Thaiszia - J. Bot., Košice, 34: 139-158, 2024
https://doi.org/10.33542/TJB2024-2-04

THAISZIA
JOURNAL OF BOTANY

New floristic records from Central Europe 14 (reports 198-221)

Matej Dudáš[1] (ed.), Mariana Eliášová[2], Pavol Eliáš Jr.[3], Lyubov Felbaba-Klushyna[4], Gusztáv Jakab[5], Gergely Király[6], Vlastimil Mikoláš[7], Artur Pliszko[8], Jozef Suja[9], Attila Takács[10], Monika Tóthová[11], Peter Tóth[12], Ingrid Turisová[13] & Peter Turis[13]

[1] Department of Plant biology, Institute of Biology & Ecology, Faculty of Science, Pavol Jozef Šafárik University, Mánesova 23, SK-040 01 Košice, Slovakia, matej.dudas@upjs.sk, dudas.mato@gmail.com
[2] Administration of Ponitrie Protected Landscape Area, Samova 3, SK-949 01 Nitra, Slovakia, mariana.eliasova@sopsr.sk
[3] Institute of Plant and Environmental Sciences, Slovak University of Agriculture, A. Hlinku 2, SK-94976 Nitra, Slovakia, pavol.elias.jun@gmail.com
[4] Department of Botany, Uzhhorod National University, Voloshyna Street 32, 88000, Uzhhorod, Ukraine, lyubov.felbaba-klushyna@uzhnu.edu.ua
[5] Department of Environmental and Landscape Geography, Eötvös Loránd University, Egyetem tér 1–3., H-1053 Budapest, Hungary, jakab.gusztav@ttk.elte.hu
[6] University of Sopron, Faculty of Forestry, Bajcsy-Zs. u. 4., H-9400 Sopron, Hungary; kiraly.gergely@uni-sopron.hu
[7] Hanojská 4, SK-040 13 Košice, Slovakia
[8] Institute of Botany, Faculty of Biology, Jagiellonian University, Gronostajowa 3, 30-387 Kraków, Poland, artur.pliszko@uj.edu.pl
[9] Mládežnícka 25, 974 04 Banská Bystrica, jsuja86@gmail.com
[10] Department of Botany, University of Debrecen, Egyetem tér 1., H-4032 Debrecen, Hungary, attila.takacs@science.unideb.hu
[11] Institute of Agronomical Sciences, Slovak University of Agriculture, A. Hlinku 2, SK-94976 Nitra, Slovakia, monika.tothova@uniag.sk
[12] bioTomal, s.r.o., Rúbaň 176, SK-94136 Rúbaň, Slovakia, petery@nextra.sk
[13] Department of Biology and Environmental Studies, Matej Bel University in Banská Bystrica, Tajovského 40, SK-97401 Banská Bystrica, Slovakia, ingrid.turisova@umb.sk, peter.turis@umb.sk

Dudáš M. (ed.), Eliášová M., Eliáš P. Jr., Felbaba-Klushyna L., Jakab G., Király G., Mikoláš V., Pliszko A., Suja J., Takács A., Tóthová M., Tóth P., Turisová I. & Turis P. (2024): New floristic records from Central Europe 14 (reports 198-221). – Thaiszia – J. Bot. 34: 139-158.

Abstract: The presented 14th part of the series includes 24 new records of vascular plants from the territory of Central Europe. A first record of *Barbarea stricta* in northern Croatia, as well as single records of *Lindernia procumbens* in Transcarpathian Ukraine and *Limonium hungaricum* in Poland was found. In Hungary, 4 adventive species, *Diospyros lotus*, *Salvia farinacea*, *Torilis nodosa* and *Vicia lutea*, and one autochthonous species, *Ventenata dubia* are

mentioned. *Achillea oxyloba* subsp. *schurii*, *Bartsia alpina*, *Doronicum carpaticum*, *Erigeron alpinus*, *Gentiana nivalis*, *G. punctata*, *Hedysarum hedysaroides* and *Pinguicula alpina* were reported from Maramureş Mts in northern Romania. In Slovakia, six taxa, *Monogynella lupuliformis*, *Senecio* ×*helwingii*, *Taraxacum bibulum*, *T. paucilobum*, *T. serotinum*, *Vulpia bromoides* and the first report of adventive species *Monarda dydima* are mentioned.

Keywords: adventive species, Croatia, chorology, Hungary, native species, Maramureş Mts, new findings, Poland, red list species, Romania, Slovakia, Transcarpathian Ukraine, vascular plants.

This is an ongoing report in the established series dealing with new chorological data on higher vascular plants in Central Europe (for details, see Thaiszia – J. Bot. 28 (1), pp. 79–80, 2018).

The nomenclature of taxa follows the Euro+Med PlantBase (Euro+Med 2006-) and/or Chromosome number survey of the ferns and flowering plants of Slovakia (Marhold et al. 2007), herbarium acronyms follow Thiers (2023+). The map was processed in Corel Draw using the map grid described by Niklfeld (1971). Distribution data taken from the public database iNaturalist.org was cited as follows: iNaturalist ID and number of observation(s), with subsequent citation in References.

The publication includes contributions by M. Dudáš (198-200), P. Eliáš Jr. (201), P. Eliáš Jr. & M. Eliášová (202), L. Felbaba-Klushyna & M. Dudáš (203), G. Jakab (204), G. Király (205-207), V. Mikoláš (208-209), A. Pliszko (210), A. Takács (211-212), P. Tóth, M. Tóthová & P. Eliáš Jr. (213) and P. Turis, I. Turisová & J. Suja (214-221) arranged alphabetically.

Matej Dudáš (reports 198-200)

Slovakia

198. *Senecio* ×*helwingii* Beger: the Slanské vrchy Mts, Nižná Myšľa, railway station, in railway track, on rough gravel, single plant, 192 m, 48°37'44.89"N 21°22'18.55"E, 7394c, 5. 4. 2024, M. Dudáš, KO 38132, iNaturalist ID 206017854, Fig. 1.

Natural hybridization of *Senecio vernalis* Waldst. et Kit. and *S. vulgaris* L. results in a shortly ligulate and highly sterile triploid hybrid, *S.* × *helwingii*. Due to the habitual similarity with both parental species, the hybrid can be reliably identified only by the chromosome number or the genome size, because *S. vernalis* is a diploid (2n = 20) and *S. vulgaris* a tetraploid (2n = 40), exceptionally a hexaploid (2n = 60) species. In Slovakia, only a single reliable record is known from western Slovakia in Kúty railway station. (Hodálová et al. 2023). The species can theoretically occur wherever both parent species meet.

Fig. 1 General habitus of *Senecio* ×*helwingii* in a railway track. Top right - details of inflorescences (form left to right): *S. vernalis*, *S.* ×*helwingii*, *S. vulgaris*.

199. *Taraxacum bibulum* Kirschner & Štěpánek: the Ondavská vrchovina hill area, Kvakovce - Dobrá, bay shore of Veľká Domaša water reservoir, waterlogged and regularly mowed lawn, hundreds of plants, 160 m, 49°1'0.586"N 21°40'32.103"E, 6996c, 12. 5. 2023, M. Dudáš, KO 37714, det. J. Štěpánek (no det. 37649).

Taraxacum bibulum (sect. *Palustria* (H. Lindb.) Dahlst.) has been described from southwestern Slovakia (the Podunajská nížina Lowland, south of Blahová near Dunajská Streda). The distribution area represents six sites in the south-western part of the Podunajská nížina Lowland, seven sites between Vienna and lake Neusiedler See in eastern Austria, and a single site in the north-western and three sites in the central Hungary, respectively. *T. bibulum* is confined to wet or seasonally wet subsaline meadows (Kirschner & Štěpánek 1998).

The species is not strictly a Pannonian element, due to the fact that a single locality has been found in Krempna in the Low Beskids in south-eastern Poland (Fig. 2). It grows along a muddy path on a meadow at the altitude of 446 m a.s.l. (Marciniuk et al. 2019) there, which is the altitudinal maximum for this species.

The new finding, the population on the grassy bank of the water reservoir Veľká Domaša in eastern Slovakia reaches new eastern border of the species distribution area and at the same time the only second record for the Carpathians. Characteristic species of the regularly mowed lawn were the following: *Alopecurus aequalis* Sobol., *Eleocharis palustris* agg., *Equisetum palustre* L., *Juncus inflexus* L., *Potentilla anserina* L., *Ranunculus sardous* Crantz, *R. sceleratus* L. and *Scirpus sylvaticus* L.

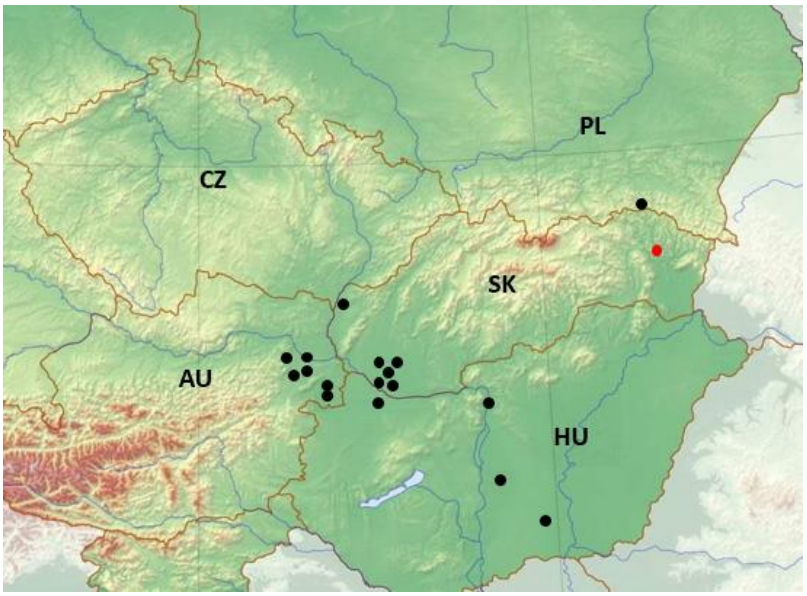

Fig. 2 General distribution of *Taraxacum bibulum* (black dots) with a new locality (red dot).

200. *Taraxacum paucilobum* Hudziok: the Ondavská vrchovina hill area, Kvakovce - Dobrá, bay shore of Veľká Domaša water reservoir, waterlogged and regularly mowed lawn, tens of plants, 160 m, 49°1'0.586"N 21°40'32.103"E, 6996c, 12. 5. 2023, M. Dudáš, KO 37715, det. J. Štěpánek (no det. 37647).

Taraxacum paucilobum (sect. *Palustria* (H. Lindb.) Dahlst.) is a typical Central European element (Poland, Germany, Austria, Hungary, Slovakia and Czechia) and rarely reaches northern parts of the Adriatic region (Croatia) and the northernmost Balkans (Bosnia and Herzegovina, Romania) (Kirschner & Štěpánek 1998). In Poland, it is the most common representative of the section (Marciniuk 2012; Oklejewicz 2016; Wójcik et al. 2022). An actual distribution map was published by Dudáš et al. (2021).

In Slovakia, it is scattered in northern parts, rare in the southwestern, and very rare in the eastern part of the territory. It does not tolerate taller vegetation and prefers a grassy track habitat (Kirschner & Štěpánek 1998). The newest distribution data come from the Veľká Fatra Mts (Očka & Škovirová 2020) and the Slanské vrchy Mts (Dudáš et al. 2021). In the newly found locality, it grows together with *T. bibulum* in numerous populations in the area *ca*. 120 × 2-6 m.

Pavol Eliáš Jr. (report 201)

Slovakia

201. *Taraxacum serotinum* (Waldst. & Kit.) Fisch.: the Podunajská nížina Lowland, Trnovec nad Váhom, slopes and crown of the dam of the channel Dlhý kanál crossing the road no. 562, tens of individuals, 145 m, 48°10'50.3"N 17°57'30.2"E, 7873b, 29. 6. 2024, P. Eliáš Jr., NI.

The species occurred in Central and SE Europe, the European part of Russia, Transcaucasia, the Middle East, and Middle Asia. Only around 20 recent *Taraxacum serotinum* populations are known in Slovakia (Dudáš et al. 2016; Malovcová in Dudáš et al. 2022). The new locality on the canal dam is a remnant of the originally wider distribution of *T. serotinum* on saline habitats in this area where more than 5 localities were known. The last datum is from Močenský les site near the Močenok village (Matušicová & Černušáková 2005). After the Second World War, massive land reclamation began in former Czechoslovakia, focusing on salt pastures on salt-affected soils. The aim was to use them for crop production. These activities ended with only a partial success, but a substantial part of the flora and vegetation of the salt habitats was destroyed (Sádovský et al. 2004; Dítě et al. 2014). Some species, such as T. serotinum in this case, were able to survive in alternative habitats.

Pavol Eliáš Jr. & Mariana Eliášová (report 202)

Slovakia

202. *Vulpia bromoides* (L.) Gray: the Tribeč Mts, Ladice, unpaved road at the bottom of an abandoned quarry, tens of individuals at several places, 245 m, 48°24'04.0"N 18°15'09.3"E, 7575d, 5. 7. 2024, P. Eliáš Jr. & M. Eliašová, NI, relevé no. 1.

Vulpia bromoides is originally a sub-Atlantic European annual grass species, its primary distribution range includes almost all of southern and central Europe (to the north to Scotland, Norway, Sweden, to the east to Poland, Slovakia, and Hungary), and the secondary area is cosmopolitan. A secondary occurrence was recorded in Africa (from Morocco to Egypt, South Africa), Asia Minor, and the Middle East as well as Transcaucasia, North and South America, Australia, and New Zealand (Király & Mesterházy 2005; Pečinka 2024). The distribution is not known in detail in Slovakia, Holub (1999) reported it from the lowlands of Záhorská nížina (Lozorno, Pezinok) and Podunajská nížina (Bánovce nad Bebravou), Vtáčnik Mts (Rudica) and Tribeč Mts (Kostoľany pod Tribečom, Kozlica hill near Krnča village), the last data were recorded in 1994 (Ambros 1996). In addition, Boros (1938) found it on the barren clayey slopes at Ladice village (Tribeč Mts) in 1926. In the same village, we confirmed the occurrence of *V. bromoides* in the flora of Slovakia after 30 years (Fig. 3). We propose to review its status in the Red List from RE (regionally extinct, Eliáš et al. 2015) to CR (critically endangered) with the criteria A2ac; B2a(ii)b(i,ii,iii,iv,v)c(iv). We recorded the species in the stand representing a transition between open low-growing therophytic vegetation of *Thero-Airion* alliance and trampled vegetation of *Polygonion avicularis* alliance.

Relevé no. 1: Tribeč, Ladice, unpaved road at the bottom of an abandoned quarry, ca 245 m, 48°24'5.31"N 18°15'9.44"E, exposition -, elevation 0°, relevé plot 12 m^2, E_0: 30, E_1: 25%, 5. 7. 2023, P. Eliáš Jr. & M. Eliašová.

E_1: *Plantago lanceolata* 2a, *Agrostis capillaris* 1, *Bromus hordeaceus* 1, *Trifolium arvense* 1, *T. repens* 1, *Potentilla argentea* 1, *Gypsophila muralis* +, *Leontodon autumnalis* +, *Trifolium campestre* +, *Vulpia bromoides* +, *V. myuros* +.

Fig. 3 *Vulpia bromoides* in Ladice (photo by Marián Mokráň).

Lyubov Felbaba-Klushyna & Matej Dudáš (report 203)

Transcarpathian Ukraine

203. *Lindernia procumbens* (Krock.) Philcox: Zakarpattya Region, Berehove district, Batyovo, field relief depression (old, grounded meander of Latorytsia), dozens of flowering individuals, 102 m, 48°23'30.5"N 22°24'0.00"E, 9. 6. 2024, L. Felbaba-Klushyna & M. Dudáš, KO 38151, iNaturalist ID 221596361.

Lindernia procumbens is distributed in temperate, subtropical, and tropical parts of Eurasia (POWO 2024). In Ukraine, the species occurs in Polissia, Forest-Steppe, and Steppe (Dobrochaieva et al., 1987). Chopyk & Fedoronchuk (2015) reported only one occurrence in the Berehove district. Felbaba-Klushyna (2010) noted a finding in the lower reaches of the Latorytsia River in the vicinity of Chop (Uzhhorod district) on the shallows along the banks of old canals and in floodplain meadows. In Berehove district, the species also grows along the periphery of marshes within the Stav hydrological reserve and along the periphery of the Boomerang recreational complex in the vicinity of Dyida village. At the same time, this species was recorded

in the flora of the Khust-Solotvyno depression (Transcarpathian foothills) on the shoals of fishponds in the vicinity of the village of Boronyavo, Khust district (Felbaba-Klushyna 2004). The species is included in the Red List of Transcarpathia in the category vulnerable (Kricsfalusy et al. 1999) and in the list of rare species of hydrophilic flora of the Tisza River basin with the status of vulnerable (Felbaba-Klushyna 2010).

Gusztáv Jakab (report 204)

Hungary

204. *Torilis nodosa* (L.) Gaertn.: South-eastern Hungary, Békés County, Szarvas, Szent István str., 80 m a.s.l., 46.8743° N, 20.5389° E, 9189.1, 01. 05. 2023, G. Jakab (photodocumented and herbarium specimen in DE).

Torilis nodosa is a currently spreading weed in Hungary (Kun et al. 2023; Hábenczyus & Süveges 2024; Dudáš et al. 2024). Following the recent documentation of the species in several remote locations in the country, a new population has been recognized. A dense population of *T. nodosa* was found in the disturbed, regularly mowed roadside lawn and in the neighbouring private garden. The plant also colonized the gaps between the paving stones. The new site is located 75 km northeast of the next known population, which was recently published by Hábenczyus & Süveges (l.c.). The plant was probably accidentally introduced into the garden after a trip to the Mediterranean coast.

Gergely Király (reports 205-207)

Croatia

205. *Barbarea stricta* Andrz.: Koprivnica-Križevci county, Legrad, 1,5 km N of the gravel pit „Jegeniš", bank of the Drava River on alluvial mud, 46°16'34.2"N 16°53'47.6"E, 9767a, 125 m, 02. 06. 2016, G. Király, observation – Međimurje county, Kotoriba, bank of the Mura River 0,7 km N-NE of the village, close to the state border mark B120, 46°22'16.7"N 16°49'53.4"E, 9666b, 135 m, 11. 05. 2021, G. Király, herb. G. Király, photographed, Fig. 4, 5.

Barbarea stricta is a Eurasian-continental species (Hultén & Fries 1986; Euro+Med 2006+), considered mainly native to Central and south-eastern Europe (e. g. Fischer et al. 2008; Bartolucci et al. 2018), however, some authors (e. g. Soó 1968) raise that it could be an archaeophyte. The species occurs in alluvial lowlands, connected to *Phalaridion arundinaceae* vegetation (Hejný & Slavík 2003). In the southern part of the Pannonian Basin, it is obviously rare, it was found on a few sites along the Drava and Mura rivers in Slovenia (Jogan 2001), and in Hungary (Király & Király 2018). In Croatia, it was first reported from southern Dalmatia (Šilić & Šolić 2002), which was followed by the records from central Istria (Rottensteiner 2014) and the island of Krk (Rottensteiner 2022). The species has not yet been reported from the continental (Pannonian) part of Croatia. Along the Mura and Drava rivers in the new sites, it occurs on sandy-muddy alluvial banks both in treeless tall-herb vegetation and in

open willow gallery forests (*Leucojo aestivi-Salicetum albae*). The herb layer of these communities is mostly dominated by *Carex acutiformis* Ehrh., *Phalaroides arundinacea* (L.) Rauschert and *Poa trivialis* L., sometimes overgrown by the clones of *Phragmites australis* (Cav.) Steud., *Urtica dioica* L. and the invasive *Solidago gigantea* Aiton. Typical characteristic species of the habitat are *Leucojum aestivum* L. and *Valeriana officinalis* L.

Fig. 4 *Barbarea stricta* – habitat (11 May 2021, Mura River near Kotoriba).

Fig. 5 *Barbarea stricta* – flowering plants (11 May 2021, Mura River near Kotoriba).

Hungary

206. *Diospyros lotus* L.: NW Hungary, Győr-Moson-Sopron County, Sopron, Bajcsy-Zs. Street, several seedlings and a few older (up to 4 m high) trees, spontaneously grown in neglected gardens and yards, 224 m, 47°40'51.1"N 16°34'42.5"E, 8365b, 26. 10. 2023, G. Király, herb. Király, photodocumented, Fig. 6.

This species is native to the temperate broadleaf forests of Asia from Central Turkey to China and Korea (Edmondson et al. 1978; Forster & Forster 1996). It has been cultivated for its fruits (and introduced or even naturalized) in Mediterranean countries for a long time (Euro+Med 2006+; Bosi et al. 2017). In Hungary, there are few reports on seedlings or young specimens close to the mother tree(s) found in botanical gardens (Udvardy 1999; Wirth et al. 2020), but not from other habitats. The spread of *D. lotus* in the protected surroundings of the Botanical Garden of the University of Sopron has been known since the 1990s, but the long-term survival of young specimens in the wild was first recognized only recently, most probably because of the repeatedly mild winters of the last decade. This process with the introduction of warm-temperate Asian woody species (such as *Berberis* spp., *Cotoneaster* spp.) in western Hungary resembles the situation in Switzerland, which resulted in serious changes not only those of secondary habitats but also of native forests (see Condera et al. 2018).

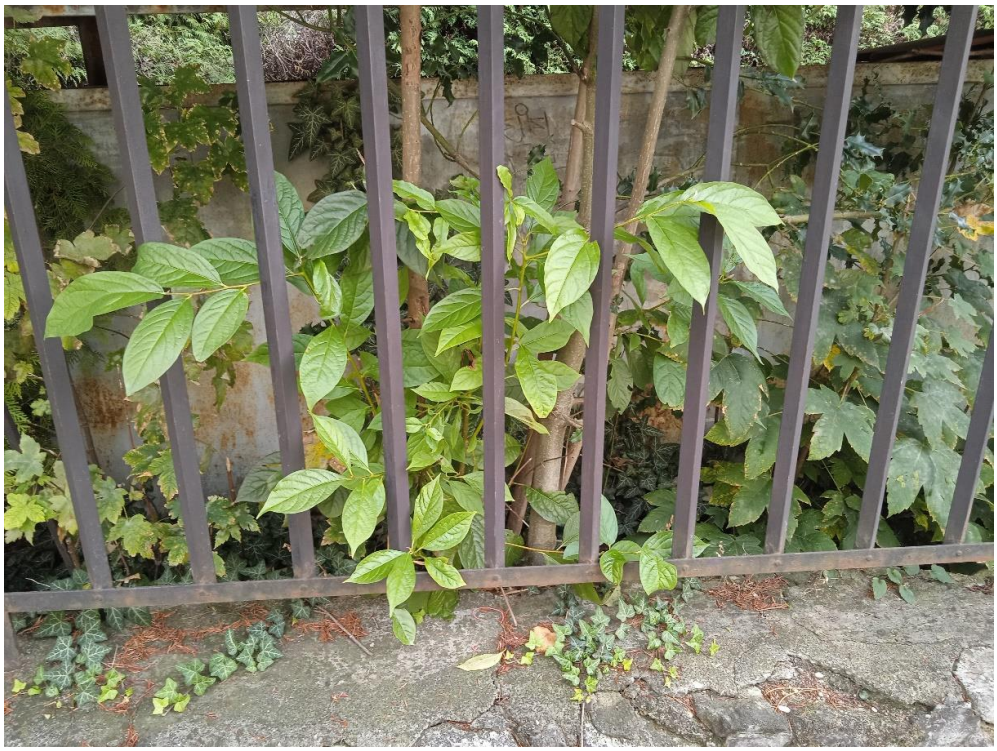

Fig. 6 Spontaneously grown-up young specimen of *Diospyros lotus* at a fence in Sopron (Hungary), Bajcsy-Zs. Street (G. Király).

207. *Salvia farinacea* Benth.: NW Hungary, Győr-Moson-Sopron County, Sopron, park of the Erzsébet Hospital, 2 flowering specimens in the splits of the pavement, 206 m, 47°40'34.8"N 16°35'52.2"E, 8365b, 14. 11. 2022, G. Király, herb. Király, photodocumented, Fig. 7.

This annual garden plant originated from North America (Jones et al. 1997) and was recently found as a casual alien new to Hungary (Wirth et al. 2020). The record above represents the first occurrence in NW Hungary and is one of the northernmost occurrences of the species in Central Europe (see also Melzer & Barta 2008).

Vlastimil Mikoláš (reports 208-209)

Slovakia

208. *Monarda didyma* L.: Stredné Pohornádie Valley, Kluknava, drainage canal near the collective farm in northern part of the village, ca 370 m, 48°55'46.3"N 20°56'35.1"E ± 50 m, 7091d, 14. 7.2002, V. Mikoláš, KO 28727.

The native range of this perennial species is NE part of North America (SE Canada and E Unites States). It is cultivated as an ornamental plant. As an adventive species, it was recorded in Austria (Hohla 2011; Stöhr et al. 2012), Germany (Hassler & Muer 2022), and Vladimir Oblast in Russia (Seregin 2014). Medvecká et al. (2012) did not

mention this species from the territory of Slovakia. This is the first record of the spontaneous occurrence in the territory of Slovakia.

209. *Taraxacum paucilobum* Hudziok: Slovak Karst, Jovice, under Dievčenská skala sightseeing point, wet meadow on the edge of the forest, ca 330 m, 48°37'22.6"N 20°33'7.2"E, 7389c, 11. 5. 1990, V. Mikoláš, KO 38166, rev. J. Štěpánek (no det. 38494).

For details see report 200. This is the first record for the flora of Slovak Karst National Park.

Fig. 7 *Salvia farinacea* in the pavement at the entrance of the hospital in Sopron (Hungary) – the specimen is not escaped from the bin above, but from another far locality.

Artur Pliszko (report 210)

Poland

210 *Limonium hungaricum* Klokov (≡ *Limonium gmelinii* subsp. *hungaricum* (Klokov) Soó): southern Poland, Lesser Poland Province, Kraków, Wielicka Street, roadside verge between road and tram track, one generative individual, 202 m, 50°1'57,42"N 19°58'16,26"E, 27. 07. 2022, Fig. 8.

Limonium hungaricum, a perennial herbaceous plant from the Plumbaginaceae family, is native to Hungary, Slovakia, Romania, and Serbia, and is also considered a subendemic to the Pannonian region (Riezing 2023). It is a halophyte that typically occurs in inland salt marshes and secretes the excess salt through the salt glands

present on its leaves (Zorić et al. 2013). In recent years, *L. hungaricum* has increasingly inhabited the verges of expressways, expanding its range in Central Europe (Dudáš et al. 2022; Fekete et al. 2022). So far, it has been introduced to Czechia, Germany, and Austria (Kaplan et al. 2018; Dudáš et al. 2022). Interestingly, the use of salt to melt ice and snow on road surfaces in winter causes its accumulation in roadside verges, which in turn promotes the spread of salt-tolerant plants along roads (Dítě & Dítětová 2016; Ehl et al. 2019; Fekete et al. 2022).

In this note, I present the first record of *L. hungaricum* in Poland. The most likely, it was unintentionally introduced by a road transport as suggested by other authors (Kaplan et al. 2018; Fekete et al. 2022). It was associated with *Convolvulus arvensis* L., *Daucus carota* L., *Erigeron annuus* (L.) Desf., *Hypochaeris radicata* L., *Lepidium ruderale* L., *Lotus corniculatus* L., *Plantago lanceolata* L., *Puccinellia distans* (Jacq.) Parl., and *Trifolium pratense* L. Currently, *L. hungaricum* should be treated as a casual alien plant (ephemerophyte) in the Polish flora. Although it has been present for at least three years at Wielicka Street in Kraków, its population size has not changed. This may be due to the regular mowing of the plants on the roadside verges. Nevertheless, the establishment of *L. hungaricum* in the city seems likely, hence its spread should be monitored.

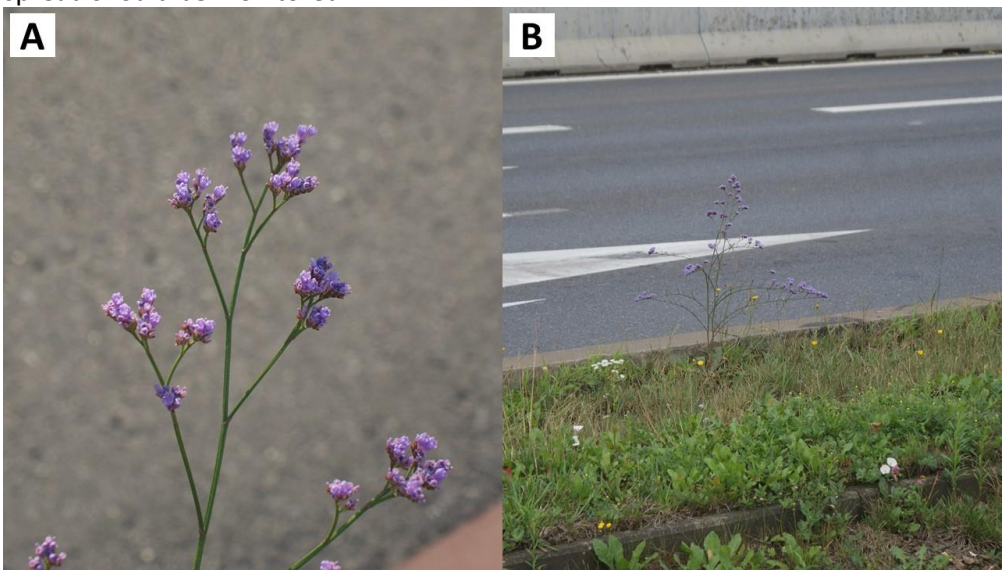

Fig. 8 *Limonium hungaricum* in Kraków, southern Poland: A – a lower branch of the inflorescence, B – an individual growing in the roadside verge at Wielicka Street. Photographed by A. Pliszko.

Attila Takács (reports 211-212)

Hungary

211. *Ventenata dubia* (Leers) Coss.: North Hungary, Borsod-Abaúj-Zemplén county, Erdőbénye, „Nagy-rétek", 120 m a.s.l., 48.2422° N, 21.3804° E, 7794.3, 05. 06. 2024, A. Takács (DE). – North Hungary, Borsod-Abaúj-Zemplén county, Abaújkér-

Aranyospuszta, „Dorgó", 160–200 m a.s.l., 48.2879° N, 21.2206° E, 7793.1, 12. 6. 2024, A. Takács (DE).

This Eurasian annual grass species has a scattered distribution in the Pannonian region. *V. dubia* is apparently in expansion, occurring predominantly in the thermophilic lowlands (Eliáš 2022). In 2024, it was found at two points on the western and eastern edges of the Zemplén Mts. First, in the valley of the Bényei stream near Erdőbénye. Here, the originally wet meadows have been severely drying for many years. The condition of meadow perennial plants is weakened and the density of the grassland texture decreases. In contrast the annual plants of drier habitats, like *V. dubia*, can colonize the gaps. Second, the species was also found in dry grasslands on western-facing slopes above Aranyospuszta. Dense patches of *V. dubia* were found in both places. The species has not been enumerated in the archive (e. g. Kiss 1939) or recent (Vojtkó & Farkas 2023) comprehensive floristic surveys of the Zemplén Mts, it is, therefore, a new record of the region's flora.

212. *Vicia lutea* L.: North Hungary, Borsod-Abaúj-Zemplén county, Abaújkér-Aranyospuszta, „Dorgó", 180 m a.s.l., 48.2934° N, 21.2282° E, 7793.1, 12. 6. 2024, A. Takács (DE).

The annual, thermophilic species *Vicia lutea* is distributed in Southern Europe and is expanding northward. It is a rare species in Hungary (Bartha et al. 2021+). Interestingly, the traditional Hungarian summary works discuss it as a weed of arable fields. However, the latest floristic papers report its presence in natural (Harmos & Sramkó 2000) or semi-natural habitats (Csiky 2006; Molnár et al. 2016). A new population was found in a somewhat weedy (possibly secondary) dry grassland in the Zemplén Mts, above Aranyospuszta. *V. lutea* was formerly known from the Slanské vrchy Hills (Chrtková & Jasičová 1988), but not mentioned in the archive (e. g. Kiss 1939) or recent (Vojtkó & Farkas 2023) comprehensive floristic surveys of the Zemplén Mts, it is therefore a new datum to the flora of the region.

Peter Tóth, Monika Tóthová & Pavol Eliáš Jr. (report 213)

Slovakia

213. *Monogynella lupuliformis* (Krock.) Hadač et Chrtek.: the Juhoslovenská kotlina Basin, Čoltovo, tree line at meadow edge along train lines near road no. 16/E 571, two individuals, 195 m, 48°29'36.1"N 20°22'13.9"E, 7588a, 18. 10. 2024, Peter Tóth, Monika Tóthová & P. Eliáš Jr., seeds collection.

Monogynella lupuliformis is a Eurasian obligate parasitic annual species; its distribution extends from central and south-eastern Europe to Ukraine, southern Russia, Asia Minor, the Caucasus, SW Asia (Iran) and NW China (Chrtek sen. 2000; Raab Staube 2018+). In Slovakia, the species has occurred especially in the southwestern and southern parts of the country (Záhorská nížina Lowland and Podunajská nížina Lowland, Fig. 8, Chrtek 1988), it is evaluated as vulnerable (VU) in Red List (Eliáš et al. 2015), however, actual data are rare. *M. lupuliformis* is recently

reported only in Bratislava (Letz 1995), near Jahodná village from the Žitný ostrov area (Bacsa 2013), near Slavec (Virók 2013 in Virók et al. 2016) and on NW edge of Čoltovo village (Cagáň et al. 2001; Tóth & Cagáň 2001). Our locality is situated not far from the last one; it confirms that *M. lupuliformis* can survive in the localities for a long time. The host plants were *Salix alba* L. and *Acer negundo* L., although Baráth & Csiky (2012) reported mainly herbal hosts in Hungary.

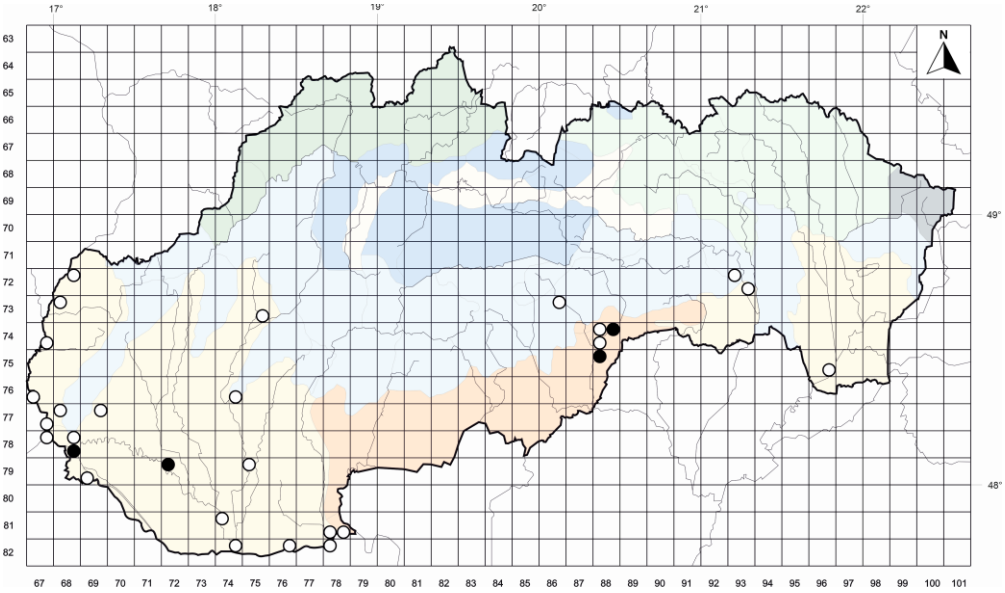

Fig. 8 Historical (○) and current (●) distribution of *Monogynella lupuliformis* (Krock.) Hadač et Chrtek in Slovakia (Chrtek 1988, modified).

Peter Turis, Ingrid Turisová & Jozef Suja (reports 214-221)

Romania

214. *Achillea oxyloba* subsp. *schurii* (Sch. Bip.) Heimerl: Maramureş County, Maramureş Mts, Mt. Mihailecu (1918 m), N slope, only some individuals on small limestone rock near the top, 47°54'24.7"N 24°27'51.4"E, 1. 7. 2024, P. Turis, I. Turisová & J. Suja, observation.

East-South Carpathian endemic with the distribution area from the Svydovets Mts in Ukraine to the Retezat Mts in Romania. In the Maramureş Mts it was reported as a rare species that has only been found on Mt. Cearcănul (Resmeriţă 1985). Later, a general occurrence in this mountain range was published without specifying the locality (Negrean & Oltean 1989).

215. *Bartsia alpina* L.: Maramureş County, Maramureş Mts, Mt. Mihailecu (1918 m), N slope, among small limestone rocks near the top, 47°54'24.8"N 24°27'51.8"E, 1. 7. 2024, P. Turis, I. Turisová & J. Suja, observation.

Arctic-alpine species widespread in North America and Europe, with an isolated occurrence in the Pyrenees Mountains, the Central Massif, the Jura Mountains, the

Alps, the Vosges, the Black Forest, the Sudetes, the Carpathians, and the Balkans. In the Maramureş Mts it is mentioned from Mt. Pop Ivan, Mt. Tomnatec, Mt. Pietrosul Bardău (ut Pietrosul Mare), and from the locality "Groapa Dzului sub Farcău" (Popescu 1971), which is located not far from the place mentioned by us. In the area of Mt. Farcău (1961 m) it is probably rare, because it is not mentioned in the botanical contribution dedicated to this mountain (Coman 1939). Maramureş Mts flora expert, Artur Coman, does not mention it in other works dealing with the mountain range (Coman 1938a, b, 1940a, b, c, 1941, 1946, 1969) and the information about its presence in the Maramureş Mts is also missing from the overview of the distribution of the species in Romania (Săvulescu 1960). Oprea (2005) mentions only the general occurrence in the mountains and without specifying exact locations. In the Marmarosh Alps and the Chyvchyn-Grynyavy mountains, which are the direct continuation of the Maramureş Mts in Ukraine, the species is unknown (Chopyk & Fedoronchuk 2015).

216. *Doronicum carpaticum* (Griseb. & Schenk) Nyman: Maramureş County, Maramureş Mts, Mt. Mihailecu (1918 m), N slope, the foot of a small limestone rock near the top, very rare, 47°54'24.9"N 24°27'52.2"E, 1. 7. 2024, P. Turis, I. Turisová & J. Suja, observation.

East-South Carpathian endemic with the distribution area from the Ukrainian Svydovets Mts to the Romanian Ţarcu Mts. In the Maramureş Mts, Săvulescu (1964) reports the occurrence on Mt. Pop Ivan (1938 m) and on Mt. Farcău (1961 m), which is located not far from the place we discovered.

217. *Erigeron alpinus* L.: Maramureş County, Maramureş Mts, Mt. Gropilor (1816 m, the highest point of the Culmea Rugaşului) south from the Mt. Mihailecu, the small rock on a very steep side of the glacial cirque east from the top, calcareous flysch, 47°53'41.5"N 24°27'23.6"E, 1. 7. 2024, P. Turis, I. Turisová & J. Suja, herb. P. Turis (rev. O. Šída), iNaturalist ID 243960617. – Maramureş County, Maramureş Mts, Mt. Cearcănu (1846 m), on the small limestone rock near hiking trail to the top, between eastern forepeak (elevation 1819 m) and Mt. Cornu Nedeii (1778 m), 47°39'03.9"N 24°51'00.4"E, 6. 7. 2024, P. Turis, I. Turisová & J. Suja, herb. P. Turis (rev. O. Šída).

In the Maramureş Mts, it has only been detected on Mt. Cearcănul so far (Resmeriţă 1985). It is also very rare in the adjacent Ukrainian part of the mountain range known as the Marmarosh Alps and the Chyvchyn-Grynyavy mountains (Chopyk & Fedoronchuk 2015; Kobiv et al. 2017). It is more common in the nearby Rodna Mts, where more localities are known (Coman 1946; Săvulescu 1964). Its area in the Romanian Carpathians extends further east to the Ceahlău Mts and the Hăşmaş Mts, from where it continues to the highest mountains of the South Carpathians.

218. *Gentiana nivalis* L.: Maramureş County, Maramureş Mts, Mt. Mihailecu (1918 m) massif, the ridge Creasta Mihailecu SE from the top of the Mt. Mihailecu, low vegetation, 47°54'16"N 24°28'19.9"E, 1. 7. 2024, P. Turis, I. Turisová & J. Suja, observation.

In the northern part of Romania, the species is known from the orographic units the Rodna Mts, the Suhard Mts and Obcina Mestecăniş (Coman 1946, 1969; Săvulescu 1961), but there are no published data on the occurrence from the Maramureş Mts, and it is also not known from the Ukrainian part of this mountain range (Shiyan & Dzhus 2005; Chopyk & Fedoronchuk 2015).

219. *Gentiana punctata* L.: Maramureş County, Maramureş Mts, Mt. Mihailecu (1918 m) massif, the ridge Creasta Mihailecu SE from the top of the Mt. Mihailecu, 47°54'23.6"N 24°27'55.3"E, 1. 7. 2024, P. Turis, I. Turisová & J. Suja, observation.

A gentian with a sporadic occurrence in many higher mountains of the eastern and southern part of the Romanian Carpathians, including Apuseni Mts. In the Maramureş Mts, the species is known only on Mt. Pop Ivan (1938 m), Mt. Toroiaga (1927 m) (Săvulescu 1961) and in the Nature Reserve Cornedeii-Ciungii Bălăsinii (Oprea 2005) extending around Mt. Cearcănu (1846 m).

220. *Hedysarum hedysaroides* (L.) Schinz & Thell.: Maramureş County, Maramureş Mts, Mt. Mihailecu (1918 m), N slope, on the small plateau of the limestone rock near the top, a single small growth, 47°54'25.422"N 24°27'52.255"E, 1. 7. 2024, J. Suja, P. Turis & I. Turisová, iNaturalist ID 243960888.

A Eurasian species, with the distribution area partly extending into the highest mountains of the Western and Southern Carpathians. It is rare in the Eastern Carpathians, and preciously grows in the Svydovets Mts and the Chornogora Mts (Chopyk & Fedoronchuk 2015) in Ukraine. In the Romanian part it is known only from the Rodna Mts and the Ceahlău Mts (Coman 1946; Săvulescu 1957; Oprea 2005).

221. *Pinguicula alpina* L.: Maramureş County, Maramureş Mts, Mt. Mihailecu (1918 m), N slope, small limestone rock near the top, rare, 47°54'24.8"N 24°27'52.6"E, 1. 7. 2024, P. Turis, I. Turisová & J. Suja, observation.

The center of the distribution of the species in the Romanian Carpathians is in its southern part from the Ciucaş Mts to the west to the Retezat Mts, and it is also mentioned in the Apuseni Mts (Oprea 2005). In the Eastern Carpathians, it is known from the Svydovets Mts, the Chornogora Mts (Chopyk & Fedoronchuk 2015), the Rodna Mts, the Rarău Mts, the Ceahlău Mts and the Gurghiu Mts (Coman 1946; Săvulescu 1961). The occurrence in the Maramureş Mts is not reported, although it has been recorded in their Ukrainian part stated as Chyvchyn Mts (Chopyk & Fedoronchuk 2015).

Acknowledgement

The research of P. Eliáš Jr. was supported by the VEGA project no. 1/0359/22, the Research of M. Tóthová was supported by the Slovak Research and Development Agency under the Contract no. SK-BG-23-0019. The work of P. Turis, I. Turisová and J. Suja was financially supported by The Slovak Research and Development Agency under grant no. APVV-20-0358. P. Turis thanks to O. Šída (National Museum in Prague, Czech Republic) for the revision of the

herbarium specimen of *Erigeron alpinus* and M. Dudáš thanks to J. Štěpánek (Prague, Průhonice, Czech Republic) for the identification of the herbarium specimens of *Taraxacum*.

References

Ambros M. (1996): Floristický kurz Partizánske 2. – 9. júla 1994. – Rosalia (special edition). SAŽP & Správa CHKO Ponitrie, Nitra, 163 pp.

Andrienko T. L. & Peregrym M. (2012): Ofitsiyni pereliky rehional'no ridkisnykh roslyn administratyvnykh terytoriy Ukrayiny (dovidkove vydannya). – Alterpress, Kyiv. 148 p.

Bacsa K. (2013): *Monogynella lupuliformis* [report]. – In: Eliáš P. ml. (ed): Zaujímavejšie floristické nálezy. p. 97. – Bull. Slov. Bot. Spoločn. 35/1: 96–107.

Baráth K. & Csiky J. (2012): Host range and host choice of *Cuscuta* species in Hungary. – Acta Bot. Croat. 71/2: 215–227. doi: 10.2478/v10184-012-0002-z

Bartha D., Bán M., Schmidt D. & Tiborcz V. (2021+): Magyarország edényes növényfajainak online adatbázisa (https://floraatlasz.uni-sopron.hu). – Soproni Egyetem, Erdőmérnöki Kar. [08. 11. 2024].

Bartolucci F., Peruzzi L., Galasso G., Albano A., Alessandrini A., Ardenghi N. M. G., Astuti G., Bacchetta G., Ballelli S., Banfi E., Barberis G., Bernardo L., Bouvet D., Bovio M., Cecchi L., Di Pietro R., Domina G., Fascetti S., Fenu G., Festi F., Foggi B., Gallo L., Gottschlich G., Gubellini L., Iamonico D., Iberite M., Jiménez-Mejías P., Lattanzi E., Marchetti D., Martinetto E., Masin R. R., Medagli P., Passalacqua N. G., Peccenini S., Pennesi R., Pierini B., Poldini L., Prosser F., Raimondo F. M., Roma-Marzio F., Rosati L., Santangelo A., Scoppola A., Scortegagna S., Selvaggi A., Selvi F., Soldano A., Stinca A., Wagensommer R. P., Wilhalm T. & Conti F. (2018): An updated checklist of the vascular flora native to Italy. – Pl. Biosyst. 152: 179–303. doi.org/10.1080/11263504.2017.1419996

Boros Á. (1938): Florisztikai Közlemények II. – Bot. Közl. 35: 310–320.

Bosi G., Herchenbach M., Buldrini F., Rinaldi R. & Mazzanti M. B. (2017): On the trail of date-plum (*Diospyros lotus* L.) in Italy and its first archaeobotanical evidence. – Econom. Bot. 71: 133–146. doi.org/10.1007/s12231-017-9377-z

Cagáň L., Komáromyová E., Barta M. & Tóth P. (2021): *Cuscuta lupuliformis* Krocker (Cuscutaceae) – A new host for bean aphid, *Aphis fabae* Scopoli (Homoptera, Aphididae). – Acta Fytotech. Zootech. 4: 84.

Chopyk V. I. & Fedoronchuk M. M. (2015): Flora Ukrainae Carpaticeae. – Terno-Graph Ltd., Ternopil'.

Chrtek J. (1988): Cuscutaceae Dumort. – In: Bertová L. (eds.): Flóra Slovenska IV/4, pp. 544–558. – Veda, Bratislava.

Chrtek J. sen. (2000): *Monogynella* Desmoulins – užerka, kokotice. – In: Slavík B., Chrtek J. jun. & Štěpánková J. (eds): Květena České republiky 6, pp. 170–172. – Academia, Praha.

Chrtková A. & Jasičová M. (1988): *Vicia* L. pp. 151–199. – In: Bertová L. (ed.): Flóra Slovenska. IV/4. – VEDA, Bratislava.

Coman A. (1938a): Câteva plante interesante din Maramureş. – Revista Pădur. 50/3: 249–250.

Coman A. (1938b): Contribuţiuni la flora Maramureşului. – Revista Pădur. 50/10: 872–873.

Coman A. (1939): Contribuţiuni la cunoaşterea florei muntelui Farcău. – Revista Pădur. 51/12: 1013–1014.

Coman A. (1940a): Contribuţiuni la flora Maramureşului. II. – Revista Pădur. 52/2: 91–94.

Coman A. (1940b): Contribuţiuni la flora Maramureşului. III. – Revista Pădur. 52/5: 346–347.

Coman A. (1940c): Contribuţiuni la flora Maramureşului. IV. – Revista Pădur. 52/9: 569–574.

Coman A. (1941): Contribuţiuni la flora Maramureşului. V. – Revista Pădur. 53/1: 13–18.
Coman A. (1946): Enumerarea plantelor vasculare din Maramureşul Românesc din herbarul "A. Coman". – Bull. Grădinii Bot. Muz. Botanic Univ. Cluj, XXVI/1–2, 3–4: 57–89, 110–130 + tab. IV, tab. V.
Coman A. (1969): Flora Maramureşului. Comunicări de botanică. – A VII-a Consfătuire Naţională de Geobotanică (Satu Mare, Maramureş, 17-16.VII.1969): 135–147.
Csiky J. (2006): Adatok Magyarország flórájához és vegetációjához I. – Kitaibelia 10/1: 138–153.
Dítě D., Melečková Z. & Eliáš P. jun. (2014): *Festuco-Puccinellietea*. – In: Hegedüšová Vantarová K. & Škodová I. (eds.): Rastlinné spoločenstvá Slovenska. 5. Travinnobylinná vegetácia, pp. 483–510. – Veda, Bratislava.
Dítě D. & Dítětová Z. (2016): Halophytes spreading along roadsides of northern Slovakia – Thaiszia – J. Bot. 26: 165–172.
Dobrochayeva D. N., Kotov M. I., Prokudin Y. N. et al. (1987): Opredelitel' vysshikh rasteniy Ukrainy. – Nauk. dumka, Kiev.
Dudáš M., Eliáš P. jun. & Mártonfi P. (2016): Occurrence of *Taraxacum serotinum* (Waldst. et Kit.) Fisch. (sect. Dioszegia) in Slovakia. – Thaiszia – J. Bot. 26/1: 1–10.
Dudáš M. (ed.), Ďurišová Ľ., Eliáš P. jun., Górecki A., Hrivnák R., Kšiňan S., Malovcová-Staníková M. & Pliszko A. (2021): New floristic records from Central Europe 8 (reports 109-121). – Thaiszia – J. Bot. 31/2: 213–223. doi.org/10.33542/TJB2021-2-05
Dudáš M. (ed.), Ďurišová Ľ., Eliáš P. Jr., Eliášová M., Kobiv Y., Kšiňan S., Malovcová-Staníková M., Pliszko A. & Taraška V. (2022): New floristic records from Central Europe 10 (reports 134-148). – Thaiszia – J. Bot. 32: 179–192. doi.org/10.33542/TJB2022-2-05
Dudáš M., Eliáš Jr, P. Hrivnák R., Király G., Kobiv Y., Majerová M., Májeková J., Mikoláš V., Pliszko A., Schmotzer A. & Takács A. (2024): New floristic records from Central Europe 13 (reports 176-197). – Thaiszia 34: 66–89. doi.org/10.33542/TJB2024-1-05
Ehl S., Mildenberger K., Frankenberg T. & Ries C. (2019): Halophytes in roadside habitats: a survey of salt-tolerant vascular plant species along roads in Luxembourg. – Bull. Soc. Nat. Luxemb. 121: 37–51.
Eliáš P., Jr. (2022): *Ventenata dubia* (Leers) Coss. (Poaceae) in Slovakia: Distribution, habitat affinities and threats. – Thaiszia 32/1: 1–15. doi.org/10.33542/TJB2022-1-01
Eliáš P. jun., Dítě D., Kliment J., Hrivnák R. & Feráková V. (2015): Red list of ferns and flowering plants of Slovakia, 5th edition (October 2014). – Biologia 70/2: 218–228 + electronic appendix. DOI: 10.1515/biolog-2015-0018
Edmondson, J. R., Mill, R. R., & Parris, B. S. (1978): Ebenaceae, p. 142–143. – In: Davis P. H. (ed.), Flora of Turkey and the East Aegean Islands 6. – Edinburgh University Press, Edinburgh.
Euro+Med (2006+): [continuously updated]: Euro+Med PlantBase – the information resource for Euro-Mediterranean plant diversity. – Published at https://www.europlusmed.org/
Fekete R., Bak H., Vincze O., Süveges K. & Molnár V. A. (2022): Road traffic and landscape characteristics predict the occurrence of native halophytes on roadside verges. – Sci. Rep. 12: 1298. doi.org/10.1038/s41598-022-05084-3
Felbaba-Klushyna L. M. (2004): Hydrophilic flora of the Khust-Solotvyno depression (Ukrainian Carpathians). – Sci. Bull. Uzhhorod Univ., Ser. Biol. 14: 103–108.
Felbaba-Klushyna L. M. (2010): Vegetation of swamps and reservoirs of the upper Tisza River basin (Ukrainian Carpathians). – Uzhhorod, Lyra. p. 68.

Fischer M. A., Adler W. & Oswald K. (2008): Exkursionsflora für Österreich, Liechtenstein und Südtirol. 3., verbesserte und erweiterte Auflage. – Land Oberösterreich, OÖ Landesmuseen, Linz.

Forster J. R. & Forster G. (1996): *Diospyros* Linnaeus, p. 215–234. – In: Wu Z. Y. & Raven P. H. (eds.), Flora of China 15. – Science Press, Beijing, and Missouri Botanical Garden Press, St. Louis.

Hábenczyus A. A. & Süveges K. (2024): Néhány adat Szeged flórájához. – Bot. Közlem. 111/1: 1–15. doi.org/10.17716/BotKozlem.2024.111.1.1

Harmos K. & Sramkó G. (2000): Adatok a Mátra edényes flórájához I. – Kitaibelia 5/1: 63–78.

Hassler M. & Muer T. (2022): Flora Germanica: alle Farn- und Blütenpflanzen Deutschlands in Text und Bild 2: 865–1712. – Verlag Regionalkultur, Uberstadt-Weiher.

Hejný S. & Slavík B. (2003): Květena České republiky 3. – Academia, Praha.

Hodálová I., Grulich V., Zaliberová M. & Mereďa P. jun. (2023): 7. *Senecio* L. starček. pp. 132–188. – In. Goliašová K., Hodálová I., Mereďa P. jun. (eds.): Flóra Slovenska VI/2, 1. časť. – Veda, Bratislava.

Hohla M. (2011): Zwei Funde der Kleine Seerose (*Nymphaea candida*) sowie weitere Beiträge zur Kenntnis der Flora von Oberösterreich. – Stapfia 95: 141–161.

Holub J. (1999): *Vulpia bromoides* (L.) S. F. Gray – In: Čeřovský J., Feráková V., Holub J., Maglocký Š. & Procházka F. (eds): Červená kniha ohrozených a vzácnych druhov rastlín a živočíchov SR a ČR, p. 407. – Príroda, Bratislava.

Hultén E. & Fries M. (1986): Atlas of North European Vascular Plants (North of the Tropic of Cancer) 1. – Koeltz, Königstein.

Jogan N. (ed.) (2001): Gradivo za atlas flore Slovenije. – Center za Kartografjo Favne in Flore, Miklavž na Dravskem polju.

Jones S. D., Wipff J. K. & Montgomery P. M. (1997): Vascular Plants of Texas: A Comprehensive Checklist Including Synonymy, Bibliography, and Index. – Univ. of Texas Press, Austin.

Kaplan Z., Danihelka J., Chrtek J. Jr., Prančl J., Ducháček M., Ekrt L., Kirschner J., Brabec J., Zázvorka J., Trávníček B., Dřevojan P., Šumberová K., Kocián P., Wild J. & Petřík P. (2018): Distributions of vascular plants in the Czech Republic. Part 7. – Preslia 90: 425–531. doi: 10.23855/preslia.2018.425

Király G. & Király A. (2018): Adatok és kiegészítések a magyar flóra ismeretéhez III. – Bot. Közlem. 105: 1–70. doi.org/10.17716/BotKozlem.2018.105.1.1

Király G. & Mesterházy A. (2005): A *Vulpia bromoides* (L.) S. F. Gray Magyarországon. – Fl. Pannonica 3: 3–15.

Kirschner J. & Štěpánek J. (1998): A monograph of *Taraxacum* sect. *Palustria*. – Průhonice.

Kiss Á. (1939): Adatok a Hegyalja flórájához. – Bot. Közlem. 36/5-6: 181–278.

Kobiv Y., Prokopiv A., Nachychko V., Borsukevych L. & Helesh M. (2017): Distribution and population status of rare plant species in the Marmarosh Mountains (Ukrainian Carpathians). – Ukr. Bot. Zhurn. 74/2: 163–171. DOI: 10.15407/ukrbotj74.02.163

Kricsfalusy V. V., Budnikov G. B. & Mihaly A. V. (1999): Red List of Transcarpathia: threatened plant species and plant communities. – Uzhgorod. p. 196.

Kun A., Exner T. & Bauer N. (2023): A *Torilis nodosa* új behurcolásai és terjedése Magyarországon. – Kitaibelia 28/1: 26–31. doi.org/10.17542/kit.28.030

Letz R. (1995): Poznámky k výskytu niektorých zriedkavých druhov flóry Bratislavy. – Bull. Slov. Bot. Spoločn. 17: 148–152. (in Slovak)

Marciniuk J. (2012): *Taraxacum* sect. *Palustria* w Polsce. – Uniwersytet Przyrodniczo-Humanistyczny w Siedlcach.

Marciniuk J., Marciniuk P., Trávníček B., Žíla V., Wolanin M., Wolanin M. N. & Stadnicka-Futoma A. (2019): *Taraxacum bibulum* and *Taraxacum ranunculus*, two species of dandelions of the endangered *Palustria* section new for the Polish flora. – Wulfenia 26: 217–224.

Marhold K., Mártonfi P., Mereďa P. jun. & Mráz P. (eds) (2007): Chromosome number survey of the ferns and flowering plants of Slovakia. – Veda, Bratislava. 650 pp.

Matušicová B. & Černušáková D. (2005): Chránené a ohrozené druhy cievnatých rastlín z okolia obcí Hájske, Horná Kráľová a Močenok na Podunajskej nížine. – Bull. Slov. Bot. Spoločn. 27: 71–76.

Medvecká J., Kliment J., Májeková J., Halada Ľ., Zaliberová M., Gojdičová E., Feráková V. & Jarolímek I. (2012): Inventory of the alien flora of Slovakia. – Preslia 84: 257–309.

Melzer H. & Barta T. (2008): *Cerastium lucorum*, das Großfrucht-Hornkraut – neu für das Burgenland und andere Neuigkeiten zur Flora dieses Bundeslandes sowie von Wien und Niederösterreich. – Linzer Biol. Beitr. 40: 517–550.

Molnár Cs., Lengyel A., Molnár V. A., Nagy T., Csábi M., Süveges K., Lengyel-Vaskor D., Tóth G. & Takács A. (2016): Pótlások Magyarország edényes növényfajainak elterjedési atlaszához II. – Kitaibelia 21/2: 227–252. doi.org/10.17542/kit.21.227

Negrean G. & Oltean M. (1989): Endemite şi zone endemoconservatoare din Carpaţii Sud-Estici. – Ocrot. nat. med. înconj. 33/1: 15–25.

Niklfeld H. (1971): Bericht über die Kartierung der Flora Mitteleuropas. – Taxon 20: 545–571. doi.org/10.2307/1218258

Očka S. & Škovirová K. (2020): *Taraxacum paucilobum* [report]. p. 225. – In: Eliáš P. jun. (ed.): Zaujímavejšie floristické nálezy. – Bull. Slov. Bot. Spoločn. 42/2: 209–227.

Oklejewicz K., Wolanin M., Świder O., Marciniuk P. (2016): Aktualny stan wiedzy o występowaniu gatunków z rodzaju *Taraxacum* w Bieszczadach. – Rocz. Bieszczadzkie 24: 281–285.

Oprea A. (2005): Lista critică a plantelor vasculare din România. – Editura Universităţii "Alexandru Ioan Cuza" Iaşi. – 668 pp.

Pečinka A. (2024): *Vulpia* CC. Gmelin – mrvka. – In: Štěpánková J., Chrtek J. jun., Kaplan Z. (eds.): Květena České republiky 9, pp. 631–636. – Academia, Praha.

Popescu A. (1971): Râspîndirea speciilor *Bartschia alpina* L. şi *Gentiana frigida* Haenke în Carpaţii româneşti. – St. Cerc. Biol., ser. Bot. 23/4: 325–329.

POWO (2024): *Lindernia procumbens*. Plants of the World Online. Facilitated by the Royal Botanic Gardens, Kew. Published on the Internet; http://www.plantsoftheworldonline.org/ Retrieved 12 September 2024.

Raab-Straube, E. von (2018+): Convolvulaceae. – In: Euro+Med Plantbase - the information resource for Euro-Mediterranean plant diversity. Published on the Internet: https://europlusmed.org/ [Accessed 21 October 2024]

Resmeriţă I. (1985): Cercetări floristice, cenotice-ecologice pe muntele Cearcănu (Maramureş). – Contribut. Bot. Cluj: 101–110.

Riezing N. (2023): Taxa of vascular plants endemic to the Pannonicum floristic region. – Acta Bot. Hung. 65: 133–207. doi.org/10.1556/034.65.2023.1-2.8

Rottensteiner W. K. (2014): Exkursionsflora für Istrien. – Verlag des Naturwissenschaftlicher Vereins für Kärnten, Klagenfurt.

Rottensteiner W. K. (2022): Notizen zur „Flora von Istrien“, Teil VII. – Joannea Botanik 18: 107–189.

Sádovský M., Eliáš jun. P. & Dítě D. (2004): Historické a súčasné rozšírenie slaniskových spoločenstiev na juhozápadnom Slovensku. – Bull. Slov. Bot. Spoločn. 26/Suppl. 10: 127–129.

Săvulescu T. (ed.) (1957): Flora republicii populare Romîne. V. – Editura academiei republicii populare Romîne. – 558 pp.

Săvulescu T. (ed.) (1960): Flora republicii populare Romîne. VII. – Editura academiei republicii populare Romîne. – 663 pp.

Săvulescu T. (ed.) (1961): Flora republicii populare Romîne. VIII. – Editura academiei republicii populare Romîne. – 708 pp.

Săvulescu T. (ed.) (1964): Flora republicii populare Romîne. IX. – Editura academiei republicii populare Romîne. – 1001 pp.

Seregin A. P. (2014): Flora of Vladimir Oblast, Russia: grid data analysis. 441 p. – KMK scientific press, Moscow.

Shiyan N. M. & Dzhus M. A. (2005): *Gentiana nivalis* L. (Gentianaceae) in the flora of Ukrainian Carpathian Mountains. – Ukr. Bot. Zhurn. 62/1: 22–28. [in Ukrainian]

Soó R. (1968): A magyar flóra és vegetáció rendszertani-növényföldrajzi kézikönyve 3. – Akadémiai Kiadó, Budapest.

Stöhr O., Pilsl P., Staudinger M., Kleesadl G., Essl F., Englisch Th., Lugmair A. & Wittmann H. (2012): Beiträge zur Flora von Österreich, IV. – Stapfia 97: 53–136

Šilić Č. & Šolić M. E. (2002): Addition to the vascular flora in the region of Biokovo (Dalmatia, Croatia). – Nat. Croat. 11: 341–363.

Thiers B. (2023+) [continuously updated]: Index Herbariorum: A global directory of public herbaria and associated staff. – New York Botanical Garden's Virtual Herbarium, New York. – Published at http://sweetgum.nybg.org/ih

Tóth P. & Cagáň Ľ. (2001): Spread of dodder (*Cuscuta* spp.) in the agroecosystems of Slovakia: is it an emerging problem? – Acta Fytotechn. Zootechn. 4: 117–120.

Udvardy L. (1999): Exotic shrubs and trees inclining to escape in an arboretum under strong urban effect in Budapest. – Publ. Univ. Hort. Ind. Ali. 59: 171–174.

Vojtkó A. & Farkas T. (2023): Florisztikai adatok Észak-Magyarországról III. Zempléni-hegység. – Kitaibelia 28/2: 109–172. doi.org/10.17542/kit.28.020

Virók V., Farkas R., Farkas T., Šuvada R. & Vojtkó A. (2016): A Gömör-Tornai-karszt flórája – Enumeráció. Flóra Gemersko-turnianskeho krasu – Enumerácia. – ANP füzetek 14: 1–200 & suppl., Aggteleki Nemzeti Park Igazgatóság, Jósvafő.

Wirth T., Kovács D. & Csiky J. (2020): Adatok és kiegészítések a magyarországi adventív flóra kivadult, meghonosodott és potenciális inváziós fajainak ismeretéhez. – Kitaibelia 25: 111–156. doi.org/10.17542/kit.25.111

Wójcik T., Brzoza J., Chrabąszcz M., Czarna A., Górecki A., Kostrakiewicz-Gierałt K., Klich S., Łazarski G., Nieroda A., Maria Ociepa, A., Pliszko A., Podgórska M., Skowron E., Stachurska-Swakoń A., Stadnicka-Futoma A. & Wolanin M. (2022): Nowe stanowiska roślin naczyniowych Polski, 3. – Wiadomości Botaniczne 66, Article ID: 667. doi.org/10.5586/wb.667

Zorić L. N., Anačkov G. T., Karanović D. S. & Luković J. Ž. (2013): Leaf structural adaptations of two *Limonium* Miller (Plumbaginales, Plumbaginaceae) taxa. – Matica Srpska J. Nat. Sci. 125: 43–54. doi.org/10.2298/ZMSPN1325043Z