

Contributions to the lichen flora of Slovenia XI. Lichens from the vicinity of Lake Bohinj (Julian Alps)

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Abstract: MRAK, T., MAYRHOFER, H. & BATIČ, F. 2004: Contributions to the lichen flora of Slovenia XI. Lichens from the vicinity of Lake Bohinj (Julian Alps). – *Herzogia* 17: 107–127.

A list of 332 taxa from the Julian Alps, Slovenia, is provided together with locality and substrate data. Geography, geology, relief, climate and vegetation of the area are described briefly. Twenty-four species are reported for Slovenia for the first time: *Biatora porphyrospoda*, *Catillaria croatica*, *Cetrelia chicitae*, *Chaenothecopsis pusiola*, *Cladonia metacorallifera*, *Endocarpon adsurgens*, *Fellhanera bouteillei*, *Fuscidea arboricola*, *F. pusilla*, *Lecania cyrtellina*, *Lecanora expansa*, *L. thysanophora*, *Lecidella subviridis*, *Leptogium teretiusculum*, *Micarea botryoides*, *M. hedlundii*, *Mycoblastus alpinus*, *Peltigera elisabethae*, *Placidium imbecillum*, *Rinodina sheardii*, *R. trevisanii*, *Thelidium acroglyptum*, *Trapeliopsis gelatinosa* and *Usnea substerilis*. In addition, twenty-nine species are new records for the Alpine Phytogeographical Region of Slovenia.

Zusammenfassung: MRAK, T., MAYRHOFER, H. & BATIČ, F. 2004: Beiträge zur Flechtenflora von Slowenien XI. Flechten aus dem Gebiet um den Wocheiner See (Julische Alpen). – *Herzogia* 17: 107–127.

Eine Liste von 332 Taxa mit Fundorts- und Substratangaben wird vorgelegt. Geographie, Geologie, Relief, Klima und Vegetation des Gebietes werden kurz vorgestellt. Vierundzwanzig Arten sind Erstmachweise für Slowenien: *Biatora porphyrospoda*, *Catillaria croatica*, *Cetrelia chicitae*, *Chaenothecopsis pusiola*, *Cladonia metacorallifera*, *Endocarpon adsurgens*, *Fellhanera bouteillei*, *Fuscidea arboricola*, *F. pusilla*, *Lecania cyrtellina*, *Lecanora expansa*, *L. thysanophora*, *Lecidella subviridis*, *Leptogium teretiusculum*, *Micarea botryoides*, *M. hedlundii*, *Mycoblastus alpinus*, *Peltigera elisabethae*, *Placidium imbecillum*, *Rinodina sheardii*, *R. trevisanii*, *Thelidium acroglyptum*, *Trapeliopsis gelatinosa* und *Usnea substerilis*. Neunundzwanzig weitere Arten sind Erstmachweise für die alpine phytogeographische Region Sloweniens.

Key words: Biodiversity, lichenized Ascomycetes, Triglav National Park.

Introduction

The epiphytic lichen flora of the major part of the Slovenian Julian Alps, with special regard to the Triglav National Park, was studied by BATIČ et al. (2003), who also provided data on geography, geology, climate and vegetation of the area in general. However, the present contribution is the first detailed lichenological survey of the Bohinj area in the Triglav National Park.

The valley of Bohinj, situated on the southern side of the Triglav mountain ridge, is one of the largest valleys in the core of the Julian Alps and is orientated eastwards. The steep walls of the Komarča and the eastern slopes of the Komna border the upper valley called Ukanc. The valley is divided into three regions: a) the uppermost part with Bohinj Lake, the largest natural lake of Slovenia with permanent water, b) Zgornja dolina (the Upper valley), situated between Studor and Rudnica hills, and c) Spodnja dolina (the Lower valley), where the river Sava Bohinjka flows. Spodnja dolina terminates in the gorge Soteska. Bohinj can be considered to comprise the valley itself and its mountainous perimeter: Jelovica, Komna, Fužinarska planota, Uskovnica, Pokljuka, the ridge of the Lower Bohinj mountains and the mountains of Komna and Triglav. The major part of Bohinj belongs to the Triglav National Park (SKOBERNE 1989, VOJVODA & FERČEJ 1987).

The basic features to the relief derive from tectonic sinking (depression of Bohinj), mountain folding processes and glaciation. In the Triglav area, steep slopes alternate with plains, which have the character of plateaux. Amongst the lower plateaux, Pokljuka, Uskovnica, Vogar and the extensive area of Komna are well known. They all possess karst features and dry valleys are present (e.g. Lopusniška dolina valley) that are remnants of past surface water courses (KUNAVER 1985).

The surrounding mountains of Lake Bohinj are mostly built of stratified, bright grey and extremely pure Dachstein limestone from the Upper Triassic, the most common bedrock of the Julian Alps, and of dolomite and massive Cordevolic limestone originated from the later Triassic period (RAMOVŠ 1985, BUSER 1986). In the lower parts around the Lake Bohinj, in the valley of river Mostnica, and on the upper parts of some plateaux (Uskovnica, Vogar) Pleistocene moraines are deposited (KUNAVER 1985).

Detailed information on the climate of the Slovenian Julian Alps (Triglav National Park) is provided by PRISTOV et al. (1998) and by OGRIN & BRANCELJ (2002). There are several meteorological stations in the vicinity of Lake Bohinj: Ukanc (530 m), Stara Fužina (547 m), Komna (1520 m) and Vogel (1535 m).

The Julian Alps, and their western and southern parts in particular, belong to the wettest regions in Slovenia and Europe. Similar to the rest of western Slovenia, the Julian Alps have a sub-mediterranean precipitation regime with a primary maximum in autumn, usually in November, and a secondary maximum at the turn of spring into summer in May or June. From 1961 to 1990, an annual average precipitation of 3077 mm was measured at Vogel, and 2934 mm at Komna. The average for Stara Fužina was 2333 mm. Variability in precipitation is considerable; the greatest is in winter, when it ranges from 40 to 65 % (OGRIN & BRANCELJ 2002, PRISTOV et al. 1998). On Komna and Vogel, snow cover lasts from October until May, and is practically uninterrupted from December to April. The alpine valleys are usually covered by snow from November to April, but this can melt for some time, even in the middle of winter (OGRIN & BRANCELJ 2002). On average, snow cover lasts in the upper part of Bohinj valley about 110 days per year (OVSENIK-JEGLIČ 2000). Fog and low clouds are present for a long time due to cold air accumulation at the bottom of the Bohinj valley in autumn and winter (PRISTOV et al. 1998). Stara Fužina has only 1582 hours of sunshine per year, the lowest for any weather station in Slovenia. Furthermore, Stara Fužina receives less sunshine during the summer because of the convective clouds appearing above the surrounding mountains (Klimatografija Slovenije 1991, OGRIN & BRANCELJ 2002). According to data from the weather station at Komna, the average annual temperature at 1500 m above sea level is about 3.7 °C; average is -4 °C for January, and 12.4 °C for July (OGRIN & BRANCELJ 2002). In Stara Fužina, the average annual temperature is 7.6 °C, -2.8 °C in January and 17.3 °C in July (MEKINDA-MAJARON 1995). Due to their position at the southeastern edge of the Alps, the Alps of Slovenia are situated in the leeward side with respect to strong winds from north and northwest, but they are exposed to warm and humid winds from southwest. During calm weather, local air circulation develops caused by temperature differences. Winds in the alpine valleys are generally weak and channelled by the directions of the valleys (OGRIN & BRANCELJ 2002).

According to WRABER (1969), the Julian Alps belong to the Alpine Phytogeographical Region of Slovenia. The zonal forest associations are represented by *Anemone trifoliae*-Fagetum Tregubov 1962 (650 m to 1500 m), *Adenostylo glabrae*-Piceetum M. Wraber ex Zukrigl 1973

corr. Zupančič 1993 (1400 m to 1600 m) and Rhodothamno-Rhododendretum hirsuti (Aichinger 1933) Br.-Bl. & Sissingh in Br.-Bl. et al. 1939 em. Wallnöfer 1993 (1400 m to 1900 m). The last of these also thrives at lower altitudes on sunny sites of the steep slopes which are heavily influenced by landslides and avalanches. PUNCER & ZUPANČIČ (1970) distinguish two altitudinal varieties of the Rhodothamno-Rhododendretum hirsuti: the lower one with stands of larch (*Larix decidua*) forms the timberline, whereas the upper one has *Pinus mugo* and single larches. Norway spruce forests (*Picea abies*) are present only in depressions with temperature and vegetation inversion (WRABER 1985). Reforestation with *Picea abies* took place on potential natural sites of beech forest (*Anemone trifoliae*-Fagetum), and with *Larix decidua* at higher localities (MARINČEK & ČARNI 2002). Communities with a southern character are very special for the Julian Alps: the Cytisantho radiati-Ostryetum carpinifoliae Wraber 1961 was described from Bohinj for the first time. It occurs on extremely steep and sunny slopes at altitudes between 600 and 1200 m. Despite the relatively wet climate, a specific thermophilic vegetation thrives on such sites. These forests develop only small trees of six to eight meters height (MARINČEK & ČARNI 2002, WRABER 1985). The banks of the rivers and creeks are regularly overgrown with willows (*Salix eleagnos* and *S. purpurea*) (WRABER 1985).

In the past, forges, alpine dairy farming, and forestry were of great economic importance in the Bohinj area, and thus responsible for human impacts on the environment (REJEC BRANCELJ & SMREKAR 2002). Because of these activities, the natural climatically conditioned timberline has moved downwards for 200–300 m or even more (WRABER 1969) and the spread of Norway spruce was stimulated by replacing beech (VEBER 1987). Since the middle of the 20th century, the influence of developing tourism and recreation has become more and more important (REJEC BRANCELJ & SMREKAR 2002).

Measurements of air pollution undertaken on the Pokljuka plateau in Triglav National Park in the mid-nineties showed polluted air masses from the NW and SW during bad weather and from Ljubljana basin during clear weather situations (GOMIŠČEK et al. 1997).

In the sediments of alpine lakes, several substances derived from burning were determined with maximal values in the middle of the 20th century. In alpine areas their main source is long-distance atmospheric pollution. The highest concentrations of pollutants were found in the north-western part of the Julian Alps but concentrations decreased eastwards as does the annual precipitation rate (MURI et al. 2002).

Materials and methods

The survey was carried out as a graduation thesis (MRAK 2003). It commenced in November 2001 but most collections were made from spring to autumn 2002. Collection sites were chosen in the vicinity of Lake Bohinj, at altitudes between 530 and 1680 m. In the eastern part of the investigated area, which is more human-influenced (border area of Triglav National Park), lichens were collected mostly on solitary trees. In the central part of Triglav National Park, where forests are better preserved, the collections were made in forest communities and at forest fringes. Special emphasis was given to corticolous species, but lichens from soil, stumps, lignum, bryophytes and plant remnants on rock and in rock crevices were collected as well. The specimens are kept in the herbarium of the University of Ljubljana (LJU), some duplicates in the private herbarium of T. Mrak and in the herbarium of the Institute for Plant Sciences, University of Graz (GZU).

List of collection sites

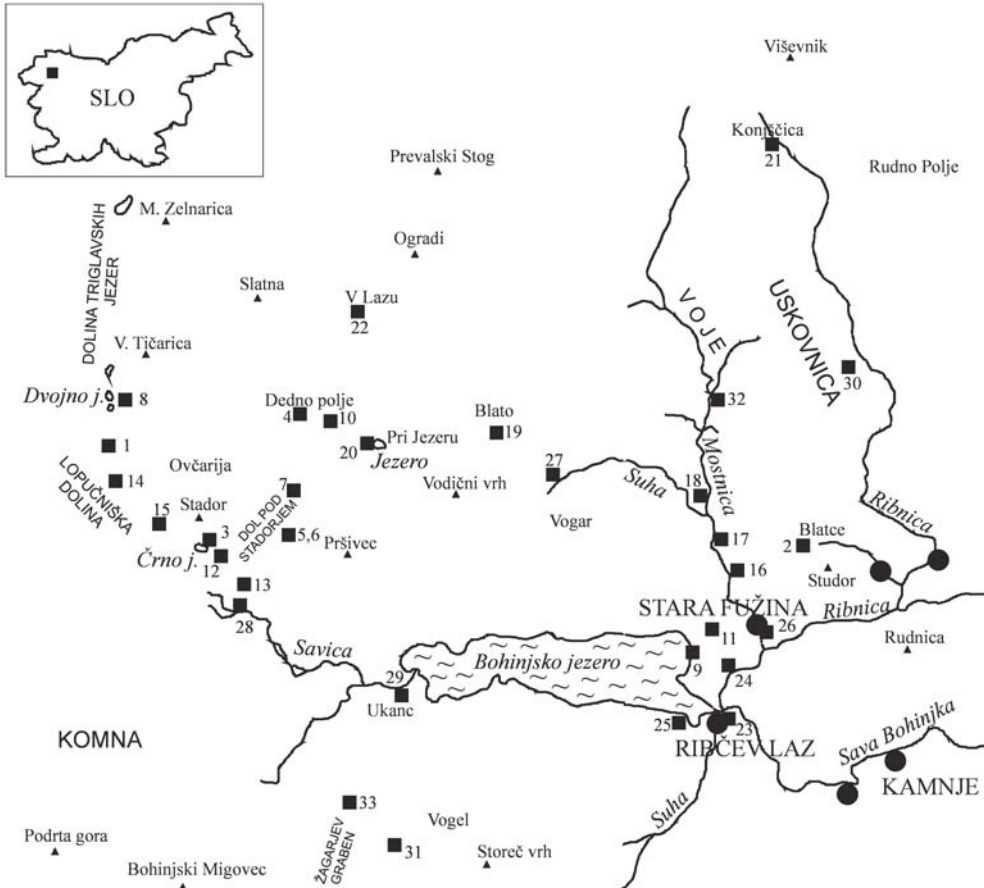


Fig. 1: Location of collection sites (map basis from Atlas Slovenije 1996 and JOGAN 2001). Numbers accord with those used in the list of collection sites.

Slovenia, Southern Alps, Eastern Julian Alps, Bohinj area

- 01: SW-exposed slope above Bela skala in the Lopučniška dolina valley, nearby the crossing of the trails from Lopučniška dolina valley and Planina Ovčarija (Ovčarija alp), $46^{\circ}18'40''\text{N}/13^{\circ}47'00''\text{E}$, $y: 5406320/x: 5130320$, about 1640 m, MTB 9648/4; timberline forest with *Picea abies* and *Larix decidua* with calcareous outcrops; 29.VII.2002 and 16.VIII.2002, leg. T. Mrak
- 02: ex-pasture Planina Blatce 2 km NE from Stara Fužina, at the old hayloft, $46^{\circ}18'00''\text{N}/13^{\circ}54'20''\text{E}$, $y: 5415730/x: 5128860$, 900 m, MTB 9749/1; solitary trees, wooden fence, dense beech forest (*Anemone trifoliae*-Fagetum), termophilic deforested slope; 19.VIII.2002, leg. T. Mrak
- 03: at the lake Črno jezero on S-exposed scree-slope below Mt. Stador, by the side of alpine trail to the Lopučniška dolina valley, $46^{\circ}18'00''\text{N}/13^{\circ}47'50''\text{E}$, $y: 5407480/x: 5129090$, 1400 m, MTB 9748/2; stumps on a scree; 29.VII.2002, leg. T. Mrak
- 04: the Dedno polje alp, $46^{\circ}18'50''\text{N}/13^{\circ}49'00''\text{E}$, $y: 5408990/x: 5130780$, 1580 m, MTB 9648/4;

- timberline forest with *Picea abies* and *Larix decidua* with calcareous outcrops; 3.VII.2002, leg. H. Mayrhofer, T. Mrak, H. Poličnik & R. Mešl
- 05: the Dol pod Stadorjem valley, approx. 750 m NE from the lake Črno jezero, 46°18'00"N/13°48'40"E, y: 5408520/x: 5129090, 1460 m, MTB 9748/2; spruce forest (*Adenostylo glabrae-Piceetum*) over calcareous boulders and clearing with calcareous outcrops; 7.IX.2002, leg. T. Mrak
- 06: Dol pod Stadorjem valley, approx. 750 m NE from the lake Črno jezero, at the foot of Mt. Stadorski Orlič; 46°18'00"N/13°48'40"E, y: 5408520/x: 5129090, 1460 m, MTB 9748/2; stand of *Pinus mugo* (*Rhodothamno-Rhododendretum hirsuti*) over calcareous boulders; 7.IX.2002, leg. T. Mrak
- 07: Dol pod Stadorjem valley, approx. 1200 m NE from the lake Črno jezero, 46°18'10"N/13°49'00"E, y: 5408850/x: 5129430, 1500 m, MTB 9648/4; timberline forest with *Picea abies* and *Larix decidua*; 7.IX.2002, leg. T. Mrak
- 08: W-exposed scree-slope above the lake Dvojno jezero in the Dolina Triglavskih jezer valley, near the Koča pri Triglavskih jezerih hut, 46°19'00"N/3°47'10"E, y: 5406480/x: 5131150, 1680 m, MTB 9648/4; stand of *Pinus mugo* (*Rhodothamno-Rhododendretum hirsuti*) over calcareous boulders; 29.VII.2002, leg. T. Mrak
- 09: the eastern coast of the Lake Bohinj (Fužinski zaliv), 46°17'00"N/13°53'10"E, y: 5414220/x: 5127320, 530 m, MTB 9749/1, solitary trees on the coast; 10.VII.2002, leg. T. Mrak
- 10: approx. 650 m NW from the lake Jezero at the Planina Pri Jezeru alp, by the alpine trail to the Dedno polje alp, 46°18'50"N/13°49'20"E, y: 5409300/x: 5130620, 1520 m, MTB 9648/4, timberline forest with *Picea abies* and *Larix decidua* with calcareous outcrops; 3.VII.2002, leg. H. Mayrhofer, T. Mrak, H. Poličnik & R. Mešl
- 11: meadows between the eastern coast of the Lake Bohinj and village of Stara Fužina (Jezersko polje), 46°17'20"N/13°53'20"E, y: 5414430/x: 5127730, 530 m, MTB 9749/1, solitary trees and wooden cottage; 10.VII.2002, leg. T. Mrak
- 12: at the top of Komarča, by the trail from the Koča pri Savici hut to the lake Črno jezero, 46°17'50"N/13°48'10"E, y: 5407840/x: 5128850, 1300 m, MTB 9748/2, beech forest (*Anemone trifoliae-Fagetum*); 29.VII.2002, leg. T. Mrak
- 13: Komarča, at the site where the alpine trail from the Koča pri Savici hut to the lake Črno jezero first reaches the vertical cliffs, approx. 400 m N from the Koča pri Savici hut, 46°17'40"N/13°48'20"E, y: 5408070/x: 5128450, 720 m, MTB 9748/2; *Cytisantho radiati-Ostryetum carpinifoliae*; 29.VII.2002, leg. T. Mrak
- 14: the Lopučniška dolina valley, approx. 1300 m NW from the lake Črno jezero, 46°18'20"N/13°47'10"E, y: 5406480/x: 5129660, 1400 m, MTB 9648/4; spruce forest (*Adenostylo glabrae-Piceetum*) with calcareous outcrops and spruce forest fringes; 29.VII.2002 and 16.VIII.2002, leg. T. Mrak
- 15: depression in the Lopučniška dolina valley, approx. 750 m NW from the lake Črno jezero, 46°18'00"N/13°47'40"E, y: 5407100/x: 5129220, 1300 m, MTB 9648/4; stand of *Pinus mugo* (*Rhodothamno-Rhododendretum hirsuti*); 29.VII.2002, leg. T. Mrak
- 16: the Mostnica riverbeds N from Stara Fužina, approx. 380 m N from the Hudičev most bridge; 46°18'30"N/13°53'20"E, y: 5414370/x: 5129820, 580 m, MTB 9649/3; beech forest (*Anemone trifoliae-Fagetum*); 17.V.2002, leg. T. Mrak
- 17: the Mostnica riverbeds N from Stara Fužina, approx. 880 m N from the Hudičev most bridge, 46°18'10"N/13°53'20"E, y: 5414510/x: 5129240, 600 m, MTB 9649/3; beech forest (*Anemone trifoliae-Fagetum*); 17.V.2002, leg. T. Mrak
- 18: the Mostnica riverbeds N from Stara Fužina, approx. 1500 m N from the Hudičev most bridge, 46°18'30"N/13°53'20"E, y: 5414350/x: 5129800, 680 m, MTB 9649/3; beech forest (*Anemone trifoliae-Fagetum*) with mossy calcareous outcrops; 17.V.2002, leg. T. Mrak
- 19: in the vicinity of the parking place at Planina Blato (Blato alp) and alpine trail to the Planina Pri Jezeru alp, 46°18'40"N/13°51'10"E, y: 5411620/x: 5130410, 1160 m, MTB 9649/3, beech forest (*Anemone trifoliae-Fagetum*) with intermixed silver fir (*Abies alba*) and mossy calcareous rocks; 4.VII.2002, leg. H. Mayrhofer, T. Mrak, H. Poličnik & R. Mešl and 8.VII.2002, leg. T. Mrak
- 20: Planina Pri Jezeru, on the coast of lake Jezero, 46°18'40"N/13°49'50"E, y: 5409890/x: 5130290, 1440 m, MTB 9648/4; spruce forest (*Adenostylo glabrae-Piceetum*) and timberline forest with *Picea*

- abies* and *Larix decidua*, mossy calcareous rocks; 3.VII.2002, leg. H. Mayrhofer, T. Mrak, H. Poličnik & R. Mešl and 7.IX.2002, leg. T. Mrak
- 21: Planina Konjščica (the Konjščica alp) approx. 2.2 km W from Rudno Polje on Pokljuka plateau, between tributary stream of Ribnica and shepherd shed, 46°20'50"N/13°54'10"E, y: 5415540/x: 5134260, 1440 m, MTB 9649/3; timberline forest with *Picea abies* and *Larix decidua*, pasture with calcareous rocks, brook vegetation; 8.X.2002, leg. T. Mrak
- 22: gentle slope under the Bohinj alpine pasture Planina V Lazu on the way from Planina V Lazu to Planina Pri Jezeru, approx. 1700 m N from Planina Pri Jezeru, 46°19'40"N/13°49'40"E, y: 5409700/x: 5132150, 1540 m, MTB 9648/4; timberline forest with *Picea abies* and *Larix decidua* over calcareous boulders; 3.VIII.2002, leg. T. Mrak
- 23: Ribčev Laz, between bus station and bridge across the Sava Bohinjka river, 46°16'40"N/13°53'40"E, y: 5414770/x: 5126430, 530 m, MTB 9749/1, roadside trees and sandy soil at the roadside; 16.XI.2001, leg.: F. Batič & T. Mrak and 10.VII.2002, leg. T. Mrak
- 24: by the side of local road from Ribčev Laz to Stara Fužina, 46°17'00"N/13°53'40"E, y: 5414790/x: 5127160, 540 m, MTB 9749/1; roadside trees; 10.VII.2002, leg. T. Mrak
- 25: Na skalci – SE coast of the Lake Bohinj, between the coast and the local road from Ribčev Laz to Ukanc, 46°16'40"N/13°53'10"E, y: 5414100/x: 5126570, 540 m, MTB 9749/1, beech forest (*Anemone trifoliae*-Fagetum); 29.I.2003, leg. T. Mrak
- 26: Stara Fužina, at the bridge across the Mostnica river in a centre of the village, 46°17'20"N/13°54'00"E, y: 5415190/x: 5127720, 540 m, MTB 9749/1, roadside trees; 10.VII.2002, leg. T. Mrak
- 27: near the Suha waterfall by the local road from Stara Fužina to Planina Blato, 46°18'20"N/13°51'40"E, y: 5412400/x: 5129690, 1060 m, MTB 9649/3; dense shady beech forest (*Anemone trifoliae*-Fagetum) with mossy calcareous outcrops; 8.VII.2002, leg. T. Mrak
- 28: the head of the Bohinj valley – Ukanc, in the vicinity of the Koča pri Savici hut, 46°17'30"N/13°48'20"E, y: 5408090/x: 5128060, 650 m, MTB 9748/2; beech forest (*Anemone trifoliae*-Fagetum) with mossy calcareous outcrops, brook vegetation, solitary trees; 16.V.2002 and 23.I.2003, leg. T. Mrak
- 29: Ukanc, near Hotel Zlatorog, 46°16'50"N/13°50'10"E, y: 5410250/x: 5126850, 530 m, MTB 9749/1, fragment of beech forest (*Anemone trifoliae*-Fagetum) with mossy calcareous outcrops, solitary trees; 18.III.2002, leg. T. Mrak
- 30: Uskovnica plateau, in the vicinity of the Planinska koča na Uskovnici hut, 46°19'20"N/13°54'40"E, y: 5416190/x: 5131380, 1150 m, MTB 9649/3, solitary trees, small stand of *Pinus sylvestris*, hedgerows, pasture with calcareous outcrops and stumps, wooden fence; 9.VIII.2002, leg. T. Mrak
- 31: Voglova Jelovica approx. 750 m W from the Ski Center Vogel above Bohinjko jezero (Lake Bohinj), 46°15'40"N/13°50'00"E, y: 5410000/x: 5124690, 1400 m, MTB 9749/1, beech forest (*Anemone trifoliae*-Fagetum) with calcareous outcrops and beech forest fringes; 16.IX.2002 and 29.IX.2002, leg. T. Mrak
- 32: the lower part of the Voje valley, approx. 750 m N from the Koča na Vojah hut, 46°19'00"N/13°53'10"E, y: 5414330/x: 5130830, 680 m, MTB 9649/3, solitary trees, beech forest (*Anemone trifoliae*-Fagetum) with mossy calcareous outcrops, beech forest fringe, brook vegetation; 19.VI.2002, leg. F. Batič & T. Mrak
- 33: Žagarjev graben, approx. 1.5 km W from the Ski Center Vogel above Lake Bohinj, 46°15'50"N/13°49'20"E, y: 5409230/x: 5124930, 1080 m, MTB 9748/2; beech forest (*Anemone trifoliae*-Fagetum) with mossy calcareous outcrops, beech forest fringe; 16.IX.2002, leg. T. Mrak

List of substrates

<i>Abies alba</i>	Abialb	<i>Betula pendula</i>	Betpen
<i>Acer campestre</i>	Acecam	<i>Carpinus betulus</i>	Carbet
<i>Acer pseudoplatanus</i>	Acepsc	<i>Corylus avellana</i>	Corave
<i>Aesculus hippocastanum</i>	Aeship	<i>Fagus sylvatica</i>	Fagsyl
<i>Alnus incana</i>	Alninc	<i>Fraxinus excelsior</i>	Fraexc
<i>Alnus viridis</i>	Alnvir	<i>Fraxinus ornus</i>	Fraorn

<i>Juglans regia</i>	Jugreg	<i>Salix appendiculata</i>	Salape
<i>Larix decidua</i>	Lardec	<i>Salix</i> sp.	Salspe
<i>Malus domestica</i>	Maldom	<i>Sambucus nigra</i>	Samnig
<i>Ostrya carpinifolia</i>	Ostcar	<i>Sorbus aria</i>	Sorari
<i>Picea abies</i>	Picabi	<i>Sorbus aucuparia</i>	Sorauc
<i>Pinus mugo</i>	Pinmug	<i>Tilia cordata</i>	Tilcor
<i>Pinus sylvestris</i>	Pinsyl	<i>Tilia platyphyllos</i>	Tilpla
<i>Pyrus pyraeaster</i>	Pyrpyr	<i>Tilia</i> sp.	Tilspe
<i>Rhododendron hirsutum</i>	Rhohir	<i>Ulmus glabra</i>	Ulmгла
<i>Ribes uva-crispa</i> ssp. <i>lasiocarpum</i>	Ribuva	<i>Ulmus laevis</i>	Ulmлаe
bark	cor	- dead standing decorticated trees	xyl-
twigs	t-	- lignum of living trees:	
branches	b-	decorticated parts, dead branches	xyl/
trunk base	base	rotten wood	rott
coniferous tree	con	burnt wood	burnt
bryophytes	bry	calcareous rocks	cal
trunk bryophytes	bry-cor	calcareous rock crevices	crev
ground bryophytes	bry-ter	vertical surface of a calcareous boulder	vert
bryophytes on calcareous rocks	bry-cal		
bryophytes in calcareous rock crevices	bry-crev	ground	ter
bryophytes overgrowing rotting wood	bry-rott	soil	soil
bryophytes covering trunk base	bry-base	sandy soil	sands
plant remnants	deb	soil covering trunk base	soil-base
plant remnants on calcareous rocks	deb-cal	soil in calcareous rock crevices	soil-rev
plant remnants covering trunk base	deb-base	soil covering calcareous rocks	soil-cal
corticated stump	cor/xyl		
lignum:			
- man-made substrates, e.g. wooden fences; decorticated and moderately decayed stumps	xyl		

List of taxa

Nomenclature mainly follows HAFELLNER & TÜRK (2001). Species names are followed by locality and substrate data. New records for Slovenia are marked with a hash (#), and new records for Alpine Phytogeographical Region with an asterisk (*).

- Acrocordia gemmata* (Ach.) A.Massal.: 02 (Fraexc); 05 (Acepse); 24 (Tilspe); 28 (b-Fagsyl; Fagsyl; Salspe; Tilspe); 29 (Acepse); 30 (Fraexc); 31 (Fagsyl); 32 (Tilpla)
- **Agonimia tristicula* (Nyl.) Zahlbr.: 05 (bry-cal); 08 (bry-cal); 31 (bry-cal); 22 (bry-cal)
- Alectoria sarmentosa* (Ach.) Ach.: 01 (t-Picabi); 05 (Lardec; Picabi); 14 (Picabi); 22 (b-Lardec; b-Picabi)
- Amandinea punctata* (Hoffm.) Coppins & Scheid.: 09 (Acepse); 11 (xyl); 29 (Aeship; Lardec); 32 (t-Maldom)
- Antychia ciliaris* (L.) Körb.: 02 (Fraexc); 23 (Tilcor)
- Arthonia didyma* Körb.: 05 (b-Picabi); 06 (Pinnug); 31 (Acepse)
- **Arthonia dispersa* (Schr.) Nyl.: 12 (Acepse)
- **Arthonia mediella* Nyl.: 01 (Picabi); 03 (xyl); 05 (Picabi); 12 (Acepse); 21 (Lardec; xyl/Picabi)
- Arthonia radiata* (Pers.) Ach.: 02 (Fagsyl; Jugreg); 05 (Sorauc); 10 (Sorauc); 14 (Fagsyl); 20 (Sorauc); 31 (Fagsyl)
- Arthonia vinosa* Leight.: 19 (Abialb)
- Arthopyrenia analepta* (Ach.) A.Massal.: 05 (Sorauc); 08 (Rhohir); 22 (Sorauc)
- **Bacidia absistens* (Nyl.) Arnold: 28 (Picabi)
- Bacidia bagliettoana* (A.Massal. & De Not.) Jatta: 05 (bry-cal); 22 (deb-cal)

- Bacidia beckhausii* Körb.: 28 (Acepse)
Bacidia globulosa (Flörke) Hafellner & V.Wirth: 02 (Tilspe); 21 (xyl/Picabi); 22 (xyl-con)
Bacidia laurocerasi (Delise ex Duby) Zahlbr.: 28 (Picabi)
Bacidia rubella (Hoffm.) A.Massal.: 02 (bry-cor Fraexc); 30 (Fraexc)
Bacidia subincompta (Nyl.) Arnold: 02 (Acepse; Jugreg); 05 (Acepse); 06 (b-Pinmug); 14 (Acepse); 21 (Salspe); 28 (Acepse; Tilspe); 29 (Acepse); 30 (Fraexc); 31 (Acepse; Fagsyl); 33 (Acepse)
Baeomyces rufus (Huds.) Rebent.: 15 (soil; deb; bry-ter)
 **Belonia herculina* (Rehm) Keissl.: 31 (Fagsyl)
Biatora amaurospoda Anzi: 21 (Lardec); 22 (xyl/Picabi); 31 (Lardec)
Biatora chrysantha (Zahlbr.) Printzen: 05 (b-Picabi); 08 (Pinmug)
Biatora efflorescens (Hedl.) Räsänen: 01 (Picabi); 03 (xyl); 05 (Acepse; Sorauc; b-Picabi); 06 (Alnvir); 09 (Acepse); 10 (Acepse; Picabi; xyl/Picabi); 12 (Acepse); 14 (Acepse; Picabi); 18 (Fagsyl); 19 (Fagsyl); 21 (Picabi; b-Pinmug); 22 (Sorauc); 28 (Picabi); 31 (Acepse; Fagsyl; Picabi); 33 (Abialb; Acepse)
Biatora mendax Anzi: 28 (Fagsyl)
Biatora ocelliformis (Nyl.) Arnold: 05 (Acepse); 29 (Fagsyl)
Biatora pontica Printzen & Tønberg: 19 (Abialb)
 #*Biatora porphyrospoda* Anzi: 22 (Picabi; xyl/Picabi)
Biatora subduplex (Nyl.) Räsänen ex Printzen: 06 (Pinmug); 10 (deb-base)
Biatora turgidula (Fr.) Nyl.: 03 (xyl)
Biatora vernalis (L.) Fr.: 01 (Picabi); 05 (b-Picabi); 06 (Pinmug); 08 (t-Salape); 28 (Acepse); 31 (Fagsyl)
 **Biatoridium monasteriense* J.Lahm ex Körb.: 19 (cor/xyl-Fagsyl)
Bryoria capillaris (Ach.) Brodo & D.Hawksw.: 01 (Lardec; t-Picabi); 05 (Acepse; t-Picabi); 07 (Lardec); 20 (Lardec; t-Picabi); 21 (Picabi); 22 (Lardec; t-Picabi)
Bryoria fuscescens (Gyeln.) Brodo & D.Hawksw.: 11 (xyl)
Bryoria implexa (Hoffm.) Brodo & D.Hawksw. **chemotype 2**: 01 (Lardec); 05 (Acepse; t-Picabi); 20 (t-Picabi); 22 (t-Lardec; t-Picabi) **chemotype 3**: 06 (t-Pinmug); 20 (t-Picabi) **chemotype 4**: 01 (Lardec; Picabi); 07 (Lardec); 08 (Lardec); 19 (Abialb); 20 (Lardec; t-Picabi); 22 (t-Picabi); 23 (Lardec); 30 (xyl)
Bryoria nadvornikiana (Gyeln.) Brodo & D.Hawksw.: 05 (t-Pinmug); 22 (Lardec)
Bryoria subcana (Nyl. ex Stizenb.) Brodo & D.Hawksw.: 01 (Lardec); 05 (Lardec; t-Picabi); 19 (Abialb; Picabi); 20 (Lardec; t-Picabi); 21 (Lardec; Picabi); 22 (t-Lardec); 25 (Fagsyl); 30 (Lardec; Picabi)
 **Buellia chloroleuca* Körb.: 01 (Lardec; Picabi); 21 (Lardec; Picabi); 22 (Picabi; t-Picabi)
Buellia erubescens Arnold: 19 (Fagsyl); 32 (Acepse)
Buellia griseovirens (Turner & Borrer ex Sm.) Almb.: 02 (Jugreg); 05 (Sorauc); 09 (Acepse); 10 (Sorauc; xyl/Picabi); 11 (xyl); 21 (Picabi; xyl/Salspe); 22 (Sorauc; xyl-Picabi; xyl/Picabi); 23 (Alninc); 28 (Salspe); 29 (Aeship; b-Lardec); 30 (Acepse); 31 (Acepse; Fagsyl; xyl)
Calicium glaucellum Ach.: 05 (Lardec); 10 (xyl-Picabi); 21 (xyl-con); 31 (Picabi; xyl)
Calicium salicinum Pers.: 05 (xyl-Picabi); 31 (xyl-Fagsyl)
Calicium trabinellum (Ach.) Ach.: 01 (Lardec); 10 (xyl-Picabi); 21 (xyl-con); 22 (xyl-con)
Calicium viride Pers.: 01 (Lardec; Picabi)
Caloplaca aurea (Schaer.) Zahlbr.: 01 (cal)
Caloplaca cerina (Ehrh. ex Hedw.) Th.Fr. var. *cerina*: 05 (b-Acepse); 06 (t-Salape); 30 (t-Ribuva)
Caloplaca cerinella (Nyl.) Flagey: 02 (t-Jugreg); 11 (t-Jugreg)
Caloplaca herbidella (Hue) H.Magn.: 01 (Picabi; b-Picabi); 02 (Fraexc); 05 (Acepse; Picabi); 06 (Pinmug); 08 (Pinmug); 09 (Acecam; Acepse); 10 (xyl-con); 11 (Fraexc; Pypyp); 14 (Acepse); 19 (Abialb); 21 (Salspe); 22 (Picabi; Sorauc); 23 (Alninc; Fraexc); 24 (Tilspe); 28 (Acepse; Fagsyl; Picabi; Salspe); 29 (Aeship); 30 (Fraexc); 31 (Acepse); 32 (Fraexc; Tilpla); 33 (Acepse; Fagsyl)
Caloplaca hungarica H.Magn.: 02 (Fraexc); 24 (Tilspe)
 **Caloplaca lactea* (A.Massal.) Zahlbr.: 10 (cal)
Caloplaca sinapisperma (Lam. & DC.) Maheu & Gillet: 01 (bry-cal); 06 (deb-cal); 08 (deb); 20 (bry-cal); 22 (bry-cal; deb-cal)
Caloplaca stillicidiorum (Vahl) Lynge: 06 (bry-cal); 21 (bry-cal)
Candelaria concolor (Dicks.) Stein: 09 (Acecam); 11 (Fraexc; Jugreg; Maldom); 24 (Tilspe); 26 (Aeship); 30 (xyl)
Candelariella reflexa (Nyl.) Lettau: 02 (Jugreg; b-Jugreg; t-Fraexc; t-Picabi); 09 (Acepse); 11

- (Fraexc; Pyrpyr; t-Jugreg; t-Pyrpyr); 14 (Acepse); 22 (Sorauc); 23 (Aeship; Alninc; Fraexc; Picabi; Tilcor); 24 (Tilspe); 27 (Fagsyl); 28 (Acepse; Fagsyl; Salspe; b-Samnig); 29 (Acepse; Aeship; Fagsyl; Lardec); 30 (Fagsyl; Fraexc; Ulmgla; Ulmlae; xyl; Ribuva; cor/xyl-Fagsyl); 31 (Acepse; bry-cor Fagsyl); 32 (Fraexc; Jugreg; Tilpla; b-Corave; t-Maldom; t-Picabi); 33 (Acepse; bry-cor Fagsyl)
- Candelariella vitellina** (Hoffm.) Müll.Arg.: 01 (Picabi); 04 (Picabi); 05 (Picabi); 06 (b-Pinnmug; t-Salape); 11 (t-Jugreg); 14 (Acepse); 30 (b-Sorauc); 31 (Fagsyl)
- Candelariella xanthostigma** (Ach.) Lettau: 02 (Fraexc); 09 (Acepse); 14 (Acepse); 23 (Aeship; Tilcor); 29 (Aeship); 30 (Acepse; cor/xyl-Fagsyl; xyl; t-Ribuva); 31 (Fagsyl)
- Catapyrenium cinereum** (Pers.) Körb.: 01 (soil-crev)
- #Catillaria croatica** Zahlbr.: 02 (Fraexc); 09 (Acecarn); 27 (Fagsyl); 28 (Acepse; Picabi; Tilspe); 29 (Fagsyl); 32 (Maldom; Tilpla)
- Catillaria nigroclavata** (Nyl.) Schuler: 11 (Jugreg); 32 (t-Maldom; b-Corave)
- Cetraria islandica** (L.) Ach.: 01 (cor/xyl-Lardec; bry-base Lardec; bry-ter; soil-base Lardec); 06 (deb; ter); 07 (base Lardec); 08 (bry-ter); 15 (ter); 20 (ter); 21 (ter); 22 (base Lardec; base Picabi; bry-base Pinnmug; deb)
- Cetraria sepincola** (Ehrh.) Ach.: 06 (b-Pinnmug)
- Cetrelia cetrarioides** (Delise ex Duby) W.L.Culb. & C.F.Culb.: 02 (Fraexc; Tilspe); 09 (Acepse); 12 (Acepse); 17 (Fagsyl); 18 (Fagsyl); 19 (Acepse; Fagsyl); 23 (Fagsyl; Fraexc); 25 (Fagsyl); 27 (Fagsyl); 28 (Acepse; Fagsyl; Salspe); 29 (Acepse; Fagsyl; Fraexc); 31 (Acepse); 32 (Fagsyl; Fraexc; Salspe; Tilpla; b-Picabi); 33 (Acepse; bry-cor Acepse)
- #Cetrelia chicitae** (W.L.Culb.) W.L.Culb. & C.F.Culb.: 32 (Fagsyl)
- Cetrelia olivetorum** (Nyl.) W.L.Culb. & C.F.Culb.: 18 (Fagsyl); 23 (Fagsyl; Fraexc); 28 (Fagsyl); 32 (Fagsyl; Tilpla)
- Chaenotheca brunneola** (Ach.) Müll.Arg.: 05 (xyl-Picabi); 10 (xyl-Picabi)
- Chaenotheca chrysocephala** (Turner ex Ach.) Th.Fr.: 01 (Lardec; Picabi); 05 (Picabi); 14 (Picabi); 21 (Picabi); 30 (Lardec; Picabi); 31 (Picabi)
- Chaenotheca ferruginea** (Turner & Borrer) Mig.: 01 (Lardec)
- Chaenotheca furfuracea** (L.) Tibell: 01 (soil-base Picabi); 05 (Picabi); 14 (Picabi; soil-base Picabi); 21 (Picabi); 22 (Picabi; soil-base Picabi); 30 (soil under the stump)
- Chaenotheca trichialis** (Ach.) Th.Fr.: 01 (Picabi); 14 (Picabi); 21 (Picabi); 22 (Picabi); 31 (Picabi)
- #Chaenothecopsis pusiola** (Ach.) Vain.: 01 (Picabi)
- Cladonia arbuscula** (Wallr.) Flot. em. Ruoss: 22 (ter)
- Cladonia bellidiflora** (Ach.) Schaer.: 08 (soil); 15 (soil)
- Cladonia carneola** (Fr.) Fr.: 01 (base Lardec); 22 (Pinnmug)
- Cladonia cenotea** (Ach.) Schaer.: 01 (Lardec; bry-base Picabi); 05 (Lardec); 08 (soil + deb); 14 (base Picabi; rott); 15 (soil); 21 (bry-base Pinnmug); 22 (bry-base Pinnmug; rott; soil); 30 (xyl)
- Cladonia chlorophaea** (Flörke ex Sommerf.) Spreng.: 19 (bry-ter); 25 (bry-cor Fagsyl); 28 (bry-cor Fagsyl); 30 (bry-cor Ulmlae)
- Cladonia coccifera** s. lat.: 01 (soil); 06 (Pinnmug); 22 (deb + bry-ter)
- Cladonia coniocraea** (Flörke) Spreng.: 01 (bry-base Lardec); 02 (Tilspe; bry-cor Fraexc); 05 (Picabi; bry-base Picabi); 08 (soil); 10 (rott); 14 (Picabi; rott); 16 (Picabi); 18 (Fagsyl; bry-base Picabi; xyl); 19 (Picabi; rott); 21 (base Picabi; bry-base Pinnmug; bry-cor Salspe); 22 (bry-rott; xyl); 25 (bry-cor Fagsyl); 28 (bry-cor Acepse); 29 (Picabi; xyl); 30 (Lardec; xyl); 31 (Lardec; soil); 32 (Fagsyl); 33 (xyl; bry-cor Acepse; bry-cor Fagsyl)
- Cladonia crispata** (Ach.) Flot.: 08 (ter; Pinnmug); 22 (deb-cal)
- Cladonia deformis** (L.) Hoffm.: 05 (rott); 08 (dead Pinnmug; soil); 15 (soil); 22 (soil)
- Cladonia digitata** (L.) Hoffm.: 01 (bry-base Lardec); 02 (rott); 05 (Picabi; rott); 10 (rott); 14 (Picabi; rott); 18 (base Picabi); 19 (base Abialb; bry-ter; bry-base Picabi); 20 (bry-base Lardec); 21 (base Lardec; base Picabi; rott); 22 (xyl); 29 (Picabi); 31 (Picabi; soil; rott)
- Cladonia fimbriata** (L.) Fr.: 01 (bry-cal); 02 (bry-cal; xyl; soil; bry-cor Fraexc); 10 (rott); 21 (bry-cor Sorauc); 22 (rott); 23 (bry-cor Fraexc); 28 (bry-cor Acepse); 29 (bry-cor Fagsyl); 30 (Fraexc; bry-cal; xyl; rott; soil-base Picabi); 31 (bry-cor Acepse); 32 (bry-cor Fraexc; bry-cor Tilpla); 33 (bry-cor Acepse)
- Cladonia furcata** (Huds.) Schrad. ssp. *furcata*: 01 (bry-ter; ter); 05 (bry-cal); 06 (deb); 08 (deb); 10 (bry-ter); 11 (ter); 14 (bry-base Acepse; ter);

- 15 (ter; deb); 18 (bry-ter + deb); 19 (bry-base Fagsyl; bry-cal); 21 (ter; bry-base Salspe; deb-cal); 22 (bry-ter; deb); 28 (bry-base Picabi; soil); 29 (bry-cal; stump); 30 (ter); 31 (base Fagsyl; bry-cal; soil)
- Cladonia gracilis* (L.) Willd.: 22 (bry-cal)
- Cladonia macilenta* Hoffm.: 01 (base Lardec; bry-ter); 02 (soil); 05 (bry-base + soil-base Picabi; bry-cal + deb-cal; Lardec); 11 (xyl); 15 (soil + deb); 16 (base Picabi); 22 (rott); 30 (xyl)
- Cladonia macroceras* (Delise) Hav.: 22 (bry-ter)
- #*Cladonia metacorallifera* Asahina: 06 (soil + deb)
- Cladonia pocillum* (Ach.) Grognot: 01 (bry-cal); 02 (bry-cal); 06 (soil + deb); 08 (soil + deb; soil-cal); 21 (bry-cal); 22 (bry-cal); 30 (bry-cal); 31 (soil)
- Cladonia pyxidata* (L.) Hoffm.: 01 (bry-cal; bry-base Lardec; xyl; soil + bry-cal; soil-cal + deb-cal; bry-cor Lardec); 02 (Picabi; bry-base Fraexc; bry-ter; bry-cor Fraexc); 05 (Picabi; bry-cal; bry-cor Acepse; bry-cor Sorauc); 08 (Pinmug); 14 (base Picabi; bry-cal; Picabi); 15 (soil); 16 (Picabi); 17 (bry-cor Fagsyl); 18 (bry-base Picabi; cor/xyl-Picabi); 19 (bry-cal; rott; bry-cor Acepse); 20 (base Lardec; cor/xyl); 21 (bry-cal; bry-base Pinmug; xyl; bry-cor Salspe); 22 (Picabi; b-Lardec; bry-base Lardec; rott; soil + deb); 27 (bry-cal; bry-base Fagsyl; xyl); 28 (bry-cor Picabi; bry-cor Fagsyl); 29 (bry-cal; xyl); 30 (bry-cal; xyl; bry-cor Fraexc; bry-cor Ulmgla); 31 (Fagsyl; Picabi; rott; soil-rott); 32 (bry-cor Fagsyl; bry-cor Fraexc); 33 (bry-base Acepse; bry-base Fagsyl)
- Cladonia rangiferina* (L.) Weber ex F.H.Wigg.: 06 (ter); 15 (deb); 22 (ter)
- Cladonia squamosa* Hoffm. var. *squamosa*: 01 (Lardec; bry-ter); 05 (Picabi); 06 (deb-cal); 14 (base Picabi); 15 (bry-ter); 22 (base Picabi; bry-ter)
- Cladonia squamosa* var. *subsquamosa* (Nyl. ex Leight.) Vain.: 01 (cor/xyl-Lardec); 08 (bry-cal; bry-base Pinmug); 22 (rott)
- Cladonia sulphurina* (Michx.) Fr.: 01 (Lardec); 14 (rott); 22 (xyl)
- Cladonia symphycarpa* (Flörke) Fr.: 01 (bry-cal); 06 (bry-cal); 08 (bry-cal; deb); 10 (bry-cal); 15 (deb); 21 (bry-cal); 22 (bry-cal); 30 (bry-cal)
- Collema auriforme* (With.) Coppins & J.R. Laundon: 02 (bry-cal); 05 (bry-cal); 06 (bry-cal); 14 (bry-cal); 17 (bry-cal); 18 (bry-cal); 19 (bry-cal; cal); 21 (cal); 22 (bry-cal; cal); 28 (bry-cal); 29 (bry-cal); 30 (bry-cal); 31 (bry-cal); 33 (bry-cal)
- Collema cristatum* (L.) Weber ex F.H.Wigg.: 05 (cal); 06 (cal); 08 (cal); 10 (cal); 21 (cal); 22 (cal); 30 (cal)
- Collema flaccidum* (Ach.) Ach.: 02 (Fraexc); 11 (Jugreg; Pyrpyr); 19 (bry-cor Fagsyl); 23 (Fraexc); 24 (Tilspe); 28 (Acepse; Fagsyl; Tilspe); 29 (Aeship); 30 (Ulmlae; bry-cor Fraexc); 31 (Fagsyl); 32 (Fraexc; Jugreg; Salspe; bry-cor Acepse)
- Collema furfuraceum* (Arnold) Du Rietz: 24 (Tilspe); 28 (Acepse); 31 (Fagsyl); 32 (Fraexc; Jugreg; Maldom; Tilpla)
- Collema nigrescens* (Huds.) DC.: 11 (Jugreg); 14 (Acepse); 24 (Tilspe); 28 (Acepse); 29 (Aeship); 30 (Fraexc; Ulmgla; Ulmlae); 31 (Fagsyl); 32 (Fraexc; Tilpla)
- Collema tenax* (Sw.) Ach. emend. Degel.: 22 (*Peltigera neckeri*); 23 (sands); 31 (bry-cal)
- **Collema undulatum* Laurer ex Flot.: 22 (bry-cal; cal)
- Cyphelium tigillare* (Ach.) Ach.: 21 (Lardec)
- Dermatocarpon minutum* (L.) W.Mann: 01 (cal); 02 (cal); 05 (cal); 10 (cal); 21 (cal); 30 (cal); 31 (cal)
- **Dimerella lutea* (Dicks.) Trevis.: 17 (bry-cor Fagsyl); 18 (Fagsyl); 28 (Fagsyl)
- Dimerella pineti* (Schrad. ex Ach.) Vězda: 01 (deb); 02 (rott); 05 (rott); 21 (Picabi; xyl/Picabi); 28 (Picabi); 30 (Picabi)
- Diploschistes muscorum* (Scop.) R.Sant.: 19 (*Cladonia squamules* + bry-base Fagsyl)
- #*Endocarpon adsurgens* Vain.: 21 (bry-cal)
- Endocarpon pusillum* Hedw.: 01 (soil-crev)
- Evernia divaricata* (L.) Ach.: 01 (Lardec; Picabi; t-Picabi); 05 (Lardec; t-Picabi); 14 (Acepse); 19 (Picabi); 20 (Lardec); 21 (Lardec; Picabi); 22 (Lardec)
- Evernia illyrica* (Zahlbr.) Zahlbr.: 14 (xyl/Picabi); 19 (Picabi)
- Evernia prunastri* (L.) Ach.: 02 (Acepse; Tilspe; xyl); 11 (Pyrpyr); 19 (Abialb; Acepse; Fagsyl; Picabi); 21 (Lardec; Picabi; Salspe); 23 (Alninc; Fagsyl; Fraexc; b-Fraexc); 25 (Fagsyl); 28 (Acepse; Salspe); 29 (Aeship; Fraexc; Lardec); 30 (Acepse; Fraexc; Lardec; Picabi; xyl); 31 (Acepse); 32 (Fagsyl; Fraexc; Tilpla)
- #*Fellhanera bouteillei* (Desm.) Vězda: 32 (t-Picabi)
- Flavoparmelia caperata* (L.) Hale: 09 (Acepse); 11 (Maldom); 17 (Fagsyl); 18 (Fagsyl); 23 (Fraexc; Pinsyl); 24 (Tilspe); 25 (Fagsyl); 28 (bry-cor Fagsyl; Fagsyl; Picabi); 29 (Aeship; Fraexc); 30 (Fraexc); 32 (Fagsyl; Fraexc); 33 (Acepse)

- #*Fuscidea arboricola* Coppins & Tønberg: 19 (Fagsyl)
- Fuscidea fagicola* (Zschacke) Hafellner & Türk: 14 (Acepse); 19 (Abialb); 23 (Fagsyl); 31 (Fagsyl); 32 (Fagsyl; Jugreg); 33 (Acepse; Fagsyl)
- #*Fuscidea pusilla* Tønberg: 30 (Pinsyl)
- Graphis scripta* (L.) Ach.: 02 (Fagsyl; Tilspe); 11 (Pyrpyr); 13 (Fraorn; Ostcar); 17 (Fagsyl); 18 (Fagsyl; Picabi); 19 (Abialb; Acepse; Fagsyl); 23 (Aeship; Fagsyl; Fraexc; Tilcor); 24 (Tilspe); 25 (Fagsyl); 27 (Fagsyl); 28 (Acepse; Fagsyl; Picabi; Salspe; Tilspe); 29 (Acepse; Fagsyl; Fraexc); 31 (Acepse; Fagsyl); 32 (Acepse; b-Corave; Fagsyl; Fraexc; Tilpla); 33 (Acepse; Fagsyl)
- Gyalecta jenensis* (Batsch) Zahlbr.: 05 (bry-crev)
- Gyalecta truncigena* (Ach.) Hepp: 29 (Aeship); 33 (Fagsyl)
- Hafellia disciformis* (Fr.) Marbach & H.Mayrhofer: 02 (Fagsyl); 19 (Abialb); 23 (Fagsyl); 30 (Acepse; Fagsyl; b-Acepse)
- Heterodermia speciosa* (Wulfen) Trevis.: 17 (bry-cor Fagsyl); 18 (Fagsyl); 28 (bry-cor Fagsyl); 32 (cor + bry-cor Fraexc; Salspe)
- Hyperphyscia adglutinata* (Flörke) H.Mayrhofer & Poelt: 26 (Aeship)
- Hypogymnia bitteri* (Lynge) Ahti: 10 (Picabi)
- Hypogymnia farinacea* Zopf: 01 (Lardec; Picabi); 02 (Picabi); 05 (Picabi); 10 (Picabi); 14 (Picabi); 20 (Lardec); 21 (Picabi); 30 (Lardec; Pinsyl)
- Hypogymnia physodes* (L.) Nyl.: 01 (Lardec; Picabi); 02 (Jugreg; Picabi; Tilspe; xyl); 05 (Acepse; Picabi; Sorauc; t-Lardec); 08 (Pinmug); 11 (Jugreg; Maldom; xyl); 14 (Acepse; Picabi); 19 (Abialb); 20 (b-Lardec; xyl/Picabi); 21 (Lardec; Picabi; Sorauc; b-Pinmug; t-Pinmug); 22 (Picabi; Sorauc; xyl-con); 23 (Alninc; Fagsyl; b-Fraexc; t-Picabi); 25 (Fagsyl); 29 (Betpen; Fagsyl; Lardec; Picabi; Fraexc); 30 (Acepse; Fagsyl; Lardec; Picabi; Pinsyl; Sorauc; b-Ribuva; xyl); 31 (Lardec; Picabi); 32 (Fraexc; t-Maldom; t-Picabi)
- Hypogymnia tubulosa* (Schaer.) Hav.: 01 (Lardec); 02 (Jugreg; Picabi; b-Acepse; b-Fraexc; b-Tilspe); 05 (Acepse); 07 (Lardec; t-Lardec); 08 (Lardec); 09 (Aecam); 11 (xyl); 19 (Abialb); 20 (xyl/Picabi); 21 (Lardec; Picabi; b-Pinmug); 22 (Sorauc; b-Pinmug); 23 (Alninc; Fraexc; b-Fraexc; t-Picabi); 25 (Fagsyl); 28 (Fagsyl; Salspe; b-Acepse); 29 (Betpen; Fraexc; Lardec; Picabi); 30 (Acepse; Lardec; Picabi; Pinsyl; Sorauc; xyl; Ribuva); 31 (Fagsyl; Lardec; Picabi); 32 (Fraexc; Tilpla; t-Maldom; t-Picabi)
- Icmadophila ericetorum* (L.) Zahlbr.: 01 (rott); 05 (rott); 08 (soil); 14 (rott); 15 (soil + deb); 19 (rott); 20 (rott); 21 (rott); 22 (rott); 31 (rott)
- Imshaugia aleurites* (Ach.) S.L.F.Meyer: 21 (Lardec); 22 (Picabi); 30 (Lardec)
- Lecania cyrtella* (Ach.) Th.Fr.: 05 (b-Acepse); 06 (b-Alnvir; b-Salape); 08 (Salape; t-Rohir)
- #*Lecania cyrtellina* (Nyl.) Sandst.: 21 (Lardec)
- Lecania naegelii* (Hepp) Diederich & P.Boom: 11 (t-Jugreg); 32 (Fraexc; Jugreg; t-Jugreg)
- Lecanora allophana* Nyl.: 02 (Fagsyl; Fraexc); 05 (Acepse); 11 (Jugreg); 12 (Acepse); 14 (Acepse; Fagsyl); 18 (Fagsyl); 19 (Abialb; Acepse; Fagsyl); 23 (Carbet; Fraexc; Tilcor); 24 (Tilspe); 26 (Aeship); 27 (Fagsyl); 28 (Acepse; Fagsyl; Tilspe); 29 (Acepse; Fagsyl; Fraexc); 30 (Fraexc); 31 (Acepse; Fagsyl); 32 (Corave; Fraexc; Tilpla); 33 (Acepse)
- Lecanora argentata* (Ach.) Malme: 02 (Tilspe; b-Acepse); 25 (Fagsyl); 28 (Fagsyl); 30 (Fraexc); 31 (Acepse)
- Lecanora cadubriae* (A.Massal.) Hedl.: 01 (Lardec); 05 (Lardec); 08 (Lardec); 20 (Lardec); 31 (Lardec)
- Lecanora carpineae* (L.) Vain.: 02 (Fagsyl; b-Jugreg); 05 (Acepse); 09 (Acepse); 10 (Acepse; Sorauc); 11 (Fraexc; b-Jugreg; b-Pyrpyr); 14 (Acepse; Fagsyl); 21 (Salspe; Sorauc); 25 (Fagsyl); 30 (Acepse; Fagsyl; Sorauc; b-Ribuva; cor/xyl-Fagsyl); 31 (Fagsyl); 32 (b-Corave; Fraexc; Jugreg)
- Lecanora chlarotera* Nyl.: 02 (Acepse; Tilspe); 11 (Fraexc; b-Jugreg); 14 (Acepse); 19 (Abialb; Fagsyl); 21 (Salspe; Sorauc; b-Sorauc); 23 (Alninc); 24 (Tilspe); 27 (Fagsyl); 28 (Acepse); 30 (Fagsyl; Fraexc; Ulmgla; b-Acepse); 31 (Acepse; Fagsyl); 32 (Fraexc; Jugreg; b-Corave; b-Jugreg); 33 (Acepse)
- Lecanora circumborealis* Brodo & Vitik.: 01 (Lardec); 02 (t-Picabi); 06 (t-Pinmug); 20 (xyl/Picabi); 22 (b-Picabi; xyl/Picabi)
- Lecanora conizaeoides* Nyl. ex Crombie: 19 (Abialb)
- Lecanora expallens* Ach.: 02 (rott); 05 (Picabi; xyl-Picabi; xyl/Picabi); 14 (Picabi); 22 (Picabi; t-Picabi); 23 (Pinsyl); 29 (Picabi); 32 (Picabi)
- #*Lecanora expansa* Nyl.: 01 (b-Picabi; Picabi; xyl/Picabi); 05 (Picabi); 22 (Picabi; Sorauc; xyl/Picabi); 31 (Picabi)
- Lecanora horiza* (Ach.) Linds.: 02 (Fagsyl; Jugreg); 05 (Acepse); 23 (Carbet; Fraexc); 28 (Acepse; Fagsyl; Salspe); 30 (Fraexc); 31 (Acepse; Fagsyl); 32 (Fagsyl; Tilpla); 33 (Acepse)

- Lecanora impudens* Degel.: 02 (Fraexc); 30 (Fraexc; Ulmgla)
- Lecanora intumescens* (Rebent.) Rabenh.: 02 (Jugreg); 11 (Fraexc); 14 (Acepse); 19 (Fagsyl); 21 (Salspe); 23 (Fagsyl); 30 (Acepse; Fraexc); 31 (Fagsyl); 32 (Fraexc)
- Lecanora mughicola* Nyl.: 11 (xyl); 30 (xyl)
- Lecanora persimilis* (Th.Fr.) Nyl.: 11 (t-Jugreg)
- Lecanora pulicaris* (Pers.) Ach.: 01 (b-Picabi, t-Picabi); 02 (xyl; t-Picabi); 05 (Sorauc; b-Sorauc; Lardec; t-Lardec; t-Picabi); 06 (t-Pinnmug); 08 (Lardec; Sorauc; t-Lardec); 09 (Acepse); 10 (xyl-Picabi); 11 (b-Jugreg); 13 (Sorari; b-Ostcar); 19 (t-Abialb; Abialb); 20 (xyl/Picabi); 21 (Lardec; Picabi; xyl-con; t-Lardec; t-Pinnmug); 22 (Sorauc; b-Sorauc; xyl-con; xyl/Picabi; t-Lardec; t-Picabi; t-Pinnmug); 23 (Alninc; Picabi); 28 (b-Fagsyl; t-Acepse); 29 (Aeship; t-Fagsyl; t-Lardec); 30 (Fagsyl; Lardec; Picabi; Pinsyl; b-Sorauc; xyl); 32 (Picabi; t-Maldom; t-Tilpla)
- Lecanora saligna* (Schrad.) Zahlbr.: 03 (xyl); 08 (t-Lardec); 11 (xyl); 20 (xyl/Picabi); 21 (Picabi; Lardec; xyl/Picabi; xyl-con); 22 (xyl-con; xyl/Picabi); 30 (xyl); 31 (xyl-con; xyl/Picabi)
- Lecanora sambuci* (Pers.) Nyl.: 02 (t-Jugreg; b-Jugreg)
- Lecanora subcarpineae* Szatala: 11 (Fraexc); 14 (Acepse; Fagsyl); 21 (Salspe; Sorauc); 28 (Salspe); 30 (Acepse; Fagsyl; Ulmlae); 32 (Fraexc; Jugreg; b-Jugreg)
- Lecanora subintricata* (Nyl.) Th.Fr.: 22 (xyl/Picabi)
- Lecanora subrugosa* Nyl.: 02 (Jugreg; Tilspe); 19 (Fagsyl); 23 (Fagsyl); 24 (Tilspe); 28 (Acepse; Salspe); 29 (Aeship); 31 (Acepse; Fagsyl); 32 (Fraexc); 33 (Fagsyl)
- Lecanora symmicta* (Ach.) Ach.: 01 (Picabi; b-Picabi); 02 (xyl); 05 (Sorauc; b-Picabi; t-Sorauc); 06 (t-Pinnmug; b-Pinnmug); 08 (Lardec; Sorauc; b-Pinnmug); 11 (xyl); 15 (b-Alnvir); 21 (b-Pinnmug; Lardec; xyl/Picabi; t-Pinnmug); 22 (Sorauc; b-Alnvir; b-Picabi; t-Pinnmug; b-Pinnmug); 23 (Alninc; Picabi; Pinsyl; b-Fraexc); 29 (t-Fagsyl); 30 (Acepse; b-Ribuva; xyl); 31 (Acepse; Picabi); 32 (b-Corave; t-Maldom)
- #*Lecanora thysanophora* R.C.Harris: 17 (Fagsyl); 18 (Fagsyl); 32 (Fagsyl); 33 (Acepse)
- Lecanora varia* (Hoffm.) Ach.: 02 (xyl); 21 (Lardec; Picabi; xyl/Picabi); 22 (xyl/Picabi); 30 (Fagsyl; Fraexc; Lardec; xyl)
- Lecidea betulicola* (Kullh.) H.Magn.: 10 (xyl); 22 (xyl-con)
- Lecidella elaeochroma* (Ach.) M.Choisy: 01 (xyl/Picabi); 02 (Fagsyl; Fraexc; Tilspe; b-Jugreg); 05 (Acepse; Sorauc; b-Picabi); 06 (t-Salape); 08 (Sorauc; Pinnmug); 09 (Acecarn; Acepse); 10 (Acepse); 11 (Fraexc; Pypyr; b-Jugreg; xyl); 12 (Acepse); 13 (Ostcar); 14 (Acepse; Fagsyl; Sorauc); 19 (Abialb; Acepse; Fagsyl); 20 (Sorauc); 21 (Picabi; Salspe; Sorauc); 22 (Sorauc); 23 (Aeship; Alninc; Fraexc; Tilcor; b-Fraexc); 25 (Fagsyl); 27 (Fagsyl); 28 (Salspe; b-Sammig); 29 (Aeship; Fagsyl; t-Lardec); 30 (Acepse; Fagsyl; Fraexc); 31 (Acepse; Fagsyl); 32 (b-Corave; Fraexc; Jugreg; Jugreg; Tilpla; b-Jugreg; t-Maldom); 33 (Acepse; Fagsyl)
- **Lecidella laureri* (Hepp) Körb.: 11 (b-Jugreg); 14 (Acepse); 23 (Aeship; Alninc)
- #*Lecidella subviridis* s. lat.: 02 (Picabi; Tilspe); 33 (Abialb)
- Lempholemma polyanthes* (Bernh.) Malme: 05 (bry-crev)
- Lepraria eburnea* J.R.Laundon: 05 (soil-base Picabi); 06 (Pinnmug); 10 (Picabi; xyl/Picabi; soil-base Picabi); 12 (cor + bry-cor Acepse); 14 (Fagsyl; Picabi; bry-cal; soil); 15 (bry-ter + deb; vert); 19 (Fagsyl; bry-cal); 22 (Picabi; bry-cal); 28 (Picabi); 30 (Picabi); 31 (Fagsyl; xyl-Fagsyl); 32 (b-Corave); 33 (cor + bry-cor Fagsyl)
- Lepraria elobata* Tønberg: 01 (Lardec; Picabi; soil-base Picabi); 02 (Fagsyl); 05 (Picabi); 08 (Pinnmug); 12 (Acepse); 14 (Picabi); 19 (Abialb); 20 (Picabi; xyl/Picabi); 21 (Lardec; Picabi); 22 (Lardec; Picabi; soil-base Picabi); 31 (Acepse; Fagsyl; Picabi)
- Lepraria incana* (L.) Ach.: 01 (Lardec); 18 (Picabi); 31 (soil-base Fagsyl)
- Lepraria jackii* Tønberg: 07 (Lardec); 08 (deb); 18 (Picabi); 31 (Picabi)
- Lepraria lobificans* Nyl.: 02 (Fagsyl); 09 (cor + bry-cor Acecarn); 11 (Pypyr; xyl); 17 (Fagsyl; bry-cor Fagsyl); 19 (cor/xyl-Fagsyl; Picabi; bry-cor Fagsyl); 21 (bry-ter; bry-cor Picabi); 23 (bry-cor Fagsyl); 25 (Fagsyl); 26 (Aeship); 27 (cor + bry-cor Fagsyl); 28 (cor + bry-cor Acepse; cor + bry-cor Salspe; cor + bry-cor Tilspe; Sammig; bry-cor Fagsyl); 29 (cor + bry-cor Fagsyl; Fraexc); 30 (cor + bry-cor Ulmgla; soil-base Picabi); 31 (Fagsyl); 32 (cor + bry-cor Fraexc; bry-cor Acepse); 33 (cor + bry-cor Fagsyl; Acepse)
- **Lepraria nivalis* J.R.Laundon
chemotype 1: 22 (cal)
chemotype 4: 14 (vert)
chemotype 6: 22 (cal)

- Lepraria rigidula* (de Lesd.) Tønsberg: 05 (Acepse; Sorauc; xyl/Picabi); 09 (Acepse); 14 (Acepse); 19 (Abialb; Acepse); 22 (Picabi; Sorauc); 23 (Pinsyl); 28 (Fagsyl); 29 (Aeship; Picabi); 30 (Picabi; bry-cor Fraexc); 31 (Acepse; bry-cor Acepse); 32 (Picabi)
- **Leptoloma diffusum* J.R.Laundon: 06 (bry-cal)
- Leptoloma vouauxii* (Hue) J.R.Laundon: 02 (Fagsyl; Fraexc); 05 (bry-cal); 08 (Rohir; bry-ter); 19 (Acepse); 22 (bry-cal; *t-Ericaceae*); 23 (Tilcor); 24 (Tilspe); 25 (Fagsyl); 28 (cor + bry-cor Salspe; Acepse); 29 (Fraexc); 31 (Fagsyl; bry-cal; bry-cor Fagsyl); 32 (Salspe)
- Leptogium gelatinosum* (With.) J.R.Laundon: 01 (bry-cal); 05 (bry-cal); 06 (bry-cal); 10 (bry-base Picabi); 14 (bry-cal); 19 (bry-cal); 21 (bry-cal); 28 (bry-cal); 31 (bry-cal); 33 (bry-cal)
- Leptogium lichenoides* (L.) Zahlbr.: 02 (bry-cal); 05 (bry-cal); 14 (bry-cal); 19 (bry-cal); 21 (bry-cal); 22 (bry-cal); 23 (cor + bry-cor Fraexc); 24 (Tilspe); 28 (bry-cor Acepse; bry-cor Tilspe); 29 (bry-cal; bry-cor Fraexc); 30 (bry-cal; bry-cor Ulmlae); 31 (bry-cal); 32 (bry-cal; bry-cor Acepse)
- Leptogium saturninum* (Dicks.) Nyl.: 02 (Fraexc); 05 (Acepse); 14 (cor + bry-cor Acepse); 24 (Tilspe); 29 (Aeship); 30 (Fraexc; bry-cor Ulmlae); 31 (Fagsyl); 32 (Fraexc; Maldom; Tilspe)
- #*Leptogium teretiusculum* (Wallr.) Arnold: 11 (Pyrpyr)
- Lobaria amplissima* (Scop.) Forssell: 14 (Acepse)
- Lobaria pulmonaria* (L.) Hoffm.: 05 (Acepse); 14 (Acepse); 18 (Fagsyl); 19 (Acepse; Fagsyl); 27 (Fagsyl); 28 (Acepse; Fagsyl; Picabi; Tilspe); 31 (bry-cor Fagsyl); 32 (Tilpla)
- Loxospora elatina* (Ach.) A.Massal.: 18 (Picabi); 19 (Abialb; Picabi); 28 (Picabi; Salspe)
- Melanelia exasperata* (De Not.) Essl.: 02 (b-Jugreg; t-Acepse); 30 (Fagsyl; Fraexc; b-Acepse; t-Ribuva; t-Sorauc); 32 (t-Jugreg)
- Melanelia exasperatula* (Nyl.) Essl.: 01 (Picabi); 02 (b-Jugreg; t-Acepse; t-Picabi); 08 (b-Lardec); 09 (t-Acecam); 11 (Fraexc; t-Fraexc; b-Fraexc; t-Maldom; t-Pyrpyr); 19 (Abialb); 21 (b-Pinmug; t-Picabi; t-Sorauc); 22 (t-Picabi); 23 (Alninc; b-Fraexc); 28 (b-Samng); 29 (Aeship; b-Betpen; t-Fraexc; t-Lardec); 30 (Lardec; Picabi; b-Acepse; b-Fraexc; b-Ribuva; xyl; t-Pinsyl; t-Sorauc); 32 (Tilpla; t-Maldom; t-Picabi; t-Tilpla)
- Melanelia fuliginosa* (Fr. ex Duby) Essl. ssp. *glabrata* (Lamy): 02 (Acepse; Fagsyl; Picabi; Tilspe); 04 (Picabi); 05 (Acepse; Picabi); 09 (Acecam; Acepse); 14 (Acepse; Fagsyl; Picabi); 17 (cor + bry-cor Fagsyl); 18 (Fagsyl; Picabi); 19 (Abialb; Acepse; Fagsyl); 21 (Picabi; Salspe); 22 (Picabi); 23 (Aeship; Alninc; Carbet; Fagsyl; Fraexc; Picabi); 24 (Tilspe); 25 (Fagsyl); 27 (Fagsyl); 28 (Acepse; Fagsyl; Picabi; Salspe; Tilspe); 29 (Acepse; Aeship; Betpen; Fagsyl; Fraexc; Picabi); 30 (Acepse; Fagsyl; Fraexc; Picabi; Sorauc; xyl); 31 (Acepse; Fagsyl; Picabi); 32 (Corave; Fagsyl; Fraexc; Jugreg; Salspe; Tilpla); 33 (Abialb; Acepse; Fagsyl)
- Melanelia glabra* (Schaer.) Essl.: 02 (Fraexc; Jugreg; Tilspe); 24 (Tilspe); 30 (Acepse; cor/xyl-Fagsyl; Fagsyl; Fraexc; Ulmgla; Ulmlae)
- **Melanelia laciniatula* (Flagey ex H.Olivier) Essl.: 05 (Picabi); 28 (Fagsyl)
- Melanelia subargentifera* (Nyl.) Essl.: 02 (Fraexc); 11 (Jugreg); 23 (Fraexc; Tilcor); 24 (Tilspe); 26 (Aeship); 30 (Fraexc; Ulmgla; Ulmlae); 32 (Fraexc; Jugreg; Tilpla)
- Melanelia subaurifera* (Nyl.) Essl.: 02 (b-Acepse); 09 (Acepse; t-Acecam); 11 (xyl); 23 (Fagsyl; b-Fraexc); 28 (Fagsyl); 29 (Aeship; b-Aeship; b-Betpen); 30 (Sorauc; cor/xyl-Fagsyl); 31 (Fagsyl); 32 (b-Corave; b-Jugreg; t-Corave; t-Maldom; t-Picabi); 33 (Acepse)
- Menegazzia terebrata* (Hoffm.) A.Massal.: 17 (cor + bry-cor Fagsyl); 18 (Fagsyl); 19 (Fagsyl); 28 (Picabi); 32 (Fagsyl)
- #*Micarea botryoides* (Nyl.) Coppins: 19 (rott)
- **Micarea denigrata* (Fr.) Hedl.: 31 (Picabi)
- #*Micarea hedlundii* Coppins: 19 (rott)
- Micarea lignaria* (Ach.) Hedl.: 06 (xyl/Pinmug; burnt; Pinmug); 22 (Picabi); 33 (Fagsyl)
- Micarea misella* (Nyl.) Hedl.: 02 (xyl)
- **Micarea nitschkeana* (J.Lahm ex Rabenh.) Harm.: 30 (Pinsyl)
- Micarea peliocarpa* (Anzi) Coppins & R.Sant.: 06 (Pinmug); 18 (cor/xyl-Picabi); 21 (Lardec); 22 (xyl); 33 (Acepse; Fagsyl)
- Micarea prasina* Fr.: 05 (rott); 19 (Abialb; rott); 27 (rott); 28 (Picabi); 31 (rott)
- Mycobilimbia berengeriana* (A.Massal.) Hafellner & V.Wirth: 08 (bry-cal)
- **Mycobilimbia carnealbida* (Müll.Arg.) V.Wirth comb. inval.: 08 (deb)
- Mycobilimbia hypnorum* (Lib.) Kalb & Hafellner: 06 (deb-cal; bry-cal); 08 (bry-cal; deb-cal); 10 (bry-base Picabi); 20 (bry-cal); 22 (bry-cal)
- Mycobilimbia lurida* (Ach.) Hafellner & Türk: 06 (cal); 08 (crev); 22 (crev); 30 (bry-cal; crev)
- **Mycobilimbia tetramera* (De Not.) Vitik., Ahti, Kuusinen, Lommi & T.Ulvinen: 01 (deb); 10 (bry-base Picabi)

- Mycoblastus affinis* (Schaer.) T.Schauer: 01 (Picabi); 05 (Lardec; Picabi; t-s Picabi; xyl/Picabi); 07 (t-Lardec; b-Lardec); 22 (Picabi)
- #*Mycoblastus alpinus* (Fr.) Th.Fr. ex Hellb.: 33 (Acepse)
- Mycoblastus fucatus* (Stirt.) Zahlbr.: 01 (Picabi; xyl/Picabi); 05 (Picabi; Sorauc; xyl/Picabi); 10 (Sorauc); 21 (Picabi); 23 (Pinsyl); 31 (Picabi; xyl/Picabi); 33 (Abialb; Acepse)
- Mycoblastus sanguinarius* (L.) Norman: 22 (Picabi); 31 (Picabi)
- Myxobilimbia lobulata* (Sommerf.) Hafellner: 01 (bry-crev); 05 (soil-crev); 08 (soil-crev); 22 (soil-crev)
- **Myxobilimbia microcarpa* (Th.Fr.) Hafellner: 05 (bry-crev; bry-cal); 08 (bry-ter); 29 (bry-cal)
- Myxobilimbia sabuletorum* (Schreb.) Hafellner: 01 (bry-cal); 14 (bry-cal); 17 (bry-cal); 19 (bry-cal); 21 (bry-cal); 28 (bry-cal); 30 (bry-base Fraexc); 31 (bry-cal)
- Nephroma bellum* (Spreng.) Tuck.: 05 (Sorauc; bry-cor Acepse); 19 (Fagsyl); 22 (Picabi); 31 (base Fagsyl)
- Nephroma parile* (Ach.) Ach.: 02 (bry-cor Tilspe); 05 (Acepse); 14 (Acepse); 19 (Acepse; bry-cor Fagsyl); 27 (bry-cor Fagsyl); 28 (cor + bry-cor Salspe; Acepse; bry-cor Fagsyl); 29 (bry-cor Fraexc); 31 (Fagsyl); 32 (Fraexc; bry-cor Acepse; bry-cor Fraexc)
- Nephroma resupinatum* (L.) Ach.: 14 (bry-cor Acepse); 19 (bry-base Fagsyl); 30 (bry-base Fraexc); 31 (Fagsyl)
- Normandina pulchella* (Borrer) Nyl.: 02 (Tilspe; *Parmelia sulcata* on Fraexc); 09 (bry-cor Acecam); 17 (Fagsyl); 18 (bry-cor Fagsyl); 19 (bry-cor Fagsyl); 23 (bry-cor Fagsyl; bry-cor Fraexc; bry-cor Tilcor); 24 (bry-cor Tilspe); 28 (Acepse; bry-cor Picabi; bry-cor Salspe; bry-cor Tilspe); 29 (bry-cor Fraexc); 31 (bry-cor Fagsyl); 32 (bry-cor Maldom; bry-cor Salspe); 33 (bry-cor Acepse; bry-cor Fagsyl)
- Ochrolechia alboflavescens* (Wulfen) Zahlbr.: 01 (Lardec; Picabi); 05 (Picabi; Sorauc); 14 (Acepse; Picabi); 20 (Lardec; Lardec); 21 (Lardec; Picabi); 22 (Picabi); 30 (Picabi; xyl); 31 (Lardec; Picabi)
- Ochrolechia androgyna* (Hoffm.) Arnold: 05 (Picabi); 07 (Lardec); 10 (Picabi); 14 (Picabi); 19 (Abialb; Fagsyl); 22 (Picabi); 23 (Alninc; Fagsyl); 31 (Acepse; Fagsyl; Picabi); 33 (Acepse; Fagsyl)
- Ochrolechia arborea* (Kreyer) Almb.: 02 (Jugreg); 09 (Acepse); 10 (Sorauc); 11 (Fraexc; xyl); 14 (Acepse); 21 (Picabi; Pinmug); 22 (b-Pinmug); 23 (Pinsyl); 24 (Tilspe); 29 (Aeship; Picabi); 30 (Acepse; Fagsyl; Picabi; xyl); 31 (Fagsyl); 32 (b-Corave; Picabi); 33 (Acepse)
- Ochrolechia microstictoides* Räsänen: 01 (Picabi); 05 (Picabi; Sorauc); 07 (b-Lardec); 10 (Acepse); 14 (Picabi); 19 (Abialb; Picabi; xyl/Picabi); 20 (Picabi); 21 (Lardec; Picabi); 22 (Picabi); 30 (Picabi; Pinsyl); 31 (Picabi)
- Ochrolechia pallescens* (L.) A.Massal.: 32 (Fraexc)
- Ochrolechia szatalaensis* Verseghy: 05 (Acepse; Picabi); 10 (Sorauc); 14 (Acepse; Picabi); 20 (Sorauc; xyl/Picabi); 21 (Salspe); 28 (Salspe); 33 (Acepse)
- Ochrolechia turneri* (Sm.) Hasselrot: 02 (Jugreg); 28 (Acepse); 30 (Fraexc; Ulmlae); 32 (Fraexc; Jugreg; Maldom; Tilpla)
- Opegrapha rufescens* Pers.: 28 (Acepse)
- Opegrapha varia* Pers.: 31 (Fagsyl)
- Opegrapha viridis* (Pers. ex Ach.) Behlen & Desberger: 28 (Fagsyl)
- Opegrapha vulgata* Ach.: 05 (Picabi); 19 (Abialb); 27 (Fagsyl); 28 (Picabi); 31 (Picabi)
- Pannaria conoplea* (Ach.) Bory: 19 (cor + bry-cor Fagsyl); 28 (cor + bry-cor Fagsyl; Tilspe); 32 (Tilpla)
- Parmelia saxatilis* (L.) Ach.: 01 (Lardec; Picabi); 02 (Tilspe; xyl); 05 (Acepse; Picabi; Sorauc); 09 (Acecam; Acepse); 11 (xyl); 14 (Acepse; Fagsyl; Picabi); 17 (Fagsyl); 18 (Fagsyl; Picabi); 19 (Abialb; Acepse; Fagsyl; Picabi); 20 (Picabi); 21 (Picabi; Salspe; b-Pinmug); 22 (Picabi; Sorauc); 23 (Alninc; Fagsyl; Fraexc; Picabi); 25 (Fagsyl); 27 (Fagsyl); 28 (Acepse; Fagsyl; Picabi); 29 (cor + bry-cor Fagsyl; Acepse; Aeship; Betpen; Fraexc; Picabi); 30 (Fraexc; Lardec; Picabi; Pinsyl; xyl); 31 (Fagsyl; Lardec; Picabi; bry-cor Acepse); 32 (Fagsyl; Fraexc; Picabi; Salspe); 33 (Abialb; Acepse; Fagsyl)
- Parmelia submontana* Nádv. ex Hale: 02 (Tilspe); 05 (Acepse); 14 (Acepse); 18 (Fagsyl); 19 (Abialb); 25 (Fagsyl); 28 (Acepse; Fagsyl; Salspe; b-Picabi; b-Fagsyl); 29 (Acepse; Fagsyl; Fraexc; Picabi); 30 (Fagsyl; Picabi); 33 (Acepse; Fagsyl)
- Parmelia sulcata* Taylor: 01 (Picabi); 02 (Acepse; Fagsyl; Jugreg; Picabi; Tilspe; b-Fraexc; xyl); 05 (Acepse; Sorauc); 09 (Acecam; Acepse); 10 (Acepse); 11 (Fraexc; Jugreg; Maldom; b-Fraexc; xyl; t-Pyrpyr); 14 (Acepse); 17 (cor + bry-cor Fagsyl); 19 (Abialb; Acepse; Fagsyl); 21 (Lardec; Picabi; Salspe); 22 (Picabi; Sorauc); 23 (Aeship;

- Alninc; Fagsyl; Fraexc; Picabi; b-Fraexc); 24 (Tilspe); 25 (Fagsyl); 26 (Aeship); 28 (Acepse; Fagsyl; Picabi; Salspe); 29 (Acepse; Aeship; Betpen; Fagsyl; Fraexc; Lardec; Picabi); 30 (Acepse; Fagsyl; Fraexc; Lardec; Picabi; Ulmgla; Ulmlae; b-Ribuva; b-Sorauc; xyl); 31 (Acepse; bry-cor Acepse); 32 (Acepse; Fraexc; Jugreg; Salspe; Tilspe; b-Corave; t-Maldom; t-Picabi); 33 (Acepse; Fagsyl)
- Parmeliella triptophylla*** (Ach.) Müll.Arg.: 02 (Fraexc; Tilspe); 14 (Acepse); 19 (Fagsyl); 21 (Salspe); 28 (Acepse); 30 (Fraexc); 31 (Acepse; Fagsyl); 32 (Salspe; bry-cor Fraexc); 33 (Fagsyl)
- Parmelina pastillifera*** (Harm.) Hale: 02 (Fraexc; Tilspe; b-Acepse; t-Jugreg); 09 (Acepse); 11 (Fraexc; Maldom; Pyrpyr; b-Fraexc; xyl; t-Jugreg; t-Pyrpyr); 14 (Acepse); 19 (Acepse; Fagsyl); 23 (Fagsyl; Picabi; b-Fraexc); 24 (Tilspe); 28 (Fagsyl; b-Fagsyl; Salspe; b-Acepse; b-Salspe); 29 (Fagsyl; b-Aeship); 30 (Acepse; Fagsyl; Fraexc; Picabi; Ulmgla; b-Sorauc; xyl; Ribuva); 31 (Acepse; Fagsyl); 32 (Fraexc; Jugreg; Maldom); 33 (Acepse; Fagsyl)
- Parmelina quercina*** (Willd.) Hale: 30 (Fraexc; b-Sorauc; b-Fagsyl)
- Parmelina tiliacea*** (Hoffm.) Hale: 02 (Tilspe); 09 (Acepse); 11 (Fraexc; b-Fraexc); 23 (Fraexc); 24 (Tilspe); 30 (Fagsyl; Picabi; Ulmgla; Ulmlae; bry-cor Fraexc); 32 (Fraexc; Jugreg; Maldom; Tilpla)
- Parmeliopsis ambigua*** (Wulfen) Nyl.: 01 (Lardec; Picabi); 02 (Picabi; xyl); 05 (Acepse; Lardec; Picabi; Pinnug); 08 (Lardec; Pinnug); 11 (xyl); 14 (Acepse; Picabi; rott); 18 (Picabi); 19 (Fagsyl; Picabi); 20 (Lardec); 21 (Lardec; Picabi; b-Pinnug); 22 (Lardec; Picabi; b-Pinnug; xyl-con); 23 (Alninc; Fagsyl; Picabi); 25 (Fagsyl); 28 (Picabi); 29 (Picabi); 30 (Acepse; Lardec; Picabi; Pinsyl; xyl); 31 (Acepse; Fagsyl; Lardec; Picabi); 33 (Acepse)
- Parmeliopsis hyperopta*** (Ach.) Arnold: 01 (Lardec; Picabi); 05 (Acepse; Picabi); 08 (t-Pinnug; Lardec); 14 (Picabi; rott); 18 (Picabi); 19 (Abialb); 20 (Lardec); 21 (Lardec; Picabi; b-Pinnug); 28 (Picabi); 31 (Lardec; Picabi); 33 (Acepse)
- Parmotrema arnoldii*** (Du Rietz) Hale: 17 (Fagsyl); 18 (Fagsyl); 28 (Salspe); 32 (Tilspe); 33 (cor + bry-cor Acepse; Fagsyl)
- Parmotrema chinense*** (Osbeck) Hale & Ahti: 17 (Fagsyl); 18 (Fagsyl); 28 (Fagsyl); 32 (Fagsyl)
- Parmotrema crinitum*** (Ach.) M.Choisy: 18 (cor + bry-cor Picabi; Fagsyl); 28 (Picabi)
- Peltigera aphthosa*** (L.) Willd.: 22 (bry-cal)
- Peltigera collina*** (Ach.) Schrad.: 02 (bry-cor Fraexc); 05 (bry-cor Picabi); 19 (bry-base Fagsyl; bry-cor Acepse; bry-cor Fagsyl); 28 (Acepse; bry-cor Fagsyl; bry-base Tilspe; bry-cor Fagsyl); 31 (bry-cor Fagsyl)
- Peltigera degenii*** Gyeln.: 05 (bry-cal); 14 (bry-base Acepse); 19 (bry-base Fagsyl; rott); 23 (bry-cor Fagsyl); 27 (bry-base Fagsyl); 31 (bry-base Fagsyl; bry-cal)
- #*Peltigera elisabethae*** Gyeln.: 21 (bry-cal); 30 (bry-base Fraexc)
- Peltigera horizontalis*** (Huds.) Baumg.: 02 (soil); 14 (bry-cal); 19 (bry-cal); 22 (bry-cal; soil + bry-ter); 28 (bry-base Fagsyl); 32 (bry-cal)
- Peltigera leucophlebia*** (Nyl.) Gyeln.: 01 (deb); 05 (bry-cal); 08 (soil + deb); 10 (bry-cal); 14 (ter); 19 (rott; bry-cal); 21 (bry-ter; deb-cal)
- Peltigera membranacea*** (Ach.) Nyl.: 10 (bry-cal)
- **Peltigera neckeri*** Hepp ex Müll.Arg.: 01 (bry-cal); 02 (bry-cal); 05 (bry-cal); 10 (bry-cal; deb-cal); 15 (bry-cal); 21 (bry-cal; soil-cal); 22 (bry-cal); 31 (bry-cal)
- Peltigera polydactylon*** (Neck.) Hoffm.: 05 (bry-cal); 19 (bry-ter); 21 (deb + bry-ter)
- Peltigera praetextata*** (Flörke ex Sommerf.) Zopf: 01 (bry-cal); 02 (bry-cal; bry-ter; rott); 04 (deb-cal); 05 (bry-cal; bry-base Acepse; bry-base Picabi; bry-cor Sorauc); 14 (bry-cal; ter); 17 (bry-cal); 18 (bry-base Fagsyl; bry-ter); 19 (bry-base Fagsyl; bry-cal; stump-bry; bry-cor Acepse; bry-base Acepse); 21 (cor + bry-cor Salspe; bry-cal); 23 (bry-base Fraexc; soil, deb + bry-ter); 25 (bry-cor Fagsyl); 27 (bry-cor Fagsyl); 28 (cor + bry-cor Salspe; Acepse; bry-cal; bry-base Fagsyl); 29 (bry-cal; bry-base Fagsyl; bry-base Fraexc); 30 (bry-rott; bry-base Fraexc); 31 (Fagsyl; bry-cal; bry-base Fagsyl; rott); 32 (bry-cal; bry-base Fagsyl; bry-cor Acepse; bry-cor Salspe); 33 (base Acepse; bry-cal; bry-base Fagsyl)
- Peltigera venosa*** (L.) Hoffm.: 06 (soil-crev)
- Pertusaria albescens*** (Huds.) M.Choisy & Werner var. *albescens*: 02 (Fagsyl; Fraexc; Jugreg; Tilspe; bry-cor Acepse); 04 (Picabi); 05 (Picabi; Sorauc; xyl/Picabi); 09 (Aececam; Acepse); 10 (Acepse); 11 (Maldom; Pyrpyr); 12 (Acepse); 14 (Acepse; Fagsyl); 18 (Fagsyl); 19 (Abialb; Acepse; Fagsyl); 21 (Picabi; Salspe); 23 (Alninc; Fagsyl; Fraexc; Picabi; Tilcor); 24 (Tilspe); 25 (Fagsyl); 27 (Fagsyl); 28 (Acepse; Fagsyl; Picabi; Salspe; Tilspe; b-Samnig); 29 (Acepse; Fraexc; Picabi); 30 (Acepse; Fraexc; Ulmlae);

- 31 (Acepse; Fagsyl; Picabi); 32 (Fraexc; Maldom; Salspe; Tilpla); 33 (Abialb; Acepse; Fagsyl)
- **Pertusaria albescens* var. *corallina*** auct. non (Zahlbr.) J.R.Laundon: 24 (Tilspe); 29 (Acepse; Aeship); 30 (Ulmгла); 31 (Acepse; Fagsyl); 33 (Acepse)
- Pertusaria alpina*** Hepp ex H.E.Ahles: 19 (Acepse; Fagsyl); 25 (Fagsyl); 27 (Fagsyl); 28 (Acepse); 31 (Acepse; Fagsyl); 32 (Acepse; Fagsyl; Jugreg); 33 (Acepse; Fagsyl)
- Pertusaria amara*** (Ach.) Nyl.: 01 (Picabi); 02 (Tilspe); 05 (Acepse; Picabi; Sorauc); 10 (Picabi); 14 (Acepse; Picabi); 18 (Picabi); 19 (Abialb; Acepse; Fagsyl; Picabi; xyl/Picabi); 21 (Picabi; Salspe); 22 (Picabi); 23 (Aeship; Alninc; Fagsyl; Fraexc); 25 (Fagsyl); 28 (Acepse; Picabi; Salspe; Tilspe); 29 (Acepse; Aeship; Betpen; Fagsyl; Picabi); 31 (Picabi); 32 (Fagsyl; Fraexc); 33 (Acepse)
- Pertusaria coccodes*** (Ach.) Nyl.: 02 (Tilspe); 18 (Picabi); 22 (Picabi); 27 (Fagsyl); 28 (Acepse; Picabi); 31 (Picabi); 33 (Acepse; Fagsyl)
- Pertusaria coronata*** (Ach.) Th.Fr.: 01 (Picabi); 02 (Fraexc); 14 (Picabi); 19 (Abialb; Fagsyl); 27 (Fagsyl); 28 (Fagsyl); 30 (Fraexc; Ulmlae); 31 (Acepse; Fagsyl); 32 (Fagsyl; Fraexc)
- Pertusaria flavida*** (DC.) J.R.Laundon: 28 (Fagsyl); 29 (Aeship); 31 (Acepse); 32 (Fraexc); 33 (Fagsyl)
- Pertusaria hemisphaerica*** (Flörke) Erichsen: 05 (Picabi); 12 (Acepse); 14 (Picabi); 19 (Abialb; Acepse; Fagsyl); 25 (Fagsyl); 28 (Fagsyl); 31 (Acepse; Fagsyl); 33 (Acepse)
- Pertusaria hymenea*** (Ach.) Schaer.: 28 (Fagsyl)
- Pertusaria leioplaca*** DC.: 02 (Fagsyl; Fraexc); 28 (Fagsyl); 31 (Acepse)
- Pertusaria multipuncta*** (Turner) Nyl.: 29 (Aeship; Acepse)
- Pertusaria ophthalmiza*** (Nyl.) Nyl.: 05 (Picabi); 19 (Abialb)
- Pertusaria pertusa*** auct. non (Weigel) Tuck.: 18 (Fagsyl); 28 (Acepse; Fagsyl); 31 (Fagsyl); 32 (Fagsyl); 33 (Acepse; Fagsyl)
- Pertusaria pupillaris*** (Nyl.) Th.Fr.: 05 (Acepse); 07 (Lardec); 21 (xyl/Picabi); 30 (Picabi)
- **Phaeophyscia chloantha*** (Ach.) Moberg: 11 (Jugreg; Maldom; Pyrpyr); 26 (Aeship); 28 (Samnig)
- Phaeophyscia endophoenicea*** (Harm.) Moberg: 02 (Fagsyl; Fraexc); 27 (bry-cor Fagsyl); 28 (Acepse); 29 (Fagsyl); 30 (Acepse); 31 (Fagsyl); 32 (Maldom); 33 (Acepse)
- Phaeophyscia orbicularis*** (Neck.) Moberg: 09 (Acecam; Acepse); 11 (Fraexc; Jugreg; Maldom; Pyrpyr); 23 (Aeship); 24 (Tilspe); 26 (Aeship); 29 (Acepse); 30 (Acepse; Fraexc; xyl); 32 (Fraexc; Jugreg; Maldom)
- Phaeophyscia sciastra*** (Ach.) Moberg: 21 (cal)
- Phlyctis agelaea*** (Ach.) Flot.: 28 (Fagsyl; Salspe; Acepse)
- Phlyctis argena*** (Spreng.) Flot.: 01 (Picabi); 02 (Jugreg; Tilspe); 05 (Acepse; Picabi; Sorauc; b-Picabi); 09 (Acecam; Acepse); 10 (Sorauc); 12 (Acepse); 13 (Ostcar); 14 (Acepse); 18 (Fagsyl); 19 (Abialb; Acepse; Fagsyl); 21 (Picabi; Salspe); 22 (b-Pinmug; Sorauc); 23 (Aeship; Carbet; Fagsyl; Fraexc; Picabi; Tilcor; Tilspe); 24 (Tilspe); 25 (Fagsyl); 27 (Fagsyl); 28 (Acepse; Picabi; Salspe; Tilspe; b-Samnig); 29 (Acepse; Aeship; Fagsyl; Fraexc; t-Lardec); 30 (bry-cor Fraexc; Fraexc); 31 (Acepse; Fagsyl); 32 (Fagsyl); 33 (Abialb; Acepse; Fagsyl)
- Physcia adscendens*** (Fr.) H.Olivier: 09 (Acecam); 11 (Fraexc; Jugreg; b-Fraexc; b-Jugreg); 23 (Aeship; Alninc; Picabi; Tilspe); 28 (b-Samnig); 29 (Fagsyl; Lardec); 30 (Acepse; Fraexc); 31 (Acepse); 32 (Fraexc; Maldom; b-Jugreg)
- Physcia aipolia*** (Ehrh. ex Humb.) Fűrnr.: 02 (Fraexc); 11 (Jugreg); 24 (Tilspe); 29 (t-Fraexc); 30 (Fraexc); 32 (Fraexc; Jugreg; b-Corave; t-Corave; t-Tilspe)
- Physcia caesia*** (Hoffm.) Fűrnr.: 30 (cal; t-Ribuva)
- **Physcia dubia*** (Hoffm.) Lettau: 21 (bry-cal); 30 (cal + bry-cal)
- Physcia stellaris*** (L.) Nyl.: 02 (b-Tilspe; t-Fraexc; t-Jugreg); 09 (t-Acecam); 11 (Fraexc; xyl; t-Jugreg; t-Pyrpyr); 23 (b-Fraexc); 29 (t-Fraexc); 30 (Acepse; Fagsyl; Fraexc; Ulmгла; xyl; Ribuva; t-Sorauc); 32 (b-Corave; b-Jugreg; t-Maldom)
- Physcia tenella*** (Scop.) DC.: 02 (b-Jugreg); 11 (Pyrpyr; t-Pyrpyr); 27 (Fagsyl); 28 (Fagsyl; b-Samnig; t-Salspe); 29 (Aeship; Fagsyl; b-Fraexc; t-Lardec); 30 (cor/xyl-Fagsyl; Fagsyl; Fraexc; Picabi; b-Acepse; xyl; Ribuva); 32 (Fraexc; Maldom; b-Jugreg; t-Maldom; t-Picabi)
- Physconia distorta*** (With.) J.R.Laundon: 02 (Fraexc); 09 (Acecam); 11 (Fraexc; Jugreg; t-Pyrpyr); 23 (Fraexc; Tilcor); 24 (Tilspe); 26 (Aeship); 29 (Acepse); 30 (Fraexc; Ulmгла; b-Ribuva); 32 (Fraexc; Jugreg; Tilpla)
- Physconia perisidiosa*** (Erichsen) Moberg: 30 (Fraexc)
- #*Placidium imbecillum*** (Breuss) Breuss: 22 (soil-crev)

- **Placidium pilosellum* (Breuss) Breuss: 01 (soil-crev); 22 (soil-crev)
- **Placidium squamulosum* (Ach.) Breuss: 01 (soil-crev)
- Placynthiella icmalea* (Ach.) Coppins & P.James: 01 (Lardec; soil-base Picabi); 02 (rott); 14 (rott); 19 (Abialb); 21 (Lardec); 22 (rott); 23 (Pinsyl); 30 (xyl); 31 (Picabi; deb; rott-soil); 33 (Acepse)
- Placynthiella uliginosa* (Schrad.) Coppins & P.James: 11 (xyl)
- Platismatia glauca* (L.) W.L.Culb. & C.F.Culb.: 01 (Picabi); 02 (Picabi); 05 (Acepse; Lardec; Picabi; Sorauc); 14 (Acepse; Fagsyl; Picabi); 19 (Abialb; Acepse; Fagsyl; Picabi); 20 (Picabi); 21 (Lardec; Picabi; Salspe; b-Pinmug); 22 (Picabi; Sorauc; b-Pinmug); 25 (Fagsyl); 28 (Fagsyl); 29 (Fraexc; Picabi); 30 (Lardec; Picabi; Pinsyl; xyl); 31 (Acepse; Fagsyl; Lardec; Picabi); 32 (Picabi)
- Pleurosticta acetabulum* (Neck.) Elix & Lumbsch: 02 (bry-cor Fraexc); 09 (Aeccam)
- **Polyblastia sendtneri* Kremp.: 22 (bry-cal)
- Protopannaria pezizoides* (Weber) M.Jørg. & S.Ekman: 01 (bry-ter); 05 (Sorauc; deb-cal); 08 (soil); 14 (bry-cal); 15 (bry-cal); 19 (soil); 20 (bry-ter); 22 (bry-cal; bry-ter); 31 (bry-base Fagsyl)
- Pseudevernia furfuracea* (L.) Zopf var. *furfuracea*: 01 (Lardec; t-Picabi); 02 (b-Acepse; b-Fraexc; b-Jugreg; b-Picabi; b-Tilspe; t-Picabi); 05 (Acepse; Lardec; Sorauc; t-Picabi); 06 (Pinmug); 08 (Lardec); 14 (Acepse; t-Picabi); 19 (Abialb; Fagsyl; t-Picabi); 20 (xyl/Picabi); 21 (Lardec; Picabi; Pinmug; Salspe; Sorauc); 22 (Picabi; Sorauc; b-Pinmug); 23 (Fraexc; Sorauc; b-Fraexc; t-Picabi); 25 (Fagsyl); 28 (Fagsyl; Salspe; t-Acepse); 29 (Fagsyl; b-Betpen; t-Fraexc; t-Picabi); 30 (Fagsyl; Lardec; Picabi; Pinsyl; Sorauc; b-Acepse; b-Fraexc; xyl); 31 (Fagsyl; b-Picabi; t-Lardec); 32 (b-Maldom; Tilpla; t-Picabi)
- Pseudevernia furfuracea* var. *ceratea* (Ach.) D. Hawksw.: 01 (Lardec); 02 (xyl); 08 (Lardec); 14 (t-Picabi); 21 (Lardec; Picabi; Sorauc); 30 (Lardec; xyl; b-Ribuva)
- Pseudosagedia aenea* (Wallr.) Hafellner & Kalb: 14 (Acepse)
- Psora decipiens* (Hedw.) Hoffm.: 01 (soil-crev)
- Punctelia subrudecta* s. lat.: 23 (Fagsyl; Tilcor); 24 (Tilspe); 28 (Fagsyl)
- Pycnora sorophora* (Vain.) Hafellner: 01 (xyl/Picabi); 03 (xyl); 33 (xyl)
- Pyrrenula nitida* (Weigel) Ach.: 02 (Fagsyl); 18 (Fagsyl); 19 (Fagsyl); 25 (Fagsyl); 27 (Fagsyl); 28 (Fagsyl); 29 (Fagsyl); 31 (Fagsyl); 32 (Fagsyl); 33 (Fagsyl)
- Pyrrospora quernei* (Dicks.) Körb.: 28 (Picabi)
- Ramalina farinacea* (L.) Ach.: 02 (Acepse; Tilspe); 05 (Acepse; Picabi); 09 (Acepse); 14 (Acepse; Fagsyl); 18 (Fagsyl); 19 (Abialb; Acepse; Fagsyl); 23 (Fraexc; Picabi; Tilcor); 24 (Tilspe); 25 (Fagsyl); 28 (Acepse; Fagsyl; Salspe; Tilspe); 29 (Fagsyl; Fraexc); 30 (Picabi; t-Picabi; Tilcor); 32 (Corave; Fagsyl)
- Ramalina fastigiata* (Pers.) Ach.: 02 (Acepse; Tilspe); 05 (Acepse); 09 (Aeccam); 10 (Acepse); 11 (Fraexc); 19 (Abialb; Acepse; Fagsyl); 21 (Salspe); 28 (Salspe; Tilspe); 29 (Fraexc); 30 (Acepse; Fraexc; Lardec); 32 (Fraexc; Jugreg)
- Ramalina fraxinea* (L.) Ach.: 02 (Tilspe); 30 (Fraexc; Acepse)
- Ramalina pollinaria* (Westr.) Ach.: 12 (Acepse); 23 (Fagsyl; Fraexc); 24 (Tilspe); 27 (Fagsyl); 28 (Tilspe); 30 (Fraexc)
- Ramalina roesleri* (Hochst. ex Schaer.) Hue: 02 (Acepse); 09 (Acepse)
- Rinodina archaea* agg.: 05 (Acepse); 31 (Acepse)
- Rinodina capensis* Hampe: 05 (Picabi); 10 (Acepse); 14 (Acepse); 20 (Sorauc); 21 (Picabi); 30 (t-Acepse)
- Rinodina glauca* Ropin: 29 (b-Fraexc; t-Fraexc)
- Rinodina orculata* Poelt & M.Steiner: 05 (Picabi; Sorauc); 06 (t-Pinmug); 10 (Acepse); 21 (Sorauc); 22 (Sorauc); 30 (xyl)
- Rinodina septentrionalis* Malme: 32 (t-Tilspe; b-Corave)
- #*Rinodina sheardii* Tønberg: 30 (Fraexc)
- Rinodina sophodes* (Ach.) A.Massal.: 02 (b-Jugreg; t-Acepse; t-Fraexc; t-Jugreg); 23 (Carbet); 30 (Fagsyl; Sorauc; b-Acepse; b-Fraexc; t-Acepse)
- Ropalospora viridis* (Tønberg) Tønberg: 05 (Picabi); 18 (Picabi); 21 (Lardec); 23 (Fagsyl; Fraexc); 25 (Fagsyl); 27 (Picabi); 28 (Acepse; Fagsyl; Picabi); 29 (Acepse); 31 (Picabi)
- **Schismatomma pericleum* (Ach.) Branth. & Rostr.: 05 (Picabi)
- Scoliciosporum chlorococcum* (Graewe ex Stenh.) Vězda: 01 (Lardec); 13 (b-Ostcar); 21 (Sorauc); 23 (Pinsyl; t-Fraexc); 30 (Pinsyl; b-Lardec; xyl)
- Scoliciosporum umbrinum* (Ach.) Arnold: 02 (t-Jugreg; t-Picabi); 11 (t-Pyrpyr; xyl); 21 (b-Sorauc); 31 (Acepse); 32 (t-Maldom); 33 (Acepse)
- Solorina bispora* Nyl.: 05 (soil-crev + bry-crev); 08 (sands); 22 (bry-cal)

- Solorina saccata* (L.) Ach.: 01 (bry-cal); 14 (bry-cal); 23 (sands); 28 (soil + bry-ter); 31 (bry-cal); 32 (soil + bry-ter)
- Sphaerophorus globosus* (Huds.) Vain.: 14 (Picabi)
- **Squamarina gypsacea* (Sm.) Poelt: 01 (cal); 08 (cal); 10 (cal)
- Sticta sylvatica* (Huds.) Ach.: 28 (cor + bry-cor Salspe; bry-cor Acepse)
- Strangospora moriformis* (Ach.) Stein: 30 (Lardec)
- Strigula stigmatella* (Ach.) R.C.Harris: 08 (bry-ter); 18 (bry-cal; bry-cor Fagsyl); 19 (bry-cal; bry-ter; bry-cor Acepse; bry-cor Fagsyl); 28 (bry-cor Fagsyl); 31 (Fagsyl; bry-cal); 32 (bry-cal); 33 (cor + bry-cor Acepse)
- Tephromela atra* (Huds.) Hafellner var. *torulosa* (Flot.) Hafellner: 10 (Sorauc); 21 (Salspe; Picabi)
- #*Thelidium acroglyptum* Norm.: 31 (bry-cor Fagsyl); 32 (bry-cor Salspe)
- Thelotrema lepadinum* (Ach.) Ach.: 17 (Fagsyl)
- **Toninia rosulata* (Anzi) H.Olivier: 01 (bry-cal)
- Toninia sedifolia* (Scop.) Timdal: 06 (bry-cal)
- Trapeliopsis flexuosa* (Fr.) Coppins & P.James: 01 (Picabi); 02 (xyl; rott); 05 (Picabi; Sorauc); 11 (xyl); 14 (Acepse; Picabi; rott); 21 (Lardec; Picabi; Pinmug); 22 (rott); 30 (xyl); 31 (Acepse)
- #*Trapeliopsis gelatinosa* (Flörke) Coppins & P.James: 05 (rott); 21 (bry-ter + deb); 31 (deb)
- Trapeliopsis viridescens* (Schrad.) Coppins & P.James: 19 (rott)
- Tuckermannopsis chlorophylla* (Willd.) Hale: 05 (Acepse; t-Lardec); 20 (Picabi); 21 (Lardec; Picabi; Pinmug); 22 (Picabi); 23 (Alninc); 29 (Fraexc; Lardec; Picabi); 30 (Lardec; xyl); 32 (Picabi)
- Tuckneraria laureri* (Kremp.) Randle & Thell: 19 (Picabi); 21 (Lardec; Picabi); 22 (Picabi); 24 (Tilspe); 30 (Fraexc; Lardec; Picabi)
- Usnea diplotypus* Vain.: 10 (Lardec); 14 (Picabi); 19 (Abialb; Picabi); 20 (Picabi; xyl/Picabi); 21 (Picabi; Sorauc); 22 (Picabi); 23 (Fraexc); 28 (Fagsyl; Salspe; Acepse); 29 (Fraexc; Picabi); 30 (Fraexc; Picabi); 31 (Lardec)
- Usnea filipendula* s. lat.: 01 (Lardec); 05 (Acepse; Sorauc; t-Picabi); 19 (Abialb; Acepse); 20 (Acepse; Lardec; Picabi; xyl/Picabi); 23 (Fraexc); 25 (Fagsyl); 28 (Fagsyl; Salspe); 29 (Picabi); 31 (Lardec)
- Usnea florida* (L.) Weber ex F.H.Wigg.: 19 (Picabi)
- Usnea hirta* (L.) Weber ex F.H.Wigg.: 07 (Lardec); 11 (xyl); 21 (Lardec); 23 (Alninc); 30 (Lardec)
- Usnea rigida* s. lat.: 01 (Picabi; Lardec); 19 (Abialb); 21 (Lardec; Sorauc); 23 (Alninc; Lardec); 29 (Fraexc; Picabi); 30 (Fagsyl; Fraexc; Lardec; Pinsyl; Sorauc; xyl); 32 (Fraexc)
- Usnea scabrata* s. lat.: 01 (Lardec); 07 (Lardec); 21 (Lardec; Picabi; Salspe); 22 (Lardec; Picabi)
- Usnea subfloridana* Stirt.: 05 (Acepse); 07 (Lardec; t-Lardec); 19 (Abialb; Picabi); 23 (Fraexc; t-Lardec); 25 (Fagsyl); 28 (Acepse; Fagsyl); 29 (Fraexc; Lardec); 30 (Fraexc; Lardec); 32 (Fraexc; Tilpla)
- #*Usnea substerilis* Motyka: 07 (Lardec); 10 (Lardec); 19 (Abialb); 21 (Sorauc); 22 (Lardec); 23 (b-Lardec); 30 (Fraexc; Lardec; Sorauc); 31 (Picabi)
- Vulpicida pinastri* (Scop.) J.-E.Mattsson & M.J.Lai: 01 (Lardec; Picabi); 02 (Picabi); 05 (Acepse; Picabi; Sorauc); 08 (Lardec; Pinmug); 11 (xyl); 14 (Acepse; Picabi); 18 (Picabi); 19 (Abialb; Acepse; Fagsyl; Picabi; rott); 20 (Picabi); 21 (Lardec; Picabi; b-Pinmug); 22 (Lardec; Picabi; Sorauc; b-Pinmug; xyl-con); 23 (Picabi; Pinsyl); 28 (Picabi); 29 (Picabi); 30 (Acepse; Lardec; Picabi; Pinsyl; xyl); 32 (Acepse; Picabi); 33 (Acepse)
- Xanthoria candelaria* (L.) Th.Fr.: 30 (Fraexc; Picabi)
- Xanthoria fallax* (Hepp) Arnold: 11 (Jugreg); 26 (Aeship)
- Xanthoria parietina* (L.) Th.Fr.: 02 (Jugreg; t-Jugreg); 09 (t-Acecam); 11 (Jugreg; Maldom; b-Fraexc; xyl; t-Fraexc; t-Pyrpyr); 23 (Alninc; Picabi; b-Fraexc); 26 (Aeship); 29 (t-Fraexc); 30 (Fraexc; xyl); 32 (Fraexc; Jugreg)
- Xylographa parallela* (Ach.: Fr.) Behlen & Desberger: 01 (xyl-con); 02 (xyl); 03 (xyl); 10 (xyl-Picabi); 21 (xyl/Picabi); 22 (xyl-con); 30 (xyl)
- Xylographa vitiligo* (Ach.) J.R.Laundon: 01 (xyl/Picabi); 21 (xyl/Salspe)

Non-lichenized fungi (traditionally included in lichenological literature):

- Mycocalicium subtile* (Pers.) Szatala: 01 (xyl/Picabi); 11 (xyl); 21 (xyl-con); 22 (xyl-Picabi)
- Naetrocymbe fraxinii* (A.Massal.) R.C.Harris: 23 (Fraexc); 28 (Acepse; Salspe)
- **Peridiothelia fuliguncta* (Norman) D.Hawksw.: 02 (Tilcor); 23 (Tilcor); 32 (Tilpla)

Discussion

The landscape of the investigated area is characterized by a duality of land uses: the eastern part is cultural landscape with solitary and wayside trees (Uskovnica plateau, villages and nearby fields and pastures), whereas forests prevail in the western part. Different land uses together with natural environmental features (diversity of relief, high quantity of precipitation, diverse vegetation types) result in a high species diversity.

Altogether 332 lichen taxa were recorded (323 species, 8 varieties and 1 subspecies), 272 of them corticolous or lignicolous. The microlichens represent 60 %. *Lecidella elaeochroma*, *Phlyctis argena*, *Pertusaria albescens*, *Parmelia sulcata*, *Parmelia saxatilis*, *Melanelia fuliginosa*, *Cladonia pyxidata* and *Caloplaca herbidella* are the most common species. The area supports several species classified as (very) rare in Central Europe by WIRTH (1995): *Collema furfuraceum*, *Dimerella lutea*, *Evernia illyrica*, *Heterodermia speciosa*, *Lecidea betulicola*, *Lobaria amplissima*, *Micarea hedlundii*, *Nephroma bellum*, *Ochrolechia szatalaensis*, *Pannaria conoplea*, *Parmelina quercina*, *Parmotrema arnoldii*, *P. crinitum* and *Thelidium acroglyptum*.

A comparison with the past composition of the lichen flora is impossible due to only scarce historical data. SCOPOLI (1772) reports *Cetraria islandica* and *Flavocetraria nivalis* for Bohinj and the Bohinj Alps. GŁOWACKI & ARNOLD (1870) mention several, mostly saxicolous species from the peak of the botanically well-known Črna prst. BATIČ (1976) recorded *Pseudevernia furfuracea* var. *furfuracea* and *Usnea barbata* for Vogel (1800 m). SÉRUSIAUX et al. (2003) report *Parmelia ernstiae* as new to Slovenia from Bohinj based on a specimen collected in 1960 by J. L. Ramout.

The remnants of the Lobarion association are preserved in well-protected valleys overgrown by beech forests (*Anemone trifoliae*-Fagetum) at altitudes between 650 and 1200 m. Interestingly, the inversion layer boundary (the boundary between more polluted lowland areas and less polluted upland areas) is supposed to be somewhere between 750 and 1000 m (PRISTOV et al. 1998). Fragments of Lobarion also occur on trees of *Acer pseudoplatanus* at the fringes or in clearings within Norway spruce forests (*Adenostylo glabrae*-Piceetum) at altitudes around 1400 m (in the past covered by beech), but their frequency is too low to support many species from the Lobarion. On the other hand, such islands can act as a refuge for species of this community (e.g. *Lobaria amplissima* in Lopučniška dolina valley). The only beech forest at altitudes about 1400 m above sea level is a remnant of a primeval forest on an exposed plateau of Voglova Jelovica near the Ski Center Vogel above Lake Bohinj. At Voglova Jelovica only one badly developed and damaged specimen of *Lobaria pulmonaria* was found despite intensive searching. In sheltered valleys, the specimens of *Lobaria pulmonaria* are healthy and well developed.

The highest species diversity (144 taxa) was recorded from Norway spruce (*Picea abies*), the phorophyte that was present at most of the localities. The number of taxa on spruce increased due to the occurrence of species characteristic for substrates rich in minerals (*Candelariella reflexa*, *Physcia adscendens*, *P. tenella*, *Xanthoria candelaria*, *X. parietina*). These were found at sites in the eastern part of the investigated area, where eutrophication is a result of the long tradition of dairy farming. However, eutrophication is locally confined due to the extensive and seasonal character of alpine pasturing. The number of species on spruce increased with altitude. The richest flora was recorded at altitudes between 1400 and 1600 m. Norway spruce hosts some species listed as rare or very rare by WIRTH (1995): *Alectoria sarmentosa*, *Evernia illyrica*, *Fellhanera bouteillei*, *Hypogymnia bitteri*, *Schismatomma pericleum* and *Sphaerophorus globosus*. Nevertheless, these species are very rare in the area. Most of them are only known from one site.

With respect to species diversity the next best host tree species after Norway spruce are *Acer pseudoplatanus* and *Fagus sylvatica*, with 133 and 132 taxa respectively. *Acer pseudoplatanus*, which is the most important phorophyte for both Trnovski gozd and Snežnik-Javorniki area in Slovenia (PRÜGGER et al. 2000, PRÜGGER 2002), occurs in relatively low abundance due to past land use.

The most important phorophyte in the cultural landscape (border area of Triglav National Park) is *Fraxinus excelsior* (102 taxa), followed by *Tilia* spp. (72 taxa) and *Juglans regia* (54 taxa). They occur in open stands or as wayside trees and offer excellent light conditions. The proportion of foliose lichens is very high on these trees.

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