

## LICHENS RECORDED DURING THE SPRING BRYO-LICHENOLOGICAL MEETING IN CHŘIBY MTS (CZECH REPUBLIC), APRIL 2010

### Lišejníky zaznamenané během jarního bryologicko-lichenologického setkání ve Chřibech v dubnu 2010

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**Abstract:** 127 lichen-forming fungi have been recorded from the Chřiby Mts in southern Moravia, a region previously lacking lichenological investigation. The region is rather dry and poor in lichens, especially macrolichens, but there were interesting records of inconspicuous microlichens, e.g. *Agonimia repleta*, *Arthonia helvola*, *Bacidia pycnidia*, *Bacidina neosquamulosa*, *Biatoridium monasteriense*, *Lecanora leptyroides*, *Macentina dictyospora*, *Ramonia interjecta*, *Thelenella vezdae*, *Thelidium minutulum* and *Thelocarpon intermediellum*, and poorly known or rare lichens, e.g. *Biatora efflorescens*, *Cladonia peziziformis*, *Lecanora leptyroides*, *Leptogium pulvinatum*, *Mycobilimbia epixanthoides*, *Opegrapha viridis*, *Pertusaria ocellata*, *Placopyrenium trachyticum* and *Pyrenula nitidella*. The distribution and frequency of *Halecania viridescens* appears to have increased in the Czech Republic, and *Caloplaca oasis* is new to the Czech Republic. Records of little known species outside Chřiby Mts are also listed.

**Keywords:** biodiversity, epiphytic lichens, invasive lichens, microlichens

Chřiby Mts (southern Moravia) forms part of the westernmost Carpathian mountain system with altitudes in the range ca 250–600 m. Its bedrock is similar to the other West Carpathian outer mountains, namely alternated layers of sandstones and schist; both, acidic and base-rich bedrocks occur. The territory is almost entirely covered by woodlands, with cultivated beech forests prevailing. The mountains are subjected to a rather dry and mild climate, the annual precipitation in the range 550–700 mm, and the average annual air temperature 7–9 °C (Tolasz 2007).

It is not surprising that this region has not been lichenologically surveyed so far. Hardwood forests on slopes and hills are dry and tree trunks and sandstone outcrops are very poor in lichens. However, damp valleys of forest brooks, although poor in macrolichens, harbour interesting microlichens, many of them rarely recorded from the Czech Republic; lichens found here have many species similar to those in Bílé Karpaty Mts (SE Moravia, W Slovakia), e.g. *Agonimia repleta*, *Arthonia helvola*, *Biatoridium monasteriense*, *Mycobilimbia epixanthoides* and *Thelenella vezdae* (Svoboda et al. 2007). All of these species, together with *Ramonia interjecta*, are probably not rare, but little collected in Central Europe.

*Anisomeridium polypori* is possibly the most common epiphytic lichen in woodlands in brook valleys in the territory, but surprisingly the first records of this species from the Czech Republic are not older than 20 years (Palice 1999). It commonly occurs together with free-living *Trentepohlia*, both of which are probably expansive or possibly invasive of a wide range of epiphytic substrates throughout the Czech Republic, a feature is noted by Liška (2006). Although sterile, *Halecania viridescens* is also a common epiphyte, mainly on solitary *Salix fragilis*, in brook valleys in Chřiby Mts; the species was unknown from the Czech Republic until recently (van den Boom & Palice 2006, Vondrák 2006). Since then, other records have been made (Palice, unpublished data), probably extending its distribution.

#### List of localities

1. Uherské Hradiště, Velehrad, Salaš – in forested brook valley between hills Sviňava and Sulička above village, alt. 285–320 m, from N49°08'43" E17°20'15" to N49°09'10" E17°19'02" (10. 4. 2010)
2. Uherské Hradiště, Velehrad, Salaš – in forested brook valley Bunčovský potok above village, alt. c. 300 m, N49°08'42" E17°22'08" (11.4.2010)

3. Uherské Hradiště, Buchlovice – rocks at castle Buchlov (locality visited by J. Vondrák, 5. 7. 2003)
4. Uherské Hradiště, Buchlovice – sandstone rock "Karlova skála" in forest 3.5 km W of town, alt. 350–400 m, N49°05'24.8" E17°17'30.9" (8. 4. 2010)
5. Uherské Hradiště, Buchlovice – Holý kopec Nature Reserve, S-exposed slopes, old-growth oak-beech forest, alt. 400–450 m, N49°06'00" E17°17'25" (8. 4. 2010)
6. Uherské Hradiště, Buchlovice – along hiking-track in valley of "Dlouhá řeka" brook, 3.7 km W of town, alt. 290 m, N49°05'33.4" E17°17'01.4" (8. 4. 2010)
7. Uherské Hradiště, Medlovice – Medlovický lom (quarry) Natural Monument, alt. 320 m, N49°03'01.8" E17°15'50.4" (9. 4. 2010)
8. Kyjov, Ježov – Ježovský lom (quarry) Natural Monument, alt. 240–270 m, N49°02'18" E17°13'34" (9. 4. 2010)

### List of recorded species

Samples collected by J. P. Halda, J. Malíček and A. Müller are deposited in their own herbaria (abbreviated JPH, JM and AM), and those collected by J. Vondrák are in CBFS. Records without voucher specimen are followed by "rec.". Other records from the Czech Republic are listed at some little known species. Non-lichenized fungi similar to lichens are marked by an asterisk (\*).

**Substrate abbreviations:** Ac – *Acer campestre*, Ag – *Alnus glutinosa*, Apl – *Acer platanoides*, Aps – *Acer pseudoplatanus*, as – acid soil, Bp – *Betula pendula*, Cas – Ca-enriched sandy soil, Cb – *Carpinus betulus*, cs – calcareous soil, csr – calcareous sandstone rock, Fe – *Fraxinus excelsior*, Fs – *Fagus sylvatica*, Jr – *Juglans regia*, Qr – *Quercus robur*, Pa – *Picea abies*, pr – porcellanic rock, Ps – *Pinus sylvestris*, Sf – *Salix fragilis*, Sn – *Sambucus nigra*, sr – sandstone rock, U – *Ulmus* sp., wsb – wet sandstone boulder.

*Absoconditella lignicola* Vězda & Pišút – 1, rotten wood in forest floor (CBFS JV7715)

*Agonimia repleta* Czarnota & Coppins – 1, Fe (CBFS JV7714)

- Further unpublished records from the Czech Republic: Volary, Nová Pec, NE slope of Mt. Hraničnick, alt. ca 1150 m, N48°45'08" E13°54'50", on bark of *Fagus sylvatica*, coll. J. Vondrák, 2007 (CBFS JV7553, 7593)

*Amandinea punctata* (Hoffm.) Coppins & Scheid. – 2, Qr (rec.)

*Anisomeridium polypori* (Ellis & Everh.) M. E. Barr – 1 Fe (rec.); 2, Sn (JM2595, JPH7431, AM)

*Arthonia helvola* (Nyl.) Nyl. – 1, at base of *Picea abies* trunk (CBFS JV7712, JPH7413)

*Arthonia radiata* (Pers.) Ach. – 1, Fs (rec.); 6, Cb (JM2544)

*Arthonia ruana* A. Massal. – 1, Fe (CBFS JV7720), Aps (JM2575, 2584)

*Arthonia spadicea* Leight. – 1, Aps (CBFS JV7703, JPH7503), Fs (CBFS JV7722); 2, Qr (rec.)

\**Arthopyrenia fraxini* A. Massal. – 1, Fe (CBFS JV7711)

*Aspicilia moenium* (Vain.) G. Thor & Timdal – 2, on concrete (JPH7441); 8, csr (JM2569, AM)

*Bacidia carneoglauca* (Nyl.) A. L. Sm. – 2, wet sandstone boulder at brook (CBFS JV7708)

*Bacidia fuscoviridis* (Anzi) Lettau – 2, wet and shaded concrete (CBFS JV7707)

*Bacidia pycnidia* Czarnota & Coppins – 1, over mosses on soil and stones (CBFS JV7688, 7699); 8, Sn (JPH7538).

*Bacidia subincompta* (Nyl.) Arnold – 1, Fe (CBFS JV7713), Aps (JM2586)

*Bacidia sulphurella* Samp. (Syn. *Bacidina arnoldiana* auct. p.p.) – 1, Aps (CBFS JV7710); 7 Sn (rec.); 8, Sn (JPH7510, AM)

*Bacidina neosquamulosa* (Aptroot & Herk) S. Ekman – 1, Aps (JPH7504, AM)

- Further unpublished record from the Czech Republic: Netolice, at E edge of town, in W slope, alt. 440 m, N49°02'53.1" E14°12'16.2", on bark of *Salix caprea*, coll. J. Vondrák, 2010 (CBFS 7646).

*Biatora efflorescens* (Hedl.) Räsänen – 1, Fe (CBFS JV7709); 8, Sn (JPH7542)

*Biatora globulosa* (Flörke) Fr. – 1, Aps (JM2590)

*Biatoridium monasteriense* J. Lahm ex Körb. – 1, Fe (CBFS JV7721); 6, Apl (JM2540)

*Bilimbia sabuletorum* (Schreb.) Arnold s.str. – 1, common on concrete and bryophytes (rec.); 8, csr (JM2558, PRC), on bryophytes (JPH7508)

*Buellia griseovirens* (Turner & Borrer ex Sm.) Almb. – 1, Fe (rec.), Aps (JPH7403); 5, Fs (JM2537)

*Caloplaca chlorina* (Flot.) H. Olivier – 3, sandstone in castle wall, also on concrete (CBFS JV1294; published in Vondrák et al. 2007)

*Caloplaca crenulatella* (With.) J. R. Laundon – 2, on concrete (rec.); 3, base-rich sandstone rock (CBFS JV1297, 1299; published in Vondrák et al. 2007); 8 Cas (rec.)

*Caloplaca decipiens* (Arnold) Blomb. & Förssell – 2, on concrete (rec.)

- Caloplaca flavocitrina* (Nyl.) H. Olivier – 2, on concrete (rec.)
- Caloplaca oasis* (A. Massal.) Szat. – 2, on concrete (rec.)
- Further record from the Czech Republic: České Budějovice, in town, on balcony of Department of Botany in street Na zlaté stoce, on horizontal side of concrete wall, coll. J.Vondrák, 2009 (CBFS JV7106)
- Caloplaca pyracea* (Ach.) Th. Fr. – 2, Jr (rec.)
- Caloplaca xerica* Poelt & Vězda – 3, sunny base-rich sandstone rock (CBFS JV1295, 1296)
- Candelariella aurella* (Hoffm.) Zahlbr. – 2, on concrete (rec.); 7 pr (rec.); 8, csr (rec.)
- Candelariella reflexa* (Nyl.) Lettau – 2, Jr (rec.); 7, Sc (rec.)
- Catillaria chalybeia* (Borrer) A. Massal. – 8, csr (JM2556)
- Catillaria nigroclavata* (Nyl.) Schuler – 1, Sf (rec.); 2, Jr (CBFS JV7683)
- Chaenotheca chrysocephala* (Turner ex Ach.) Th. Fr. – 1 Aps (rec.); 2, Qr (rec.)
- Chaenotheca ferruginea* (Turner & Borrer) Mig. – 1 Aps (rec.)
- Chaenotheca furfuracea* (L.) Tibell – 1, in cavities below roots in steep slopes (rec.)
- Cladonia caespiticia* (Pers.) Flörke – 2, as (JPH7405)
- Cladonia chlorophaea* s.lat. – 8, Cas (JM2563)
- Cladonia peziziformis* (With.) J. R. Laundon – 8, Cas (JM2564, JPH7506, AM)
- Cladonia pocillum* (Ach.) Grognot – 8, csr (rec.)
- Cladonia rei* Schaer. – 8, Cas (JM2565)
- Coenogonium pineti* (Schrad. ex Ach.) Lücking & Lumbsch – common epiphyte; also on wet stones; 1, Ag (AM), Aps (JPH7503), Fs (rec.)
- Collema limosum* (Ach.) Ach. – 7, cs (JM2551, JPH7394, 7395, 7396, AM)
- Collema tenax* (Sw.) Ach. – 8, Cas (JPH7511)
- Diploschistes muscorum* (Scop.) R. Sant. – 8, over mosses (AM)
- Endocarpon pusillum* Hedw. – 3, on weathered lime-rich sandstone (in samp. of *Placopyrenium trachyticum*; CBFS JV1386)
- Graphis scripta* (L.) Ach. – 1, Aps (JPH7503), Fs (rec.); 2, Fe, Fs (rec.)
- Halecania viridescens* Coppins & P. James – 1, Sf (CBFS JV7680); 2, Jr (CBFS JV7682)
- Hypocomyce scalaris* (Ach.) M. Choisy – common on acidic barks
- Hypogymnia physodes* (L.) Nyl. – common epiphyte
- Hypogymnia tubulosa* (Schaer.) Hav. – 2, Qr (rec.)
- Lecania cyrtella* (Ach.) Th. Fr. – 2, Jr (CBFS JV7681); 7, Sc (rec.); 8, Sn (JPH7510)
- Lecania naegelii* (Hepp) Diederich & Van den Boom – 1, Sf (CBFS JV7689); 2, Jr (CBFS JV7679)
- Lecanora argentata* (Ach.) Malme – 1, Fe (JM2571); 2, Fs (JM2601); 6, Cb (JM2542)
- Lecanora carpineae* (L.) Vain. – 1, Fe (JM2579), Fe (JM2572); 2, Fs (JM2603); 6, Cb (JM2543)
- Lecanora chlarotera* Nyl.– 5, Qr (JM2536)
- Lecanora conizaeoides* Nyl. ex Cromb. – 1, Ps (rec.); 2, Pa (rec.)
- Lecanora dispersa* s.lat. – 2, on concrete (rec.); 7 pr (rec.); 8, csr (JPH7505)
- Lecanora dispersa* s.str. – 8, csr (JM2568, PRC)
- Lecanora expallens* Ach. – 1, Aps (JM2589); 2, Fe (rec.)
- Lecanora hagenii* (Ach.) Ach. – 2, Jr (rec.)
- Lecanora leptyroides* (Nyl.) Degel. – 1, Fs (JM2580)
- Further unpublished record from the Czech Republic: Buchlovice – at hiking-track in "Dlouhá řeka" recreation area WSW of town, alt. 270 m, N49°04'44.1" E17°17'43.9", on bark of young *Fagus sylvatica*, coll. J. Malíček, J. Halda & A. Müller; 2010 (JM2532)
- Lecanora persimilis* (Th. Fr.) Nyl. – 1, Sf (CBFS JV7690)
- Lecanora pulicaris* (Pers.) Ach. – 1, Fs (JM2578), Fe (rec.)
- Lecanora semipallida* H. Magn. – 8, csr (JM2561)
- Lecidella elaeochroma* (Ach.) M. Choisy – 1, Fe, Fs; 2, Fs (JM2604, albinic morphotype)
- Lecidella stigmatea* (Ach.) Hertel & Leuckert – 2, on concrete (rec.); 8, csr (rec.)
- Lecidea grisella* Flörke – 8, sr (JPH7509)
- Lepraria* cf. *incana* (L.) Ach. – 2, sr (JPH7502)
- Leptogium pulvinatum* (Hoffm.) Otálora – 7 cs (rec.)
- Macentina abscondita* Coppins & Vězda – 1, Sn (CBFS JV7697, JPH7401, AM); 2, Sn (JM2594, JPH7406, PRC, AM)

*Macentina dictyospora* Orange – 8, Sn (JPH7537)

- Further unpublished record from Czech Republic: Jindřichův Hradec, Kamenice nad Lipou, "Hutě" settlement close to vil. Bohdalín, alt. c. 640 m, N49°17'38.04" E15°00'15.84", on mossy bark of old *Fagus sylvatica* in dense spruce forest, coll. J. Vondrák, 2007 (CBFS JV5625)

*Melanelia fuliginosa* (Fr. ex Duby) Essl. – 1 Fe (rec.); 7, Sc (rec.)

*Melanelia subaurifera* (Nyl.) Essl. – 2, Qr (rec.)

*Micarea lithinella* (Nyl.) Hedl. – 1, wsb (JM2588)

*Micarea prasina* s.lat. – 1, Fe (CBFS JV7704)

*Mycobilimbia epixanthoides* (Nyl.) Vitik. et al. – 1, Ac (JPH7407), Aps (JM2574, 2591, PRC), Fe (CBFS JV7694), U (CBFS JV7718); 2, Fs (JM2599); 5, Qr (JM2538); 6, Cb (JM2541)

*Mycoblastus fucatus* (Stirt.) Zahlbr. – 1, Fs (JM2577)

*Ochrolechia turneri* (Sm.) Hasselrot – 2, Fs (JM2597); 5, Qr (JM2535)

*Opegrapha rufescens* Pers. – 1, Aps, Fe (JM2573, 2585)

*Opegrapha vermicellifera* (Kunze) J. R. Laundon – 1, Aps (JM2582)

*Opegrapha viridis* (Pers. ex Ach.) Behlen & Desberger – 1, Aps (JM2576, 2583, 2592); 2, Fs (JM2598)

*Parmelia sulcata* Taylor – common epiphyte

*Parmelina tiliacea* (Hoffm.) Hale – 7, Sc (rec.)

*Peltigera didactyla* (With.) J. R. Laundon – 8, Cas (JM2565, JPH7428, AM)

*Pertusaria leioplaca* DC. – 2, Fs (JM2596)

*Pertusaria ocellata* Körb. – 4, sr (JPH7429)

*Phaeophyscia nigricans* (Harm.) Moberg – 2, (Sn) (rec.)

*Phaeophyscia orbicularis* (Neck.) Moberg – 2, on concrete and epiphytic (rec.); 7, Sc (rec.)

*Phlyctis argena* (Spreng.) Flot. – 1, Fs, Aps (rec.); 2 (rec.); 4, sr (JM2533, PRC)

*Physcia adscendens* (Fr.) H. Olivier – common epiphyte in open habitats; 7, Sc (rec.)

*Physcia caesia* (Hoffm.) Fűrnr. – 2, on concrete (rec.)

*Physcia stellaris* (L.) Nyl. – 7, Sc (rec.)

*Physcia tenella* (Scop.) DC. – 2, Jr (rec.); 7, Sc (rec.)

*Placidium squamulosum* (Ach.) Breuss – 8, Cas (JPH7428)

*Placopyrenium trachyticum* (Hazsl.) Breuss – 3, on weathered lime-rich sandstone (CBFS JV1386; sub *Catapyrenium cinereum*)

*Placynthiella icmalea* (Ach.) Coppins & P. James – common, on various substrates

*Porina aenea* (Wallr.) Zahlbr. – 1, Aps, Fs (rec.), Ag (AM)

*Porpidia crustulata* (Ach.) Hertel & Knoph – 1, on sandstone boulders at brook (CBFS JV7717)

*Protoblastenia rupestris* (Scop.) J. Steiner – 1, on sandstone boulders at brook (rec.)

*Protoparmeliopsis muralis* (Schreb.) M. Choisy – 3, on weathered lime-rich sandstone (in samp. of *Placopyrenium trachyticum*; CBFS JV1386)

*Pseudevernia furfuracea* (L.) Zopf – 2, Qr (rec.)

*Punctelia jeckeri* (Roum.) Kalb – 2, Qr (rec.); 4, Bp (JPH7434)

*Pyrenula nitida* (Weigel) Ach. – 1, Fs (JM2581); 2, Fe, Fs (rec.)

*Pyrenula nitidella* (Flörke ex Schaer.) Müll. Arg. – 1, Fs (rec.)

*Ramonia interjecta* Coppins – 1, Sn (CBFS JV7706, JPH7409)

- Further unpublished records from the Czech Republic: České Budějovice, park "Stromovka", alt. 390 m, N48°58'20" E14°27'30", on bark of *Sambucus nigra*, coll. J. Vondrák, 2006 (CBFS JV4751); Prachatice, Husinec, near river Blanice above town, alt. ca 500 m, N49°03'15.3" E13°59'44.2", on bark of *Sambucus*, coll. J. Vondrák, 2007 (CBFS JV5451); Česká Třebová, close to village Opatov, on bank of the pond Hvězda, N49°50'36.03" E16°30'39.55", on bark of *Sambucus nigra*, alt. 430 m, coll. J. Halda, O. Peksa, J. Vondrák & J. Malíček, 27. 4. 2010 (JPH7484); CHKO Litovelské Pomoraví, Olomouc – Hejčín, nature reserve Plané loučky, N49°37'23.004" E017°13'51.333", on bark of *Sambucus nigra*, alt. 200 m, coll. J. Halda, M. Bábková-Hrochová & R. Hlaváček, 1. 6. 2010 (JPH7547).

\* *Rebentischia massalongoi* (Mont.) Sacc. – 2, Sn (JPH7401)

- Overlooked species growing together with *Macentina abscondita* and *Anisomeridium polypori*. It differs from *Anisomeridium* and *Eopyrenula* by 4-septate ascospores with subulate paler end.

*Ropalospora viridis* (Tønsberg) Tønsberg – 4, Cb (JPH7514)

*Sarcogyne regularis* Körb. – 2, on concrete (rec.); 7 pr (rec.); 8, csr (JM2560)

*Scoliciosporum chlorococcum* (Graewe ex Stenh.) Vězda – 1, Aps (CBFS JV7702), Fs (CBFS JV7716)

*Scoliciosporum sarothamni* (Vain.) Vězda – 1, Aps, Fe (rec.); 7, Sc (rec.)

*Steinia geophana* (Nyl.) Stein – 7, cs (JM2550)

*Thelenella vezdae* (H. Mayrhofer & Poelt) Coppins & Fryday – 1, U (CBFS JV7695)

- Further unpublished records from the Czech Republic: Kaplice, Benešov nad Černou, Ličov, in Černá river valley at confluence of river Černá and Pohořský potok brook, alt. 595 m, on bark of *Fraxinus excelsior*, coll. J. Vondrák, 2007 (CBFS JV5034); Nový Knín, Velká Lečice, in valley of river Kocába NE of village, alt. 241 m, N49°49'47.5" E14°20'57.5", on bark of *Acer campestre*, coll. J. Vondrák, 2004 (CBFS JV2741)

*Thelidium minutulum* Körb. – 1, on sandstone boulders in loc. "Smutný Žleb" (JPH7432)

- In the Czech Republic overlooked species; commented in Bayerová et al. (2004)

*Thelidium zwackhii* (Hepp) A. Massal. – 7, cs (JM2549)

- Further unpublished records from the Czech Republic: České Budějovice, Mydlovary, settling pit "MAPE", alt. 400 m, N49°05'58.153" E14°20'07.759", on microbial soil crust, coll. J. Vondrák, 2007, 2008 & 2009 (CBFS JV5856, 6236, 7353); Sokolov, Lomnice, discharge hopper "Podkrušnohorská výsypka", at artificial lake "Červená Ema", alt. c. 550 m, N50°13'38" E12°36'53", on clay soil, coll. J. Vondrák, 2007 (CBFS JV5873); Týn nad Vltavou, Temelín, at railway between Temelín and nuclear power-plant "Temelín", alt. 490 m, N49°11'19" E14°21'57", on soil on railway embankment, coll. J. Vondrák, 2009 (CBFS JV7007)

*Thelocarpon intermediellum* Nyl. – 5, as (AM, JM2539, JPH7390; det. Z. Palice)

*Trapelia placodioides* Coppins & P. James – 7, pr (JM2546)

*Verrucaria aethiobola* Wahlenb – 1, sandstone boulders at brook (CBFS JV7684, JPH 7402); 8, on soil (JPH7428, 7512)

*Verrucaria calciseda* DC. – 8, on sandstone boulder (JPH7412; det. Z. Palice)

*Verrucaria dolosa* Hepp – 1, wsb (JM2587); 2, on concrete (JPH7433)

*Verrucaria muralis* Ach. – 1 on concrete (rec.); 7, pr (JM2547, 2548); 8, csr (JM2559, 2562), on pebbles (JPH7411, 7513)

*Verrucaria nigrescens* Pers. – 2, on concrete (rec.); 8, on pebbles (JPH7507)

*Verrucaria praetermissa* (Trevis.) Anzi – 1, sandstone boulders at brook (CBFS JV7685)

*Verrucaria viridula* (Schröd.) Ach. – 8, csr (JM2557)

*Vezdaea aestivalis* (Ohlert) Tscherm.-Woess & Poelt – 1, over mosses on soil and stones (CBFS JV7700)

*Xanthoria elegans* (Link) Th. Fr. – 2, on concrete (rec.); 8, csr (rec.)

*Xanthoria parietina* (L.) Th. Fr. – common epiphyte in open habitats; 7, Sc (rec.)

*Xanthoria polycarpa* (Hoffm.) Th. Fr. ex Rieber – 2, Qr (rec.); 7, Sc (rec.)

## Comments on some little known species

*Bacidina neosquamulosa* (Aptroot & Herk) S. Ekman

Probably an overlooked lichen rapidly expanding (neophytic) species. It resembles corticolous *B. sulphurella*, but differs in its squamulose-isidiate thallus. It has a wide ecological amplitude, being found on moderately to strongly eutrophicated substrata. It is tolerant of urban conditions and often found in species-poor communities (Aptroot & van Herk 1999). Our specimens occur on deciduous tree bark in shade habitat.

*Bacidia pycnidia* Czarnota & Coppins

Recently described species (Czarnota & Coppins 2006) with conspicuous whitish pycnidia with long ostiolar neck, 120–200 µm tall. Its thallus is formed of green-grey granules (goniocysts), 20–30 µm in diam., overgrowing bryophytes in various habitats. The species is described from the Czech Republic; type locality: Rychlebské hory Mts, Bílá Voda village.

In our locality in Chřiby Mts, the species is very abundant on bryophytes growing on stones, soil and tree bases; accompanying species are *Vezdaea aestivalis* and *Bilimbia sabuletorum*.

*Caloplaca oasis* (A. Massal.) Szat.

The species was until recently considered as a rare lichenicolous lichen on calcicolous *Verrucaria* species. However, *C. oasis* commonly grows also on concrete and other calcareous artificial substrata (Arup 2009) and has often been identified as *C. holocarpa*. *C. holocarpa* s.str. differs from this species in its larger apothecia, slightly broader ascospore septa and also in its ecology. *C. holocarpa* prefers nutrient-rich (dust-impregnated) siliceous stones or old wood. In the Czech Republic, *C. oasis* commonly occurs on concrete. New to the Czech Republic.

*Cladonia peziziformis* (With.) J. R. Laundon

Despite many historical records, *C. peziziformis* is nowadays very rare and considered as an endangered species in the Czech Republic (Liška et al. 2008). Recently, two records are known from diabase outcrops in the Bohemian Karst in Central Bohemia (Svoboda 2008). In our locality ("Ježovský lom" quarry), we have collected only sterile squamules on lime-enriched sandy soil with accompanying *C. chlorophaea* s.lat., *C. pocillum*, *C. rei* etc.

*Lecanora leptyrodes* (Nyl.) Degel.

This species is placed in the *Lecanora pallida* group (Imshaug & Brodo 1966), which is being considered as a subgroup of the *Lecanora subfusca* group (e.g. Edwards et al. 2009). Its pruinose discs resemble *L. carpinea*, but both species differ in the cortex of the apothecial margin. While *L. carpinea* has a well delimited cortex, *L. leptyrodes* has a pseudocortex, which is not distinctly delimited from the algal layer and medulla (Lumbsch et al. 1997). This diagnostic character is better observed after application of KOH to thin cross-sections. Otherwise, populations of *Lecanora leptyrodes* seem to be very variable in their morphology and ecology. This species needs a critical taxonomic revision in Central Europe.

In the Czech Republic, the species was recorded from Chrudim distr. (Černohorský 1944). Lumbsch et al. (1997) mentioned another Czech record by V. Kuřák with locality identification "Radola" which is probably a garble of "u Váp. Podola" incurred by incorrect transcription of Kuřák's hand writing.

*Leptogium pulvinatum* (Hoffm.) Otálora

In the past, it was considered only as a variety of *L. lichenoides*, but according to a current molecular study (Otálora et al. 2008), *L. pulvinatum* is recognized as a separate species. In contrast to *L. lichenoides* s.str., it lacks isidia and is the most common species of the *Leptogium lichenoides* group.

*Pertusaria ocellata* Körb.

This species is distributed in temperate regions in Europe. In the Czech Republic, it is very common in north and east Bohemia in sandstone regions (Českosaské Švýcarsko National Park, Teplicko-Adršpašské skály area). The grey coloured thallus without isidia forms wide clusters up to 80 cm in diam. The asci are monosporic; for other characters see Makarevich (1971).

**Souhrn**

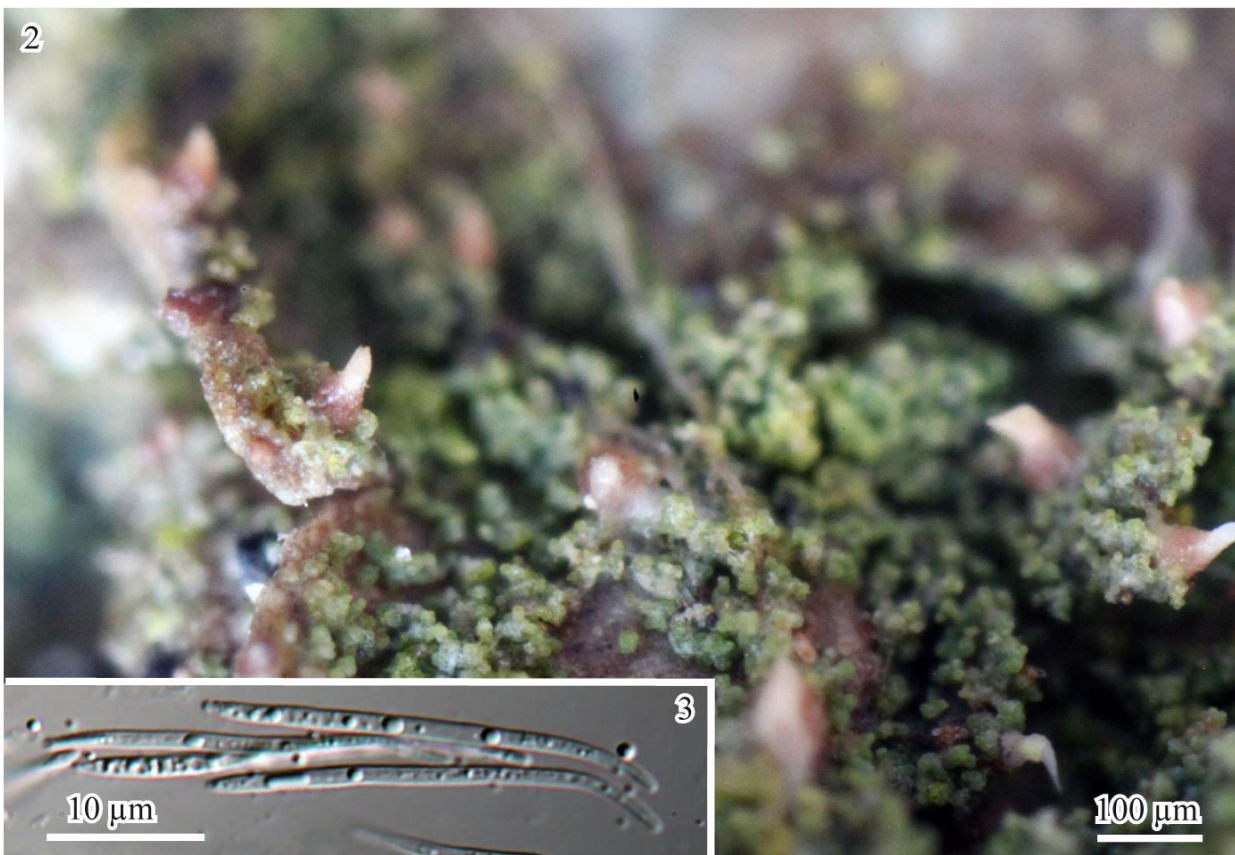
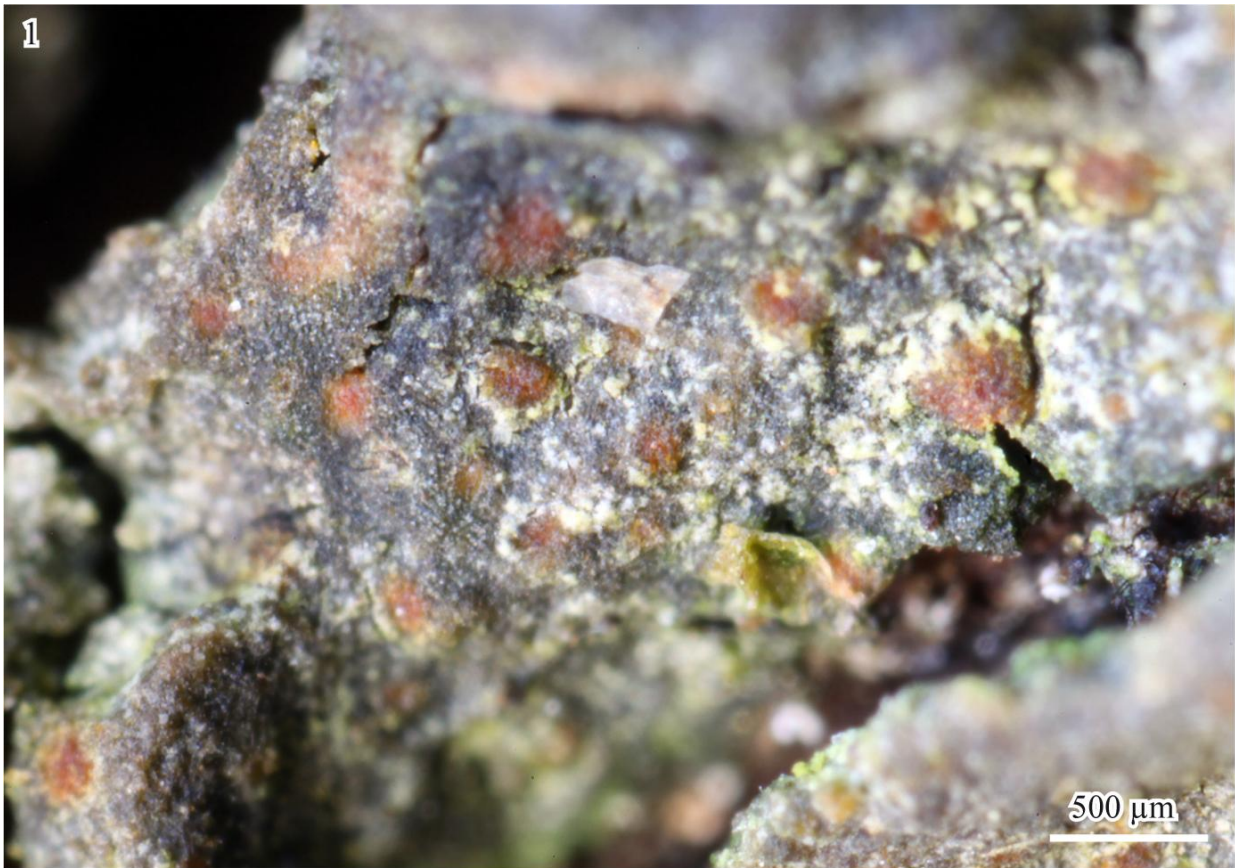
Chřiby zůstaly až do současnosti bílým místem na mapě lichenologického bádání. Náš příspěvek publikující 127 druhů lišejníků zaznamenaných či sebraných během jarních bryologicko-lichenologických dnů je vůbec první publikací věnující se lichenoflóře Chřibů. Nápadné lupenité a keříčkovité epifytické druhy zde nejsou běžně rozšířené pravděpodobně kvůli suchému a teplému klimatu. Největší diverzita lišejníků se proto váže na vlhká zaříznutá údolí potoků (viz lokality č. 1 a 2). V těchto údolích jsme zaznamenali především řadu mikrolišejníků, např. *Agonimia repleta*, *Arthonia helvola*, *Bacidia pycnidiata*, *Bacidina neosquamulosa*, *Biatoridium monasteriense*, *Macentina dictyospora*, *Ramonia interjecta*, *Thelenella vezdae*, *Thelidium minutulum* a *Thelocarpon intermediellum*. Vyskytovalo se zde i několik vzácných či méně známých epifytických taxonů – *Arthonia ruana*, *Biatora efflorescens*, *Lecanora leptyrodes*, *Mycobilimbia epixanthoides*, *Opegrapha viridis*, *Placopyrenium trachyticum* a *Pyrenula nitidella*. Velmi hojnými až dominantními druhy chřibských údolí byly donedávna z našeho území neznámé *Anisomeridium polypori* a *Halecania viridescens*. V obou případech se patrně jedná o v současnosti se šířící lišejníky. Z dalších nálezů vzácných druhů ještě stojí za zmínku *Cladonia peziziformis* a *Pertusaria ocellata*. *Caloplaca oasis* je zde udávána jako nový druh pro ČR. Jedná se o hojný lišejník antropogenních substrátů (beton, omítka), který byl dříve zaměňován za *C. holocarpa*, podobný druh s většími apotécii rovněž rostoucí na antropogenních substrátech, avšak eutfyzovaných a chudých na vápník.

## Acknowledgements

Zdeněk Palice kindly identified and revised some critical material and revised the manuscript, and Mark Seaward made linguistic corrections.

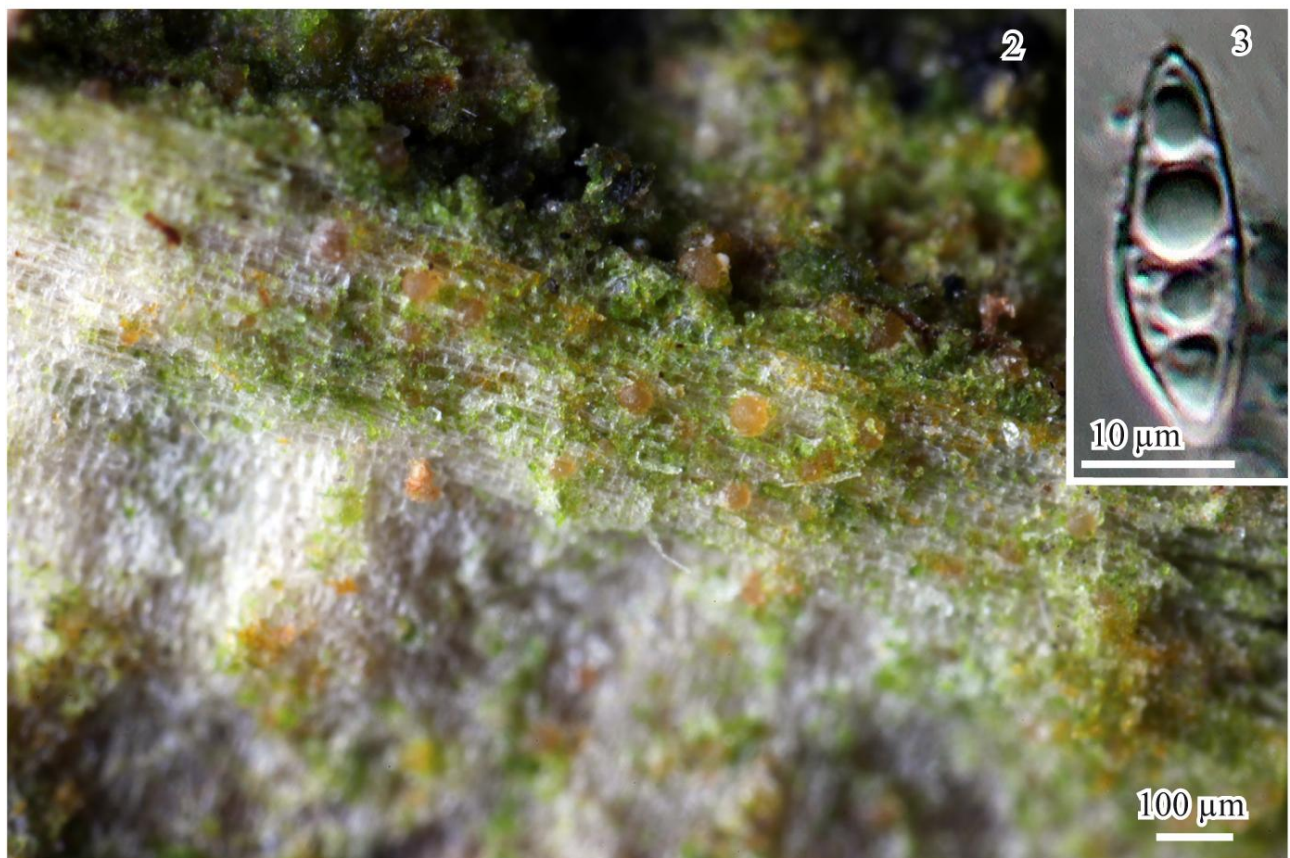
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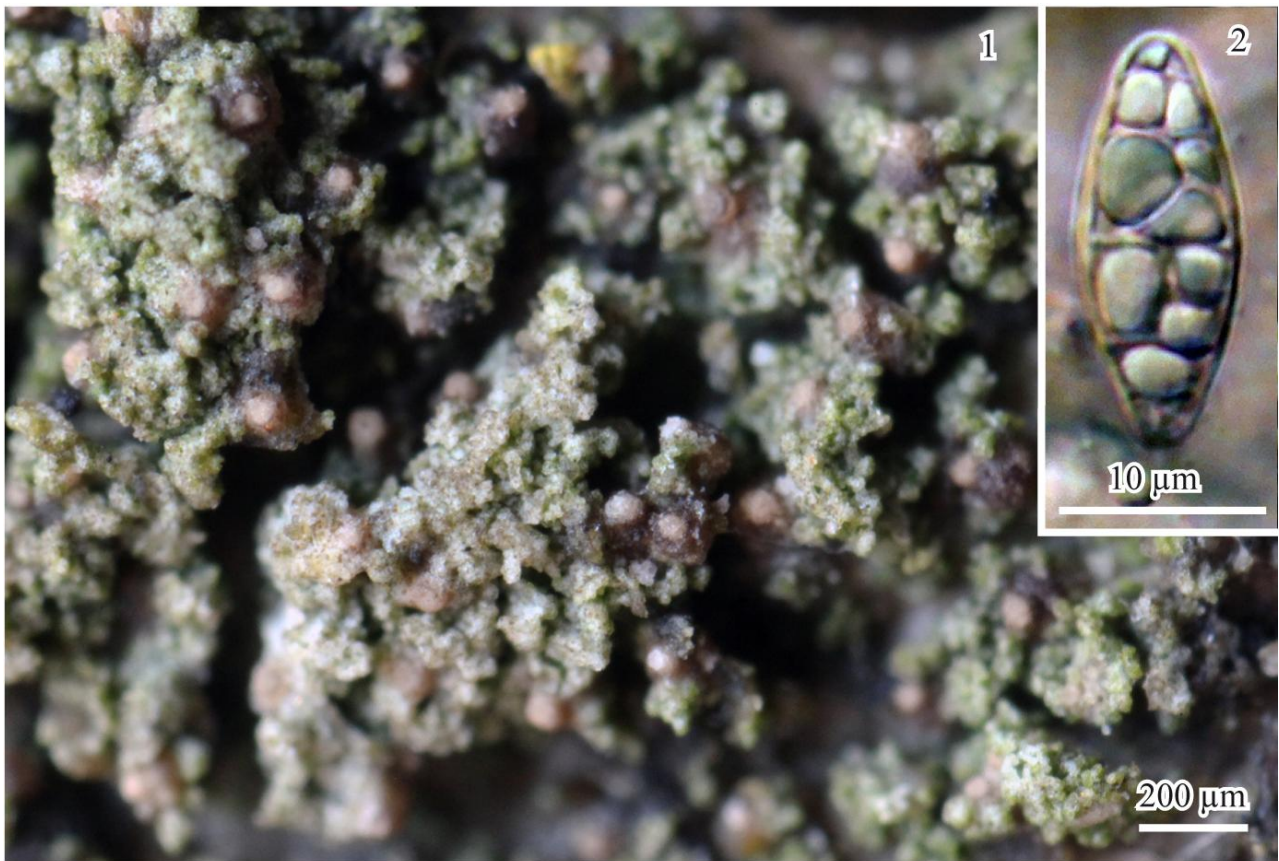


**Tab. I:** 1. *Arthonia helvola* (Nyl.) Nyl. – ascomata; 2. *Bacidia pycnidiata* Czarnota et Coppins – thallus with pycnidia; 3. *Bacidia pycnidiata* Czarnota et Coppins – macroconidia (foto J. P. Halda).

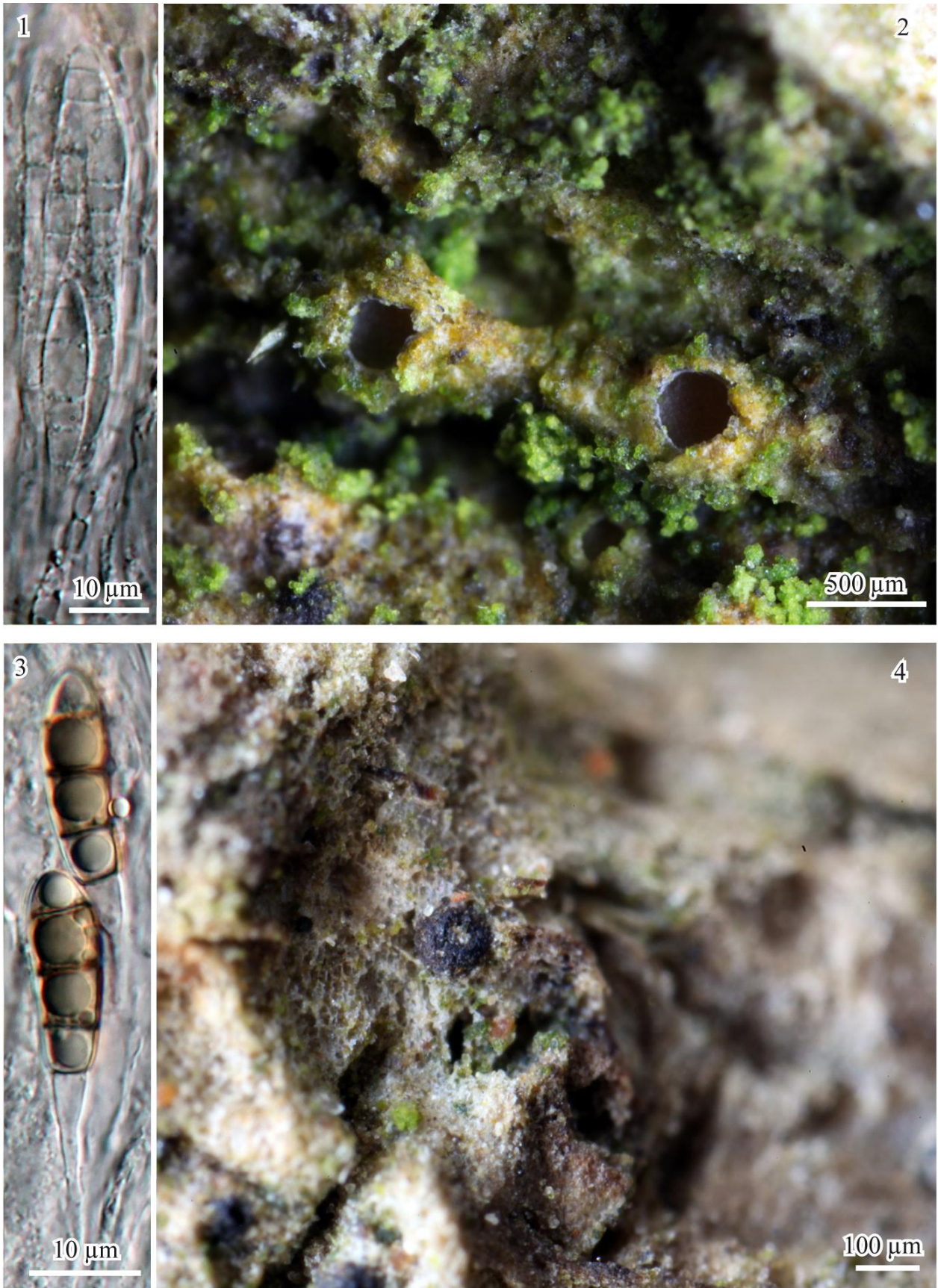




**Tab. II:** 1. *Lecanora leptyroides* (Nyl.) Degel. – thallus with ascomata (foto J. Malíček);  
 2. *Macentina abscondita* Coppins et Vězda – thallus with ascomata; 3. *Macentina abscondita* Coppins et Vězda – an ascospore (foto J. P. Halda).



**Tab. III:** 1. *Macentina dictyospora* Orange – thallus with ascomata; 2. *Macentina dictyospora* Orange – an ascospore (foto J. P. Halda); 3. *Pertusaria leioplaca* DC. – thallus with ascomata (foto J. Malíček).



**Tab. IV:** 1. *Ramonia interjecta* Coppins – ascospores; 2. *Ramonia interjecta* Coppins – thallus with ascomata; 3. *Rebentischia massalongoi* (Mont.) Sacc. – ascospores; 4. *Rebentischia massalongoi* (Mont.) Sacc. – perithecium (foto J. P. Halda).