

NOTES AND SCHEDAE TO LICHENES
DELICATI EXSICCATI EDITAE
IN MEMORIAM ANTONÍN VĚZDA (1920–2008), FASC. 6

E. FARKAS

*Institute of Ecology and Botany, Centre for Ecological Research
H-2163 Vácrátót, Alkotmány u. 2–4, Hungary; E-mail: farkas.edit@ecolres.hu*

(Received: 24 October 2020; Accepted: 5 December 2020)

Lichenes Delicati Exsiccati Editae of little, fine, special lichens is edited in honour of Antonín Vězda (1920–2008). The sixth fascicle of the exsiccate is consisted of 20 species of lichens and lichenicolous fungi and distributed to 12 lichen herbaria of the world. Collectors are J. Halda, G. Kantvilas, L. Lőkös, Z. Palice, N. Varga and E. Farkas.

Key words: exsiccate, lichens, lichenicolous fungi

INTRODUCTION

The current exsiccate series was initiated in 2010 to honour and express our gratitude to the late Dr Antonín Vězda (1920–2008), the Moravian lichenologist (Figs 1–2) – our Toni – on the occasion of the 90th anniversary of



Fig. 1. Antonín Vězda (Tatra Mts, summer 1993)



Fig. 2. The author's last picture of Antonín Vězda in his orchard (Brno) with Dániel and Laura Lőkös (autumn 2001)

his birth (Farkas 2010). The contributions for the first fascicle (Fig. 3) were so rich that it became obvious very soon that LDEE will not remain as a single fascicle, but it needs continuation and further four fascicles were published (Farkas 2011, 2014a, b, 2020) with 80 numbers until now with 15–15 in the first four fascicles and with 20 numbers in the fifth one and also the current sixth fascicle consists of 20 numbers. A new goal became outlined gradually – the

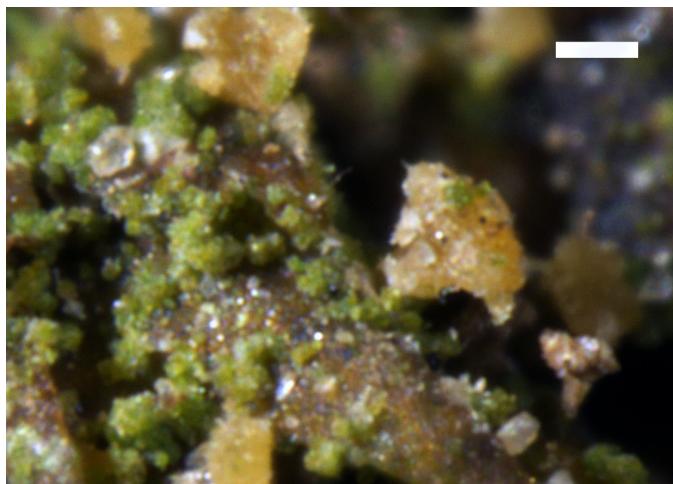


Fig. 3. *Vezdaea leprosa*, a species distributed in the first fascicle of the exsiccate in 2010 (scale 100 µm)

numbers of the exsiccate were planned to reach 100 by the time Toni would celebrate his 100th birthday, thus in 2020 two fascicles were edited, one of them has been published (Farkas 2020) and this current one is going to be published in 2021. Keeping the original idea – distributing delicate lichens and lichenicolous fungi – further collectors were invited from time to time. Thus by now the aims are fulfilled, when we remember the 100th anniversary of Antonín Vězda's birth on 25 November 2020.

Among lichens of the current sixth fascicle there are more corticolous (14) and saxicolous (3) species, only some of them are terricolous (2), or foliicolous (1). Three representatives of lichenicolous fungi were also collected. The lichens and lichenicolous fungi originate from Europe (Czech Republic – 4, Hungary – 10, North Macedonia – 2, Poland – 1, Portugal – 1), and Australia (Tasmania – 2).

These specimens demonstrate the diversity of various parts of the world in recent decades characterised by the sites and dates of collections. Following the decreasing concentration of SO_2 , but simultaneously the increase of NH_3 level throughout Europe increased the pH of the bark of trees, thus it resulted in the decline of acidofrequent species like *Straminella conizaeoides* (Nyl. ex Cromb.) S. Y. Kondr., L. Lőkös et Farkas (earlier *Lecanora conizaeoides* Nyl. ex Cramb.), while nitrofrequent species (e.g. *Phaeophyscia orbicularis* (Neck.) Moberg, *Physconia grisea* (Lam.) Poelt) appeared in settlements (even in streets and parks of Budapest, or in the National Botanical Garden, Vácrátót) where they were hardly found before (cf. Armstrong 2000, Frahm 2013, Frati *et al.* 2007, Liška 2012, Lisowska 2011, Massara *et al.* 2009). The thalli of the today rare *Straminella conizaeoides* were collected also with the characteristic lichenicolous *Lichenoconium* spp. (cf. Christiansen 1993).

The alphabetical list of species distributed in the six fascicles with indication of the country of origin is presented in Table 1. Three new species were described in the six publications attached to the exsiccate: *Coenogonium seychellense* Farkas and *C. subdilucidum* Farkas et Vězdat foliicolous lichen species and the lichenicolous fungus *Keratosphaera antoniana* Flakus, Farkas et Lücking from foliicolous *Trichothelium argenteum* Lücking et Ferraro. Fifteen species were found to be new to the given countries (marked by an asterisk in Table 1): *Bacidia fraxinea*, *Gyalecta ulmi*, *Lepraria lobifrons*, *Micarea prasina* and *Opegrapha vermicellifera* new to Bulgaria, *Chaenotheca furfuracea* and *Gyalecta truncigena* new to Albania, *Clypeococcum hypocenomyces* new to Hungary, *Coenogonium seychellense* and *C. usambarensis* new to the Seychelles, *Keratosphaera antoniana* new to Bolivia, *Absconditella delutula* new to North Macedonia, *Brodia atrofusca* new to Romania, *Plectocarpon lichenum* new to Serbia and *Clypeococcum hypocenomyces* seemed to be new also to Slovakia.

The number of lichens collected from various countries is summarised as follows: Albania (3), Australia (16), Bolivia (2), Brazil (9), Bulgaria (11), Costa

Rica (4), Czech Republic (7), Greece (1), Hungary (12), Malaysia (4), Montenegro (2), Namibia (2), North Macedonia (3), Philippines (1), Poland (2), Portugal (2), Romania (5), Serbia (1), Seychelles (2), Slovakia (2), Sweden (5), Tanzania (2), Thailand (1), USA (1).

The various substrates are represented by different frequency: on tree bark (57), on rocks (8), on soil (5), on leaves (23), on lignum (3), on plant remnants (2), on bryophytes (2), and on lichenised fungi (9).

The 33 contributors of all the six fascicles are collectors and determinators in alphabetical order: Paulina Bawingan (Baguio City, Philippines), Urszula Bielczyk (Kraków, Poland), Attila Borhidi (Pécs, Hungary), K. Buaruang (Bangkok, Thailand), Marcela Cáceres (Aracaju, Brazil), Edit Farkas (Vácrátót, Hungary), Adam Flakus (Kraków, Poland), Josef Halda (Hradec Králové, Czech Republic), David Hawksworth (London, United Kingdom), Daniel and Klaus Kalb (Neumarkt, Germany), Gintaras Kantvilas (Hobart, Australia), Jana Kocourková (Praha, Czech Republic), G. E. Lee (Malaysia), László Lőkös (Budapest, Hungary), Robert Lücking (Berlin, Germany and Chicago, USA), Jiří Malíček (Praha, Czech Republic), A. Mertens (Pfaffenholz, Germany), Ana Millanes (Madrid, Spain), Jurga Motiejūnaitė (Vilnius, Lithuania), Thomas Nash III (Tempe/Madison, USA), Zdeněk Palice (Průhonice, Czech Republic), W. Polyiam (Bangkok, Thailand), Tamás Pócs (Eger, Hungary), Luciana Rodrigues (Areia Branca, Brazil), Pamela Rodriguez (La Paz, Bolivia), W. Saipunkaew (Chiang Mai, Thailand), Heinrich Streimann (Canberra, Australia), D. Tang (Malaysia), Göran Thor (Uppsala, Sweden), Nóna Varga (Vácrátót, Hungary), Dirk Wessels (Pietersburg, South Africa), Volkmar Wirth (Karlsruhe, Germany).

Among them the contributors of the sixth fascicle are E. Farkas (Vácrátót, Hungary), J. Halda (Hradec Králové, Czech Republic), G. Kantvilas (Hobart, Australia), L. Lőkös (Budapest, Hungary), Z. Palice (Průhonice, Czech Republic), N. Varga (Vácrátót, Hungary). TLC and HPTLC chromatographic analyses were carried out by E. Farkas, K. Molnár, Z. Palice, N. Varga and K. Veres.

The 20 specimens of the sixth fascicle have been distributed to the following 12 herbaria (for herbarium acronyms see Index Herbariorum online (Thiers 2019)): 1. BM = London, United Kingdom; 2. BP = Budapest, Hungary; 3. F = Chicago, USA; 4. hb. Flakus = Kraków, Poland; 5. hb. Kalb = Neumarkt, Germany; 6. HO = Hobart, Tasmania/Australia; 7. KRAM = Kraków, Poland; 8. PRA-V = Průhonice, Czech Republic; 9. SAV = Bratislava, Slovakia; 10. STU = Stuttgart, Germany; 11. UPS = Uppsala, Sweden; 12. VBI = Vácrátót, Hungary. Specimens of incomplete sets have been presented to some other herbaria.

Schedae containing names of species, their authors with further annotations, collecting data and remarks (e.g. chemical content) are listed below.

Table 1

Alphabetical list of the species distributed in the Lichenes Delicati Esciccati Editae from 2010 to 2021. (* = new to)

Name	Country	Number in fascicle
<i>Absconditella delutula</i> (Nyl.) Coppins et H. Kilias	(*) North Macedonia (Macedonia)	Fasc. 3/31
<i>Amandinea efflorescens</i> (Müll. Arg.) Marbach	Brazil	Fasc. 2/16
<i>Arthonia didyma</i> Körb.	Czech Republic	Fasc. 6/81
<i>Arthonia radiata</i> (Pers.) Ach.	Czech Republic	Fasc. 6/82
<i>Arthonia trilocularis</i> Müll. Arg.	Brazil	Fasc. 3/32
<i>Athelia arachnoidea</i> (Berk.) Jülich	Hungary	Fasc. 6/83
<i>Bacidia fraxinea</i> Lönnr.	(*) Bulgaria	Fasc. 3/33
<i>Bacidia fraxinea</i> Lönnr.	Bulgaria	Fasc. 5/61
<i>Bacidia rosella</i> (Pers.) De Not.	Greece	Fasc. 3/34
<i>Badimia dimidiata</i> (C. Bab. ex Leight.) Vězda	Costa Rica	Fasc. 2/17
<i>Biatora veteranorum</i> Coppins et Sérus.	Czech Republic	Fasc. 3/35
<i>Brodoa atrofusca</i> (Schaer.) Goward	(*) Romania	Fasc. 5/62
<i>Buellia follmannii</i> C. W. Dodge	Namibia	Fasc. 1/1
<i>Buellia griseovirens</i> (Turner et Borrer ex Sm.) Almb.	Hungary	Fasc. 6/84
<i>Byssoloma subdiscordans</i> (Nyl.) P. James	Portugal	Fasc. 6/85
<i>Calicium tigillare</i> (Ach.) Pers.	Romania	Fasc. 5/63
<i>Calicium viride</i> Pers.	Sweden	Fasc. 4/46
<i>Calogaya decipiens</i> (Arnold) Arup, Frödén et Söchting	Hungary	Fasc. 6/86
<i>Calopadia foliicola</i> (Fée) Vězda	Costa Rica	Fasc. 2/18
<i>Calopadia fusca</i> (Müll. Arg.) Vězda	Australia	Fasc. 5/64
<i>Caloplaca herbidella</i> (Hue) H. Magn.	Albania	Fasc. 4/47
<i>Candelaria concolor</i> (Dicks.) B. Stein	Montenegro	Fasc. 4/48
<i>Canoparmelia texana</i> (Tuck.) Elix et Hale	Tanzania	Fasc. 5/65
<i>Chaenotheca furfuracea</i> (L.) Tibell	(*) Albania	Fasc. 4/49
<i>Chaenotheca phaeocephala</i> (Turner) Th. Fr.	Sweden	Fasc. 5/66
<i>Chiodecton colensoi</i> (A. Massal.) Müll. Arg.	Australia (Tasmania)	Fasc. 2/19
<i>Chroodiscus argillaceus</i> (Müll. Arg.) Lücking et Papong	Malaysia	Fasc. 2/20
<i>Chroodiscus homchantarae</i> Papong et Lücking	Malaysia	Fasc. 1/3
<i>Chrysotrichia sulphurella</i> (Räsänen) Kantvilas et Elix	Australia (Tasmania)	Fasc. 1/4
<i>Clypeococcum hypocomycic</i> D. Hawksw.	(*) Slovakia	Fasc. 5/67
<i>Clypeococcum hypocomycic</i> D. Hawksw.	(*) Hungary	Fasc. 6/87
<i>Coenogonium implexum</i> Nyl.	Australia (Tasmania)	Fasc. 2/22
<i>Coenogonium seychellense</i> Farkas	(*) Seychelles	Fasc. 4/50
<i>Coenogonium subluteum</i> (Rehm) Kalb et Lücking	Malaysia	Fasc. 5/68

Table 1 (continued)

Name	Country	Number in fascicle
<i>Coenogonium usambarensense</i> (Vězda et Farkas) Lücking et Kalb	(*) Seychelles	Fasc. 3/36
<i>Conotremopsis weberiana</i> Vězda	Australia (Tasmania)	Fasc. 3/37
<i>Echinoplaca lucernifera</i> Kalb et Vězda	Costa Rica	Fasc. 1/5
<i>Eugeniella leucocheila</i> (Tuck.) Lücking, Sérus. et Kalb	Brazil	Fasc. 3/38
<i>Fellhanera stanhopeae</i> (Müll. Arg.) Lücking, Lumbsch et Elix	Brazil	Fasc. 4/51
<i>Gyalecta herculina</i> (Rehm) Baloch, Lumbsch et Wedin	Slovakia	Fasc. 6/88
<i>Gyalecta truncigena</i> (Ach.) Hepp	(*) Albania	Fasc. 4/52
<i>Gyalecta ulmi</i> (Sw.) Zahlbr.	(*) Bulgaria	Fasc. 1/6
<i>Haematomma nemetzii</i> J. Steiner	Bulgaria	Fasc. 5/69
<i>Herpothallon hypoprotocetraricum</i> G. Thor	Tanzania	Fasc. 3/39
<i>Icmadophila splachnirima</i> (Hook. f. et Taylor) D. J. Galloway	Australia (Tasmania)	Fasc. 6/89
<i>Illosporium carneum</i> Fr.	Sweden	Fasc. 4/53
<i>Keratosphaera antoniana</i> Flakus, Farkas et Lücking	(*) Bolivia	Fasc. 1/14+
<i>Lambiella hepaticicola</i> (Kantvilas et Coppins) Resl et T. Sprib. (syn.: <i>Rimularia hepaticicola</i> Kantvilas et Coppins)	Australia (Tasmania)	Fasc. 3/43
<i>Lecanactis abietina</i> (Ach.) Körb.	Romania	Fasc. 5/70
<i>Lecanactis abietina</i> (Ach.) Körb.	Sweden	Fasc. 4/54
<i>Lecanora flavopallida</i> Stirt.	Australia (Tasmania)	Fasc. 2/23
<i>Leclidea huxariensis</i> (Beckh. ex J. Lahm) Zahlbr.	Czech Republic	Fasc. 2/24
<i>Lepraria incana</i> (L.) Ach.	Hungary	Fasc. 6/90
<i>Lepraria lobificans</i> Nyl.	(*) Bulgaria	Fasc. 2/25
<i>Lepraria neglecta</i> (Nyl.) Erichsen	Romania	Fasc. 5/71
<i>Lichenochora obscuroides</i> (Linds.) Triebel et Rambold	Czech Republic	Fasc. 1/7
<i>Loflammia epiphylla</i> (Fée) Lücking et Vězda	Costa Rica	Fasc. 1/8
<i>Lyromma dolicobelum</i> Cavalc.	Bolivia	Fasc. 4/55
<i>Megaloblastenia marginiflexa</i> (Hook. f. et Taylor) Sipman	Australia (Tasmania)	Fasc. 2/26
<i>Melanohalea elegantula</i> (Zahlbr.) O. Blanco, A. Crespo, Divakar, Essl., D. Hawksw. et Lumbsch	Hungary	Fasc. 6/91
<i>Micarea prasina</i> Fr.	(*) Bulgaria	Fasc. 5/72
<i>Micarea turfosa</i> (A. Massal.) Du Rietz	Czech Republic	Fasc. 6/92
<i>Myriostigma candidum</i> Kremp.	Malaysia	Fasc. 5/73
<i>Normandina pulchella</i> (Borrer) Nyl.	Montenegro	Fasc. 4/56
<i>Ocellularia sorediigera</i> Kalb	Brazil	Fasc. 1/9
<i>Ochrolechia arborea</i> (Kreyer) Almb.	Romania	Fasc. 5/74
<i>Opegrapha filicina</i> Mont.	Brazil	Fasc. 1/10
<i>Opegrapha vermicellifera</i> (Kunze) J. R. Laundon	(*) Bulgaria	Fasc. 2/27

Table 1 (continued)

Name	Country	Number in fascicle
<i>Pertusaria wulfenioides</i> B. de Lesd.	USA	Fasc. 1/11
<i>Phaeophyscia orbicularis</i> (Neck.) Moberg	Hungary	Fasc. 6/93
<i>Phlyctis agelaea</i> (Ach.) Flot.	Bulgaria	Fasc. 3/40
<i>Physconia grisea</i> (Lam.) Poelt	Hungary	Fasc. 6/94
<i>Piccolia ochrophora</i> (Nyl.) Hafellner	Hungary	Fasc. 4/57
<i>Placynthiella uliginosa</i> (Schrad.) Coppins et P. James	Bulgaria	Fasc. 5/75
<i>Plectocarpon lichenum</i> (Sommerf.) D. Hawksw.	(*) Serbia	Fasc. 5/76
<i>Porina appanata</i> Vain.	Philippines	Fasc. 4/58
<i>Pseudochapsa dilatata</i> (Müll. Arg.) Parnmen, Lücking et Lumbsch (syn.: <i>Chapsa dilatata</i> (Müll. Arg.) Kalb)	Brazil	Fasc. 1/2
<i>Pseudoramonia richeae</i> Kantvilas et Vězda	Australia (Tasmania)	Fasc. 3/42
<i>Pseudosagedia aenea</i> (Wallr.) Hafellner et Kalb.	Bulgaria	Fasc. 3/41
<i>Pulchrocycladia retipora</i> (Labill.) S. Stenroos, Pino-Bodas et Ahti (syn.: <i>Cladonia retipora</i> (Labill.) Nyl.)	Australia (Tasmania)	Fasc. 2/21
<i>Pyrenophaeta xanthoriae</i> Diederich	Hungary	Fasc. 4/59
<i>Ramboldia brunneocarpa</i> Kantvilas et Elix	Australia (Tasmania)	Fasc. 1/12
<i>Ramboldia laeta</i> (Stirt.) Kalb, Lumbsch et Elix	Australia (Tasmania)	Fasc. 2/28
<i>Ramboldia russula</i> (Ach.) Kalb, Lumbsch et Elix	Brazil	Fasc. 2/29
<i>Santessonnia namibensis</i> Hale et Vobis	Namibia	Fasc. 2/30
<i>Sarrameana albidiplumbea</i> (Hook. f. et Taylor) Farkas	Australia (Tasmania)	Fasc. 6/95
<i>Scoliciosporum schadeanum</i> (Erichsen) Vězda	Czech Republic	Fasc. 6/96
<i>Sporopodium flavescens</i> (R. Sant.) Vězda	Australia	Fasc. 1/13
<i>Stenocybe pullatula</i> (Ach.) Stein	Poland	Fasc. 6/97
<i>Straminella conizaeoides</i> (Nyl. ex Cromb.) S. Y. Kondr., L. Lőkös et Farkas	Hungary	Fasc. 6/98
<i>Tapellaria epiphylla</i> (Müll. Arg.) R. Sant.	Portugal	Fasc. 5/77
<i>Tapellaria nana</i> (Fée) R. Sant.	Brazil	Fasc. 3/44
<i>Tephromela alectoronica</i> Kalb	Australia	Fasc. 5/78
<i>Tremella ramalinae</i> Diederich	Sweden	Fasc. 4/60
<i>Trichothelium argenteum</i> Lücking et Ferraro	Bolivia	Fasc. 1/14
<i>Trichothelium bipindense</i> F. Schill.	Thailand	Fasc. 5/79
<i>Vahliella leucophaea</i> (Vahl) P. M. Jørg.	Bulgaria	Fasc. 5/80
<i>Vezdaea leprosa</i> (P. James) Vězda	Poland	Fasc. 1/15
<i>Xanthoparmelia stenophylla</i> (Ach.) Ahti et D. Hawksw.	North Macedonia	Fasc. 6/99
<i>Xanthoparmelia tinctina</i> (Maheu et A. Gillet) Hale	North Macedonia	Fasc. 6/100
<i>Xanthoriciola physciae</i> (Kalchbr.) D. Hawksw.	Hungary	Fasc. 3/45

**EDIT FARKAS: LICHENES DELICATI EXSICCATI EDITAE
In memoriam Antonín Vězda (1920–2008)**

Fasc. 6 (No. 81–100)

Spring 2021

81. *Arthonia didyma* Körb.

in *Denkschr. Feier fünfz. Best. her. Schles. Gesellsch. Vaterl. Kultur*: 235, 1853.

CZECH REPUBLIC. Šumava Mts, Prachatice: the valley of Blanice, along tourist trail near the footbridge on the left bank of the rivulet, just WSW from the castle ruin Hus, on bark (*Corylus avellana*).

Lat.: 48° 57' 26.7" N; **Long.:** 13° 55' 39.2" E

Alt.: ca 725 m s. m.

Leg.: Z. Palice (n. 29271)

Dat.: 29 July 2020

Det.: Z. Palice

82. *Arthonia radiata* (Pers.) Ach.

in *K. Vetensk-Acad. Nya Handl.* 29: 131, 1808. – Basionym: *Opegrapha radiata* Pers., *Ann. Bot. (Usteri)* 7: 29, 1794.

CZECH REPUBLIC. Šumava Mts, Prachatice: the valley of Blanice, small alder wood on the right bank of the rivulet, below the castle ruin Hus (just N-wards), on dry twigs (*Alnus incana*).

Lat.: 48° 57' 33" N; **Long.:** 13° 55' 45.3" E

Alt.: ca 725 m s. m.

Leg.: Z. Palice (n. 29308)

Dat.: 31 July 2020

Det.: Z. Palice

Porina aenea and *Arthonia vinosa* are associated in some duplicates.

83. *Athelia arachnoidea* (Berk.) Jülich

in *Willdenowia, Beih.* 7: 53, 1972. – Basionym: *Corticium arachnoideum* Berk. in *Ann. Mag. nat. Hist., Ser. 1* 13: 345, 1844.

HUNGARY. Bács-Kiskun County, Kiskunság, sandy dune area in 'Monostori-erdő' forest, ca 1.6 km E of Alsómóricgát village. Parasitic on the thallus of *Physcia adscendens* on bark of *Robinia pseudoacacia*.

Lat.: 46° 37' 8.00" N; **Long.:** 19° 42' 34.65" E

Alt.: ca 110 m s. m.

Leg.: E. Farkas and L. Lőkös

Dat.: 4 July 2020

Det.: E. Farkas and L. Lőkös

84. *Buellia griseovirens* (Turner et Borrer ex Sm.) Almb.

in *Bot. Notiser*: 246, 1952. – Basionym: *Variolaria griseovirens* Turner et Borrer ex Sm., in Smith and Sowerby, *Engl. Bot.* 34: tab. 2400, 1812.

HUNGARY. Pest County, Buda Mts, southern part of Mt 'Meszes-hegy', ca 4.7 km NW of Nagykovácsi, xerothermic karst forest. Corticolous on *Fraxinus ornus*.

Lat.: 47° 35' 16.78" N; Long.: 18° 49' 6.30" E

Alt.: ca 358 m s. m.

Leg.: L. Lőkös

Dat.: 12 July 2020

Det.: E. Farkas and L. Lőkös

85. *Byssoloma subdiscordans* (Nyl.) P. James

in *Lichenologist* 5(1–2): 126, 1971. – Basionym: *Chiodecton subdiscordans* Nyl. in *Flora, Regensburg* 62: 221, 1879.

PORTUGAL. Madeira Island, Municipality Santana, along the Leveda do Furado ca 3 km from Ribeiro Frio towards Portela (EMC17 excursion "2"). On leaves in laurel forest dominated by *Laurus novocanariensis*, *Clethra arborea*, *Ocotea foetens*, *Persea indica*.

Lat.: 32° 44' 07.44" N; Long.: 16° 51' 56.88" W

Alt.: ca 820 m s. m.

Leg.: N. Varga

Dat.: 23 September 2015

Det.: E. Farkas

86. *Calogaya decipiens* (Arnold) Arup, Frödén et Søchting

in *Nordic Jl Bot.* 31(1): 38, 2013. – Basionym: *Physcia decipiens* Arnold in *Flora, Regensburg* 50: 562, 1867. – Synonym: *Caloplaca decipiens* (Arnold) Blomb. et Forssell in *Cat. Lich. Univers.* 7: 226, 1931.

HUNGARY. Budapest. NW side of Island 'Margit-sziget', riverbank protection wall along river Danube. On concrete.

Lat.: 47° 32' 6.25" N; Long.: 19° 03' 4.90" E

Alt.: ca 102 m s. m.

Leg.: L. Lőkös

Dat.: 6 August 2020

Det.: L. Lőkös

87. *Clypeococcum hypocenomyces* D. Hawksw.

in *Notes R. bot. Gdn Edinb.* 38(1): 167, 1980.

HUNGARY. Nógrád County, Börzsöny Mts, oak forest ca 4 km NNE of Kós-pallag village. Corticolous on *Quercus petraea*.

Lat.: $47^{\circ} 54' 42.54''$ N; **Long.:** $18^{\circ} 56' 47.06''$ E
Leg.: E. Farkas and L. Lőkös
Det.: E. Farkas and L. Lőkös

Alt.: ca 450 m s. m.
Dat.: 6 June 2020

88. *Gyalecta herculina* (Rehm) Baloch, Lumbsch et Wedin

in *Lichenologist* 45(6): 723, 2013 – Basionym: *Segestrella herculina* Rehm, *Mathem. Természet-tud. Közlem.* 11: 62, 1876. – Synonym: *Belonia herculina* (Rehm) Keissl., *Rabenh. Krypt.-Fl.*, Edn 2 (Leipzig) 9(1.2): 287, 1937.

SLOVAKIA. Carpathians, Veľká Fatra Mts, Kornietová Nature reserve, beach forest, on bark of roots (*Fagus sylvatica*).

Lat.: $48^{\circ} 59' 51.30''$ N; **Long.:** $19^{\circ} 06' 08.93''$ E
Leg.: J. Halda
Det.: J. Halda

Alt.: ca 1220 m s. m.
Dat.: 27 June 2019

89. *Icmadophila splachnirima* (Hook. f. et Taylor) D. J. Galloway

in *Lichenologist* 32(3): 295, 2000. – Basionym: *Parmelia splachnirima* Hook. f. et Taylor in *London J. Bot.* 3: 645, 1844. – Synonym: *Knightiella splachnirima* (Hook. f. et Taylor) Gyeln. in *Feddes Repert.* 29: 1, 1931.

TASMANIA, ca 1.5 km ENE of Adamsfield on peaty soil at roadside edge of wet scrub.

Lat.: $42^{\circ} 43'$ S; **Long.:** $146^{\circ} 21'$ E
Leg.: G. Kantvilas 121/20
Det.: G. Kantvilas

Alt.: ca 560 m s. m.
Dat.: 11 July 2020

90. *Lepraria incana* (L.) Ach.

in *Methodus, Sectio prior (Stockholmiæ)*: 4, 1803. – Basionym: *Byssus incana* L., *Sp. pl.* 2: 1169, 1753.

HUNGARY. Pest County, Buda Mts, SE side of Mt ‘Meszes-hegy’, ca 4.5 km NW of Nagykovácsi, xerothermic basiphilous oak forest. Corticolous on *Quercus petraea*.

Lat.: $47^{\circ} 35' 20.39''$ N; **Long.:** $18^{\circ} 49' 32.35''$ E
Leg.: L. Lőkös
Det.: L. Lőkös

Alt.: ca 400 m s. m.
Dat.: 12 July 2020

**91. *Melanohalea elegantula* (Zahlbr.) O. Blanco, A. Crespo, Divakar,
Essl., D. Hawksw. et Lumbsch**

in *Mycol. Res.* **108**(8): 882, 2004. – Basionym: *Parmelia aspidota* var. *elegantula* Zahlbr., *Verh. Ver. Nat., Heilk. Pressb.* **8**: 39, 1894.

HUNGARY. Nógrád County, Börzsöny Mts, oak forest *ca* 4 km NNE of Kós-pallag village. Corticolous on *Quercus petraea*.

Lat.: 47° 54' 42.67" N; **Long.:** 18° 56' 44.62" E

Alt.: *ca* 450 m s. m.

Leg.: E. Farkas and L. Lőkös

Dat.: 6 June 2020

Det.: E. Farkas and L. Lőkös

92. *Micarea turfosa* (A. Massal.) Du Rietz

in *Svensk bot. Tidskr.* **17**: 94, 1923. – Basionym: *Biatora turfosa* A. Massal. in *Ric. auton. lich. crost.* (Verona): 128, 1852.

CZECH REPUBLIC. E Bohemia, W Sudetes, Krkonoše Mts, Úpské rašeliniště peatbog, on bare turf.

Lat.: *ca* 50° 44' 10" N; **Long.:** *ca* 15° 42' 30" E

Alt.: 1420–1430 m s. m.

Leg.: Z. Palice (n. 26069)

Dat.: 4 June 1998

Det.: Z. Palice

93. *Phaeophyscia orbicularis* (Neck.) Moberg

in *Symb. Bot. Upsal.* **22** (1): 44, 1977. – Basionym: *Lichen orbicularis* Neck. in *Deliciae Gallo-Belgic.*: 509, 1768.

HUNGARY. Budapest, District VIII, park trees in square 'Szenes Iván tér' ('Rezső tér'). On bark of *Acer pseudoplatanus*.

Lat.: 47° 28' 45.23" N; **Long.:** 19° 05' 39.58" E

Alt.: *ca* 115 m s. m.

Leg.: L. Lőkös

Dat.: 18 August 2020

Det.: E. Farkas and L. Lőkös

94. *Physconia grisea* (Lam.) Poelt

in *Nova Hedwigia* **9**: 30, 1965. – Basionym: *Lichen griseus* Lam. in *Encycl. Méth. Bot. (Paris)* **3**(2): 480, 1792.

HUNGARY. Vácrátót, National Botanical Garden, near the Vigyázó castle. On bark of cut branches of *Acer pseudoplatanus* and *Celtis occidentalis*.

Lat.: 47° 42' 30.39" N; **Long.:** 19° 14' 6.66" E

Alt.: *ca* 130 m s. m.

Leg.: E. Farkas

Dat.: 17 August 2020

Det.: E. Farkas and L. Lőkös

95. *Sarrameana albidoplumbea* (Hook. f. et Taylor) Farkas

in *Biblioth. Lichenol.*, 58: 98, 1995. – Basionym: *Lecidea albidoplumbea* Hook. f. et Taylor [as 'albido-plumbea'], *London J. Bot.* 3: 638, 1844.

TASMANIA. Adamsfield on *Pomaderris apetala* in a small woodland grove.

Lat.: 42° 43' S; Long.: 146° 20' E

Alt.: ca 410 m s. m.

Leg.: G. Kantvilas 127/20

Dat.: 11 July 2020

Det.: G. Kantvilas



Fig. 4. *Physconia grisea* in the field before collection

96. *Scoliciosporum schadeanum* (Erichsen) Vězda

in *Folia geobot. phytotax.* **13**(4): 411, 1978. – Basionym: *Bacidia schadeana* Erichsen in *Ann. Mycol.* **38**: 324, 1940.

CZECH REPUBLIC. Šumava Mts, Prachatice: the valley of Blanice, fir-spruce spruce forest with some sycamores intermingled at foot of W-facing slope above the right bank of the rivulet, ca 1 km NW of the castle ruin Hus, on bark (*Abies alba*).

Lat.: 48° 57' 46.5" N; **Long.:** 13° 55' 05.3" E

Alt.: ca 690 m s. m.

Leg.: Z. Palice (n. 29273)

Dat.: 27 July 2020

Det.: Z. Palice

Lepraria jackii Tønsberg, *Sommerfeltia* **14**: 200, 1992, is associated, containing atranorin, roccellic, jackinic and norjackinic acids (TLC ZP2020-10-19a, anal. Z. Palice, 2020).

97. *Stenocybe pullatula* (Ach.) Stein

in Cohn, *Krypt.-Fl. Schlesien (Breslau)* **2**(2): 298, 1879. – Basionym: *Calicium pullatum* Ach. in *K. Vetensk-Acad. Nya Handl.* **4**: 121, 1816.

POLAND. Pojezierze Kaszubskie, Paraszyno, Łeba river valley, black alder forest along the river. Corticolous on *Alnus glutinosa* twigs.

Lat.: 54° 32' 14" N; **Long.:** 18° 00' 42" E

Alt.: ca 74 m s. m.

Leg.: E. Farkas

Dat.: 28 September 2017

Det.: E. Farkas and L. Lőkös

98. *Straminella conizaeoides* (Nyl. ex Cromb.) S. Y. Kondr., L. Lőkös et Farkas

in Kondratyuk, Lőkös, Jang, Hur and Farkas in *Acta bot. hung.* **61**(1–2): 158, 2019. – Basionym: *Lecanora conizaeoides* Nyl. ex Cromb. in *J. Bot., British and Foreign* **23**: 195, 1885.

HUNGARY. Pest County, Buda Mts, southern slope of Mt 'Nagy-Kopasz', in planted pine forest ca 3 km ESE of Telki. Corticolous on *Pinus nigra*.

Lat.: 47° 32' 41.54" N; **Long.:** 18° 51' 57.14" E

Alt.: ca 495 m s. m.

Leg.: E. Farkas and L. Lőkös

Dat.: 22 October 2020

Det.: E. Farkas, L. Lőkös and N. Varga

The lichen thalli and apothecia were often collected with lichenicolous *Lichenoconium lecanorae* (Jaap) D. Hawksw., *Bulletin of the British Museum for Natural History* **6** (3): 270, 1979.

99. *Xanthoparmelia stenophylla* (Ach.) Ahti et D. Hawksw.

in *The Lichenologist* **37**(4): 363, 2005. – Basionym: *Parmelia conspersa* var. *stenophylla* Ach. in *Methodus, Sectio post. (Stockholmiæ)*: 206, 1803.

NORTH MACEDONIA. Pelagonia Statistical Region, Prilep municipality, Prilep, Varoš, Mt Markovi Kuli (Marko's Towers). On granitic rocks.

Lat.: 41° 21' 43.03" N; **Long.:** 21° 32' 22.95" E

Alt.: ca 895 m s. m.

Leg.: L. Lőkös

Dat.: 23 July 2010

Det.: E. Farkas, L. Lőkös and K. Molnár

Usnic acid, norstictic acid, salazinic acid present (HPTLC: K. Molnár, 2010).

100. *Xanthoparmelia tinctina* (Maheu et A. Gillet) Hale

in *Phytologia* **28** (5): 489, 1974. – Basionym: *Parmelia tinctina* Maheu et A. Gillet in *Bull. Soc. bot. Fr.* **72**: 860, 1925.

NORTH MACEDONIA. Pelagonia Statistical Region, Prilep municipality, Prilep, Varoš, Mt Markovi Kuli (Marko's Towers). On granitic rocks.



Fig. 5. *Straminella conizaeoides* with *Lichenoconium lecanorae* in the field before collection

Lat.: 41° 21' 43.03" N; **Long.:** 21° 32' 22.95" E

Alt.: ca 895 m s. m.

Leg.: L. Lőkös

Dat.: 23 July 2010

Det.: E. Farkas, L. Lőkös and K. Molnár

Usnic acid, norstictic acid, salazinic acid present (HPTLC: K. Molnár, 2010).

*

Acknowledgements – The author is grateful to all contributors (whose names are mentioned above in the text) without whom the compilation of the exsiccate would not have been possible. The work was supported by various projects of the Hungarian Scientific Research Fund (OTKA T047160, K81232) and of the Hungarian National Research Development and Innovation Fund (NKFI K124341).

REFERENCES

- Armstrong, R. A. (2000): Competetive interactions between four foliose lichen species with and without nutrient enrichment. – *Symbiosis* **28**: 323–335.
- Brodo, I. M., Sharnoff, S. D. and Sharnoff, S. (2001): *Lichens of North America*. – Yale University Press, New Haven & London, 795 pp.
- Christiansen, M. S. (1993): Further observations on the association between the lichen *Lecanora conizaeoides* and its parasites *Lichenoconium erodens* and *L. lecanorae* (*Sphaeropsidales*). – *Graphis Scripta* **5**(1): 18–21.
- Farkas, E. (2010): Notes and schedae to Lichenes Delicati Exsiccatai Editae in memoriam Antonín Vězda (1920–2008), fasc. 1. – *Acta Bot. Hung.* **52**(3–4): 331–340. <https://doi.org/10.1556/abot.52.2010.3-4.11>
- Farkas, E. (2011): Notes and schedae to Lichenes Delicati Exsiccatai Editae in memoriam Antonín Vězda (1920–2008), fasc. 2. – *Acta Bot. Hung.* **53**(1–2): 101–109. <https://doi.org/10.1556/abot.53.2011.1-2.9>
- Farkas, E. (2014a): Notes and schedae to Lichenes Delicati Exsiccatai Editae in memoriam Antonín Vězda (1920–2008), fasc. 3. – *Acta Bot. Hung.* **56**(1–2): 69–76. <https://doi.org/10.1556/abot.56.2014.1-2.8>
- Farkas, E. (2014b): Notes and schedae to Lichenes Delicati Exsiccatai Editae in memoriam Antonín Vězda (1920–2008), fasc. 4. – *Acta Bot. Hung.* **56**(3–4): 305–317. <https://doi.org/10.1556/abot.56.2014.3-4.7>
- Farkas, E. (2020): Notes and schedae to Lichenes Delicati Exsiccatai Editae in memoriam Antonín Vězda (1920–2008), fasc. 5. – *Acta Bot. Hung.* **62**(1–2): 23–32. <https://doi.org/10.1556/034.62.2020.1-2.3>
- Frahm, J.-P. (2013): Contents of amino acids and osmotic values of epiphytic lichens as indicators for regional atmospheric nitrogen loads. – *Archive for Lichenology* **9**: 1–11.
- Frati, L., Santoni, S., Nicolardi, V., Gaggi, C., Brunialti, G., Guttová, A., Gaudino, S., Pati, A., Pirintos, S. A. and Loppi, S. (2007): Lichen biomonitoring of ammonia emission and nitrogen deposition around a pig stockfarm. – *Environ. Pollut.* **146**(2): 311–316. <https://doi.org/10.1016/j.envpol.2006.03.029>
- Liška, J. (2012): Lichen flora of the Czech Republic. – *Preslia* **84**(3): 851–862.

- Lisowska, M. (2011): Lichen recolonisation in an urban-industrial area of southern Poland as a result of air quality improvement. – *Environ. Monit. Assessm.* **179**(1–4): 177–190. <https://doi.org/10.1007/s10661-010-1727-6>
- Massara, A. C., Bates, J. W. and Bell, J. N. B. (2009): Exploring causes of the decline of the lichen *Lecanora conizaeoides* in Britain: effects of experimental N and S applications. – *Lichenologist* **41**(6): 673–681. <https://doi.org/10.1017/s0024282909990119>
- Thiers, B. (2019): *Index Herbariorum: A global directory of public herbaria and associated staff*. New York Botanical Garden's Virtual Herbarium. – <http://sweetgum.nybg.org/ih/>

Open Access statement. This is an open-access article distributed under the terms of the Creative Commons Attribution 4.0 International License (<https://creativecommons.org/licenses/by/4.0/>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited, a link to the CC License is provided, and changes – if any – are indicated. (SID_1)