

CONTRIBUTION TO THE LITHUANIAN FLORA OF LICHENS AND ALLIED FUNGI. III.

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Abstract

Motiejūnaitė J., Brackel W. v., Stončius D., Preikša Ž., 2011: Contribution to the Lithuanian flora of lichens and allied fungi. III [Papildomi duomenys apie Lietuvos kerpių ir su jomis susijusių grybų florą. III]. – Bot. Lith., 17(1): 39–46.

A list of 13 species of lichens and 12 species of lichenicolous fungi from Lithuania is presented. New to the Baltic states are *Arthonia molendoi*, *Caloplaca flavocitrina*, *C. phlogina*, *Diederichia pseudeverniae*, *Phoma ficuzzae*, *P. foliaceiphila*, *Scoliciosporum gallurae*, *Strangospora deplanata*, *Veizdaea acicularis* and *Wentiomycetes lichenicola*; new to Lithuania are *Bachmanniomyces uncialicola*, *Bacidia pycnidata*, *Cladonia monomorpha*, *Clypeococcum cetrariae*, *Lecania cuprea*, *Leptogium rivulare*, *Libertiella curvispora*, *Opegrapha vermicellifera*, *Polycoccum pulvinatum*, *Porpidia soledizodes*, *Scoliciosporum sarothamni*, *Thelocarpon epibolum*, *Trichonectria anisospora*, *Vouauxiomyces ramalinae*. The teleomorph of *Scutula dedicata* is recorded for the first time in the country.

Keywords: lichens, lichenicolous fungi, Lithuania.

INTRODUCTION

The paper is a continuation of the series of reports on new finds of lichens and lichenicolous fungi in Lithuania (MOTIEJŪNAITĖ & ANDERSSON, 2003; MOTIEJŪNAITĖ et al., 2005, 2007). Here we report 13 species of lichens and 11 species of lichenicolous fungi new to Lithuania. Among them, five lichens and five lichenicolous fungi are reported for the first time in the Baltic States.

MATERIALS AND METHODS

The field work was carried out in various habitats and localities, but mostly while working on ecological projects in the Curonian Spit. In some cases older collections in BILAS herbarium were checked and revised. The collections were identified following routine lichenological methods (water or 10 % KOH mounted hand-made cross sections examined under light transmission microscope, spot reactions with 10 % KOH, sodium hypochlorite, and para-phenylenedia-

mine in ethanol). In one case the specialist was contacted (see Acknowledgements).

All referred specimens are deposited in BILAS (Herbarium of the Institute of Botany of Nature Research Centre, Vilnius).

LIST OF SPECIES

Note: lichenicolous fungi are marked with an asterisk (*).

**Arthonia molendoi* (Heufl. ex Frauenf.) R. Sant.

The characteristics of our specimens coincide with those provided by KUKWA (2004), including the pale greyish tinge of the hymenium, which is not mentioned by other authors. *A. molendoi* s. l. (on various species of *Caloplaca* and *Xanthoria*) is characterised by variation in asci and ascospore size as well as in the colour of the hypothecium and apparently includes more than one taxon (KOCOURKOVÁ, 2000; GRUBE, 2007). The fungus is widely distributed (GRUBE, 2007; BRACKEL, 2008) though not often recorded.

New for the Baltic States.

Specimens examined: Joniškis district, environs of Žagarė town, Švedlaukis sand-pit, on thalli of *Xanthoria parietina* growing on branches of *Salix* sp., June 17, 2009, leg. J. Motiejūnaitė. Joniškis district, outskirts of Žagarė town, abandoned dolomite quarry, on thalli of *Xanthoria parietina* growing on a trunk of *Fraxinus excelsior*, June 17, 2009, leg. J. Motiejūnaitė.

**Bachmanniomyces uncialicola* (Zopf) D. Hawksw.

This gall-forming cladoniicolous coelomycete is not uncommon in the northern parts of Eurasia and North America, extending to Central and Southern Europe and Central Asia (HAWKSWORTH, 1981; ZHURBENKO & ALSTRUP, 2004; ZHURBENKO & OTNYUKOVA, 2001). The Lithuanian specimen inhabited the host together with *Phaeopyxis punctum* and *Taeniolella beschiana*.

Specimen examined: Šalčininkai district, Rūdinkai military training ground, on thalli of *Cladonia uncialis* ssp. *uncialis* growing on soil in heathland, May 29, 2010, leg. J. Motiejūnaitė.

Bacidia pycnidiota Czarnota et Coppins

This recently described species is known from the Czech Republic, Poland, Estonia and Belgium (CZARNOTA & COPPINS, 2006; SUIJA et al., 2007; ERTZ et al., 2008). Originally, it was suggested that it might be synanthropic lichen preferring humid niches, however, in Estonia it was found in an old-growth deciduous

forest. In Lithuania, the species was found in young seminatural forests, affected by forest management. The lichen flora found in the area was typical for such stands with occasional old forest indicator species like *Acrocordia gemmata*, *Arthonia byssacea*, *Chaenotheca brachypoda*, *C. phaeocephala*, *Chrysothrix candelaris*, *Pertusaria coccodes*, *P. flavida*, and *Phlyctis argena*. In Belgium, the locality was characterised as "... one of the very few natural (albeit very much disturbed) stands of *Ulmus laevis* in the area of study" (ERTZ et al., 2008). Apparently the lichen is confined to natural and seminatural deciduous forests and is tolerant to human interference.

Specimens examined: Asveja Regional Park, Švenčionys district, Vyriogala Landscape Preserve, Sužionys forest district, forest compartment No 133, on the trunk of an old *Quercus robur*, April 6, 2007, leg. D. Stončius. Asveja Regional Park, Švenčionys district, Sužionys forest district, forest compartment No 738, on epiphytic mosses growing on the trunk of a young *Quercus robur*, April 28, 2007, leg. J. Motiejūnaitė.

Caloplaca flavocitrina (Nyl.) H. Olivier

This recently resurrected species of the *Caloplaca citrina* group was considered previously as *C. citrina* (Hoffm.) Th. Fr. s. l. Part of the specimens in this group can hardly be identified or is unidentifiable at all by traditional methods (ARUP, 2006; VONDRÁK et al., 2009, 2010 a). The specimens cited below were not checked by molecular methods; their morphological characteristics, however, coincide with those given in detail by ARUP (2006) and VONDRÁK et al. (2009): thallus consisting of contiguous to scattered areoles, flat, some with minutely lobate margins, greenish yellow to yellow with mainly marginal soralia of *flavocitrina* type (VONDRÁK et al., 2009) (few areoles almost totally dissolved into soredia) and soredia brighter than non-sorediate parts.

New for the Baltic States.

Specimens examined: Gražutė Regional Park, Zarasai district, ca. 200 m of Antalieptė dam, on mortar of stone wall in ruins of a water mill, May 10, 2007, leg. D. Stončius. Tauragė district, Stoniškių opoka quarry, on opoka block, August 24, 2009, leg. J. Motiejūnaitė.

Caloplaca phlogina (Ach.) Flag.

This is another species of the *C. citrina* group, which is often morphologically indistinguishable from *C. citrina* s. str. and can be confused with *C. chrysoleta* or *C. flavocitrina* (ARUP, 2006; VONDRÁK et al., 2010 a). The specimens listed below were ascribed to *C. phlogina* considering their ecology and morphology (VONDRÁK et al., 2010 b); all specimens were epiphytic

on broad-leaved trees, the thallus ranging from greyish to yellow (often mixture of the two colours), almost completely dissolved into soredia of 30–60 µm diam. with very few non-sorediate, convex, rounded areolae, apothecia few to abundant, up to 1 mm in diam., mostly with sorediate margin. *C. phlogina* grew together with *Lecania cyrtella*, *Lecanora hagenii*, *Parmelia sulcata*, *Phaeophyscia nigricans*, *P. orbicularis*, *Phlyctis argena* and *Xanthoria parietina*.

New for the Baltic States.

Specimens examined: Kretinga district, Darbėnai, on a trunk of *Acer platanoides* in a village, July 16, 1988, leg. J. Motiejūnaitė. Plungė district, Šateikiai, on a trunk of *Fraxinus excelsior* in a village, July 25, 1987, leg. J. Motiejūnaitė. Kretinga district, Salantai, on a trunk of *Fraxinus excelsior* in a park, July 9, 1986, leg. J. Motiejūnaitė (all specimens were previously reported as *Caloplaca citrina* (MOTIEJŪNAITĖ, 1989 a, b)).

Cladonia monomorpha Aptroot, Sipman et van Herk

C. monomorpha is chemically identical with *C. pyxidata* and *C. pocillum* but differs by ecology and morphology (APTROOT et al., 2001). Our specimen had non-coalescent large primary squamules, podetia up to 1.3 cm tall, cups inside with bullate corticated plates, proliferations up to 1 cm tall, sometimes of equal height with the podetium itself. The lichen grew in acid open heathland together with *Cladonia subulata* and *Cladonia uncialis* subsp. *uncialis*.

Specimen examined: Šalčininkai district, Rūdninkai military training ground, on soil in heathland, May 29, 2010, leg. J. Motiejūnaitė.

****Clypeococcum cetrariae*** Hafellner

This rare parasitic fungus is known from Austria (HAFELLNER, 1996), Northern Poland (CZYŻEWSKA & KUKWA, 2009), Latvia (MOTIEJŪNAITĖ & PITERĀNS, 1998), Estonia (SUIJA, 2005 a), Russian Arctics (ZHURBENKO, 2007) and Greenland (ALSTRUP et al., 2009). It grows on *Cetraria islandica*, once it was reported growing on the related *Flavocetraria cucullata* (ZHURBENKO, 2002).

Specimens examined: Druskininkai municipality, road Vilnius-Druskininkai at the turn to Mašnyčios village, on thalli of *Cetraria islandica* growing in dry pine forest, October 5, 2008, leg. J. Motiejūnaitė. Kuršių Nerija National Park, Juodkrantė forest district, forest compartment No 54, on thalli of *Cetraria islandica* growing in dry pine forest, September 1, 2010, leg. J. Motiejūnaitė.

****Diederichia pseudeverniae*** (Etayo et Diederich) D. Hawksw.

This rarely reported fungus causes characteristic pinkish-grey lesions on the host thalli, in which numerous pycnidia emerge through the splitting cortical layer. The conidia in our specimen fell into the same size range as in the original description (ETAYO & DIEDERICH, 1996); their form was also variable, though ellipsoid conidia predominated. Notably, many conidia were starting to germinate inside the pycnidia, producing clearly visible germ tubes.

Specimen examined: Kuršių Nerija National Park, Juodkrantė forest district, forest compartment No 54, on thalli of *Pseudevernia furfuracea* growing on twigs of *Pinus sylvestris* in coastal pine forest, September 1, 2010, leg. J. Motiejūnaitė.

Lecania cuprea (A. Massal.) Van den Boom et Coppins

This lichen is usually found on heavily shaded limestone or sandstone rocks. The Lithuanian specimen was found on a siliceous boulder subjected to influence from the stream water, which, like many streams and rivulets in Lithuania, is naturally alkaline (KILKUS, 1998).

Specimen examined: Gražutė Regional Park, Zarasai district, Dusetos forest district, forest compartment No 58, Lūžai forest, lower reaches of Šavaša rivulet, ca. 100 m up the confluence with the Neris river, on not submerged part of a siliceous boulder in the rivulet bed, November 11, 2007, leg. D. Stončius.

Leptogium rivulare (Ach.) Mont.

This extremely rare cyanolichen is extinct or threatened in western and north-western Europe (JØRGENSEN, 2007). However, it is still found in the eastern part of the subcontinent, in some places being not uncommon (MOTIEJŪNAITĖ & GOLUBKOV, 2005). In Lithuania, *L. rivulare* was found on a single boulder in a stream bed, growing together with *Dermatocarpon luridum*, and it is apparently a highly threatened species in the country as well.

Specimen examined: Gražutė Regional Park, Zarasai district, Dusetos forest district, forest compartment No 60, Lūžai forest, ca. 1 km SW of Lūžai hill-fort, Šavaša rivulet, on a siliceous boulder in the rivulet bed, in spruce dominated forest, September 19, 2007, leg. D. Stončius.

****Libertiella curvispora*** D. Hawksw. et Miądl.

The records of this rarely reported coelomycete are concentrated in the northeastern part of Europe (HAWKSWORTH & MIADLIKOWSKA, 1997; SUIJA, 2005 b; ZHURBENKO, 2007) and in Spain (MARTÍNEZ & HAFELLNER, 1998). Outside Europe it was recorded

in North America (COLE & HAWKSWORTH, 2001; ZHURBENKO, 2009). The pycnidia of the fungus grew on the underside of the host thallus, on veins; the infected lichen did not show any symptoms of damage on both sides of the lobes.

Specimen examined: Žemaitija National Park, Plungė district, Plateliai lake, Pilis island, on the thallus of *Peltigera praetextata*, September 7, 2007, leg. M. Jankauskienė.

***Opegrapha vermicellifera* (Kunze) J. R. Laundon**

The lichen is a southern suboceanic species, which becomes very rare north of Poland. Even in NE of that country it is scattered, found in the older fragments of large forest complexes and only more common in Białowieża forest (CIEŚLIŃSKI, 2003). North of Lithuania *O. vermicellifera* is known from a single locality in Latvia (PITERĀNS, 1982). The Lithuanian specimen was sterile, with numerous pycnidia.

Specimen examined: Kėdainiai district, Skaistgiris forest district, forest compartment No 42, on the trunk of an old *Acer platanoides*, October 3, 2008, leg. Ž. Preikša.

****Phoma ficuzzae* Brackel**

This recently described pathogenic lichenicolous fungus is so far known only on *Ramalina fraxinea* and *R. fastigiata*. Until now, the species has been recorded only in six localities in Italy (Sicily and Tuscany) (BRACKEL, 2008 a, b, c). Our specimen inhabited the host thallus together with *Phaeosporobolus usneae* and *Vouauxiomyces ramalinae*.

New for the Baltic States and Europe north of the Alps.

Specimen examined: Širvintos district, Kernavė, on the thallus of *Ramalina fraxinea* growing on the trunk of an old *Acer platanoides* in a churchyard, July 27, 2009, leg. D. Stončius.

****Phoma foliaceiphila* Diederich, Kocourk. et Etayo**

Two recently described species of *Phoma*, *P. foliaceiphila* and *P. cladoniicola* actually only slightly differ in form (more narrowly ellipsoid in *P. foliaceiphila*) and size (longer and narrower in *P. foliaceiphila*) of the conidia. Whereas *P. cladoniicola* was found on a wide variety of *Cladonia* hosts (with exception of the subgen. *Cladina*), *Phoma foliaceiphila* was recorded only on primary squamules of *Cladonia foliacea*, *C. fimbriata*, and *C. rangiformis* (DIEDERICH et al., 2007; BRACKEL, 2010).

Our specimen inhabited the podetia and squamules of *Cladonia furcata* causing extensive bleached areas in

the infected thalli (though lacking a blackish infection border). The pycnidia of the fungus were 60–100 μm in diam., immersed to erumpent, brown-walled, conidiogenous cells 5 × 3–4 μm, conidia biguttulate with small guttules near each apex, rather narrowly ellipsoid, form identical with the illustration in DIEDERICH et al. (2007), size 5.5–7 × 2.3–3 μm.

New for the Baltic States.

Specimen examined: Kuršių Nerija National Park, Preila, main entrance to the public beach, behind the sand-dune range, on podetia and squamules of *Cladonia furcata* growing on soil, October 8, 2009, leg. J. Motiejūnaitė.

****Polycoccum pulvinatum* (Eitner) R. Sant.**

This lichenicolous ascomycete is widely distributed over both hemispheres; in Europe it is recorded in almost all countries. It is found on species of the genus *Physcia* (mainly saxicolous).

Specimen examined: Radviliškis district, Raginėnai hill-fort, on the thallus of *Physcia caesia* growing on siliceous boulder, May 12, 2007, leg. D. Stončius.

***Porpidia soredizodes* (Lamy) J. R. Laundon**

P. soredizodes is one of very few sorediate sterile saxicolous lichens known in Lithuania. Sorediate sterile lichens have not been sufficiently studied yet in the country, saxicolous species making no exception. In general, Lithuanian saxicolous lichen flora is poor due to scarcity of available stone substrates.

Specimen examined: Kretinga district, environs of Darbėnai, pine forest edge by an abandoned sandpit E of the village, along the road Darbėnai-Vaineikiai, on a siliceous stone, August 26, 2009, leg. J. Motiejūnaitė.

***Scoliciosporum gallurae* Vězda et Poelt**

This very much overlooked lichen species is characterized by sorediate thallus, rather flat apothecia and 0–3-septate ascospores (only non-septate ascospores were observed in our specimens). *S. gallurae* was found on twigs in nutrient-enriched situations, associated with *Caloplaca cerinella*, *C. flavorubescens*, *C. holocarpa*, *Catillaria nigroclavata*, *Lecania naegeli*, *Lecanora carpinea*, *L. chlarotera*, *L. hagenii*, *L. persimilis*, *Lecidella elaeochroma*, *Melanohalea exasperatula*, *Physcia adscendens*, *P. stellaris*, *Rinodina pyrina*, *Xanthoria parietina*, and *X. polycarpa*.

New for the Baltic States.

Specimens examined: Kaunas district, Šlienava, communal gardens along the bank of Kauno marios reservoir, on twigs of *Prunus cerasus*, August 28, 2008, leg. J. Motiejūnaitė. Akmenė district, Šaltiškiai clay-pit,

on twigs of *Salix* sp., June 19, 2009, leg. J. Motiejūnaitė. Kuršių Nerija National Park, Juodkrantė forest district, forest compartment No 54, on twigs of *Pinus sylvestris* at the edge of cormorant colony, September 1, 2010, leg. J. Motiejūnaitė.

Scoliciosporum sarothamni (Vain.) Vězda

This is another overlooked lichen species with sorediate thallus, apothecia becoming flat when older and 3–7-septate, S-shaped and narrow ascospores. When sterile, *S. sarothamni* is practically indistinguishable from *S. gallurae*, the same was noted for the Polish material of these two species (KUKWA & KUBIAK, 2007). Our specimens were found on twigs in moderately eutrophicated situations, associated with *Lecanora carpinea*, *L. chlarotera*, *Lecidella elaeochroma*, *Melanohalea exasperatula*, *Physcia stellaris*, *P. tenella*, *Rinodina sophodes* and *Xanthoria parietina*.

Specimens examined: Kuršių Nerija National Park, Smiltynė forest district, forest compartment No 19, on twigs of *Betula pendula* in fire-damaged stand of *Pinus sylvestris*, October 8, 2009, leg. J. Motiejūnaitė. Radviliškis district, NE part of Praviršulis Botanical Preserve, on twigs of *Alnus* sp., October 26, 2009, leg. V. Stukonis. Širvintos district, Petriškės village, on twigs of *Fraxinus excelsior*, April 18, 2010, leg. A. Treigienė.

****Scutula dedicata*** Triebel, Wedin et Rambold

This lichenicolous fungus was known in Lithuania only as its *Libertiella* anamorph, registered in three localities (MOTIEJŪNAITĖ et al., 2005). This is the first record of the *Scutula dedicata* teleomorph in the country. Both morphs were found on the host thallus, the teleomorph growing on the upper side of the lobes, the anamorph – on the lower side.

Specimen examined: Neris Regional Park, Vilnius district, Karmazinai village, ca. 180 m NW of the confluence of the Dūkšta and Neris rivers, on the thallus of *Peltigera didactyla* in an abandoned basement, August 11, 2009, leg. D. Stončius.

Strangospora deplanata (Almq.) Clauzade et Cl. Roux

This very rare species is distinguished from other members of the genus by large, often stipitate (all stipitate in our specimen) black pycnidia with tips appearing white-pruinose due to superficial conidia. *S. deplanata* was found associated with *Acrocordia gemmata*, *Gyalecta truncigena* and *Sclerophora pallida*.

New for the Baltic States.

Specimen examined: Skuodas district, Skuodas forest district, forest compartment No 344, southern

slope of Apuolė hill-fort, on the trunk of an old ash tree, August 7, 2009, leg. D. Stončius.

Thelocarpon epibolum Nyl. var. *epibolum*

Specimen examined: Kretinga district, environs of Darbėnai, pine forest edge by an abandoned sand pit E of the village, along the road Darbėnai–Vaineikiai, on moribund thallus of *Peltigera extenuata*, August 26, 2009, leg. J. Motiejūnaitė.

****Trichonectria anisospora*** (Lowen) van den Boom et Diederich

This *Hypogymnia*-inhabiting lichenicolous fungus is now known from a number of countries and seems to be rapidly spreading (BRACKEL, 2006, and literature cited therein). In Lithuania, frequent and abundant manifestation of *T. anisospora* was noted during a very rainy vegetation season of the year 2007. The same locations visited one or two years later showed either only occasional appearance of this species or none at all, though traces of typical infection on the host thalli still could be observed: slightly to strongly discoloured patches with a wide blackish-grey(-blue) infection border.

Specimens examined (all on the thallus of *Hypogymnia physodes*): Elektrėnai municipality, Liaukiškės village, ca. 15-year-old plantation of *Picea abies* at the edge of the village, on twigs of *Picea abies*, September 25, 2007, leg. J. Motiejūnaitė. Trakai district, Jagelonys forest district, forest compartment No 35, ca. 50-year-old plantation of *Picea abies*, on twigs of *Quercus robur*, September 23, 2007, leg. J. Motiejūnaitė. Kuršių Nerija National Park, Smiltynė forest district, forest compartment No 22, plantation of *Pinus mugo*, on branches of *P. mugo*, October 17, 2007, leg. J. Motiejūnaitė. Šalčininkai district, Rūdninkai military training ground, on branches of *P. sylvestris*, May 29, 2010, leg. J. Motiejūnaitė.

Veizdaea acicularis Coppins

The specimen was found with young, top-shaped apothecia and with malformed acicular ascospores visible only inside the asci.

New for the Baltic States.

Specimen examined: Druskininkai municipality, eastern edge of Druskininkai town, on moribund mosses overgrown with algal film, along a path in a pine forest, October 2, 2008, leg. J. Motiejūnaitė.

****Vouauxiomyces ramalinae*** (Nordin) D. Hawksw.

Our specimen inhabited the host thallus together with *Phaeosporobolus usneae* and *Phoma ficuzzae*.

Specimen examined: Širvintos district, Kernavė, on the thallus of *Ramalina fraxinea* growing on the trunk of an old *Acer platanoides* in a churchyard, July 27, 2009, leg. D. Stončius.

**Wentomyces* cf. *lichenicola* (Hansf.) D. Hawksw. ssp. *bouteillei* Bricaud, Cl. Roux et Sérus.

Our specimen had larger ascospores than given by ROUX et al. (1994) and MATZER (1996) and inhabited a different host species, *Lecania cuprea* instead of *Bacidina* and *Fellhanera*, therefore, we refer our specimen to this taxon with a certain doubt. Short description: ascomata 100–140 µm in diam., with lateral apically branched setae, hamathecial filaments remaining diffused, with few oil droplets, ascospores hyaline, turning light brown, 13–14 × 5–7 µm. The taxon was transferred to *Neocolera* by BARR (1997), but the new name is not commonly accepted.

New for the Baltic States.

Specimen examined: Gražutė Regional Park, Zarasai district, Dusetos forest district, forest compartment No 58, Lūžai forest, lower reaches of Šavaša rivulet, ca. 100 m up the confluence with the Šventoji river, on the thallus of *Lecania cuprea* growing on not submerged part of a siliceous boulder in the rivulet bed, November 11, 2007, leg. D. Stončius.

ACKNOWLEDGEMENTS

Our thanks are extended to Agnieszka Jabłońska (Gdańsk) for checking the specimen of *Porpidia soredizodes* and to the following persons who placed their collections in our disposition: Marija Jankauskienė (Plateliai), Vaclovas Stukonis (Akademija) and Aušra Treigienė (Vilnius). Part of the material used for the paper was collected while working on the projects granted by Lithuanian Science and Study Foundation: “Peculiarities of mycobiota formation after a forest fire” (grants Nos T-60/07; T-69/08; T-52/09) and priority programme “BINLIT: Biological invasions in Lithuanian ecosystems under the climate change: causes, impacts and projections”. Mikhail P. Zhurbenko (St. Petersburg) and Martin Kukwa (Gdansk) are thanked for their valuable comments and suggestions for the article.

REFERENCES

ALSTRUP V., KOCOURKOVÁ J., KUKWA M., MOTIEJŪNAITĖ J., VON BRACKEL W., SUIJA A., 2009: The lichens

- and lichenicolous fungi of South Greenland. – *Folia Cryptogamica Estonica*, **46**: 1–24.
- APTROOT A., SIPMAN H. J. M., VAN HERK C. M., 2001: *Cladonia monomorpha*, a neglected cup lichen from Europe. – *Lichenologist*, **33**: 271–283.
- ARUP U., 2006: A new taxonomy of the *Caloplaca citrina* group in the Nordic countries, except Iceland. – *Lichenologist*, **38**: 1–20.
- BARR M. E., 1997: Notes on some ‘dimeriaceous’ fungi. – *Mycotaxon*, **64**: 149–171.
- BRACKEL W. V., 2006: Zur Verbreitung von *Trichonectria anisospora* (Lowen) P. Boom & Diederich. – *Meylania*, **37**: 5–7.
- BRACKEL W. V., 2008 a: *Phoma ficuzzae* sp. nov. and some other lichenicolous fungi from Sicily, Italy. – *Sauteria*, **15**: 103–120.
- BRACKEL W. V., 2008 b: *Zwackhiomyces echinulatus* sp. nov. and some other lichenicolous fungi from Sicily, Italy. – *Herzogia*, **21**: 181–198.
- BRACKEL W. V., 2008 c: Some lichenicolous fungi collected during the 20th meeting of the Società Lichenologica Italiana in Siena. – *Notiziario della Società Lichenologica Italiana*, **21**: 63–66.
- BRACKEL W. V., 2010: Weitere Funde von flechtenbewohnenden Pilzen in Bayern. Beitrag zu einer Checkliste V. – *Berichte der bayerischen botanischen Gesellschaft*, **80**: 5–32.
- CIEŚLIŃSKI S., 2003: Atlas rozmieszczenia porostów (Lichenes) w Polsce Północno-Wschodniej. – *Phytocoenosis*, **15** (N.S.), Supplementum *Cartographiae Geobotanice*, **15**: 1–425.
- COLE M. S., HAWKSWORTH D. L., 2001: Lichenicolous fungi, mainly from the USA, including *Patriciomyces* gen. nov. – *Mycotaxon*, **77**: 305–338.
- CZARNOTA P., COPPINS B. J., 2006: A new *Bacidia* with long-necked pycnidia from Central Europe. – *Lichenologist*, **38**: 407–410.
- CZYŻEWSKA K., KUKWA M., 2009: Lichenicolous fungi of Poland. A catalogue and key to species. – *Biodiversity of Poland*, **11**: 1–133.
- DIEDERICH P., KOCOURKOVÁ J., ETAYO J., ZHURBENKO M., 2007: The lichenicolous *Phoma* species (Coelomycetes) on *Cladonia*. – *Lichenologist*, **39**: 153–163.
- ERTZ D., DIEDERICH P., BRAND A. M., VAN DEN BOOM P., SÉRUSIAUX E., 2008: New or interesting lichens and lichenicolous fungi from Belgium, Luxembourg and northern France. XI. – *Bulletin de la Société des Naturalistes Luxembourgeois*, **109**: 35–51.
- ETAYO J., DIEDERICH P., 1996: Lichenicolous fungi from the western Pyrenees, France and Spain. II. More Deuteromycetes. – *Mycotaxon*, **60**: 415–428.

- GRUBE M., 2007: *Arthonia*. – In: NASH III T. H., GRIES C., BUNGARTZ F. (eds.), Lichen flora of the Greater Sonoran Desert region, **3**: 39–61. – Tempe.
- HAFELLNER J., 1994: Beiträge zu einem Prodrömus der lichenicolen Pilze Österreichts und angrenzender Gebiete. I. Einige neue oder seltene Arten. – *Herzogia*, **10**: 1–28.
- HAWKSWORTH D. L., 1981: The lichenicolous Coelomycetes. – *Bulletin of the British Museum (Natural History) (Botany series)*, **9(1)**: 1–98.
- HAWKSWORTH D. L., MIADLIKOWSKA J., 1997: New species of lichenicolous fungi occurring on *Peltigera* in Ecuador and Europe. – *Mycological Research*, **101**: 1127–1134.
- JØRGENSEN M., 2007: *Collemataceae*. – In: JØRGENSEN P. M., TØNSBERG T., VITIKAINEN O., *Nordic Lichen Flora*, **3**: 14–42. – Uddevalla.
- KILKUS K., 1998: Lietuvos vandenų geografija. – Vilnius.
- KOCOURKOVÁ J., 2000: Lichenicolous fungi of the Czech Republic (The first commented checklist). – *Sborník Národního muzea v Praze, řada B, Přírodní vědy*, **55**: 59–169.
- KUKWA M., 2004: New or interesting records of lichenicolous fungi from Poland II. Species mainly from northern Poland. – *Herzogia*, **17**: 67–75.
- KUKWA M., KUBIAK D., 2007: Six sorediate crustose lichens new to Poland. – *Mycotaxon*, **102**: 155–164.
- MARTÍNEZ I., HAFELLNER J., 1998: Lichens and lichenicolous fungi on Peltigerales in the Iberian Peninsula and the Canary Islands. – *Mycotaxon*, **69**: 271–310.
- MATZER M., 1996: Lichenicolous ascomycetes with fissitunicate asci on foliicolous lichens. – *Mycological Papers*, **171**: 1–202.
- MOTIEJŪNAITĖ J., 1989 a: Epifitnye lišajniki severozapadnoj časti Litovskoj SSR. – Lietuvos TSR mokslų akademijos darbai. C serija, **1(105)**: 18–28.
- MOTIEJŪNAITĖ J., 1989 b: Lichens in the western part of the Lithuanian SSR. – In: Jaunujų mokslininkų straipsnių rinkinys (Botanikos institutui – 30 metų): 71–84. – Vilnius.
- MOTIEJŪNAITĖ J., ANDERSSON L., 2003: Contribution to the Lithuanian flora of lichens and allied fungi. – *Botanica Lithuanica*, **9(1)**: 71–88.
- MOTIEJŪNAITĖ J., GOLUBKOV V. V., 2005: Cyanolichens of freshwater aquatic and subaquatic habitats in Lithuania and Belarus. – *Botanica Lithuanica*, **11(1)**: 35–40.
- MOTIEJŪNAITĖ J., PITERĀNS A., 1998: Materials on lichens and allied fungi of Kemeru National Park (Latvia). – *Botanica Lithuanica*, **4(2)**: 187–196.
- MOTIEJŪNAITĖ J., STONČIUS D., DOLNIK C., TÖRRA T., USELIENĖ A., 2007: New and noteworthy for Lithuania lichens and lichenicolous fungi. – *Botanica Lithuanica*, **13(1)**: 19–25.
- MOTIEJŪNAITĖ J., STONČIUS D., KUKWA M., 2005: Contribution to the Lithuanian flora of lichens and allied fungi. II. – *Botanica Lithuanica*, **11(1)**: 41–49.
- PITERĀNS A., 1982: Lišajniki Latvii. – Riga.
- ROUX C., BRICAUD O., SÉRUSIAUX E., COSTE C., 1994: *Wentomyces lichenicola* subsp. nov. *bouteillei* champignon lichénicole non lichénisé (Dothideales, Dimeriaceae). – *Mycotaxon*, **50**: 459–474.
- SUIJA A., 2005 a: Lichenicolous fungi and lichens in Estonia I. Ascomycota. – *Nova Hedwigia*, **80(1–2)**: 247–267.
- SUIJA A., 2005 b: Lichenicolous fungi in Estonia II. Basidiomycota and conidial fungi. – *Nova Hedwigia*, **80**: 349–366.
- SUIJA A., LEPIK E., RANDLANE T., THOR G., 2007: New Estonian records of lichens and lichenicolous fungi. – *Folia Cryptogamica Estonica*, **43**: 73–76.
- VONDRÁK J., REDCHENKO O., HIMELBRANT D., STEPANCHIKOVA I., KUZNETSOVA E., 2010 a: Some sterile *Caloplaca* crusts identified by molecular data from the Leningrad Region. – *Folia Cryptogamica Estonica*, **47**: 97–99.
- VONDRÁK J., ŘÍHA P., ARUP U., SÖCHTING U., 2009: The taxonomy of the *Caloplaca citrina* group (*Teloschistaceae*) in the Black Sea region; with contributions to the cryptic species concept in lichenology. – *Lichenologist*, **41**: 571–604.
- VONDRÁK J., ŠOUN J., SØGAARD M. Z., SÖCHTING U., ARUP U., 2010 b: *Caloplaca phlogina*, a lichen with two facies; an example of infraspecific variability resulting in the description of a redundant species. – *Lichenologist*, **42**: 685–692.
- ZHURBENKO M., 2002: *Arthonia triebeliae* (Arthoniales), a new lichenicolous fungus from the Arctic. – *Mycological Progress*, **1**: 137–141.
- ZHURBENKO M. P., 2007: The lichenicolous fungi of Russia: geographical overview and a first checklist. – *Mycologia Balcanica*, **4**: 105–124.
- ZHURBENKO M. P., 2009: Lichenicolous fungi and some lichens from the Holarctic. – *Opuscula Philolichenum*, **6**: 87–120.
- ZHURBENKO M. P., ALSTRUP V., 2004: Lichenicolous fungi on *Cladonia* mainly from the Arctic. – *Symbolae Botanicae Upsalienses*, **34(1)**: 477–499.
- ZHURBENKO M. P., OTNYUKOVA T. N., 2001: Lichenicolous fungi from the Sayan-Tuvan Mountains, southern Siberia, Russia. – *Folia Cryptogamica Estonica*, **38**: 79–84.

PAPILDOMI DUOMENYS APIE LIETUVOS KERPIŲ IR SU JOMIS SUSIJUSIŲ GRYBŲ FLORĄ. III

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Santrauka

Straipsnyje pateikiami duomenys apie 13 rūšių kerpes ir 11 rūšių lichenofilinius grybus, kurių iki šiol Lietuvoje nebuvo aptikta: *Arthonia molendoi*, *Bachmanniomyces uncialicola*, *Bacidia pycnidata*, *Caloplaca flavocitrina*, *C. phlogina*, *Cladonia monomorpha*, *Clypeococcum cetrariae*, *Diederichia pseudeverniae*, *Lecania cuprea*, *Leptogium rivulare*, *Libertiella curvispora*, *Opegrapha vermicellifera*, *Phoma ficuzzae*, *P. foliaceiphila*, *Polycoccum pulvinatum*, *Porpidia soredizodes*, *Scoliciosporum gallurae*, *S. sarothamni*, *Strangospora deplanata*, *Thelocarpon epibolum*, *Trichonectria anisospora*,

Vezdaea acicularis, *Vouauxiomyces ramalinae*, *Wentiomyces lichenicola*. Iš jų 10 rūšių kerpių ir lichenofilinių grybų – *Arthonia molendoi*, *Caloplaca flavocitrina*, *C. phlogina*, *Diederichia pseudeverniae*, *Phoma ficuzzae*, *P. foliaceiphila*, *Scoliciosporum gallurae*, *Strangospora deplanata*, *Vezdaea acicularis* ir *Wentiomyces lichenicola* – aptikta pirmą kartą Baltijos šalyse. Pirmą kartą šalyje užregistruota ir *Scutula dedicata* teleomorfa.

Straipsnyje pateikiamos trumpos pastabos apie rūšių morfologines ir anatomines charakteristikas, ekologiją ir paplitimą.