

SHORT COMMUNICATION

Confirmation of *Spiraea crenata* L. occurrence in Slovakia

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Accepted: 18 April 2024

Key words: endangered species, Red Data Book of Slovakia, Rosaceae, vascular plants.

Abstract: *Spiraea crenata*, a continental Eurasian species with only one known locality in Slovakia is currently assessed by the Slovakian Red Data Book as “critically endangered – probably regionally extinct [CR(PE)]”. The species was discovered by Josef Holub near Svätušé (Východoslovenská nížina lowland, SE Slovakia) in the 1950’s, but has not been found for decades despite targeted searches. Two polycormons of the species were recorded in September 2015 near Svätušé, in the vicinity of a quarry, at the margin of shrub vegetation belonging to the association *Ligustro-Prunetum* R. Tx. 1952 (Berberidion alliance, Crataego-Prunetea class).

Citation: Eliáš P., Molnár V. A. 2024: Confirmation of *Spiraea crenata* L. occurrence in Slovakia. Bot. Közlem. 111(1): 89–94. DOI: 10.17716/BotKozlem.2024.111.1.89

Spiraea crenata L. is a continental Eurasian species with disjunct distribution range from Central Europe (Hungary, Slovakia) to Western Siberia, Central Asia and northern Iran. In Slovakia, only a single locality of the plant is known (Fig. 1). J. Holub found the species on a rock edge that served as an exit road to the stone quarry near the village of Svätušé / Bodrogszentes (Východoslovenská nížina lowland, SE Slovakia) in the late 1950s (HOLUB 1961). The origin of the species in this locality is under dispute; J. Holub presented it as a very rare native taxon at the western edge of its distribution range, while ZÁHRADNÍKOVÁ (1992) considered the occurrence to be an escape from culture. Based on J. Holub’s opinion, *S. crenata* was included in the Red Book of rare and endangered species of the Czech and Slovak Republics (HOLUB 1999), as well as in all versions of the Red Lists of Slovakia. It is currently assessed as “critically endangered – probably

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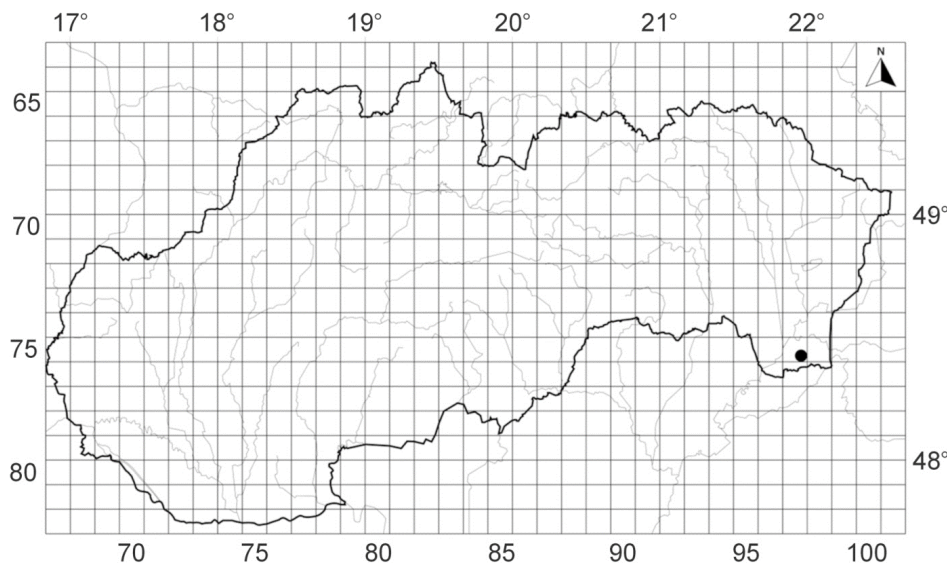


Fig. 1. Distribution of *Spiraea crenata* L. in Slovakia in the Central European Flora Mapping System (NIKL FELD 1971).

1. ábra. A csipkés gyöngyvenesző elterjedése Szlovákiában a közép-európai flóratérképezés (NIKL FELD 1971) rendszerében.

regionally extinct” [CR(PE)] because the species has not been encountered for several decades at the locality despite focused search efforts (ELIÁŠ et al. 2015). It was generally believed that the local population (of 1–2 polycormons according to Holub) fell victim to stone mining on the site. Formerly, the species was also categorised as extinct in Hungary (BARTHA and NAGY 2004). Nowadays, however, it has been found in several cemeteries (LOVAS-KISS et al. 2017, MOLNÁR et al. 2017) and settlements (MÁTÉ 2015, SOMLYAY 2015, BAUER 2019, MOLNÁR et al. 2024).

During the collection of samples for the planned phylogenomic study of the species (LACZKÓ et al. 2024) on 10th September 2015, A. Molnár V. (accompanied by A. Máté, G. Sramkó and R. Vidéki) found the species. The locality is situated on the edge of a basalt quarry, on the hill rising above Svätušé (Fig. 2), so it is probably identical to the one found by Holub. Based on this new information, we propose to reassess the status of *S. crenata* in the Slovak Red List and classify it as a critically endangered species (CR) with IUCN criterion D (IUCN 2012; the population size is estimated to be smaller than 50 adults).

We assessed the vegetation composition of the stand harbouring *S. crenata* by the following phytosociological relevé sampled according to the Zürich–

Montpellier approach using the adapted nine-grade Braun-Blanquet's scale (BARKMAN et al. 1964); the nomenclature of vascular plant taxa is according to MARHOLD and HINDÁK (1998):

Relevé no. 1: Východoslovenská nížina lowland, Bodrogszentes / Svätušé, shrub vegetation on steep slope, 140 m a.s.l., 48° 25' 36.0" N, 21° 55' 36.4" E, exposition SW, elevation 45–50°, relevé plot 50 m² (5 m × 10 m), E₀: 10% (not estimated), E₁: 40%, E₂: 60%, 01.06.2023, P. Eliáš Jr.

E₁: *Bromus tectorum* 2b, *B. sterilis* 2a, *Elytrigia repens* 2a, *Galium aparine* 2a, *Achillea pannonica* 1, *Alyssum alyssoides* 1, *Artemisia absinthium* 1, *Bromus hordeaceus* 1, *Convolvulus arvensis* 1, *Melica transsilvanica* 1, *Tordylium maximum* 1, *Trifolium retusum* 1, *Ulmus minor* juv. 1, *Vicia tetrasperma* 1, *V. villosa* 1, *Achillea nobilis* +, *Arenaria serpyllifolia* +, *Cerastium brachypetalum* +, *Chondrilla juncea* +, *Cruciata pedemontana* +, *Erodium cicutarium* +, *Eryngium campestre* +, *Erysimum diffusum* +, *Geranium pusillum* +, *Koeleria macrantha* +, *Leopoldia comosa* +, *Medicago minima* +, *Petrorhagia prolifera* +, *Potentilla argentea* +,



Fig. 2. The locality of *Spiraea crenata* near Svätušé (SE Slovakia) in 2015. Photo by A. Molnár V.
2. ábra. A *Spiraea crenata* lelőhelye Bodrogszentes (Délkelet-Szlovákia) közelében, 2015-ben.
Molnár V. A. felvétele.

Thymus pannonicus +, *Tithymalus cyparissias* +, *Trifolium arvense* +, *T. striatum* +, *Ranunculus illyricus* r, *Sedum maximum* r, *Tragopogon dubius* r

E₂: *Ulmus minor* 3, *Rosa canina* 2b, *Crataegus monogyna* 2a, ***Spiraea crenata* 1**

The plant community with presence of *S. crenata* near Svätuše represents shrub vegetation of the association *Ligustro-Prunetum* R. Tx. 1952 (Berberidion alliance, Crataego-Prunetea class). The association typically appears in lowlands and hilly areas mostly up to 400 m a.s.l. in Slovakia where it occupies edges of fields, meadows, pastures and vineyards. In a synanthropic landscape, these stands are relatively species-poor and in some cases *Ulmus minor* predominates (VALACHOVIČ et al. 2021). The species composition and abundance of dominant taxa in E₂ in Svätuše shows exactly this atypical stand with the predominance of *U. minor*. BERTA (1970) already mentioned such types of stands from the Východoslovenská nížina lowland more than 50 years ago.

Acknowledgements

The authors express their gratitude to András Máté, Gábor Sramkó, Attila Takács and Róbert Vidéki, for their help during fieldwork. This paper was funded by NKFIH OTKA K132573 grant (AMV) and grant VEGA 1/0359/22 (PE).

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RÖVID KÖZLEMÉNY

A *Spiraea crenata* L. szlovákiai előfordulásának megerősítése

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Elfogadva: 2024. április 18.

Kulcsszavak: hajtásos növények, Rosaceae, veszélyeztetett faj, vörös könyv.

Összefoglalás: A csipkés gyöngyvessző (*Spiraea crenata*) kontinentális eurázsiai elterjedésű faj, amelynek Szlovákiában csupán egyetlen lelőhelye ismert. Josef Holub az 1950-es években találta Svätušé (Bodroszentes) közelében

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(Délkelet-Szlovákia területén). A fajt napjainkban a szlovák Vörös Könyv „kritikusan veszélyeztetett – valószínűleg regionálisan kihalt” taxonként tartotta nyilván, mivel a célzott keresések ellenére évtizedekig nem került elő. 2015 szeptemberében két sarjtelepét észleltük a település feletti domboldal peremén, a kőbánya közelében, cserjés növényzet (*Ligustro-Prunetum* R. Tx. 1952, Berberidion csoport, Crataego-Prunetea osztály) szegélyén.

Idézés: Eliáš P., Molnár V. A. 2024: Confirmation of *Spiraea crenata* L. occurrence in Slovakia. [A *Spiraea crenata* L. szlovákiai előfordulásának megerősítése]. Bot. Közlem. 111(1): 89–94. (in English with Hungarian abstract) DOI: 10.17716/BotKozlem.2024.111.1.89