

**NOTES AND SCHEDAE TO LICHENES  
DELICATI EXSICCATI EDITAE  
IN MEMORIAM ANTONÍN VĚZDA (1920–2008), FASC. 5**

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Lichenes *Delicati Exsiccati Editae* of little, fine, special lichens is edited in honour of Antonín Vězda (1920–2008). The fifth 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 K. Buaruang, D. Kalb, K. Kalb, G. E. Lee, L. Lőkös, A. Mertens, W. Polyiam, T. Pócs, W. Saipunkaew, D. Tang, N. Varga and E. Farkas.

Key words: exsiccate, lichenicolous fungi, lichens

## 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, – our Toni – on the occasion of the 90th anniversary of his birth (Farkas 2010). The contributions for the first fascicle were so rich that it became obvious very soon that LDEE will not remain as a single fascicle, but it needs continuation and so the second, third and fourth fascicle were published (Farkas 2011, 2014*a, b*) with 60 numbers until now. A new goal became outlined gradually – the numbers of the exsiccate is now planned to reach 100 by the time Toni would celebrate his 100th birthday, thus in 2020 two further fascicles are going to be edited and published, the present fifth fascicle and the forthcoming sixth fascicle, both with 20–20 numbers of species. Keeping the original idea – distributing delicate lichens and lichenicolous fungi – further collectors were invited for the following fascicles.

Among lichens of the current fifth fascicle there are more corticolous (7) and foliicolous (5) species, only some of them are saxicolous (3), terricolous (1), lignicolous (1) or muscicolous (1). Two representatives of lichenicolous fungi were also collected. The lichens and lichenicolous fungi originate from Europe (Bulgaria – 5, Portugal – 1, Romania – 5, Serbia – 1, Slovakia – 1, Sweden – 1), Africa (Tanzania – 1), Asia (Malaysia – 2, Thailand – 1) and Australia (2). Several specimens were collected in the Călimani National Park, Romania during field trips organised by the project “CRYPTIC: CRYPTogams’ Traits In

the Carpathians” (NKFI K119208), two of them in Mt Reșițiș near the meteorological station (Figs 1–2). Bulgarian sites were visited by the support of our Bulgarian–Hungarian academic cooperation. The National Nature Reserve Ostrov Kopáč was visited together with Anna Guttová and Anna Lackovičová on the occasion of a joint field trip in the framework of our Slovakian–Hungarian academic cooperation (Fig. 3).

The contributors are collectors and determinators in alphabetical order: E. Farkas (Vácrátót, Hungary), K. Buaruang (Bangkok, Thailand), D. and K. Kalb (Neumarkt, Germany), G. E. Lee (Malaysia), L. Lőkös (Budapest, Hungary), R. Lücking (Berlin, Germany), A. Mertens (Pfaffenhofen, Germany), W. Polyiam (Bangkok, Thailand), T. Pócs (Eger, Hungary), W. Saipunkaew (Chiang Mai, Thailand), D. Tang (Malaysia), N. Varga (Vácrátót, Hungary). TLC and HPTLC analyses were carried out by E. Farkas, K. Kalb, N. Varga and K. Veres.

The 20 specimens of the fifth fascicle have been distributed to the following 12 herbaria (for herbarium acronyms see Index Herbariorum online



Fig. 1. Collecting *Brodoa atrofusca* in the Călimani National Park, Romania, in Mt Reșițiș near the meteorological station



Fig. 2. *Lepraria neglecta*, collected in the Călimani National Park, Mt Reșițiș, Romania, near the meteorological station



Fig. 3. Nóra Varga, Anna Lackovičová and Anna Guttová in the National Nature Reserve Ostrov Kopáč, Slovakia, habitat of *Clypeococcum hypocenomyces*

(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.

## EDIT FARKAS: LICHENES DELICATI EXSICCATI EDITAE

In memoriam Antonín Vězda (1920–2008)

Fasc. 5 (No. 61–80)

Spring 2020

### 61. *Bacidia fraxinea* Lönnr.

in *Flora*, Jena 41: 612, 1858.

BULGARIA. Burgas Province, Malko Tarnovo Municipality, Strandzha Mts, Dokuzak stream at Sredoka reserve near Stoilovo village, on bark (*Salix*).

**Lat.:** 42° 00' 59.37" N; **Long.:** 27° 30' 20.24" E

**Alt.:** ca 260 m s. m.

**Leg.:** L. Lóköš

**Dat.:** 7 June 2009

**Det.:** L. Lóköš

### 62. *Brodoa atrofusca* (Schaer.) Goward

in *The Bryologist* 89(3): 222, 1987. – Basionym: *Parmelia ceratophylla* var. *atrofusca* Schaer., *Enum. critic. lich. europ.* (Bern): 42, 1850.

ROMANIA. Suceava County, Şaru Dornei commune, Gura Haitii, Călimani Mts, Călimani National Park, Mt Reşiţiş near the meteorological station, on siliceous rock.

**Lat.:** 47° 05' 50.00" N; **Long.:** 25° 14' 34.61" E

**Alt.:** ca 1,990 m s. m.

**Leg.:** E. Farkas and L. Lóköš

**Dat.:** 30 July 2018

**Det.:** E. Farkas and L. Lóköš

Atranorin, physodic acid, protocetraric acid present (HPTLC: E. Farkas and K. Veres, 2018).

*Brodoa* Goward, *Bryologist* 89(3): 222, 1987; named after the Canadian lichenologist Irwin M. Brodo (born 1935), who is the author of the book *Lichens of North America* (Brodo *et al.* 2001); owner of the Acharius Medal donated by IAL (1994).

**63. *Calicium tigillare* (Ach.) Pers.**

in *Ann. Wetter. Gesellsch. Ges. Naturk.* **2**: 14, 1811. – Basionym: *Lichen tigillaris* Ach., *Lich. suec. prodr.*, Linköping: 67, 1799. – Synonym: *Cyphelium tigillare* (Ach.) Ach., in *K. Vetensk-Acad. Nya Handl.* **3**: 261, 1815.

ROMANIA. Harghita County, Toplița municipality, Călimani Mts, near Vf. Alb, ca 13 km SW of Drăgoiasa, along the forest road, on lignum.

**Lat.:** 47° 05' 34.78" N; **Long.:** 25° 18' 14.44" E **Alt.:** ca 1,550 m s. m.

**Leg.:** E. Farkas and L. Lőkös **Dat.:** 30 July 2018

**Det.:** E. Farkas and L. Lőkös

Epanorin, rhizocarpic acid present (HPTLC: E. Farkas and K. Veres, 2018).

**64. *Calopadia fusca* (Müll. Arg.) Vězda**

in *Folia geobot. phytotax.* **21**(2): 215, 1986. – Basionym: *Lopadium fuscum* Müll. Arg., *Flora, Regensburg* **64**(7): 108, 1881.

AUSTRALIA. Queensland, Atherton Tableland, foothills of Mount Lewis, Jullatten between Mount Molloy and Mossman, Kingfisher Lodge; in a very disturbed remnant of a tropical rainforest. On leaves.

**Lat.:** 16° 35' 44" S; **Long.:** 145° 20' 23" E **Alt.:** ca 420 m s. m.

**Leg.:** K. and D. Kalb 41168 **Dat.:** 23–24 August 2008

**Det.:** K. Kalb; **Conf.:** R. Lücking

**65. *Canoparmelia texana* (Tuck.) Elix et Hale**

in Elix, Johnston and Verdon, *Mycotaxon* **27**: 279, 1986. – Basionym: *Parmelia texana* Tuck., *Amer. J. Sci. Arts, Ser. 2*, **25**: 424, 1858.

TANZANIA. Morogoro District, S Uluguru Mts, along the road, 1 km E of Chenzema village. Open granitic rocks in Nyambutwa valley near the falls.

**Alt.:** ca 1,700 m s. m.

**Leg.:** T. Pócs 88260/V **Dat.:** 27 October 1988

**Det.:** E. Farkas and L. Lőkös

Atranorin, divaricatic acid, nordivaricatic acid present (HPTLC: E. Farkas and K. Veres, 2019).

**66. *Chaenotheca phaeocephala* (Turner) Th. Fr.**

in *Ann. Bot. (Usteri)* **7**: 20, 1794. – Basionym: *Lichen phaeocephalus* Turner, *Trans. Linn. Soc., London* **9**: 260, 1808.

SWEDEN. Östergötland province. Vadstena parish, on bark (*Tilia*).

**Lat.:** 58° 27' 05.6" N; **Long.:** 14° 53' 29.9" E

**Alt.:** ca 97 m s. m.

**Leg.:** E. Farkas and N. Varga

**Dat.:** 13 August 2013

**Det.:** E. Farkas and N. Varga

### 67. *Clypeococcum hypocenomycis* D. Hawksw.

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

SLOVAKIA. Podunajská nížina lowland, Bratislava, National Nature Reserve Ostrov Kopáč. Parasitic on the thallus of *Hypocenomyce scalaris* on a burnt pine stump.

**Lat.:** 48° 05' 37.6" N; **Long.:** 17° 09' 43.1" E

**Alt.:** ca 124 m s. m.

**Leg.:** E. Farkas and N. Varga

**Dat.:** 14 November 2013

**Det.:** N. Varga

### 68. *Coenogonium subluteum* (Rehm) Kalb et Lücking

in Lücking and Kalb, *Bot. Jb.* 122(1): 34, 2000. – Basionym: *Biatorina sublutea* Rehm, *Philipp. J. Sci., C, Bot.* 8(5): 404, 1913.

MALAYSIA. Kelantan, Tok Bali Bay, near the estuary, 3 km ENE of Pasir Puteh District Council. On leaves in swamp forest.

**Lat.:** 05° 51' 08" N; **Long.:** 102° 26' 20" E

**Alt.:** ca 2–3 m s. m.

**Leg.:** T. Pócs, G. E. Lee, D. Tang, 13185

**Dat.:** 8 November 2013

**Det.:** E. Farkas

### 69. *Haematomma nemetzii* J. Steiner

in *Denkschr. Kaiserl. Akad. Wiss. Wien, Math.-Naturwiss. Kl.* 68: 230, tab. I, fig. 4a-c, 1899.

BULGARIA. Haskovo Province, Madzharovo Municipality, Eastern Rhodope Mts, E side of 'Momina Skala', at Arda river near Madzharovo, rocky area near an abandoned mine, on acidic rocks.

**Lat.:** 41° 38' 23.25" N; **Long.:** 25° 50' 50.31" E

**Alt.:** ca 170 m s. m.

**Leg.:** N. Varga and L. Lóköcs

**Dat.:** 13 June 2019

**Det.:** E. Farkas

Atranorin, psoromic acid and porphyritic acid present (HPTLC: E. Farkas and K. Veres, 2019).

70. *Lecanactis abietina* (Ach.) Körb.

in *Syst. lich. germ.* Breslau: 275, 1855. – Basionym: *Lichen abietinus* Ach., *K. Vetensk-Acad. Nya Handl.* **16**(3): 139, 1795.

ROMANIA. Suceava County, Poiana Stampei commune, along the trail in the peat-bog ‘Tinovul Mare’ at Căsoi, on bark of *Picea abies*.

**Lat.:** 47° 17' 40.38" N; **Long.:** 25° 07' 10.59" E **Alt.:** ca 920 m s. m.  
**Leg.:** L. Lőkös **Dat.:** 12 August 2019  
**Det.:** E. Farkas and L. Lőkös

Lecanoric acid, schizopeltic acid present (HPTLC: E. Farkas and K. Veres, 2019).

71. *Lepraria neglecta* (Nyl.) Erichsen

in *Flechtenfl. Nordwestdeutschl.:* 394, 1957. – Basionym: *Lecidea neglecta* Nyl., *Ann. Sci. Nat. Bot.* **11**: 233, 1859.

ROMANIA. Suceava County, Șaru Dornei commune, Gura Haitii, Călimani Mts, Călimani National Park, Mt Reșițiș near the meteorological station, on bryophytes on siliceous rock.

**Lat.:** 47° 05' 50.00" N; **Long.:** 25° 14' 34.61" E **Alt.:** ca 1,990 m s. m.  
**Leg.:** E. Farkas and L. Lőkös **Dat.:** 30 July 2018  
**Det.:** E. Farkas and L. Lőkös

Alectorialic acid, angardianic/roccellic acid present (HPTLC: E. Farkas and N. Varga, 2019).

72. *Micarea prasina* Fr.

in *Syst. orb. veg.*, Lund, **1**: 256, 1825.

BULGARIA. Kardzhali Province, Kirkovo Municipality, Eastern Rhodope Mts, near Yakovitza, along a forest road in pine forest, on bark of *Pinus nigra*.

**Lat.:** 41° 18' 31.39" N; **Long.:** 25° 15' 07.40" E **Alt.:** ca 750 m s. m.  
**Leg.:** L. Lőkös and N. Varga **Dat.:** 17 June 2019  
**Det.:** E. Farkas and L. Lőkös

73. *Myriostigma candidum* Kremp.

in *Lich. Foliic. Leg. Beccari:* 22, 1874 [as ‘*candidum*’]. – Synonym: *Cryptothecia candida* (Kremp.) R. Sant., *Symb. bot. upsal.* **12**(1): 65, 1952.

MALAYSIA. Borneo Island, Sabah, Kota Kinabalu, Lok Kawi Wildlife Park ca 25 km SSW of Kota Kinabalu, in remnants of a secondary rainforest. On leaves.

**Lat.:** 05° 50' 39" N; **Long.:** 116° 04' 00" E

**Alt.:** ca 30 m s. m.

**Leg.:** K. Kalb and A. Mertens 41166

**Dat.:** 7 August 2014

**Det.:** K. Kalb; **Conf.:** R. Lücking

The type specimen of this species was collected by O. Beccari on Sarawak, Borneo Island in 1866, Beccari 224aa (M – lectotype, designated by Lücking *et al.*, *Lichenologist* 38(3): 236, 2002).

#### 74. *Ochrolechia arborea* (Kreyer) Almb.

in *Bot. Notiser*: 254, 1949. – Basionym: *Variolaria lactea* f. *arborea* Kreyer, *Acta Horti Petropolit.* 31: 321, tab. I, fig. 16–17, 1913.

ROMANIA. Suceava County, Poiana Stampei commune, along the trail in the peat-bog 'Tinovul Mare' at Căsoi, on *Alnus* bark.

**Lat.:** 47° 18' 03.65" N; **Long.:** 25° 06' 43.88" E

**Alt.:** ca 910 m s. m.

**Leg.:** L. Lőkös

**Dat.:** 6 August 2019

**Det.:** E. Farkas and L. Lőkös

#### 75. *Placynthisella uliginosa* (Schrad.) J. R. Laundon

in *Lichenologist* 16(3): 245, 1984. – Basionym: *Lichen uliginosus* Schrad., *Spicil. fl. germ.* 1: 88, 1794.

BULGARIA. Haskovo Province, Ivaylovgrad Municipality, Eastern Rhodope Mts, along the road 5906 near Kazak, acidophilous grassland area with scattered oak trees, on *Quercus* bark.

**Lat.:** 41° 24' 45.89" N; **Long.:** 25° 53' 09.93" E

**Alt.:** ca 385 m s. m.

**Leg.:** L. Lőkös and N. Varga

**Dat.:** 15 June 2019

**Det.:** E. Farkas and L. Lőkös

#### 76. *Plectocarpon lichenum* (Sommerf.) D. Hawksw.

in Hawksworth and Galloway, *Lichenologist* 16(1): 86, 1984. – Basionym: *Dothidea lichenum* Sommerf., *Suppl. Fl. lapp.*, Oslo: 224, 1826.

SERBIA. Pirot District, Crni Vrh, Jabučko Ravnište, Stara Planina Mts, near ski tracks at Hotel Stara Planina, in a beech forest. On the thalli of *Lobaria pulmonaria* growing on the bark of an old *Fagus sylvatica*.

**Lat.:** 43° 21' 50.08" N; **Long.:** 22° 35' 23.02" E

**Alt.:** ca 1,515 m s. m.

**Leg.:** N. Varga and L. Lőkös

**Dat.:** 22 June 2019

**Det.:** N. Varga



**77. *Tapellaria epiphylla* (Müll. Arg.) R. Sant.**

in Thorold, *J. Ecol.* **40**: 129, 1952. – Basionym: *Lopadium epiphyllum* Müll. Arg., *Flora*, Regensburg **64**(7): 107, 1881.

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

**78. *Tephromela alectoronica* Kalb**

in Türk, John and Hauck (eds), *Sauteria* **15**: 243, 2008.

AUSTRALIA. Queensland, Eungella, ca 60 km of Mackay, surrounding of Broken River Lodge, Rainforest Discovery Walk in a tropical rainforest. On bark.

**Lat.:** 21° 10' 03" S; **Long.:** 148° 30' 14" E

**Alt.:** ca 700 m s. m.

**Leg.:** K. and D. Kalb 40620

**Dat.:** 13 August 2015

**Det.:** K. Kalb

Atranorin, alectoronic acid present (TLC: K. Kalb, 2015).

**79. *Trichothelium bipindense* F. Schill.**

in *Hedwigia* **67**: 278, 1927.

THAILAND. Chiang Mai province, Lumphun, Mae On, ESE of Chiang Mai, descent from Doi Mon Larn to Mae Kam Pong village, in an evergreen mountain forest dominated by *Lithocarpus*, *Quercus*, *Castanopsis*. On leaves.

**Lat.:** 18° 51' 22" N; **Long.:** 99° 22' 02" E

**Alt.:** ca 1,500 m s. m.

**Leg.:** K. Kalb, W. Saipunkaew (Om) and K. Buaruang (Nhong) and W. Polyiam (Pod) 41167

**Dat.:** 19 March 2008

**Det.:** K. Kalb; **Conf.:** R. Lücking

**80. *Vahliella leucophaea* (Vahl) P. M. Jørg.**

in *Lichenologist* **40**(3): 224, 2008. – Basionym: *Lichen leucophaeus* Vahl, *Icon. Plant. Dan.* **6**(16): 8, 1787.

BULGARIA. Kardzhali Province, Krumovgrad Municipality, Eastern Rhodope Mts, along the road (no. 5906) between Kazak and Chernichevo, on acid soil at road bank.

**Lat.:** 41° 21' 49.39" N; **Long.:** 25° 50' 08.14" E

**Alt.:** ca 650 m s. m.

**Leg.:** N. Varga and L. Lőkös

**Dat.:** 15 June 2019

**Det.:** L. Lőkös

\*

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## REFERENCES

- Brodo, I. M., Sharnoff, S. D. and Sharnoff, S. (2001): *Lichens of North America*. – Yale University Press, New Haven & London, 795 pp.
- Farkas, E. (2010): Notes and schedae to Lichenes Delicati Exsiccati Editae in memoriam Antonín Vězda (1920–2008), fasc. 1. – *Acta Bot. Hung.* **52**(3–4): 331–340.
- Farkas, E. (2011): Notes and schedae to Lichenes Delicati Exsiccati Editae in memoriam Antonín Vězda (1920–2008), fasc. 2. – *Acta Bot. Hung.* **53**(1–2): 101–109.
- Farkas, E. (2014a): Notes and schedae to Lichenes Delicati Exsiccati Editae in memoriam Antonín Vězda (1920–2008), fasc. 3. – *Acta Bot. Hung.* **56**(1–2): 69–76.
- Farkas, E. (2014b): Notes and schedae to Lichenes Delicati Exsiccati Editae in memoriam Antonín Vězda (1920–2008), fasc. 4. – *Acta Bot. Hung.* **56**(3–4): 305–317.
- 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/>

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