

New floristic records from Central Europe 9 (reports 122-133)

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Abstract: The presented ninth part of the series includes twelve new chorological records, one from Poland, one from Romania, two from Slovakia and eight from Ukraine. New locality of regionally invasive species *Erechtites hieraciifolius* in Poland was recorded. In Slovakia, two aliens were reported, *Vinca major* and *Persicaria capitata* which is a new alien species for the flora of Slovakia. Based on the revision of the *Rubus* collections in BP, new records of *Rubus perrobustus* in Romania, furthermore *R. bicolor*, *R. orthostachys*, *R. perperus* and *R. radula* in Ukraine, were found. Also *Cortusa matthioli*, *Gentiana lutea*, *Pinguicula vulgaris* and *Waldsteinia geoides* were reported from the Ukrainian Carpathians.

Keywords: chorology, vascular plants, new findings, Poland, Romania, Slovakia, Ukraine, Carpathians, native species, alien, red list species, *Rubus*.

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 (2021+).

The publication includes contributions by M. Dudáš (122-123), G. Király (124-128), Y. Kobiv (129-132) and A. Pliszko (133) arranged alphabetically.

Matej Dudáš (reports 122-123)

Slovakia

122. *Persicaria capitata* (Buch.-Ham. ex D. Don) H. Gross: the Slovenské rudohorie Mts., Košice, Sever, Botanical garden of Pavol Jozef Šafárik University, edge of the sidewalk by the bench (behind the gatehouse), in crack in concrete, 222 m, 48°44'7.35"N 21°14'18.31"E, 7293c, 25. 10. 2021, M. Dudáš, KO 36401, Fig. 1.

Persicaria capitata is a species with the origin in southeastern Asia in China, Bhutan, northern India, Malaysia, Myanmar, Nepal, Sikkim, Sri Lanka, Thailand and Vietnam (Anjen et al. 2003). Naturalized occurrence has been reported in Taiwan (Hsu et al. 2004), Brazil, Colombia, South Africa, Costa Rica, Argentina, El Salvador (Soto Solís 2014), Hawaii Islands (Wagner et al. 1990) and in the USA (Hinds & Freeman 2005). In Europe, it is cultivated as an ornamental plant. It is known naturalised from Great Britain, Netherlands, Portugal, Italy and Greece and it is also reported as alien from Spain, Sweden and Norway (Uotila 2017). In the Botanical garden of P. J. Šafárik University in Košice its spontaneous occurrence has been observed for the first time, however it has been cultivated here for few years. The diaspores come from flowerpots along the sidewalk, where it is cultivated as an ornamental plant. The vegetation is characterized by the following phytosociological relevé (1). This is the first record of *Persicaria capitata* outside cultivation in Slovakia. Currently, it should be classified as casual alien in the Slovak flora.

Relevé 1. The locality characterised formerly, crack in concrete, concrete 80 %, gravel 20 %, 2 × 1 m, 222 m a.s.l., elev. -, exp. -, E₁: 5 %.

E₁: *Poa annua* +, *Persicaria capitata* +, *Digitaria ischaemum* r, *Echinochloa crus-galli* r, *Euphorbia helioscopia* r, *Geum urbanum* r, *Plantago major* r, *Polygonum aviculare* r, *Stellaria media* r, *Taraxacum* sect. *Ruderalia* r, *Xanthoxalis* sp. r.



Fig. 1 *Persicaria capitata*, new alien taxon in the Slovak flora. Small population along the sidewalk in the Botanical garden, Košice (left) and detail of inflorescence (right) (photo by M. Dudáš, 26. 10. 2021).

123. *Vinca major* L.: the Stredné Pohornádie Valley, Branisko Mt., Lačnov, roadside in the western part of the village, naturalised, tens of plants, 794 m, 49°04'16.2"N 20°55'22.0"E, 6991b, 13. 6. 2021, M. Dudáš, KO 36138.

Mediterranean species, in Slovakia it was recorded as garden escapee in the foothill of the Malé Karpaty Mts (Hajdúk 1975) and in the Strážovské vrchy Mts (Dudáš et al. 2020). This is the first record in eastern Slovakia (Fig. 2). Casual neophyte in Slovakia (Medvecká et al. 2012).

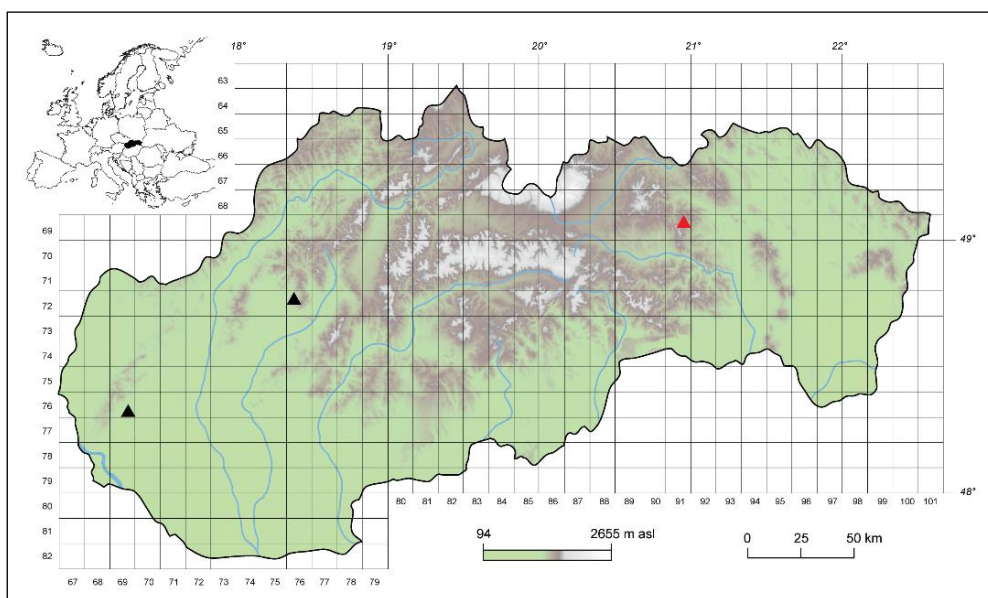


Fig. 2 The recent findings of *Vinca major* in Slovakia. Black triangle - previously reported data, red triangle - new report.

Gergely Király (reports 124-128)

Romania

124. *Rubus perrobustus* Holub: “Resicabánya, Krassó-Szörény megye” [=Reșița, Caraș-Severin County], 3. 7. 1904, J. Bernátsky (BP 84337) (as “*R. thyrsoides*”).

Rubus perrobustus (ser. *Rubus*) has the distribution centre in Bohemia, Slovakia, and southern Poland (Kurtto et al. 2010), with few, sporadic occurrences in the neighbouring regions. It predominantly occurs in oak-hornbeam and beech forests and their derivatives (fringes, clearings), often abundant at the localities. The here reported occurrence (based on the collection of Jenő Bernátsky in BP) from Banat region, southern Transylvania, lies far (ca. 300 km) from the formerly known edge (NE Hungary) of the range and represents the very southernmost outpost of the distribution area.

Transcarpathian Ukraine

125. *Rubus bicolor* Opiz: Transcarpathia (Zakarpatska Oblast), “Vöröshegy pr. Munkács” [=Chervona Hora, Mukachevo], 7502a, July 1917, A. Margittai (BP 463096) (as “*R. candicans*”), Fig. 3. – “in m. Lovačka, Mukacevo” [=Mt Lovachka, Mukachevo], 8. 7. 1935, A. Magittai (BP 85245) (as “*R. vestii*”).

Rubus bicolor is the most widespread species of the triploid *R. montanus*-group (ser. *Discolores*) that was investigated by the comprehensive work of Király et al. (2017). Prior to this study, the representatives of this group were not distinguished, therefore the taxonomy and chorology of the group was practically drawn from the grounds. *R. bicolor* occurs in several European countries; however, it has not yet been shown from Ukraine. During the revision of Antal Margittai, remarkable botanist of the surroundings of Transcarpathia (Kárpátalja, Zakarpatska Oblast, today in Ukraine) in the first decades of the 20th century (see Shevera et al. 2014), I found two vouchers that corroborate its (long expected) presence in Ukraine.

126. *Rubus orthostachys* G. Braun: Transcarpathia (Zakarpatska Oblast), “in fruticosis ad Silce, Bereg [= Sil'tse], ca. 7703d, 26. 6. 1935, A. Margittai (BP 85182) (as “*R. holandrei*”); and s.d., A. Margittai (BP 85180) (as “*R. bahusiensis*”). – “in fruticosis in m. Nagyhegy ad Mukacevo, Bereg” [= Velyka Hora, Mukachevo], 7502d, 5. 6. 1935, A. Margittai (BP 85154) (as “*R. ambifarius*”).

Rubus orthostachys (sect. *Corylifolii*, ser. *Suberectigeni*) is a north-central European bramble species that is widespread in southern Poland, Slovakia, and north-eastern Hungary, with an outpost in Lviv region of Ukraine (Zieliński 2004; Kurtto et al. 2010). It has not been mentioned previously from the Transcarpathian region. During the revision of the bramble collections in BP, three vouchers collected under various, erroneous names by Antal Margittai on the foothills of the Northeastern Carpathians SE of Mukachevo were found and revised. These records represent the very southern edge of the distribution area of the species.

127. *Rubus perperus* H. E. Weber: Transcarpathia (Zakarpatska Oblast), “In m. Szarkahegy ad Munkács” [=Pidhoriany, Mukachevo], 7502b, 25. 7. 1928, A. Margittai (BP 85625) (as “*R. candicans* subsp. *thyrsanthus*”), Fig. 3.

Rubus perperus (ser. *Rubus*) is a central European species with a wide range from Belgium to eastern Slovakia and Poland (Kurtto et al. 2010). It mainly occurs on base rich soils in thermophilus submontane forests. It has not yet been reported from Ukraine. The record near Mukachevo, derived from the collection of Antal Margittai in BP represents the easternmost known outpost of the range.

128. *Rubus radula* Weihe: Transcarpathia (Zakarpatska Oblast), “in silvis ad Lohó, Bereg” [=Lohovo], 7402c, 28. 7. 1935, A. Margittai (BP 85237). – “ad Cinadevo, Bereg” [=Chinadiyovo], ca. 7502b, 5. 7. 1935, A. Margittai (BP 85234). – “In m. Nagyhegy ad Beregszász” [= Mt Nagyhegy, Berehove], 7802a, 25. 6. 1935, A. Margittai (BP 85174, 85175) (as “*R. fuscoater*”). – “in m. Nefelejcs ad Munkács” [=

Mt Nefelejcs, Mukachevo], July 1928, A. Margittai (BP 85055), 8. 7. 1935, A. Margittai (BP 85242). – “in m. Csernek ad Munkács” [= Chernecha Hora, Mukachevo], 8. 7. 1934, A. Margittai (BP 85056), identification for all specimens listed here was confirmed also by the revision of B. Trávníček, 2013.

Rubus radula, one of the most common representatives of ser. *Radula*, is a bramble of wide distribution, from the British Isles and the Iberian Peninsula in the West to eastern Poland and Romania in the East (Kurtto et al. 2010). Due to its morphological plasticity and the repeated creation of similar local biotypes without taxonomic significance, it often had been misinterpreted. The checklist of Mosyakin & Fedoronchuk (1999) classified it (based on a questionable record from Transcarpathia) as a dubious species in Ukraine. It is not given by Kurtto et al. (2010) for Ukraine. In the collection of BP there are several specimens collected by Antal Margittai in the 1920-1930s, all but one vouchers were primarily identified as infraspecific taxa under *R. radula*.

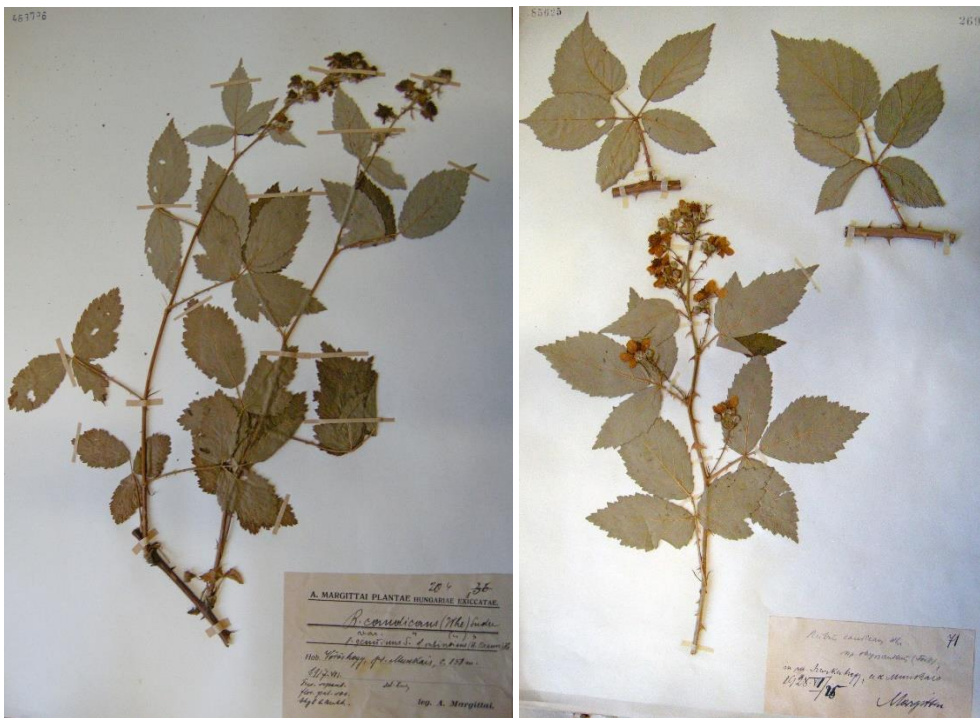


Fig. 3 Herbarium specimens of *Rubus bicolor* (BP 463096; left) and *R. perperus* (BP 85625; right) from the collection of A. Margittai deposited in herbarium BP.

Yuri Kobiv (reports 129-132)

Transcarpathian Ukraine

129. *Cortusa matthioli* L.: Rakhiv Region, 6 km NE of Vodyane village, the Svydovets Mts, headwaters of the Tiovshak Stream, Tserkvly limestone cliffs, shady E slope, 820 m, 48°06'41.3"N 24°00'52.3"E, 25. 6. 2009, Y. Kobiv, LW 215419.

Cortusa matthioli is a calcicole montane species. It is rare in the Carpathians and occurs in two different types of localities: shady limestone rocks and springs of calcium-rich streams (Kobiv 1999). In Transcarpathia, the species' localities have been reported from the Beskydy (near Stinka village), Borzhava (near Volovets village), Krasna (near Uholka village), Marmarosh (near Dilove village), Chornohora Mts (near Lazeshchyna village) (Stoyko et al. 1982; Kobiv 1999, 2005b; Lesjo & Mitka 2002). The reported locality from the Svydovets Mts is situated on the limestone cliff, which belongs to the so-called Marmarosh Klippen Zone, a discontinuous chain of the limestone outcrops that stretches in the region along the boundary between the Inner and Outer Carpathians (Jankowski 2007).

130. *Gentiana lutea* L.: Rakhiv Region, 9 km NE of Luhy village, Polonyna Malyy Tomnatyk, *Vaccinio-Juniperetum nanae* scrub, S slope: 1730 m, 48°06'15.4"N 24°32'25.5"E; 1715 m, 48°06'14.7"N 24°32'24.3"E; 1715 m, 48°06'15.2"N 24°32'32.1"E, 30. 7. 2018, Y. Kobiv, LW 215421A, B. – Rakhiv Region, 11 km NEE of Luhy village, Polonyna Baltsatul, *Deschampsietum cespitosae* subalpine meadow, SE slope of the glacial cirque, 1730 m, 48°05'11.8"N 24°34'50.6"E, 28. 7. 2019, Y. Kobiv, LW 215418.

Gentiana lutea is a subalpine species distributed in the tall-grass communities belonging to the order *Calamagrostietalia villosae* (class *Mulgedio-Aconitetea*) and also occurs at the edge of krummholz scrub. It is included in the Red Data Book of Ukraine (Didukh 2009). In Transcarpathia, it is known from the Borzhava, Gorgany, Svydovets, Marmarosh, and Chornohora Mts. In the Chornohora Mts, large populations are situated in Polonyna Rohnieska, Mt. Sheshul, Mt. Hoverla, and Mt. Gutyn-Tomnatyk (Zapałowicz 1889; Klášterský 1929; Shiyan 2014). This record is new for the Chornohora Mts. Three small groups of *G. lutea* occur at a distance of 100–200 m from each other. These clusters consisting of 5–10 individuals each are scattered in the small openings within the subalpine scrub of *Juniperus communis* subsp. *nana* and *Pinus mugo*. The numerous population in Polonyna Baltsatul, which includes over 100 flowering individuals, lies at the bottom and on the SE slope of the glacial cirque beneath Mt. Munchel within 1670–1805 m above sea level. It is distributed mostly among the tall-grass vegetation and on the rocky outcrops.

131. *Pinguicula vulgaris* L.: Khust Region, 6 km NE of Nehrovets village, the Inner Gorgany Mts, Mt. Nehrovets, at the stream, S slope, 1319 m, 48°29'32.1"N 23°42'52.4"E, 7. 7. 2021, Y. Kobiv, LW 215417.

The species is included in the Red Data Book of Ukraine (Didukh 2009). In the Carpathians, its localities occur at the southeastern edge of the species' vast range. *Pinguicula vulgaris* is a calciphilous and hygrophytic species. It is rare and threatened in the Ukrainian Carpathians because the calcium-rich bedrock is very scarce there. In Transcarpathia, *P. vulgaris* has been known only from the Svydovets and the Chornohora Mts (Chopyk 1976; Kobiv 2005a), i.e. from the southeast of the region.

Its locality on Mt. Nehrovets lies ca. 40 km northwestwards from the closest station in the Svydovets Mts.

132. *Waldsteinia geoides* Willd.: Khust Region, 4 km SE of the town of Vyshkovo, the Oash Mts, Mt. Var Hed', *Quercetum petraea-cerris* forest, E slope, 500 m, 48°00'24.5"N 23°27'23.6"E, 24. 6. 2009, Y. Kobiv, LW 215420.

The species' range covers Central Europe and north of the Balkan Peninsula with disjoint occurrence in Podillya, Ukraine. It is included in the Red Data Book of Ukraine (Didukh 2009). In Transcarpathia, the species was known only from Mt. Rivna Massif near the villages of Kostryna, Turya Poliana and Turyi Remety (Budzhak et al. 2015). *Waldsteinia geoides* occurs in thermophilous oak forests (Zahradníková 1992), which are rare in Transcarpathia. The reported locality is situated close to the Ukrainian-Romanian border on the volcanic bedrock and lies ca. 90 km south-eastwards from the above-mentioned Transcarpathian sites.

Artur Pliszko (report 133)

Poland

133. *Erechtites hieraciifolius* (L.) Raf. ex DC: southern Poland, Lesser Poland Province, Chełm near Wolbrom, the edge of the thickets on an abandoned field, one flowering individual, 395 m, 50°22.033'N, 19°45.153'E, 2. 9. 2021, Fig. 4.

Erechtites hieraciifolius is an annual plant native to North and South America (Darbyshire et al. 2012). It usually occurs in deciduous and mixed forests, as well as on shores of lakes and rivers. It is often found in forests disturbed by fire, wind-throws and cutting, as well as in other areas disturbed by flooding, erosion and hydrological changes (Darbyshire et al. 2012). *E. hieraciifolius* was introduced as a contaminant, medicinal or ornamental plant to Europe, Asia and New Zealand (Randall 2017 and references therein). In Poland, it is treated as naturalized and regionally invasive alien species (Tokarska-Guzik et al. 2012). It occurs mainly in wet acidic forests (pine, oak, beech and mixed forests), as well as in forest clearings, young forest plantations, along roadsides in forests, on riverbanks and edges of oxbow lakes and pit bogs (Bartoszek 2019; Bohdan & Sulej 2020; Jaźwa 2020 and references therein). The plant is rare in the northern part of Poland but quite common in some regions in the southern part of the country (Zajęc & Zajęc 2019). The number of sites of *E. hieraciifolius* in Poland has been increasing in recent years, especially in the south-western part of the country (Jaźwa 2020). This is the first record of *E. hieraciifolius* within the unit DF38 (10 km square) of the ATPOL cartogram grid (Zajęc & Zajęc 2019). In the new site in Chełm, the plant grew on sandy soil and was associated inter alia with *Agrostis capillaris* L., *Erigeron canadensis* L., *Lactuca serriola* L., *Pinus sylvestris* L., *Quercus robur* L., *Rumex acetosella* L., *Solidago canadensis* L. and *Urtica dioica* L. Further spread of the species in Poland is expected in both disturbed forests and anthropogenic habitats.



Fig. 4 *Erechites hieraciifolius* in the new site in Chełm near Wolbrom, southern Poland: A – upper part of the plant, B – lower part of the plant. Photographed by A. Pliszko.

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