

New floristic records from Central Europe 5 (reports 54-80)

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Abstract: The present fifth part of the series includes 27 new chorological records of vascular plants, seven from Czechia (*Asperugo procumbens*, *Eragrostis pilosa*, *Malva pusilla*, *Pseudofumaria lutea*, *Verbascum blattaria*, *V. speciosum*, *Vulpia myuros*); *Geranium macrorrhizum* from Hungary; *Bromus secalinus* and *Erucastrum gallicum* from Poland and three taxa from Romania (*Sonchus palustris*, *Ranunculus ophioglossifolius* and alien *Xanthium spinosum*). In Slovakia twelve native species (*Cladium mariscus*, *Gentiana pneumonanthe*, *Gnaphalium luteoalbum*, *Juncus subnodulosus*, *Lindernia procumbens*, *Origanum vulgare* subsp. *prismaticum*, *Sonchus palustris*, *Taraxacum bessarabicum*, *T. cristatum*, *T. paludem-ornans* and *T. parnassicum*) and two alien (*Brachyactis ciliata* and *Datura innoxia*) were found. Distribution map of critically endangered species *Typha shuttleworthii* and *Taraxacum paludem-ornans* with new localities in Slovakia are presented.

Keywords: chorology, vascular plants, new records, Czechia, Hungary, Poland, Romania, Slovakia, native species, alien, red list species.

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 Checklist of non-vascular and vascular plants of Slovakia (Marhold & Hindák 1998), herbarium acronyms follow Thiers (2020+).

The publication includes contributions by M. Dudáš (54-62), M. Dudáš & M. Marcinčinová (63), P. Eliáš (64-70), P. Eliáš jun. (71-73), R. Hrivnák (74-76), R. Hrivnák & M. Hrivnák (77), R. Hrivnák, M. Veverka & M. Mokráň (78), A. Pliszko (79) and M. Veverka, R. Hrivnák & M. Slezák (80) arranged alphabetically.

Matej Dudáš (reports 54–62)

RO

54. *Sonchus palustris* L.: Transylvanian Plateau, Sălaj county, Sfăraș, alluvium of stream north from the village, in reed beds (*Phragmites australis*), hundreds of plants, 46°54'36.0"N 23°05'27.5"E, 343 m, 13. 8. 2017, M. Dudáš, KO 34252, BRNU 656736. – Jebucu (Zsobok), alluvium of the stream in northern edge of the village, tens of plants scattered in the mosaic of willow shrubs, 46°53'21.8"N 23°06'26.0"E, 340 m, 13. 8. 2017, M. Dudáš, observation.

In the western part of the country the species occurs rarely, towards the east one the number of stands increases (Oprea 2005).

55. *Xanthium spinosum* L.: valley of Mureș River, Alba county, Ciumbud, west from the village towards to Băgău village, edge of field roadside, sheep grazing, single plant, 46°18'50.3"N 23°46'49.5"E, 13. 8. 2017, M. Dudáš, KO 33831.

SK

56. *Brachyactis ciliata* (Ledeb.) Ledeb.: the Košická kotlina Basin, Košice-Ľahanovce, Magnezitárska street, bus stop Magnezitárska, 5 flowering plants, edge of parking plot, 219 m, 48°44'59.4"N 21°15'49.2"E, 7293d, 31. 1. 2020, M. Dudáš, observation.

Unusual flowering due to mild winter. In Košice it was found for the first time near the Main train station in 1987 (Mikoláš 1988) as a new adventive species for the former Czechoslovakian flora. In the present, the occurrence near the Train station was not confirmed, but new population was found under Bankov Hill near abandoned magnesite mines (Baňa Bankov) by P. Mráz in 2002 (the specimen deposited at SAV) and confirmed by M. Dudáš in 2019.

57. *Datura innoxia* Mill.: the Nízke Beskydy Mts., Beskydské predhorie hill area, Humenné, railway station, behind the “Statue of Good soldier Švejk”, right next to the parking place for bicycles, three escaped plants, 150 m, 48°55'48.17"N

21°53'59.91"E, 7097c, 28. 9. 2019, M. Dudáš, KO 34877. – the Východoslovenská nížina lowland, Krivošťany, Laborec River, over weir, on a heap of soil on the left bank, single plant, 137 m, 48°52'45.4"N 21°51'04.7"E, 7197a, 28. 9. 2019, M. Dudáš, photodocumented.

American species invading human-made and semi-natural habitats known from less than four sites in Slovakia since 2000 (Feráková & Králik 2010; Medvecká et al. 2012). During the mapping of alien flora of the city of Humenné, only a single locality was found near the building of the railway station. Three plants, 2 flowering and 1 juvenile (ca 30 cm high), grew under *Picea pungens* tree. The vegetation cover was sparse, only *Poa annua* and *Polygonum aviculare* were recorded. Visiting the city, mainly ruderal sites and railway yards and tracks, no other findings were found. Only one cultivated plant was found in the street Staničná 1482/1, at the entrance to the building. The second locality in Krivošťany was established by dumping of soil mixed with building rubble on the bank of Laborec River. On the heap of soil, the vegetation cover was formed only by *D. innoxia* (single plant), *Microrrhinum minus* and *Calystegia sepium*.

58. *Sonchus palustris* L.: the Slanské vrchy Mts., Vyšná Kamenica, eastern side of the pond, tens of plants in tall-sedge beds, 380 m, 48°47'15.2"N 21°29'12.2"E, 7294b, 16. 8. 2019, M. Dudáš, observation.

The second recent population in the foothill of the Slanské vrchy Mts. (Dudáš et al. 2020).

59. *Taraxacum bessarabicum* (Hornem.) Hand.-Mazz.: the Stredné Pohornádie valley, Košice, over Stará Spišská cesta, Baňa Bankov mine, field road towards solar panels, over 40 flowering plants, 305 m, 48°43'57.8"N 21°13'16.2"E, 7293c, 16. 10. 2019, M. Dudáš, photodocumented, relevé 1.

In the city of Košice this is the new isolated micropopulation, which was probably introduced with a gravel during the building of field road (Dudáš et al. 2019). The poor vegetation cover is characterized by the following phytosociological relevé (no. 1).

Relevé 1: Košice, Baňa Bankov mine, ruderal area at the field roadside near solar panels, 16 m², 48°43'57.8"N 21°13'16.2"E, 305 m a.s.l., elev. 2°, exp. SW, E₁: 60%, 16. 10. 2019, M. Dudáš.

E₁: *Agrostis stolonifera* 2b, *Taraxacum bessarabicum* 2m, *Achillea collina* +, *Brachyactis ciliata* +, *Lotus corniculatus* +, *Plantago major* +, *Setaria pumila* +, *Solidago canadensis* +, *Cichorium intybus* r.

60. *Taraxacum cristatum* Kirschner et al.: the Vihorlat Mts., Chlmec, Skalka hill, limestone sightseeing point at yellow tourist path, 5 plants, 290 m, 48°53'25.34"N 21°56'02.91"E, 7197b, 26. 5. 2019, M. Dudáš, KO 34844, photographed.

The first record in the Vihorlat Mts. This population, together with the population on sands near Malý Horeš (the Východoslovenská nížina Lowland), represents the easternmost limit for the distribution area of this microspecies (Dudáš 2019).

61. *Taraxacum paludem-ornans* Kirschner & Štěpánek: the Strážovské vrchy Mts., Omšenie, small fen near the brook under Mt. Baba, ca ten flowering plants, 398 m, 48°54'26.3"N 18°13'48.4"E, 7075c, 30. 4. 2017, M. Dudáš, KO 33400, det. J. Štěpánek.

New record for the flora of the Western Carpathians Mts. and the third in Slovakia. This finding represents the easternmost limit for the distribution area of this microspecies (Fig. 1). Very rare species from the section *Palustria* known also from SE Moravia and with a single locality in Austria (Kirschner & Štěpánek 1998).



Fig. 1 The position of new record of *Taraxacum paludem-ornans* in the Western Carpathians. Black triangle – previously published records by Kirschner & Štěpánek (1998); red triangle – new record; black circle – capitals.

62. *Taraxacum parnassicum* Dahlst.: the Vihorlat Mts., Chlmec, Chlmecká skalka site, at tourist path, frequent, 430 m, 48°52'14.9"N 21°56'29.9"E, 7197b, 26. 5. 2019, M. Dudáš, KO 34846. – Chlmec, Skalka hill, limestone sightseeing point at the yellow tourist path, 5 plants, 290 m, 48°53'25.34"N 21°56'02.91"E, 7197b, 26. 5. 2019, M. Dudáš, KO 34845. – the Čergov Mts., Kamenica, castle hill, southern foothill, rare, ca 600 m, 49°11'40.0"N 20°58'20.9"E, 6891b, 5. 5. 2017, M. Dudáš, KO 34051. – the Nízke Beskydy hill area, the Ondavská vrchovina hill area, Demjata, Demjatské kopce Nature Reserve, tens of plants, 387 m, 49°06'34.3"N 21°17'52.9"E, 6893d, 5. 5. 2017, M. Dudáš, KO 34045.

The first records of this species from *T. sect. Erythrosperma* for the Vihorlat Mts., the Čergov Mts. and the Ondavská vrchovina hill area. The general distribution in Slovakia has not been known yet.

Matej Dudáš & Margaréta Marcinčinová (report 63)

SK

63. *Origanum vulgare* subsp. *prismaticum* Gaudin: the Stredné Pohornádie valley, Košice, Kavečany, ZOO Košice, dry meadow in SW part, 462 m, 48°47'02.7"N 21°11'51.2"E, 7293a, 7. 10. 2019, M. Dudáš & M. Marcinčinová, KO 34887.

In the Stredné Pohornádie valley it might surely be more frequent although Peniašteková (1993) did not report this subspecies from this phytogeographical district.

Pavol Eliáš (reports 64-70)

CZ

64. *Asperugo procumbens* L.: the Pražská kotlina Basin, Praha 3-Žižkov, Vinohradská Street, at the wall of the cemetery Olšanské hřbitovy, 5952, 30. 6. 2016, P. Eliáš sen., record.

This species is a threatened naturalized archaeophyte in the Czech Republic (C3/NT, Grulich 2017). No data yet from this part of the city (Pladias 2020+).

65. *Eragrostis pilosa* (L.) P. Beauv.: the Pražská kotlina Basin, Praha, Vinohrady, cemetery Olšanské hřbitovy, 5952b, 2012, Eliáš P. sen., record, NI.

This naturalized neophyte belongs to the taxonomical group *E. pilosa* agg.

66. *Malva pusilla* Sm.: the Pražská kotlina Basin, Praha 1-Staré Město, cemetery Starý židovský hřbitov, 5952, 4. 11. 2012, P. Eliáš sen., record. – Praha, Vinohrady, cemetery Olšanské hřbitovy, 5952, 2012, P. Eliáš sen., record.

The naturalized archaeophyte is a threatened species (C2/EN, Grulich 2017), the most recent data on its occurrence in Prague are from the 1960s (Pladias 2020+). Both findings are new locations for the area.

67. *Pseudofumaria lutea* (L.) Borkh. (Syn.: *Corydalis lutea* (L.) DC.): the Pražská kotlina Basin, Praha 2-Vyšehrad, cemetery Slavín, few flowering plants near grounds, 5952, 1. 7. 2016, P. Eliáš sen., record.

68. *Verbascum blattaria* L.: the Pražská kotlina Basin, Praha 2-Vyšehrad, cemetery Slavín, on ground, 5952, 6. 11. 2011, 5. 9. 2012 and 29. 11. 2015, P. Eliáš sen., record. – Praha 5-Smíchov, cemetery Smíchovský hřbitov (Malvazinky), 5952, 27. 11. 2015, P. Eliáš sen., record.

Endangered species (C2/EN, Grulich 2017). In Prague it is rare (Pladias 2020+), recently documented from only one locality (Joza 2009).

69. *Verbacum speciosum* Schrad.: the Znojensko-brnenská pahorkatina hill area, Brno-Veveří, Kraví hora hill, town water reservoir near the M. Koperník Astronomic observatory, moved lawn, 6765b, 2016, P. Eliáš sen., record & photodocumented. – Dolnomoravský úval, Lednice, castle, in an ornamental garden and its vicinity, flowering plants, 7267, 11. 6. 1985, P. Eliáš sen., record.

The local population in Brno-Veveří have been monitored since 1989, the number of plants decreased, now in the marginal part (in fences) only, threatened by frequent cutting of young plant (rosettes). Rare and endangered species (C1r EN, Grulich 2017; C1aut, Kaplan et al. 2019).

70. *Vulpia myuros* (L.) C.C. Gmel.: the Pražská kotlina Basin, Praha 5-Smíchov, cemetery Smíchovský hřbitov (Malvazinky), in the fissures of a cement wall of a ground, more plants, 5952a, 29. 6. 2016, P. Eliáš sen., record.

The naturalised archaeophyte, threatened (C3/NT, Grulich 2017). This is new record for the area (Pladias 2020+).

Pavol Eliáš jun. (reports 71-73)

HU

71. *Geranium macrorrhizum* L.: Heves County, Galyatető, Vassas utca, 925 m, 47°54'59.9"N 19°54'44.3"E, 18. 6. 2018, P. Eliáš jun., NI.

In Hungary, the species is evaluated as casual neophyte (Balogh et al. 2004). We found probably the remnant of the original cultivation, a 2 × 2 m stand at an abandoned cottage.

PL

72. *Bromus secalinus* L.: Nowy Targ County, Sromowce Niżne, common in the oat field near Schronisko PTTK Trzy korony, 490 m, 49°24'24.1"N 20°24'39.0"E, 2. 8. 2019, P. Eliáš jun., NI.

B. secalinus is one of the relatively common weeds in Poland (Zajac & Zajac 2001; Korniak & Dynowski 2011), on the contrary, it is very rare in Slovakia (Eliáš et al. 2015). Its occurrence in the close proximity to the Slovak border is of a great importance for the conservation of the populations in this area of Slovakia, for example by supplying diaspores due to imports of Polish cereal seed.

RO

73. *Ranunculus ophioglossifolius* Vill.: Satu Mare county, Negreşti-Oaş, Tur village, wet meadows SWS from the village near the road No. 197, very rare, 175 m, 47°52'13.9"N 23°21'56.3"E, 8. 6. 2011, leg. P. Eliáš jun. & D. Dítě, det. P. Eliáš jun., NI.

An Atlantic-meridional rare species evaluated as „near threatened“ (NT) in Romania. Our finding confirmed the occurrence of *R. ophioglossifolius* in this area (Karácsonyi 1995), which has been disputed up to now (Oprea 2005).

Richard Hrivnák (reports 74–76)

SK

74. *Cladium mariscus* (L.) Pohl: the Podunajská rovina lowland, Ohrady, S of the village, margin of a pool, 111 m, 47°58'57.8"N 17°42'15.1"E, 8072a, 15. 8. 2018, R. Hrivnák, photodocumented.

Cladium mariscus is an endangered plant species of the Slovak flora (Eliáš et al. 2015), recently occurring on less than ten localities (Eliáš et al. 2003). Relatively large population of *C. mariscus* grew around pool margins (probably created after peat extraction in former fen) within the stands typical for the association *Cladietum marisci* Allorge 1921 (relevé 2). The association is recently known only from the surroundings of the villages Dolný Štál and Boheľov in the Panonian lowland, and Stankovany in the Western Carpathians (Oťaheľová et al. 2001; Eliáš et al. 2003).

Relevé 2: the Podunajská rovina lowland, Ohrady, S of the village, pool margins, alt. 111 m, 47°58'57.8"N 17°42'15.1"E, area of relevé: 16 m², cover E₁: 90%, E₀: 0%, cover of dead phytomass on the soil surface: 70%, 15. 8. 2018, R. Hrivnák.

E₁: *Cladium mariscus* 4, *Calamagrostis epigejos* 1, *Lythrum salicaria* 1, *Mentha aquatica* 1, *Phragmites australis* 1, *Calystegia sepium* +, *Deschampsia cespitosa* +, *Eupatorium cannabinum* +, *Lycopus europaeus* +, *Lysimachia vulgaris* +, *Molinia coerulea* agg. +, *Poa trivialis* +, *Pulicaria dysenterica* +, *Sparganium erectum* +.

75. *Juncus subnodulosus* Schrank: the Podunajská rovina lowland, Ohrady, SE of the village, margin of a pool, fragment of fen, 113 m, 47°58'56.8"N 17°42'44.3"E, 8072a, 9. 7. 2018, R. Hrivnák, SAV.

This critically endangered species (Eliáš et al. 2015) was found in a fragment of fen vegetation, which on both sites (relevés 3 and 4) represents a transitional phytocoenosis between three classes, *Phragmito-Magnocaricetea* Klika in Klika et Novák 1941, *Scheuchzerio palustris-Caricetea fuscae* Tx. 1937 and *Molinio-Arrhenatheretea* Tx. 1937. Several localities are known from fens and canal margins of the Podunajská nížina lowland (Mičieta & Zlinská 1991; Dítě et al. 2014).

Relevé 3: the Podunajská rovina lowland, Ohrady, SE of the village, degraded fen along the pool margins, alt. 113 m, 47°58'56.8"N 17°42'44.3"E, area of relevé: 16 m², cover E₁: 60%, E₀: 20% (indeterminate), 9. 7. 2018, R. Hrivnák. E₁: *Molinia coerulea* agg. 3, *Phragmites australis* 2b, *Carex flacca* 1, *C. panicea* 1, *Deschampsia cespitosa* 1, *Lysimachia vulgaris* 1, *Solidago gigantea* agg. 1, *Thalictrum flavum* 1, *Agrostis stolonifera* +, *Carex disticha* +,

C. riparia +, *Lythrum salicaria* +, *Mentha arvensis* +, *Sanguisorba officinalis* 1, *Calamagrostis epigejos* +, *Iris pseudacorus* +, *Juncus articulatus* +, *J. subnodulosus* +, *Pulicaria dysenterica* +, *Salix cinerea* +, *S. purpurea* +, *Vicia cracca* +, *Frangula alnus* r.

Relevé 4: the Podunajská rovina lowland, Ohrady, SE of the village, degraded fen along the pool margins, alt. 113 m, 47°58'58.8"N 17°42'42.3"E, area of relevé: 15 m², cover E₁: 80%, E₀: 0%, 15. 8. 2018, R. Hrivnák.

E₁: *Phragmites australis* 4, *Juncus subnodulosus* 3, *J. articulatus* 1, *J. compressus* 1, *Carex flacca* 1, *Lythrum salicaria* 1, *Carex acutiformis* +, *C. riparia* +, *Eleocharis uniglumis* +, *Lysimachia vulgaris* +, *Mentha aquatica* +.

76. *Lindernia procumbens* (Krock.) Borbás: the Hronská pahorkatina hill area, Kamenica nad Hronom, S of the village, right bank of Váh river, gravel and sand exposed bottom, 103 m, 47°49'36.2"N 18°43'23.1"E, 7178c, 16. 8. 2018, R. Hrivnák, SAV. – the Lučenská kotlina Basin, Veľká nad Ipľom, E from the village, gravel pit, exposed bottom, 160 m, 48°15'58.0"N 19°38'35.0"E, 7783b, 5. 8. 2019, R. Hrivnák, SAV & photo.

The species is known from several localities in the Podunajská nížina lowland (e.g. Zahradníková & Oťaheľová 1997; Eliáš et al. 2011; Dítětová et al. 2016; Dítě & Dítě 2019). In the Poiplie region, the species is relatively rare. It was mentioned in old literature (cf. Zahradníková & Oťaheľová l.c.), as well as in several recent studies (Eliáš jun. 2013; Košťál & Vojteková 2014; Bubíková et al. 2016; Hrivnák & Slezák 2017).

Richard Hrivnák & Matúš Hrivnák (report 77)

SK

77. *Gentiana pneumonanthe* L.: the Podunajská rovina lowland, Ohrady, SE from the village, margin of the pool, fragment of fen, 113 m, 47°58'56.3"N 17°42'42.8"E, 8072a, 15. 8. 2018, R. Hrivnák, photodocumented. – the Ostrôžky Mts., Lentvora, 1,5 km NE of the village, grass-overgrown tracks on a forest edge, 595 m, 48°22'54.2"N 19°28'00.6"E, 7682b, 31. 8. 2019, M. Hrivnák, photodocumented.

The species is known from several localities in the Podunajská nížina lowland (district Dunajská Streda; Bertová 1984), as well as from three localities in the Ostrôžky Mts. (Bertová 1984; Hrivnák et al. 2005).

Richard Hrivnák, Martin Veverka & Marián Mokrň (report 78)

SK

78. *Gnaphalium luteoalbum* L.: the Podunajská rovina lowland, Chľaba, S of the village, margin of waterlogged gravel-sand pit, periodically exposed bottom of a

terrain depression shaded by trees, 105 m, 47°49'26.9"N 18°49'48.0"E, 8178d, 13. 9. 2018, M. Mokráň, R. Hrivnák & M. Veverka, SAV & photodocumentation.

This critically endangered species (Eliáš et al. 2015) occurs mainly in the Panonian lowland, while it is very rare in the Western Carpathians. Most findings are relatively old (end of the 19th and the beginning of the 20th century; Hřčka 2005).

Artur Pliszko (report 79)

PL

79. *Erucastrum gallicum* (Willd.) O.E. Schulz: north-eastern Poland, the Masurian Lakeland, Sedranki near Olecko, several dozen flowering plants on a roadside verge, 165 m, 54°03.816'N, 22°29.005'E, 20. 07. 2017, A. Pliszko, KRA 0477528, 0477529.

The species is native to southwestern and central Europe. It was introduced to and naturalized in other parts of Europe, North America and Asia (Warwick & Wall 1998 and references therein). It is usually found on roadsides and railways, in waste places, fields, orchards, gardens, lawns, pastures, fallow lands, trenches and silts of rivers and brooks (Warwick & Wall 1998 and references therein, Maslo et al. 2019). In Poland, the first introduction of *E. gallicum* was in 1936. Nowadays, it is an established alien plant (kenophyte) occurring in ruderal habitats, with no invasive capacity (Tokarska-Guzik et al. 2012). It occurs throughout the country but is not a common species (Zajac & Zajac 2019). In the Masurian Lakeland (NE Poland) it is known from a few localities (Zajac & Zajac 2019). This is the north-easternmost record of its occurrence in the country, so far.

Martin Veverka, Richard Hrivnák & Michal Slezák (report 80)

SK

80. *Typha schuttlesworthii* W. D. J. Koch et Sond.: the Horehronské podolie area, Michalová, W of the village, right side of the Rohozná stream, terrain depression on wet meadow, 580 m, 48°46'14.77"N 19°45'40.33"E, 7284b, 3. 8. 2019, M. Veverka, photodocumented. – Michalová, W of the village, left side of the Rohozná stream, wet meadow, 580 m, 48°46'9.360"N 19°45'37.720"E, 7284b, 3. 8. 2019, M. Veverka, photodocumented. – Pohorelá, W of the village, right bank of Hron river, between road and railway, 660 m, 48°51'12.835"N 19°59'44.489"E, 7185b, 19. 7. 2019, M. Veverka, photodocumented. – the Oravská kotlina Basin, Bobrov, ca 1.5 km NE of the village, left part of alluvium of the Poľanový Kriváň stream, shallow terrain depression on meadows, 606 m, 49°26'34.9"N 19°34'20.8"E, 6583c, 2. 8. 2016, R. Hrivnák & M. Slezák, SAV & photodocumented.

Critically endangered species (Eliáš et al. 2015), which occurs only in few localities in the south-western, north and north-eastern parts of Slovakia (Dostál & Červenka 1983; Ondrášek 2002; Uhrin & Bača 2005; Bača 2009). In addition to new localities, the species was recently found in the Muránska planina Mts near Rohozná and

Červená Skala villages (Veverka 2018; Hrivnák et al. 2019), as well (for recent distribution of the species in Slovakia see Fig. 2).

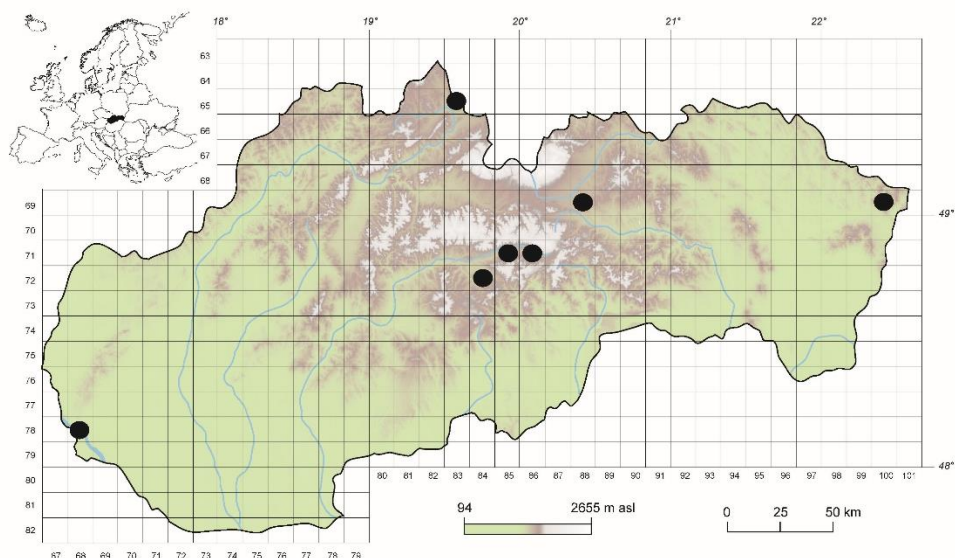


Fig. 2 Recent distribution of *Typha schuttleworthii* in Slovakia.

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