

Contributions to the lichen flora of the Hungarian Bodrogek (NE Hungary)

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Abstract: From the botanical collecting trips to the Bodrogek, NE Hungary, organised by Zoltán Tuba in 1982–1983, Edit Farkas collected 76 specimens of 35 lichen species. Furthermore Zoltán Tuba collected 12 additional specimens, among them 3 further species recently. From the 38 species 19 are new to the investigated area. These data represent valuable contributions to the lichen flora of the Bodrogek area, since together with other literature and herbarium data 59 species are known from the area so far. 18 species are only known from earlier collections or old literature sources. The most frequent species now are as follows: *Amandinea punctata*, *Hypogymnia physodes*, *Lecanora carpinea*, *L. symmicta*, *Parmelia sulcata*, *Physcia adscendens*, *Scoliciosporum chlorococcum*, *Xanthoria parietina*. Rare species of the Hungarian lichen flora (e.g., *Hypogymnia farinacea*, *Lecania cyrtella*, *Normandina pulchella*, *Trapeliopsis flexuosa*) were also collected here.

Keywords: Hungarian Bodrogek, Észak-Alföld, lichen species, NE Hungary.

Introduction

The lichen flora of the Hungarian Bodrogek, a part of the Észak-Alföld (Samicum) region, NE Hungary was little known when Zoltán Tuba organised botanical collecting trips in 1982–1983. The flora, bryoflora and vegetation of the Bodrogek became better known partly during the same trips (TUBA 1995, TUBA & KIS 1995, KIS & TUBA 2001). Though it is known that Ádám Boros was the first botanist who visited the area, as it is obvious from his travel diaries, no lichens were collected or observed by him. Vilmos GYELNIK (1928) had the first published records (8), his collection from 1925 resulted in also 3 herbarium specimens. Ferenc Főriss visited the area four times in 1956, 1959 and 1962, and mentioned 78 data in his travel diaries, however only 8 of them are kept as specimens in BP. A collection from 1954, 2 specimens by Zoltán Ésik became known from a paper by László GALLÉ (1967). Further botanists visited only nearby areas (e.g., Tibor Simon – Zemplén Mts. and Northern part of the Hungarian Great Plain, Klára Verseggy – Zemplén Mts.). More recently Tamás Kiss collected 9 specimens in 1981, now kept in Savaria Múzeum, Szombathely (Savaria Museum: SZO). Altogether 22 herbarium specimens existed prior to our collecting trips. Therefore the authors' collections (76 specimens by Edit Farkas in 1982–1983, 12 specimens by Zoltan Tuba in 2004) represent valuable contributions to the lichen flora of the Bodrogek area (FARKAS & TUBA 2004).

Material and methods

Specimens (numbers in brackets) kept in the herbaria of Magyar Természettudományi Múzeum, Budapest: BP (11), Szent István Egyetem, Növénytani és Növényélettani Tanszék, Gödöllő (12), Móra Ferenc Múzeum, Szeged: SZE (2), Savaria Múzeum, Szombathely: SZO (9), MTA Ökológiai és Botanikai Kutatóintézete, Vácrátót: VBI (76) were studied. Literature records were also collected from GYELNIK (1928), FŐRISS (1956, 1959, 1962) and GALLÉ (1960, 1967) to compile a list of known lichen species of the Bodrogek.

Identification of lichens was carried out by the first author. Nomenclature follows SANTESSON et al. (2004) and WIRTH (1995). The details of locality descriptions in the enumeration based on the original text of the labels and literature sources.

Enumeration

The main locality names of the investigated area are seen on Figure 1. Collecting numbers following the collector's names are in brackets. Literature sources of records are in square brackets if any.

Acarospora fuscata (Schrad.) Th. Fr. – Végardó: Longi erdő, alt. ca. 90 m., saxa andesitica tuff. Leg.: Főriss, F. (28263), 13.V.1956. [FŐRISS 1956]. – No recent records.

- Acrocordia gemmata*** (Ach.) A. Massal. – Végardó: Longi erdő, Három honvéd, alt. ca. 90 m., cort. *Acer camp.* Leg.: Fóriiss, F. (28290), 13.V.1956. [FÓRISS 1956, sub *Acrocordia sphaeroides* (Wallr.) Arn.]. – No recent records.
- Amandinea punctata*** (Hoffm.) Coppins et Scheideg. – Dámóc: Vadaskert, corticolous on *Ulmus* sp. Leg.: Farkas, E. (82028/C), 13–15.IX.1982. [VBI 82028/C]. – Between Dámóc and Lácacséke: willow fen along the frontier, corticolous on *Populus* sp. and on *Robinia pseudoacacia*. Leg.: Farkas, E. (82030/K), 13–15.IX.1982. [VBI 82030/K]. – Ricse: Semjén-erdő, corticolous on *Quercus* sp. Leg.: Farkas, E. (82026/O), 13–15.IX.1982. [VBI 82026/O]. – Sárospatak: Apróhomok, alt. ca. 110 m., lign. sicc. *Abietinum*, cort. *Quercuum*. Leg.: Fóriiss, F. (31464, 31465), 30.IV.1962. [FÓRISS 1962, as *Buellia punctata* f. *chloroleuca*, *Buellia punctata* f. *trabicola*]. – Vajdácaska: Long-erdő, gyertyános-tölgyes-bükkös erdőben, fakérgen. Leg.: Tuba, Z., 2004.III.18. – Végardó: Longi erdő, alt. ca. 87–90 m., cort. *Fagi*, cort. *Querci*. Leg.: Fóriiss, F. (28279, 28262), 13.V.1956. [FÓRISS 1956, as *Buellia punctata* f. *chloroleuca*, *Buellia punctata* f. *punctiformis*]. – This species is frequent in the area, just as throughout the country, regarded as a nitrorequent species growing on various tree barks and on wood.
- Anaptychia ciliaris*** (L.) Körber – Com. Szabolcs. Longi erdő. 100 m. Leg.: Ésik Zoltán, 20.VIII.1954. Det.: Gallé László. [SZE] [GALLÉ 1960]. – No recent records.
- Arthonia dispersa*** (Schrad.) Nyl. – Végardó: Longi erdő, alt. ca. 87–90 m., cort. *Fraxini*, cort. *Populi albae*. Leg.: Fóriiss, F. (28250, 28255, 28270), 13.V.1956. [FÓRISS 1956]. – Sátoraljaújhely: Long-erdő, NW of Vajdácaska, corticolous on *Fraxinus* sp. Leg.: Farkas, E. (82033/K), 13–15.IX.1982. [VBI 82033/K]. – Our specimen was collected on its most typical substrate (*Fraxinus* sp.).
- Bacidia fraxinea*** Lönnr. – Ricse: Ricsei-erdő, corticolous on *Quercus* sp. Leg.: Farkas E. (8307/G), 1983.04.07. [VBI 8307/G]. – Com. Zemplén. Végardó: Longi erdő. Substr.: cort. *Acer camp.* Alt.: 90 m. s. m. Leg.: Fóriiss, F. (28289), 13.V.1956. [BP 65669: *Bacidia rubella*]. – Végardó: Longi erdő, alt. ca. 90 m., cort. *Fagi*. Leg.: Fóriiss, F. (28281), 13.V.1956. [FÓRISS 1956].
- Buellia disciformis*** (Fr.) Mudd – Sátoraljaújhely: Long-erdő, NW of Vajdácaska, corticolous on a fallen tree. Leg.: Farkas, E. (82033/ZA), 13–15.IX.1982. [VBI 82033/ZA]. – Turned to be new for the region from our collection.
- Caloplaca cerina*** (Ehrh. ex Hedw.) Th. Fr. – Végardó: ad ripam Bodrog, alt. ca. 100 m., cort. *Populi*. Leg.: Fóriiss, F. (28243), 13.V.1956. [FÓRISS 1956]. – No recent records.
- Candelariella aurella*** (Hoffm.) Zahlbr. – Végardó: in pontem Ronyva, alt. ca. 87 m., cement. Leg.: Fóriiss, F. (28245), 13.V.1956. [FÓRISS 1956]. – No recent records.
- Candelariella vitellina*** (Hoffm.) Müll. Arg. – Sárospatak: Halászhomok tanya, alt. ca. 100 m., lignum sicc. *Abietinum*. Leg.: Fóriiss, F. (30814), 29.VIII.1959. [FÓRISS 1959]. – Sárospatak: Halászhomok tanya, alt. ca. 100 m., lignum sicc. *Abietinum*. Leg.: Fóriiss, F. (30818, 30819), 29.VIII.1959. [FÓRISS 1959,

as *Candelariella vitellina* var. *assericola*]. – Végardó: in pontem Ronyva, alt. ca. 87 m., lignum sicc. *Querc.* Leg.: Fóriiss, F. (28247), 13.V.1956. [FÓRISS 1956]. – Végardó, alt. ca. 100 m., lignum sicc. *Querc.* Leg.: Fóriiss, F. (28239), 13.V.1956. [FÓRISS 1956, as *Candelariella vitellina* var. *assericola*]. – No recent records.

Cladonia fimbriata (L.) Fr. – Dámóc: Órhegy (legmagasabb rész), tölgyes erdőben, homoktalajon. Leg.: Tuba, Z., 2004.III.21. – New to the region from our collection.

Cladonia sp. – Ricse: Ricsei-erdő, corticolous. Leg.: Farkas, E. (8307/CA), 7.IV.1983. [VBI 8307/CA]. – New to the region from our collection.

Evernia prunastri (L.) Ach. – Between Dámóc and Lácacséke: willow fen along the frontier, corticolous on *Populus* sp. Leg.: Farkas, E. (82030/GA), 13–15.IX.1982. [VBI 82030/GA]. – Révleányvár: Révleányvári-erdő, corticolous on *Quercus* sp. Leg.: Farkas, E. (8306/A), 7.IV.1983. [VBI 8306/A]. – New to the region from our collection.

Flavoparmelia caperata (L.) Hale – Végardó: Longi erdő, alt. ca. 90 m., cort. *Fagi.* Leg.: Fóriiss, F. (28273), 13.V.1956. [FÓRISS 1956, as *Parmelia caperata* var. *cylisphora*]. – No recent records.

Graphis scripta (L.) Ach. – Dámóc: E part of the village, alder fenwood, corticolous on *Alnus glutinosa*. Leg.: Farkas, E. (82029/L), 13–15.IX.1982. [VBI 82029/L]. – Bodrogló, Zemplénagárd mellett, égeresben, *Alnus glutinosa* törzsein. 90 m s. m. Legit.: 1.IX.1981. Kiss Tamás. Determ.: 1981.IX. Kiss Tamás. [SZO]. – Végardó: Longi erdő, Három honvéd, alt. ca. 90 m., cort. *Fagi.* Leg.: Fóriiss, F. (28282), 13.V.1956. [FÓRISS 1956, as *Graphis pulverulenta*]. – Végardó: Longi erdő, Három honvéd, alt. ca. 90 m., cort. *Fagi.* Leg.: Fóriiss, F. (28284), 13.V.1956. [FÓRISS 1956, as *Graphis scripta* var. *varia*]. – This not too rare species of the Hungarian lichen flora found also in our collection.

Hypogymnia farinacea Zopf – Sátoraljaújhely: Long-erdő, NW of Vajdácaska, corticolous on *Fraxinus* sp. Leg.: Farkas, E. (82033/ZC), 13–15.IX.1982. [VBI 82033/ZC]. – This very rare, montane species of the Hungarian lichen flora found in our collection as new to the region. (Known as *Hypogymnia bitteriana* (Zahlbr.) Räs., see VERSEGHY 1994). It is represented by a small thallus of clearly sorediate on its surface. The *p*-phenylenediamine reaction of the medulla is negative (med. Pd-). It was found together with several better developed thalli of *Hypogymnia physodes* and a very small, underdeveloped, presumably young *Usnea* cf. *hirta*.

Hypogymnia physodes (L.) Nyl. – Dámóc: E part of the village, alder fenwood, corticolous on *Alnus glutinosa*. Leg.: Farkas, E. (82029/M), 13–15.IX.1982. [VBI 82029/M]. – Dámóc: alder fenwood, corticolous on *Alnus glutinosa*. Leg.: Farkas, E. (8309/A), 7.IV.1983. [VBI 8309/A]. – Between Dámóc and Lácacséke: willow fen along the frontier, corticolous on *Populus* sp. and on *Robinia pseudoacacia*. Leg.: Farkas, E. (82030/G), 13–15.IX.1982. [VBI 82030/G]. – Dámóc: Órhegy (legmagasabb rész), tölgyes erdőben, fakérgen. Leg.: Tuba, Z., 2004.III.21. – Sárospatak, Óbodrog, branch of

Füzes-ér, corticolous on *Populus* sp. Leg.: Farkas, E. (82031/C), 13–15.IX.1982. [VBI 82031/C]. – Sátoraljaújhely: Long-erdő, NW of Vajdácaska, corticolous on *Fraxinus* sp. Leg.: Farkas, E. (82033/Z), 13–15.IX.1982. [VBI 82033/Z]. – Végardó: Longi erdő, alt. ca. 90 m., cort. *Pruni avii*. Leg.: Fóris, F. (28264), 13.V.1956. [FÓRISS 1956, as *Parmelia physodes* var. *labrosa* f. *subtubulosa*]. – This toxitolerant species found several times in our collection seems to be more frequent recently perhaps due to the extinction of more sensitive species. It grows both in natural and anthropogenic habitats.

Imshaugia aleurites (Ach.) S. L. F. Meyer – Com. Zemplén. In pags “Agárd”, ad saeptum putridum, alt. ca. 100 m. s. m. [GYELNIK 1928, as *Parmeliopsis aleurites*]. – No recent records.

Lecania cyrtella (Ach.) Th. Fr. – Bodroghalász és Kengyel gátórlak között, fűz-nyár-szil-kőris ligeterdőben, fakérgen. Leg.: Tuba, Z., 2004.III.18. – Vajdácaska: Long-erdő, gyertyános-tölgyes-bükkös erdőben, fakérgen. Leg.: Tuba, Z., 2004.III.18. – New to the region from our collection, rare in Hungary (cf. VERSEGHY 1994).

Lecanora allophana Nyl. – Dámóc: E part of the village, alder fenwood, corticolous on *Alnus glutinosa*. Leg.: Farkas, E. (82029/I), 13–15.IX.1982. [VBI 82029/I]. – Dámóc: alder fenwood, corticolous on *Alnus glutinosa*. Leg.: Farkas, E. (8309/D), 7.IV.1983. [VBI 8309/D]. – New to the region from our collection.

Lecanora argentata (Ach.) Malme – Dámóc: alder fenwood, corticolous on *Alnus glutinosa*. Leg.: Farkas, E. (8309/F), 7.IV.1983. [VBI 8309/F]. – New to the region from our collection.

Lecanora carpinea (L.) Vainio – Bodroglak, Órhegy és Monyhád között, égeresben, *Alnus glutinosa* törzsein. Legit.: 1.IX.1981. Kiss Tamás. Determ.: 1981.X. Kiss Tamás. [SZO]. – Ricse: Ricsei-erdő, corticolous. Leg.: Farkas, E. (8307/H), 7.IV.1983. [VBI 8307/H]. – Sárospatak: Apróhomok, alt. ca. 110 m., cort. *Juglandis*. Leg.: Fóris, F. (31471), 30.IV.1962. [FÓRISS 1962, as *Lecanora carpinea* f. *caesionigra*]. – Sárospatak: Apróhomok, alt. ca. 110 m., cort. *Prunus dom.* Leg.: Fóris, F. (31474), 30.IV.1962. [FÓRISS 1962, as *Lecanora carpinea* f. *caesionigra*]. – Sárospatak: Apróhomok, alt. ca. 110 m., cort. *Prunus avii*. Leg.: Fóris, F. (31478), 30.IV.1962. [FÓRISS 1962, as *Lecanora carpinea* var. *indurata* f. *deplanata*]. – Sárospatak, Óbodrog, branch of Füzes-ér, corticolous on *Populus* sp. Leg.: Farkas, E. (82031/AB), 13–15.IX.1982. [VBI 82031/AB]. – Sátoraljaújhely: Long-erdő, NW of Vajdácaska, corticolous on *Quercus* sp. Leg.: Farkas, E. (82033/I), 13–15.IX.1982. [VBI 82033/I]. – Végardó: Longi erdő, alt. ca. 87 m., cort. *Querci*. Leg.: Fóris, F. (28258), 13.V.1956. [FÓRISS 1956, as *Lecanora carpinea* var. *angulosa*]. – Végardó: Longi erdő, alt. ca. 87 m., cort. *Fraxini*. Leg.: Fóris, F. (28253), 13.V.1956. [FÓRISS 1956, as *Lecanora carpinea* var. *cinerella*]. – Frequent both in Hungary and in the Bodroglak.

Lecanora chlorotera Nyl. – Between Dámóc and Lácacséke: willow fen along the frontier, corticolous on *Robinia pseudoacacia*. Leg.: Farkas, E.

(82030/KB), 13–15.IX.1982. [VBI 82030/KB]. – Bodrogköz, Órhegy és Monyhád között, égeresben, *Alnus glutinosa* törzsén. Legit.: 1.IX.1981. Kiss Tamás. Determ.: 1981.X. Kiss Tamás. [SZO].

Lecanora saligna (Schrader) Zahlbr. – Sárospatak, Óbodrog, branch of Füzeseér, corticolous on *Populus* sp. Leg.: Farkas, E. (82031/AA), 13–15.IX.1982. [VBI 82031/AA]. – Sátoraljaújhely: Long-erdő, NW of Vajdácska, corticolous on a fallen tree. Leg.: Farkas, E. (82033/R), 13–15.IX.1982. [VBI 82033/R]. – New to the region from our collection.

Lecanora symmicta (Ach.) Ach. – Dámóc: E part of the village, alder fenwood, corticolous on *Alnus glutinosa*. Leg.: Farkas, E. (82029/H), 13–15.IX.1982. [VBI 82029/H]. – Between Dámóc and Lácacséke: willow fen along the frontier, corticolous on *Populus* sp. and on *Robinia pseudoacacia*. Leg.: Farkas, E. (82030/KA), 13–15.IX.1982. [VBI 82030/KA]. – Dámóc: alder fenwood, corticolous on *Alnus glutinosa*. Leg.: Farkas, E. (8309/E), 7.IV.1983. [VBI 8309/E]. – Bodrogköz, Zemplénagárd mellett, égeresben, *Alnus glutinosa* törzsén. Legit.: 1.IX.1981. Kiss Tamás. Determ.: 1981.XI. Kiss Tamás. [SZO, sub *Bacidia luteola* (Schrad.) Mudd]. Rev.: Lőkös, L. 2004. – Relatively frequent in our collection, but rare in Hungary.

Lecidella elaeochroma (Ach.) Choisy – Ricse: Ricsei-erdő, corticolous on *Quercus* sp. Leg.: Farkas, E. (8307/M), 7.IV.1983. [VBI 8307/M]. – Sárospatak: Apróhomok, alt. ca. 110 m., cort. *Juglandis*. Leg.: Fóris, F. (31468), 30.IV.1962. [FÓRISS 1962, as *Lecidea glomerulosa* f. *granulosa*]. – Sárospatak: Apróhomok, alt. ca. 110 m., cort. *Juglandis*. Leg.: Fóris, F. (31469), 30.IV.1962. [FÓRISS 1962, as *Lecidea olivacea* f. *albomarginata*]. – Sárospatak: Halászhomok tanya, alt. ca. 100 m., cort. *Pruni domest.* Leg.: Fóris, F. (30821), 29.VIII.1959. [FÓRISS 1959, as *Lecidea euphorea* f. *euphorea*]. – Végardó: Longi erdő, alt. ca. 87 m., cort. *Fraxini*. Leg.: Fóris, F. (28252), 13.V.1956. [FÓRISS 1956, as *Lecidea elaeochroma* f. *geographica*]. – Végardó: Longi erdő, alt. ca. 87 m., cort. *Querci*. Leg.: Fóris, F. (28260), 13.V.1956. [FÓRISS 1956, as *Lecidea glomerulosa*]. – Végardó: Longi erdő, alt. ca. 90 m., cort. *Carpini*. Leg.: Fóris, F. (28268), 13.V.1956. [FÓRISS 1956, as *Lecidea glomerulosa*]. – Végardó: Longi erdő, alt. ca. 87 m., cort. *Querci*. Leg.: Fóris, F. (28259), 13.V.1956. [FÓRISS 1956, as *Lecidea olivacea* var. *limitata*]. – Végardó: Longi erdő, alt. ca. 87 m., cort. *Querci*. Leg.: Fóris, F. (28261), 13.V.1956. [FÓRISS 1956, as *Lecidea parasema*]. – Com. Zemplén. Végardó: in silva Longierdő. Substr.: cort. *Fraxini*. Alt.: 87 m. s. m. Leg.: Fóris, F. (28251), 13.V.1956. [BP 68850, as *Lecidea parasema* Ach.]. – It was a relatively frequent species earlier in the Bodrogköz, but only once was collected by us.

Lepraria incana (L.) Ach. – Révleányvár: Révleányvári-erdő, corticolous on *Quercus* sp. Leg.: Farkas, E. (8306/B), 7.IV.1983. [VBI 8306/B]. – Sátoraljaújhely: Long-erdő, NW of Vajdácska, corticolous on *Quercus* sp. Leg.: Farkas, E. (82033/M), 13–15.IX.1982. [VBI 82033/M]. – It is the most frequent *Lepraria* species in Hungary, but new to the region from our collection.

- Lepraria** sp. – Dámóc: E part of the village, alder fenwood, corticolous on *Alnus glutinosa*. Leg.: Farkas, E. (82029/K), 13–15.IX.1982. [VBI 82029/K]. – New to the region from our collection.
- Melanelia exasperatula** (Nyl.) Essl. – Bodroghalász és Kengyel gátórlak között, fűz-nyár-szil-kőris ligeterdőben, fakérgen. Leg.: Tuba, Z., 2004.III.18. – Végardó: Longi erdő, alt. ca. 90 m., cort. *Fagi*. Leg.: Fóriiss, F. (28275), 13.V.1956. [FÓRISS 1956, as *Parmelia exasperatula*]. – Not too frequent in Hungary, however its occurrence in the Bodroglak is confirmed by a recent collection.
- Melanelia glabratula** (Lamy) Essl. – Between Dámóc and Lácacséke: willow fen along the frontier, corticolous on *Populus* sp. Leg.: Farkas, E. (82030/HB), 13–15.IX.1982. [VBI 82030/HB]. – Ricse: Semjén-erdő, corticolous on *Quercus* sp. Leg.: Farkas, E. (82026/N), 13–15.IX.1982. [VBI 82026/N]. – Végardó, alt. ca. 100 m., cort. *Fraxini*, lignum sicc. *Querc.* Leg.: Fóriiss, F. (28240, 28241, 28249), 13.V.1956. [FÓRISS 1956, as *Parmelia fuliginosa* var. *laetevirens*]. – Relatively frequent, moderately toxitolerant species.
- Normandina pulchella** (Borrer) Nyl. – Ricse: Ricsei-erdő, corticolous. Leg.: Farkas, E. (8307/C), 7.IV.1983. [VBI 8307/C]. – This single record belongs to a rare species of the Hungarian lichen flora. New to the region from our collection. (Its first Hungarian specimens were found in Bakony and Zemplén Mts. in 1998 (FARKAS & LÓKÖS 2000, BIELCZYK et al. 2004).
- Opegrapha atra** Pers. – Ricse: Ricsei-erdő, corticolous on *Quercus* sp. Leg.: Farkas, E. (8307/O), 7.IV.1983. [VBI 8307/O]. – New to the region from our collection.
- Opegrapha varia** Pers. – Ricse: Semjén-erdő, corticolous on *Acer campestre*. Leg.: Farkas, E. (82026/Q), 13–15.IX.1982. [VBI 82026/Q]. – New to the region from our collection.
- Parmelia saxatilis** (L.) Ach. – Between Dámóc and Lácacséke: willow fen along the frontier, corticolous on *Populus* sp. Leg.: Farkas, E. (82030/HA), 13–15.IX.1982. [VBI 82030/HA]. – New to the region from our collection.
- Parmelia sulcata** Taylor – Dámóc: E part of the village, alder fenwood, corticolous on *Alnus glutinosa*. Leg.: Farkas, E. (82029/F), 13–15.IX.1982. [VBI 82029/F]. – Between Dámóc and Lácacséke: willow fen along the frontier, corticolous on *Populus* sp. Leg.: Farkas, E. (82030/H), 13–15.IX.1982. [VBI 82030/H]. – Dámóc: Órhegy (legmagasabb rész), tölgyes erdőben, fakérgen. Leg.: Tuba, Z., 2004.III.21. – Dámóc: Vadaskert, corticolous on *Ulmus* sp. Leg.: Farkas, E. (82028/A), 13–15.IX.1982. [VBI 82028/A]. – Sárospatak, Óbodrog, branch of Fűzes-ér, corticolous on *Populus* sp. Leg.: Farkas, E. (82031/B), 13–15.IX.1982. [VBI 82031/B]. – Végardó: Longi erdő, alt. ca. 87 m., cort. *Fraxini*. Leg.: Fóriiss, F. (28248), 13.V.1956. [FÓRISS 1956]. – Végardó: Longi erdő, alt. ca. 87 m., cort. *Pinus strobi*. Leg.: Fóriiss, F. (28257), 13.V.1956. [FÓRISS 1956, as *Parmelia sulcata* f. *rubescens*]. – A frequent species both in Hungary and in the Bodroglak.

- Parmelina tiliacea*** (Hoffm.) Hale – Sárospatak: Apróhomok. Substr.: cort. *Prunus dom.* Alt.: 110 m. s. m. Leg.: Fóris, F. (31477), 30.IV.1962. [BP 71831, as *Parmelia scortea* f. *pruinosa*]. – No recent records.
- Pertusaria albescens*** (Huds.) M. Choisy et Werner – Végardó: Longi erdő, Három honvéd, alt. ca. 90 m., cort. *Fagi*. Leg.: Fóris, F. (28285), 13.V.1956. [FÓRISS 1956, as *Pertusaria discoidea* f. *minor*]. – No recent records.
- Pertusaria amara*** (Ach.) Nyl. – Végardó: Longi erdő, alt. ca. 90 m., cort. *Carpini*. Leg.: Fóris, F. (28267), 13.V.1956. [FÓRISS 1956, as *Pertusaria amara* var. *concentrica*]. – Végardó: Longi erdő, alt. ca. 90 m., cort. *Fagi*. Leg.: Fóris, F. (28272), 13.V.1956. [FÓRISS 1956, as *Pertusaria pulvinata* ssp. *myrmecina*]. – No recent records.
- Phaeophyscia orbicularis*** (Necker) Moberg – Bodroghalász és Kengyel gátórlak között, fűz-nyár-szil-kőris ligeterdőben, fakérgen. Leg.: Tuba, Z., 2004.III.18. – Ricse: Ricsei-erdő, corticolous on *Quercus* sp. Leg.: Farkas, E. (8307/DA), 7.IV.1983. [VBI 8307/DA]. – Sárospatak: Apróhomok, alt. ca. 110 m., cort. *Juglandis*. Leg.: Fóris, F. (31467), 30.IV.1962. [FÓRISS 1962, as *Physcia virella*]. – Between Timár and Tokaj: at Gelin on the right bank of river Tisza, in a poplar-willow wood mixed with maple trees, corticolous on a fallen tree. Leg.: Farkas, E. (82025/KB), 13–15.IX.1982. [VBI 82025/KB]. – Com. Zemplén. In pago “Agárd”, ad lignum siccum, alt. ca. 100 m. s. m. [GYELNIK 1928, as *Physcia virella* var. *Georgiensis*]. – A frequent, nitrofreqent species.
- Phlyctis argena*** (Sprengel) Flotow – Ricse: Ricsei-erdő, corticolous on *Quercus* sp. Leg.: Farkas, E. (8307/N), 7.IV.1983. [VBI 8307/N]. – Végardó: Longi erdő, alt. ca. 90 m., cort. *Carpini*. Leg.: Fóris, F. (28265), 13.V.1956. [FÓRISS 1956]. – Végardó: Longi erdő, alt. ca. 90 m., cort. *Fagi*. Leg.: Fóris, F. (28274), 13.V.1956. [FÓRISS 1956]. – Végardó: Longi erdő, Három honvéd, alt. ca. 90 m., cort. *Fagi*. Leg.: Fóris, F. (28286), 13.V.1956. [FÓRISS 1956, as *Phlyctis argena* f. *nubilosa*].
- Physcia adscendens*** H. Olivier – Bodroghalász és Kengyel gátórlak között, fűz-nyár-szil-kőris ligeterdőben, fakérgen. Leg.: Tuba, Z., 2004.III.18. – Between Dámóc and Lácacséke: willow fen along the frontier, corticolous. Leg.: Farkas, E. (82030/F), 13–15.IX.1982. (partly eaten by insects). [VBI 82030/F]. – Dámóc: Vadaskert, corticolous on *Ulmus* sp. Leg.: Farkas, E. (82028/B), 13–15.IX.1982. [VBI 82028/B]. – Sárospatak, Óbodrog, branch of Fűzes-ér, corticolous on *Populus* sp. Leg.: Farkas, E. (82031/E), 13–15.IX.1982. [VBI 82031/E]. – Com. Zemplén. Bodrogek: Várhomoktanya. Substr.: cort. *Fraxini*. Alt.: 100 m. s. m. Leg.: Fóris, F. (30809), 9.VIII.1959. [BP 55201, as *Physcia tenella* var. *subbreviata*]. – Between Timár and Tokaj: at Gelin on the right bank of river Tisza, in a poplar-willow wood mixed with maple trees, corticolous on a fallen tree. Leg.: Farkas, E. (82025/KA), 13–15.IX.1982. [VBI 82025/KA]. – Com. Zemplén, prope pagum Agárd, ad corticem *Quercus Roburis*, alt. ca. 100 m. s. m. Leg.: Gyelnik, V., 21.VII.1925. [BP 29063, as *Physcia ascendens*] [GYELNIK 1928]. – A frequent (both in Hungary and in the Bodrogek), nitrofreqent species.

- Physcia aipolia*** (Ehrh. ex Humb.) Fűrnr. – Com. Szolnok. Long erdő. 20.VIII.1954. Leg.: Ésik Zoltán. 100 m. Det.: Gallé L. [SZE, as *Physcia aipolia* var. *caesiopruinosa*] [GALLÉ 1960]. – Com. Zemplén. Pr. pag. Agárd, ad cort. *Quercus Roburis*, alt. ca. 100 m. s. m. [GYELNIK 1928, as *Physcia aipolia* f. *crenulata*]. – Com. Zemplén. Pr. pag. “Agárd”, ad cort. *Quercus Roburis*, alt. ca. 100 m. s. m. [GYELNIK 1928, as *Physcia aipolia* f. *cercidia*]. – No recent records.
- Physcia aipolioides*** (Nád.v.) Breuss et Türk – Sárospatak, Óbodrog, branch of Füzes-ér, corticolous on *Populus* sp. Leg.: Farkas, E. (82031/DA), 13–15.IX.1982. [VBI 82031/DA]. – New to the region from our collection.
- Physcia caesia*** (Hoffm.) Fűrnr. – Sárospatak: Halászhomok tanya, alt. ca. 100 m., ad tegulas. Leg.: Fóriiss, F. (30825), 29.VIII.1959. [FÓRISS 1959]. – No recent records.
- Physcia dubia*** (Hoffm.) Lettau – Sárospatak: Halászhomok tanya, alt. ca. 100 m., lignum putr. *Robiniae*. Leg.: Fóriiss, F. (30812), 29.VIII.1959. [FÓRISS 1959]. – No recent records.
- Physcia stellaris*** (L.) Nyl. – Between Dámóc and Lácacséke: willow fen along the frontier, corticolous on *Populus* sp. Leg.: Farkas, E. (82030/F), 13–15.IX.1982. [VBI 82030/F]. – Sárospatak: Apróhomok, alt. ca. 110 m., cort. *Prunus dom.* Leg.: Fóriiss, F. (31476), 30.IV.1962. [FÓRISS 1962]. – Sárospatak, Óbodrog, branch of Füzes-ér, corticolous on *Populus* sp. Leg.: Farkas, E. (82031/D), 13–15.IX.1982. [VBI 82031/D]. – Végardó: ad ripam Bodrog, alt. ca. 100 m., cort. *Populi*. Leg.: Fóriiss, F. (28244), 13.V.1956. [FÓRISS 1956, as]. – Between Timár and Tokaj: at Gelin on the right bank of river Tisza, in a poplar-willow wood mixed with maple trees, corticolous on a fallen tree. Leg.: Farkas, E. (82025/KC), 13–15.IX.1982. [VBI 82025/KC].
- Physcia tenella*** (Scop.) DC. – Bodrogköz, Órhegy és Monyhád között, *Alnus* és *Quercus* törzsein. Legit.: 1.IX.1981. Kiss Tamás. Determ.: 1981.X. Kiss Tamás. [SZO]. – Bodrogköz, Órhegy és Monyhád között, tölgyesben, *Quercus robur* törzsén uralkodó faj. Legit.: 2.IX.1981. Kiss Tamás. Determ.: Lőkös, L. 2005. [SZO]. – Végardó: Longi erdő, alt. ca. 87 m., cort. *Fraxini*. Leg.: Fóriiss, F. (28254), 13.V.1956. [FÓRISS 1956].
- Physconia distorta*** (With.) J. R. Laundon – Ricse: Ricsei-erdő, corticolous on *Quercus* sp. Leg.: Farkas, E. (8307/D), 7.IV.1983. [VBI 8307/D]. – Com. Zemplén. Pr. pag. “Agárd”, ad cort. *Populi albae*, alt. ca. 100 m. s. m. [GYELNIK 1928, as *Physcia pulverulenta* f. *argyphyae*].
- Physconia grisea*** (Lam.) Poelt – Com. Zemplén. Bodrogköz: Várhomoktanya. Substr.: cort. *Mori*. Alt.: 100 m. s. m. Leg.: Fóriiss, F. (30807), 9.VIII.1959. [BP 54630, as *Physcia grisea* f. *furfuracea*, *Physconia grisea* f. *pityrea*]. – Bodrogköz, Zemplénagárd mellett, égeresben, *Fraxinus* törzsén. Legit.: 1.IX.1981. Kiss Tamás. Determ.: Lőkös, L. 2005. [SZO].
- Protoparmeliopsis muralis*** (Schreber) M. Choisy – Sárospatak: Halászhomok tanya, alt. ca. 100 m., lignum putr. *Robiniae*. Leg.: Fóriiss, F. (30811), 29.VIII.1959. [FÓRISS 1959, as *Squamaria albomarginata* f. *lignicola*]. – Sárospatak: Halászhomok tanya, alt. ca. 100 m., ad tegulas. Leg.: Fóriiss, F.

(30823), 29.VIII.1959. [FÓRISS 1959, as *Squamaria muralis* var. *compacta*].
– No recent records.

Pseudevernia furfuracea (L.) Zopf – Dámóc: Órhegy (legmagasabb rész),
tölgyes erdőben, fakérgen. Leg.: Tuba, Z., 2004.III.21. – Bodrogköz, Órhegy
és Monyhád között, égeresben, *Alnus glutinosa* törzsein. Legit.: 1.IX.1981.
Kiss Tamás. Determ.: 1981.X. Kiss Tamás. [SZO, as *Pseudevernia*
furfuracea var. *pulvinata*]. – No earlier records.

Punctelia subrudecta (Nyl.) Krog – Végardó: Longi erdő, alt. ca. 90 m., cort.
Fagi. Leg.: Fóris, F. (28271), 13.V.1956. [FÓRISS 1956, as *Parmelia dubia*
var. *stictica*]. – No recent records.

Ramalina pollinaria (Westr.) Ach. – Dámóc: E part of the village, alder
fenwood, corticolous on *Alnus glutinosa*. Leg.: Farkas, E. (82029/G), 13–
15.IX.1982. [VBI 82029/G]. – New to the region from our collection.

Scoliciosporum chlorococcum (Graewe ex Stenham.) Vězda – Dámóc: E part
of the village, alder fenwood, corticolous on *Alnus glutinosa*. Leg.: Farkas, E.
(82029/P), 13–15.IX.1982. [VBI 82029/P]. – Dámóc: alder fenwood,
corticolous on *Alnus glutinosa*. Leg.: Farkas, E. (8309/K), 7.IV.1983. [VBI
8309/K]. – Between Dámóc and Lácacséke: willow fen along the frontier,
corticolous on *Populus* sp. Leg.: Farkas, E. (82030/EA), 13–15.IX.1982. [VBI
82030/EA]. – Bodrogköz, Órhegy és Monyhád között, égeresben, *Alnus*
glutinosa törzsein. Legit.: 1.IX.1981. Kiss Tamás. Determ.: 1981.X. Kiss
Tamás. [SZO]. – Sárospatak, Óbodrog, branch of Fűzes-ér, corticolous on
Populus sp. Leg.: Farkas, E. (82031/BB), 13–15.IX.1982. [VBI 82031/BB]. –
Sátoraljaújhely: Long-erdő, NW of Vajdácaska, corticolous on *Fraxinus* sp.
Leg.: Farkas, E. (82033/ZB), 13–15.IX.1982. [VBI 82033/ZB]. – No earlier
records, only known from our collection and a 1981 collection by Tamás
Kiss. A toxitolérant species, spreading in the last decades.

[***Scoliciosporum perpusillum*** J. Lahm ex Körber] – Végardó: Longi erdő, alt.
ca. 87 m., cort. *Pinus strobi*. Leg.: Fóris, F. (28256), 13.V.1956. [FÓRISS
1956]. – No recent records. The earlier record is uncertain since no
specimen is found in herbaria and so it is impossible to revise its taxonomic
status. It might refer to *Scoliciosporum umbrinum* (Ach.) Arnold.

Trapeliopsis flexuosa (Fr.) Coppins et P. James – Sátoraljaújhely: Long-erdő,
NW of Vajdácaska, corticolous on a fallen tree. Leg.: Farkas, E. (82033/ZB),
13–15.IX.1982. [VBI 82033/U]. – A very rare species in Hungary (known as
Lecidea granulosa (Hoffm.) Ach., see VERSEGHY 1994), new to the region
from our collection.

Usnea* cf. *hirta (L.) Weber ex F. H. Wigg. – Sátoraljaújhely: Long-erdő, NW of
Vajdácaska, corticolous on *Fraxinus* sp. Leg.: Farkas, E. (82033/ZD), 13–
15.IX.1982. [VBI 82033/ZD]. – A rare montane species, new to the region
from our collection.

Xanthoria parietina (L.) Th. Fr. – Between Dámóc and Lácacséke: willow fen
along the frontier, corticolous on *Populus* sp. Leg.: Farkas, E. (82030/E),
13–15.IX.1982. [VBI 82030/E]. – Com. Zemplén. Sárospatak: Halászhomok
tanya. Substr.: lignum sicc. *Abiet*. Alt.: 100 m. s. m. Leg.: Fóris, F. (30813),

29.VIII.1959. [BP 59079, as *Xanthoria parietina* var. *vulgaris* f. *nodulosa*]. – Sárospatak, Óbodrog, branch of Fűzes-ér, corticolous on *Populus* sp. Leg.: Farkas, E. (82031/A), 13–15.IX.1982. [VBI 82031/A]. – Com. Zemplén. Bodrogköz: Várhomoktanya. Substr.: cort. *Fraxini*. Alt.: 100 m. s. m. Leg.: Fóris, F. (30808), 9.VIII.1959. [BP 59197, as *Xanthoria parietina* var. *vulgaris* f. *polyphylla*]. – Vajdácaska: Long-erdő, gyertyános-tölgyes-bükkös erdőben, fakérgen. Leg.: Tuba, Z., 2004.III.18. – Com. Zemplén. Végardó: ad ripam Bodrog. Substr.: cort. *Populi*. Alt.: 100 m. s. m. Leg.: Fóris, F. (28242), 13.V.1956. [BP 59104, as *Xanthoria parietina* var. *vulgaris* f. *submonophylla*, *Xanthoria parietina* var. *adpressa*]. – Sátoraljaújhely: Long-erdő, NW of Vajdácaska, corticolous on *Fraxinus* sp. Leg.: Farkas, E. (82033/Q), 13–15.IX.1982. [VBI 82033/Q]. – Between Timár and Tokaj: at Gelin on the right bank of river Tisza, in a poplar-willow wood mixed with maple trees, corticolous on a fallen tree. Leg.: Farkas, E. (82025/I), 13–15.IX.1982. [VBI 82025/I]. – Hungaria. Crisicum. Agárd, salicicola. Alt. ca 100 m. s. m. Leg.: Gyelnik, V., 21.VII.1925. [BP 76811, as *Xanthoria parietina* f. *submonophylla*]. – A frequent (both in Hungary and in the Bodrogköz), nitrofrequency species.

Xanthoria polycarpa (Hoffm.) Th. Fr. ex Rieber – Com. Zemplén, prope pagum Agárd, ad corticem *Quercus Roburis*, alt. ca. 100 m. s. m. Legit.: Gyelnik, V., 21.VII.1925. [BP 29063, as *Xanthoria lichnea*, *Xanthoria polycarpa* f. *chlorina*] [GYELNIK 1928, as *Xanthoria candelaria*, *X. lichnea*]. – No recent records.

Discussion

Due to our 1982–1983 and 2004 collections the number of known lichen species reached 59 in the Hungarian Bodrogköz area. Our collection contained 38 species, 19 of them represent new records for the region. In the same time 18 species are only known from earlier collections or from old literature sources. The floristical composition of the Hungarian Bodrogköz lichens is comparable with other inundation areas in Hungary. Two third of the species is the same as in Dél-Alföld (Fekete-Körös region – cf. LÖKÖS & FARKAS 2000) and one third of the species are found also in Szigetköz (LÖKÖS 2005, *pers. comm.*). The most frequent species recently are as follows: *Amandinea punctata*, *Hypogymnia physodes*, *Lecanora carpinea*, *L. symmicta*, *Parmelia sulcata*, *Physcia adscendens*, *Scoliciosporum chlorococcum*, *Xanthoria parietina*. Rare species of the Hungarian lichen flora (e.g., *Hypogymnia farinacea*, *Lecania cyrtella*, *Normandina pulchella*, *Trapeliopsis flexuosa* – cf. VERSEGHY 1994) were also collected by the authors. Even if among the frequent species we found the toxitolerant and nitrofrequency spreading species, rare lichens of the Hungarian flora were also possible to discover as new to the region. It shows how little is known Hungary from lichenological point of view. Lichens grow among microclimatically favourable conditions, most of their species prefers undisturbed

circumstances. Therefore field studies on areas neglected for floristical research may result in further new results in lichenology in future.

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Fig. 1. The Hungarian Bodrogköz area is bordered by the Bodrog and Tisza rivers, and the Hungarian–Slovak state boundary.

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