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Abstract: The present part of the series provides new records of 11 taxa, among them one diatom, six lichen-forming fungi and four bryophytes. The diatom *Stauroneis blazenciciae* is new to Romania, and it is the second record worldwide. The six lichen species have already been reported from Hungary, however they are quite rare. Additional interesting records are presented, e.g. *Calicium notarisii* and *Pseudothelomma ocellatum* are new for the Great Hungarian Plain, *Cetrelia chicitae* is new for the Velence Mts and for the Transdanubian Mountain Range, *Petractis clausa* is new for the Gerecse Mts, and *Umbilicaria polyphylla* is new for the Börzsöny Mts. *Parmotrema perlutum* has several interesting new occurrences. Regarding the bryophyte species, *Marchantia polymorpha* L. subsp. *montivagans* is new to Hungary, *Sciuro-hypnum curtum* is new for the Nyírség, *Brachythecium capillaceum* is reported from the Great Hungarian Plain for the first time. *Pseudocampylium radiale* is new for the Kismohos bog, its appearance seems to be a recent event.

Key words: algae, bryophytes, Hungary, lichens, liverworts, new record, Romania, Ukraine

INTRODUCTION

This paper is the 15th part of the series launched in *Studia botanica hungarica* focusing on the new chorological records, nomenclature, and taxonomy of

plant species from algae to vascular plants and fungi (BARINA *et al.* 2015, 2020, CSIKY *et al.* 2017, DEME *et al.* 2019, KIRÁLY *et al.* 2019a, b, MATUS *et al.* 2018, MESTERHÁZY *et al.* 2017, PAPP *et al.* 2016, 2020, SCHMIDT 2020, SCHMIDT *et al.* 2018, SÜVEGES *et al.* 2021, TAKÁCS *et al.* 2016).

Several new records for 11 cryptogam taxa (one diatom, six lichen-forming fungi and four bryophytes) are presented in this part of the series from Hungary, Romania and Ukraine.

MATERIAL AND METHODS

Nomenclature and taxonomy of Bacillariophyceae and lichen-forming fungi follow AlgaeBase (GUIRY and GUIRY 2021, CABI (2021), and MycoBank (ROBERT *et al.* 2018), respectively. Codes of the Central European Flora Mapping grid are in square brackets. Abbreviations of herbaria follow THIERS (2017).

NEW RECORDS WITH ANNOTATIONS

Algae, Bacillariophyta

(153) *Stauroneis blazenciciae* Levkov, Tofilovska, Jovanovska, Cvetkoska et Metzeltin (Bacillariophyceae)

Romania, Făgăraș Mts, Lake Bâlea 2,050 m a.s.l., a 32-cm short sediment core (Bâlea2018-01, N 45° 36' 11", E 24° 36' 55") was retrieved from the central part of the Lake (the water depth was 8 m) in July 2018 by János Korponai. During the diatom analysis of lacustrine sediment core, *Stauroneis blazenciciae* was found at 22–23 cm depth (the top of the core was marked as 0 cm). Lake Bâlea is one of the greatest proglacial lakes of Romanian Carpathians; on the northern slope of the Făgăraș Mts in the Southern Carpathians.

Stauroneis blazenciciae was recorded only from North Macedonia so far (GUIRY and GUIRY 2021). Originally it was collected from small mountain streams and peat bogs at an altitude above 1,900 m in the Jablanica Mts and in the Šar Mts. The type locality is a small, shallow, oligotrophic mountain lake of glacial origin (Jablanica Mts, Lake Vevchansko, sediment 2.5 m depth. Leg. Z. Levkov. Coll. date: 11.08.2005). *Stauroneis blazenciciae* was described during the revision of the *Stauroneis smithii* Grunow (Bacillariophyceae) species complex from Macedonia (LEVKOV *et al.* 2016). The here presented data is the second published record of the species.

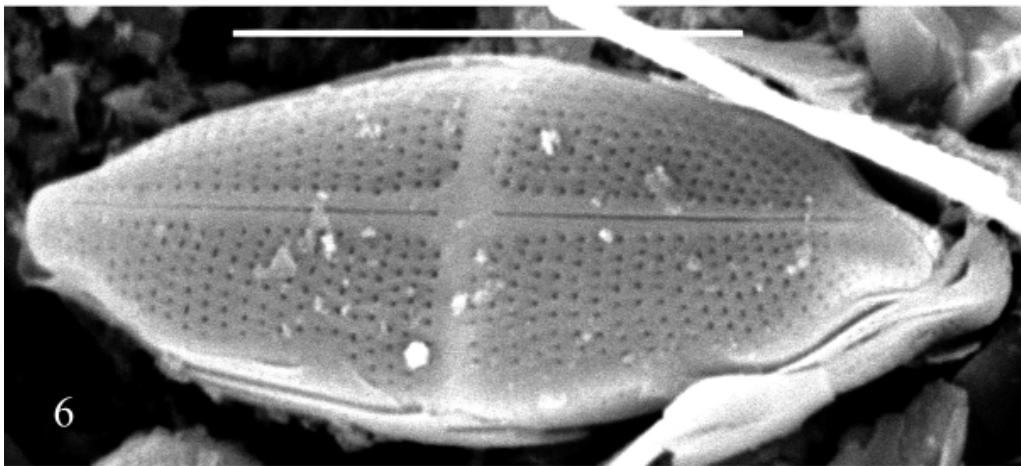
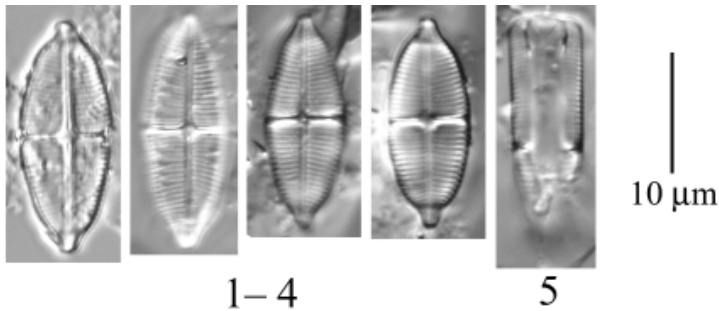
Diatom valves are lanceolate to elliptical-lanceolate with slightly undulated margins, the apices are abruptly protracted. Valve length of varied between 17–24 μm , (mean = 20.2 μm , min = 17 μm , max = 23.8 μm , n = 20) 5.6–8 μm , (mean = 7.14 μm , min = 5.6 μm , max = 8 μm , n=20). Our population is smaller than that

allow the description, where the valve length is 17.0–33.0 μm and valve width is 6.5–9.5 μm . Pseudosepta distinct. Axial area very narrow, slightly widened near valve central area. Central area with distinct stauros, narrow, slightly expanded towards valve margins. Raphe fissures almost straight, filiform. Transapical striae finely punctate, parallel throughout, 24–26 in 10 μm . Striae uniseriate, composed of small, round to slightly elongated areolae, that hardly discernible in light microscope, about 30–35 in 10 μm .

Stauroneis blazenciciae, is characterised by outline and apices (Figs 1–6). It can be easily differentiated from *Stauroneis smithii* (the most widespread species of the genus) by the valve shape: it is elliptical-lanceolate with weakly undulate margins in the largest specimens to linear-lanceolate with valve margins gradually narrowing towards the abruptly protracted to acute apices.

Diatom analysis was carried out as in the frame of Cryptic project (NKFIH 119208).

K. Buczkó



Figs 1–6. *Stauroneis blazenciciae*, **Figs 1–5:** Light microscope pictures; **Figs 1–4:** valve face, **Fig. 5:** girdle view. **Fig. 6:** Outside of valve view, scanning electron microscopy (Hitachi S-2600N). Scale bar is 10 μm . (Photo: K. Buczkó).

Lichen-forming fungi

(154) *Calicium notarisii* (Tul.) M. Prieto et Wedin (Caliciaceae, Caliciales)

Hungary, Hajdú-Bihar County, Hortobágy National Park, between Hortobágy and Nádudvar, ca 7 km N of Nádudvar, on rotten wood of a shadoof. Lat.: 47.491380° N; Long.: 21.163674° E; Alt.: 85 m a.s.l. Leg.: Lőkös, L., 04.05.2021 [BP 96775].

Calicium notarisii is a predominantly lignicolous, wood-inhabiting lichen species, with only a few records from Hungary. It was known in montane habitats from the Bükk, Mátra and Mecsek Mts as *Cyphelium notarisii* (FÓRISS 1940, TIBELL 1971). Recently it has been collected also near Aggtelek (NE Hungary) (LŐKÖS 2009) and near Barcs (SW Hungary), the latter is also from a shadoof. The new record is from a rather dry, exposed habitat from the lowland region of Hungary.

L. Lőkös

(155) *Cetrelia chicitae* (W. L. Culb.) W. L. Culb. et C. F. Culb. (Parmeliaceae)

Hungary. Com. Fejér, pr. pag. Nadap, in decl. montis “Meleg-hegy”, ad corticem Quercus, alt. ca. 310 m. s. m. Leg.: Gyelnik, V., 18.04.1926. [BP 96777] (Fig. 7).

Romania. Cott. Kolozs, in cortice *Quercus robur* in Quercetis Malomgát erdő pr. pag. Bács [Baciu, Cluj]. Leg.: Felföldy, L., 29.09.1941. [BP 85320, as *Parmelia cetrarioides* (Del.)]. – Romania. Transsilvania. Praemarmarossicum. Inter balneum Búdössárfürdő [Băile Puturoasa, Vama, Satu Mare] et montem Mikehegy, ad cort. Fagi silvaticae. Leg.: Kőfaragó-Gyelnik, V., 09.07.1936. [BP 96778]. – Romania. Transsilvania. Praemarmarossicum. Inter balneum Búdössárfürdő et montem Mikehegy, ad Betulam. Leg.: Kőfaragó-Gyelnik, V., 09.07.1936. [BP 96779].

Ukraine. Newicke Ungh megyében várromok hegyén. Leg.: Feichtinger, S., 04.09.1875. [BP 22781, as *Parmelia olivaria* Hue]. – Ukraine. Hab. in silvis ad Pósháza, com. Bereg, c. 100 m. Leg.: Margittai, A., 11.1926. [BP 21504, as *Parmelia cetrarioides* (Del.)]. – Ukraine. Hab. in silvis “Sajgó” ad Pósháza, Bereg, c. 100 m. Leg.: Margittai, A. 162, 11.1926. [BP 44999, as *Parmelia cetrarioides* (Del.)].

Hungarian *Cetrelia* specimens have been revised recently (FARKAS *et al.* 2021), revealing two occurrences of *Cetrelia chicitae* in the North Hungarian Mountains (Bükk Mts, Zemplén Mts). The new record is from the Transdanubian Mountain Range (Velence Mts) (Fig. 8). Unfortunately all the three Hungarian specimens were collected in the last century, i.e. in 1926, 1933 and 1961. Since it has no recent record *C. chicitae* is proposed as an extinct species in the Hungarian lichen red list.

The first record of *Cetrelia chicitae* has been reported from Romania recently (MALÍČEK *et al.* 2015), from the Bihor Mts (Apuseni Natural Park, Padiș area). Three further, older records (1936, 1941) are presented from two more localities (Baciu, Vama-Băile Puturoasa) (Fig. 9).

In Ukraine *Cetrelia chicitae* was known from the Crimean Peninsula only (RANDLANE *et al.* 1991, KONDRATYUK *et al.* 1998, 2021). Additional records are

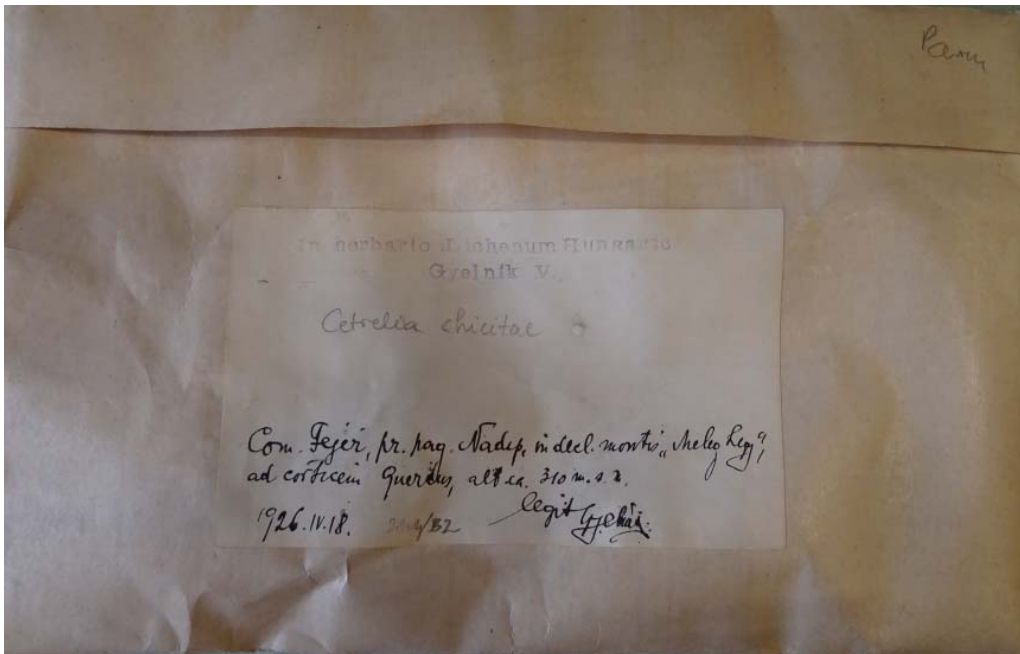


Fig. 7. Envelope of the BP 96777 specimen of *Cetrelia chicitae*, collected on *Quercus* bark in 1926 (Velence Mts, Nadap, Hungary).

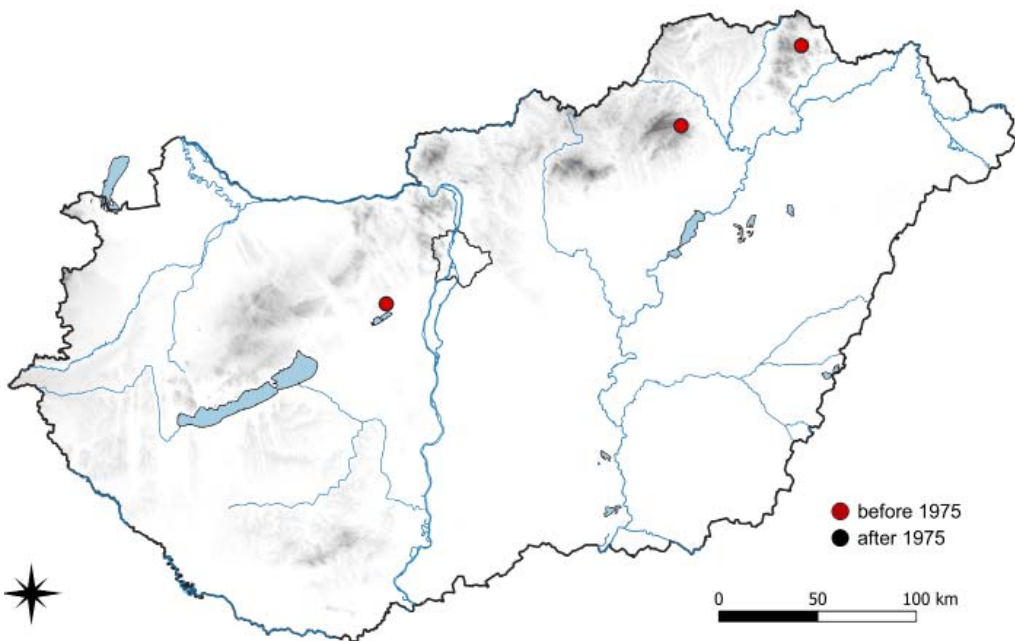


Fig. 8. Confirmed occurrences of *Cetrelia chicitae* in Hungary.

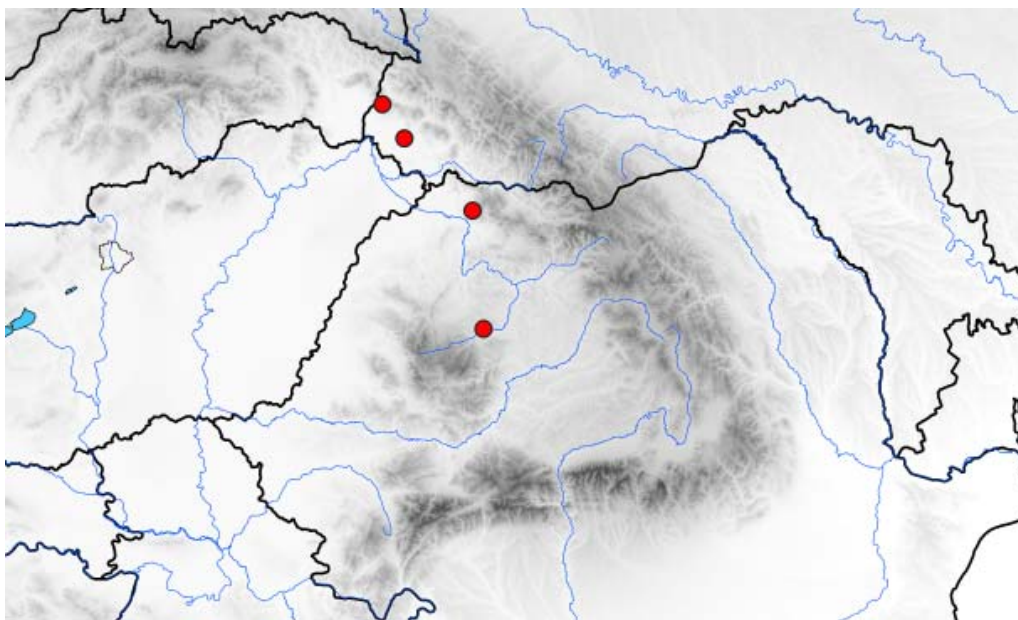


Fig. 9. New localities of *Cetrelia chicitae* from Romania and Ukraine.

reported here from the Carpathian Mts (Nevytske, Pavshyno-Mukacheve) from old collections. (Fig. 9).

Laboratory investigation was supported by the project NKFI K124341.

E. Farkas, L. Lőkös and N. Varga

(156) *Parmotrema perlatum* (Huds.) M. Choisy (Parmeliaceae)

Hungary, Bács-Kiskun County, Móricgát, “Monostori erdő”, on *Robinia pseudacacia* bark. Lat.: 46.618539° N; long.: 19.701153° E; alt. ca. 105 m a.s.l. Leg.: Farkas, E., Lőkös, L., 04.07.2020 [BP 96780] (Fig. 10).

Hungary. Somogy County, Somogyi-dombság, Szentai-erdő, ca 1.1 km WNW of Bolhás, among mosses on bark (*Quercus*). Lat.: 46.268132° N; long.: 17.255235° E; alt.: 145 m a.s.l. Coll.: Lőkös, L., 11.05.2021 [BP 96781].

Hungary, Hajdú-Bihar County, Nyírség, Debrecen-Pac, N of Mézeshegyi-tározó, between 546/A and 547/E forest lots, planted exotic trees near small reservoir, on bark of *Catalpa bignonioides*, N47.46182°, E21.70809°, 113 m. Leg.: Matus, G., 02.02.2021 [DE 6999].

Hungary, Hajdú-Bihar County, Nyírség, Debrecen-Haláp, Hármás-hegy, 200 m north of look-out tower, forest lot 268/C, mixed broadleaf forest on dune on bark of *Padus serotina*. N47.55175°, E21.83446°, 141 m. Leg.: Matus, G., 04.03.2021 [DE 5106].

Hungary, Hajdú-Bihar County, Nyírség, Létavértes, W of 68/H forest lot, small groove, on bark of *Quercus robur*. N47.43808°, E21.86703°, alt. 118 m. Leg.: Matus, G., Matus, J., 26.02.2021 [DE 7037].

Hungary, Hajdú-Bihar County, Nyírség, Bagamér (near Nyirábrány), S of Bagaméri-legelő, 4/A forest lot, 8497.4, sparse oak forest, trunk of *Quercus robur*. N47.51616°, E21.98478°, alt. 130 m. Leg.: Matus, G. (034), 29.01.2022 [DE].

Parmotrema perlatum is a conspicuous, parmelioid, foliose lichen species characterised by marginal cilia, marginal capitate soralia and stictic acid complex in the medulla (K+ yellow). It is a widespread, cosmopolitan species with predominantly temperate distribution in both hemispheres (ELIX and THELL 2011, HALE 1965), preferring humid, oceanic-suboceanic habitats (ALMBORN 1948, DEGELIUS 1935, JØRGENSEN 1996, NIMIS *et al.* 2018). However, it is rather rare and sporadic in Hungary, known only from 28 localities. Specimens from the Balaton-felvidék, Mecsek, Visegrád and Zemplén Mts were reported under the name *Parmelia perlata* (incl. *P. trichotera*) by VERSEGHY (1994), considering *P. perlata* as a ‘rare, strongly declining species’.

Normally it grows on bark and on mossy rocks in natural, semi-natural habitats with clear, unpolluted air. It was reported from the following host trees in old Hungarian collections: *Fagus sylvatica*, *Juniperus communis*, *Prunus domestica* and *Quercus* spp., however, it has been also collected recently in rather anthropogenic habitats from ‘unusual’ hosts, like: *Catalpa bignonioides*, *Padus serotina*, and *Robinia pseudoacacia*. *Parmotrema perlatum* is known as a sensitive species to air pollution (LOUWHOFF 2009, WIRTH *et al.* 2013), the recent findings (Fig. 11) might be evaluated as a recolonisation process, due to the improving air quality.



Fig. 10. *Parmotrema perlatum*, growing on *Robinia* bark (Monostori-erdő, Móricgát, Hungary).

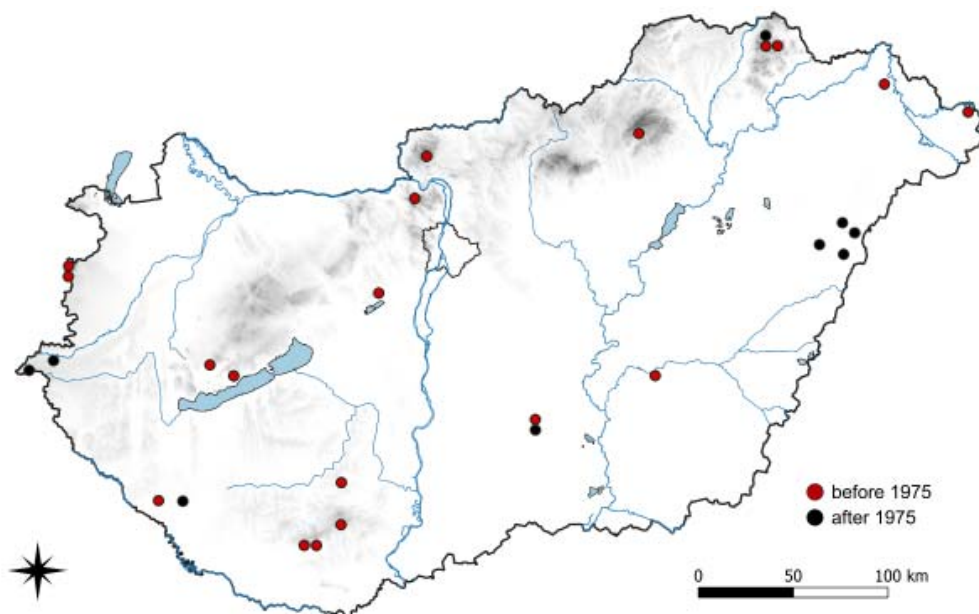


Fig. 11. Known occurrences of *Parmotrema perlatum* in Hungary.

It is proposed for 'endangered' status in the Hungarian lichen red list due to its rarity.

Laboratory investigation was supported by the project NKFI K124341.

E. Farkas, R. Aszalósné Balogh, G. Matus and L. Lőkös

(157) *Petractis clausa* (Hoffm.) Kremp. (Gyalectaceae)

Hungary, Komárom-Esztergom County, Gerecse Mts, Neszmély: Nyerges-hegy, 25/B forest lot, 47.69116° N, 18.43368° E, alt.: 277 m, CEU: [8376.2], 23.10.2021, leg.: G. Matus, det.: G. Matus, L. Lőkös [DE, BP 96782]. On southern facing rock in karstic shrub forest, in small, shaded crevice of Triassic (Dachstein) limestone.

This crustose, endolithic lichen species is characteristic on compact calcareous substrata, mainly on limestone. It has a limited number of Hungarian records, mostly from members of the Northern Hungarian Mountain range with calcareous sedimentary rocks, e.g. the Bükk Mts (HAZSLINSZKY 1884, SZATALA 1930, VERSEGHY 1994), the Aggtelek Karst (LŐKÖS 2009) and Mt Naszály (SZATALA 1925, 1930, TIMKÓ 1925, VÉZDA 1965, LŐKÖS 2010*b*) as well as single records from the Buda Mts (SZATALA 1932, VÉZDA 1965, as the closest one) and the Mecsek Mts (VERSEGHY 1994, LŐKÖS 2010*a*). Our record is new to the Gerecse Mts, as well as the second one from the Transdanubian Mountain Range and the fifth one of the species in Hungary since 1975 (Fig. 12).

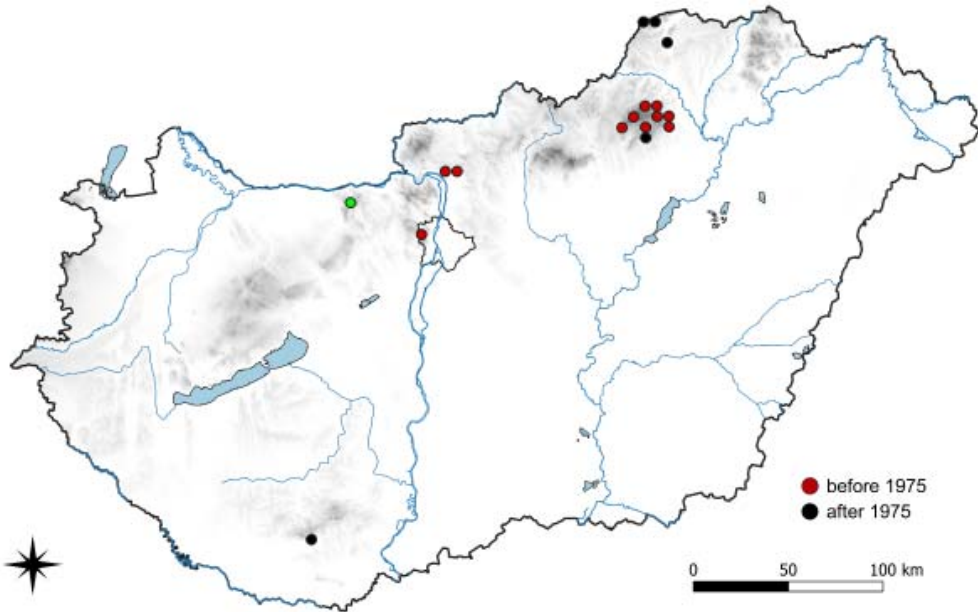


Fig. 12. Distribution of *Petractis clausa* in Hungary.

Accompanying saxicolous lichens in the Gerecse Mts include *Agonimia opuntiella* (Buschardt et Poelt) Vězda, *Anema tumidulum* Henssen, *Caloplaca cirrochroa* (Ach.) Th. Fr., *Caloplaca* cf. *variabilis* (Pers.) Müll. Arg., *Lobothallia radiosa* (Hoffm.) Hafellner, *Placynthium hungaricum* Gyeln., *Placocarpus schaeferi* (Fr.) Breuss, *Synalissa ramulosa* (Bernh.) Fr., *Thallinocarpon nigritellum* (Lettau) P. M. Jørg., *Thyrea confusa* Henssen, *Toninia cinereovirens* (Schaer.) A. Massal. and *Verruculopsis lecideoides* (A. Massal.) Gueidan et Cl. Roux var. *lecideoides*.

Most literature sources suggest that *Petractis* usually prefers less enlightened habitats (VERSEGHY 1994, WIRTH *et al.* 2013) than in the present locality, so further occurrences can be expected at more shaded rocks of the Gerecse Mts.

Our work has been supported by the National Research Development and Innovation Fund, grant number NKFI K 124341 as well as EFOP 3.4.3-16-2016-00021.

G. Matus, R. Aszalósné Balogh, Cs. Freytag and L. Lőkös

(158) *Pseudothelomma ocellatum* (Körb.) M. Prieto et Wedin (Caliciaceae, Caliciales)

Hungary, Hajdú-Bihar County, Hortobágy National Park, between Hortobágy and Nádudvar, ca 7 km N of Nádudvar, on rotten wood of a shadoof. Lat.: 47.491380° N; Long.: 21.163674° E; Alt.: 85 m a.s.l. Leg.: Lőkös, L., 04.05.2021 [BP 96776].

Pseudothelomma ocellatum is a lignicolous, wood-inhabiting lichen species, with only one former record from Hungary, from the Aggtelek National Park, near Aggtelek (NE Hungary) (Lőkös 2009). The new record is from a rather dry, exposed habitat from the lowland region of Hungary (Great Hungarian Plain).

E. Farkas and L. Lőkös

(159) *Umbilicaria polyphylla* (L.) Baumg. (Umbilicariaceae, Umbilicariales)

Hungary, Pest County, Perőcsény, Börzsöny Mts, on siliceous rocks at “Hangyás-bérc”, Lat.: 47.941869° N; Long.: 18.934067° E; Alt.: 835 m a.s.l. Leg.: Lőkös, L., Farkas, E., 06.06.2020 [BP 96783]. – Hungary, Borsod-Abaúj-Zemplén County, Füzérkajata (near Füzérradvány), on siliceous rocks of mine tailings, Hármás-bánya, 7/E forest lot, Zemplén Mts, N48.50064°, E21.53118°, alt. 363 m, CEU: [7495.3]. Leg.: Matus, G., 05.08.2020 [BP, DE] (Fig. 13).

Umbilicaria polyphylla is a very rare lichen species in Hungary, known so far only from one locality in the Mátra and another one in the Zemplén Mts. A non-typical specimen was already collected in the Börzsöny Mts (at the same locality or nearby) several years ago (in 2002), but the material was insufficient for correct identification. The new collections confirm the presence of this species in the Börzsöny Mts and add another one for Zemplén Mts, respectively.

E. Farkas, L. Lőkös and G. Matus



Fig. 13. Thalli of *Umbilicaria polyphylla* from Füzérkajata (garden photo).

Bryophytes

(160) *Brachythecium capillaceum* (F. Weber et D. Mohr) Giacom. (= *Brachythecium rotaeanum* De Not.)

Hungary, Csongrád-Csanád County, [9587.4] Hódmezővásárhely, Kása-erdő, 46.41097° N, 20.29244° E, alt: 74 m, 20.11.2021, leg.: P. Erzberger, Z. Nagy, det.: Th. Homm 11.12.2021 (B-Erzberger 27561).

Old Hungarian records of this rare species are from Börzsöny Mts and Visegrád Mts (BOROS 1968, ORBÁN and VAJDA 1983). The recent collection represents the seventh population detected in Hungary since 1999, or the fifth population if two doubtful specimens are not considered. The four certain older records are from Zemplén Mts, Bükk Mts, Zsámbéki-medence and Bakony Mts (Erzberger, unpublished). The recent record is the first in the Great Hungarian Plain.

The species is very close to *B. salebrosum* (Hoffm. ex Weber et D. Mohr) Schimp., with which it can easily be confused. The most important differentiating characters are found in the alar cell groups, which are opaque, dark in *B. capillaceum*, and in the sporophytes, with nearly erect, only weakly curved capsules, straight proximally, somewhat curved distally, on a smooth seta as in *B. salebrosum*. Sporophytes were typically developed and in good condition in our recent collection.

P. Erzberger, Z. Nagy and Th. Homm

(161) *Marchantia polymorpha* L. subsp. *montivagans* Bischl. et Boissel.-Dub.

Budapest County, Szigetsép village, in a *Sphagnetum* in Csupics island at Small Danube branch (Ráckeve-Soroksár branch) of the Danube, 47.263222° N, 18.986139° E, 110 m, 31.08.2000. leg. and B. Papp as *Marchantia polymorpha* L. rev. B. Papp in 2021 (BP 48314/H).

During a revision work on species living in bogs and in fens, it was revealed that a specimen of *Marchantia polymorpha* collected in 2000 in a fen at the Danube is proved to be the subspecies *montivagans*. This subspecies is reported here for the first time in Hungary. According to the checklists of Hungary (ERZBERGER and PAPP 2004, 2020, PAPP *et al.* 2010) only subsp. *polymorpha* and subsp. *ruderalis* Bischl. et Boisselier were known from the country. In the Bryophyte herbarium of the Hungarian Natural History Museum specimens of *M. polymorpha* subsp. *montivagans* are deposited under its synonym name, *M. alpestris*. This folder does not contain any specimens from Hungary.

The subspecies *montivagans* has usually large, light green thallus, more than 9 mm wide. The other subspecies are usually dark green. It can also be distinguished by lacking dark line in the midrib region of the thallus, while the subsp. *polymorpha* has distinct, continuous dark line and subsp. *ruderalis* has indistinct, dashed dark line and its thallus width is under 9 mm. Further differences are in

appendages of median scales of the thallus, which are sharply toothed at subsp. *montivagans*, entire at subsp. *polymorpha*. Gemmae cups, which are characteristic feature of *M. polymorpha*, are infrequent at subsp. *montivagans* (DAMSHOLT 2002, FREY *et al.* 2006). Our specimen also does not bear any gemmae cup, the thallus is light green without dark line, its width is reaching 14–15 mm (Fig. 14). The appendages of thallus scales are toothed (Figs 15–16).

Marchantia polymorpha subsp. *montivagans* has more northern distribution in Europe than the other subspecies. It is a northern sub-Atlantic, dealpine element, while the other subspecies are species of temperate zone (DÜLL 1983). It is known from all the surrounding countries, but it is red-listed as endangered (EN) in Slovenia. It grows in wet meadows, on wet rocks, in springs, along streams usually in high elevations in Central Europe, lower in Northern Europe (DAMSHOLT 2002, FREY *et al.* 2006).



Fig. 14. Herbarium specimen of *Marchantia polymorpha* L. subsp. *montivagans* from Szigetcsép.

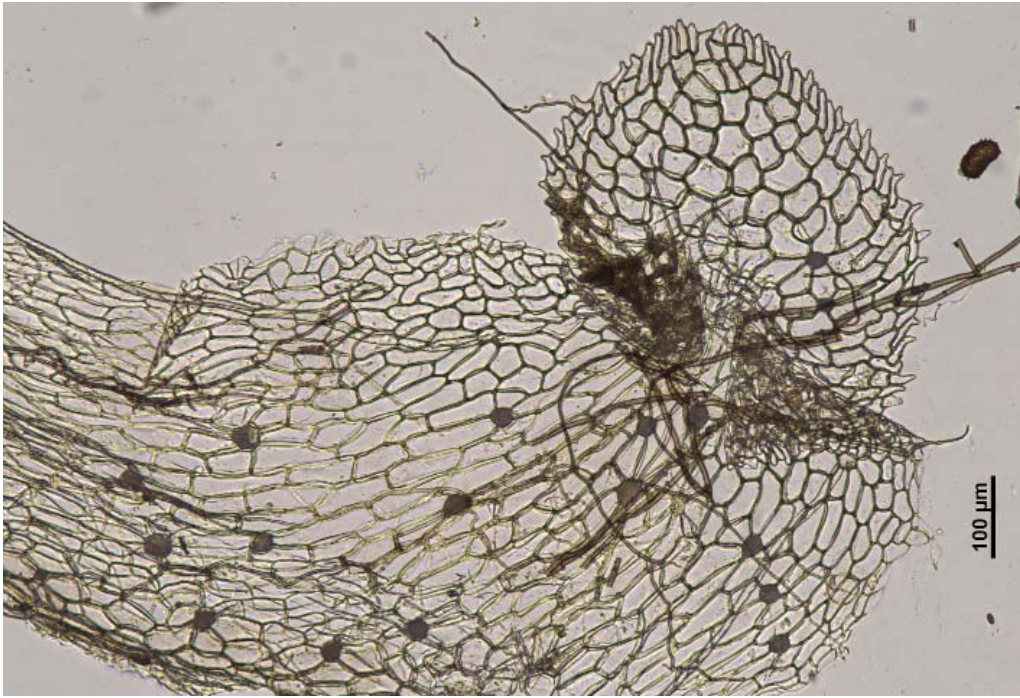


Fig. 15. Ventral scale of the thallus of *Marchantia polymorpha* L. subsp. *montivagans*.

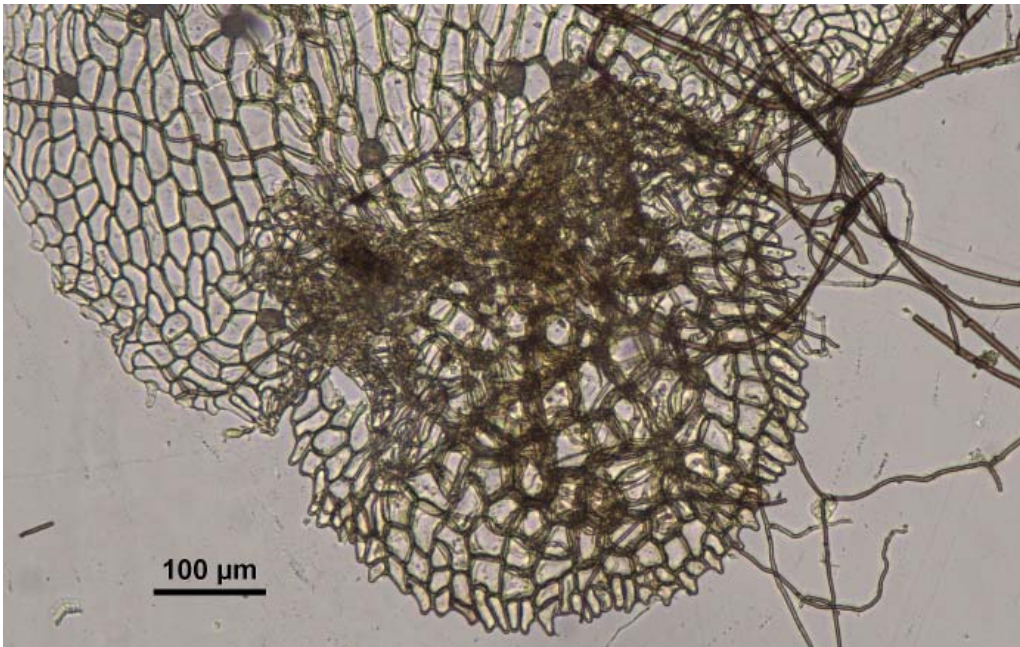


Fig. 16. Appendage of ventral scale of the thallus of *Marchantia polymorpha* L. subsp. *montivagans*.

The species was found in a very interesting, rare habitat type, in a floating mat fen, which maintains very diverse flora, among them several protected bryophytes like *Sphagnum* species (*S. fallax*, *S. fimbriatum*, *S. squarrosum*), *Calliergon giganteum*. *Marchantia polymorpha* subsp. *polymorpha* was also collected in the same habitat.

B. Papp

(162) *Pseudocampylium radicale* (P. Beauv.) Vanderp. et Hedenäs

Hungary, Borsod-Abaúj-Zemplén County, in Kismohos bog at Kelemér village, 48.337222° N, 20.425417° E, 320 m, 10.07.2020, leg. and det. B. Papp, conf. L. Hedenäs, (BP 196601).

It is a protected species in Hungary (13/2001. decree), and evaluated as endangered (EN) according to the national red list of bryophytes (PAPP *et al.* 2010). It is also red listed in many European countries, where it occurs, e.g. critically endangered (CR) in Luxemburg and in Romania, endangered (EN) in Norway, in Austria, in Serbia, vulnerable (VU) in Switzerland and in Estonia, near threat-

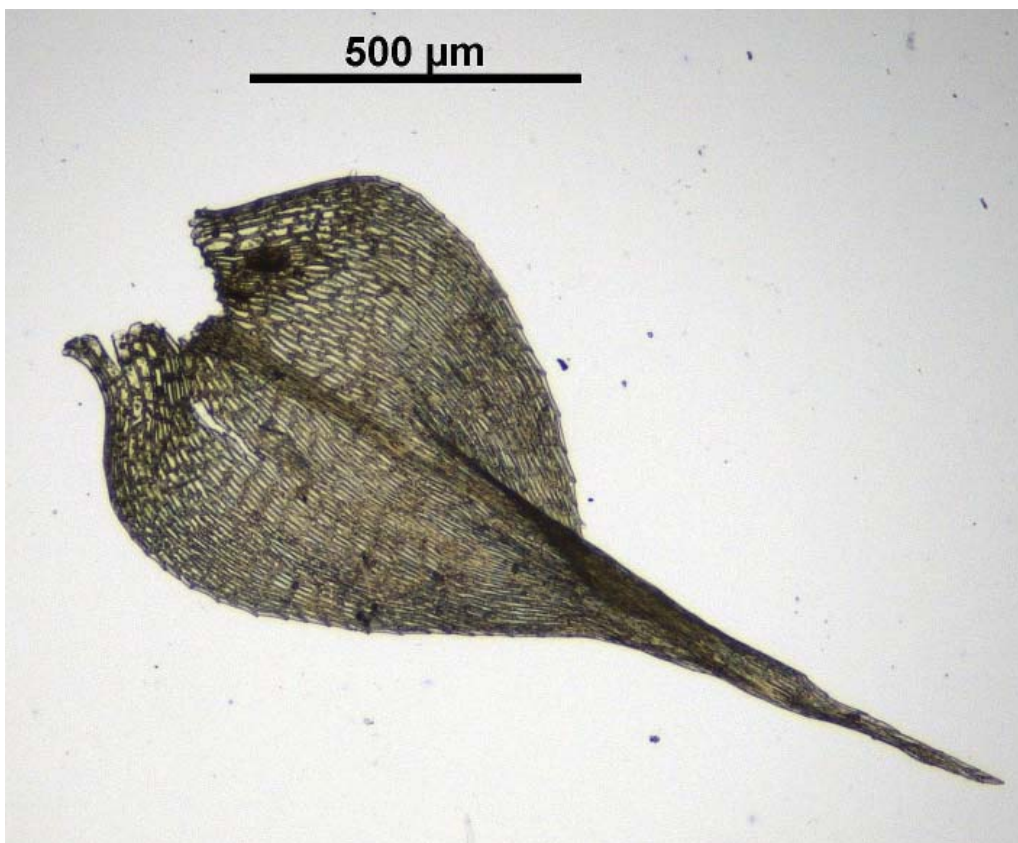


Fig. 17. Leaf of *Pseudocampylium radicale*.

ened (NT) in Finland and in Great-Britain (HODGETTS and LOCKHART 2020). It is a species of temperate zone of Europe (DÜLL 1985) living usually on decaying vegetation on marshy ground and peat cuttings and swamp forests. It tends to occur in somewhat disturbed habitat, in meso- or weakly eutrophic conditions (SMITH 2004, NEBEL and PHILIPPI 2001).

It had several synonym names in the past, e.g. *Amblystegium radicale* (P. Beauv.) Schimp., *Amblystegium saxatile* Schimp., *Campylium radicale* (P. Beauv.) Grout, reflecting its controversial morphological characters. For example, its leaves are rapidly tapering to long channelled acumen from ovate-cordate basal part, which is a feature of *Campylium* s. l. genus. It can be distinguished from species of *Amblystegium* s. l. genus by its longly decurrent leaf base and long, narrowly ellipsoid cells ($6\text{--}9 \times 32\text{--}64 \mu\text{m}$) in the middle and upper part of leaf (Fig. 17). The arrangement of the leaves on the stem is also characteristic; they are distichously spreading both in dry and in moist conditions.

A new population of this rare species was discovered in Kismohos bog. It occurs on bare soil surface and on fallen tree leaves (Fig. 18).



Fig. 18. A patch of *Pseudocampylium radicale* on fallen leaves in Kismohos bog.

The flora of Kismohos Lake is well known. Earlier Hungarian bryologists have also thoroughly investigated the bog; e. g. Ádám Boros, has visited it four times between 1924 and 1960 (BOROS 1915–1971) and published his data in several papers (BOROS 1924, 1926, 1940, 1951, 1964). A more recent, comprehensive work on the bryophyte flora of the bog was published in 2008 (SZURDOKI *et al.* 2008). These detailed bryological investigations have not mentioned this species. It seems, its appearance in Kismohos bog is a recent event.

B. Papp

(163) *Sciuro-hypnum curtum* (Lindb.) Ignatov (= *Brachythecium curtum* (Lindb.) Limpr., *B. oedipodium* auct.)

Hungary, Hajdú-Bihar County, [8596.1] Debrecen-Bánk, 700 m northwest of Mézes-hegy, old Scots pine plantation, 519/F forest lot, 47.45044° N, 21.73498° E, alt.: 113 m, 14.11.2021, leg.: P. Erzberger, G. Matus, det.: P. Erzberger, conf.: Th. Homm 11.12.2021 (B-Erzberger 27529).

The first records of this species in Hungary date from 2015 and 2017 (ECKSTEIN *et al.* 2017), from Börzsöny Mts and Zemplén Mts. More recently, *S. curtum* was also recorded near Kelemér and in Sopron Mts (Erzberger, unpublished). The collection reported here represents the fifth known population of this seemingly rare species in the country, the first from Nyírség and from the lowlands in general. It has probably been overlooked for the common *B. rutabulum*, with which it shares some features, e.g. indistinctly delimited alar cell groups and a rough seta. In the field, some pointers for *S. curtum* are smaller size than *B. rutabulum*, often arcuate stems that become flagelliform towards their tips and are often attached to the substrate by rhizoids, and branches with \pm complanate foliage. Another useful field character is the curved capsule, horizontal to almost drooping. At closer inspection, *S. curtum* differs from *B. rutabulum* by very broad stem leaves that are \pm plane or only slightly concave, \pm distantly arranged along the stem, branch leaves with strongly serrate margins, in particular towards the apex, and the costa sometimes ending in a prominent dorsal spine. There is a characteristic difference in the papillosity of the seta, coarsely mamillate in *B. rutabulum* and covered in smaller, finer mamillae in *S. curtum*.

S. curtum typically occurs in acidophilous forests, often in pine or spruce plantations.

P. Erzberger, G. Matus, Th. Homm

Összefoglaló: Regionális adatokat közlő rovatunk jelen részében 11 kriptogám faj, azaz 1 kovaalga-, 6 zuzmó- és 4 mohafaj új előfordulásairól számolunk be. A *Stauroneis blazenciciae* kovaalgának ez az első adata Romániából, és egyben a faj második adata. A hat zuzmófaj esetében az ismert elterjedéseket kiegészítő új zuzmóadatokat közlünk Magyarországon, Románia és Ukrajna te-

rületéről: a *Calicium notarissii* és a *Pseudothelomma ocellatum* újak az Alföldre, a *Cetrelia chicitae* a Velencei-hegységre (és egyben a Dunántúlra is), a *Petractis clausa* a Gerecsére, az *Umbilicaria polyphylla* pedig a Börzsönyre. A *Parmotrema perlatum* új adatai megerősítik a faj aktuális hazai jelenlétét. A mohák közül a *Marchantia polymorpha* L. subsp. *montivagans* májmohának ez az első igazolt előfordulása Magyarországon, a *Sciuro-hypnum curtum* új a Nyírség, a *Brachythecium capillaceum* pedig új az Alföld területére. A *Pseudocampylium radicale* megjelenése a Kismohos láp-jában szintén újdonság, megtelepedése nagy valószínűséggel nemrégiben történhetett.

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