

***Myosotis sicula* new to Hungary**

Myosotis sicula, nový druh pro Maďarsko

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K e y w o r d s: *Myosotis sicula*, geographical distribution, Hungary

Myosotis sicula Gussone is reported as a new species for the Hungarian flora. Its description based on Hungarian material is given. An identification key to the members of the *M. sicula* s.l. group occurring in eastern Mediterranean is also provided.

Introduction

Myosotis sicula, the species included to the Series *Palustres* M. Pop., was described from Sicilia (Gussone 1842:214). Its basic diagnostic characters are as follows: corolla saucer-shaped, ca 3 mm in diameter; calyx oblong-campanulate, ca 3.5 mm long, calyx teeth obtuse; fruit elliptic, rounded at the base, ca 1 mm long.

The chromosome numbers $2n = 46, 46 (+2)$ have been ascertained by Grau (1967) on the material originating from France and from Sardinia. So far, the total distribution area of *M. sicula* has not been satisfactorily known. According to the literature data, the center of its geographical distribution lies in the western and central Mediterranean (Grau 1967, Schuster 1967) and its occurrence from eastern Mediterranean has also been reported. However, with regard to different variation pattern of morphological characters of East- and West-Mediterranean populations, these data must be critically revised from the taxonomical point of view (e.g. Grau 1967, 1978).

Results

In 1939, the Hungarian botanist István Polgár collected interesting plant material of the *M. palustris* group in the vicinity of Szeged (Kiskundorozsma) in Hungary. In 1942, the same collector found these morphologically conspicuous plants in the further locality (near Sandorfalva), repeatedly. However, he was not able to identify them. Hence, he cultivated them to study their morphology in detail. From cultivation experiments, he obtained a great amount of plant material. This material, together with plants collected in original localities, is recently deposited in herbarium BP. During the revision of specimens collected by Polgár, I have determined them as *M. sicula* Gussone.

The brief description of Hungarian plants of *M. sicula* follows: Annual plants, up to 37 cm high, stem erect, branched in lower 1/3, sparsely hairy, hairs appressed, upwards pointing; lower leaves oblong, obtuse at the apex, 2.5-6.0 cm long, 0.5-1.2 cm wide, glabrous to subglabrous beneath, upper leaves 2.0-2.5 cm long, 0.4-0.6 cm wide, strigose beneath with upwards pointing appressed hairs on both sides; inflorescence elongate, dense, branched at the base, with bracts. Lower pedicels up to 11 mm long, deflexed, two times longer than the calyx, upper pedicels to 6 mm long, as long as the calyx, erecto-patent; calyx oblong-campanulate, sparsely strigose beneath with appressed hairs, 3.1-3.9 mm long, 1.5-1.8 mm wide, calyx teeth 1.2-1.3 mm



Fig. 1. - Hungarian plants of *Myosotis sicula* Gussone

long, 0.8-0.9 mm wide, narrowly triangular, obtuse to subacute at the apex; fruit 1.0-1.2 mm long, 0.8-0.9 mm wide, oblong-ovate to elliptic, dark brown; pollen 9.8-10 µm long, 5.4-5.7 µm wide (Fig. 1).

Hungarian localities of *M. sicula*

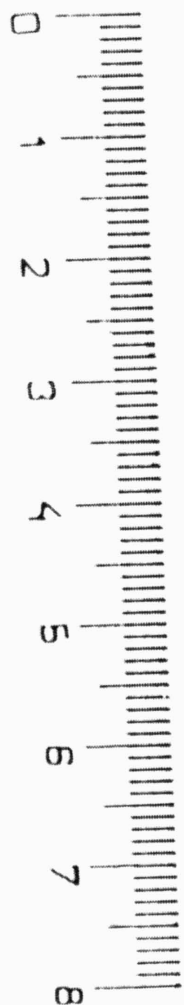
Kisskundorozsma, in prato versus Fehértó, 20. V. 1939, leg. Polgár (BP). - Csongrád, Sandorfalva, 9. VI. 1942, leg. Polgár (BP)

The nearest localities of *M. sicula* have been found by the present author from the territory of Serbia (herbarium records of herbaria WU, JE, G). The Hungarian localities form the northern range of the species distribution in eastern part of the Mediterranean. In addition to *M. sicula*, the following taxa belonging to subser. *Caespitosae* have been reported from eastern Mediterranean in literature (e.g. Riedl 1963, Grau 1967, Štěpánková 1993): *M. caespitosa* C. F. Schultz, *M. diminuta* Grau¹⁾ and *M. margaritae* Štěpánková. Considering their close morphological resemblance, these species have been often confused with each other in herbaria or in floristic literature. The differences among their basic morphological characters are summarized in the following identification key.

Key to the East-Mediterranean members of the *M. caespitosa* - *M. sicula* group

- 1a Plants small, up to 4 cm high; stems not branched; inflorescence with 1-2 flowers . . . *M. diminuta* Grau
- 1b Plants more robust, higher than 4 cm; stems usually branched; inflorescence elongated, dense, usually branched at the base 2
- 2a Corolla 3 mm in diameter, saucer-shaped; calyx 3-4 mm long in fruit, oblong campanulate, calyx teeth obtuse at the apex; fruit elliptic, rounded at base, up to 1.2 mm long; pollen grains ca. 9.5 µm long *M. sicula* Gussone
- 2b Corolla up to 7.5 mm in diameter, flat; calyx 3.5-5 mm long in fruit, calyx teeth acute at the apex; fruit oblong- to broadly-ovate, truncate at the base, 1.4-2.4 mm long. 3
- 3a Plants annual; corolla usually 6 mm in diameter; calyx usually 4.2 mm long in fruit, oblong campanulate, calyx teeth 1.4-2.4 mm long, narrowly triangular; fruit usually 1.5 mm long, oblong-ovate; pollen ca. 6 µm long *M. margaritae* Štěpánková
- 3b Plants biennial to pluriennial; corolla usually 5.5 mm in diameter; calyx usually 3.5 mm long in fruit, broadly campanulate, calyx teeth 1.2-1.6 mm long, broadly triangular; fruit usually 1.2 mm long, broadly-ovate; pollen ca. 12 µm long *M. caespitosa* C. F. Schultz

¹ In 1906, Austrian botanist Stadlmann distinguished and described *M. caespitosa* Schultz var. *nana* Stadlmann on the basis of material from Turkey (Stadlmann 1906:165). Later, its taxonomic position and nomenclature had been changed by Grau (in Riedl 1963:521) and these small Turkish plants were given a new name *M. diminuta* Grau (Fig. 2). The following diagnostic characters are stated in its original description: stems not branched, up to 4 cm high; leaves oblong, obtuse, up to 6 mm long; inflorescence with 1-2 flowers; pedicels up to 7 mm long, several times longer than the calyx; calyx campanulate, ca 3 mm long, calyx teeth up to 1.5 mm long, acute; corolla 4 mm in diam.; fruit 1.5 x 0.8 mm, oblong-ovate. Judging from sporadic literature data and herbarium vouchers (in herb. G, JE, WU) *M. diminuta* has been treated as an endemic of the high mountain regions of Turkey.



J. BORNMÜLLER: Iter Persico-turcicum
1892-93

No. 1872. 1622

Myosotis Sicula Guss

Kurdistania: Riwandous (ad fines Pers.), in regione alpina m. Helgard.

1898. VI. 26. leg. et determ. J. Bornmüller.
3000 m. s. m.

Fig. 2. - *Myosotis diminuta* Grau

Acknowledgments

I am especially grateful to dr. D. Kováts for his assistance and useful comments during my short visit to the Herbarium BP.

Souhrn

Během studia herbářového materiálu taxonů skupiny *Myosotis palustris* uloženého v herbářích BP, bylo nalezeno několik položek druhu *M. sicula* Gussone, sbíraných na dvou lokalitách v jižním Maďarsku. Jedná se o první nálezy tohoto druhu v Maďarsku vůbec.

V tomto příspěvku je rovněž uveřejněn klíč k určování východomediterránních zástupců skupiny *M. caespitosa* - *M. sicula*.

- 1a Rostliny drobné, až 4 cm vysoké; stonky nevětvené; vijany nevětvené, zpravidla 1-2 květe *M. diminuta* Grau
- 1b Rostliny vyšší než 4 cm; stonk větvený, vijany dlouhé, větvené, vícekvěte, husté 2
- 2a Koruny ca 3 mm šir., nálevkovité; kalichy za plodu 3-4 mm dl., podlouhle zvonkovité, kališní zuby na vrcholu tupé; plody eliptické, na bázi zaokrouhlené, nejvýše 1.2 mm dl.; pylová zrna ca 9.5 μ m dl. *M. sicula* Gussone
- 2b Koruny až 7.5 mm šir., ploché; kalichy za plodu 3.5-5 mm dl., kališní zuby na vrcholu špičaté; plody úzce až široce vejčité, na bázi utaté, 1.4-2.4 mm dl. 3
- 3a Rostliny jednoleté; koruny ca 6 mm šir.; kalichy za plodu zpravidla 4.2 mm dl., podlouhle zvonkovité, kališní zuby 1.4-2.4 mm dl., úzce trojúhelníkovité; plody zpravidla 1.5 mm dl., podlouhle vejčité; pylová zrna ca 6 μ m dl. *M. margaritae* Štěpánková
- 3b Rostliny dvouleté nebo víceleté; koruny ca 5.5 mm šir.; kalichy za plodu zpravidla 3.5 mm dl., široce zvonkovité, kališní zuby 1.2-1.6 mm dl., široce trojúhelníkovité; plody zpravidla 1.2 mm dl., široce vejčité; pylová zrna ca 12 μ m dl. *M. caespitosa* C. F. Schultz

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