

Original Scientific Paper

New records and noteworthy data of plants, algae and fungi in Central Europe and adjacent regions, 1

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ABSTRACT:

This paper presents new records and noteworthy data on the following taxa in Central Europe and adjacent regions: diatom *Gomphonema latilanceolatum*, saprotrophic fungus *Hapalopilus croceus*, mosses *Campylostelium saxicola*, *Crossidium squamiferum*, *Cryphaea heteromalla*, *Physcomitrium arenicola*, *Sematophyllum substrumulosum*, and *Thamnobryum neckeroides*, monocots *Dactylorhiza fuchsii* subsp. *fuchsii* and *D. fuchsii* subsp. *sooana*, and dicots *Cyclamen purpurascens* subsp. *immaculatum* and *Polygonum graminifolium*.

Keywords: new report, *Campylostelium saxicola*, *Crossidium squamiferum*, *Cryphaea heteromalla*, *Cyclamen purpurascens* subsp. *immaculatum*, *Dactylorhiza fuchsii* subsp. *fuchsii*, *Dactylorhiza fuchsii* subsp. *sooana*, *Gomphonema latilanceolatum*, *Hapalopilus croceus*, *Physcomitrium arenicola*, *Polygonum graminifolium*, *Sematophyllum substrumulosum*, *Thamnobryum neckeroides*, Central Europe

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***Campylostelium saxicola* Bruch & Schimp., fam. Ptychomitriaceae (moss, bryophyte)**

Contributors: Pavel ŠIRKA and Svatava KUBEŠOVÁ

Geographical focus: Slovakia

New record and noteworthy data: Critically Endangered (CR) species in Slovakia, Vulnerable (VU) in Europe

Specimen data: Čergov Mts., Bardejov District, Livovská Huta, the Čergovský Minčol National Nature Reserve, on coarse-psammitic flysch bedrock of the Outer Carpathians – on shaded sandstone with claystone intercalations near a periodic stream in an old-growth *Fagus sylvatica*-*Abies alba* forest, N 49.2321147°, E 21.0075494°, 950 m a.s.l., 11 October 2023; leg. Širka P., det. S. Kubešová, Širka P.

Voucher: Herbarium of the Technical University in Zvolen (ZV), s.n.

This suboceanic temperate species has a scattered distribution in the mountains of Western and Central Europe and grows on moist, shady silicate rocks and slates (FREY *et al.* 2006; HODGETTS *et al.* 2019a). According to HODGETTS *et al.* (2019b), it is assessed as Vulnerable (VU) in Europe. There are only two recent records from Slovakia, one from the Bukovské vrchy Mts. (ŠOLTÉS & BURAE 2012) and one from the Poľana Mts. (ŠIRKA *et al.* 2020). Older data are from Babia hora and Stará hora near Námestovo (SOLDÁN 1991). In the Czech Republic, it is relatively common in the Carpathian region (PLÁŠEK *et al.* 2005), therefore it probably occurs more frequently in Slovakia than previously known and further investigation is expected to bring new records in Slovakia. The moss population was fertile.

***Crossidium squamiferum* (Viv.) Jur., fam. Pottiaceae (moss, bryophytes)**

Contributors: Marko S. SABOVljević

Geographical focus: Czechia

New record and noteworthy data: A new record of a critically endangered (CR) species in Czechia

Specimen data: Děvín-Kotel-Soutěska hill near the village of Klentnice by Mikulov na Moravě, Břeclav region, South Moravia; an exposed rocky grassland area, in a fissure of limestone rocks, N 48.837204°, E 16.637329°, 23 March 2025; leg./det. Sabovljević M.

Voucher: Belgrade University Herbarium – Bryophyte Collection, BEOU Bryo 10421

Crossidium squamiferum inhabits very warm areas in Europe, as well as dry regions and southern slopes with a high level of insolation. Thus, in the Mediterranean area, it is not uncommon. It grows on basic rocks and sandy soils, but mainly on limestone and walls. It is a colonist. *Crossidium squamiferum* is rare locally, but its populations seem to be stable on a European scale. However, it is extinct in Belgium and threatened in Czechia, Austria, Romania, Germany and Switzerland (CAMPISI & COGONI 2019). In Czechia it is considered Critically Endangered (KUČERA & VAŇA 2003). Climate change is likely to shift this species' distribution area further north, making its distribution dynamics interesting to study. So far these are the edge populations of this species in the northern part of its European distribution range.

***Cryphaea heteromalla* (Hedw.) D. Mohr, fam. Cryphaeaceae (moss, bryophyte)**

Contributors: János CSIKY and Attila SIPOS

Geographical focus: Hungary

New record and noteworthy data: The second occurrence of the species in Hungary

Specimen data: Mecsek Mts., Baranya County, Pécs: Stiglic-fogdosó, the West-Mecsek Landscape Protection Area, on a karst limestone plateau, at the edge of a clearing in a medium-aged semi-natural broad-leaved xero-mesophytic forest with the significant presence of cultivated *Pinus nigra* trees, on *Fraxinus ornus* bark, N 46.119051°, E 18.202856°, 515 m a.s.l., 7 April 2025; leg./det.: Csiky J., Sipos A.; conf.: Baráth K., Deme J., Erzberger P. (4 June 2025)

Voucher: Herbarium of the University of Pécs (JPU).

This Submediterranean-Subatlantic species is widespread in Western Europe, but becomes scarce or rare in the eastern part of the continent (HODGETTS & LOCKHART 2020). It seems to have been spreading eastward recently (HILL & PRESTON 2014; ZECHMEISTER *et al.* 2020; ELLIS *et al.* 2025). The first Hungarian occurrence of the species was found on a sandstone plateau, at the edge of a small clearing in a disturbed mesophytic forest, on *Acer campestre* (ELLIS *et al.* 2024). The stronger new colony with capsules grows 4.7 km to the northwest, on the edge of a small, six-year-old clearing, which was created by the removal of the pine trees from a limestone plateau in an ash-dominated xero-mesophytic forest mixed with *Pinus nigra*. The epiphytic moss was found on an older *Fraxinus ornus* tree (with a diameter of 16 cm at chest height), covering an area of 8 × 5 cm at a height of 120 cm. These two findings suggest that this species tolerates life on the edges of small clearings on plateaus and draw attention to the role of small canopy gaps in the spread of mosses in the sub-Mediterranean climate. Given that such ecological conditions are quite common in the Mecsek, the species is likely to colonise other similar habitats in the future.

***Cyclamen purpurascens* L. subsp. *immaculatum* (Hrabětová) Halda et Soják, fam. Primulaceae (dicot, vascular plant)**

Contributors: Kristína PULIŠOVÁ and Peter TURIS

Geographical focus: Slovakia

New record and noteworthy data: Near Threatened (NT) in Slovakia, endemic of the Western Carpathians.

Specimen data: Zvolen Basin, Banská Bystrica District, Banská Bystrica, near the Stará kopa Nature Reserve, in a beech (*Fagus sylvatica* L.) - dominated forest with a mixture of Downy oak (*Quercus pubescens* Willd.), N 48.7286853°, E 19.1800517°, 420 m a.s.l., 9 March 2025; leg. Pulišová K, det. Pulišová K, Suja J, Širka P, Turis P.

Voucher: photo archive of K. Pulišová.

Formerly known as *Cyclamen fatrense* Halda et Soják, this taxon is now treated as *C. purpurascens* subsp. *immaculatum* and is considered a strict Western Carpathians subspecies, originally occurring only in a few localities in the Veľká Fatra Mts, and the Starohorské vrchy Mts. (KUČERA *et al.* 2013). Native populations grow primarily in the limestone beech forests and glades of the submontane and montane belt within the associations *Carici albae-Fagetum* Moor 1952 and *Epilobio-Atropetum bella-donnae* R. Tx. 1931 em. 1950 (KANAKA *et al.* 2008). Populations found outside this native range, including those documented by us, are most likely introduced. This is the second known record from the Zvolen Basin, with another population previously documented near Urpín Hill (KUČERA *et al.* 2013).

***Dactylorhiza fuchsii* (Druce) Soó subsp. *fuchsii* and *Dactylorhiza fuchsii* (Druce) Soó subsp. *sooana* (Borsos) Borsos, fam. Orchidaceae (monocot, vascular plant)**

Contributors: Pavel ŠIRKA and Jaroslav VLČKO

Geographical focus: Slovakia

Dactylorhiza fuchsii* (Druce) Soó subsp. *fuchsii

New record and noteworthy data: Near Threatened (NT) in Slovakia, protected by law.

Specimen data: Čergov Mts., Sabinov District, Kamenica, near Lipiansky potok stream, in the Posledná skládka 'timber yard' on gravelly soil on the forest edge, N 49.2208333°, E 20.9777778°, 775 m a.s.l., 25 June 2025; leg. Širka P., det. Vlčko J.

Voucher: photo archive of Širka P.

***Dactylorhiza fuchsii* (Druce) Soó subsp. *sooiana* (Borsos) Borsos**

New record and noteworthy data: Near Threatened (NT) in Slovakia, protected by law

Specimen data: Čergov Mts., Sabinov District, Kamenica, on a green hiking trail, on an unpaved forest road in a beech-fir stand, N 49.2205556°, E 20.9794444°, 800 m a.s.l., 26 June 2025; Širka P., det. Vlčko J.

Voucher: photo archive of Širka P.

In Slovakia, *Dactylorhiza fuchsii* subsp. *fuchsii* grows in open forests and meadows, mostly in the hilly and mountainous zones, especially in higher mountain ranges – sometimes even above the upper tree line (VLČKO *et al.* 2003). It occurs throughout almost all of Europe (BAUMANN *et al.* 2009; RANKOU 2011). In the Čergov Mts., it is reported as a relatively widespread species, especially along forest roads (<http://www.cergov.sk/article.php?id=87>).

Dactylorhiza fuchsii subsp. *sooiana* grows in open forests, forest edges, and meadows, mostly in the low hill and upland zones. It has a Central European distribution range (BAUMANN *et al.* 2009). It grows in Romania (Transylvania) (DE AGELLI & ANGHELESCU 2020), Hungary, western Ukraine (<https://www.inaturalist.org/observations/222027981>), Slovakia, the Czech Republic (Moravia), and probably also in southern Poland. In Slovakia, it occurs from the White Carpathians, the Strážovské vrchy Mts., and the Slovak Central Uplands, through the Greater and Lesser Fatra, to the Slanské vrchy Mts., Vihorlat, and Poloniny (VLČKO *et al.* 2003). In the Čergov Mts., it is reported as extremely rare (<http://www.cergov.sk/article.php?id=87>). In areas where these taxa come into contact, hybridisation occurs, resulting in the formation of hybrid swarms.

Both subspecies are considered as Near Threatened (NT) in Slovakia (ELIÁŠ *et al.* 2015) and are protected by law (MINISTRY OF THE ENVIRONMENT OF THE SLOVAK REPUBLIC 2021).

***Gomphonema latilanceolatum* Levkov, Mitic-Kopanja & E. Reichardt (as *G. latilanceolatum*) fam. Gomphonemataceae, class. Bacillariophyceae (diatom, algae)**

Contributor: Krisztina BUCZKÓ and Luca Viktória KARDOS

Geographical focus: Hungary

New record and noteworthy data: A new record for Hungary

Specimen data: Nógrád County, Pásztó, N 47.9260541° E 19.7645924° in the Hasznos Reservoir, 280 m a.s.l., 30. May 2024. leg. Andrea Akác, det. Krisztina Buczkó.

Voucher: The Hungarian National Museum Public Collection Centre, Budapest, Hungarian Natural History Museum, Department of Botany, Collection of Algae (HNHM-ALG-D-2025/1504).

Gomphonema latilanceolatum was found during biomonitoring by the Pest County Government Office, labelled as No 518 and deposited in the Hungarian National Museum Public Collection Centre, Budapest – Hungarian Natural History Museum, Collection of Algae under accession number HNHM-ALG-D-2025/1504. The valves of *Gomphonema latilanceolatum* are

heteropolar, broadly lanceolate, with the largest valve width near the mid-valve. The headpole is rounded, and the footpole acutely rounded. The valve length is 30–58 µm (21–77 µm in the original description), and the width at mid-valve 8.6–9.5 µm (9–13.5 µm in the original description). The axial area is narrow and linear. The central area is small, transversely elongated, wider on the side opposite the isolated pore, and bordered by a single shortened stria. The raphe is lateral, while the striae are slightly radiate in the mid-valve (8.5–9 in 10 µm), becoming denser and more radiate towards the footpore and headpore (9–10 in 10 µm). The areolae are well distinguishable in LM (20–25 in 10 µm).

According to MERTENS *et al.* (2025), *G. latilanceolatum* is a fresh-brackish, eutraphent diatom, known from alpha-mesosaprobe to polysaprobe waters. The Hasznos Reservoir was created between 1973 and 1986 by damming the Kövecses stream. The area of the lake is 23 hectares, which makes it suitable for storing about 2 million cubic meters of water. Its average depth is 17 meters. *Asterionella formosa* Hassall, *Navicula cryptotenella* Lange-Bertalot, *N. antonii* Lange-Bertalot, *Planothidium frequentissimum* (Lange-Bertalot) Lange-Bertalot, *Diploneis occulata* (Brébisson) Cleve, and *Sellahora nigrii* (De Not.) C.E. Wetzel et Ector were the dominant taxa in the sample. *Gomphonema latilanceolatum* is known only from the type locality in North Macedonia (LEVKOV *et al.* 2016), from Australia (JOHN 2020) and from the Netherlands (GUIRY 2020; MERTENS *et al.* 2025). The record presented here is the fourth recorded occurrence of the taxon, and the third one in Europe.

***Hapalopilus croceus* (Pers.) Donk, fam. Phanerochaetaceae (fungus, wood saprotrophic)**

Contributor: Vladimír KUNCA

Geographical focus: Slovakia

New record and noteworthy data: Rediscovered after 32 years in Slovakia, a vulnerable (VU) species in Europe

Specimen data: Beskid Foothills, Vranov and Topľou District, Tovarné, the old manor-house park, N48.91275° E21.76434°, 160 m a.s.l., on a thick fallen oak trunk, 8 October 2022; leg./det. Kunca V.

Vouchers: Private legator collections (PVKU 3779).

This fungus, with its large, easily recognisable, bright orange-red fruiting bodies, is tied to a very specific substrate which is completely disappearing from the Slovak landscape. In Central European conditions, it mainly occurs on pedunculate oak (*Quercus robur* L.) in lowlands and uplands. On the IUCN Red List of Threatened Species, it is evaluated as VU (vulnerable) in Europe (DAHLBERG 2019) and is considered a flagship species of global fungal conservation (KOSZKA & PAPP 2020). Despite its widespread distribution and easily recognisable basidiome, *H. croceus* is considered a rare species everywhere (KOSZKA & PAPP 2020). In Slovakia, four locations are known, three of which are historical, dating back to before 2000. The most recent location is a historic park where the basidiome was found inside a large fallen oak tree. The species can only survive if especially old oak trees are left to die and their trunks are allowed to decay slowly. Particular attention should also be paid to the disappearance of so-called pasture forests and the preservation of their native old trees.

***Physcomitrium arenicola* Laz., fam. Funariaceae (moss, bryophyte)**

Contributor: Beáta PAPP

Geographical focus: Austria

New record and noteworthy data: A new record for the bryophyte flora of Austria, an endangered (EN) species in Europe.

Specimen data: Kl. ung. Tiefebene: Kleefeld bei den Krainer (o. Tieglert?) Lacken nächst Apetlon im Seewinkel. 8 June 1927; leg. Baumgartner, J., det. Boros, Á. Separated from an *Entosthodon hungaricus* (Boros) Loeske specimen (BP 114433) in March 2025 by Papp, B.

Voucher: Hungarian National Museum Public Collection Centre, Budapest, Hungarian Natural History Museum, Department of Botany, Bryophyte Collection (BP 198727).

Contributors: Beáta PAPP and Peter ERZBERGER

Geographical focus: Hungary

New record and noteworthy data: New records for the bryophyte flora of Hungary, an endangered (EN) species in Europe.

Specimen data: Hajdú-Bihar County, Hajdúszoboszló, in a pasture, N 47.44175°, E 21.368389°, 85 m a.s.l., 15 April 2022; leg./det. Papp B. Separated from an *Entosthodon hungaricus* (Boros) Loeske specimen (BP 197845) in February 2025 by Papp B.

Voucher: Hungarian National Museum Public Collection Centre, Budapest, Hungarian Natural History Museum, Department of Botany, Bryophyte Collection (BP 198704).

Specimen data: Nógrád County, Medves, Zagyvaróna, roadside in the village, N 48.118139°, E 19.865111°, ca 316 m a.s.l., 15 Apr 2016, leg. Erzberger P, Csiky J, Deme J, Kovács D, det. Erzberger P, rev. Erzberger P in February 2025.

Voucher: Herbarium Berlin-Dahlem B-Erzberger 21389.

Contributors: Pavel DŘEVOJAN and Pavel ŠIRKA

Geographical focus: Slovakia

New record and noteworthy data: New records for the bryophyte flora of Slovakia, an endangered (EN) species in Europe.

Specimen data: 1) The Danubian Hills, Nové Zámky District, Kamenín, a depression with sparse vegetation in the northern part of the Kamenínske slanská Protected Area 1.4 km SE from the church, N 47.8758889°, E 18.6428056°, 115 m a.s.l., 25 April 2023; leg. Dřevojan P, Širka P, det. Hradílek Z in November 2023; 2) The Danubian Hills, Nové Zámky District, Kamenný Most, a small southern part of the Kamenínske slanská Protected Area between the railroad and road 76, on an anthill in a grassland with a large amount of dead biomass, N 47.8614036°, E 18.6383136°, 111 m a.s.l., 29 March 2024; leg. Širka P, Kubešová S, det. Širka P.

Voucher: Herbarium of the Department of Botany and Zoology, Masaryk University, Brno (BRNU-bryo 695980); Herbarium of the Technical University in Zvolen (ZV), s.n.

Physcomitrium arenicola was described by LAZARENKO (1928) from the sandy and saline areas of Ukraine. It was considered endemic to southeastern Europe, known only from Ukraine, the European parts of Russia, and the Caucasus (BAISHEVA *et al.* 2019) and it has been assessed as endangered (EN) at the entire European level (HODGETTS *et al.* 2019b).

During field surveys in saline grasslands in Slovakia, specimens of *P. arenicola* were discovered. This unexpected finding prompted a revision of the herbarium material deposited at the Hungarian Natural History Museum (BP) and in Berlin-Dahlem (B) previously identified as *Entosthodon hungaricus* from similar habitats in Hungary and Austria. In some cases, the entire specimen was re-identified as *P. arenicola*, while in others, only a few patches of *P. arenicola* were separated from a larger *E. hungaricus* collection. These two species are morphologically very similar and can co-occur at the same localities, which has contributed to past misidentifications. Based on IGNATOV & IGNATOVA (2003) and measurements by the authors B. Papp, P. Širka, as well

as *Z. Hradílek* of material belonging to both species, several key morphological differences can be used to distinguish them:

- Exothecial cells: In *P. arenicola*, the exothecial cells of the capsule are quadrate to short rectangular, measuring $34\text{--}65 \times 19\text{--}26\ \mu\text{m}$, with non- or slightly thickened walls. In contrast, *E. hungaricus* has rectangular exothecial cells measuring $65\text{--}75 \times 12\text{--}18\ \mu\text{m}$, with strongly thickened walls.
- Spores: The spores of *P. arenicola* are reniform and coarsely verrucose, measuring $(34)38\text{--}42(45)\ \mu\text{m}$. Those of *E. hungaricus*, on the other hand, are spherical, slightly papillose, and smaller – measuring $(25)26\text{--}30.4(32)\ \mu\text{m}$.

The Austrian, Hungarian, and Slovak records significantly extend its distribution range westward. Although *P. arenicola* has been overlooked until now and was only recently reported in some SE countries (SABOVLEVIĆ *et al.* 2025), it likely shares a similar distribution in the Pannonian region to *E. hungaricus*. However, further occurrence data are needed to clarify its precise range.

***Polygonum graminifolium* Heuff. (dicot, vascular plant)**

Contributor: Richard HRIVNÁK

Geographical focus: Hungary

New record and noteworthy data: Additional data for a species with unclear distribution from the Danube valley, a threatened species in Hungary.

Specimen data: 1) Northern Hungary, Verőce, the exposed left bank of the Danube River, N 47.822208°, E 19.026888°, 104 m a. s. l., 2 June 2025; leg/det. Hrivnák R; 2) Northern Hungary, Zebegény, the exposed left bank of the Danube River, N 47.806422°, E 18.902107°, 104 m a. s. l., 2 June 2025; leg/det. Hrivnák R.

Vouchers: Herbarium of the Institute of Botany, Slovak Academy of Sciences (SAV).

This is an endangered species in Hungary (KIRÁLY 2007) with a historical and relatively rare distribution in Central and Southern Europe (Slovakia, Hungary, Serbia and Romania; AKBROYD 1993). Despite not being recorded in the area for a long time, several localities for the species in the Danube River valley in Hungary and Slovakia are known (cf. BARTHA *et al.* 2021+; HAVRÁNEK *et al.* 2023; RIEZING 2023). The closest recent locality to the new ones is on the right bank of the Danube River in Kisoroszi (MOLNÁR *et al.* 2019).

The new findings add new significant populations to the recently known distribution of this rare species in Hungary.

***Sematophyllum substrumulosum* (Hampe) E. Britton, fam. Sematophyllaceae (moss, bryophyte)**

Contributor: Beáta PAPP and Péter ÓDOR

Geographical focus: Slovakia

New record and noteworthy data: A new record for the bryophyte flora of Slovakia

Specimen data: Klenovský Vepor, Klenovec village, Veporské Vrchy, in a beech-fir forest, on decaying wood, N 48.6919°, E 19.775°, 1030 m a.s.l., 30 Sept 2011, Coll. No.: 20110930-18, under the name *Calliergonella lindbergii* (Mitt.) Hedenäs, leg./det. Ódor P, rev. Papp B in Feb 2025.

Voucher: Hungarian National Museum Public Collection Centre, Budapest, Hungarian Natural History Museum, Department of Botany, Bryophyte Collection (BP 198713).

The specimen was a gift from Péter Ódor. Before placing the specimen in the herbarium of HNHM it was checked, and identified as a subatlantic-Mediterranean species (DÜLL 1985), which is its first record from Central Eu-

rope. *Sematophyllum subtrumulosum* is known from Great Britain, Ireland, the Azores, the Balearic Islands, the Canary Islands, France, Italy, Portugal, Spain, Belgium, the Netherlands, Albania, Croatia, Greece, and Montenegro (HODGETTS & LOCKHART 2020). In Great Britain and in Ireland a rapid expansion of its range towards the north, northeast was observed (BOSANQUET 2013). SÉRGIO *et al.* (2011) considered this species an indicator of climate change and predicted an Oceanic expansion by 2050 by modelling its distribution changes. However, this record from Slovakia far from the seacoast and at a relatively high altitude does not fit with this prediction, and nor does Hugonnot's data from the mountainous area of inland France reported in ELLIS *et al.* (2018).

Its preferred substrates are conifer bark or conifer logs (BOSANQUET 2013). It is easily overlooked as it resembles *Hypnum* or *Pylaisia* species, which often occur in the same habitat. Microscopically it can be clearly distinguished by the inflated, hyaline alar cells of the leaves.

The locality, the Klenovský Vepor National Nature Reserve, situated in the Veporské vrchy Mts. in Central Slovakia, represents a valuable preserved fragment of an original primeval fir-beech forest within the Western Carpathians. Subatlantic species are not uncommon in this forest as evidenced by the occurrence of *Antitrichia curtispindula* (Hedw.) Brid. or the subatlantic-temperate epiphytic species, *Neckera pumila* Hedw., a rare, red listed species for Slovakia (MIŠÍKOVÁ *et al.* 2020).

***Thamnobryum neckeroides* (Hook.) E. Lawton, fam. Neckeraceae (moss, bryophyte)**

Contributors: János CSIKY and Kornél BARÁTH

Geographical focus: Hungary

New record and noteworthy data: The rediscovery of an old occurrence and the detection of new populations in Hungary

Specimen data: Börzsöny Mts., Pest County, Kemence - Királyháza: at the lower part of the Rakottyás-patak valley, downstream from the Tűzköves spring, on a rocky bank on the left, above the riverbed (1 individual equivalent), N 47.987826°, E 18.965629°, 381 m a.s.l.; Nógrád County, Diósjenő: along the upper part of the Rózsás-patak valley on andesite boulders (1 individual equivalent), N 47.95381°, E 18.94613°, 822 m a.s.l., and on rocky banks on the right (4 individual equivalents) N 47.95615°, E 18.95186°, 729 m a.s.l., 23 October 2024; leg. Csiky J, Erzberger P., Baráth K., Németh Cs., det.: Csiky J.; Pest County, Kemence - Királyháza: along the Bacsina valley, close to the riverbed, on rocky banks (usually on the right) and on andesite boulders in the riverbed (7 individual equivalents), N 47.979805°, E 18.950924°, 454 m a.s.l., N 47.973952°, E 18.945371°, 510 m a.s.l., N 47.970498°, E 18.941709°, 570 m a.s.l., N 47.969946°, E 18.941565°, 575 m a.s.l., N 47.968789°, E 18.94022°, 593 m a.s.l., N 47.96812°, E 18.940936°, 600 m a.s.l., N 47.967952°, E 18.94058°, 604 m a.s.l., 28 June 2025; leg. Csiky J, Erzberger P., Németh Cs., det.: Csiky J.

Voucher: Herbarium of the University of Pécs (JPU).

Prior to MASTRACCI (2003), *Thamnobryum neckeroides* was considered to be a species endemic to North America. According to current assessments, it is characteristic of the temperate zone of the Northern Hemisphere, and can be found in the fresh, humid forests of the (sub)montane region (SCHRÖCK *et al.* 2019). It has a highly dispersed range, and is classified as rare and vulnerable (VU) in Europe. In Hungary, there was previously only one archive record from the Börzsöny Mts., which Mastracci revised but did not publish in his paper (cf. ELLIS *et al.* 2022). Despite subsequent searches, it was not found at this site later. In the meantime, a small population of the species was also discovered in the Mecsek Mts. (ELLIS *et al.* 2022), but it remained unrecorded in

the Börzsöny. Over the past year, as a result of targeted searches, a total of 13 individual equivalents of *T. neckeroides* have been found in three north-facing valleys in the central, montane region of Börzsöny, on andesite bedrock, close to the riverbed of forest streams, at an altitude of between 380 m and 825 m a.s.l., close to its previous site. The species was not included in the latest Hungarian Red List (PAPP *et al.* 2010). Based on the known, vigorous colonies and the similar ecological conditions of the neighbouring valleys, we assume that further populations of this rare species may be found in the Börzsöny Mts. Therefore, further research is needed to accurately determine its current Hungarian threat status. It should be noted that several new populations of this species have recently been discovered in Poland (STEBEL & KAPUSTYŃSKI 2024), so it is possible that this species is more widespread in Europe than previously thought (cf. SCHRÖCK *et al.* 2019).

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REZIME

Novi i značajni podaci o biljkama, algama i gljivama iz Centralne Evrope i susednih regiona, 1

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U radu su dati novi i značajni podaci sa područja Centralne Evrope i susednih regiona za sledeće taksone: silikatnu algu *Gomphonema latilanceolatum*, saprotrofnu gljivu *Hapalopilus croceus*, mahovine *Campylostelium saxicola*, *Crossidium squamiferum*, *Cryphaea heteromalla*, *Physcomitrium arenicola*, *Sematophyllum substrumulosum* i *Thamnobryum neckeroides*, monokotile *Dactylorhiza fuchsii* subsp. *fuchsii* i *D. fuchsii* subsp. *sooana*, i dikotile *Cyclamen purpurascens* subsp. *immaculatum* i *Polygonum graminifolium*.

Ključne reči: novi nalaz, *Campylostelium saxicola*, *Crossidium squamiferum*, *Cryphaea heteromalla*, *Cyclamen purpurascens* subsp. *immaculatum*, *Dactylorhiza fuchsii* subsp. *fuchsii*, *Dactylorhiza fuchsii* subsp. *sooana*, *Gomphonema latilanceolatum*, *Hapalopilus croceus*, *Physcomitrium arenicola*, *Polygonum graminifolium*, *Sematophyllum substrumulosum*, *Thamnobryum neckeroides*, Centralna Evropa