Khodosovtsev and Darmostuk 2018: 34). SBC, ARC (Khodosovtsev and Darmostuk 2018: 34).
Aspicilia viridescens (A. Massal.) Hue – 1, 4
+ **ASPILIDEA myrinii** (Fr.) Hafellner (as *Aspicilia myrinii*) – 1, 3, 4
ATHALLIA aegatica (Giralt, Nimis et Poelt) Arup, Frödén et Söchting – 4
! *Athallia alnetorum* (Giralt, Nimis et Poelt) Arup, Frödén et Söchting – C3: Myk (Khodosovtsev et al. 2017b: 327); Khe (Khodosovtsev et al. 2018a: 75).
Athallia brachyspora (Mereschk.) Halici et Vondrák – 1, 4
Athallia cerinella (Nyl.) Arup, Frödén et Söchting – 1, 3, 4
Athallia cerinelloides (Erichsen) Arup, Frödén et Söchting – 1, 3, 4
Athallia inconnexa (Nyl.) S. Y. Kondr. et L. Lőkös – 1, 4
Athallia holocarpa (Ach.) Arup, Frödén et Söchting – 1, 4
Athallia nesodes (Poelt et Nimis) Nalici et Vondrák – 4
Athallia pyracea (Ach.) Arup, Frödén et Söchting – 1, 3, 4
Athallia scopularis (Nyl.) Arup, Frödén et Söchting – 4

- Athallia vitellinula* (Nyl.) Arup, Frödén et Søchting – 1, 3, 4
ATHELIA arachnoidea (Berk.) Jülich [LF] – 1, 2, 3, 4, 5
! ATHELIMUM imperceptum Nyl. – C3: Khe (Khodosovtsev 2010: 386, Khodosovtsev 2015: 323); Ode (Khodosovtsev et al. 2016d: 169); Zap (Khodosovtsev et al. 2017c: 185).
BACIDIA absistens (Nyl.) Arnold – 1, 3, 4
! Bacidia albogranulosa Malíček, Palice, Vondrák et Kukwa – A1: G, Zak (Malíček et al. 2018a: 156, Malíček et al. 2018b: 54); TP, Zak (Malíček et al. 2018b: 54).
Bacidia arceutina (Ach.) Arnold – 1, 3, 4
Bacidia arnoldiana Körb. – 1, 3, 4
Bacidia assulata (Körb.) Vězda – 1, 3, 4
⁺ *Bacidia auerswaldii* (Hepp ex Stizenb.) Mig. (incl. *Bacidia intermedia*) – 4
Bacidia bagliettoana (A. Massal. et De Not.) Jatta – 1, 3, 4
Bacidia beckhausii Körb. – 1, 3, 4
Bacidia circumspecta (Norrl. et Nyl.) Malme – 1, 3, 4
Bacidia delicata (Larbal. ex Leight.) Coppins – 4
Bacidia egenula (Nyl.) Arnold – 1, 3, 4
Bacidia fraxinea Lönnr. – 4
Bacidia friesiana (Hepp) Körb. – 1, 3, 4
Bacidia igniarii (Nyl.) Oxner – 1, 3, 4
Bacidia incompta (Borrer ex Hook.) Anzi – 1, 3, 4
Bacidia inundata (Fr.) Körb. – 1, 3, 4
Bacidia laurocerasi (Delise ex Duby) Zahlbr. – 1, 3, 4
Bacidia phacodes Körb. – 1, 3, 4
Bacidia polychroa (Th. Fr.) Körb. – 1, 3, 4
! Bacidia pycnidiatata Czarnota et Coppins – A1: G, Zak (Malíček et al. 2018a: 156). B1: Kyi (Dymytrova 2013: 526).
Bacidia rosella (Pers.) De Not. – 1, 3, 4
Bacidia rubella (Hoffm.) A. Massal. – 1, 3, 4
Bacidia subacerina (Nyl.) Vainio – 1, 3, 4
Bacidia subincompta (Nyl.) Arnold – 1, 3, 4
Bacidia trachona (Ach.) Lettau – 1, 3, 4
! Bacidia viridescens (A. Massal.) Th. Fr. – C3: Khe (Khodosovtsev and Darmostuk 2020b: 246).
Bacidia viridofarinosa Coppins et P. James – 3
! BACIDINA adastrata (Sparrius et Aptroot) M. Hauck et V. Wirth – D: SBC, ARC (Khodosovtseva 2009: 212 as *Bacidia adastrata*).
Bacidina chloroticula (Nyl.) Vězda et Poelt – 3
! Bacidina etayana (van den Boom et Vězda) M. Hauck et V. Wirth – A1: G, Zak (Malíček et al. 2018a: 156).
! Bacidina mendax Czarnota et Guz.-Krzem. – A1: G, Zak (Malíček et al. 2018a: 156).
! Bacidina sulphurella (Samp.) Hauck et V. Wirth – A1: EB, IF (Czarnota et al. 2018: 176); G, Zak (Malíček et al. 2018a: 156).
BACTROSPORA dryina (Ach.) A. Massal. – 3
BAEOMYCES carneus (Retz.) Flörke – 1, 3, 4
Baeomyces rufus (Huds.) Rebent. – 1, 3, 4
BAGLIETTOA baldensis (A. Massal.) Vězda – 4
Bagliettoa cazzae (Zahlbr.) Vězda et Poelt – 4
Bagliettoa marmorea (Scop.) Gueidan et Cl. Roux – 1
Bagliettoa parmigera (J. Steiner) Vězda et Poelt – 1, 4

- Bagliettoa parmigerella* (Zahlbr.) Vězda et Poelt – 4
Bagliettoa steineri (Kušan) Vězda – 4
BELLEMERA alpina (Sommerf.) Clauzade et Cl. Roux – 1, 3, 4
Bellemerea cinereorufescens (Ach.) Clauzade et Cl. Roux – 1, 3, 4
Bellemerea cupreoatra (Nyl.) Clauzade et Cl. Roux – 4
Bellemerea diamarta (Ach.) Hafellner et Cl. Roux – 4
BELONIA russula Körb. – 1, 3, 4
! *BIATORA bacidioides* Printzen et Tønsberg – A1: G, Zak (Malíček *et al.* 2018a: 156).
Biatora chrysantha (Zahlbr.) Printzen – 1, 3, 4
Biatora efflorescens (Hedl.) Erichsen – 3
Biatora fallax Hepp – 3
Biatora helvola Körb. ex Hellb. – 1, 3, 4
! *Biatora longispora* (Degel.) Lendemer et Printzen – A1: G, Zak (Malíček *et al.* 2018a: 156).
! *Biatora mendax* Arnold – A1: G, Zak (Malíček *et al.* 2018a: 157).
Biatora meiocarpoides (Nyl.) Arnold – 1, 3, 4
! *Biatora pontica* Printzen et Tønsberg – A1: EB, IF (Czarnota *et al.* 2018: 176). G, Zak (Malíček *et al.* 2018a: 157).
+ *Biatora pumilionis* (Rehm in Arnold) Oxner (also as *Lecanora pumilionis*) – 1, 3, 4
! *Biatora radicicola* Printzen, Palice et J. P. Halda – A1: G, Zak (Printzen *et al.* 2016: 577, Malíček *et al.* 2018a: 157).
Biatora sylvana Körb. – 4
Biatora vernalis (L.) Fr. – 1, 3, 4
BIATORELLA elegans (Hepp ex A. Massal.) Stizenb. – 4
! *Biatorella fossarum* (Dufour) Th. Fr. – D: SBC, ARC (Kondratyuk *et al.* 2014: 365, *Kapets *et al.* 2015: 157).
Biatorella germanica A. Massal. – 4
BIATORIDIUM monasteriense Lahm – 1, 3, 4
! *BIATORINA commutata* (Ach.) A. Massal. – A1: EB, IF (Boberski 1889: 45); G, IF (Boberski 1889: 45).
+ *BIATOROPSIS usnearum* Räsänen [LF] – 5
+ *BIBBYA vermicifera* (Nyl.) Kistenich, Timdal, Bendiksby et S. Ekman (as *Bacidia hegetschweileri*) – 1, 3, 4
BILIMBIA coprodes Körb. – 4
Bilimbia epimelas (Stizenb.) Mereschk. – 1, 4
Bilimbia lobulata (Sommerf.) Hafellner et Coppins – 1, 3, 4
Bilimbia pulchra (Oxner) Oxner – 1, 4
Bilimbia sabuletorum (Schreb.) Arnold – 1, 3, 4
+ *BLASTENIA ammiospila* (Wahlenb.) Arup, Søchting et Frödén (as *Caloplaca ammiospila*) – 1, 3, 4
+ *Blastenia crenularia* (With.) Arup, Søchting et Frödén (as *Caloplaca crenularia*) – 1, 3, 4
+ *Blastenia ferruginea* (Huds.) A. Massal. (as *Caloplaca ferruginea*) – 1, 3, 4
+ *Blastenia herbidella* (Arnold) Servít (as *Caloplaca herbidella*) – 1, 3, 4
+ *Blastenia hungarica* (H. Magn.) Arup, Søchting et Frödén (as *Caloplaca hungarica*) – 4
! *Blastenia scabrosa* (Søchting, Lorentsen et Arup) S. Y. Kondr. et Hur – A1: S, Zak (Vondrák *et al.* 2013: 707 as *Caloplaca scabrosa*).
Blastenia subochracea (Wedd.) Arup, Søchting et Frödén (as *Caloplaca subochracea*) – 1, 4
BLENNOOTHALLIA crispa (Weber ex F. H. Wigg.) Otálora, P. M. Jørg. et Wedin – 1, 3, 4
BOTRIOLEPRARIA lesdanii (Hue) Canals – 1, 3, 4
! *BRACKELIA lunkei* Zhurb. [LF] – C3: Khe (Darmostuk *et al.* 2018: 354).

- + *BRIANARIA bauschiana* (Körb.) S. Ekman et M. Svenss. (as *Micarea bauschiana*) – 4
+ *Brianaria sylvicola* (Flot. ex Körb.) S. Ekman et M. Svensson (as *Micarea sylvicola*) – 1, 3, 4
BRIANCOPPINIA cytospora (Vouaux) Diederich – 2, 3, 5
! *BRODOA atrofusca* (Schaer.) Goward – A1: Ch, Zak (Vondrák et al. 2010b: 11).
Brodoa intestiniformis (Vill.) Goward – 1, 3, 4
+ *BRYOBILIMBIA hypnorum* (Lib.) Fryday, Printzen et S. Ekman (as *Lecidea hypnorum*) – 1, 3, 4
! *BRYOCENTRIA metzgeriae* (Ade et Höhn.) Döbbeler – A1: Zak (Darmostuk et al. 2020: 20).
! *BRYODINA rhypariza* (Nyl.) Hafellner [LF] – A1: Ch, Zak (Vondrák et al. 2010b: 12).
+ *BRYOPLACA sinapisperma* (DC.) Søchting, Frödén et Arup (as *Caloplaca sinapisperma*)
– 1, 3, 4
BRYORIA bicolor (Ehrh.) Brodo et D. Hawksw. – 1, 3, 4
Bryoria capillaris (Ach.) Brodo et D. Hawksw. – 1, 3, 4
Bryoria carpatica (Motyka) Golubk. – 1, 3, 4
Bryoria chalybeiformis (L.) Brodo et D. Hawksw. – 1, 3, 4
Bryoria divergescens (Nyl.) Brodo et D. Hawksw. – 1, 3, 4
Bryoria furcellata (Fr.) Brodo et D. Hawksw. – 1, 3, 4
Bryoria fuscescens (Gyeln.) Brodo et D. Hawksw. – 1, 3, 4
+ *Bryoria implexa* (Hoffm.) Brodo et D. Hawksw. (incl. *Bryoria pseudofuscescens*) – 1, 3, 4
Bryoria kuemmerlaena (Gyeln.) Brodo et D. Hawksw. – 1, 3, 4
Bryoria lanestris (Ach.) Brodo et D. Hawksw. – 1, 3, 4
Bryoria nadvornikiana (Gyeln.) Brodo et D. Hawksw. – 1, 3, 4
Bryoria nitidula (Th. Fr.) Brodo et D. Hawksw. – 1, 3, 4
Bryoria osteola (Gyeln.) Brodo et D. Hawksw. – 1, 3, 4
Bryoria positiva (Gyelnik) Bystrek – 3
! *Bryoria pseudocypbellata* Bystrek – A1: CG, IF (Bystrek and Sulma 1983: 37).
Bryoria setacea (Ach.) Brodo et D. Hawksw. – 1, 3, 4
Bryoria smithii (Du Rietz) Brodo et D. Hawksw. – 1, 3, 4
Bryoria subcana (Nyl. ex Stizenb.) Brodo et D. Hawksw. – 1, 3, 4
Bryoria tortuosa (G. Merr.) Brodo et D. Hawksw. – 1, 3, 4
Bryoria vrangiana (Gyeln.) Brodo et D. Hawksw. – 1, 4
+ *BRYOSTIGMA apotheciorum* (A. Massal.) S. Y. Kondr. et Hur – 1, 2, 3, 4 (as *Arthonia apotheciorum*), 5
! *Bryostigma biatoricola* (Ihlen et Owe-Larss.) S. Y. Kondr. et Hur [LF] – A1: G, Zak (Malíček et al. 2018a: 168 as *Arthonia biatoricola*).
+ *Bryostigma epiphyscia* (Nyl.) S. Y. Kondr. et J.-S. Hur [LF] – 1, 4 (as *Arthonia epiphyscia*), 5
+ *Bryostigma lapidicola* (Taylor) S. Y. Kondr. et Hur (as *Arthonia lapidicola*) – 1, 3, 4
! *Bryostigma muscigenum* (Th. Fr.) Frisch et G. Thor – A1: S – Zak (Vondrák et al. 2010b: 10 as *Arthonia muscigena*).
+ *Bryostigma molendoi* (Heufl. ex Arnold) S. Y. Kondr. et Hur – 2, 4 (as *Arthonia molendoi*), 5
Bryostigma parietinaria (Hafellner et A. Fleischhacker) S. Y. Kondr. et Hur – 1, 5
! *Bryostigma phaeophysciae* (Grube et Matzer) S. Y. Kondr. et Hur (as *Arthonia phaeophysciae*) – 5
BUELLIA aethalea (Ach.) Th. Fr. – 4
Buellia arborea Coppins et Tønsberg – 4
Buellia badia (Fr.) A. Massal. – 1, 3, 4
Buellia disciformis (Fr.) Mudd – 1, 3, 4
Buellia epigaea (Hoffm.) Tuck. – 4
Buellia erubescens Arnold – 1, 3, 4

- + *Buellia geophila* (Flörke ex Sommerf.) Lynge (as *Buellia triphragmia*) – 1, 3, 4
Buellia griseovirens (Turner et Borrer ex Sm.) Almb. – 1, 3, 4
Buellia insignis (Nägeli ex Hepp) Th. Fr. – 1, 3, 4
! *Buellia pulverea* Coppins et P. James – D: SBC, ARC (Khodosovtseva 2009: 212).
Buellia schaeereri De Not. – 1, 3, 4
Buellia sequax (Nyl.) Zahlbr. – 4
Buellia spuria (Schaer.) Anzi – 4
Buellia stellulata Mig. – 1, 3, 4
Buellia subdisciformis (Leight.) Jatta – 4
Buellia zahlbruckneri J. Steiner – 4
! *BUELIELLA lecanorae* Suija et Alstrup [LF] – 5
Buellia poentschii Hafellner [LF] – 4, 5
BYSSOLOMA subdiscordans (Nyl.) P. James – 1, 3, 4
Byssoloma tricholomum (Mont.) Zahlbr. – 4
+ *CAERULEUM heppii* (Nägeli ex Körb.) K. Knudsen et Arcadia (as *Myriospora heppii*) – 1, 3, 4
CALCIUM abietinum Pers. – 1, 3, 4
+ *Calicium adaequatum* Nyl. (as *Calicium adaequatum*) – 1, 3, 4
Calicium adspersum Pers. – 1, 3, 4
Calicium alboatrum Flörke – 4
Calicium carpaticum (Nádv.) Oxner – 1, 3, 4
Calicium corynellum (Ach.) Ach. – 1, 2, 3, 4
Calicium denigratum (Vain.) Tibell – 4
Calicium glaucellum Ach. – 1, 3, 4
Calicium huculinum Nádv. – 1, 3, 4
Calicium italicum (Sacc.) Gola – 4
Calicium koerberi (Nádv.) Suza – 4
Calicium lenticulare (Hoffm.) Ach. – 1, 3, 4
! *Calicium montanum* Tibell – A1: G, Zak (Malíček et al. 2018a: 157).
Calicium parvum Tibell – 1, 4
! *Calicium pinastri* Tibell – A1: Ch, Zak (Vondrák et al. 2010b: 12). B3: Kha (Gromakova 2018: 271).
Calicium quercinum Pers. – 1, 3, 4
Calicium salicinum Pers. – 1, 3, 4
Calicium trabinellum (Ach.) Ach. – 1, 3, 4
Calicium viride Pers. – 1, 3, 4
+ *CALLOME multipartita* (Sm.) Otálora, P. M. Jørg. et Wedin (as *Collema multipartita*) – 1, 4
+ *CALOGAYA arnoldii* (Wedd.) Arup, Frödén et Söchting (as *Caloplaca arnoldii*) – 4
+ *Calogaya biatorina* (A. Massal.) Arup, Frödén et Söchting (as *Caloplaca biatorina*) – 1, 4
+ *Calogaya decipiens* (Arnold) Arup, Frödén et Söchting (as *Caloplaca decipiens*) – 1, 3, 4
+ *Calogaya ferrugineoides* (H. Magn.) Arup, Frödén et Söchting (as *Caloplaca ferrugineoides*) – 4
! *Calogaya pusilla* (A. Massal.) Arup, Frödén et Söchting – B1: Khm (Oxner 1927: 52 as *Placodium pusillum*). C1: Don (Kopachevska 1959: 82 as *Gasparrinia pusilla*). C3: Myk (Khodosovtsev et al. 2017b: 327 as *Calogaya pusilla*, Khodosovtsev et al. 2018a: 283 as *Calogaya pusilla*); Khe (Darmostuk 2016: 135 as *Calogaya pusilla*, Khodosovtsev et al. 2018b: 75 as *Calogaya pusilla*); Ode (Khodosovtsev et al. 2016d: 169 as *Calogaya pusilla*); Dri (Golovenko 2016: 81 as *Calogaya pusilla*). D: SBC, ARC (Mereshkowsky 1920 as *Gasparrinia pusilla*).
+ *Calogaya saxicola* (Hoffm.) Vondrák (as *Caloplaca saxicola*) – 1, 3, 4
+ *Calogaya schistidii* (Anzi) Arup, Frödén et Söchting (as *Fulgensia schistidii*) – 1, 4

CALOPLACA adelphoparasitica Nimis et Poelt – 4

Caloplaca borrei J. R. Laundon – A1: G, IF (Khodosovtsev et al. 2016a: 55, 2016b: 273).

Caloplaca caesiorufa (Wibel) Flagey – 1, 3, 4

Caloplaca cerina (Ehrh. ex Hedwig) Th. Fr. – 1, 3, 4

Caloplaca cerinooides (Anzi) Jatta – 4

Caloplaca chlorina (Flot.) H. Olivier – 1, 3, 4

Caloplaca consilians (Nyl.) H. Olivier – 1, 3, 4

Caloplaca cupreobrunnea Poelt et Hinter. – C1: Dni (Naumovych 2009: 234).

Caloplaca dalmatica (A. Massal.) Zahlbr. – 4

Caloplaca emiliae Vondrák, Khodos., Cl. Roux et V. Wirth – C3: Khe (Vondrák et al. 2013: 709).

Caloplaca fuscoatroides J. Steiner – 4

Caloplaca fuscorufa H. Magn. – A1: S, Zak (Vondrák et al. 2010b: 13).

Caloplaca isidiigera Vězda – 4

Caloplaca karadagensis Khodos. et S. Y. Kondr. – 4

Caloplaca lacteoides Nav.-Ros. et Hladun – 4

+ *Caloplaca lojkae* Servít et Nádv. (as *Caloplaca lojkai*) – 1, 3, 4

Caloplaca monacensis (Leder.) Lettau – A1: G, Zak (Dymytrova et al. 2014: 1384, Malíček et al. 2018a: 157). A3: Cnv (Šoun et al. 2011: 126). C1: Myk (Khodosovtsev et al. 2019b: 59). C3: Khe (Khodosovtsev et al. 2018b: 75). D: MC, ARC (Šoun et al. 2011: 126, Khodosovtsev et al. 2013a: 60); SBC, ARC (Khodosovtseva 2008: 117 as *Caloplaca chlorina*, Khodosovtseva 2009: 212 as *Caloplaca chlorina*).

Caloplaca nubigena (Krempehl.) Dalla Torre et Sarnth. – 1, 4

Caloplaca obscurella (J. Lahm ex Korb.) Th. Fr. – 1, 3, 4

Caloplaca orloviana S. Y. Kondr. – A3: Zhy (Kondratyuk et al. 2020).

Caloplaca percorcata (Arnold) J. Steiner – 1, 4

Caloplaca rubelliana (Ach.) Lojka – 1, 3, 4

Caloplaca sterilis Šoun, Khodos. et Vondrák – B3: Kha (Gromakova 2014: 508). C1: Khe (Šoun et al. 2011: 128). C3: Khe (Šoun et al. 2011: 128, Gavrylenko 2014: 53, *Khodosovtsev 2012: 395, Khodosovtsev 2015: 323); Ode (Khodosovtsev et al. 2016d: 169); PK (Šoun et al. 2011: 128). C4: Khe (Šoun et al. 2011: 128); ARC (Šoun et al. 2011: 128).

Caloplaca stillicidiorum (Vahl) Lyngé – 1, 3

Caloplaca tenuatula (Nyl.) Zahlbr. – 4

Caloplaca turkuensis (Vain.) Zahlbr. – A1: G, Zak (Malíček et al. 2018a: 157).

Caloplaca veneris Cl. Roux et Nav.-Ros. – 4

CALVITIMELA algaea (Sommerf.) Hafellner – 1, 3, 4

Calvitimela armeniaca (DC.) Hafellner – 1, 3, 4

CANDELARIA concolor (Dicks.) Stein – 1, 3, 4

Candelaria pacifica M. Westb. et Arup – C3: Khe (Klymenko 2015: 529, Khodosovtsev et al. 2018b: 75).

CANDELARIELLA antennaria Räsänen – C3: Zap (Khodosovtsev and Zavyalova 2011: 55).

Candelariella arctica (Körb.) R. Sant. – 1, 4 – Khodosovtsev 2005b: 246 incorrect record since Mereschkovsky 1920.

Candelariella aurella (Hoffm.) Zahlbr. – 1, 3, 4

Candelariella blastidiata Yakovchenko – C3: Khe, D: ARC (Khodosovtsev and Darmostuk 2020b: 246).

Candelariella boikoi Khodos. et S. Y. Kondr. – 4

Candelariella coralliza (Nyl.) H. Magn. – 4

Candelariella deflexa (Nyl.) Zahlbr. – D: SBC, ARC (Khodosovtsev 2005b: 239).

Candelariella efflorescens R. C. Harris et W. R. Buck – 4

- ! *Candelariella faginea* Nimis, Poelt et Puntillo – A1: G, IF (Khodosovtsev *et al.* 2016a: 55); G, Zak (Vondrák *et al.* 2010b: 15). A3: Sum (Khodosovtsev *et al.* 2017a: 77). B2: Pol (Darmostuk *et al.* 2017: 12). C1: Myk (Khodosovtsev *et al.* 2019b: 59). C3: Khe (Khodosovtsev and Khodosovtseva 2014: 518, Khodosovtsev *et al.* 2018a: 75). D: MC, ARC (Khodosovtsev 2005b: 240); SBC, ARC (Khodosovtseva 2009: 212).
- Candelariella kuusamoënsis* Räsänen – 4
- Candelariella medians* (Nyl.) A. L. Sm. – 1, 4
- Candelariella oleaginescens* Rondon – 4
- Candelariella oleifera* H. Magn. – 4
- Candelariella placodizans* (Nyl.) H. Magn. – 4 – Excluded record, i.e.: after Khodosovtsev 2005b: 247 it was incorrectly recorded for Ukraine.
- Candelariella plumbea* Poelt et Vězda – 4
- Candelariella reflexa* (Nyl.) Lettau – 1, 3, 4
- Candelariella rhodax* Poelt et Vězda – 1, 4
- Candelariella senior* Poelt – 4
- Candelariella subdeflexa* (Nyl.) Lettau – 4 [excluded taxon see Khodosovtsev and Darmostuk 2020b: 246].
- Candelariella unilocularis* (Elenkin) Nimis – 4 – After Khodosovtsev 2005b: 233, record of this species was included in *C. aurella* later.
- Candelariella viae-lacteae* G. Thor et V. Wirth – 4
- Candelariella vitellina* (Hoffm.) Müll. Arg. – 1, 3, 4
- Candelariella xanthostigma* (Ach.) Lettau – 1, 3, 4
- ! *Candelariella xanthostigmoides* (Müll. Arg.) Rogers – C3: Khe (Khodosovtsev and Darmostuk 2020b: 246).
- ! *CARBONEA aggregantula* (Müll. Arg.) Diederich et Triebel – 5
- Carbonea assimilis* (Körb.) Hafellner et Hertel – 4, 5
- ! *Carbonea invadens* (H. Magn.) M. P. Andreev – A1: S, Zak (Vondrák *et al.* 2010b: 15).
- ! *Carbonea supersparsa* (Nyl.) Hertel – 5
- Carbonea vitellinaria* (Nyl.) Hertel – 4, 5
- Carbonea vorticosa* (Flörke) Hertel – 1, 2, 3, 4
- + *CARBONICOLA anthracophila* (Nyl.) Bendiksby et Timdal (as *Hypocenomyce anthracophila*) – 1, 4
- ! *Carbonicola myrmecina* (Ach.) Bendiksby et Timdal – A3: Sum (Khodosovtsev *et al.* 2017a: 77). B2: Pol (Darmostuk *et al.* 2017: 12). C3: Myk (Khodosovtsev *et al.* 2017b: 327).
- CATAPYRENIUM cinereum* (Pers.) Körb. – 1, 3, 4
- Catapyrenium daedaleum* (Krempelh.) Stein – 1, 3, 4
- ! *Catapyrenium lachneum* (Ach.) R. Sant. – D: MC, ARC (Szatala 1942: 72 as *Dermatocarpon rufescens* var. *pruinatum*, Kopachevskaya 1986: 95 as *Endopyrenium rufescens* var. *pruinatum*).
- Catapyrenium michelii* (A. Massal.) R. Sant. – 1, 3, 4
- Catapyrenium pilosellum* Breuss – 4
- Catapyrenium psoromoides* (Borrer) R. Sant. – 4
- Catapyrenium rufescens* (Ach.) Breuss – 1, 3, 4
- Catapyrenium squamulosum* (Ach.) Breuss – 1, 3, 4
- CATILLARIA atomariooides* (Müll. Arg.) H. Kilias – 1, 4
- Catillaria chalybaea* (Borrer) A. Massal. – 1, 3, 4
- + *Catillaria detractula* (Nyl.) H. Olivier (including *Lecania detractula*) – 1, 4
- Catillaria erysiboides* (Nyl.) Th. Fr. – 3, 4
- Catillaria lenticularis* (Ach.) Th. Fr. – 1, 3, 4

- Catillaria minuta* (Schaer.) Lettau – 1, 3, 4
Catillaria nigroclavata (Nyl.) Schuler – 1, 3, 4
Catillaria picila (A. Massal.) Coppins – 4
! *Catillaria subviridis* (Nyl.) Zahlbr. – A1: Ch, Zak (Chepelevska 2015: 61, 2016: 48).
CATINARIA atropurpurea (Schaer.) Vězda et Poelt – 1, 3, 4
CATOLECHIA wahlenbergii (Ach.) Körb. – 1, 3, 4
! *CERATOBASIDIUM bulbillifaciens* Diederich et Lawrey [LF] – 5
! *CERCIDOSPORA caudata* Kernst. s. lat. [LF] – 5
! *Cercidospora crozalsiana* (H. Olivier) Nav.-Ros. [LF] – 5
! *Cercidospora epipolytropa* (Mudd) Arnold [LF] – 5
! *Cercidospora lobothalliae* Nav.-Ros. et Calat. [LF] – 5
Cercidospora macrospora (Uloth) Hafellner et Nav.-Ros. [LF] – 1, 2, 4, 5
! *Cercidospora solearispora* Calat. [LF] – 5
Cercidospora xanthoriae (Wedd.) R. Sant. [LF] – 1, 2, 4, 5
+ *CEROTHALLIA luteoalba* (Turner) Arup, Frödén et Söchting (as *Caloplaca luteoalba*) – 1, 4
CETRARIA aculeata (Schreb.) Fr. – 1, 3, 4
Cetraria ericetorum Opiz – 1, 3, 4
Cetraria islandica (L.) Ach. – 1, 3, 4
Cetraria muricata (Ach.) Eckfeldt – 1, 3, 4
Cetraria ramulosa (Hook. f.) Tuck. – A3: Kyi (Montrezor 1886: 54 as *Cetraria ramosa*, probably *Cetraria ramulosa* (Hook. f.) Tuck. was mentioned; dubious record).
Cetraria steppae (Savicz) Kärnefelt – 1, 4
CETRELIA cetrarioides (Del. ex Duby) W. L. Culb. et C. F. Culb. – 1, 3, 4
Cetrelia chicitae (W.L. Culb.) W. L. Culb. et C. F. Culb. – 1, 4
Cetrelia monachorum (Zahlbr.) W. L. Culb. et C. F. Culb. – 1, 4
Cetrelia olivetorum (Nyl.) W. L. Culb. et C. F. Culb. – 1, 3, 4
CHAENOTHECA brachypoda (Ach.) Tibell – 1, 3, 4
Chaenotheca brunneola (Ach.) Müll. Arg. – 1, 3, 4
Chaenotheca chlorella (Ach.) Müll. Arg. – 1, 3, 4
Chaenotheca chrysoccephala (Turner ex Ach.) Th. Fr. – 1, 3, 4
Chaenotheca cinerea (Pers.) Tibell – 1, 3, 4
Chaenotheca ferruginea (Turner et Borrer) Mig. – 1, 3, 4
Chaenotheca furfuracea (L.) Tibell – 1, 3, 4
Chaenotheca gracilenta (Ach.) Mattsson et Middelb. – 1, 3, 4
Chaenotheca hispidula (Ach.) Zahlbr. – 1, 3, 4
Chaenotheca laevigata Nádv. – 1, 3, 4
Chaenotheca phaeocephala (Turner) Th. Fr. – 1, 3, 4
Chaenotheca stemonea (Ach.) Müll. Arg. – 1, 3, 4
Chaenotheca subroscida (Eitn.) Zahlbr. – 3
Chaenotheca trichialis (Ach.) Th. Fr. – 1, 3, 4
Chaenotheca xyloxyena Nádv. – 1, 3, 4
CHAENOTHECOPSIS consociata (Nádv.) A. F. W. Schmidt – 1, 2, 3, 4
Chaenothecopsis debilis (Sm.) Tibell – 1, 4
Chaenothecopsis epithallina Tibell – 1, 2, 3, 4
Chaenothecopsis faginea Nádv. – 1, 3, 4
Chaenothecopsis gracilis Nádv. – 1, 3, 4
Chaenothecopsis ochroleuca (Körb.) Tibell et K. Ryman – 1, 3, 4
Chaenothecopsis pusilla (Flörke) A. Schmidt – 1, 3, 4

- Chaenothecopsis pusiola* (Ach.) Vainio – 1, 3, 4
Chaenothecopsis rubescens Vainio – 1, 3, 4
Chaenothecopsis vainioana (Nádv.) Tibell – 1, 4
Chaenothecopsis viridialba (Krempelh.) A. F. W. Schmidt – 1, 2, 3, 4
Chaenothecopsis viridireagens (Nádv.) A. F. W. Schmidt – 1, 2, 3, 4
CHALARA lobariae Etayo [LF] – 3
! *CHEIROMYCINA petri* D. Hawksw. – A1: G, Zak (Malíček *et al.* 2018a: 158).
CHIODECTON subrimatum (Nyl.) Vain. – 1, 4
+ *CHLORANGIUM asperum* (Mereschk.) S. Y. Kondr., Gromakova et Khodos. (as *Aspicilia aspera*) – 1, 4
+ *CHRYSOTHRIX caesia* (Flot.) Ertz et Tehler (as *Arthonia caesia*) – 1, 3, 4
Chrysotricha candelaris (L.) J. R. Laundon – 1, 3, 4
Chrysotricha chlorina (Ach.) J. R. Laundon – 1, 3, 4
CIRCINARIA affinis (Eversm.) Sohrabi – 4
Circinaria caesiocinerea (Nyl. ex Malbr.) A. Nordin, S. Savić et Tibell – 1, 3, 4
Circinaria calcarea (L.) A. Nordin, S. Savić et Tibell – 1, 3, 4
Circinaria contorta (Hoffm.) A. Nordin, S. Savić et Tibell – 1, 3, 4
+ *Circinaria cespitana* (V. J. Rico) Sohrabi et V. J. Rico (as *Aspicilia cespitana*) – 4
Circinaria cupreogrisea (Th. Fr.) A. Nordin, Savić et Tibell – 4
Circinaria esculenta (Pall.) Sohrabi – 1, 4
Circinaria fruticulosa (Eversm.) Sohrabi – 1, 4
! *Circinaria gibbosa* (Ach.) A. Nordin, Savić et Tibell – A1: VC, Zak (Hazslinszky 1859:
18 as *Aspicilia gibbosa* f. *vulgaris*, Hazslinszky 1884: 131 as *Aspicilia gibbosa* f. *ocellata*
Mass., Szatala 1922: 54 as *Lecanora gibbosa*, Servít and Nádvorník 1932: 23 as *Lecanora*
gibbosa, Makarevych *et al.* 1982: 238 as *Aspicilia gibbosa*); EB, IF (Boberski 1889: 44 as
Aspicilia gibbosa); G, IF (Boberski 1889: 44 as *Aspicilia gibbosa*); Ch, Zak (Makarevych
et al. 1982: 238 as *Aspicilia gibbosa*). C1: Don (Oxner 1962: 78 as *Aspicilia gibbosa*, Bajrak
and Navrotskaya 1998: 58 as *Aspicilia gibbosa*, Khodosovtsev *et al.* 2013b: 549 as *Aspi-*
cilia gibbosa); Zap (Blum 1962: 105 as *Aspicilia gibbosa*).
! *Circinaria gyroza* Sohrabi, Sipman, V. John et V. J. Rico – C2: ARC (Khodosovtsev *et al.*
2013a: 386, *Khodosovtsev *et al.* 2014: 210).
Circinaria hispida (Mereschk.) Hale et W. L. Culb. – 1, 4
! *Circinaria hoffmanniana* (S. Ekman et Fröberg ex R. Sant.) A. Nordin – C1: Myk (Boiko
2009: 451 as *Aspicilia hoffmanniana*, Boiko 2010: 167 as *A. hoffmanniana*, *Boiko 2011: 20
as *A. hoffmanniana*).
+ *Circinaria leprosescens* (Sandst.) A. Nordin, Savić et Tibell (as *Aspicilia leprosescens*) – 4
CLADONIA arbuscula (Wallr.) Hale et W. L. Culb. – 1, 3, 4
Cladonia bacillaris Nyl. – 1, 3, 4
! *Cladonia bacilliformis* (Nyl.) Sarnth. – A3: Kyi (Archymovych 1924: 58).
Cladonia bellidiflora (Ach.) Schaer. – 1, 3, 4
Cladonia botrytes (Hagen) Willd. – 1, 3, 4
Cladonia caespiticia (Pers.) Flörke – 1, 3, 4
Cladonia capitellata (Hook. f. et Taylor) C. Bab. – 1, 3, 4
Cladonia cariosa (Ach.) Spreng. – 1, 3, 4
Cladonia carneola (Fr.) Fr. – 1, 3, 4
Cladonia cenotea (Ach.) Schaer. – 1, 3, 4
Cladonia cervicornis (Ach.) Flot. subsp. *cervicornis* – 1, 3, 4
Cladonia cervicornis (Ach.) Flot. subsp. *verticillata* (Hoffm.) Ahti – 1, 3, 4
Cladonia chlorophaea (Flörke ex Sommerf.) Spreng. – 1, 3, 4

- Cladonia ciliata* Stirt. – 1, 3, 4
Cladonia coccifera (L.) Willd. – 1, 3, 4
Cladonia coniocraea (Flörke) Vainio – 1, 3, 4
Cladonia convoluta (Lam.) Cout. – 1, 4
Cladonia cornuta (L.) Hoffm. – 1, 3, 4
Cladonia crispata (Ach.) Flot. – 1, 3, 4
Cladonia cyanipes (Sommerf.) Nyl. – 1, 3, 4
Cladonia deformis (L.) Hoffm. – 1, 3, 4
Cladonia digitata (L.) Hoffm. – 1, 3, 4
! *Cladonia diversa* Asperges ex S. Stenroos – C1: Don (Khodosovtsev *et al.* 2013b: 545, *Khodosovtsev *et al.* 2013a: 387); Myk (Khodosovtsev *et al.* 2019b: 59).
Cladonia ecmocyna Leight. – 1, 3, 4
Cladonia fimbriata (L.) Fr. – 1, 3, 4
Cladonia floerkeana (Fr.) Flörke subsp. *floerkeana* (Fr.) V. Wirth – 1, 3, 4
Cladonia foliacea (Huds.) Willd. – 1, 3, 4
Cladonia furcata (Huds.) Schrad. subsp. *furcata* – 1, 3, 4
Cladonia furcata (Huds.) Schrad. subsp. *subrangiformis* (L. Scriba ex Sandst.) Abbayes – 1, 4
Cladonia glauca Flörke – 1, 3, 4
Cladonia gracilis (L.) Willd. – 1, 3, 4
Cladonia grayi G. Merr. ex Sandst. – 1, 3, 4
Cladonia hungarica (Arnold) Vainio – 1, 3, 4
Cladonia incrassata Flörke – 1, 4
Cladonia macilenta Hoffm. subsp. *macilenta* – 1, 3, 4
Cladonia macroceras (Delise) Hav. – 1, 3, 4
Cladonia macrophylla (Schaer.) Stenh. – 1, 3, 4
Cladonia macrophyllodes Nyl. – 1, 3, 4
Cladonia magyarica Vain. ex Gyeln. – 4
Cladonia mitis Sandst. – 1, 3, 4
Cladonia monomorpha Aptroot, Sipman et van Herk – 4
Cladonia norvegica Tønsberg et Holien – 3, 4
Cladonia ochrochlora Flörke – 1, 3, 4
Cladonia parasitica (Hoffm.) Hoffm. – 1, 3, 4
Cladonia peziziformis (With.) J. R. Laundon – 4
Cladonia phyllophora Hoffm. – 1, 3, 4
Cladonia pleurota (Flörke) Schaer. – 1, 3, 4
Cladonia pocillum (Ach.) O. J. Rich. – 1, 3, 4
Cladonia polydactyla (Flörke) Spreng. – 1, 3, 4
Cladonia portentosa (Dufour) Follm. – 1, 3, 4
Cladonia pyxidata (L.) Hoffm. – 1, 3, 4
Cladonia ramulosa (With.) J. R. Laundon – 1, 3, 4
Cladonia rangiferina (L.) F. Weber ex F. H. Wigg. – 1, 3, 4
Cladonia rangiformis Hoffm. – 1, 3, 4
Cladonia rei Schaer. – 1, 3, 4
Cladonia scabriuscula (Delise) Leight. – 1, 4
+ *Cladonia squamosa* (Scop.) Hoffm. (as *C. squamosa* var. *squamosa*, var. *subsquamosa*) – 1, 3, 4
Cladonia stellaris (Opiz) Brodo – 1, 3, 4
Cladonia strepsilis (Ach.) Vain. – 4
Cladonia stricta (Nyl.) Nyl. – 1, 3, 4
Cladonia stygia (Fr.) Ahti – 1, 3, 4

- Cladonia subcariosa* Nyl. em. Vainio – 1, 3, 4
Cladonia subulata (L.) F. Weber ex F. H. Wigg. – 1, 3, 4
Cladonia sulphurina (Michx.) Fr. – 1, 3, 4
Cladonia turgida Ehrh. ex Hoffm. – 1, 3, 4
Cladonia uncialis (L.) F. Weber ex F. H. Wigg. – 1, 3, 4
! *CLADOPHALOPHORA parmeliae* (Etayo et Diederich) Diederich et Untereiner [LF] – 5
! *CLADOSPORIUM lichenophilum* Heuchert et U. Braun [LF] – 5
CLAUZADEA immersa (Weber ex F. H. Wigg.) Hafellner et Bellem. – 1, 4
Clauzadea metzleri (Körb.) Clauzade et Cl. Roux ex D. Hawksw. – 1, 4
+ *Clauzadea monticola* (Schaer.) Hafellner et Bellem. (also as *Biatora monticola*) – 1, 3, 4
CLIOSTOMUM corrugatum (Ach.) Fr. – 1, 3, 4
Cliostomum griffithii (Sm.) Coppins – 1, 3, 4
! *CLYPEOCOCCUM cetrariae* Hafellner [LF] – 5
! *Clypeococcum cladonema* (Weddell) D. Hawksw. [LF] – 5
! *Clypeococcum hypocenomyces* D. Hawksw. [LF] – 5
! *Clypeococcum psoromatis* (A. Massal.) Etayo [LF] – C2: ARC (Darmostuk and Khodosovtsev 2019: 110). D: SBC, ARC (Darmostuk and Khodosovtsev 2019: 110).
! *CODONMYCES lecanorae* Calat. et Etayo [LF] – 5
COELOCAULON divergens (Ach.) R. Howe – 1, 3, 4
+ *COENOGONIUM luteum* (Dicks.) Kalb et Lücking (as *Dimerella lutea*) – 1, 3, 4
+ *Coenogonium pineti* (Ach.) Lücking et Lumbsch (as *Dimerella pineti*) – 1, 3, 4
COLLEMA flaccidum (Ach.) Ach. – 1, 3, 4
Collema furfuraceum (Arnold) Du Rietz – 1, 3, 4
Collema nigrescens (Huds.) DC. – 1, 3, 4
Collema ryssoleum (Tuck.) A. Schneid. – 1, 4
Collema subflaccidum Degel. – 1, 3
Collema subnigrescens Degel. – 1, 4
! *Collema substellatum* H. Magn. – C4: Khe (Khodosovtsev et al. 2013a: 388).
COLLEMOPSISIDIUM iocarpum (Nyl.) Nyl. – 4
! *Collemopsisidium kostikovii* Khodos. et Darmostuk – B2: Pol (Khodosovtsev and Darmostuk 2017a: 431).
! *Collemopsisidium subarenosum* (G. Salisb.) Coppins et Aptroot – C3: Khe (Gavrylenko 2012: 718, Khodosovtsev 2015: 323).
+ *COPPINSEDEA alba* (Coppins et Vězda) S. Y. Kondr., E. Farkas et L. Lőkös (as *Catillaria alba*) – 1, 2, 3, 4
+ *Coppinsidea croatica* (Zahlbr.) S. Y. Kondr., E. Farkas et L. Lőkös (as *Catillaria croatica*) – 3
+ *Coppinsidea fuscoviridis* (Anzi) S. Y. Kondr., E. Farkas et L. Lőkös (as *Bacidia fuscoviridis*) – 4
+ *Coppinsidea aff. scotinodes* (Nyl.) S. Y. Kondr., E. Farkas et L. Lőkös (as *Catillaria scotinodes*) – 4
+ *Coppinsidea sphaerella* (Hedl.) S. Y. Kondr., E. Farkas et L. Lőkös (as *Lecidea sphaerella* and *L. sylvana*) – 1, 3, 4
! *COPPINSELLA substerilis* (Vondrák, Palice et van den Boom) S. Y. Kondr. et L. Lőkös – A1: G, Zak (Malíček et al. 2018a: 157 as *Caloplaca substerilis*). C3: Khe (Khodosovtsev and Khodosovtseva 2014: 517 as *C. substerilis*, Khodosovtsev et al. 2018b: 75 as *C. substerilis*).
+ *Coppinsella ulcerosa* (Coppins et P. James) S. Y. Kondr. et L. Lőkös (as *Caloplaca ulcerosa*) – 1, 3, 4
CORNICULARIA normoerica (Gunn.) Du Rietz – 1, 3, 4

- ! CORNUTISPORA ciliata** Kalb [LF] – 5
Cornutispora lichenicola D. Hawksw. et B. Sutt. [LF] – 3, 5
! Cornutispora pyramidalis Etayo [LF] – 5
CORTICIFRAGA fuckelii (Rehm.) D. Hawksw. et R. Sant. [LF] – 1, 2, 3, 4, 5
+ *CRATIRIA lauri-cassiae* (Fee) Marbach (as *Diplotomma lauri-cassiae*) – 4
CRESPORHAPHIS wienkampii (J. Lahm ex Hazsl.) M. B. Aquirre – 1, 3, 4
! CRYPTODISCUS gloeocapsa (Arnold) Baloch, Gilenstam et Wedin – A1: Ch, Zak (Vondrák et al. 2010b: 17); G, Zak (Malíček et al. 2018a: 159).
CRYPTOTHELE rhodosticta (Taylor) Henssen – 1, 3, 4
Cryptothelae sphaerospora Vain. – 1, 4
! CYLINDROMONIUM rhabdosporum (W. Gams) Crous – A1: Zak (Darmostuk et al. 2020: 20 as *Acremonium rhabdosporum* W. Gams).
CYPHELIUM inquinans (Sm.) Trevis. – 1, 3, 4
Cyphelium karelicum (Vainio) Räsänen – 3
Cyphelium lucidum (Th. Fr.) Th. Fr. – 4
Cyphelium notarisii (Tul.) Blomb. ex Forssell – 1, 3
Cyphelium sessile (Pers.) Trevis. – 1, 4
Cyphelium tigillare (Ach.) Ach. – 1, 3, 4
CYRTIDULA hippocastani (DC.) R. C. Harris – 1, 2, 4
Cyrtidula quercus (A. Massal.) Minks – 1, 2, 4
+ *CYSTOCOLEUS ebeneus* (Dillwyn) Thwaites (including *Placynthium nigrum*) – 4
! DACAMPIA cladoniicola Halici et A. Ö. Türk [LF] – 5
Dacampia hookeri (Borrer) A. Massal. [LF] – 1, 3, 4
DACTYLOSPORA athallina (Müll. Arg.) Hafellner [LF] – 2, 4, 5
! Dactylospora homoclinella (Nyl.) Hafellner [LF] – A1: G, Zak (Malíček et al. 2018a: 168).
Dactylospora lobariella Hafellner [LF] – 1, 2, 3, 4
Dactylospora parasitica (Flörke ex Spreng.) Zopf [LF] – 1, 3, 4, 5
! Dactylospora rimulicola (Müll. Arg.) Hafellner [LF] – 5
Dactylospora saxatilis (Schaer.) Hafellner [LF] – 1, 4, 5
Dactylospora urceolata (Th. Fr.) Arnold [LF] – 4
+ *DENDROGRAPHA decolorans* (Turner et Borrer) Ertz et Tehler (as *Schismatomma decolorans*) – 4
+ *Dendrographa latebrarum* (Ach.) Ertz et Tehler (as *Lecanactis latebrarum*) – 1, 4
DERMATOCARPON borysthenicum (Oxner) Oxner – 4
Dermatocarpon intestiniforme (Körb.) Hasse – 1, 3, 4
Dermatocarpon luridum (With.) J. R. Laundon – 1, 3, 4
Dermatocarpon meiophyllum Vainio – 1, 3, 4
Dermatocarpon miniatum (L.) W. Mann – 1, 3, 4
Dermatocarpon rivulorum (Arn.) Dalla Torre et Sarnth. – 1, 3, 4
Dermatocarpon velleereum Zschacke – 1, 4
DIBAEIS rosea (Pers.) Clem. – 1, 3, 4
! DICTYOCATENULATA alba Finley et E. F. Morris – A1: S, Zak (Diederich et al. 2008: 207); G, Zak (Dymytrova et al. 2012b: 62, Dymytrova et al. 2013: 78, *Dymytrova et al. 2014: 1385, Malíček et al. 2018a: 159).
! DIDYMELLA globularis (Körb.) H. Magn. – A1: M, Zak (Hruby 1925: 210 as *Arthopyrenia globularis*).
! DIDYMELLOPSIS latitans (Nyl.) Sacc. ex Clem. et Shear [LF] – 5
! Didymellopsis perigena (Nyl.) Crube et Hafellner [LF] – 5
! Didymellopsis pulposi (Zopf) Grube et Hafellner [LF] – 5

- + *DIDYMOCYRTIS cladoniicola* (Diederich, Kocourk. et Etayo) Ertz et Diederich [LF] – 4
(as *Phoma cladoniicola*), 5
- + *Didymocytis epiphyscia* Ertz et Diederich [LF] – 2, 4 (as *Phoma physciicola*), 5
- ! *Didymocytis foliaceiphila* (Diederich, Kocourk. et Etayo) Ertz et Diederich – A5: Ter (Darmostuk and Sira 2020: 36).
- ! *Didymocytis melanelixiae* (Breckel) Diederich, R. C. Harris et Etayo [LF] – A1: Ch, Zak (Darmostuk, 2018: 176).
- ! *Didymocytis pseudoverniae* (Etayo et Diederich) Ertz et Diederich [LF] – 5
- ! *Didymocytis ramalinae* (Roberge ex Desm.) Ertz, Diederich et Hafellner [LF] – 5
- ! *Didymocytis trassii* Suija, Darmostuk et Khodos. [LF] – C3: Khe (Khodosovtsev et al. 2018c: 532, Khodosovtsev et al. 2018b: 80).
- DIMELAENA oreina* (Ach.) Norm. – 1, 3, 4
- DIPLOICIA canescens* (Dicks.) A. Massal. – 1, 3
- ! *DIPLOLAEVIOPSIS cf. symmictae* Diederich et Coppins – A1: Zak (Darmostuk et al. 2020: 20).
- DIPLOSCHISTES actinostomus* (Pers.) Zahlbr. – 1, 4
- Diploschistes candidissimus* (Krempelh.) Zahlbr. – 4
- Diploschistes diacapsis* (Ach.) Lumbsch – 4
- Diploschistes euganeus* (A. Massal.) J. Steiner – 4
- Diploschistes gypsaceus* (Ach.) Zahlbr. – 1, 3, 4
- Diploschistes muscorum* (Scop.) R. Sant. – 1, 2, 3, 4
- Diploschistes scruposus* (Schreb.) Norman – 1, 3, 4
- Diploschistes scruposus* var. *arenarius* Müll. Arg. – B3: Kha (Chernov 1895: 23 as *Urceolaria scruposa* var. *arenaria*, *Kashmensky 1906: 96 as *Urceolaria scruposa*).
- DIPLOTOMMA alboatrum* (Hoffm.) Flot. – 1, 3, 4
- Diplotomma ambiguum* (Ach.) Flagey – 1, 3, 4
- Diplotomma chlorophaeum* (Hepp ex Leight.) Szatala – 1, 3, 4
- Diplotomma epipolium* (Ach.) Arnold – 1, 3, 4
- ! *Diplotomma hedinii* (H. Magn.) P. Clerc et Cl. Roux – C3: Ode (Khodosovtsev et al. 2016d: 170).
- Diplotomma margaritaceum* (Nyl.) Szatala – 1, 3, 4
- + *Diplotomma nivalis* (Bagl. et Carestia) Hafellner (as *Buellia nivalis*) – 1, 4
- ! *Diplotomma pharcidium* (Ach.) M. Choisy – A6: Vin (Oxner 2010: 254 as *Diplotomma athroa*). B1: Kyi (Oxner 2010: 254 as *Diplotomma athroa*, Kondratyuk 2011: 295 as *Diplotomma athroa*); Чка (Oxner 2010: 254 as *Diplotomma athroa*). B2: Kyi (Zelenko and Kondratyuk 1994: 111 as *Diplotomma athroa*). C3: Xep (*Khodosovtsev 2012: 396). D: MC, ARC (Szatala 1942: 94 as *Diplotomma athroa*, *Kopachevskaya 1986: 233 as *Diplotomma athroa*, *Oxner 2010: 254 as *Diplotomma athroa*).
- + *Diplotomma scheideggerianum* (Bricaud et Cl. Roux) Nimis (as *Buellia scheideggerianum*) – 4
- Diplotomma venustum* (Körb.) Lettau – 4
- DIRINA massiliensis* f. *sorediata* (Müll. Arg.) Tehler – 1, 4
- DOLICHOSNEA longissima* (Ach.) Articus – 1, 3, 4
- ! *ECHINOTHECIUM reticulatum* Zopf [LF] – 5
- EIGLERA flava* (Hepp) Hafellner – 1, 3, 4
- ! *ENCHYLIUM bachmanianum* (Fink) Otálora, P. M. Jørg. et Wedin – C3: Khe (Khodosovtsev and Darmostuk 2020b: 246).
- + *Enchylium coccophorum* (Tuck.) Otálora, P. M. Jørg. et Wedin (as *Collema coccophora*) – 4
- + *Enchylium conglomeratum* (Hoffm.) Otálora, P. M. Jørg. et Wedin (as *Collema conglomerata*) – 1, 3, 4

- + *Enchylium ligerinum* (Hy) Otálora, P. M. Jørg. et Wedin (as *Collema ligerina*) – 1, 4
+ *Enchylium limosum* (Ach.) Otalora, P. M. Jorg. et Wedin (as *Collema limosa*) – 1, 3, 4
+ *Enchylium polycarpon* (Hoffm.) Otálora, P. M. Jørg. et Wedin (as *Collema polycarpon*) – 1, 3, 4
Enchylium tenax (Sw.) Gray (as *Collema tenax*) – 1, 3, 4
ENDOCARPON adscendens (Anzi) Müll. Arg. – 1, 3, 4
Endocarpon inconspicuum Oxner – 1, 4
! *Endocarpon latzelianum* Servít – B1: Khm (Zelenko 2004: 51).
Endocarpon obscuratum (Müll. Arg.) Zahlbr. – 4
Endocarpon pallidum Ach. – 4
Endocarpon psorodeum (Nyl.) Th. Fr. – 4
Endocarpon pusillum Hedw. – 1, 3, 4
! *ENDOCOCCUS brachysporus* (Zopf) M. Brand et Diederich [LF] – 5
Endococcus fusiger Th. Fr. et Almq. [LF] – 4, 5
Endococcus macrosporus (Hepp ex Arnold) Nyl. [LF] – 4, 5
Endococcus propinquus (Körb.) D. Hawksw. [LF] – 1, 2, 3, 4, 5
Endococcus ramalinarius (Linds.) D. Hawksw. [LF] – 4, 5
! *Endococcus rugulosus* Nyl. [LF] – 5
ENTEROGRAPHA zonata (Körb.) Källsten – 1, 3, 4
EOCRONARTIUM muscicola (Pers.) Fitzp. – 3
! *EONEMA pyriforme* (M. P. Christ.) Redhead, Lücking et Lawrey [LF] – C3: Khe (Khodosovtsev et al. 2018b: 80, Khodosovtsev et al. 2018c: 535).
EOPYRENULA avellanae Coppins – 1, 3, 4
Eopyrenula leucoplaca (Wallr.) R. Harris – 1, 3, 4
EPHEBE lanata (L.) Vainio – 1, 3, 4
! *EPIBRYON kondratyukii* Khodos. et Darmostuk – C1: Myk (Darmostuk and Khodosovtsev 2019: 110).
! *EPICLADONIA sandstedei* (Zopf) D. Hawksw. [LF] – 5
! *Epicladonia simplex* D. Hawksw. [LF] – 5
! *Epicladonia stenospora* (Harm.) D. Hawksw. [LF] – 5
EPIGLOEA bactrospora Zukal – 4
Epigloea filifera Döbbeler – 4
! *Epigloea medioincrassata* (Grumm.) Döbbeler – A1: S, Zak (Vondrák et al. 2010b: 27).
! *Epigloea soleiformis* Dobb. – A1: S, Zak (Khodosovtsev 2005a: 171). D: MC, ARC (Khodosovtsev 2005a: 171).
EPILICHEN scabrosus (Ach.) Clement – 1, 2, 3, 4
! *EPIPHLOEA byssina* (Hoffm.) Henssen et P. M. Jorg. – C3: Myk (Khodosovtsev et al. 2018a: 284).
! *EPITHAMNOLIA rangiferinae* E. Zimm., Diederich et Suija [LF] – C3: Khe (Darmostuk and Khodosovtsev 2019: 111).
! *ERYTHRICIUM aurantiacum* (Lasch) D. Hawksw. et A. Henrici [LF] – 5
EVERNIA divaricata (L.) Ach. – 1, 3, 4
Evernia elenkiniana Zalbr. – 4
Evernia mesomorpha Nyl. – 1, 3, 4
Evernia prunastri (L.) Ach. – 1, 3, 4
Evernia terrestris (Tomin) Golubk. – 4
FARNOLDIA hypocrita (A. Massal.) Hertel – 4
Farnoldia jurana (Schaer.) Hertel – 1, 3, 4
+ *FELIPES leucopellaeus* (Ach.) Frisch et G. Thor (as *Arthonia leucopellaeus*) – 1, 3, 4

- FELLHANERA bouteillei** (Desm.) Vězda – 1, 3, 4
Fellhanera gyrophorica Sérus., Coppins, Diederich et Schneid. – 3, 4
Fellhanera subtilis (Vězda) Diederich et Sérus. – 1, 3, 4
FELLHANEROPSIS vezdae (Coppins et P. James) Sérus. et Coppins – 3, 4
FLAVOCETRARIA cucullata (Bellardi) Kärnefelt et Thell – 1, 3, 4
Flavocetraria nivalis (L.) Ach. – 1, 3, 4
FLAVOPARMELIA caperata (L.) Hale – 1, 3, 4
! **FLAVOPLACA arcisproxima** (Vondrák, Říha, Arup et Søchting) Arup, Søchting et Frödén – D: SBC, ARC (Vondrák et al. 2009: 577, Vondrák et al. 2010a: 507 as *Caloplaca arcisproxima*).
! **Flavoplaca austrocitrina** (Vondrák, Říha, Arup et Søchting) Arup, Søchting et Frödén – C1: Kha (Gromakova 2018: 273). C3: Ode (Vondrák et al. 2008: 14 as *Caloplaca austrocitrina*, Khodosovtsev et al. 2016d: 170); Kh (Khodosovtsev and Khodosovtseva 2014: 519, Darmostuk 2016: 135); Myk (Khodosovtsev et al. 2018a: 284). D: SBC, ARC (Vondrák et al. 2009: 577).
! **Flavoplaca calcitrapa** (Nav.-Ros., Gaya et Cl. Roux) Arup, Frödén et Søchting – C3: ARC (Vondrák et al. 2009: 578 as *Caloplaca calcitrapa*). D: SBC, ARC (Vondrák et al. 2009: 578 as *Caloplaca calcitrapa*).
+ **Flavoplaca citrina** (Hoffm.) Arup, Frödén et Søchting (as *Caloplaca citrina*) – 1, 3, 4
! **Flavoplaca communis** (Vondrák, Říha, Arup et Søchting) Arup, Søchting et Frödén – D: SBC, ARC (Vondrák et al. 2009: 578 as *Caloplaca communis*).
+ **Flavoplaca coronata** (Krempelh. ex Körb.) Arup, Frödén et Søchting (as *Caloplaca coronata*) – 1, 4
+ **Flavoplaca dichroa** (Arup) Arup, Frödén et Søchting (as *Caloplaca dichroa*) – 4
+ **Flavoplaca flavocitrina** (Nyl.) Arup, Frödén et Søchting (as *Caloplaca flavocitrina*) – 4
+ **Flavoplaca geleverjae** (Khodos. et S. Y. Kondr.) Arup, Frödén et Søchting (as *Caloplaca geleverjae*) – 4
+ **Flavoplaca granulosa** (Müll. Arg.) Arup, Frödén et Søchting (as *Caloplaca granulosa*) – 1, 4
+ **Flavoplaca limonia** (Nimis et Poelt) Arup, Frödén et Søchting (as *Caloplaca limonia*) – 4
+ **Flavoplaca marina** (Wedd.) Arup, Frödén et Søchting (as *Caloplaca marina*) – 4
+ **Flavoplaca microthallina** (Wedd.) Arup, Frödén et Søchting (as *Caloplaca microthallina*) – 1, 4
+ **Flavoplaca navasiana** (Nav.-Ros. et Cl. Roux) Arup, Søchting et Frödén (as *Caloplaca navasiana*) – 4
+ **Flavoplaca oasis** (A. Massal.) Arup, Frödén et Søchting (as *Caloplaca oasis*) – 4
+ **Flavoplaca polycarpa** (A. Massal.) Arup, Frödén et Søchting (as *Caloplaca polycarpa*) – 1, 4
FLAVOPUNCTELIA flaventior (Stirt.) Hale – 1, 3
! **FOMINIELLA skii** (Khodos., Vondrák et Šoun) S. Y. Kondr., Upreti et Hur – B3: Kha (Gromakova 2013: 666 as *Caloplaca skii*). C1: Kha (Gromakova 2013: 666 as *C. skii*). C3: Ode (Khodosovtsev et al. 2016d: 169 as *Athallia skii*); Khe (Vondrák et al. 2012a: 83 as *C. skii*, *Khodosovtsev 2012: 395 as *C. skii*, *Khodosovtsev et al. 2017c: 184 as *A. skii*); Myk (Khodosovtsev et al. 2018a: 283 as *A. skii*); ARC (Vondrák et al. 2012a: 83 as *C. skii*). D: SBC, ARC (Vondrák et al. 2012a: 83 as *C. skii*).
FRUTIDELLA caesioatra (Schaer.) Kalb. – 1, 3
! **Frutidella furfuracea** (Anzi) M. Westb. et M. Svenss. – A1: G, Zak (Malíček et al. 2018a: 159).
! **Frutidella pullata** (Norman) Schmull – A1: G, Zak (Vondrák et al. 2010b: 19 as *Lecidea pullata*, Dymytrova et al. 2014: 1386 as *Lecidea pullata*).
FULGENSIA bracteata (Hoffm.) Räsänen – 4

- Fulgensia desertorum* (Tomin) Poelt – 1, 4
- Fulgensia fulgens* (Sw.) Elenk. – 1, 4
- ! *Fulgensia fulgida* (Nyl.) Szatala – C3: ARC (Khodosovtsev et al. 2013a: 388, 2014: 212). D: MC, ARC (Khodosovtsev et al. 2013a: 388); SBC, ARC (Khodosovtsev et al. 2013a: 388).
- Fulgensia subbracteata* (Nyl.) Poelt – 4
- FUSCIDEA arboricola* Coppins et Tønsberg – 1, 3, 4
- ! *Fuscidea austera* (Nyl.) P. James – A1: G, IF (Khodosovtsev et al. 2016a: 56); EB, Zak (Pirogov et al. 2014a: 76).
- Fuscidea cyathoides* (Ach.) V. Wirth et Vězda – 3, 4
- Fuscidea gothoburgensis* (H. Magn.) V. Wirth et Vězda – 4
- Fuscidea kochiana* (Hepp) V. Wirth et Vězda – 1, 3, 4
- Fuscidea lygaea* (Ach.) V. Wirth et Vězda – 1, 3, 4
- Fuscidea mollis* (Wahlenb.) V. Wirth et Vězda – 4
- Fuscidea pusilla* Tønsberg – 1, 3, 4
- FUSCOPANNARIA praetermissa* (Nyl.) P. M. Jørg. – 1, 3, 4
- + *GALLOWAYELLA coppinsii* (S. Y. Kondr. et Kärnefelt) S. Y. Kondr., Fedorenko, S. Stenroos, Kärnefelt, Elix et A. Thell (as *Xanthomendoza coppinsii*) – 3, 4
- + *Gallowayella fulva* (Hoffm.) S. Y. Kondr., Fedorenko, S. Stenroos, Kärnefelt, Elix, Hur et A. Thell – 4 (as *Xanthomendoza fulva*)
- + *GLAUCOMARIA bicincta* (Ramond) S. Y. Kondr., L. Lőkös et Farkas (as *Lecanora bicincta*) – 1, 3, 4
- + *Glaucomaria carpinea* (L.) S. Y. Kondr., L. Lőkös et Farkas (as *Lecanora carpinea*) – 1, 3, 4
- + *Glaucomaria leptyrodes* (Nyl.) S. Y. Kondr., L. Lőkös et Farkas (as *Lecanora leptyrodes*) – 1, 3, 4
- + *Glaucomaria subcarpinea* (Szatala) S. Y. Kondr., L. Lőkös et Farkas (as *Lecanora subcarpinea*) – 1, 3, 4
- + *Glaucomaria sulphurea* (Hoffm.) S. Y. Kondr., L. Lőkös et Farkas (as *Lecanora sulphurea*) – 1, 3, 4
- + *Glaucomaria swartzii* subsp. *swartzii* (Ach.) S. Y. Kondr., L. Lőkös et Farkas (as *Lecanora swartzii* subsp. *swartzii*) – 1, 3, 4
- Glaucomaria swartzii* subsp. *caulescens* (J. Steiner) S. Y. Kondr., L. Lőkös et Farkas (as *Lecanora swartzii* subsp. *caulescens*) – 4
- ! *GOWARDIA nigricans* (Ach.) Halonen, Mylllys, Velmala et Hyvänen – A1: M, Zak (Hazslinszky 1884: 27 as *Alectoria nigricans*); CG, IF (Faltynowicz and Sulma 1994: 93 as *A. nigricans*).
- GRAPHIS elegans* (Borrer ex Sm.) Ach. – 1, 3, 4
- Graphis scripta* (L.) Ach. – 1, 3, 4
- ! *GREGORELLA humida* (Kullh.) Lumbsch – C3: PK (Khodosovtsev et al. 2014: 207). D: MC, ARC (Khodosovtsev et al. 2013a: 389).
- GYALECTA arbuti* (Bagl.) Baloch et Lücking (as *Pachyphiale arbuti*) – 4
- ! *Gyalecta croatica* Zahlbr. – A1: G, Zak (Malíček et al. 2018a: 159).
- ! *Gyalecta derivata* (Nyl.) H. Olivier – D: MC, ARC (S slope of Babugan Rg, 800 m a.s.l., Bogdan, Khodosovtsev, Zelenko (KHER 3860)).
- Gyalecta flotowii* Körb. – 1, 3, 4
- Gyalecta foveolaris* (Ach.) Schaer. – 1, 3, 4
- Gyalecta friesii* Flot. ex Körb. – 1, 3, 4
- Gyalecta geoica* (Wahlenb.) Ach. – 4
- + *Gyalecta herculina* (Rehm) Baloch, Lumbsch et Wedin (as *Belonia herculina*) – 1, 3, 4
- Gyalecta jenensis* (Batsch) Zahlbr. – 1, 3, 4

- ! *Gyalecta incarnata* (Th. Fr. et Graewe ex Th. Fr.) Baloch et Lücking – A1: (Khodosovtsev 2008 as *Belonia incarnata*)
Gyalecta leucaspis (Krempehl. ex A. Massal.) Zahlbr. – 1, 3, 4
Gyalecta peziza (Mont.) Anzi – 1, 3, 4
Gyalecta subclausa Anzi – 1, 3, 4
Gyalecta truncigena (Ach.) Hepp – 1, 3, 4
Gyalecta ulmi (Sw.) Zahlbr. – 1, 3, 4
! *GYALIDEA fritzei* (Stein) Vězda – A1: S, Zak (Vondrák *et al.* 2010b: 18).
Gyalidea lecideopsis (A. Massal.) Lettau – 1, 3, 4
GYALIDEOPSIS anastomosans P. James et Vězda – 1, 3, 4
! *Gyalideopsis helvetica* van den Boom et Vězda – A1: G, Zak (Malíček *et al.* 2018a: 159).
+ *GYALOLECHIA aurea* (Schaer.) A. Massal. (as *Caloplaca aurea*) – 1, 4
+ *Gyalolechia xanthostigmoidea* (Räsänen) Söchting, Frödén et Arup (as *Caloplaca xanthostigmoidea*) – 4
! *HAEMATOMMA nemetzii* J. Steiner – C2: Myk (Khodosovtsev and Darmostuk 2020b: 246).
Haematomma ochroleucum (Neck.) J. R. Laundon – 1, 3, 4
! *HALECANIA viridescens* Coppins et P. James – A1: G, Zak (Malíček *et al.* 2018a: 159).
+ *HALOSPORA discrepans* (J. Lahm ex Arnold) Hafellner – 1, 2, 3, 4 (as *Merismatium discrepans*), 5
! *HAWKSWORTHIANA peltigericola* (D. Hawksw.) U. Braun [LF] – 5
! *HAZSLINSZKYA gibberulosa* (Ach.) Körb. – A1: G, Zak (Malíček *et al.* 2018a: 159).
! *HENFELLRA muriformis* Halici, D. Hawksw., Z. Kocak. et M. Kocak. [LF] – C3: Khe (Darmostuk *et al.* 2018: 355).
HEPPIA lutosa (Ach.) Nyl. – 1, 4
HERTELIDEA botryosa (Fr.) Printzen et Kantvilas – 1, 4
! *HETEROCEPHALACRIA bachmannii* (Diederich et M. S. Christ.) Millanes et Wedin [LF] – 5
Heterocephalacria physciacearum (Diederich) Millanes et Wedin [LF] – 5
HETERODERMIA speciosa (Wulfen) Trevis. – 1, 3, 4
! *HETEROPLACIDIUM compactum* (A. Massal.) Gueidan et Cl. Roux – D: SBC, ARC (Khodosovtsev 2003).
Heteroplicidium fusculum (Nyl.) Gueidan et Cl. Roux – 1
Heteroplicidium phaeocarpoides (Nyl.) Breuss – 4
! *HOMOSTEGIA piggottii* (Berk. et Broome) P. Karst. [LF] – 5
HYDROPUNCTARIA adriatica (Zahlbr.) C. Keller et Gueidan – 1
! *Hydropunctaria amphibia* (Clemente ex Ach.) Cl. Roux – C3: Ode (Назарчук 2008b: 89 as *Verrucaria amphibia*); ARC (Redchenko 2002: 432 as *Verrucaria amphibia*, *Khodosovtsev 2006b: 220 as *Verrucaria amphibia*). D: SBC, ARC (Redchenko 2001: 579 as *Verrucaria amphibia*, Khodosovtsev and Redchenko 2002: 70 as *Verrucaria amphibia*).
Hydropunctaria maura (Wahlenb.) C. Keller, Gueidan et Thüs – 1
Hydropunctaria rheitrophila (Zschacke) C. Keller, Gueidan et Thüs – 1, 3
HYMENELIA ceracea (Arnold) Poelt et Vězda – 1, 3, 4
Hymenelia coerulea A. Massal. – 4
Hymenelia epulotica (Ach.) Lutzoni – 1, 3, 4
Hymenelia heteromorpha (Kremp.) Lutzoni – 1, 3, 4
Hymenelia prevostii (Duby) Kremp. – 4
+ *HYMENOSTILBE lecaniicola* (Jaap) Mains (as *Isaria lecaniicola*) – 2
HYPERRHYSCLADIA adglutinata (Flk.) H. Mayrhofer et Poelt – 1, 3, 4

- + *HYPHODISCUS ucrainicus* (S. Y. Kondr.) Suija, Tsurykau et Diederich [LF] – 1, 2, 4 (as *Calycina ucrainica*), 5
- HYPOCENOMYCE scalaris* (Ach. ex Lilj.) Choisy – 1, 3, 4
- HYPOGYMNIA bitteri* (Lynge) Ahti – 1, 3, 4
- Hypogymnia farinacea* Zopf – 1, 3, 4
- Hypogymnia physodes* (L.) Nyl. – 1, 3, 4
- Hypogymnia tubulosa* (Schaer.) Hav. – 1, 3, 4
- Hypogymnia vittata* (Ach.) Parrique – 1, 3, 4
- ! *HYPOTRACHYNA britannica* (D. Hawksw. et P. James) Coppins – A1: EB, Zak (Uzhansky NNP) (KW-L).
- Hypotrachyna laevigata* (Sm.) Hale – 1, 3, 4
- Hypotrachyna revoluta* (Flörke) Hale – 1, 3, 4
- Hypotrachyna sinuosa* (Sm.) Hale – 1, 3, 4
- ! *HYSTERIUM pulicare* Pers. – C3: Khe (Khodosovtsev et al. 2018b: 81).
- HYSTEROPATELLA prostii* (Duby) Rehm – 3
- ICMADOPHILA ericetorum* (L.) Zahlbr. – 1, 3, 4
- ILLOSPORIOPSIS christiansenii* (B. L. Brady et D. Hawksw.) D. Hawksw. [LF] – 1, 2, 3, 4, 5
- IMMERSARIA athroocarpa* (Ach.) Rambold et Pietschm. – 1, 3
- IMSHAUGIA aleurites* (Ach.) S. F. Meyer – 1, 3, 4
- ! *INODERMA byssaceum* (Weigel) Gray – A1: G, Zak (Malíček et al. 2018a: 160).
- INTRALICHEN baccisporus* D. Hawksw. et M. S. Cole [LF] – 4, 5
- Intralichen christiansenii* (D. Hawksw.) D. Hawksw. et M. S. Cole [LF] – 1, 2, 3, 4, 5
- Intralichen lichenicola* (M. S. Christ. et D. Hawksw.) D. Hawksw. et M. S. Cole [LF] – 4, 5
- ! *Intralichen lichenum* (Diederich) D. Hawksw. et M. S. Cole [LF] – A1: G, Zak (Malíček et al. 2018a: 168).
- ! *INVOLUCROPYRENIUM breussii* A. B. Gromakova et S. Y. Kondr. – B3: Kha (Gromakova and Kondratyuk 2017: 436).
- IONASPIS lacustris* (With.) Lutzoni – 1, 3, 4
- Ionaspis odora* (Ach. ex Schaer.) Stein. – 1, 3, 4
- + *IVANPISUTIA ocelliformis* (Nyl.) S. Y. Kondr. (as *Biatora ocelliformis*, including *B. atroviridis* and *Lecidea ocelliformis*) – 1, 3, 4
- ! *JAPEWIA subaurifera* Muhr et Tønsberg – A1: G, IF (Khodosovtsev et al. 2015: 484, Khodosovtsev et al. 2016a: 56).
- JULELLA fallaciosa* (Stizenb. ex Arnold) R. Harris – 1, 3
- ! *KARSTENIA rhopaloides* (Sacc.) Baral – A1: G, Zak (Malíček et al. 2018a: 166 as *Ramonia interjecta*).
- ! *KATHERINOMYCES cetrariae* Khodos. [LF] – C1: Zap (Darmostuk and Khodosovtsev 2019: 112). C3: Khe (Khodosovtsev et al. 2016c: 48, *Khodosovtsev et al. 2017c: 184, Khodosovtsev et al. 2018b: 80, *Khodosovtsev et al. 2018c: 536); Zap (Darmostuk and Khodosovtsev 2019: 112).
- + *KIRSCHSTEINIOTHELIA atra* (Corda) D. Hawksw. (as *Kirschsteiniothelia aethiops*). – 1, 3, 4
- + *KLAUDERUIELLA aurantia* (Pers.) S. Y. Kondr. et Hur (as *Caloplaca aurantia*) – 1, 3, 4
- + *Klauderuilla flavescens* (Huds.) S. Y. Kondr. et Hur (as *Caloplaca flavescens*) – 1, 3, 4
- + *Klauderuilla thallincola* (Wedd.) S. Y. Kondr. et Hur (as *Caloplaca thallincola*) – 1, 4
- + *KNUFIA peltigerae* (Fuckel) Réblová et Unter. [LF] – 1, 2, 4 (as *Capronia peltigerae*), 5
- ! *LAETISARIA lichenicola* Diederich, Lawrey et Van den Broeck [LF] – 5
- + *LAMBIELLA insularis* (Nyl.) T. Sprib. (as *Rimularia insularis*) – 1, 4
- LASALLIA pustulata* (L.) Hoffm. – 1, 3, 4

- Lasallia rossica* Dombr. – 1, 3, 4
- LASIOSPAERIOPSIS stereocaulicola* (Th. Fr. ex Linds.) O. E. Erikss. et R. Sant. [LF] – 1, 3
- + *LATHAGRIUM auriforme* (With.) Otálora, P. M. Jørg. et Wedin (as *Collema auriforme*) – 1, 3, 4
- + *Lathagrium cristatum* (L.) Otálora, P. M. Jørg. et Wedin (as *Collema cristatum*) – 1, 3, 4
- + *Lathagrium fuscovirens* (With.) Otálora, P. M. Jørg. et Wedin (as *Collema fuscovirens*) – 1, 3, 4
- + *Lathagrium undulatum* (Laurer ex Flot.) Poetsch (as *Collema undulatum*) – 1, 3, 4
- ! *LAWALREEA lecanorae* Diederich [LF] – C3: Khe (Darmostuk and Khodosovtsev 2019: 112).
- + *LAZARENKOELLA polycarpoides* (J. Steiner) S. Y. Kondr. et L. Lőkös (as *Caloplaca polycarpoides*) – 4
- + *LAUNDONIA flavovirescens* (Wulfen) S. Y. Kondr., Lőkös et Hur (as *Caloplaca flavovirescens*) – 1, 3, 4
- LECANACTIS abietina* (Ach.) Körb. – 1, 3, 4
- LECANIA alexandrae* Tomin – 1, 3, 4
- Lecania* aff. *athrynoidea* Knowles – 4
- Lecania cuprea* (A. Massal.) van der Boom et Coppins – 1, 3, 4
- Lecania cyrtella* (Ach.) Th. Fr. – 1, 3, 4
- ! *Lecania ephedrae* Elenk. – C3: Khe (van den Boom and Khodosovtsev 2004: 3, *Khodosovtsev 2012: 396, Khodosovtsev and Khodosovtseva 2014: 519, Klymenko 2016: 196); Myk (Khodosovtsev et al. 2017b: 328, Khodosovtsev et al. 2018b: 76).
- Lecania fuscella* (Schaer.) A. Massal. – 1, 3, 4
- Lecania inundata* (Hepp ex Körb.) M. Mayrhofer – 4
- Lecania koerberiana* Lahm – 1, 3, 4
- ! *Lecania leprosa* Reese Næsb. et Vondrák – C3: Myk (Khodosovtsev et al. 2018a: 284).
- Lecania nylanderiana* A. Massal. – 1, 4
- Lecania olivacella* (Nyl.) Zahlbr. – 4
- Lecania polycycla* (Anzi) Lettau – 4
- Lecania pruinosa* f. *congesta* Mich. – B3: Kha (Chugujiv district, vicinity of Kochetok village) (Mykhailovsky 1927: 103).
- Lecania rabenhorstii* (Hepp) Arnold – 1, 3, 4
- Lecania spadicea* (Flotow) Zahlbr. – 1, 4
- Lecania suavis* (Müll. Arg.) Mig. – 1, 4
- Lecania subcaesia* (Nyl.) B. de Lesd. – 1, 4
- ! *Lecania triseptata* (Vain.) Zahlbr. – C3: Khe (Khodosovtsev and Darmostuk 2020b: 246).
- Lecania turicensis* (Hepp) Müll. Arg. – 1, 3, 4
- + *LECANIELLA cyrtellina* (Nyl.) S. Y. Kondr. (as *Lecania cyrtellina*) – 1, 3, 4
- + *Lecaniella dubitans* (Nyl.) S. Y. Kondr. (as *Lecania dubitans*) – 1, 3, 4
- + *Lecaniella erysibe* (Ach.) S. Y. Kondr. (as *Lecania erysibe*) – 1, 4
- + *Lecaniella naegelii* (Hepp) S. Y. Kondr. (as *Lecania naegelii*) – 1, 3, 4
- ! *Lecaniella prasinoides* (Elenkin) S. Y. Kondr. – D: MC, ARC (van den Boom and Khodosovtsev 2004: 7 as *Lecania prasinoides*, Khodosovtsev et al. 2013c: 61 as *Lecania prasinoides*).
- ! *Lecaniella sylvestris* (Arnold) S. Y. Kondr. – C3: Khe (Khodosovtsev and Khodosovtseva 2014: 519 as *Lecania sylvestris*).
- LECANOGRAPHA amylacea* (Ehrh. ex Pers.) Arnold – 1, 3, 4
- Lecanographa lyncea* (Sm.) Egea et Torrente – 4
- LECANORA albella* (Pers.) Ach. – 1, 3, 4

- Lecanora albella* (Nyl.) Th. Fr. – 1, 3, 4
- Lecanora allophana* Nyl. – 1, 3, 4
- ! *Lecanora alpigena* (Ach.) Cl. Roux – A3: Zhy (Kapets et al. 2018: 337).
- Lecanora argentata* (Ach.) Malme – 1, 3, 4
- Lecanora argopholis* (Ach.) Ach. – 4
- ! *Lecanora atrosulphurea* (Wahlenb.) Ach. – C1: Don (Khodosovtsev et al. 2013b: 546, Dar-mostuk and Khodosovtsev 2017b: 129).
- Lecanora caesiosora* Poelt – 4
- Lecanora campestris* (Schaer.) Hue – 1, 3, 4
- Lecanora cateilea* (Ach.) A. Massal. – 1, 3, 4
- Lecanora cenisia* Ach. – 1, 3, 4
- Lecanora chlarotera* Nyl. – 1, 3, 4
- Lecanora chloropolia* (Erichs.) Almb. – 1, 3, 4
- Lecanora cinereofusca* H. Magn. – 1, 3, 4
- Lecanora circumborealis* Brodo et Vitik. – 3
- ! *Lecanora coilocarpa* (Ach.) Nyl. – C2: Luh (Kashmensky 1906: 84). D: SBC, ARC (Elenkin 1904, Mereschkovsky 1920, *Kopachevskaya 1986: 142).
- Lecanora compallens* van Herk et Aptroot – 3
- Lecanora crenulatissima* Mereschk. – 1, 4
- Lecanora czarnohorensis* (Motyka) S. Y. Kondr. – 3, 4
- Lecanora dispersella* J. Steiner – 1, 4
- Lecanora elenkinii* Mereschk. – 1, 4
- Lecanora epanora* (Ach.) Ach. – 1, 3, 4
- Lecanora expallens* Ach. – 1, 3, 4
- ! *Lecanora expersa* Nyl. – A1: G, Zak (Malíček et al. 2017: 441, *Malíček et al. 2018a: 160).
- Lecanora farinaria* Borrer – 3, 4
- Lecanora frustulosa* (Dicks.) Ach. – 1, 3, 4
- Lecanora fuscescens* (Sommerf.) Nyl. – 1, 3, 4
- Lecanora gangaleoides* Nyl. – 1, 3, 4
- Lecanora glabrata* (Ach.) Malme – 1, 3, 4
- ! *Lecanora hypoptoides* (Nyl.) Nyl. – D: SBC, ARC (Khodosovtsev and Bohdan 2005: 124).
- Lecanora impudens* Degel. – 1, 3, 4
- Lecanora intricata* (Ach.) Ach. – 1, 3, 4
- Lecanora intumescens* (Rebent.) Rabenh. – 1, 3, 4
- Lecanora lepoliensis* Motyka – 4
- Lecanora lithophila* (Wallr.) Oxner – 1, 3, 4
- Lecanora lojkae* Vain. – 1, 4
- Lecanora ludwigii* (Spreng.) Ach. – 1, 4
- Lecanora marginata* (Schaer.) Hertel et Rambold – 1, 3, 4
- Lecanora multispora* Makar. – 1, 3, 4
- Lecanora nemoralis* Makar. – 4
- ! *Lecanora orlovii* S. Y. Kondr. et L. Lókös – A3: Zhy (Kondratyuk et al. 2019: 120).
- ! *Lecanora orosthea* (Ach.) Ach. – C1: Myk (Khodosovtsev et al. 2019b: 60).
- ! *Lecanora pannonica* Szatala – D: SBC, ARC (Kondratyuk et al. 2014: 366, *Kapets et al. 2015: 157).
- Lecanora panticapensis* Khodosovtsev, Naumovich, Eliš et S. Y. Kondr. – 4
- Lecanora phaeostigma* (Körb.) Almb. – 1, 3, 4
- Lecanora polytropa* (Ehrh. ex Hoffm.) Rabenh. – 1, 3, 4
- + *Lecanora praepostera* Nyl. (as *L. paepostera*) – 1, 4

- Lecanora pulicaris* (Pers.) Ach. – 1, 3, 4
- Lecanora rouxii* S. Ekman et Tønsberg – 4
- Lecanora rupicola* (L.) Zahlbr. – 1, 3
- ! *Lecanora stanislai* Guzow-Krzem., Łubek, Malíček et Kukwa – A1: G, Zak (Malíček *et al.* 2018a: 160).
- ! *Lecanora strobilina* (Spreng.) Kieff. – A1: G, IF (Khodosovtsev *et al.* 2016a: 57); G, Zak (Dymytrova *et al.* 2013: 78, *Dymytrova *et al.* 2014: 1386, *Malíček *et al.* 2018a: 160). C3: Khe (Darmostuk 2014a: 244); Myk (Khodosovtsev *et al.* 2017b: 328).
- Lecanora subcarnea* (Lilj.) Ach. – 1, 3, 4
- Lecanora subintricata* (Nyl.) Th. Fr. – 1, 3, 4
- Lecanora subplanata* Nyl. – 4
- Lecanora subrugosa* Nyl. – 1, 3, 4
- ! *Lecanora substerilis* Malíček et Vondrák – A1: G, Zak (Malíček *et al.* 2017: 446, *Malíček *et al.* 2018a: 161).
- Lecanora symmicta* (Ach.) Ach. – 1, 3, 4
- Lecanora taurica* Motyka – 4
- Lecanora transcendens* (Nyl.) Arnold – 1, 3, 4
- Lecanora umbrina* (Ach.) A. Massal. – 1, 3, 4
- ! *Lecanora umbrosa* auct. brit. – A1: EB, Zak (Kondratyuk and Coppins 2000: 169).
- Lecanora wasmuthii* Mereschk. – 4
- ! *Lecanora xanthosora* B. D. Ryan et Poelt – Unc. loc. C1: Myk, Kid (Boiko 2012a: 87).
- Lecanora xanthostoma* Cl. Roux ex Fröberg – 4
- ! *LECANOROPSIS anopta* (Nyl.) S. Y. Kondr., L. Lőkös et Farkas – A1: G, Zak (Malíček *et al.* 2018a: 160 as *Lecanora anopta*).
- LECIDEA aegaeica** Szatala – 1, 4
- Lecidea confluenta* (F. Weber) Ach. – 1, 3, 4
- Lecidea erythrophaea* Flörke ex Sommerf. – 1, 3, 4
- Lecidea exigua* Chaud. – 1, 3, 4
- Lecidea exilis* (Körb.) Körb. – 1, 4
- Lecidea fuliginosa* Taylor – 1, 3, 4
- Lecidea fuscoatra* (L.) Ach. var. *fuscoatra* – 1, 3
- ! *Lecidea aff. fuscoatrata* Nyl. – C3: Zap (Khodosovtsev and Zavyalova 2008a: 268).
- ! *Lecidea grisea* (Flage) Zahlbr. – C1: Don (Khodosovtsev *et al.* 2013b: 546).
- + *Lecidea grisella* Flörke (as *L. fuscoatra* var. *grisella*) – 3
- Lecidea hillmannii* Anders – 1, 3, 4
- Lecidea hypopta* Ach. – 1, 3, 4
- Lecidea lactea* (Hoffm.) Flörke ex Schaer. – 1, 3, 4
- Lecidea lapicida* (Ach.) Ach. – 1, 3, 4
- Lecidea lichenicola* (A. L. Sm. et Ramsb.) D. Hawksw. – 4
- Lecidea lithophila* (Ach.) Ach. – 1, 3, 4
- Lecidea personata* (Flot. ex Körb.) Jatta – 1, 3, 4
- ! *Lecidea phaeops* Nyl. – A1: EB, Zak (Pirogov *et al.* 2014a: 77).
- Lecidea plana* (J. Lahm) Nyl. – 1, 3, 4
- Lecidea praenubila* Nyl. – 1, 3, 4
- Lecidea promiscens* Nyl. – 1, 3, 4
- Lecidea promiscua* Nyl. – 4
- ! *Lecidea sarcogynoides* Körb. – C2: Myk (Khodosovtsev and Darmostuk 2020b: 247).
- + *Lecidea silacea* (Hoffm.) Ach. (incl. as synonym *Toninia tabacina*) – 4
- Lecidea sudetica* Körb. – 1, 3, 4

- Lecidea swartzioidea* Nyl. – 1, 3, 4
Lecidea tessellata Flörke – 1, 4
Lecidea turgidula Fr. – 1, 3, 4
! *Lecidea umbonata* (Hepp) Mudd – A6: Khm (Bielczyk et al. 2005: 54).
LECIDELLA anomalooides (A. Massal.) Hertel et Kiliás – 1, 3, 4
Lecidella asema (Nyl.) Knoph et Hertel – 4
Lecidella carpathica Körb. var. *carpathica* – 1, 3, 4
Lecidella elaeochroma (Ach.) Choisy – 1, 3, 4
Lecidella flavosorediata (Vězda) Hertel et Leuckert – 3, 4
! *Lecidella patavina* (A. Massal.) Knoph et Leuckert – A1: Ch, Zak (Vondrák et al. 2010b: 19).
Lecidella pulveracea (Flörke ex Th. Fr.) Sydov – 3
Lecidella scabra (Taylor) Hertel et Leuckert – 1, 4
Lecidella stigmataea (Ach.) Hertel et Leuckert – 1, 3, 4
! *Lecidella subviridis* Tønsberg – A1: G, Zak (Malíček et al. 2018a: 161).
! *Lecidella viridans* (Flot.) Körb. – A1: M, Zak (Hruby 1925: 235 as *Lecidea viridans*, *Szatala 1939–1942: 350 as *Lecidea viridans*).
Lecidella wulfenii (Hepp) Körb. – 1, 3, 4
LECIDOMA demissum (Rutstr.) G. Schneid. et Hertel – 1, 3, 4
LEMPHOLEMMA chalazanum (Ach.) B. de Lesd. – 1, 4
Lempholemma polyanthes (Schrad.) Malme – 4
Lempholemma vamberyi (Vain.) Zahlbr. – 1, 4
+ **LENDEMERIELLA exsecuta** (Nyl.) S. Y. Kondr. (as *Caloplaca exsecuta*) – 1, 3, 4
! *Lendemerella lucifuga* (G. Thor) S. Y. Kondr. – A1: G, Zak (Malíček et al. 2018a: 157 as *Caloplaca lucifuga*).
+ *Lendemerella nivalis* (Körb.) S. Y. Kondr. (as *Caloplaca nivalis*) – 1, 3, 4
! *Lendemerella sorocarpa* (Vain.) S. Y. Kondr. – A1: G, Zak (Malíček et al. 2018a: 157 as *Caloplaca sorocarpa*).
+ **LEPRA albescens** (Huds.) Hafellner (as *Pertusaria albescens*) – 1, 3, 4
+ *Lepra amara* (Ach.) Hafellner (as *Pertusaria amara*) – 1, 3, 4
+ *Lepra corallina* (L.) Hafellner (as *Pertusaria corallina*) – 1, 3, 4
! *Lepra excludens* (Nyl.) Hafellner – C1: Don (Khodosovtsev et al. 2013b: 547 as *Pertusaria excludens*). D: MC, ARC (Khodosovtsev 2006b: 199 as *Pertusaria excludens*).
+ *Lepra multipuncta* (Turner) Hafellner (as *Pertusaria multipuncta*) – 1, 3, 4
! *Lepra ophthalmiza* (Nyl.) Hafellner – A1: Ch, Zak (Vondrák et al. 2010b: 22 as *Pertusaria ophthalmiza*).
+ *Lepra trachythallina* (Erichsen) Lendemer et R. C. Harris (as *Pertusaria trachythallina*) – 1, 3, 4
LEPRARIA alpina (B. de Lesd.) Tretiach et Baruffo – 4
Lepraria borealis Loht. et Tønsberg – 4
! *Lepraria caesioalba* (B. de Lesd.) J. R. Laundon – C1: Myk (Khodosovtsev et al. 2019b: 60).
Lepraria celata Slav.-Bayr. – 4
Lepraria crassissima (Hue) Lettau – 4
Lepraria diffusa (J. R. Laundon) Kukwa – 4
Lepraria eburnea J. R. Laundon – 4
Lepraria ecorticata (J. R. Laundon) Kukwa – 4
Lepraria elobata Tønsberg – 3, 4
Lepraria incana (L.) Ach. – 1, 3, 4
Lepraria jackii Tønsberg – 3, 4
Lepraria lobificans Nyl. – 1, 3, 4

- Lepraria membranacea* (Dicks.) Vainio – 1, 3, 4
Lepraria nivalis J. R. Laundon – 4
Lepraria rigidula (B. de Lesd.) Tønsberg – 1, 3, 4
Lepraria vrouauxii (Hue) R. C. Harris – 1, 3, 4
LEPROCAULON microscopicum (Vill.) Gams ex D. Hawksw. – 1, 3, 4
+ *LEPROPLACA chrysodeta* (Vain. ex Räsänen) Arup, Frödén et Söchting (as *Caloplaca chrysodeta*) – 1, 3, 4
+ *Leproplaca cirrochroa* (Ach.) Arup, Frödén et Söchting (as *Caloplaca cirrochroa*) – 1, 4
+ *Leproplaca oblitterans* (Nyl.) Arup, Frödén et Söchting (as *Caloplaca oblitterans*) – 1, 3, 4
+ *Leproplaca proteus* (Poelt) Arup, Frödén et Söchting (as *Caloplaca proteus*) – 1, 4
+ *Leproplaca xantholyta* (Nyl.) Nyl. (as *Caloplaca xantholyta*) – 1, 3, 4
LEPTOGIUM burnetiae C. W. Dodge – 4
Leptogium byssinum (Hoffm.) Zwackh ex Nyl. – 1, 4
Leptogium cyanescens (Rabenh.) Körb. – 1, 3, 4
Leptogium hildenbrandii (Garov.) Nyl. – 1, 3, 4
Leptogium minutissimum (Flörke) Fr. – 4
Leptogium saturninum (Dicks.) Nyl. – 1, 3, 4
Leptogium teretiusculum (Wallr.) J. R. Laundon – 1, 3, 4
LEPTORHAPHIS amygdali (A. Massal.) Zwackh – 3
Leptorhaphis atomaria (Ach.) Szatala – 1, 3, 4
Leptorhaphis epidermidis (Ach.) Th. Fr. – 1, 3, 4
Leptorhaphis lucida Körb. – 1, 4
Leptorhaphis maggiana (A. Massal.) Körb. – 1, 3, 4
Leptorhaphis parameca (A. Massal.) Korb. – 1, 4
! *Leptorhaphis pyri* Tschern. – B3: Kha (Chernov 1895: 34, *Kashmensky 1906: 108, *Mykhailovsky 1927: 110, Oxner 1956: 178).
Leptorhaphis quercus (Beltr.) Körb. – 1, 3, 4
! *LEPTOSPHAERULINA heterophracta* (Nyl.) Sacc. et D. Sacc. – A1: G, Zak (Malíček *et al.* 2018a: 168 as *Merismatium heterophractum*).
LETHARIA vulpina (L.) Hue – 1, 4
LETHARIELLA intricata (Moris) Krog – 1, 3, 4
+ *LEUCODERMIA leucomelos* (L.) Kalb (as *Heterodermia leucomelos*) – 1, 4
LIBERTIELLA malmedyensis Speg. et Roum. [LF] – 1, 2, 3, 4, 5
! *LICEA parasitica* (Zukal) G. W. Martin – C3: Khe (Khodosovtsev *et al.* 2018b: 80).
! *LICHENOCHORA caloplacae* Zhurb. [LF] – 5
! *Lichenochora hypanica* S. Y. Kondr., L. Lőkös et [LF] – 5 B3: Kha (Gromakova 2018: 273).
C1: Myk (Kondratyuk *et al.* 2014: 461, Khodosovtsev *et al.* 2019: 63).
Lichenochora obscuroides (Linds.) Triebel et Rambold [LF] – 4, 5
! *Lichenochora wasseri* S. Y. Kondr. [LF] – C3: Khe (Khodosovtsev and Darmostuk 2018: 34).
! *Lichenochora weillii* (Werner) Hafellner et R. Sant. [LF] – (Gromakova 2018)
! *LICHENOCONIUM aeruginosum* Diederich, M. Brand, van den Boom et Lawrey [LF] – C3: Zap (Darmostuk *et al.* 2018: 355, *Darmostuk 2019a: 103).
Lichenoconium erodens M. S. Christ. et D. Hawksw. [LF] – 1, 2, 3, 4, 5
Lichenoconium lecanorae (Japp) D. Hawksw. [LF] – 2, 3, 4, 5
Lichenoconium lichenicola (P. Karsten) Petr. et Syd. [LF] – 2, 5
! *Lichenoconium pyxidatae* (Oudem.) Petr. et Syd. [LF] – 5
Lichenoconium usneae (Anzi) D. Hawksw. [LF] – 1, 2, 3, 4, 5
Lichenoconium xanthoriae M. S. Christ. [LF] – 1, 4, 5

- LICHENODIPLIS lecanorae* (Vouaux) Dyko et D. Hawksw. [LF] – 4, 5
! *LICHENOHENDERSONIA squamarinae* Calat. et Etayo [LF] – C3: Khe (Darmostuk et al. 2018: 355); Myk (Khodosovtsev et al. 2019a: 238).
! *Lichenohendersonia varians* Calat. et Etayo [LF] – 5
LICHENOMPHALIA hudsoniana (Jenn.) Redhead – 1, 3
! *Lichenomphalia umbellifera* (L.) Redhead, Lutzoni, Moncalvo et Vigalys – A1: G, IF (Khodosovtsev 2013: 87; Khodosovtsev et al. 2016a: 57). D: MC, ARC (Khodosovtsev 2013: 87).
LICHENOPELLETTA peltigericola (D. Hawksw.) R. Sant. [LF] – 1, 2, 3, 4, 5
LICHENOSTIGMA cosmopolites Hafellner et Calat. [LF] – 3, 4, 5
! *Lichenostigma dimelaenae* Calat. et Hafellner [LF] – C1: Myk (Darmostuk et al. 2018: 355; Khodosovtsev et al. 2019b: 64).
Lichenostigma elongatum Nav.-Ros. et Hafellner [LF] – 1, 2, 3, 4, 5
! *Lichenostigma epipolinum* Nav.-Ros., Calat. et Hafellner [LF] – 5
Lichenostigma gracile Calat., Nav.-Ros. et Hafellner [LF] – 4, 5
Lichenostigma maureri Hafellner [LF] – 1, 2, 3, 4, 5
Lichenostigma rouxii Nav.-Ros. [LF] – 4, 5
! *Lichenostigma rugosa* G. Thor [LF] – 5
Lichenostigma svandae Vondrák et Šoun [LF] – 4, 5
LICHENOTHELIA convexa Hensen – 4, 5
! *Lichenothelia renobalesiana* D. Hawksw. et V. Atienza – 5
Lichenothelia scopularia (Nyl.) D. Hawksw. – 4, 5
! *Lichenothelia tenuissima* Henssen – 5
LICHINA confinis (O. F. Müll.) C. Agardh – 1, 4
LICHINELLA cribellifera (Nyl.) P. P. Moreno et Egea – 4
Lichinella myriospora (Zahlbr.) P. P. Moreno et Egea ex Schults – 1, 3, 4
Lichinella stipatula Nyl. – 1, 4
LITHOGRAPHA graphidioides (Cromb.) Imshaug ex Coppins et Fryday – 4 – on the basis of incorrect synonymies of *Schismatomma pericleum*.
! *LITHOTHELIUM hyalosporum* (Nyl.) Aptroot – A1: G, Zak (Malíček et al. 2018a: 161).
Lithothelium phaeosporum Aptroot – 3, 4
! *LLIMONIELLA adnata* Hafellner et Nav.-Ros. [LF] – C3: Khe (Darmostuk and Khodosovtsev 2019: 113).
Llimoniella caloplacae S. Y. Kondr. et Khodosovtsev [LF] – 4
LOBARIA linita (Ach.) Rabenh. – 1, 3, 4
Lobaria pulmonaria (L.) Hoffm. – 1, 3, 4
Lobaria scrobiculata (Scop.) P. Gaerth. – 1, 3, 4
LOBOTHALLIA alphoplaca (Wahlenb.) Hafellner – 1, 4
+ *Lobothallia farinosa* (Flörke) A. Nordin, S. Savić et Tibell (as *Aspicilia farinosa*) – 1, 3, 4
Lobothallia radiosua (Hoffm.) Hafellner. – 1, 4
+ *Lobothallia recedens* (Taylor) A. Nordin, S. Savić et Tibell (as *Aspicilia recedens*) – 1, 3, 4
LOPADIUM disciforme (Flot.) Kullh. – 1, 3, 4
Lopadium pezizoideum (Ach.) Körb. – 3, 4
LOPHIOSTOMA corticola (Fuckel) E. C. Y. Liew, Aptroot et K. D. Hyde – 3
LOXOSPORA cismonica (Beltr.) Hafellner – 1, 3, 4
Loxospora elatina (Ach.) A. Massal. – 1, 3, 4
! *MARCHANDIOMYCES aurantiacus* (Lasch) Diederich et Etayo – A3: Zhy (Kapets 2016: 90). C3: Khe (Darmostuk 2014b: 55).
! *Marchandiomyces corallinus* (Roberge) Diederich et D. Hawksw. [LF] – 5
+ *MARCHANTIANA asserigena* (Stizenb.) Søchting et Arup (as *Caloplaca asserigena*) – 1, 3, 4

- MARONEA constans* (Nyl.) Hepp. – 1, 3, 4
MASSALONGIA carnosa (Dicks.) Körb. – 1, 3, 4
+ *MASSJUKIELLA candelaria* (L.) S. Y. Kondr., Fedorenko, S. Stenroos, Kärnefelt, Elix, Hur et A. Thell (as *Xanthoria candelaria*) – 1, 3, 4
+ *Massjukiella polycarpa* (Hoffm.) S. Y. Kondr., Fedorenko, S. Stenroos, Kärnefelt, Elix, Hur et A. Thell (as *Xanthoria polycarpa*) – 1, 3, 4
+ *Massjukiella ucrainica* (S. Y. Kondr.) S. Y. Kondr., Fedorenko, S. Stenroos, Kärnefelt, Elix, Hur et A. Thell (as *Xanthoria ucrainica*) – 1, 3, 4
+ *MEGALARIA grossa* (Pers. ex Nyl.) Hafellner – 1, 3, 4 (as *Catillaria leucophaea*)
Megalaria intermixta (Nyl.) Kalb – 4
Megalaria laureri (Hepp ex Th. Fr.) Hafellner – 1, 3, 4
Megalaria pulvrea (Borrer) Hafellner et E. Schreiner – 1, 3, 4
! *MEGASPORA rimisorediata* Valadb. et A. Nordin – B3: Kha (Haji Moniri et al. 2017: 350).
Megaspora verrucosa (Ach.) Hafellner et V. Wirth – 1, 3, 4
MELANELIA commixta (Nyl.) Thell – 1, 3, 4
Melanelia hepatizon (Ach.) Thell – 1, 3, 4
+ *Melanelia panniformis* (Nyl.) Essl. (as *Melanelia panniformis*) – 1, 3, 4
Melanelia stygia (L.) Essl. – 1, 3, 4
Melanelia subargentifera (Nyl.) Essl. – 1, 3, 4
Melanelia subaurifera (Nyl.) Essl. – 1, 3, 4
MELANELIXIA fuliginosa (Duby) Essl. – 1, 3, 4
+ *Melanelixia glabra* (Schaer.) O. Blanco et al. (as *Parmelia glabra*) – 1, 3, 4
+ *Melanelixia glabratula* (Lamy) Sandler et Arup (as *Melanelixia fuliginosa* subsp. *glabratula*) – 1, 3, 4
MELANOHALEA elegantula (Zahlbr.) O. Blanko et al. – 1, 3, 4
Melanothalea exasperata (De Not.) O. Blanko et al. – 1, 3, 4
Melanothalea exasperatula (Nyl.) O. Blanko et al. – 1, 3, 4
Melanothalea infumata (Nyl.) O. Blanco et al. – 4
Melanothalea laciniatula (Flagge ex H. Olivier) O. Blanko et al. – 1, 3, 4
Melanothalea olivacea (L.) O. Blanko et al. – 1, 3, 4
Melanothalea septentrionalis (Lyngé) O. Blanko et al. – 1, 4
! *MELASPILEA bagliettoana* Zahlbr. – D: SBC, ARC (Khodosovtseva 2009a: 213, Kondratyuk et al. 2014: 367).
Melaspilea gibberulosa (Ach.) Zwackh – 1, 3, 4
! *Melaspilea granitophilla* (Th. Fr.) Coppins – A1: G, Zak (Vondrák et al. 2010b: 20).
Melaspilea oxneri Makar. – 1, 4
+ *Melaspilea urceolata* (Fr.) Ertz et Diederich (as *Dactylospora urceolata*, but they are not hitherto synonyms) – 4
+ *MELASPILELLA proximella* (Nyl.) Ertz et Diederich (as *Melaspilea proximella*) – 1, 3, 4
! *MENEGAZZIA subsimilis* (H. Magn.) R. Sant. – A1: G, Zak (Malíček et al. 2018a: 162).
Menegazzia terebrata (Hoffm.) A. Massal. – 1, 3, 4
! *MERISMATIUM decolorans* (Rehm ex Arnold) Triebel – C4: Khe (Darmostuk and Khodosovtsev 2019: 113).
MICAREA adnata Coppins – 1, 3, 4
! *Micarea anterior* (Nyl.) Hedl. – A1: G, Zak (Malíček et al. 2018a: 162).
Micarea assimilata (Nyl.) Coppins – 1, 3, 4
Micarea botryoides (Nyl.) Coppins – 3, 4
! *Micarea byssacea* (Th. Fr.) Czarnota, Guzow-Krzem. et Coppins – A1: G, Zak (Malíček et al. 2018a: 162).

- Micarea cinerea* (Schaer.) Hedl. – 4
- Micarea crassipes* (Th. Fr.) Coppins – 1, 3, 4
- ! *Micarea deminuta* Coppins – A1: G, Zak (Malíček et al. 2018a: 162).
- Micarea denigrata* (Fr.) Hedl. – 1, 3, 4
- ! *Micarea globulosella* (Nyl.) Coppins – A1: G, Zak (Malíček et al. 2018a: 162). D: SBC, ARC (Khodosovtsev and Bohdan 2005: 126).
- Micarea hedlungii* Coppins – 3, 4
- Micarea incrassata* Hedl. – 1, 3, 4
- Micarea lignaria* (Ach.) Hedl. – 1, 3, 4
- Micarea lithinella* (Nyl.) Hedl. – 3, 4
- ! *Micarea marginata* Coppins – A1: G, Zak (Vondrák et al. 2010b: 21).
- Micarea melaena* (Nyl.) Hedl. – 1, 3, 4
- + *Micarea melaeniza* Hedl. (as *Micarea melaeniza*) – 3, 4
- ! *Micarea melanobola* (Nyl.) Coppins – A1: G, Zak (Voystekhovich et al. 2011: 138).
- ! *Micarea micrococca* (Körb.) Gams ex Coppins – A1: G, Zak (Malíček et al. 2018a: 162).
- Micarea misella* (Nyl.) Hedl. – 1, 3, 4
- Micarea nigella* Coppins – 3, 4
- Micarea nitschkeana* (J. Lahm. ex Rabenh.) Harm. – 1, 4
- Micarea peliocarpa* (Anzi) Coppins et R. Sant. – 1, 3, 4
- ! *Micarea perparvula* (Nyl.) Coppins et Printzen – A1: G, Zak (Malíček et al. 2018a: 162).
- Micarea prasina* Fr. – 1, 3, 4
- ! *Micarea soralifera* Guzow-Krzem., Czarnota, Łubek et Kukwa – A1: G, Zak (Malíček et al. 2018a: 162).
- ! *Micarea subnigrata* (Nyl.) Coppins et H. Kiliás – C1: Luh (Nadyeina 2009: 57, Voystekhovich et al. 2011: 138); Don (Nadyeina 2009: 47).
- ! *Micarea turfosa* (A. Massal.) Du Rietz – A1: Ch, Zak (Vondrák et al. 2010b: 21).
- ! *Micarea viridiatra* Coppins – A1: G, IF (Khodosovtsev et al. 2016a: 57, 2016b: 274).
- ! *Micarea viridileprosa* Coppins et van den Boom – A1: G, IF (Khodosovtsev et al. 2016a: 57, 2016b: 274).
- MICROCALICIUM ahlneri** Tibell – 3, 4
- ! *Microcalicium arenarium* (Hampe ex A. Massal.) Tibell – A1: G, Zak (Malíček et al. 2018a: 162).
- Microcalicium disseminatum* (Ach.) Vainio – 1, 2, 3, 4
- ! **MICROSPHAEROPSIS caloplaceae** Etayo et Yazici [LF] – 5
- MICROTHELIA minor** Kernst. – 1, 4
- MILOPIUM graphideorum** (Nyl.) D. Hawksw. [LF] – 4, 5
- ! *Milospium lacoizquetae* Etayo et Diederich [LF] – 5
- MIRIQUIDICA complanata** (Körb.) Hertel et Rambold – 1, 3, 4
- Miriquidica garovaglii* (Schaer.) Hertel et Rambold – 1, 3, 4
- + *Miriquidica leucophaea* (Flörke ex Rabenh.) Hertel et Rambold (as *Miriquidica leucophaea* var. *leucophaea*, var. *griseoatra*) – 1, 3, 4
- Miriquidica subplumbea* (Anzi) Cl. Roux – 1, 3
- MOELLEROPSIS nebulosa** (Hoffm.) Gyeln. – 1, 3, 4
- + **MONTANELIA disjuncta** (Erichsen) Divakar, A. Crespo, Wedin et Essl. (as *Melanelia disjuncta*) – 1, 3, 4
- + *Montanelia sorediata* (Ach.) Divakar, A. Crespo, Wedin et Essl. (as *Melanelia sorediata*) – 1, 3, 4
- ! **MONODICTYS epilepraria** Kukwa et Diederich [LF] – 5
- ! **MUELLERELLA erratica** (A. Massal.) Hafellner et V. John. [LF] – A1: Ch, Zak (Pirogov 2015a: 60). A3: Zhy (Kapets and Kondratyuk 2019: 51). Unc. loc. Zhy (Kapets 2017: 14).

- Muellerella hospitans* Stizenb. [LF] – 3, 5
Muellerella lichenicola (Sommerf.) D. Hawksw. [LF] – 1, 4, 5
Muellerella pygmaea (Körb.) D. Hawksw. LF – 1, 2, 4, 5
! *Muellerella ventosicola* (Mudd) D. Hawksw. [LF] – 5
MULTICLAVULA mucida (Pers.) R. H. Petersen – 4
! *Multiclavula vernalis* (Schwein.) R. H. Petersen – A1: G, IF (Khodosovtsev *et al.* 2016a: 58).
! *MYCOBILIMBIA albohyalina* (Nyl.) S. Y. Kondr. – A1: Ch, Zak (Vondrák *et al.* 2010b: 11
as *Biatora albohyalina*); G, Zak (Malíček *et al.* 2018a: 156 as *Biatora albohyalina*).
+ *Mycobilimbia carneoalbida* (Müll. Arg.) Hafellner et V. Wirth (as *Biatora carneoalbida*) – 3, 4
+ *Mycobilimbia epixanthoides* (Nyl.) D. Hawksw. (as *Biatora epixanthoides*) – 1, 3, 4
Mycobilimbia microcarpa (Th. Fr.) Brunnb. – 1, 3, 4
+ *Mycobilimbia pilularis* (Körb.) Hafellner et Turk (as *Biatora sphaeroides*) – 1, 3, 4
+ *Mycobilimbia tetramera* (De Not.) Vitik., Ahti, Kuusinen, Lommi et Ulvinen (as *Biatora tetramera*) – 1, 3, 4
MYCOBLASTUS affinis (Schaer.) Schauer – 1, 3, 4
Mycoblastus sanguinarius (L.) Norman – 1, 3, 4
MYCOCALICIUM albonigrum (Nyl.) Tibell. – 1, 4
! *Mycocalicium compressula* (Nyl.) Szatala – A1: M, Zak (Nádvorník 1935: 54).
Mycocalicium subtile (Pers.) Szatala – 1, 3, 4
MYCOMICROTHELIA confusa D. Hawksw. – 4
Mycomicrothelia macularis (A. Massal.) D. Hawksw. – 1, 3, 4
Mycomicrothelia melanospora (Hepp) D. Hawksw. – 4
! *MYCOPORUM lacteum* (Ach.) R. C. Harris – D: SBC, ARC (Khodosovtseva 2008: 119 as
Tomasellia lactea).
+ *MYRIONORA globulosa* (Flörke) S. Y. Kondr. (as *Catillaria globulosa*) – 1, 3
+ *NAETROCYMBE rhyponta* (Ach.) R. C. Harris (as *Arthopyrenia rhyponta*) – 1, 3, 4
NANOSTICTIS christiansenii Etayo [LF] – 3
NAVICELLA pileata (Tode) Fabre – 3
! *NECTRIA lichenicola* (Ces.) Sacc. [LF] – A2: Lvi (Morochkovsky *et al.* 1969: 193).
NECTRIOPSIS lecanodes (Ces.) Diederich et Schroers [LF] – 2, 5
! *Nectriopsis rubefaciens* (Ellis et Everh.) M. S. Cole et D. Hawksw. [LF] – 5
! *NEPHROMA arcticum* (L.) Torrs. – A1: CG, IF (Hazslinszky 1884: 55).
Nephroma bellum (Spreng.) Tuck. var. *filarszkianum* (Gyeln.) Dombr. – 4
Nephroma parile Ach. – 1, 3, 4
Nephroma resupinatum (L.) Ach. – 1, 3, 4
! *NORMANDINA acroglypta* (Norman) Aptroot – A1: G, Zak (Malíček *et al.* 2018a: 163).
Normandina pulchella (Borrer) Nyl. – 1, 3, 4
NORRLINIA medoboreensis S. Y. Kondr. – 1, 2, 4, 5
OBRYZUM corniculatum (Hoffm.) Wallr. – 4
OCELLOMMA picconianum (Bagl.) Ertz et Tehler – 4
OCHROLECHIA alboflavescens (Wulfen) Zahlbr. – 1, 4
Ochrolechia androgyna (Hoffm.) Arnold – 1, 3, 4
Ochrolechia arborea (Kreyer) Almb. – 1, 3, 4
Ochrolechia balcanica Verseghy – 1, 4
Ochrolechia crozalsiana Clauzade et Vězda – 1, 3, 4
Ochrolechia microstictoides Räsänen – 3
Ochrolechia pallescens (L.) A. Massal. – 1, 3, 4
Ochrolechia parella (L.) A. Massal. – 1, 3, 4
Ochrolechia subviridis (Høeg.) Erichsen – 3

- Ochrolechia szatalaensis* Vers. – 3, 4
- Ochrolechia tartarea* (L.) A. Massal. – 1, 3, 4
- ! *Ochrolechia trochophora* (Vain) Oshio – A1: G, Zak (Malíček et al. 2018a: 163).
- Ochrolechia turneri* (Sm.) Hasselrot – 1, 3, 4
- Ochrolechia yasudae* Vain. – 1, 4
- OLEGBLUMIA demissa* Flot. ex S. Y. Kondr., L. Lőkös, Jung Kim, A. S. Kondr., S. O. Oh et Hur (as *Caloplaca demissa*) – 1, 3, 4
- OPEGRAPHA celtidicola* Jatta – 4
- ! *Opegrapha corticola* Coppins et P. James – A1: G, Zak (Vondrák et al. 2010b: 21).
- Opegrapha demutata* Nyl. – 4 [C2: Ode (Nazarchuk and Kondratyuk 2007)]
- ! *Opegrapha dolomitica* (Arnold) Torrente et Egea – A1: M, Zak (Vondrák et al. 2010: 21). D: MC, ARC (Khodosovtsev 2002).
- ! *Opegrapha fumosa* Coppins et P. James – A1: G, Zak (Malíček et al. 2018a: 163).
- ! *Opegrapha gyrocarpa* Flot. – A1: EB, Lvi (Pirogov et al. 2015: 87); EB, IF (Kondratyuk 2012: 401).
- Opegrapha lithyrga* Ach. – 1, 3, 4
- Opegrapha niveoatra* (Borrer) J. R. Laundon – 1, 3, 4
- Opegrapha parasitica* (A. Massal.) H. Olivier [LF] – 4, 5
- Opegrapha physciaria* (Nyl.) D. Hawksw. et Coppins [LF] – 1, 2, 4, 5
- Opegrapha pulvinata* Rehm. [LF] – 1, 2, 3, 4, 5
- Opegrapha rupestris* Ach. [LF] – 1, 5
- ! *Opegrapha thelotremalis* Coppins [LF] – A1: G, Zak (Malíček et al. 2018a: 168).
- Opegrapha trochodes* Coppins, F. Berger et Ehrh – 3, 4
- Opegrapha vermicellifera* (Kunze) J. R. Laundon – 1, 3, 4
- ! *Opegrapha verrucariae* Coppins, S. Y. Kondr. et Etayo [LF] – 5
- Opegrapha vulgata* Ach. – 1, 3, 4
- + *OPELTIA flavorubescens* (Huds.) S. Y. Kondr. (as *Caloplaca flavorubescens*) – 1, 3, 4
- OPHIOPARMA ventosa* (L.) Norman. – 1, 3, 4
- + *ORCULARIA insperata* (Nyl.) Kalb et Giralt (as *Amandinea insperata*) – 4
- ORPHNIOSPORA mosigii* (Körb.) Hertel et Rambold – 1, 3, 4
- OXNERIA huculica* S. Y. Kondr. – 1, 3, 4
- Oxneria ulophyllodes* (Räsänen) S. Y. Kondr. et Kärnefelt – 1, 4
- + *PACHNOLEPIA pruinata* (Torss.) Frisch et G. Thor (also as *Arthonia pruinata*). – 1, 3, 4
- PACHYPHIALE carneola* (Ach.) Arnold – 3
- Pachypiale fagicola* (Hepp) Zwackh – 1, 3, 4
- PANNARIA conoplea* (Ach.) Bory – 3, 4
- Pannaria rubiginosa* (Ach.) Bory – 1, 3, 4
- + *PARABAGLIETTOA cyanea* (A. Massal.) Gueidan et Cl. Roux (as *Verrucaria cyanea*) – 4
- + *Parabagliettoa dufourii* (DC.) Gueidan et Cl. Roux (as *Verrucaria dufourii*) – 4
- + *PARALECANOGRAPHA grumulosa* (Dufour) Ertz et Tehler (as *Lecanographa grumulosa*) – 1, 4
- PARANECTRIA oropensis* (Ces.) D. Hawksw. et Pir. – 1, 2, 3, 4, 5
- ! *PARMELIA ernstiae* Feurer et A. Thell – D: MC, ARC (Khodosovtsev et al. 2013c: 62).
- Parmelia farinosa* L. – Unc. loc. A3. Vol, Riv, Zhy (Belke 1866: 20, *Fedorenko et al. 2006: 67 as *Hypogymnia farinacea*).
- Parmelia neglecta* Asahina – B1: Chy (Kondratyuk 1984: 48). Unc. loc. A3, A5, B1: (Boberski 1883a: 206). Dubious record; possibly, it belongs to *Physcia adscendens*.
- Parmelia omphalodes* (L.) Ach. – 1, 3, 4
- Parmelia saxatilis* (L.) Ach. – 1, 3, 4

- Parmelia serrata* A. Crespo, M. C. Molina et D. Hawksw. in Molina et al. – 4
Parmelia submontana Nádv. ex Hale – 1, 3, 4
Parmelia sulcata Taylor – 1, 3, 4
PARMELIELLA triptophylla (Ach.) Müll. Arg. – 1, 3, 4
PARMELINA carporrhizans (Taylor) Poelt et Vězda – 1, 3, 4
Parmelina pastillifera (Harm.) Schub. et Klem. – 1, 3, 4
Parmelina quercina (Willd.) Hale – 1, 3, 4
Parmelina tiliacea (Hoffm.) Hale – 1, 3, 4
! *PARMELIOPSIS afrorevoluta* (Krog et Swinscow) Elix et Hale – A1: G, Zak (Malíček et al. 2018a: 159 as *Hypotrichyna afrorevoluta*).
Parmeliopsis ambigua (Wulfen) Nyl. – 1, 3, 4
Parmeliopsis hyperopta (Ach.) Arnold – 1, 3, 4
PARMOTREMA arnoldii (Du Rietz) Hale – 1, 3, 4
Parmotrema crinitum (Ach.) Choisy – 1, 3, 4
Parmotrema perlatum (Huds.) Choisy – 1, 3, 4
Parmotrema stuppeum (Taylor) Hale – 1, 3, 4
+ *PARVOPLACA tiroliensis* (Zahlbr.) Arup, Søchting et Frödén (as *Caloplaca tiroliensis*) – 4
PECCANIA coralloides (A. Massal.) A. Massal. – 4
+ *PECTENIA plumbea* (Lightf.) P. M. Jørg., L. Lindblom, Wedin et S. Ekman (as *Degelia plumbea*) – 1, 4
PELTIGERA aphthosa (L.) Willd. – 4
Peltigera canina (L.) Willd. – 1, 3, 4
Peltigera collina (Ach.) Schrad. – 1, 3, 4
Peltigera degenii Gyeln. – 1, 3, 4
Peltigera didactyla (With.) J. R. Laundon – 1, 3, 4
Peltigera elisabethae Gyeln. – 1, 3, 4
! *Peltigera extenuata* (Nyl. ex Vain.) Lojka – A2: Lvi (Pirogov 2011: 56, *Pirogov 2011b: 87, *Pirogov 2011c: 47).
Peltigera horizontalis (Huds.) Baumg. – 1, 3, 4
Peltigera hymenina (Ach.) Delise – 1, 3, 4
Peltigera lepidophora (Nyl. ex Vainio) Bitter – 1, 3, 4
Peltigera leucophlebia (Nyl.) Gyeln. – 1, 3, 4
Peltigera malacea (Ach.) Funck – 1, 3, 4
Peltigera membranacea (Ach.) Nyl. – 1, 3, 4
Peltigera neckeri Hepp. ex. Müll. Arg. – 1, 3, 4
Peltigera neopolydactyla (Gyeln.) Gyeln. – 1, 3, 4
Peltigera polydactyloides Nyl. – 4
Peltigera polydactylon (Neck.) Hoffm. – 1, 3, 4
Peltigera ponogensis Gyeln. – 1, 3, 4
Peltigera praetextata (Flörke ex Sommerf.) Zopf – 1, 3, 4
Peltigera rufescens (Weis) Humb. – 1, 3, 4
Peltigera scabrosa Th. Fr. – 1, 3, 4
Peltigera venosa (L.) Hoffm. – 1, 3, 4
PELTULA euploca (Ach.) Poelt – 1, 3, 4
PERIDIOTHELIA fuliguncta (Norman) D. Hawksw. – 1, 3, 4
PERTUSARIA amarescens Nyl. – 4
Pertusaria australis Vain. – 1, 4
Pertusaria borealis Erichsen – 3
Pertusaria chiodectonoides Bagl. ex A. Massal. – 1, 3, 4

- Pertusaria coccodes* (Ach.) Nyl. – 1, 3, 4
Pertusaria constricta Erichsen – 1, 3, 4
Pertusaria coronata (Ach.) Th. Fr. – 1, 3, 4
Pertusaria dealbata (Ach.) Cromb. – 1, 3, 4
Pertusaria flavicans Lamy – 4
Pertusaria flava (DC.) J. R. Laundon – 1, 3, 4
Pertusaria hymenea (Ach.) Schaer. – 1, 3, 4
Pertusaria leioplaca (Ach.) DC. – 1, 3, 4
! *Pertusaria macounii* (I. M. Lamb) Dibben – A1: G, Zak (Malíček et al. 2018a: 164).
Pertusaria obtecta Erichsen. – 1, 3, 4
Pertusaria oculata (Dicks.) Th. Fr. – 1, 3, 4
Pertusaria pertusa (Weigel) Tuck. – 1, 3, 4
Pertusaria pluripuncta Nyl. – 4
Pertusaria pseudocorallina (Lilj.) Arnold – 1, 3, 4
Pertusaria pseudophlyctis Erichsen – 1, 3, 4
Pertusaria pupillaris (Nyl.) Th. Fr. – 1, 3, 4
Pertusaria pustulata (Ach.) Duby – 1, 3, 4
Pertusaria servitiana Erichsen – 1, 3, 4
Pertusaria sommerfeltii (Sommerf.) Fr. – 1, 3, 4
Pertusaria szatalai Erichsen – 1, 3, 4
PETRACTIS clausa (Hoffm.) Krempelh. – 1, 3, 4
Petractis hypoleuca (Ach.) Vězda – 4
! *PHACOGRAPHA zwackhii* (A. Massal. ex Zwackh.) Hafellner [LF] – 5
PHAEOCALICIUM compressulum (Nyl. ex Vain.) A. F. W. Schmidt – 3
Phaeocalicium polyporaeum (Nyl.) Tibell – 1, 3, 4
Phaeocalicium populneum (Brond. ex Duby) A. F. W. Schmidt – 1, 3, 4
Phaeocalicium praecedens (Nyl.) A. F. W. Schmidt – 1, 3, 4
PHAEOGRAPHIS dendritica (Ach.) Müll. Arg. – 1, 3, 4
! *Phaeographis inusta* (Ach.) Müll. Arg. – A1: M, Zak (Vondrák et al. 2010b: 22).
PHAEOPHYSCIA ciliata (Hoffm.) Moberg – 1, 3, 4
Phaeophyscia endococcina (Körb.) Moberg – 1, 3, 4
Phaeophyscia endophoenicea (Harm.) Moberg. – 1, 3, 4
Phaeophyscia hirsuta (Mereschk.) Moberg – 4
! *Phaeophyscia hispidula* (Ach.) Moberg – B1: Ter (Kondratyuk 1995: 142, *Smerechynska 2004: 452).
Phaeophyscia insignis (Mereschk.) Moberg. – 4
Phaeophyscia nigricans (Flörke) Moberg – 1, 3, 4
Phaeophyscia orbicularis (Neck.) Moberg – 1, 3, 4
Phaeophyscia pusilloides (Zahlbr.) Essl. – 4
Phaeophyscia sciastra (Ach.) Moberg – 1, 3, 4
! *PHAEOPYXIS punctum* (A. Massal.) Rambold, Triebel et Coppins – A1: EB, IF (Nyporko et al. 2018: 180); G, Zak (Malíček et al. 2018a: 168).
PHAEORRHIZA nimbosa (Fr.) H. Mayrhofer et Poelt – 4
PHAEOSPORA lecanorae Eitner [LF] – 4, 5
! *Phaeospora rimosicola* (Leight. ex Mudd) Hepp ex Stein. [LF] – 5
PHAEOSPOROBOLUS usneae D. Hawksw. et Hafellner [LF] – 3
PHLYCTIS agelaea (Ach.) Flot. – 1, 3, 4
Phlyctis argena (Spreng.) Flot. – 1, 3, 4
PHOMA denigricans Hafellner [LF] – 4

- Phoma lobariae* Etayo et Diederich [LF] – 3, 5
Phoma pisutii S. Y. Kondr., Lackovicova, Lisicka et Guttova [LF] – 4, 5
! *PHYSARUM didermioides* (Ach. ex Pers.) Rostaf. – C3: Khe (Khodosovtsev *et al.* 2018b: 81).
PHYSCIA adscendens (Fr.) H. Olivier – 1, 3, 4
Physcia aipolia (Ehrh. ex Humb.) Fürnr. – 1, 3, 4
Physcia albinea (Ach.) Nyl. – 1, 3, 4
Physcia biziana (A. Massal.) Zahlbr. – 1, 4
Physcia caesia (Hoffm.) Fürnr. – 1, 3, 4
Physcia clementei (Turner) Lynge – 1, 4
Physcia dimidiata (Arnold) Nyl. – 4
Physcia dubia (Hoffm.) Lettau – 1, 3, 4
Physcia leptalea (Ach.) DC – 1, 4
Physcia stellaris (L.) Nyl. – 1, 3, 4
Physcia subalbinea Nyl. – 4
Physcia tenella (Scop.) DC. – 1, 3, 4
Physcia tenella (Scop.) DC. subsp. *marina* – 4
Physcia tribacia (Ach.) Nyl. – 1, 3, 4
Physcia vitii Nádv. – 3, 4
+ *Physcia wainio* Räsänen (as synonym to *Physcia caesia*) – 1, 4
PHYSCIELLA chloantha (Ach.) Essl. – 1, 3, 4
PHYSCONIA detersa (Nyl.) Poelt – 1, 3, 4
Physconia distorta (With.) J. R. Laundon – 1, 3, 4
Physconia enteroxantha (Nyl.) Poelt – 1, 3, 4
Physconia grisea (Lam.) Poelt – 1, 3, 4
Physconia muscigena (Ach.) Poelt – 1, 3, 4
Physconia perisidiosa (Erichsen) Moberg – 1, 3, 4
Physconia venusta (Ach.) Poelt – 1, 3, 4
PICCOLIA ochrophora (Nyl.) Hafellner – 1, 3, 4
! *PISUTIELLA congregiens* (Nyl.) S. Y. Kondr., L. Lőkös et E. Farkas – B1: Chy (Kondratyuk and Blum 1985: 67 as *Caloplaca congregiens*); Kid (Kondratyuk and Blum 1985: 67 as *C. congregiens*). C1: Zap (Kondratyuk and Blum, 1985: 67 as *C. congregiens*).
+ *Pisutiella conversa* (Kremp.) S. Y. Kondr., L. Lőkös et E. Farkas (as *Caloplaca conversa*) – 1, 3, 4
+ *Pisutiella grimmiae* (Nyl.) S. Y. Kondr., L. Lőkös et E. Farkas (as *Caloplaca grimmiae*) – 1, 4
PLACIDIOPSIS cinerascens (Nyl.) Arnold – 4
Placiopsis custnani (A. Massal.) Körb. – 4
PLACOCARPUS schaeereri (Fr.) Breuss – 1, 4
PLACOLECIS opaca (Dufour) Hafellner – 1, 4
PLACOPYRENİUM bucekii (Nádv. et Servít) Breuss – 4
Placopyrenium tatrese (Vězda) Breuss – 4
Placopyrenium trachyticum (Hazsl.) Breuss in Nimis et Poelt – 1, 3, 4
PLACYNTHIELLA dasaea (Stirt.) Tønsberg – 1, 3, 4
Placynthiella icmalea (Ach.) Coppins et P. James – 1, 3, 4
Placynthiella oligotropha (J. R. Laundon) Coppins et P. James – 1, 4
Placynthiella uliginosa (Schrad.) Coppins et P. James – 1, 3, 4
PLACYNTHIUM asperellum (Ach.) Trevis. – 4
! *Placynthium garovaglii* (A. Massal.) Malme – D: SBC, ARC (Khodosovtsev and Redchenko 2002: 69).
Placynthium hungaricum Gyeln. – 4

- Placynthium lismorense* (Nyl. ex Crombie) Vainio – 4
Placynthium nigrum (Huds.) S. O. Gray – 1, 3
Placynthium subradiatum (Nyl.) Arnold – 1, 4
Placynthium tremniacum (Massal.) Jatta – 3, 4
PLATISMATIA glauca (L.) W. L. Culb. et C. F. Culb. – 1, 3, 4
! *PLECTOCARPON lichenum* (Sommerf.) D. Hawksw. [LF] – 5
! *PLEOSPORA xanthoriae* Khodos. et Darmostuk [LF] – 5
PLEUROSTICTA acetabulum (Neck.) Elix et Lumbsch – 1, 3, 4
Pleurosticta koflerae (Clauzade et Poelt) Elix et Lumbsch – 4
POLYBLASTIA abscondita (Nyl.) Arnold – 1, 3, 4
Polyblastia agraria Th. Fr. – 4
Polyblastia albida Arnold – 1, 3, 4
Polyblastia bavarica Dalla Torre et Sarnth. – 1, 3, 4
Polyblastia buerensis Zschacke – 1, 3, 4
Polyblastia cupularis A. Massal. – 1, 3, 4
Polyblastia dermatodes (A. Massal.) Arnold – 1, 3, 4
Polyblastia lojkana Zschacke – 1, 3, 4
Polyblastia muralis (Hepp) Oxner – 1, 3, 4
Polyblastia nadvornikii Servít – 1, 3, 4
Polyblastia pallescens Anzi – 1, 3, 4
Polyblastia plicata (A. Massal.) Lönnr. – 1, 3, 4
! *Polyblastia schaereriana* (A. Massal.) Müll. Arg. – A1: Ch, Zak (Vondrák et al. 2010b: 23).
! *Polyblastia sepulta* A. Massal. – B1: Khm (Bielczyk et al. 2005: 58).
Polyblastia tirolensis Arnold – 1, 3, 4
Polyblastia verrucosa (Ach.) Lönnr. – 1, 3, 4
! *POLYBLASTIDIUM japonicum* (M. Satô) Kalb – D: MC, ARC (Khodosovtsev et al. 2013c: 61 as *Heterodermia japonica*).
POLYCHIDIUM muscicola (Sw.) S. O. Gray – 1, 3, 4
! *POLYCOCCUM aksoyi* Halici et V. Atienza [LF] – 5
Polycoccum bryonthae (Arnold) Vězda [LF] – 1, 4, 5
Polycoccum marmoratum (Kremp.) D. Hawksw. [LF] – 1, 4, 5
Polycoccum microcarpum Diederich et Etayo [LF] – 4, 5
Polycoccum microsticticum (Leight.) Arnold [LF] – 4
Polycoccum pulvinatum (Eitner) R. Sant. [LF] – 1, 2, 4, 5
! *Polycoccum teresum* Halici et K. Knudsen [LF] – 5
! *Polycoccum umbilicariae* (Linds.) D. Hawksw. [LF] – A1: Ch, Zak (Darmostuk 2018: 176).
POLYDESMIA lichenis Huntinen et R. Sant. [LF] – 3
+ *POLYOZOSIA agardhiana* (Ach.) S. Y. Kondr., L. Lőkös et Farkas (as *Lecanora agardhiana*) – 4
+ *Polyozoszia albescens* (Hoffm.) S. Y. Kondr., L. Lőkös et Farkas (as *Lecanora albescens*) – 1, 3, 4
! *Polyozoszia bandolensis* (B. de Lesd.) S. Y. Kondr., L. Lőkös et Farkas – C3: Myk (Khodosovtsev et al. 2018a: 284 as *Myriolecis bandolensis*).
+ *Polyozoszia crenulata* (Ach.) S. Y. Kondr., L. Lőkös et Farkas (as *Lecanora crenulata*) – 1, 3, 4
+ *Polyozoszia dispersa* (Pers.) S. Y. Kondr., L. Lőkös et Farkas (as *Lecanora dispersa*) – 1, 3, 4
+ *Polyozoszia fugiens* (Nyl.) S. Y. Kondr., L. Lőkös et Farkas (as *Lecanora fugiens*) – 4
+ *Polyozoszia hagenii* (Pers.) S. Y. Kondr., L. Lőkös et Farkas (as *Lecanora hagenii*) – 1, 3, 4
+ *Polyozoszia perpruinosa* Flöberg ex S. Y. Kondr., L. Lőkös et Farkas (as *Lecanora perpruinosa*) – 4

- + *Polyozosia persimilis* (Th. Fr.) S. Y. Kondr., L. Lőkös et Farkas (as *Lecanora persimilis*) – 1, 4
- + *Polyozosia populicola* (DC.) S. Y. Kondr., L. Lőkös et Farkas (as *Lecanora populicola*) – 1, 3, 4
- + *Polyozosia pruinosa* (Chaub.) S. Y. Kondr., L. Lőkös et Farkas (as *Protoparmeliopsis pruinosa*) – 1, 4
- + *Polyozosia reuteri* (Schaer.) S. Y. Kondr., L. Lőkös et Farkas (as *Protoparmeliopsis reuteri*) – 4
- + *Polyozosia saligna* (Schrad.) S. Y. Kondr., L. Lőkös et Farkas (as *Lecanora saligna*) – 1, 3, 4
- + *Polyozosia sambuci* (Pers.) S. Y. Kondr., L. Lőkös et Farkas (as *Lecanora sambuci*) – 1, 3, 4
- ! *Polyozosia semipallida* (H. Magn.) S. Y. Kondr., L. Lőkös et Farkas – A3: Sum (Khodosovtsev *et al.* 2017a: 82 as *Myriolecis semipallida*). C1: Don (Darmostuk and Khodosovtsev 2014: 325 as *Lecanora semipallida*); Dni (Golovenko 2016: 82 as *L. semipallida*); Kid (Khodosovtsev and Darmostuk 2017b: 199 as *M. semipallida*). C3: Khe (Gavrylenko 2010: 59 as *L. semipallida*, Khodosovtsev and Khodosovtseva 2014: 519 as *L. semipallida*, Darmostuk 2016: 136 as *L. semipallida*, Klymenko 2016: 196 as *L. semipallida*); Ode (Khodosovtsev *et al.* 2016d: 170 as *L. semipallida*).

POLYSPORINA simplex (Davies) Vězda – 1, 3, 4

! *Polysporina subfuscescens* (Nyl.) K. Knudsen et Kocourk. [LF] – 5

PORINA aenea (Wallr.) Zahlbr. – 1, 3, 4

Porina austriaca (Körb.) Arnold – 1, 3, 4

Porina borreri (Trevis.) D. Hawksw. et P. James – 1, 3, 4

Porina chlorotica (Ach.) Müll. Arg. – 1, 3, 4

Porina grandis (Körb.) Zahlbr. – 1, 3, 4

! *Porina guentheri* (Flot.) Zahlbr. – A1: G, IF (Khodosovtsev *et al.* 2016a: 59, 2016b: 274).

Porina hibernica P. James et Swinscow – 1, 3

Porina leptalea (Durieu et Mont.) A. L. Sm. – 1, 3, 4

Porina linearis (Leight.) Zahlbr. – 1, 4

Porina mammillosa (Th. Fr.) Zahlbr. – 1, 3, 4

! *Porina schizospora* Vain. – D: SBC, ARC (Vainio 1899: 340, Mereschkovsky 1920: 292 as *Sagestria schizospora*, *Oxner 1956: 160, *Kopachevskaya 1986: 99).

! *Porina sudetica* (Körb.) Lettau – A1: Ch, Zak (Chepelevska 2016: 49).

POROCYPHUS coccodes (Flot.) Körb. – 1, 3, 4

PORPIDIA albocaeruleans (Wulfen) Hertel et Knoph – 1, 3, 4

Porpidia cinereoatra (Ach.) Hertel et Knoph – 1, 3, 4

Porpidia contraponenda (Arnold) Knoph et Hertel – 4

Porpidia crustulata (Ach.) Hertel et Knoph – 1, 3, 4

Porpidia flavidunda (Ach.) Gowen – 1, 3, 4

Porpidia hydrophila (Fr.) Hertel et Schwab – 1, 3, 4

Porpidia macrocarpa (DC.) Hertel et Schwab var. *macrocarpa* – 1, 3, 4

Porpidia macrocarpa (DC.) Hertel et Schwab var. *convexa* – 4

Porpidia rugosa (Taylor) Coppins et Fryday – 1, 3, 4

Porpidia soredezoides (Lamy ex Nyl.) J. R. Laundon – 1, 3, 4

Porpidia speirea (Ach.) Krempelh. – 1, 3, 4

Porpidia superba (Körb.) Hertel et Knoph – 1, 3, 4

! *Porpidia tuberculosa* (Sm.) Hertel et Knoph – A1: Ch, Zak (Pirogov and Chepelevska 2015: 39); EB, Lvi (Pirogov *et al.* 2015: 88).

PORPIDINIA tumidula (Sm.) Timdal – 1

! *PRONECTRIA anisospora* (Lowen) Lowen [LF] – 5

! *Pronectria caloplacae* Khodos., Vondrák et Naumovich [LF] – 5

- ! *Pronectria casaresii* Etayo [LF] – 5
 ! *Pronectria cf. dillmaniae* Zhurb. [LF] – 5
 ! *Pronectria diplococca* Kocourk., Khodos., Naumovich, O. Vondrák. et Motiej. [LF] – 5
Pronectria fissuriproducta Etayo [LF] – 3, 5
 ! *Pronectria leptaleae* (J. Steiner) Lowen [LF] – 5
Pronectria oligospora Etayo [LF] – 3, 5
Pronectria robergei (Mont. et Desm.) Lowen [LF] – 2, 5
 ! *Pronectria xanthoriae* Lowen et Diederich [LF] – C3: Myk (Khodosovtsev et al. 2017b: 329, *Darmostuk et al. 2018: 356).
PROTOBLASTENIA calva (Dicks.) Zahlbr. – 1, 4
Protoblastenia incrustans (DC.) J. Steiner – 1, 3, 4
Protoblastenia rupestris (Scop.) J. Steiner – 1, 3, 4
Protoblastenia siebenhaariana (Körb.) J. Steiner – 1, 4
Protoblastenia terricola (Anzi) Lyngé – 4
PROTOMICAREA limosa (Ach.) Hafellner – 1, 3, 4
PROTOPANNARIA pezizoides (F. Weber) P. M. Jørg. et S. Ekman – 1, 3, 4
PROTOPARMELIA badia (Hoffm.) Hafellner – 1, 3, 4
Protoparmelia montagnei (Fr.) Sancho et A. Crespo – 1, 4
 ! *Protoparmelia nephaea* (Sommerf.) R. Sant – A1: Ch, Zak (Suza 1932–1935: 66 as *Lecanora nephaea*).
Protoparmelia ochrococea (Nyl.) P. M. Jørg., Rambold et Hertel – 4
 ! *Protoparmelia oleagina* (Harm.) Coppins – A3: Sum (Khodosovtsev et al. 2017a: 81). D: SBC, ARC (Khodosovtsev and Bohdan 2005: 128).
PROTOPARMELIOPSIS acharianum (A. L. Sm.) Moberg et R. Sant. – 4
Protoparmeliopsis admontensis (Zahlbr.) Hafellner – 4
Protoparmeliopsis bolcanum (Pollich) S. Y. Kondr. – 1, 4
Protoparmeliopsis configuratum (Zahlbr.) S. Y. Kondr. – 1, 3, 4
Protoparmeliopsis garovaglii (Körb.) S. Y. Kondr. – 1, 4
Protoparmeliopsis laatokkensis (Räsänen) Moberg et R. Sant. – 4
Protoparmeliopsis macrocyclos (H. Magn.) S. Y. Kondr. – 1, 3, 4
Protoparmeliopsis muralis (Schreb.) M. Choisy subsp. *muralis* – 1, 3, 4
Protoparmeliopsis muralis (Schreb.) M. Choisy subsp. *versicolor* (Pers.) S. Y. Kondr. – 4
Protoparmeliopsis riparium (Flot.) S. Y. Kondr. – 1, 3, 4
PROTOTHELENELLA corrosa (Körb.) H. Mayrhofer et Poelt – 1, 3, 4
Protothelenella sphinctrinoidella (Nyl.) H. Mayrhofer et Poelt – 1, 3, 4
 ! *PSAMMINA stipitata* D. Hawksw. [LF] – 5
PSEUDEPHEBE pubescens (L.) Choisy – 1, 3, 4
PSEUDEVERNIA furfuracea (L.) Zopf – 1, 3, 4
 ! *PSEUDOLEPTOGIUM diffractum* (Kremp.) Müll. Arg. – D: MC, ARC (Coppins et al. 2001: 717 as *Leptogium diffractum*); SBC, ARC (Coppins et al. 2001: 717 as *L. diffractum*, Khodosovtsev and Redchenko 2002: 68 as *L. diffractum*).
PSEUDOSCHISMATOMMA rufescens (Pers.) Ertz et Tehler – 1, 3, 4
 ! *PSILOLECHIA clavulifera* (Nyl.) Coppins – A1: S, Zak (Vondrák et al. 2010b: 23).
Psilolechia lucida (Ach.) Choisy – 1, 3, 4
PSORA decipiens (Hedw.) Hoffm. – 1, 3, 4
Psora saviczii (Tomin) Follmann et A. Crespo – 4
Psora testacea Hoffm. – 1, 4
PSOROGLAENA abscondita (Coppins et Vězda) Hafellner et Türk – 4

- ! *Psoroglaena biatorella* (Arnold) Lücking et Sérus. – D: MC, ARC (Khodosovtsev and Bohdan 2006: 106). – Red Data Book (2009) as *Leucocarpia biatorella*.
- + *Psoroglaena dicdyospora* (A. Orange) H. Harada (as *Macentina dictyospora*) – 4
- ! *Psoroglaena stigonemoides* (Orange) Henssen – A1: G, Zak (Malíček et al. 2018a: 165).
- PSOROMA hypnorum* (Vahl) S. O. Gray – 1, 3, 4
- PSOROTICHIA diffracta* (Nyl.) Forss. – 4
- ! *Psorotichia montinii* (A. Massal.) Forssell – C1: Myk (Khodosovtsev and Darmostuk 2018: 34); Kha (Gromakova 2018: 275).
- Psorotichia moravica* Zahlbr. – 4
- Psorotichia schaeereri* (A. Massal.) Arnold – 1, 4
- Psorotichia taurica* (Nyl.) Vain. – 1, 4
- PUNCTELIA jeckeri* (Roum.) Kalb – 4
- Punctelia subrudecta* (Nyl.) Krog – 1, 3, 4
- Punctelia ulophylla* (Ach.) van Herk et Aptroot – 3
- ! *PYCNORA leucoccca* (R. Sant.) R. Sant. – A1: G, Zak (Vondrák et al. 2010b: 24).
- Pycnora praestabilis* (Nyl.) Hafellner – 1, 3, 4
- Pycnora sorophora* (Vain.) Hafellner – 1, 3, 4
- Pycnora xanthococca* (Sommerf.) Hafellner – 3, 4
- PYCNOTHELIA papillaria* Dufour – 1, 3, 4
- PYRENIDIUM actinellum* Nyl. [LF] – 1, 2, 4, 5
- ! *Pyrenidium ucrainicum* S. Y. Kondr., L. Lőkös et J.-S. Hur [LF] – D: SBC, ARC (Kondratyuk et al. 2014: 364).
- ! *PYRENOCHAETA xanthoriae* Diederich [LF] – 5
- PYRENOCOLLEMA halodytes* (Nyl.) R. C. Harris – 1, 4
- Pyrenocollema orustense* (Erichsen) A. Fletcher – 4
- Pyrenocollema strontianense* (Swinscow) R. C. Harris – 4
- + *PYRENODESMIA alboluteascens* (Nyl.) S. Y. Kondr. (as *Caloplaca alboluteascens*) – 4
- ! *Pyrenodesmia albopruinosa* (Arnold) S. Y. Kondr. – D: MC, ARC (Kopachevska 1963: 214 as *Blasteria albopruinosa*, Kopachevska 1986: 214 as *Caloplaca agardhiana* f. *albopruinosa*)
- + *Pyrenodesmia albopustulata* (Khodos. et S. Y. Kondr.) S. Y. Kondr. (as *Caloplaca albopustulata*) – 4
- + *Pyrenodesmia alociza* (A. Massal.) Arnold (as *Caloplaca alociza*) – 1, 4
- + *Pyrenodesmia aractina* (Fr.) S. Y. Kondr. (as *Caloplaca aractina*) – 1, 4
- + *Pyrenodesmia atroflava* (Turner) S. Y. Kondr. (as *Caloplaca atroflava*) – 1, 3, 4
- + *Pyrenodesmia chalybaea* (Fr.) A. Massal. (as *Caloplaca chalybaea*) – 1, 3, 4
- + *Pyrenodesmia concreticola* (Vondrák et Khodos.) Søchting, Arup et Frödén (as *Caloplaca concreticola*) – 4
- + *Pyrenodesmia diphyodes* (Nyl.) M. Choisy (as *Caloplaca diphyodes*) – 1, 4
- + *Pyrenodesmia erodens* (Tretiach, Pinna et Grube) Søchting, Arup et Frödén (as *Caloplaca erodens*) – 4
- ! *Pyrenodesmia erythrocarpa* (Pers.) S. Y. Kondr. – D: MC, ARC (Ришави 1881a, b as *Blasteria erythrocarpa*, Mereschkovsky 1920: 197 as *Caloplaca lallavei*, *Kopachevska 1986: 220 as *Caloplaca erythrocarpa*, *Oxner 1993: 440 as *Caloplaca erythrocarpa*).
- + *Pyrenodesmia haematites* (Chaub. ex St.-Amans) S. Y. Kondr. (as *Caloplaca haematites*) – 1, 3, 4
- ! *Pyrenodesmia micromarina* (Frolov, Khodos. et Vondrák) S. Y. Kondr. – D: SBC, ARC (Frolov et al. 2016 as *Caloplaca micromarina*).

- ! *Pyrenodesmia microstepposa* (Frolov, Nadyeina, Khodos. et Vondrák) Hafellner et Türk – A6: Khm (Frolov et al. 2016: 258 as *Caloplaca microstepposa*). B1: Khm (Frolov et al. 2016: 258 as *C. microstepposa*). C1: Luh (Frolov et al. 2016: 258 as *C. microstepposa*). C3: Ode (Khodosovitsev et al. 2016d: 169 as *C. microstepposa*); Khe (Frolov et al. 2016: 258 as *C. microstepposa*).
- ! *Pyrenodesmia molariformis* (Frolov, Vondrák, Nadyeina et Khodos.) S. Y. Kondr. – C1: Luh (Nadyeina 2009: 42 as *Caloplaca concreticola*, Vondrák et al. 2013: 712 as *C. molariformis*).
- ! *Pyrenodesmia neotaurica* (Vondrák, Khodos., Arup et Søchting) S. Y. Kondr. – D: SBC, ARC (Vondrák et al. 2012b: 403 as *Caloplaca neotaurica*).
- + *Pyrenodesmia soralifera* (Vondrák et Hrouzek) S. Y. Kondr. (as *Caloplaca soralifera*) – 4
- + *Pyrenodesmia teicholyta* (Ach.) S. Y. Kondr. (as *Caloplaca teicholyta*) – 1, 4
- + *Pyrenodesmia transcaspica* (Nyl.) S. Y. Kondr. (as *Caloplaca transcaspica*) – 4
- + *Pyrenodesmia variabilis* (Pers.) A. Massal. (as *Caloplaca variabilis*) – 1, 4
- + *Pyrenodesmia xerica* (Poelt et Vězda) S. Y. Kondr. (as *Caloplaca xerica*) – 4
- PYRENOPSIS cf. grumulifera* Nyl. – 4
- Pyrenopsis subareolata* Nyl. – 4
- PYRENULA boberskiana* Körb. – 1
- ! *Pyrenula chlorospila* Arnold – A1: G, Zak (Malíček et al. 2018a: 165).
- Pyrenula coryli* A. Massal. – 4
- Pyrenula dermatodes* (Borrer) Schaer. – 1, 3, 4
- Pyrenula laevigata* (Pers.) Arnold – 1, 3, 4
- Pyrenula nitida* (Weigel) Ach. – 1, 3, 4
- Pyrenula nitidella* (Flörke ex Schaer.) Müll. Arg. – 1, 3, 4
- PYRRHOSPORA quernea* (Dicks.) Körb. – 1, 3, 4
- PYXINE sorediata* (Ach.) Mont. – 1, 3, 4
- RAMALINA baltica* Lettau – 1, 3, 4
- ! *Ramalina breviuscula* Nyl. – D: MC, ARC (Mereschkovsky 1920: 188 as *Ramalina pulvinata*).
- Ramalina calicaris* (L.) Fr. – 1, 3, 4
- Ramalina canariensis* Steiner – 1, 4
- Ramalina capitata* (Ach.) Nyl. – 1, 3, 4
- Ramalina carpatica* Körb. – 1, 3, 4
- Ramalina dilacerata* (Hoffm.) Hoffm. – 1, 3, 4
- Ramalina elegans* (Bagl. et Car.) Stizenb. – 1
- ! *Ramalina europaea* Gasparian, Sipman et Lücking – C3: Khe (Khodosovitsev et al. 2018b: 78).
- Ramalina farinacea* (L.) Ach. – 1, 3, 4
- Ramalina fastigiata* (Pers.) Ach. – 1, 3, 4
- Ramalina fraxinea* (L.) Ach. var. *fraxinea* – 1, 3, 4
- Ramalina fraxinea* (L.) Ach. var. *calicariformis* (Nyl.) Hue – 3
- Ramalina intermedia* (Delise ex Nyl.) Nyl. – 4
- Ramalina lacera* (With.) J. R. Laundon – 1
- Ramalina lojkana* Mot. – 1, 4
- Ramalina obtusata* (Arnold) Bitt. – 1, 4
- Ramalina pollinaria* (Westr.) Ach. – 1, 3, 4
- Ramalina polymorpha* (Lilj.) Ach. – 4
- Ramalina pontica* Vězda – 1, 4
- Ramalina roesleri* (Hochst. ex Schaer.) Hue – 1, 3, 4
- Ramalina scoriseda* Zahlbr. – 1, 4
- Ramalina subfarinacea* (Cromb.) Nyl. – 1, 3, 4

- Ramalina thrausta* (Ach.) Nyl. – 1, 3, 4
RAMONIA chrysophaea (Pers.) Vězda – 1, 3, 4
Ramonia luteola Vězda – 3
REBENTISCHIA pomiformis P. Karst. – 3
! *REFRACTOHILUM achromaticum* (B. Sutton) D. Hawksw. [LF] – C3: Khe (Darmostuk *et al.* 2018: 356, Khodosovtsev *et al.* 2018b: 81).
! *Refractohilum intermedium* Cl. Roux et Etayo [LF] – A3: Sum (Khodosovtsev and Darmostuk 2017a: 180). C3: Xep (Khodosovtsev and Darmostuk 2017a: 180, *Khodosovtsev and Darmostuk 2017a: 181, Khodosovtsev *et al.* 2018b: 81). D: MC, ARC (Khodosovtsev and Darmostuk 2017a: 180); SBC, ARC (Khodosovtsev and Darmostuk 2017a: 180).
! *REHMANNIELLA syvashica* (Khodos., Vondrák et Šoun) S. Y. Kondr. – C3: Khe (Vondrák *et al.* 2012a: 85 as *Caloplaca syvashica*, *Khodosovtsev 2012: 395 as *C. syvashica*, *Khodosovtsev and Darmostuk 2017a: 183 as *C. syvashica*); Myk (Khodosovtsev *et al.* 2017b: 327 as *C. syvashica*); ARC (Vondrák *et al.* 2012a: 85 as *C. syvashica*).
REICHLINGIA leopoldii Diederich et Scheidegger – 1, 2, 3, 4, 5
RHIZOCARPON alpicola (Anzi) Rabenh. – 1, 3, 4
Rhizocarpon badioatrum (Flörke ex Spreng.) Th. Fr. – 1, 3, 4
Rhizocarpon disporum (Nägeli) Müll. Arg. – 1, 3, 4
Rhizocarpon distinctum Th. Fr. – 1, 3, 4
Rhizocarpon eupetraeum (Nyl.) Arnold – 1, 4
Rhizocarpon geminatum Körb. – 1, 3, 4
Rhizocarpon geographicum (L.) DC. in Lam. et DC. subsp. *geographicum* – 1, 3, 4
Rhizocarpon geographicum (L.) DC. in Lam. et DC. subsp. *kittilense* (Räsänen) Vitik., Ahti, Kuusinen, Lommi et T. Ulvinen – 3
Rhizocarpon geographicum (L.) DC. in Lam. et DC. subsp. *lindsayanum* (Räsänen) Vitik., Ahti, Kuusinen, Lommi et T. Ulvinen – 3
Rhizocarpon grande (Flörke in Flot.) Arnold – 1, 3, 4
Rhizocarpon hochstetteri (Körb.) Vainio – 1, 3, 4
Rhizocarpon lavatum (Fr.) Hazsl. – 1, 3, 4
Rhizocarpon lecanorinum Anders – 4
Rhizocarpon petraeum (Wulfen) A. Massal. – 1, 3, 4
Rhizocarpon polycarpum (Hepp) Th. Fr. – 1, 3, 4
Rhizocarpon reductum Th. Fr. – 4
Rhizocarpon simillimum (Anzi) Lettau – 4
Rhizocarpon subgeminatum Eitner – 1, 3, 4
Rhizocarpon umbilicatum (Ramond) Flagey – 1, 3, 4
Rhizocarpon viridiatrum (Wulfen) Körb. – 1, 3, 4
! *RHIZODISCINA lignyota* (Fr.) Hafellner – C3: Khe (Khodosovtsev *et al.* 2018b: 81).
RHIZOPLACA melanophthalma (Ramond) Leuckert et Poelt – 4
RHYMBOCARPUS neglectus (Vain.) Diederich et Etayo [LF] – 1, 3
! *Rhymbocarpus pubescens* (Etayo et Diederich) Diederich et Etayo – A1: Zak (Darmostuk *et al.* 2020: 21).
RICASOLIA amplissima (Scop.) De Not. – 1, 3
Ricasolia virens (With.) H. H. Blom et Tønsberg – 1
RIMULARIA gibbosa (Ach.) Coppins, Hertel et Rambold – 1, 3, 4
RINODINA albana (A. Massal.) A. Massal. – 1, 3
Rinodina archaea (Ach.) Arnold – 1, 3, 4
! *Rinodina aspera* (Borrer) J. R. Laundon – C1: Don (Darmostuk and Khodosovtsev 2014a: 325).

- Rinodina atrocinerea* (Hook.) Körb. – 1, 3, 4
Rinodina badiella (Nyl.) Th. Fr. – 1, 3, 4
Rinodina bischoffii (Hepp) A. Massal. – 1, 3, 4
Rinodina calcarea (Arnold) Arnold – 4
Rinodina colobina (Ach.) Th. Fr. – 1, 3, 4
Rinodina confragosa (Ach.) Körb. – 1, 3, 4
Rinodina conradi Körb. – 1, 3, 4
Rinodina corticola (Arnold) Arnold – 1, 3
Rinodina cretica H. Mayrhofer – 1, 4
Rinodina dubyana (Hepp) J. Steiner – 1, 4
Rinodina efflorescens Malme – 1, 3, 4
! *Rinodina excrescens* Vain. – A1: EB, IF (Czarnota et al. 2018: 180).
Rinodina exigua (Ach.) S. O. Gray – 1, 3, 4
Rinodina gennarii Bagl. – 1, 3, 4
Rinodina griseosoralifera Coppins – 1, 3, 4
Rinodina guzzinii Jatta – 4
Rinodina immersa (Körb.) Arnold – 1, 4
Rinodina kornhuberi Zahlbr. – 4
Rinodina laevigata (Ach.) Malme – 1, 3, 4
Rinodina lecanorina (A. Massal.) A. Massal. – 4
Rinodina luridata (Körb.) H. Mayrhofer, Scheid. et Sheard – 4
! *Rinodina malangica* (Norman) Arnold – A1: G, Zak (Malíček et al. 2018a: 166).
Rinodina milvina (Wahlenb.) Th. Fr. – 1, 3, 4
Rinodina mniaraea (Ach.) Körb. – 1, 3, 4
Rinodina moziana (Nyl.) Zahlbr. – 1, 3, 4
Rinodina mucronatula H. Magn. – 4
! *Rinodina olivaceobrunnea* C. W. Dodge et G. E. Baker – D: MC, ARC (Khodosovtsev and Bohdan 2006: 112, Khodosovtsev et al. 2013c: 64).
! *Rinodina orculata* Poelt – A1: Ch, Zak (Vondrák et al. 2010b: 24); G, Zak (Malíček et al. 2018a: 166).
Rinodina oxydata (A. Massal.) A. Massal. – 1, 3, 4
Rinodina pityrea Ropin et H. Mayrhofer – 4
Rinodina polyspora Th. Fr. – 1, 3, 4
Rinodina pyrina (Ach.) Arnold – 1, 3, 4
Rinodina septentrionalis Malme – 1, 3, 4
Rinodina sophodes (Ach.) A. Massal. – 1, 3, 4
! *Rinodina subpariata* (Nyl.) Zahlbr. – A1: EB, IF (Czarnota et al. 2018: 181). G, Zak (Malíček et al. 2018a: 166).
Rinodina teichophila (Nyl.) Arnold – 1, 3, 4
! *Rinodina terrestris* Tomin – B3: Kha (Gromakova 2013: 665).
Rinodina trachytica (A. Massal.) Bagl. et Carestia – 1, 3, 4
Rinodina trevisanii (Hepp) Körb. – 1, 3, 4
Rinodina tunicata H. Mayrhofer et Poelt – 1, 3, 4
Rinodina turfacea (Wahlenb.) Körb. – 1, 3, 4
RINODINELLA controversa (A. Massal.) H. Mayrhofer et Poelt – 4
Rinodinella dubyanoides (Hepp) H. Mayrhofer et Poelt – 4
ROCELLA phycopsis Ach. – 1, 4
ROMJULARIA lurida (Ach.) Timdal – 1, 3, 4
ROPALOSPORA lugubris (Sommerf.) Poelt – 1, 3, 4

- Ropalospora viridis* (Tønsberg) Tønsberg – 1, 3, 4
ROSELLINIELLA cladoniae (Anzi) Matzer [LF] – 4, 5
! *Roselliniella frustulosa* (Vouaux) R. Sant. [LF] – 5
! *Roselliniella lecideae* Darmostuk, Khodos. et Naumovich [LF] – C1: Dni (Darmostuk *et al.* 2018: 356).
+ *ROSTANIA ceranisca* (Nyl.) Otálora, P. M. Jørg. et Wedin (as *Collema ceranisca*) – 4
+ *Rostania multipunctata* (Degel.) Otálora, P. M. Jørg. et Wedin (as *Collema multipunctata*) – 4
+ *Rostania occultata* (Bagl.) Otálora, P. M. Jørg. et Wedin (as *Collema occultata*) – 1, 3, 4
+ *RUFOPLACA arenaria* (Pers.) Arup, Frödén et Søchting (as *Caloplaca arenaria*) – 1, 3, 4
+ *Rufoplaca scotoplaca* (Nyl.) Arup, Søchting et Frödén (as *Caloplaca scotoplaca*) – 1, 3, 4
+ *Rufoplaca subpallida* (H. Magn.) Arup, Søchting et Frödén (as *Caloplaca subpallida*) – 4
! *RUSAWSKIA drevlyanica* S. Y. Kondr. et O. O. Orlov – A3: Zhy (Kondratyuk *et al.* 2020).
Rusavskia elegans (Link) S. Y. Kondr. et Kärnefelt – 1, 3, 4
Rusavskia soreziata (Vain.) S. Y. Kondr. et Kärnefelt – 1, 4
SAGEDIOPSIS barbata (Th. Fr.) R. Sant. et Triebel [LF] – 1, 2, 3, 4, 5,
+ *SARCOCLADIUM strictum* (W. Gams) Summerb. [LF] – 1, 3, 4 (as *Acremonium strictum*), 5
SARCOGYNE clavus (DC.) Krempelh. – 1, 3, 4
Sarcogyne distinguenda Th. Fr. – 4
! *Sarcogyne lapponica* (Ach. ex Schaer.) K. Knudsen et Kocourk. – A3: Zhy (Kapets *et al.* 2015: 160). C1: Don (Darmostuk and Khodosovtsev 2014a: 325 as *Polysporina lapponica*); Zap (Khodosovtsev and Zavyalova 2008b: 58 as *P. lapponica*, Khodosovtsev and Zavyalova 2011: 56 as *P. lapponica*); Luh (Rusina *et al.* 2010: 255 as *P. lapponica*).
Sarcogyne latericola J. Steiner – 1, 4
! *Sarcogyne praetermissa* K. Knudsen et Kocourk. – C3: Khe (Khodosovtsev and Darmostuk 2020b: 247).
Sarcogyne privigna (Ach.) A. Massal. – 4
Sarcogyne regularis Körb. – 1, 3, 4
SARCOPYRENIA gibba (Nyl.) Nyl. – 4
! *Sarcopyrenia cylindrospora* (P. Crouan et H. Crouan) M. B. Aguirre [LF] – 5
SARCOSAGIUM campestre (Fr.) Poetsch et Schied. – 4
+ *SAREA resinae* (Fr.) Kuntze (as *Pycnidia resinae*) – 3, 4
SCHAERERIA fuscocinerea (Nyl.) Clauzade et Cl. Roux – 3
! *SCHISMATOMMA cretaceum* (Hue) J. R. Laundon – A1: G, IF (Khodosovtsev *et al.* 2016a: 59, 2016b: 275).
Schismatomma ricasolii (A. Massal.) Egea et Torrente – 3, 4
! *SCLEROCCUM griseisporodochium* Etayo [LF] – 5
Sclerococcum sphaerale (Ach.) Fr. [LF] – 4, 5
+ *Sclerococcum urceolatum* (Th. Fr.) Ertz et Diederich [LF] – 4 (with synonym *Melaspilea urceolata*, may belong to the latter taxon).
SCLEROPHORA coniophaea (Norm.) J. Mattsson et Middelborg – 1, 3
Sclerophora farinacea (Chevall.) Chevall. – 1, 4
Sclerophora pallida (Pers.) Y. J. Yao et Spooner – 1, 2, 3, 4
Sclerophora peronella (Ach.) Tibell – 1, 3, 4
SCOLICIOSPORUM chlorococcum (Stenh.) Vězda – 1, 3, 4
! *Scoliciosporum curvatum* Sérus. – A1: G, Zak (Dymytrova 2011: 66).
Scoliciosporum gallurae Vězda et Poelt – 4
! *Scoliciosporum intrusum* (Th. Fr.) Hafellner – A1: Ch, Zak (Pirogov *et al.* 2014: 145); S, Zak (Pirogov *et al.* 2014: 145); G, IF (Khodosovtsev *et al.* 2016a: 59).
Scoliciosporum perpusillum (Lahm) Körb. – 1, 3, 4

- Scoliciosporum pruinatum* (P. James) Vězda – 3, 4
Scoliciosporum sarothonianum (Vainio) Vězda – 1, 3, 4
! *Scoliciosporum schadeanum* (Erichsen) Vězda – A1: G, Zak (Malíček et al. 2018a: 166).
+ *Scoliciosporum umbrinum* (Ach.) Arnold var. *corticolum* (Anzi) Bagl. et Carestia (as *Scoliciosporum corticola*) – 1, 3, 4
Scoliciosporum umbrinum (Ach.) Arnold var. *umbrinum* – 1, 3
SCUTULA epiblastematica (Wallr.) Rehm. – 1, 3, 4, 5
Scutula tuberculosa (Th. Fr.) Rehm. – 1, 4, 5
! *Scutula miliaris* (Wallr.) Trevis. – B1: Ter (*Kondratyuk et al. 1999: 37, after Kondratyuk and Kolomiets 1997: 44 as *Scutula epiblastematica*, *Scutula tuberculosa*).
+ *SCYTHIORIA phlogina* (Ach.) S. Y. Kondr., Kärnefelt, Elix, A. Thell et Hur (as *Caloplaca phlogina*) – 1, 4
+ *SCYTINIUM biatorinum* (Nyl.) Otálora, P. M. Jørg. et Wedin (as *Leptogium biatorinum*) – 1, 3, 4
! *Scytinium callopismum* (A. Massal.) Otálora, P. M. Jørg. et Wedin – C3: Khe (Khodosovtsev and Khodosovtseva 2014: 521).
+ *Scytinium fragile* (Taylor) Otálora, P. M. Jørg. et Wedin (as *Leptogium fragile*) – 4
+ *Scytinium fragrans* (Šm.) Otálora, P. M. Jørg. et Wedin (as *Leptogium fragrans*) – 1, 3, 4
+ *Scytinium gelatinosum* (With.) Otálora, P. M. Jørg. et Wedin (as *Leptogium gelatinosum*) – 1, 3, 4
+ *Scytinium imbricatum* (P. M. Jørg.) Otálora, P. M. Jørg. et Wedin (as *Leptogium biatorinum*) – 4
+ *Scytinium intermedium* (Arnold) Otálora, P. M. Jørg. et Wedin (as *Leptogium biatorinum*) – 1, 3, 4
+ *Scytinium lichenoides* (L.) Otálora, P. M. Jørg. et Wedin (as *Leptogium lichenoides*) – 1, 3, 4
+ *Scytinium magnussonii* (Degel. et P. M. Jørg.) Otálora, P. M. Jørg. et Wedin (as *Leptogium magnussonii*) – 4
+ *Scytinium palmatum* (Huds.) Gray (as *Leptogium palmatum*) – 1, 4
+ *Scytinium parvum* (Degel.) Otálora, P. M. Jørg. et Wedin (as *Leptogium parvum*) – 4
+ *Scytinium plicatile* (Ach.) Otálora, P. M. Jørg. et Wedin (as *Leptogium plicatile*) – 1, 4
! *Scytinium pulvinatum* (Hoffm.) Otálora, P. M. Jørg. et Wedin – A1: EB, Zak (Servít and Nádvorník 1932: 7 as *Leptogium pulvinatum*); VC, Zak (Servít and Nádvorník 1932: 7 as *L. pulvinatum*); G, Zak (Malíček et al. 2018a: 166).
+ *Scytinium schraderi* (Ach.) Otálora, P. M. Jørg. et Wedin (as *Leptogium schraderi*) – 4
+ *Scytinium subtile* (Schrad.) Otálora, P. M. Jørg. et Wedin (as *Leptogium subtile*) – 1, 3, 4
+ *Scytinium tenuissimum* (Hoffm.) Otálora, P. M. Jørg. et Wedin (as *Leptogium tenuissimum*) – 1, 3, 4
+ *Scytinium turgidum* (Ach.) Otálora, P. M. Jørg. et Wedin (as *Leptogium turgidum*) – 1, 4
+ *SEWARDIELLA lobulata* (Flörke) S. Y. Kondr., I. Kärnefelt et A. Thell (as *Caloplaca lobulata*) – 1, 4
! *SEGESTRIA byssophila* (Körb. ex Hepp) Zahlbr. – A1: G, Zak (Malíček et al. 2018a: 165 as *Pseudosagedia byssophila*).
SEIROPHORA lacunosa (P. Rupr.) Frödén – 1, 4
Siropora villosa (Ach.) Frödén – 1, 4
! *SISTOTREMA brinkmannii* (Bres.) J. Erikss. – C3: Khe (Darmostuk et al. 2018: 359, Khodosovtsev et al. 2018b: 81).
! *SKYTTEA gregaria* Sherwood, D. Hawksw. et Coppins – A1: IF, Zak (Darmostuk et al. 2020: 21).
SOLENOPSORA candidans (Dicks.) J. Steiner – 1, 4

- Solenopsora cesatii* (A. Massal.) Zahlbr. – 1, 4
- Solenopsora grisea* (Bagl.) Kotlov – 4
- Solenopsora marina* (Zahlbr.) Zahlbr. – 4
- + *SOLITARIA chrysophthalma* (Degel.) Arup, Søchting et Frödén (as *Caloplaca chrysophthalma*) – 1, 3, 4
- SOLORINA bispora* Nyl. – 1, 3, 4
- ! *Solorina crocea* (L.) Ach. – A1: Ch, IF [Pip Ivan Mts area, Vukhaty Kaminj Mt., 2019 L. Lőkös (KW-L, BP)].
- Solorina saccata* (L.) Ach. – 1, 3, 4
- Solorina spongiosa* (Ach.) Anzi – 4
- + *SPARRIA endlicheri* (Garov.) Ertz et Tehler – 1, 3, 4 [as *Arthonia enlicheri*]
- ! *SPHAERELLOTHECIUM aculeatae* Khodos., Gavrylenko et Klymenko [LF] – 5
- ! *Sphaerellothecium cf. atryneae* (Arnold) Roux et Triebel [LF] – C1: Myk (Darmostuk *et al.* 2018: 358, Khodosovtsev *et al.* 2019b: 64).
- ! *Sphaerellothecium cladoniae* (Alstrup et Zhurb.) Hafellner [LF] – D: SBC, ARC (Darmostuk and Khodosovtsev 2019: 113).
- Sphaerellothecium parietinarium* (Linds.) Hafellner et V. John [LF] – 4, 5
- ! *Sphaerellothecium parmeliae* Diederich et Etayo [LF] – 5
- ! *Sphaerellothecium propinquellum* (Nyl.) Cl. Roux et Triebel [LF] – 5
- SPHAEROPHORUS fragilis* (L.) Pers. – 1, 3, 4
- Sphaerophorus globosus* (Huds.) Vainio – 1, 3, 4
- SPHINCTRINA anglica* Nyl. – 1, 2, 3, 4, 5
- ! *Sphinctrina leucopoda* Nyl. – A1: G, Zak (Malíček *et al.* 2018a: 169).
- Sphinctrina tubiformis* A. Massal. – 4, 5
- Sphinctrina turbinata* (Pers.) De Not. – 1, 2, 3, 4, 5
- SPILOMA fuliginosum* Turner et Borrer – 1, 3, 4
- SPILONEMA paradoxum* Born. – 1, 3, 4
- SPORASTATIA polyspora* (Nyl.) Grummann – 1, 3, 4
- Sporastatia testudinea* (Ach.) A. Massal. – 1, 3, 4
- + *SPORODICTYON terrestre* (Th. Fr.) Savić et Tibell (as *Polyblastia terrestre*) – 1, 3, 4
- SQUAMARINA cartilaginea* (With.) P. James – 1, 4
- Squamaria gypsacea* (Sm.) Poelt – 1, 4
- Squamaria lamarckii* (DC.) Poelt – 1, 4
- Squamaria lentigera* (G. H. Weber) Poelt – 1, 4
- Squamaria periculosa* (Duf.) Poelt – 4
- Squamaria stella-petraea* Poelt – 4
- SQUAMULEA irribescens* (Arnold) – 1, 3, 4
- ! *STAGONOSPORA exasperatulae* Brackel – A5: Ter (Darmostuk and Sira 2020: 38).
- STAUROTHELE ambrosiana* (A. Massal.) Lettau – 4
- Staurothele areolata* (Ach.) Lettau – 1, 4
- Staurothele bacilligera* (Arnold) Arnold – 4
- Staurothele caesia* (Arnold) Arnold – 1, 4
- ! *Staurothele clopima* (Wahlenb.) Th. Fr. – A3: Zhy (Oxner 1935: 50, Oxner 1956: 209, *Fedorenko *et al.* 2006: 114 as *Staurothele catalepta*). B1: Chy (Oxner 1935: 50). C1: Kid (Oxner 1935: 50).
- Staurothele columellaris* Oxner – 4
- Staurothele elenkinii* Oxner – 1, 4
- ! *Staurothele epigea* Breuss et Etayo – C3: Khe (Khodosovtsev *et al.* 2013a: 489).
- + *Staurothele fissa* (Taylor) Zwackh. (as *Staurothele hazslinskii*) – 1, 3, 4

- Staurothele frustulenta* Vainio – 1, 3, 4
 ! *Staurothele geoica* Breuss et Etayo – C3: Khe (Khodosovtsev 2015: 324).
Staurothele guestphalica (J. Lahm ex Körb.) Arnold – 4
Staurothele hymenogonia (Nyl.) Th. Fr. – 1, 3, 4
Staurothele rufa (A. Massal.) Zschacke – 1, 4
Staurothele rugulosa (A. Massal.) Arnold – 4
Staurothele rupifraga (A. Massal.) Arnold – 1, 3, 4
STEINIA geophana (Nyl.) Stein – 1, 3, 4
STENOCYBE major Nyl. – 1, 3, 4
Stenocybe pullatula (Ach.) Stein – 1, 2, 3, 4
STEREOCAULON condensatum Hoffm. – 1, 3, 4
Stereocaulon dactylophyllum Flörke – 1, 3, 4
Stereocaulon paschale (L.) Hoffm. – 1, 3, 4
Stereocaulon pileatum Ach. – 1, 3, 4
Stereocaulon plicatile (Leight.) Fryday et Coppins – 1, 3, 4
Stereocaulon tomentosum Th. Fr. – 1, 3, 4
Stereocaulon vesuvianum Pers. – 1, 3, 4
STICTA fuliginosa (Hoffm.) Ach. – 1, 3, 4
Sticta sylvatica (Huds.) Ach. – 1, 3, 4
 + *STICTIS urceolata* (Ach.) Gilenstam (as *Conotrema urceolata*) – 1, 3, 4
 ! *STIGMIDIUM bellemerei* Cl. Roux et Nav.-Ros. [LF] – C3: Khe (Darmostuk and Khodosovtsev 2019: 113).
 ! *Stigmidium clauzadei* Cl. Roux et Nav.-Ros. [LF] – 5
 ! *Stigmidium congestum* (Körb.) Triebel [LF] – 5
Stigmidium conspurcans (Th. Fr.) Triebel et R. Sant. [LF] – 1, 5
 ! *Stigmidium epistigmellum* (Nyl. ex Vouaux) Kocourk. et K. Knudsen [LF] – D: MC, ARC (Darmostuk et al. 2018: 359).
Stigmidium fuscatae (Arnold) R. Sant. [LF] – 4, 5
Stigmidium glebarum (Arnold) Hafellner [LF] – 4, 5
 ! *Stigmidium gyrophorarum* (Arnold) D. Hawksw. [LF] – 5
 ! *Stigmidium lichenum* (Arnold) Triebel et P. Scholz [LF] – 5
Stigmidium microspilum (Körb.) D. Hawksw. [LF] – 1, 2, 3, 4, 5
 ! *Stigmidium mycobilimbiae* Cl. Roux, Triebel et Etayo [LF] – 5
Stigmidium peltideae (Vainio) R. Sant. [LF] – 1, 2, 3, 4, 5
Stigmidium pumilum (Lettau) Matzer et Hafellner [LF] – 4, 5
 ! *Stigmidium ramalinae* (Müll. Arg.) Etayo et Diederich [LF] – C3: Khe (Darmostuk and Khodosovtsev 2019: 113).
Stigmidium rouxianum Calatayud et Triebel [LF] – 4, 5
Stigmidium schaereri (A. Massal.) Trevis. [LF] – 4, 5
 ! *Stigmidium squamariae* (B. de Lesd.) Cl. Roux et Triebel [LF] – 5
 ! *Stigmidium stygnospilum* (Minks) R. Sant. [LF] – C1: Myk (Darmostuk et al. 2018: 359, Khodosovtsev et al. 2019b: 64).
Stigmidium tabacinae (Arnold) Triebel [LF] – 4, 5
 ! *Stigmidium xanthoparmeliarum* Hafellner [LF] – 5
 + *STRAMINELLA conizaeoides* (Nyl. ex Crombie) S. Y. Kondr., L. Lókös et Farkas (as *Lecanora conizaeoides*) – 1, 3, 4
 + *Straminella varia* (Hoffm.) S. Y. Kondr., L. Lókös et Farkas (as *Lecanora varia*) – 1, 3, 4
STRANGOSPORA deplanata (Almq.) Clauzade et Cl. Roux – 1, 4
Strangospora moriformis (Ach.) Stein – 1, 4

- Strangospora pinicola* (A. Massal.) Körb. – 1, 4
! *STRICKERIA anomala* Tschern. – B3: Kha (Chernov 1895: 32, *Kashmensky 1906: 108).
STRIGULA affinis (A. Massal.) R. C. Harris – 4
Strigula glabra (A. Massal.) V. Wirth – 1, 3, 4
Strigula mediterranea Etayo – 1, 4
Strigula stigmatella (Ach.) R. C. Harris – 1, 3, 4
! *STROMATOPOGON cladoniae* Diederich et Sérus. – A1: IF (Darmostuk *et al.* 2020: 22).
SYNALISSA symphorea (Ach.) Nyl. – 1, 4
! *TAENIOLELLA beschiana* Diederich [LF] – 5
Taeniolella delicata M. S. Christ et D. Hawksw. [LF] – 1, 4, 5
Taeniolella friesii (Hepp) Hafellner [LF] – 3, 5
Taeniolella phaeophysciae D. Hawksw. [LF] – 3, 5
Taeniolella punctata M. S. Christ. et D. Hawksw. [LF] – 3, 5
! *Taeniolella rolfii* Diederich et Zhurb. [LF] – C3: Khe (Khodosovtsev *et al.* 2018b: 81, 2018c: 537).
! *Taeniolella toruloides* Heuchert et Diederich [LF] – A1: G, Zak (Malíček *et al.* 2018a: 169).
TELOGALLA olivieri (Vouaux) Nik. Hoffm. et Hafellner [LF] – 1, 2, 3, 4, 5
TEPHROMELA atra (Huds.) Hafellner – 1, 3, 4
! *Tephromela grumosa* (Pers.) Hafellner et Cl. Roux – A1: G, IF (Khodosovtsev *et al.* 2016a: 59). C1: Don (Khodosovtsev *et al.* 2013b: 548); Myk (Khodosovtsev *et al.* 2019b: 62). D: SBC, ARC (Sudak district: Sudak, vill. Dacnhoye, 07.05.2000, Khodosovtsev (KHER 2154)).
! *TETRAMELAS chloroleucus* (Körb.) A. Nordin – A1: G, Zak (Dymytrova *et al.* 2013: 77 as *Buellia chloroleuca*, *Dymytrova *et al.* 2014: 1384 as *B. chloroleuca*, Malíček *et al.* 2018a: 167).
+ *Tetramelias insignis* (Nägeli ex Hepp) Kalb (as *Buellia insignis*) – 4
+ *THALLINOCARPON nigritellum* (Lettau) P. M. Jørg. (as *Gonohymenia nigritella*) – 4
+ *THALLOIDIMA massatum* (Tuck.) Kistenich, Timdal, Bendiksby et S. Ekman (as *Toninia massata*) – 4
+ *Thalloidima sedifolium* (Scop.) Kistenich, Timdal, Bendiksby et S. Ekman (as *Toninia sedifolia*) – 1, 3, 4
THAMNOLIA vermicularis (Sw.) Ach. ex Schaeerer – 1, 3, 4
THELENELLA modesta (Nyl.) Nyl. – 1, 4
Thelenella muscorum (Fr.) Vain. – 4
! *Thelenella pertusariella* (Nyl.) Vain. – B1: Kyi (Dymytrova 2013: 529).
THELIDIUM absconditum (Hepp) Rabenh. – 1, 3, 4
Thelidium decipiens (Hepp) Krempelh. – 1, 3, 4
Thelidium fontigenum A. Massal. – 1, 3, 4
Thelidium galbanum (Kremp.) Körb. – 1, 4
Thelidium incavatum Nyl. ex Mudd – 1, 3, 4
Thelidium methorium (Nyl.) Helb. – 1, 3, 4
Thelidium minimum (A. Massal. ex Körb.) Arnold – 1, 3, 4
Thelidium minutulum Körb. – 1, 3, 4
Thelidium nadvornikii Servít – 1, 3
Thelidium papulare (Fr.) Arnold – 1, 3, 4
Thelidium piceum Zschacke ex H. Magn. – 1, 3, 4
Thelidium pyrenophorum (Ach.) Mudd – 1, 3, 4
Thelidium rehmii Zschacke – 1, 3, 4
Thelidium zwackhii (Hepp) A. Massal. – 3, 4, 5
THELOCARPON epibolium Nyl. – 1, 3, 4

- Thelocarpon intermediellum* Nyl. – 4
Thelocarpon laureri (Flot.) Nyl. – 1, 4
! *Thelocarpon lichenicola* (Fuckel) Poelt et Hafellner – A1: G, Zak (Malíček et al. 2018a: 167).
! *Thelocarpon robustum* auct. brit., non Eitner – A1: S, Zak (Vondrák et al. 2010b: 25).
Thelocarpon strasseri Zahlbr. – 1, 3, 4
! *THELOPSIS flaveola* Arnold – A1: G, Zak (Dymytrova et al. 2012b: 62, 2013: 78, 2014: 1390, Malíček et al. 2018a: 167).
Thelopsis rubella Nyl. – 1, 3, 4
THELOTREMA lepadinum Ach. – 1, 3, 4
Thelotrema sueicum (H. Magn.) P. James – 1, 3, 4
THERMUTIS velutina (Ach.) Flot. – 1, 3, 4
THROMBIUM endogaeum Oxner – 1, 4
Thrombium epigaeum (Pers.) Wallr. – 1, 3, 4
THYREA confusa Henssen – 1, 4
! *TOENSBERGIA leucococca* (R. Sant.) Bendiksby et Timdal – A1: G, Zak (Malíček et al. 2018a: 167).
+ *TONINIA athallina* (Hepp) Timdal (also as *Catillaria athallina*) – 1, 3, 4
Toninia candida (F. Weber) Th. Fr. – 1, 3, 4
+ *Toninia cinereovirens* (Schaer.) A. Massal. (as *Toninia squalida*) – 1, 4
Toninia diffracta (A. Massal.) Zahlbr. – 4
Toninia episema (Nyl.) Timdal – 4
Toninia opuntioides (Vill.) Timdal – 4
Toninia philippaea (Mont.) Timdal – 4
Toninia physaroides (Opis) Zahlbr. – 4
! *Toninia subfuscæ* (Arnold) Timdal [LF] – 5
! *Toninia tabacina* (A. Massal.) Flagey – D: MC, ARC (Oxner 1968: 175, Kopachevs-kaya 1986: 136, *Khodosovtsev and Bohdan 2006: 114 as *Toninia tristis*); SBC, ARC (Mereschkovsky 1920: 285 as *Thalloedema tabacinum*, Oxner 1968: 175, Tarasova and Tolpyshova 1978, *Kopachevskaya 1986: 136, Khodosovtsev and Redchenko 2002: 70 as *Toninia tristis*).
Toninia talparum Timdal [LF] – 4, 5
Toninia taurica (Szat.) Oxner – 1, 4
Toninia toniniana (A. Massal.) Zahlbr. – 4
+ *TONINIOPSIS aromatica* (Sm.) Kistenich, Timdal, Bendiksby et S. Ekman (as *Toninia aromatica*) – 1, 3
! *Toniniopsis mesoidea* (Nyl.) Timdal – D: SBC, ARC (Khodosovtsev 2003: 51 as *Toninia mesoidea*).
TORNABEA scutellifera (With.) J. R. Laundon – 1, 4
TRAPELIA coarctata (Sm.) Choisy – 1, 3, 4
Trapelia corticola Coppins et P. James – 1, 3, 4
! *Trapelia glebulosa* (Sm.) J. R. Laundon – A1: G, IF (Khodosovtsev et al. 2016a: 60), C1: Kha (Gromakova 2014: 511); Myk (Khodosovtsev et al. 2019b: 62).
Trapelia involuta (Taylor) Hertel – 1, 3, 4
Trapelia obtegens (Th. Fr.) Hertel – 1, 3, 4
Trapelia placodioides Coppins et P. James – 1, 3, 4
TRAPELIOPSIS aeneofusca (Flörke) Coppins et P. James – 1, 3, 4
Trapeliopsis flexuosa (Fr.) Coppins et P. James – 1, 3, 4
! *Trapeliopsis glaucolepidea* (Nyl.) Gotth. Schneid. – A1: S, Zak (Vondrák et al. 2010b: 26).
Trapeliopsis granulosa (Hoffm.) Lumbsch – 1, 3, 4

- Trapeliopsis pseudogranulosa* Coppins et P. James – 1, 3, 4
Trapeliopsis viridescens (Schrad.) Coppins et P. James – 1, 3, 4
Trapeliopsis wallrothii (Körb.) Hertel et D. Kr. Schneider – 1, 3, 4
! *TREMELLA cetrariicola* Diederich et Coppins – A1: IF (Darmostuk *et al.* 2020: 22).
Tremella cladoniae Diederich et M. S. Christ. [LF] – 1, 3, 4, 5
! *Tremella everniae* Diederich – A5: Ter (Darmostuk and Sira 2020: 38).
Tremella hypogymniae Diederich et M. S. Christ. [LF] – 3, 4, 5
Tremella lichenicola Diederich [LF] – 1, 2, 3, 4, 5
! *Tremella lobariacearum* Diederich et M. S. Christ. [LF] – A1: G, Zak (Malíček *et al.* 2018a: 169).
! *Tremella phaeophysciae* Diederich et M. S. Christ. [LF] – 5
TREMOLECIA atrata (Ach.) Hertel – 1, 3, 4
Tremolecia dicksonii (Gmelin) Ach. – 1, 3, 4
! *TRICHOCONIS hafellneri* U. Braun, Khodos., Darmostuk et Diederich [LF] – 5
TRICHONECTRIA hirta (Blox.) Petch. [LF] – 1, 3, 4, 5
! *TRICHOTHECIUM roseum* (Pers.) Link [LF] – C3: Khe (Darmostuk *et al.* 2018: 459).
+ *TRIMMATOTHELOPSIS scabrida* (Hedl. ex H. Magn.) Cl. Roux et Nav.-Ros. (as *Acarospora scabrida*) – 4
TUBERCULARIA lichenicola Sacc. – 2
TUCKERMANNOPSIS chlorophylla (Willd. in Humb.) Hale – 1, 3, 4
Tuckermannopsis ciliaris (Ach.) Gyeln. – 1, 4
Tuckermannopsis sepincola (Ehrh.) Hale – 1, 3, 4
TUCKNERARIA laureri (Krempelh.) Randlane et A. Thell – 1, 3, 4
! *UMBILICARIA cirrosa* Hoffm. – A1: M, Zak (Oxner 1968: 388, *Makarevych *et al.* 1982: 207).
Umbilicaria crustulosa (Ach.) Frey – 1, 3, 4
Umbilicaria cylindrica (L.) Delise ex Duby – 1, 3, 4
Umbilicaria deusta (L.) Baumg. – 1, 3, 4
Umbilicaria grisea Hoffm. – 4
Umbilicaria hirsuta (Sw. ex Westr.) Hoffm. – 1, 3, 4
Umbilicaria polypylla (L.) Baumg. – 1, 3, 4
Umbilicaria proboscidea (L.) Schrad. – 1, 3, 4
! *Umbilicaria spodochroa* Ehrh. ex Hoffm. – A1: M, Zak (Hruby 1925: 234 as *Gyrophora spodochroa*).
Umbilicaria subglabra (Nyl.) Harm. – 1, 3, 4
Umbilicaria subpolypylla Oxner – 1, 4
Umbilicaria tornata (Ach.) Vainio – 1, 3, 4
Umbilicaria torrefacta (Lightf.) Schrad. – 1, 3, 4
Umbilicaria vellea (L.) Hoffm. – 1, 3, 4
UNGUICULARIOPSIS acrocordiae (Lowen) van den Boom et Diederich [LF] – 3, 5
! *Unguiculariopsis groenlandiae* (Alstrup et D. Hawksw.) Etayo et Diederich [LF] – 5
! *Unguiculariopsis thalophila* (P. Karst.) W. Y. Zhuang [LF] – 5
! *USNEA aciculifera* Vain. – A1: Ch, Zak (Chepelevska 2015: 61, 2016: 49).
Usnea articulata (L.) Hoffm. – 1, 3, 4
Usnea barbata (L.) F. H. Wigg. em. Motyka – 1, 3, 4
! *Usnea capillaris* Mot. – A1: Ch (Bystrek 1993: 129); G (Bystrek 1993: 129); CG (Bystrek 1993: 129).
Usnea carpatica Motyka – 1, 3, 4
Usnea caucasica Vainio – 1, 3, 4

- Usnea cavernosa* Agassiz subsp. *cavernosa* – 1, 3, 4
Usnea cavernosa Agassiz subsp. *sibirica* (Räsänen) Motyka – 3
Usnea ceratina Ach. – 1, 3, 4
Usnea chaetophora Stirt. – 1, 3, 4
Usnea cinchonarum (Fée) Vainio – 1, 3, 4
! *Usnea diplotypa* Vain. – D: MC, ARC (Khodosovtsev et al. 2013c: 64).
Usnea dolosa Motyka – 3
Usnea dubia Motyka – 1, 3, 4
Usnea faginea Motyka – 1, 3, 4
Usnea filipendula Stirt. var. *filipendula* – 1, 3, 4
Usnea filipendula Stirt. var. *stramineola* (Motyka) S. Y. Kondr. – 3
Usnea florida (L.) F. C. Weber ex F. H. Wigg. – 1, 3, 4
Usnea fulvoreagens (Räsänen) Räsänen – 1, 3, 4
Usnea glabrata (Ach.) Vainio – 1, 3, 4
Usnea glabrescens (Nyl. ex Vainio) Vainio – 1, 3, 4
Usnea glauca Motyka – 3
Usnea hirta (L.) F. C. Weber ex F. H. Wigg. – 1, 3, 4
Usnea lapponica Vainio – 1, 3, 4
! *Usnea maxima* Mot. – A1: CG, IF (Bystrek and Sulma, 1989: 169); G, IF (Bystrek and Sulma 1989: 169).
! *Usnea mollis* Stirt. – A1: S, Zak (Suza 1932–1935: 71).
Usnea motykana Bystr. et Wójciak – 3, 4
! *Usnea pendulina* Motyka – A1: Ch, Zak (Motyka 1936–1938: 136, *Makarevych et al. 1982: 342, *Oxner 1993: 326, Chepelevska 2015: 61, 2016: 50). D: MC, ARC (Khodosovtsev and Bohdan 2005: 130); SBC, ARC (Szatala 1942: 91, *Kopachevskaya 1986: 184).
Usnea perplectans Stirt. – 1, 3, 4
Usnea plicata (L.) F. H. Wigg. em. Motyka – 1, 3, 4
Usnea prostrata Vainio ex. Räsänen – 1, 3, 4
Usnea rigida (Ach.) Motyka – 1, 3, 4
Usnea rugulosa Vainio – 1, 3, 4
Usnea scabrata Nyl. – 1, 3, 4
Usnea scrobiculata Motyka – 1, 3, 4
Usnea silesiaca Motyka – 3
Usnea subfloridana Stirt. – 1, 3, 4
Usnea sublaxa Vainio in Norrlin et Nyl. – 1, 3, 4
! *Usnea substerilis* Motyka – D: MC, ARC (Khodosovtsev et al. 2013c: 65).
! *Usnea syriaca* Motyka – A1: S, Zak (Suza 1932–1935: 71).
! *Usnea wasmuthii* Räsänen – A1: G, Zak (Dymytrova et al. 2013: 78, 2014: 1390, *Malíček et al. 2018a: 167). D: MC, ARC (Khodosovtsev et al. 2013c: 65).
+ *VAHLIELLA leucophaea* (Vahl) P. M. Jørg. (as *Fuscopannaria leucophaea*) – 1, 3, 4
Vahliella saubinetii (Mont.) P. M. Jørg. – 3
+ *VARICELLARIA hemisphaerica* (Flörke) I. Schmitt et Lumbsch (as *Pertusaria hemisphaerica*) – 1, 3, 4
+ *Varicellaria lactea* (L.) I. Schmitt et Lumbsch (as *Pertusaria lactea*) – 1, 3, 4
+ *VARIOSPORA australis* (Arnold) Arup, Söchting et Frödén (as *Fulgensia australis*) – 1, 4
+ *Variospora dolomiticola* (Hue) Arup, Söchting et Frödén (as *Caloplaca dolomiticola*) – 1, 4
+ *Variospora glomerata* (Arup) Arup, Söchting et Frödén (as *Caloplaca glomerata*) – 4
+ *Variospora latzelii* (Servít) S. Y. Kondr. (as *Caloplaca latzelii*) – 4

- ! *Variospora sororicida* (M. Steiner et Poelt) Vondrák – C3: Khe (Gavrylenko 2012: 718 as *Caloplaca sororicida*).
+ *Variospora velana* (A. Massal.) Arup, Søchting et Frödén (as *Caloplaca velana*) – 4
VERRUCARIA acrotella Ach. – 1, 3, 4
Verrucaria aethiobola Wahlenb. in Ach. – 1, 3, 4
Verrucaria anceps Krempelh. – 1, 3, 4
Verrucaria andesiatica Servít – 1, 3, 4
! *Verrucaria aphanes* Borr. – B3: Kha (Fries 1855: 16 as *Pyrenothea aphanes*, *Kashmensky 1906: 108 as *Pyrenothea aphanes*).
Verrucaria aquatilis Mudd – 1, 3, 4
! *Verrucaria bernaicensis* Malbr. – C3: Zap (Khodosovtsev and Zavyalova 2011: 55, *Khodosovtsev and Darmostuk 2018: 34).
Verrucaria breussii Diederich et van den Boom – 4
Verrucaria bryoctona (Th. Fr.) Orange – 4
Verrucaria calciseda DC. – 1, 3, 4
Verrucaria coerulea DC. – 1, 3, 4
! *Verrucaria corticola* (Arnold) Servít – D: MC, ARC (Khodosovtsev et al. 2013c: 64).
Verrucaria cretophila Oxner – 4
Verrucaria denudata Zschake – 1, 3, 4
! *Verrucaria ditmarsica* Erichsen – C2: ARC (Redchenko 2002: 432, *Khodosovtsev 2006b: 220).
Verrucaria dolosa Hepp – 1, 3, 4
Verrucaria elaeomelaena (A. Massal.) Arnold – 1, 3, 4
Verrucaria funckii (Sprengel) Zahlbr. – 4
Verrucaria fusca Pers. – 1, 4
Verrucaria fuscella (Turner) Winch – 1, 3, 4
! *Verrucaria fuscoatra* Wallr. – A1: G, IF (Boberski 1889: 48).
Verrucaria fuscoatroides Servít – 4
! *Verrucaria fusconigrescens* Nyl. – C1: Zap (Khodosovtsev and Darmostuk 2020a: 78).
Verrucaria glaucina Ach. – 4
Verrucaria glaucomirens Grummann – 4
Verrucaria halizoa Leight. – 4
! *Verrucaria hegetschweileri* (Nägeli) Nyl. – A1: G, Zak (Malíček et al. 2018a: 167).
Verrucaria hochstetteri Fr. – 1, 3, 4
Verrucaria hydrela Ach. – 1, 3, 4
Verrucaria keissleri Szatala – 1, 3, 4
Verrucaria macrostoma Dufour ex DC. – 3, 4
Verrucaria margacea (Wahlenb.) Wahlenb. – 1, 3, 4
Verrucaria muralis Ach. – 1, 3, 4
Verrucaria murina Leight. – 1, 3, 4
Verrucaria murorum (Arnold) Lindau – 1, 3, 4
Verrucaria mutabilis Borrer ex Leight. – 1, 3, 4
Verrucaria nigrescens Pers. – 1, 3, 4
Verrucaria obfuscans Nyl. – 4
! *Verrucaria papillosa* Ach. – C1: Myk (Khodosovtsev and Darmostuk 2018: 34).
Verrucaria phloeophila Breuss – 4
Verrucaria pinguicula A. Massal. – 4
! *Verrucaria polysticta* Borrer – B1: Khm (Bielczyk et al. 2005: 62).
Verrucaria pontica Oxner – 1, 4

- Verrucaria praetermissa* (Trevis.) Anzi – 1, 3, 4
- Verrucaria procopii* Servít – 4
- ! *Verrucaria schindleri* Servít – C1: Myk (Khodosovtsev and Darmostuk 2018: 34). C3: Khe (Khodosovtsev and Darmostuk 2018: 34); Myk (Khodosovtsev and Darmostuk 2018: 34); Zap (Khodosovtsev and Darmostuk 2018: 34).
- Verrucaria squamulosocrustacea* (Savicz) Oxner – 4
- Verrucaria subdolosa* Servít – 4
- Verrucaria subfuscella* Nyl. – 4
- Verrucaria submersella* Servít – 3
- Verrucaria subtilis* Müll. Arg. – 1, 3, 4
- Verrucaria transiliens* Arnold – 1, 3, 4
- Verrucaria tristis* (A. Massal.) Krempelh. – 1, 3, 4
- Verrucaria umbrinula* Nyl. – 1, 3, 4
- Verrucaria veronensis* A. Massal. – 1, 3, 4
- Verrucaria viridigrana* Breuss – 4
- Verrucaria viridula* (Schrad.) Ach. – 1, 3, 4
- Verrucaria xyloxena* Norman – 1, 3, 4
- + *VERRUCULA biatorinaria* (Zehetl.) Nav.-Ros. et Cl. Roux. (as *Verrucaria biatorinaria*) – 3, 4
- + *VERRUCULOPSIS lecideoides* (A. Massal.) Gueidan et Cl. Roux (as *Verrucaria lecideoides*) – 1, 4
- + *Verruculopsis poeltiana* (Clauzade et Cl. Roux) Gueidan, Nav.-Ros. et Cl. Roux (as *Verrucaria poeltiana*) – 4
- ! *VERSEGHYA thysanophora* (R. C. Harris) S. Y. Kondr., L. Lőkös, Farkas et J.-S. Hur – A1: Ch, Zak (Vondrák et al. 2010b: 18 as *Lecanora thysanophora*); G, Zak (Malíček et al. 2017: 448 as *L. thysanophora*, *Malíček et al. 2018a: 161 as *L. thysanophora*).
- VEZDAEA aestivalis* (Ohl.) Tsch.-Woess et Poelt – 1, 3, 4
- ! *Vezdaea retigera* Poelt et Döbbeler – A1: G, Zak (Malíček et al. 2018a: 167).
- ! *Vezdaea stipitata* Poelt – A1: Ch, Zak (Vondrák et al. 2010b: 27).
- + *VIOLELLA fucata* (Stirt.) T. Sprib. (as *Mycoblastus fucatus*) – 1, 3, 4
- VOUAUXIELLA lichenicola* (Linds.) Petr. et Syd. [LF] – 4, 5
- ! *Vouauxiella verrucosa* (Vouaux) Petr. et Syd. [LF] – 5
- VOUAUXIOMYCES ramalinae* (Nordin) D. Hawksw. [LF] – 4
- VULPICIDA pinastri* (Scop.) J.-E. Mattsson et M.-J. Lai – 1, 3, 4
- ! *WADEANA dendrographa* (Nyl.) Coppins et P. James – A1: G, Zak (Dymytrova et al. 2012b: 62, 2013: 79, 2014: 1390, *Malíček et al. 2018a: 168).
- + *WAHLENBERGIELLA striatula* (Wahlenb.) Gueidan et Thüs (as *Verrucaria striatula*) – 1, 4
- ! *WEDDELLOMYCES epicallopisma* (Wedd.) D. Hawksw. [LF] – C3: Khe (Darmostuk and Khodosovtsev 2019: 113); ARC (Darmostuk and Khodosovtsev 2019: 113).
- ! *Weddellomyces heterochrous* Nav.-Ros. et Cl. Roux [LF] – 5
- + *XALOCOA ocellata* (Fr.) E. Kraichak, R. Lücking et Lumbsch (as *Diploschistes ocellata*) – 1, 4
- + *XANTHAPTYCHIA contortuplicata* (Ach.) S. Y. Kondr. et Ravera (as *Teloschistes contortuplicatus*) – 4
- + *XANTHOCARPIA aquensis* (Houmeau et Cl. Roux) Frödén, Arup et Søchting (as *Caloplaca aquensis*) – 4
- + *Xanthocarpia borysthениca* (Khodos. et S. Y. Kondr.) Frödén, Arup et Søchting (as *Caloplaca borysthениca*) – 4
- + *Xanthocarpia crenulatella* (Nyl.) Frödén, Arup et Søchting (as *Caloplaca crenulatella*) – 4

- ! *Xanthocarpia diffusa* (Vondrák et Llimona) Frödén, Arup et Søchting – C2: Myk (Khodosovtsev and Darmostuk 2020b: 247).
- + *Xanthocarpia ferrari* (Bagl.) Frödén, Arup et Søchting (as *Caloplaca ferrari*) – 1, 3, 4
- + *Xanthocarpia interfulgens* (Nyl.) Frödén, Arup et Søchting (as *Caloplaca interfulgens*) – 4
- + *Xanthocarpia lactea* (A. Massal.) Frödén, Arup et Søchting (as *Caloplaca lactea*) – 1, 3, 4
- + *Xanthocarpia marmorata* (Bagl.) Frödén, Arup et Søchting (as *Caloplaca marmorata*) – 4
- + *Xanthocarpia ochracea* (Schaer.) A. Massal. et De Not. (as *Caloplaca ochracea*) – 1, 4
- + *Xanthocarpia raesaenensis* (Bredkina) S. Y. Kondr. (as *Caloplaca raesaenensis*) – 4
- + *Xanthocarpia tominii* (Savicz) Frödén, Arup et Søchting (as *Caloplaca tominii*) – 4
- XANTHOPARMELIA conspersa** (Ehrh. ex Ach.) Hale – 1, 3, 4
- Xanthoparmelia convoluta** (Kremp.) Hale – 1, 4
- + *Xanthoparmelia delisei* (Duby) O. Blanco, A. Crespo, Elix, D. Hawksw. et Lumbsch (as *Neofuscelia delisei*) – 1, 4
- Xanthoparmelia desertorum** (Elenkin) Hale – 1, 4
- Xanthoparmelia loxodes** (Nyl.) O. Blanco, A. Crespo, Elix, D. Hawksw. et Lumbsch – 1, 4
- ! *Xanthoparmelia mougeotii* (Schaer. ex D. Dietr.) Hale – D: SBC, ARC (Khodosovtsev 2013: 86).
- Xanthoparmelia pokornyi** (Körb.) O. Blanko, A. Crespo, Elix, D. Hawksw. et Lumbsch – 1, 4
- Xanthoparmelia protomatrae** (Gyeln.) Hale – 1, 3, 4
- Xanthoparmelia pulla** (Ach.) O. Blanco *et al.* – 1, 3, 4
- ! *Xanthoparmelia pulvinaris* (Gyeln.) Ahti et D. Hawksw. – C2: Luh (Khodosovtsev *et al.* 2013a: 390). D: MC, ARC (Khodosovtsev *et al.* 2013a: 390).
- Xanthoparmelia ryssolea** (Ach.) O. Blanco, A. Crespo, Elix, D. Hawksw. et Lumbsch – 1, 4
- Xanthoparmelia somloensis** (Gyeln.) Hale – 1, 3, 4
- Xanthoparmelia subdiffluens** Hale – 1, 4
- Xanthoparmelia taurica** (Mereschk.) S. Y. Kondr. – 1, 4
- Xanthoparmelia tinctina** (Macheu et Gillet) Hale – 1, 4
- + *Xanthoparmelia verruculifera* (Nyl.) O. Blanco, A. Crespo, Elix, D. Hawksw. et Lumbsch (as *Neofuscelia verruculifera*) – 1, 3, 4
- XANTHORIA calcicola** Oxner – 1, 3, 4
- Xanthoria ectaneoides** (Nyl.) Zahlbr. – 4
- ! *Xanthoria juniperina* S. Y. Kondr. – D: SBC, ARC (Kondratyuk *et al.* 2013: 358).
- Xanthoria mediterranea** Giralt, Nimis et Poelt – 1, 4
- ! *Xanthoria monofoliosa* S. Y. Kondr. et Kärnefelt – C3: Khe (Khodosovtsev 2012: 398); Myk (Khodosovtsev *et al.* 2018a: 285).
- Xanthoria parietina** (L.) Th. Fr. – 1, 3, 4
- ! *Xanthoria pollesica* S. Y. Kondr. et A. P. Yatzyna – A3: Vol (Kondratyuk *et al.* 2013: 355); Kyi (Kondratyuk *et al.* 2013: 355, Kapets *et al.* 2015: 161); Zhy (Kondratyuk *et al.* 2013: 355); Riv (Kondratyuk *et al.* 2013: 455). B1: Kyi (Kapets *et al.* 2015: 161); Ter (Kondratyuk *et al.* 2013: 355). C1: Luh (Kondratyuk *et al.* 2013: 355); Ode (Kondratyuk *et al.* 2013: 355). C2: Luh (Kondratyuk *et al.* 2013: 355). C3: Khe (Kondratyuk *et al.* 2013: 355, Khodosovtsev and Khodosovtseva 2015: 54).
- Xanthoria steineri** I. M. Lamb – 4
- XANTHORIICOLA physciae** (Kalchbr.) D. Hawksw. [LF] – 1, 3, 4, 5
- ! *XENONECTRIELLA septemseptata* (Etayo) Etayo et van den Boom [LF] – A1: G, Zak (Malíček *et al.* 2018a: 169).
- ! *Xenonectriella subimperspicua* (Speg.) Etayo – A1: IF (Darmostuk *et al.* 2020: 22).
- XYLOGRAPHA paralella** (Ach.) Behlen et Desbois – 1, 3, 4
- ! *Xylographa trunciseda* (Th. Fr.) Minks et Redinger – A1: G, Zak (Malíček *et al.* 2018a: 168).

- ! *Xylographa vitiligo* (Ach.) J. R. Laundon – A1: G, IF (Khodosovitsev et al. 2016b: 275, Khodosovitsev et al. 2016a: 60). A3: Sum (Khodosovitsev et al. 2017a: 82).
- + *XYLOPSORA caradocensis* (Leight. ex Nyl.) Bendiksby et Timdal (as *Hypocenomyce caradocensis*) – 1, 3, 4
- + *Xylopsora friesii* (Ach.) Bendiksby et Timdal – 4 [as *Hypocenomyce friesii*]
- ! *ZAMENHOFIA pseudohibernica* (M. Tretiach) Cl. Rous et Tretiach – A1: G, Zak (Malíček et al. 2018a: 165 as *Porina pseudohibernica*).
- + *ZEROVIELLA digitata* (S. Y. Kondr.) S. Y. Kondr. et Hur (as *Rusavskia digitata*) – 1, 4
- + *Zeroviella papillifera* (Vain.) S. Y. Kondr. et Hur (as *Rusavskia papillifera*) – 1, 4
- ZWACKHIA viridis* (Ach.) Poetsch et Schied. – 1, 3, 4
- ! *ZWACKHIOMYCES berengerianus* (Arnold) Grube et Triebel [LF] – 5
- Zwackhiomyces calcariae* (Flagey) Hafellner et Nik. Hoffm. [LF] – 4, 5
- ! *Zwackhiomyces calcisedus* Cl. Roux [LF] – C3: Khe (Darmostuk 2019b: 304).
- ! *Zwackhiomyces cervinae* Calat., Triebel et Pérez-Ortega [LF] – 5
- Zwackhiomyces coepulonius* (Norman) Grube et Sant. [LF] – 1, 2, 4, 5
- ! *Zwackhiomyces diederichii* D. Hawksw. et Ittrur. [LF] – 5
- Zwackhiomyces dispersus* (J. Lahm et Körb.) Triebel et Grube [LF] – 4, 5
- ! *Zwackhiomyces inconspicuus* Grube et Hafellner [LF] – C3: Khe (Darmostuk 2019b: 307).
- Zwackhiomyces lecanorae* (Stein) Nik. Hoffm. et Hafellner [LF] – 4, 5
- ! *Zwackhiomyces lithoiceae* (B. de Lesd.) Hafellner et V. John [LF] – C1: Zap (Khodosovitsev and Darmostuk 2020a: 78). C3: Khe (Darmostuk 2019b: 308).
- ! *Zwackhiomyces macrosporus* Alstrup et Olech [LF] – A1: G, Zak (Darmostuk 2019b: 308).
- ! *Zwackhiomyces polischukii* Darmostuk et Khodos. [LF] – 5
- Zwackhiomyces sphinctriniformis* Grube et Hafellner [LF] – 2
- Zwackhiomyces sphinctrinoides* (Zwackh) Grube et Hafellner [LF] – 1, 4, 5

CONCLUSIONS

Data provided on some lichen taxa of Ukraine between 1998 and 2010 (between the 2nd and 3rd checklists) in references to original publications are still waiting for special analysis or clarifying, and will be published elsewhere.

Thus totally about 700 new names, i.e. ca 33% of names accepted in the fourth checklist of lichen-forming and lichenicolous fungi of Ukraine are new in comparison with the previous checklist (Kondratyuk et al. 2010). Of them ca 439 taxa (i.e. 20.4% of total number of species) newly recorded for Ukraine after the 3rd checklist of lichens of Ukraine. 340 taxa (i.e. 15.8%) of current additions are annotated in this paper while 99 taxa (4.6%) were annotated in the Checklist of lichenicolous fungi of Ukraine (Darmostuk and Khodosovitsev 2017a). Furthermore 262 nomenclatural novelties (i.e.: 12.2%) are present in this checklist compared to previous one.

The earlier recommendation is confirmed, since the national checklists of lichens are to be re-published more often than once a decade.

*

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REFERENCES

- Archymovych, O. (1924): Materials to flora of lichens of Ukraine and Crimea. Notes II. Cladoniaceae family. – *Notes fis.-math. Department of Ukrainian Academy of Sciences* 1(2): 55–59. [In Ukrainian]
- Bairak, E. N. and Navrotskaya, I. L. (1998): Flora of lichens of ‘Kamennye Mogily’ (= Stone Graves) Reserve. – *Proceedings of the Branch of the Ukrainian Steppe Nature Reserve “Stone Graves”. Anniversary collection, 1997 year. Fytosociocentre, Kiev* 1: 54–60. [In Ukrainian]
- Belke, G. (1866): Notice sur l’histoire naturelle du district de Radomysl. – Gouvernement de Kief, Moscou, 21 pp.
- Bielczyk, U., Bylińska, E., Czarnota, P., Czyżewska, K., Guzow-Krzemińska, B., Hachulka, M., Kiszka, J., Kowalewska, A., Krzewicka, B., Kukwa, M., Leśnianski, G., Śliwa, L. and Zalewska, A. (2005): Contribution to the knowledge of lichens and lichenicolous fungi of western Ukraine. – *Polish Bot. J.* 50(1): 39–64.
- Blum, O. B. (1962): To study of lichen flora of Velyko-Tokmaksky district, Zaporizhzhia oblast. – *Ukr. Bot. J.* 19(3): 104–107. [In Ukrainian]
- Boberski, W. (1883): Porosty galicyjskie. – *Kosmos* 8(4–5): 200–209.
- Boberski, W. (1889): Trzeci przyczynek do lichenologii Galicyi. – *Spraw. Kom. Fizjogr., Polska Acad. Umiejentosci.* 23: 36–49.
- Boiko, T. O. (2009): Annotated list of lichens and lichenicolous fungi of ‘Elanets Steppe’ Nature Reserve. – *Chornomorsky Botanical Journal* 5(3): 448–457. [In Ukrainian] <https://doi.org/10.14255/2308-9628/09.53/13>
- Boiko, T. (2010): First data on lichenobiota of ‘Pryngul’ landscape part (Mykolaiv oblast). – *Bulletin of Lviv University, Ser. Biology* 54: 165–171. [In Ukrainian]
- Boiko, T. O. (2011): Lichens of arid geographic element in Elanets-Ingul region (Mykolaiv oblast). Current issues of botany and ecology. – *Proceedings of the International Conference of Young Scientists. August 9–13, 2011, Berezne, Rivne oblast, Ukraine. Kyiv*, pp. 20–21. [In Ukrainian]
- Boiko, T. O. (2012): *Life forms of lichens from various substrata of Elanets-Ingul region (Mykolaiv and Kirovograd oblasts)*. – Proceedings, I Int. sci. conf. ‘Recent Phytomorphology’, 24–26 April 2012, Lviv. Lviv, pp. 85–88. [in Ukrainian]
- Bystrek, J. (1993): Usnea capillaris Mot., U. rugulosa Vain., U. scabrata Nyl. and U. scrobiculata Mot. in Europe. – *Ann. Univ. Mariae Curiae-Sklodowska, Ser. Biol. UMCS*, C. 48(12): 127–135.
- Bystrek, J. and Sulma, T. (1983): Nouvelle espece de lichen dans les Monts Czywczynskie. – *Ann. Univ. Mariae Curiae-Sklodowska, Ser. Biol. UMCS*, C. 38(4): 37–39.
- Bystrek, J. and Sulma, T. (1989): Usnea maxima Mot., nowy dla Karpat gatunek porostu. – *Fragm. flor. geobot.* 34(1–2): 169–170.
- Chepelevska, N. (2015): New data on lichens of western Chornohora. – Proceedings, Sci. Conf. to 60 year anniversary of of the High Mountain Biological Station of Ivan Franko

- National University of Lviv, 27–30 July 2015, Lviv–Kvasy. Ivan Franko National University of Lviv, Lviv, pp. 61–62. [in Ukrainian]
- Chepelevska, N. (2016): New data on epiphytic lichens of western Chornohora. – *Visn. Lvivsk. univ., Ser. biol.* **74**: 45–52. [in Ukrainian] http://nbuv.gov.ua/UJRN/VLNU_biol_2016_74_8
- Chernov, V. O. (1895): On lichens of Kharkov town and its vicinity. – *Trudy obsch. ispyt. prir. pri Kharkov univ.* **28**: 209–249. [in Russian]
- Coppins, B., Kondratyuk, S., Khodosovtsev, A., Wolseley P. and Zelenko, S. (2001): New for Crimea and Ukraine species of the lichens. – *Ukr. Bot. J.* **58**(6): 716–722.
- Czarnota, P., Mayrhofer, H. and Bobiec, A. (2018): Noteworthy lichenized and lichenicolous fungi of open-canopy oak stands in east-central Europe. – *Herzogia* **31**(1): 172–189. <https://doi.org/10.13158/099.031.0111>
- Darmostuk V. V. (2014a): Lecanora strobilina (Spreng.) Kieff. – new species for Ukrainian Plains. – *Chornom. Bot. J.* **10**(2): 244–245. [In Ukrainian] <https://doi.org/10.14255/2308-9628/14.102/8>
- Darmostuk, V. V. (2014b): First findings of lichens in 'Rusova valley' (Kherson oblast, Ukraine). – Int. Sci. Conf. 'VI botanical readings in memory of J. K. Pachosky', 19–22 May 2014, Kherson. Kherson, pp. 52–53. [in Ukrainian]
- Darmostuk V. V. (2016): Lichens and lichenicolous fungi of Rusova Balka (Velykooleksandrivskyi district, Kherson oblast). – *Biological studies* **10**(2): 133–140. [In Ukrainian]
- Darmostuk, V. V. (2018): New findings of lichenicolous fungi from Ukrainian Carpathians. – *Chornom. Bot. J.* **14**(2): 173–179. [in Ukrainian] <https://doi.org/10.14255/2308-9628/18.142/7>
- Darmostuk, V. V. (2019a): Genus *Lichenoconium* (Lichenoconiaceae, Ascomycota) in Ukraine. – *Ukr. Bot. J.* **76**(2): 101–113. [In Ukrainian] <https://doi.org/10.15407/ukrbotj76.02.101>
- Darmostuk, V. V. (2019b): To study of lichenicolous mycobiota of Ukraine: genus Zwackhiomyces (Xanthopyreniaceae, Collemopsidiales). – *Ukr. Bot. J.* **76**(4): 301–315. [in Ukrainian] <https://doi.org/10.15407/ukrbotj76.04.301>
- Darmostuk, V. V. and Gavrylenko, L. M. (2016): Stigmidium gyrophorarum (Arnold) D. Hawksw. – new species of lichenicolous fungi for Ukraine. – *Biol. Studii* **10**(3–4): 175–179. [in Ukrainian] http://nbuv.gov.ua/UJRN/bist_2016_10_3-4_18
- Darmostuk, V. V. and Khodosovtsev, O. Ye. (2014): Lichens and lichenicolous fungi of the Kalnius branch of the Ukrainian steppe reserve. – *Chornom. Bot. J.* **10**(4): 322–327. [In Ukrainian]
- Darmostuk, V. V. and Khodosovtsev, A. Ye. (2017a): Lichenicolous fungi of Ukraine: an annotated checklist. – *Studies in Fungi* **2**(1): 138–156. <https://doi.org/10.5943/sif/2/1/16>
- Darmostuk, V. V. and Khodosovtsev, O. Y. (2017b): *Phytoclimatic analysis of lichenobiota of 'Kamyani Mohylы' nature reserve*. – Proceedings, All Ukrainian sci. conf. Ser. 'Conservation Biology in Ukraine', 25–27 May 2017, Nazarovka, Issue 4, pp. 128–132. [in Ukrainian]
- Darmostuk, V. V. and Khodosovtsev, A. Ye. (2019): Epibryon kondratyukii sp. nov., a new algicolous fungus, and notes on rare lichenicolous fungi collected in Southern Ukraine. – *Folia Cryptog. Eston.* **56**: 109–116. <https://doi.org/10.12697/fce.2019.56.11>
- Darmostuk, V. V. and Sira, O. Ye. (2020): New and remarkable records of lichenicolous fungi from Ternopil Oblast (Ukraine). – *Czech Mycol.* **72**(1): 33–41. <https://doi.org/10.33585/cmy.72103>
- Darmostuk, V. V., Khodosovtseva, Y. A. and Khodosovtsev, O. Y. (2017): First data on lichens and lichenicolous fungi of 'Nyzhnjosulsky' and 'Piryatyn' national nature parks. – *Visn. Odessa nat. univ., Biol.* **22**(2, 41): 9–20. [in Ukrainian] http://nbuv.gov.ua/UJRN/Vonu_biol_2017_22_2_3

- Darmostuk, V. V., Khodosovtsev, A. Ye., Naumovich, G. O. and Kharechko, N. V. (2018): Rosselliniella lecideae sp. nov. and other interesting lichenicolous fungi from the Northern Black Sea region (Ukraine). – *Turkish J. Bot.* **42**: 354–361. <https://doi.org/10.3906/bot-1709-5>
- Darmostuk, V., Khodosovtsev, A., Vondrak, J. and Sira, O. (2020): New and noteworthy lichenicolous and bryophylous fungi from the Ukrainian Carpathians. – *Folia Cryptogamica Estonica* **58**: 19–24. <https://doi.org/10.12697/fce.2020.58.02>
- Didukh, Ya. P. (ed.) (2009): *Red Data Book of Ukraine. Plant world.* – Globalconsalting, Kyiv, 900 pp. [In Ukrainian]
- Diederich, P., Palice, Z. and Ertz, D. (2008): Cheiromycina ananas is a synonym of Dictyocatenulata alba, a widespread, lichenized, synnematous hyphomycete herewith reported as new for Europe. – *Sauteria* **15**: 205–214.
- Dymytrova, L. V. (2011): Notes on the genus *Scoliciosporum* (Lecanorales, Ascomycota) in Ukraine. – *Polish Bot. J.* **56**(1): 61–75.
- Dymytrova, L. V. (2013): Lichens of 'Lisnyky' botanical reservation (Kyiv city) and their indicator peculiarities. – *Ukr. Bot. J.* **70**(4): 522–534. [in Ukrainian] http://nbuv.gov.ua/UJRN/UBJ_2013_70_4_14
- Dymytrova, L. V., Breuss, O., and Kondratyuk, S. Ya. (2011): *Agonimia borysthenica*, a new lichen species (Verrucariales) from Ukraine. – *Österr. Z. Pilzk.* **20**: 25–28.
- Dymytrova, L., Keller, C. and Scheidegger, C. (2012a): *Agonimia borysthenica*, a new lichen species (Verrucariales) to Switzerland. – *Meylania* **49**: 16–18.
- Dymytrova, L., Nadyeina, O. V., Naumovych, G. O. et al. (2012b): *New and noteworthy epiphytic lichen from primeval beech forests of Ukrainian Carpathians.* – Proceedings, Int. Conf. of young scientists 'Recent problems of botany and ecology', 19–23 Sept. 2012, Uzhhorod. Publishing house Breza A. E., Uzhhorod, pp. 61–62.
- Dymytrova, L., Nadyeina, O., Naumovych, A., Keller, C. and Scheidegger, C. (2013): Primeval beech forests of Ukrainian Carpathians are sanctuaries for rare and endangered epiphytic lichens. – *Herzogia* **26**(1): 73–89. <https://doi.org/10.13158/heia.26.1.2013.73>
- Dymytrova, L., Nadyeina, O., Hobi, M. L. and Scheidegger, C. (2014): Topographic and forest-stand variables determining epiphytic lichen diversity in the primeval beech forest in the Ukrainian Carpathians. – *Biodiv. and Conserv.* **23**: 1367–1394. <https://doi.org/10.1007/s10531-014-0670-1>
- Elenkin, A. A. (1904): Lichenes florae Rossiae et regionum confinium orientalium. Fasc. II–IV. – *Tr. Imper. St. Petersburg botan. Garden* **24**, part 1 (2–4): 1–118.
- Faltynowicz, W. and Sulma, T. (1994): Materials to the flora of lichenized Ascomycotina of the Czywczyn Mts. (Eastern Carpathians, Ukraine) Part II. – *Herzogia* **10**: 93–98.
- Fedorenko, N. M., Kondratyuk, S. Ya. and Orlov, O. O. (2006): *Lichens and lichenicolous fungi of Zhytomyr oblast.* – Kiev, Zhytomyr. 147 pp. [In Ukrainian]
- Fedorenko, N. M., Nadyeina, O. V. and Kondratyuk, S. Y. (2007): New and rare species of lichenicolous fungi from Ukraine. – *Ukr. Bot. J.* **64**(1): 47–55. [In Ukrainian].
- Fries, Th. M. (1855): Om Ukräns Laf-vegetation. – *Öfver. Kong. Vetensk.-Akad. Förh. Arg.* **12**(1): 13–20.
- Frolov, I., Vondrák, J., Fernandez-Mendoza, F., Wilk, K., Khodosovtsev, A. and Halici, M. G. (2016): Three new, seemingly-cryptic species in the lichen genus *Caloplaca* (Teloschistaceae) distinguished in two-phase phenotype evaluation. – *Ann. Bot. Fennici* **53**: 243–262. <https://doi.org/10.5735/085.053.0413>
- Gavrylenko, L. M. (2010): Lichens of 'Kair valley' landscape reservation (Kherson oblast, Hornostayiv district). – *Nauk. visn. Uzhgorod univ. Ser. Biol.* **28**: 58–60. [in Ukrainian]

- Gavrylenko, L. M. (2012): New for Ukraine species of lichens and lichenicolous fungi from Lower Dnieper region. – *Ukr. Bot. J.* **69**(5): 717–720. [in Ukrainian]
- Gavrylenko, L. M. (2014): *Lichenobiota of Golden Balka (Kherson oblast, Ukraine)*. – VI Botanical readings in memory of J. K. Pachosky. International scientific conference. Kherson, May 19–22, 2014. Kherson. pp. 52–53. [In Ukrainian]
- Golovenko, Ye. O. (2016): Lichenoflora of iron ore dumps in Kryvyi Rih town. – *Chornom. Bot. J.* **12**(1): 78–84. [In Ukrainian] <https://doi.org/10.14255/2308-9628/16.121/8>
- Gromakova, A. B. (2013): New and rare for left bank Ukraine lichen species from chalk outcrops. – *Ukr. Bot. J.* **70**(5): 664–668. [in Ukrainian]
- Gromakova, A. B. (2014): New and rare for Left Bank Ukraine lichens and lichenicolous fungi from the basin of the Siversky Donets River. – *Chornom. Bot. J.* **10**(4): 506–514. [In Ukrainian] <https://doi.org/10.14255/2308-9628/14.104/5>
- Gromakova, A. B. and Kondratyuk, S. Y. (2017): *Involucropyrenium breussii* (Verrucariaceae, lichen-forming Ascomycota), a new lichen species from chalk soil of Eastern Ukrainian Steppes. – *Acta Bot. Hung.* **59**(3–4): 335–342. <https://doi.org/10.1556/034.59.2017.3-4.4>
- Gromakova, A. B. (2018): New findings of lichens and lichenicolous fungi from Eastern Ukraine. – *Chornom. Bot. J.* **14**(3): 269–278. [in Ukrainian] <https://doi.org/10.14255/2308-9628/18.143/5>
- Haji Moniri, M., Gromakova, A. B., Lőkös, L. and Kondratyuk, S. Y. (2017): New members of the Megasporaceae (Pertusariales, lichen-forming Ascomycota): Megaspora iranica spec. nova and Oxneriaria gen. nova. – *Acta Bot. Hung.* **59**(3–4): 343–370. <https://doi.org/10.1556/034.59.2017.3-4.5>
- Hazslinszky, F. (1859): Beiträge zur Kenntnis der Karpathen-Flora: 8. Flechten. – *Verh. zool.-bot. Gesellsch. Wien.* **9**(5): 7–26.
- Hazslinszky, F. (1884): *A Magyar Birodalon zuzmóflórája*. – Budapest, 304 pp.
- Hruby, J. (1925): Die Vegetationsverhältnisse Karpato-Russlands und der östlichen Slovakei. – *Bot. Archiv.* **11**(3–4): 203–271.
- Kapets, N. V. (2016): New and rare for Ukraine lichenicolous fungi. – *Ukr. Bot. J.* **73**(1): 90–92. [in Ukrainian] <https://doi.org/10.15407/ukrbotj73.01.090>
- Kapets, N. V. (2017): *Lichenicolous fungi Teteriv River basin*. – Proceedings, Int. Conf. ‘Achievements in botany and ecology’, 5–10 Sept. 2017, Lutsk, Ukraine. Lutsk, pp. 14–15. [in Ukrainian]
- Kapets, N. V. and Kondratyuk, S. Y. (2019): New data on lichenicolous fungi of the Teteriv River Basin (Ukraine). – *Acta Bot. Hung.* **61**(1–2): 45–54. <https://doi.org/10.1556/034.61.2019.1-2.6>
- Kapets, N. V., Barsukov, O. O., Vynokurov, D. S. and Khomyak, I. V. (2018): Pioneer lichen communities of the Teteriv River basin (Ukraine). – *Acta Bot. Hung.* **60**(3–4): 331–355. <https://doi.org/10.1556/034.60.2018.3-4.6>
- Kapets, N. V., Pleskach, L. Yu., Popova, L. P., Fedorenko, N. M., Litovyncska, A. V., Sherushova, N. V. and Kondratyuk, S. Ya. (2015): New for Ukraine and rare species of lichens and lichenicolous fungi. – *Ukr. Bot. J.* **72**(2): 156–163. [in Ukrainian]
- Kashmensky, B. O. (1906): Lichens of Kursk and Kharkov hub. – *Bot. zhurn. obshch. estestvoispyt.* **3**: 73–110. [in Russian]
- Khodosovtsev, O. Ye. (2002): Ecological indices of lichens of rock outcrops of Karabi-yayla (Crimean AR, Ukraine). – *Natural Almanah. Ser. Biological Sciences* **2**(3): 225–239. [In Ukrainian]
- Khodosovtsev, O. Ye. (2003): Annotated list of lichens of Karadag nature reserve. – *Visti biospher. zapov. 'Askania-Nova'* **5**: 31–43. [in Ukrainian]

- Khodosovtsev, O. Ye. (2005a): New for Ukraine genera of lichens. – *Ukr. Bot. J.* **62**(2): 170–174. [In Ukrainian]
- Khodosovtsev, A. Ye. (2005b): Genus *Candelariella* (Candelariaceae, Lecanorales) of the South of Ukraine. – *Novosti sist. nizsh. rasten.* **39**: 233–248. [in Russian]
- Khodosovtsev, A. Ye. (2006a): Annotated list of lichens of Kazantyp nature reserve. – *Trudy Nikitsk. bot. sada – Nat. sc. centre* **126**: 216–221. [in Russian]
- Khodosovtsev, O. Ye. (2006b): New for Ukraine lichen species from Crimea. – *Ukr. Bot. J.* **63**(2): 196–202. [in Ukrainian]
- Khodosovtsev, O. Ye. (2008b): New and rare for Ukraine lichen species from the South of Steppe zone. – *Ukr. Bot. J.* **65**(2): 234–241. [in Ukrainian]
- Khodosovtsev, O. Ye. (2012): Annotated list of lichen-forming and lichenicolous fungi of Chornomorsky botanical reserve. – *Chornom. Bot. J.* **8**(4): 393–400. [in Ukrainian] <https://doi.org/10.14255/2308-9628/12.84/6>
- Khodosovtsev, O. Ye. (2013): New to Ukraine and Crimea lichens and lichenicolous fungi from Ayu-Dah Mt. (Ukraine). – *Chornom. Bot. J.* **9**(1): 84–88. [in Ukrainian] <https://doi.org/10.14255/2308-9628/13.91/7>
- Khodosovtsev, O. Ye. (2015): Endocarpo-Xanthocarpion tominii all. nov. and Caloplace-tum albolute-scentis ass. nov., new syntaxa of lichen communities from loess outcrops of the South of Ukraine. – *Chornom. Bot. J.* **11**(3): 317–326. [in Ukrainian] <https://doi.org/10.14255/2308-9628/15.113/4>
- Khodosovtsev, O. Ye. and Bohdan, O. V. (2005): Annotated catalogue of lichens of Yalta montaneous-forest nature reserve. – *Chornom. Bot. J.* **1**(1): 117–132. [in Ukrainian]
- Khodosovtsev, O. Ye. and Bohdan, O. V. (2006): Annotated list of lichens of Crimea nature reserve. – *Chornom. Bot. J.* **2**(2): 95–117. [in Ukrainian]
- Khodosovtsev, A. Ye. and Darmostuk, V. V. (2017a): Collemopsidium kostikovii sp. nov. (Collemopsidales, Xanthopyrenaceae), a new algicolous funfus on terricolous Nostoc crust from Ukraine. – *Ukr. Bot. J.* **74**(5): 431–435. <https://doi.org/10.15407/ukr-botj74.05.431>
- Khodosovtsev, O. Ye. and Darmostuk V. V. (2017b): New species of lichenicolous fungi for Ukraine. – *Ukr. Bot. J.* **74**(2): 177–183. [in Ukrainian] <https://doi.org/10.15407/ukr-botj74.02.177>
- Khodosovtsev, A. Ye. and Darmostuk, V. V. (2018): New for Ukraine species of lichens and lichenicolous fungi from marbl limestones in the Northern Black Sea Region. – *Ukr. Bot. J.* **75**(1): 33–37. <https://doi.org/10.15407/ukrbotj75.01.33>
- Khodosovtsev, A. Ye. and Darmostuk, V. V. (2020b): Lichens and lichenicolous fungi of Khortytsia Island (Ukraine). – *Chornom. Bot. J.* **16**(1): 74–80. <https://doi.org/10.1556/034.60.2018.3-4.6>
- Khodosovtsev, A. and Darmostuk, V. (2020b): Records of lichen species new for Ukraine from steppe habitats of the country. – *Botanica Serbica* **44**(2): 243–250. <https://doi.org/10.2298/BOTSERB2002243K>
- Khodosovtsev, O. Ye. and Khodosovtseva, Yu. A. (2014): Lichens and lichenicolous fungi of dendropark of F.E. Falts-Fein 'Askania-Nova' biosphere reserve. – *Chornom. Bot. J.* **10**(4): 515–526. [in Ukrainian] http://nbuv.gov.ua/UJRN/Chbj_2014_10_4_8
- Khodosovtsev, O. and Khodosovtseva, Yu. (2015): Lichens and lichenicolous fungi of 'Oleshkivski pisky' national nature park (Kherson oblast, Ukraine). – *Chornom. Bot. J.* **11**(1): 51–56. [In Ukrainian] <https://doi.org/10.14255/2308-9628/15.111/5>
- Khodosovtsev, O. Ye. and Redchenko, O. O. (2002): Annotated list of lichens of 'Mys Martyan' reserve. – *Ukr. Bot. J.* **59**(1): 64–71. [in Ukrainian]

- Khodosovtsev, O. Ye. and Zavyalova, T. V. (2008a): Lichens and lichenicolous fungi of 'Kamyana mohula' geologic nature monument (Zaporizhzhia oblast, Melitopolj district). – *Chornom. Bot. J.* 4(2): 264–272. [in Ukrainian]
- Khodosovtsev, O. Ye. and Zavyalova, T. V. (2008b): Lichenological zoning of rocky outcrops of the bank of the Kainulak River (Zaporizhzhia oblast, Chernihiv district). – *Visnyk of Odessa National University, Biology* 13(16) 56–60. [In Ukrainian]
- Khodosovtsev, O. Ye. and Zavyalova, T. V. (2011): *Lichens of the key botanical territories of northern-western Priazov region*. – Proceeds, Int. workshop 'Network of key botanical territories in Priazov region', 6–7 October 2011, Melitopolj. Altapress, Kyiv, pp. 55–56. [in Ukrainian]
- Khodosovtsev, A. Ye., Naumovich, A., Vondráková, O. S. and Vondrák, J. (2010): Athelium imperceptum Nyl. (Thelocarpaceae, Ascomycota), a scarcely known ephemeral lichen of biological soil crusts, new to Ukraine. – *Chornom. Bot. J.* 6(3): 385–389.
- Khodosovtsev, O. Ye., Nadyeina, O. V. and Vondrákova, O. S. (2013a): New to Ukraine species of epigeic lichens. – *Ukr. Bot. J.* 70(3): 386–391. [in Ukrainian]
- Khodosovtsev, O. Ye., Nadyeina, O. V. and Gromakova, A. B. (2013b): Annotated list of lichens and lichenicolous fungi of 'Kamyani Mohyly' reserve (Ukraine). – *Chornom. Bot. J.* 9(4): 542–552. [in Ukrainian] <https://doi.org/10.14255/2308-9628/13.94/8>
- Khodosovtsev, O., Dymytrova, L., Nadyeina, A., Naumovych, A., Khodosovtseva, Yu. and Scheidegger, C. (2013c): A contribution to beech forest-associated epiphytic lichen-forming and lichenicolous fungi in Crimean Mts (Ukraine). – *Flora Medit.* 23: 57–68. <https://doi.org/10.7320/FIMedit23.057>
- Khodosovtsev, O. Ye., Nadyeina, O. V. and Khodosovtseva, Yu. A. (2014): Epigeic lichen communities of Plain Crimea (Ukraine). – *Chornom. Bot. J.* 10(2): 202–223. [in Ukrainian] <https://doi.org/10.14255/2308-9628/14.102/5>.
- Khodosovtsev, O. Ye., Darmostuk, V. V. and Gromakova, A. B. (2015): Japewia Tønsberg (Ramalinaceae, Ascomycota), new genus for lichenobiota of Ukraine. – *Ukr. Bot. J.* 72(5): 484–486. [in Ukrainian] http://nbuv.gov.ua/UJRN/UBJ_2015_72_5_12
- Khodosovtsev, O. Ye., Darmostuk, V. V., Gromakova, A. B. and Shpilchak, M. B. (2016a): First data on lichens and lichenicolous fungi of 'Gorgany' nature reserve. – *Chornom. Bot. J.* 12(1): 51–63. [in Ukrainian] <https://doi.org/10.14255/2308-9628/16.121/5>.
- Khodosovtsev, A. Ye., Darmostuk, V. V. and Gromakova, A. B. (2016b): New for Ukraine lichen-forming and lichenicolous fungi from Gorgany Nature Reserve. – *Ukr. Bot. J.* 73(3): 273–276. <https://doi.org/10.15407/ukrbotj73.03.273>
- Khodosovtsev, A. Ye., Gavrylenko, L. M. and Klymenko, V. M. (2016c): Katherinomyces cetrariae gen. et sp. nov. (asexual Ascomycota) and Sphaerellothecium aculeatae sp. nov. (Mycosphaerellaceae), new lichenicolous fungi on Cetraria aculeata in Ukraine. – *Nova Hedwigia* 102(3–4): 47–55. https://doi.org/10.1127/nova_hedwigia/2016/0333
- Khodosovtsev, O. Ye., Darmostuk, V. V. and Nazarchuk, Yu. S. (2016d): Lichens and lichenicolous fungi of Tyligul regional landscape park (Odessa oblast, Ukraine). – *Chornom. Bot. J.* 12(2): 165–177. [In Ukrainian] <https://doi.org/10.14255/2308-9628/16.122/6>
- Khodosovtsev, O. Ye., Darmostuk, V. V. and Panchenko, S. M. (2017a): Lichens of 'Desnyansko-Starogutsky' national nature park. – *Chornom. Bot. J.* 13(1): 72–86. [in Ukrainian] <https://doi.org/10.14255/2308-9628/17.131/6>.
- Khodosovtsev, O. Ye., Darmostuk, V. V. and Khodosovtseva, Yu. A. (2017b): Lichens and lichenicolous fungi of 'Biloberezhzhia Svyatoslava' national nature park. – *Chornom. Bot. J.* 13(3): 324–332. [in Ukrainian] <https://doi.org/10.14255/2308-9628/17.133/7>
- Khodosovtsev, O., Darmostuk, V. V. and Khodosovtseva, Yu. (2017c): The state of study of the diversity of lichens and lichenophilous fungi in reserves and national natural

- parks of the steppe zone of Ukraine. Protected area in the steppe zone of Ukraine (to the 90th anniversary of the creation of the Near sea Reserves), village Urzuf, March 14–15, 2017. – *Conservation Biology in Ukraine* 2(2): 181–187. [In Ukrainian]
- Khodosovtsev, O. Ye., Darmostuk, V. V., Moisienko, I. I. and Davydov, O. V. (2018a): Lichens and lichenicolous fungi of Berezanj Island with notes on its floristic and landscape diversity. – *Chornom. Bot. J.* 14(3): 279–290. [in Ukrainian] <https://doi.org/10.14255/2308-9628/18.143/6>
- Khodosovtsev, O. Ye., Darmostuk, V. V., Khodosovtseva, Yu. A., Naumovich, G. O. and Malyuga, N. H. (2018b): Lichens and lichenicolous fungi of Chalbaska arena of low dnieper sands (Kherson oblast). – *Chornom. Bot. J.* 14(1): 69–90. [in Ukrainian] <https://doi.org/10.14255/2308-9628/18.141/6>
- Khodosovtsev, A., Darmostuk, V., Suija, A. and Ordynets, A. (2018c): Didymocyrtis trassii sp. nov. and other lichenicolous fungi on Cetraria aculeata. – *Lichenologist* 50(5): 529–540. <https://doi.org/10.1017/S0024282918000294>
- Khodosovtsev, O. Ye., Darmostuk, V. V., Moysiyanenko, I. I., Zakharova, M. Ya. and Derkach, O. M. (2019a): Fulgensia desertorum (Teloschistales, Ascomycota) and other vrazlyvi lichen species of Toninio-Psoretum decipientis community. – *Ukr. Bot. J.* 76(3): 236–242. [in Ukrainian] <https://doi.org/10.15407/ukrbotj76.03.236>
- Khodosovtsev, O. Ye., Darmostuk, V. V., Khodosovtseva, Yu. A. and Haichenia, Yu. V. (2019b): Lichens and lichenicolous fungi of Trykraty granitic massif (Ukraine). – *Chornom. Bot. J.* 15(1): 54–68. [in Ukrainian] <https://doi.org/10.32999/ksu1990-553X/2019-15-1-6>
- Khodosovtseva, Yu. A. (2008): Lichens of arboretum of Nikitsky botanical garden and their bioindication peculiarities. – *Chornom. Bot. J.* 4(1): 114–122. [in Ukrainian]
- Khodosovtseva, Yu. A. (2009): Lichenindication mapping of urban landscapes of Yalta amphiteatr (Crimea). – *Chornom. Bot. J.* 5(2): 207–218. [in Ukrainian]
- Klymenko, V. M. (2015): Lichenindication estimate of quality exchanges of atmosphere air of Kherson city during 20 years. – *Chornom. Bot. J.* 11(4): 521–534. [in Ukrainian] <https://doi.org/10.14255/2308-9628/15.114/8>
- Klymenko, V. M. (2016): Lichen indication estimate of air quality in small and middle towns of South Ukraine. – *Chornom. Bot. J.* 12(2): 191–205. [In Ukrainian] <https://doi.org/10.14255/2308-9628/16.122/8>
- Kondratyuk, S. Ya. (1984): Lichens of Kaniv deployed area. – *Ukr. Bot. J.* 41(5): 46–51. [In Ukrainian]
- Kondratyuk, S. Ya. (1994): Lichen indication mapping of air pollution in Ukraine. – *Ukr. Bot. J.* 51(2–3): 148–152.
- Kondratyuk, S. Ya. (1995): Lichens of 'Medobory' reserve. – *Ukr. Bot. J.* 52(1): 141–144. [in Ukrainian]
- Kondratyuk, S. Ya. (1999): *Lichenicolous fungi of Ukraine. Study of diversity of mycobiota of Ukraine (lichenicolous, septoriевые и пучиневые грибы)*. – Phitosociocentre, Kyiv, pp. 8–43. [in Ukrainian]
- Kondratyuk, S. Ya. (2011): Annotated list of lichens of granite canyons of Ukraine. In: Mykhailyuk, T. I., Kondratyuk, S. Ya. et al. (eds): Lichens, mosses and terrestrial algae of granite canyons of Ukraine, Alterpress, Kyiv, pp. 282–323. [In Ukrainian]
- Kondratyuk, S. Ya. (2012): Lichens of main habitats of 'Gutsulshchyna' national nature park. – *Ukr. Bot. J.* 69(3): 397–405. [in Ukrainian]
- Kondratyuk, S. Ya. and Blum, O. B. (1985): New and rare for lichenoflora of U.S.S.R. lichen species. – *Ukr. Bot. J.* 42(4): 67–70. [In Ukrainian]

- Kondratyuk, S. Ya. and, Coppins, B. J. (2000): Basement for the lichen monitoring in Uzhan-sky National Nature Park, Ukrainian part of the Biosphere Reserve 'Eastern Carpathians'. – *Roczn. Bieszczadz.* 8: 149–192.
- Kondratyuk, S. Ya. and Kolomiets, I. V. (1997): New to Ukraine species of lichens and lichenicolous fungi of 'Medobory' reserve. – *Ukr. Bot. J.* 54(1): 42–27. [in Ukrainian]
- Kondratyuk, S., Khodosovtsev, A. and Zelenko, S. (1998a): *The second checklist of lichen forming, lichenicolous and allied fungi of Ukraine*. – Phytosociocentre, Kiev, 179 pp.
- Kondratyuk, S., Navrotskaya, I., Khodosovtsev, A. and Solonina, O. (1996): Checklist of Ukrainian lichens. – *Bocconeia* 6: 217–294.
- Kondratyuk, S. Ya., Popova, L. P., Lackovičová, A. and Pišút, I. (2003): *A catalogue of Eastern Carpathian lichens*. – M. H. Kholodny Institute of Botany, Kiev–Bratislava, 264 pp.
- Kondratyuk, S. Ya., Dymytrova, L. V. and Nadeina, O. V. (2010): *The third checklist of lichens of Ukraine*. – In: Oxner, A. M.: Flora of the lichens of Ukraine, vol. 2, issue 2. Naukova dumka, Kiev, pp. 446–486.
- Kondratyuk, S., Yatsyna, A., Lőkös, L., Galanina, I., Haji Moniri, M. and Hur, J.-S. (2013): Three new Xanthoria and Rusavskia species (Teloschistaceae, Ascomycota) from Europe. – *Acta Bot. Hung.* 55(3–4): 351–365. <https://doi.org/10.1556/ABot.55.2013.3-4.10>
- Kondratyuk, S. Y., Lőkös, L. and Hur, J.-S. (2014): New lichen-forming and lichenicolous fungi from Ukraine. – *Acta Bot. Hung.* 56(3–4): 359–366. <https://doi.org/10.1556/abot.56.2014.3-4.11>
- Kondratyuk, S. Y., Gromakova, A. B., Khodosovtsev, A. Y., Kim, J. A., Kondratiuk, A. S. and Hur, J.-S. (2015): Agrestia zerovii (Megasporaceae, lichen-forming Ascomycetes), a new species from southeastern Europe proved by alternative phylogenetic analysis. – *Studia bot. hung.* 46(2): 69–94. <https://doi.org/10.17110/StudBot.2015.46.2.69>
- Kondratyuk, S. Y., Halda, J. P., Lőkös, L., Yamamoto, Y., Popova, L. P. and Hur, J.-S. (2019): New and noteworthy lichen-forming and lichenicolous fungi 8. – *Acta Bot. Hung.* 61(1–2): 101–135. <https://doi.org/10.1556/034.61.2019.1-2.8>
- Kondratyuk, S. Y., Upreti, D. K., Mishra, G. K., Nayaka, S., Ingle, K. K., Orlov, O. O., Kondratiuk, A. S., Lőkös, L., Farkas, E., Woo, J.-J. and Hur, J.-S. (2020): New and noteworthy lichen-forming and lichenicolous fungi 10. – *Acta Bot. Hung.* 62(1–2): 69–108. <https://doi.org/10.1556/034.62.2020.1-2.6>
- Kopachevska, Ye. G. (1959): New for U.S.S.R. species of Rinodina. – *Ukr. Bot. J.* 16(3): 82–86. [In Ukrainian]
- Kopachevska, Ye. G. (1963): *Materials to study of lichenflora of forests of Crimea state reserve-hunting farm*. – Pytannia fisiologii, tsyto embriologii i flory Ukrayiny, Kyiv, pp. 211–223. [in Ukrainian]
- Kopachevskaya, Ye. G. (1986): *Lichenoflora Crimea and its analysis*. – Naukova dumka, Kyiv, 296 pp. [in Russian]
- Makarevich, M. F., Navrotskaya, I. L. and Yudina, I. V. (1982): *Atlas of geographic distribution of lichens in Ukrainian Carpathians*. – Naukova dumka, Kiev, 402 pp. [In Russian]
- Malíček, J., Berger, F., Palice, Z. and Vondrák, J. (2017): Corticolous sorediate Lecanora species (Lecanoraceae, Ascomycota) containing atranorin in Europe. – *Lichenologist* 49(5): 431–455. <https://doi.org/10.1017/S002428291700038X>
- Malíček, J., Palice, Z., Acton, A., Berger, F., Bouda, F., Sanderson, N. and Vondrák, J. (2018a): Uholka primeval forest in the Ukrainian Carpathians – a keynote area for diversity of forest lichens in Europe. – *Herzogia* 31(1): 140–171. <https://doi.org/10.13158/099.031.0110>

- Malíček, J., Palice, Z., Vondrák, J., Łubek, A., Kukwa, M. (2018b): *Bacidia albogranulosa* (Ramalinaceae, lichenized Ascomycota), a new sorediate lichen from European old-growth forests. – *MycoKeys* **44**: 51–62. <https://doi.org/10.3897/mycokeys.44.30199>
- Mereschkowsky, C. (1920): *Enumeratio lichenum in peninsula Taurica hucusque congitorum.* – *Bull. Soc. bot. France* **67**: 186–197, 284–295.
- Mikhailovsky, V. S. (1927): The result of lichenological observations within the Kharkiv district. – Research Institute of Botany, Nauch. zap. Kharkiv, pp. 1–27. [In Russian]
- Montrezzor, V. (1886): *Review of plants including in flora of hibernias of Kiev educational region: Kievskaya, Volunskaya, Podolskaya, Chernigovskaya and Poltavskaya.* – Kiev, 508 pp. [in Russian]
- Morochkovsky, S. F., Zerova, M. Y., Lavitska, Z. G. and Smitska, M. F. (1969): *Handbook of fungi of Ukraine. 2. Ascomycetes.* – Naukova dumka, Kyiv, 517 pp. [In Ukrainian].
- Motyka, J. (1936–1938): *Lichenum generis Usnea studium monographicum.* – Leopoli, 651 pp.
- Nádvorník, J. (1935): Několik nových a zajímavých lišejníků československých. – *Sborn. Klubu Přír.*, Brno **18**: 54–55.
- Nadyeina, O. (2009): The lichen-forming and lichenicolous fungi of the Donetsk Upland (Ukraine). – *Mycol. Balcan.* **6**: 37–53.
- Nazarchuk, Yu. S. (2008): Substrate adaptation of lichens of steppes of the south-west of Ukraine. – *Visnyk of Odessa National University, Biology* **13**(4): 87–92. [In Ukrainian]
- Nazarchuk, Yu. S. and Kondratyuk, S. Ya. (2007): Lichens of Zmiiny Island (Ukraine). – *Ukr. Bot. J.* **64**(6): 859–866. [in Ukrainian]
- Naumovych, G. O. (2009): *Study of lichen flora of metaconglomerates and sand rocks of Skelyuvatska svita of Kryvorizhzhia seria in valley of Inhulets River.* – Proceedings, 4th Int. Sci. Conf., 2009, Kryvyj Rig. Vydavnychij dim., Kryvyj Rig, pp. 233–234. [in Ukrainian]
- Nyporko, S. O., Barsukov, O. O. and Kapets, N. V. (2018): Floristic findings of bryophytes, lichens and lichenicolous fungi in 'Hutsulshchyna' national nature park. – *Ukr. Bot. J.* **75**(2): 179–186. [in Ukrainian] <https://doi.org/10.15407/ukrbotj75.02.179>
- Oxner, A. M. (1927): To the study of the flora of lichens of stone outcrops of Ukraine. – *Visn. Kiev. Botanical Garden.* **5–6**: 23–82. [In Ukrainian]
- Oxner, A. M. (1935): Taxonomical review of lichens of Ukraine. 1. Family Verrucariaceae and Dermatocarpaceae. – *J. Inst. Bot.* **7**(15): 43–59. [in Ukrainian]
- Oxner, A. M. (1956): *Flora of the lichens of Ukraine, vol. 1.* – Publishing House of Academy of Sciences of Ukr. S.S.R., Kiev, 495 pp. [In Ukrainian]
- Oxner, A. M. (1962): Epilithic lichen communities of 'Kamyani Mogyl' steppe reserve in south of Ukraine. – *Ukr. Bot. J.* **19**(1): 72–83. [In Ukrainian]
- Oxner, A. M. (1968): *Flora lyshajnykiv Ukrayiny, vol. 2 issue 1.* – Naukova dumka, Kyiv, 498 pp. [in Ukrainian]
- Oxner, A. M. (1993): *Flora of the lichens of Ukraine, vol. 2, issue 2.* – Naukova dumka, Kiev, 540 pp. [In Ukrainian]
- Oxner, A. M. (2010): *Flora of the lichens of Ukraine, vol. 2, issue 3.* – Naukova dumka, Kiev, 662 pp. [In Ukrainian]
- Oxner, A. M. and Kopachevska, Ye. G. (1959): On *Roccella fucoides* (Neck.) Vain. found in Crimea. – *Ukr. Bot. J.* **16**(1): 101–105. [in Ukrainian]
- Pirogov, M. V. (2011b): Lichen biota of the Ukrainian Roztocze. I. Ecological complexes of lichens. – *Visnyk of Lviv National University, Ser. biological* **57**: 84–93. [In Ukrainian]. [Пірогов М.В. Ліхенобіота Українського Розточчя. І. Екологічні комплекси лишайників // Вісник Львівського університету. Серія біологічна. 2011b. Випуск 57. С. 84–93.]

- Pirogov M. (2011c): *Lichens and lichenicolous fungi of Ukrainian Roztochya. Current issues of botany and ecology*. – Proceedings of the international conference of young scientists. August 9–13, 2011, Berezne, Rivne oblast, Ukraine. Kyiv, pp. 47–48.
- Pirogov, M. (2015): *The state of study of lichenicolous biota of Chornohora*. – Proceeds, Sci. Conf. to 60 year anniversary of the High Mountain Biological Station of Ivan Franko National University of Lviv, 27–30 July 2015, Lviv–Kvasy. Ivan Franko National University of Lviv, Lviv, pp. 59–61. [in Ukrainian]
- Pirogov, M. and Chepelevska, N. (2015): *Porpidia tuberculosa* and *Endococcus brachysporus* in Ukrainian Carpathians. – Abstracts, VI Open Congress of phytobiologists of Prichernomoria (=Black sea reagion), 19 May 2015, Kherson–Lazurne. Kherson state university, Kherson, pp. 39–40. [in Ukrainian]
- Pirogov, M., Chepelevska, N. and Vondrák, J. (2014): Carborea in Ukraine. – *Biol. Studii*, Lviv 8(1): 137–148. <https://doi.org/10.30970/sbi.0801.317>
- Pirogov, M., Kvakovska, I. and Myzyuk, T. (2014): Epilithic lichenbiota of Polonyna Buvkovska Ridge (Uzhansky national nature park). – *Visn. Lviv univ. Ser. biol.* 67: 73–82. [in Ukrainian]
- Pirogov, M., Tasenkevich, L. and Szaravara, S. (2015): Notatki o biocie epilitycznych i epigeicznych porostów Parku Narodowego Beskidy Skolskie. – *Roczn. Bieszczadz.* 23: 81–93.
- Printzen, C., Halda, J. P., McCarthy, J. W., Palice, Z., Rodriguez-Flakus, P., Thor, G., Tønsberg, T. and Vondrák, J. (2016): Five new species of Biatora from four continents. – *Herzogia* 29(2): 566–585. <https://doi.org/10.13158/heia.29.2.2016.566>
- Redchenko, O. O. (2001): New and rare species of lichens from coastal part of Crimea. – *Ukr. Bot. J.* 58(5): 578–582. [in Ukrainian]
- Redchenko, O. O. (2002): Lichens of coastal part of Kerch peninsula. – *Ukr. Bot. J.* 59(4): 426–436. [in Ukrainian]
- Rishavi, L. (1881a): List of lichens collected on Castel Mt. – *Notes of Novorussian Society of Naturalists* 2(2). [In Russian]
- Rishavi, L. (1881b): Material of lichenflora of Crimea. – *Notes of Novorussian Society of Naturalists* 7(2): 1–10. [In Russian]
- Rusina, N. V., Nadyeina, O. V. and Khodosovtsev, O. Y. (2010): Annotated list of lichenized fungi of Luhansk nature reservation. – *Chornom. Bot. J.* 6(2): 247–258. [in Ukrainian]
- Servit, M. and Nádvorník, J. (1931–1932): *Flechten aus der Cechoslovakei: II. Karpatorussland und Südostslavakei*. – *Vestnik Kralovské Česke Společnosti Nauk*. Třida mathem. – přírod. ročn. S. 1–42.
- Servit, M. and Nádvorník, J. (1935–1936): *Flechten aus der Cechoslovakei: V. Karpatorussland*. – *Vestnik Kralovské Česke Společnosti Nauk*. Třida mathem. – přírod. ročn. S. 1–34.
- Smerechynska, T. O. (2004): *To study of lichens of 'Medobory' nature reserve*. – In: J. K. Pachosky and recent botany. Ailant, Kherson, pp. 449–454. [in Ukrainian]
- Šoun, J., Vondrák, J., Søchting, U., Hrouzek, P., Khodosovtsev, A. and Arup, U. (2011): Taxonomy and phylogeny of the Caloplaca cerina group in Europe. – *Lichenologist* 43(2): 113–135. <https://doi.org/10.1017/S0024282910000721>
- Suza, J. (1932–1935): Lišejníky Podkarpatské Rusi (ČSR). – *Sborn. přir. Spolecn. Morave Ost-ravé*. 7: 49–73.
- Szatala, Ö. (1922): Újabb adatok Ungmegye zuzmóflórájának ismeretéhez, II. – *Magyar Bot. Lapok* 21: 33–63. [In Hungarian]
- Szatala, Ö. (1939–1942): Lichenes Hungariae: III. Gymnocarpeae (Cyclocarpineae: Peltigeraeae – Lecideaceae). – *Folia Cryptogamica* 11(5): 267–460.

- Szatala, Ö. (1942): Lichenes in Peninsula Taurica et in Caucaso ab F. Kamienski, D. Sosnowsky et E. Koenig collecti. – *Borbásia* 4(1–6): 70–96.
- Tarasova, O. D., and Tolpysheva, T. Yu. (1978): To study lichens of Juniperus forests of Crimea. – *Vestnik Moscow university, Ser. Biol.* 4: 27–31 [In Russian]
- Vainio, E. A. (1899): Lichenes in Caucasio et in peninsula Taurica annis 1884–1885 ab H. Lojka et M. a Déchy collecti. – *Természetr. Füzetek* 22: 269–343.
- van den Boom, P. and Khodosovtsev, A. Ye. (2004): Notes on Lecania in Eastern Europe and Central Asia. – *Graphis Scripta* 16(1): 1–10.
- Vondrák, J., Khodosovtsev, A. and Říha, P. (2008): Caloplaca concreticola (Teloschistaceae), a new species from anthropogenic substrata in Eastern Europe. – *Lichenologist* 40(2): 97–104. <https://doi.org/10.1017/S002428290800755X>
- Vondrák, J., Říha, P., Arup, U. and Søchting, U. (2009): The taxonomy of the Caloplaca citrina group (Teloschistaceae) in the Black Sea region; with contributions to the cryptic species problems in lichenology. – *Lichenologist* 41(6): 571–604. <https://doi.org/10.1017/S0024282909008317>
- Vondrák, J., Palice, Z., Khodosovtsev, A. and Postoyalkin, S. (2010a): Additions to the diversity of rare or overlooked lichens and lichenicolous fungi in Ukrainian Carpathians. – *Chornom. Bot. J.* 6(1): 6–34.
- Vondrák, J., Vondráková, O. and Khodosovtsev, A. (2010b): First record of fertile Caloplaca arcisproxima and designation of its epitype. – *Chornom. Bot. J.* 6(4): 506–507.
- Vondrák, J., Khodosovtsev, A., Šoun, J. and Vondráková, O. (2012a): Two new European species from the heterogeneous Caloplaca holocarpa group (Teloschistaceae). – *Lichenologist* 44(1): 73–89. <https://doi.org/10.1017/S0024282911000636>
- Vondrák, J., Šoun, J., Vondráková, O., Fryday, A. M., Khodosovtsev, A. and Davydov, E. A. (2012b): Absence of antraquinone pigments is paraphyletic and a phylogenetically unreliable character in Teloschistaceae. – *Lichenologist* 44(3): 401–418. <https://doi.org/10.1017/S0024282911000843>
- Vondrák, J., Frolov, I., Říha, P., Hrouzek, P., Palice, Z., Nadyeina, O., Halici, M. G., Khodosovtsev, A. and Roux, C. (2013): New crustose Teloschistaceae in Central Europe. – *Lichenologist* 45(6): 701–722. <https://doi.org/10.1017/S0024282913000455>
- Voytsekhovich, A., Dymytrova, L. and Nadyeina, O. (2011): Photobiont composition of some taxa of the genera Micarea and Placynthiella (Lecanoromycetes, lichenized Ascomycota) from Ukraine. – *Folia Cryptog. Eston.* 48: 135–148.
- Zelenko, S. D. (2004): *Lichenized fungi*. – In: Kagalo, O. O., Shevera, M. V. and Levanets, A. A. (eds): Biodiversity of Kamyanets-Podilsky. Preliminary critic inventory list of plants, fungi and animals. Liga-Press, Lviv, pp. 46–57. [in Ukrainian]
- Zelenko, S. D. and Kondratyuk, S. Ya. (1994): Lichens of Darnytsya wooden park (Kyiv city). – *Ukr. Bot. J.* 51(1): 104–115. [In Ukrainian]

